

**Annex:**  
**KEY REFORMS FOR QUALITY IMPROVEMENT IN  
EDUCATION:**

*[New Interventions in Curricula and Textbooks]*

By

**Arif Majeed-**

**(Joint Education Adviser Ministry of Education**

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**A. The Context**

Education is a vital investment for human capital development and a key to change and progress of a society and its economy but education remains a sobering challenge for Pakistan because of shortfalls in access, quality and relevance. Pakistan's concern for quality in education dates back to independence when the founding father, Quaid-e-Azam Muhammad Ali Jinnah, advised the nation to bring its educational policy and programmes in line with the demands of modern conditions and vast developments that have taken place all over the world. This concern was reflected in all the policies and plans, which assigned priority to the curricula relevant to job market and societal needs, textbooks of quality learning materials, good quality teacher education and training, effective school management and governance and objective evaluation of learning achievements of students.

Quality in education makes a difference provided equitable access is ensured through raising the level of investment and governance. Pakistan, therefore, with the systematic and integrated efforts of all the stakeholders is following a stable framework for long-term two-pronged agenda to ensure increase in access alongside improvement in the quality of education. Since quality framework consists of a series of linked outcome-based processes such as curriculum appropriateness, availability of high quality textbooks and supplementary reading materials, teachers' ability to deliver in the classroom, effective evaluation mechanisms of educational inputs in different subjects and at different levels, therefore, the Ministry of Education has been making concerted efforts to bring improvements in all these areas for ensuring the production of an educated and skill based human capital necessary for the sustainable growth and progress of the economy.

According to the Constitution, Pakistan is a Federal Republic to be known as the *Islamic Republic of Pakistan* wherein the Muslims shall be enabled to order their lives in the individual and collective spheres in accordance with the teachings and requirements of Islam as set out in the Holy Qura'an and the Sunnah. The ideology of Islam not merely a religious doctrine but a realistic and practical Code of Conduct and the ideology of Pakistan, therefore, forms the genesis of the State of Pakistan and its educational policies have adequate provisions for transformation and integration of the society on this ideological aspects. The National Education Policy 1998-2010 stresses upon the development of an integrated educational system in which Islamic values, principles and objectives are reflected in syllabi of all the disciplines. The Policy also suggests improvements in the quality of elementary education, development of new and demanding curricula, introduction and integration of emerging key issues, such as, Computer Literacy, Population and Development Education, Environmental Education, School Health Education, Prevention Education against HIV/AIDS and other fatal

diseases, Human Rights Education, Peace Education, Inter-faith Harmony, Life Skills Based Education, Conflict Resolution and Crisis Management, etc in curricula, replacement of compartmentalized Scheme of Studies at SSC and HSSC levels by a flexible system and introduction of a competitive system of multiple quality textbooks in order to broaden the knowledge base of students.

The curriculum, syllabus, planning, policy, centres of excellence and standards of education are on the concurrent list of the Constitution of Pakistan. Federal Ministry of Education has, therefore, been empowered through Federal Supervision of Curricula, Textbooks and Maintenance of Standards of Education Act, 1976 to supervise curricula, textbooks and other learning materials as well as to maintain standards of education. Following the constitutional obligations of the State and enabling powers in this context, the National Curriculum including the Educational Programme (Scheme of Studies) for implementation and delivery of the curriculum in the school is designed keeping in view Islamic teachings, Ideology of Pakistan and societal moderation as the guiding principle. The aims of education have, therefore, been defined to educate Pakistanis to be the seekers of truth and knowledge who can apply it for progress of the society; to be creative, constructive, communicative and reflective individuals; to be disciplined, productive and enlightened citizens capable of successfully participating in the competitive global, knowledge-based economy and information age; and to be the citizens who are committed to create a just civil society that respects diversity of views, beliefs and faiths.

Keeping in view these constitutional obligations and to bring in quality in the whole spectrum of education, the Curriculum Wing of the Ministry of Education has introduced a number of interventions. Among these are:

1. Revision in Scheme of Studies from Early Childhood Education to Higher Secondary School level. New Scheme of Studies notified in 2006.
2. Revision of existing National Curricula and development of new National Curricula in all subjects. New National Curricula of 23 core subjects notified so far. Curricula for remaining subjects are being developed on fast track basis.
3. National Textbook and Learning Materials Policy and Plan of Action notified in 2007 to ensure availability of multiple quality textbooks.
4. National Curriculum for Literacy (Basic Literacy and Numeracy, Functional Literacy and Income Generating Skills) developed and finalized for the first time in Pakistan.
5. Manuals for training of teachers in emerging trends on environmental education, preventive education against HIV/AIDS, population and development education developed and teacher trainings conducted.

6. Resource Centres are being established in Curriculum Wing, Textbook Boards and National Book Foundation for writers of textbooks and researchers.

## **B. Formulation of new Scheme of Studies (Educational Programme)**

The existing Scheme of Studies for Early Childhood Education to Higher Secondary School levels has been reviewed and revised keeping in view the Islamic teachings and ideology of Pakistan, cultural and religious sensitivities in the country and emerging trends like human rights education, population and development education, environmental education, disaster and risk management, preventive education against HIV/AIDS and other fatal diseases, peace and value education, inclusive education, preservation of cultural heritage, inter-faith harmony, citizenship and other related aspects.

The major objectives of the new Scheme of Studies are to educate Pakistanis to be the seekers of truth and knowledge who can apply both for the progress of the society; to be creative, constructive, communicative and reflective individuals; to be disciplined, productive, moderate and enlightened citizens capable of effectively participating in the highly competitive globalize, knowledge-based economy and information age; and to be the citizens who are committed to creating a just civil society that respects diversity of views, beliefs and faiths.

The salient features of the new Scheme of Studies are as follows:

- Early Childhood Education has been recognized and made a regular part of the new Scheme of Studies for the children of 4+ years of age.
- Arts and Crafts, Library and practical experience in Social & Environmental Education have been included to provide for foundational skills and activities in younger children.
- “General Knowledge” will be taught in Classes I-II to include Islamiat, Science and Social Studies and in Class III to include Science and Social Studies.
- Islamiat to be introduced as a full subject from Class III to XII and Advanced Islamic Studies will also be introduced at SSC and HSSC level.
- Teaching of Nazira Quran will be completed by the schools from Classes III to VIII.
- Non-Muslim students will be studying Ethics in lieu of Islamiat from Class III onwards.
- Both Urdu and English languages will be taught from Grade I onwards as compulsory subjects.
- Medium of Instruction for all science subjects will be English. Medium of instruction for History and Geography will be English.

- or Urdu. Schools will gradually convert to medium of instruction depending on the availability of teachers.
- Computer Education (applied/hands on) will be compulsory for Classes VI-VIII after 3 years when the provinces have the necessary infrastructure for the purpose.
  - Introduction to Technologies will be an optional subject to provide for an orientation to technical skills education.
  - The list of elective subjects in Humanities Group has been rationalized by reducing it from 42 to 22 at SSC level.
  - Elective subjects at HSSC level have been brought down to 24 including Advanced Islamic Studies and Advanced Pakistan Studies.

### **C. Development of new National Curriculum**

In the past, the Curriculum was revised at varying intervals in the wake of emerging needs in collaboration with the Provincial Curriculum Bureaus, Provincial Education Departments and all other stakeholders. Last revision was made in 2000 for Basic Science subjects and in 2002 for Social Science subjects. In 2003, the Government planned to carry out a comprehensive revision of the curriculum after every 5 years and institutionalization of its development and evaluation so as to make it a continuous process.

For the last three years, the Ministry of Education's Curriculum Wing is engaged in the process of reviewing, updating and reforming National Curriculum from Early Childhood Education to Higher Secondary School levels so as to produce a vibrant and dynamic Curriculum compatible with the changing societal needs, global changes and job market requirements, and to provide better options to the students to enhance their life skills and knowledge enabling them to become useful, productive and enlightened citizens of Pakistan.

For this purpose, the Ministry of Education decided to set up a National Curriculum Council with two groups consisting of 3 experts each in Basic Science and Social Science subjects to review, update and upgrade the National Curriculum from Early Childhood Education to Higher Secondary School level in all subjects so as to make it internationally competitive and responsive to the modern socio-economic, professional and labour market needs of the country.

The whole exercise of Curriculum revision and reformation was planned to be carried out along the following lines: -

- Analysis of current practices and conduct of comparative review of National Curriculum with materials from other countries.
- Development of a National Curriculum Framework.
- Formulation of an action plan and development of strategies.
- Setting up of an institutional and organizational structure.

- Development and supervision of curriculum development process.
- Coordination with other co-related areas of education.

So far, National Curricula for the following 25 subjects have been developed with the assistance of all stakeholders and notified for implementation in three academic sessions. Provincial Textbook Boards, with the assistance of private sector publishers, are required to prepare quality textbooks in various subjects for Classes I, VI, IX and XI by the start of the new academic session: -

1. Early Childhood Education
2. Urdu for Grades I-XII
3. English for Grades I-XII
4. General Knowledge for Grades I-III
5. Islamiyat for Grades III-XII
6. Ethics (for non-Muslims) for Grades III-XII
7. Mathematics for Grades I-XII
8. General Science for Grades IV-VIII
9. Social Studies for Grades IV-V
10. Geography for Grades VI-VIII
11. History for Grades VI-VIII
12. Computer Education for Grades VI-VIII
13. Drawing for Grades VI-VIII
14. Arabic for Grades VI-VIII
15. Pakistan Studies for Grades IX-X
16. General Mathematics for Grades IX-X
17. Physics for Grades IX-X, XI-XII
18. Chemistry for Grades IX-X, XI-XII
19. Biology for Grades IX-X, XI-XII
20. Physiology & Hygiene for Grades IX-X
21. Food & Nutrition for Grades IX-X
22. Textile & Clothing for Grades IX-X
23. Essentials of Home Economics for Grades VI-VIII, IX-X
24. Environmental Studies for Grades IX-X
25. Literacy and Adult Literacy (Basic Literacy and Numeracy, Functional Literacy and Income Generating Skills)

### **Key aspects of new National Curriculum**

Learning objectives and corresponding students learning outcomes (SLO) are essentially the part of the new Curriculum notified since December 2006. Other key aspects of the new Curriculum are the following: -

- Curriculum is standard based and the Curriculum document has been made comprehensive incorporating objectives, contents, scope, activities, method of teaching, evaluation and proper guidelines for textbook writers.

- Context of curriculum has been defined for every stage as follows:
  - Awareness for primary stage
  - Orientation for middle stage
  - Exploration for secondary stage
  - Preparation for tertiary stage
- The objectives of the curricula for every level of education have been translated into behavioral terms ensuring proper communication as well as evaluation.
- Vertical and horizontal development of the subjects has been maintained i.e. syllabi and contents have been properly aligned horizontally and vertically.
- Repetition, duplication and overlapping in various subjects have been removed and the contents of various subjects have been carefully examined to make them non-controversial.
- Curriculum pre-dominantly addresses life skills besides knowledge.
- Systematic progression from easy to difficult has been done.
- New emerging developments and modern trends like human rights education, population and development education, environmental education, disaster and risk management, preventive education against HIV/AIDS and other fatal diseases, peace and value education, inclusive education, preservation of cultural heritage, inter-faith harmony, citizenship and other related aspects have been included in the curriculum at appropriate level in different subjects.
- Mismatch between concepts and contents of the curriculum, and textbooks and learning competencies has been avoided.
- Creative thinking, application, analysis and synthesis will be promoted amongst students instead of rote memorization by changing the system of examinations to enhance teaching learning processes.
- Emphasis has been placed on language and literature learning instead of repetition of topics in language subjects like Urdu and English.
- Detailed guidelines have been provided in the curriculum for textbook writers and teachers for delivery of the curriculum effectively.

- Guidelines have also been provided for assessment and evaluation in addition to the learning outcomes specified in the Curriculum.

### **Salient features of new National Curriculum (core subjects)**

The new National Curriculum for some of the core subjects has the following features: -

- In Islamiyat, stress has been placed on Haqooq-ul-Ibad (values, morality, brotherhood, tolerance, peace, piety, honesty, etc) alongside Haqooq-Ullah (Imaniyat and Ibadat).
- Basic Creeds like Monotheism, Prophethood, Faith in Angels and Revealed Books, and the Hereafter have been included besides basic pillars of Islam i.e. Tawheed, Prayer, Fasting, Pilgrimage and Alms Giving (Zakat).
- Introduction, importance and all forms of Jihad in the perspective of the Holy Qura'an and the Sunnah of the Holy Prophet (peace be upon him) have also been included in the Curriculum.
- Contents of Islamiyat will not reflect thinking of any particular sect or school of thought.
- Curriculum of Ethics (for non-Muslims) is intended to promote inter-faith harmony and stresses upon common values and ethics of various religions including Islam.
- Arabic Curriculum is meant to provide the students an understanding of the importance of Arabic in our daily life.
- Urdu language Curriculum has been made skill based enabling students to develop creative writing and speaking skills in the National language.
- English language Curriculum is multi-dimensional and provides holistic opportunities to students for developing language skills by providing appropriate conceptual knowledge and use of English language in order to build students' ability to communicate in real life situations.
- Pakistan Studies Curriculum promotes awareness about national integration, cohesion and patriotism with clear understanding of the ideology of Pakistan. The Curriculum has been designed with the intent to prepare the students to understand not only the objectives of the making of Pakistan but also various facets of Pakistan in terms of its ideology, history, culture, geography and economy; major historical, political and constitutional

developments in Pakistan; and the role of minorities in development of the country.

- History will cover the history of the Sub-continent starting from Ancient Indus Valley Civilization to the Freedom Movement and the Struggle for Pakistan emphasizing on the contributions made by leading Muslim leaders.
- Geography Curriculum has been designed to generate an interest amongst students in understanding the environment in which we live and its impact on overall growth and development.
- Mathematics Curriculum has a clear emphasis on geometrical concepts and will enable the students to think logically and reason systematically. The curriculum will integrate the use of appropriate technologies to enhance learning in an information-rich environment.
- Chemistry Curriculum has been developed as a well sequenced document to ensure logical and scientific progression with removal of overlapping of topics among the three branches of Science – Chemistry, Biology and Physics. The Curriculum is more activity based and will bridge the gap between content knowledge and practical laboratory experiences.
- Biology Curriculum has been built on horizontal and vertical articulations, stresses on connections to real life problems and connections between science, technology and society.
- Physics Curriculum has been made comprehensive, coherent, effective and relevant to the real life problems.
- General Science Curriculum will emphasize on understanding scientific concepts and using them to make decisions about real life problems.
- Computer Education Curriculum has been developed in response to the growth of computer and information technology in all spheres of life and will enable the students to learn the use of computers in education and its application in problem solving in daily life.

#### **D. Implementation of Curriculum Change**

##### **Formulation of a National Textbook and Learning Materials Policy**

The 9<sup>th</sup> Inter Provincial Education Ministers' Meeting held on 6 December, 2005 at Karachi, deliberated upon a proposal for a National Textbook Policy: Inter-Provincial

Policy and Strategy for Development of Curricula and Promotion of a National Textbook and Learning Materials Publishing Sector and decided to constitute a Committee under the chairpersonship of the Managing Director, National Book Foundation to ensure interaction with Provincial Textbook Boards, private sector publishers and other stakeholders for making recommendations on the following and formulation of a National Textbook Policy: -

- An agreed overall implementation plan for development of textbook and learning materials moving towards gradual introduction of competitive country-wide textbook publishing.
- A regular quality monitoring and improvement cycle between schools, Education Departments, Textbook Boards, Examination Boards and Curriculum Wing of the Ministry of Education.
- Long term capacity building measures to be introduced and institutionalized to ensure continued high quality of learning materials and textbooks developed both by government and private sectors.
- Strategies to develop a sustainable partnership between the government and private sector for enhancement of the textbook and learning materials sector.
- Measures to strengthen Textbook Boards for their revised role of regulating monitoring and facilitating.

After long deliberations and taking into consideration all the implications, the Committee recommended a draft of the proposed National Textbook and Learning Materials Policy and a Plan of Action for consideration and approval of the Inter-Provincial Education Ministers' Meeting. The Ministers' meeting considered the draft in its 11<sup>th</sup> Meeting held on 22 January, 2007 in Islamabad and approved it with modifications. After consensus of all the Provincial Governments, a National Textbook and Learning Materials Policy and Plan of Action has been notified on 13 June, 2007 with the main objective to improve quality of education at all levels through better quality textbooks at affordable prices and other learning materials for promoting Pakistan as a knowledge-based society. Under the Policy,

1. A well regulated system of competitive publishing of textbooks and learning materials will be introduced as part of an enhanced public-private partnership in the development of education in Pakistan.
2. Textbook Boards will be transformed into competent facilitating, regulating and monitoring authorities and will review and approve textbooks for use in schools in their respective areas of jurisdiction.
3. An "Inter-Provincial Standing Committee on Textbook Policy" will be established to regulate operational and procedural issues, and monitor and coordinate further implementation process.

4. A Provincial Committee duly represented by the Education authorities, Textbook Boards, private sector and others, as may be considered necessary, will be formed to select and prescribe textbooks for use in public schools in the respective province or areas of jurisdiction.
5. Textbook Boards will invite provincial/national publishers to register their interest or intent and specify for which subjects and grades they intend to develop and submit manuscripts.
6. For subjects and grades where no letter of intent is submitted by private publishers, Textbook Boards will re-advertise, and if still no letter of intent is forthcoming, develop textbooks as per current procedures.
7. Textbook Boards will review the manuscript through the review committee, return it to the publisher with comments and requests for modification (if any), and receive the corrected manuscript again from the publisher for final review.
8. After necessary corrections to the satisfaction of the review committee, the Textbook Boards will submit such manuscripts to the Curriculum Wing for No Objection Certificate regarding compatibility with the National Curriculum. The Curriculum Wing will return the manuscript to the publisher through the Textbook Board for further revisions if any. The Textbook Board will thereafter re-submit the manuscript to the Curriculum Wing for final endorsement.
9. In case more than one manuscript of any given subject is approved by the Textbook Board and the Curriculum Wing after following the above process, the Provincial Committee will rank the approved textbooks and select the best textbook for prescribing in the Government schools under free distribution of textbooks scheme.
10. After selection by the Provincial Committee, the respective Textbook Boards shall purchase, from the publisher whose textbook is selected, a print license for a certain number of copies and a certain period of time, or as may be considered appropriate, for free distribution in the government schools through the Education Department processes.
11. Private schools will decide and choose from the approved and certified textbooks by the Textbook Boards according to quality and price, and purchase textbooks directly from the publisher.
12. Textbook Boards will invite national/provincial publishers to submit manuscripts and samples of school reading and learning materials (other than textbooks) to the Textbook Boards for review and certification as 'recommended learning materials' with age-wise and grade-wise classification.

13. For purchase and use of school reading and learning materials (other than textbooks) in government schools the recommendation certificate of Textbook Boards will be binding. Private schools are not bound by the recommendation certificate of Textbook Boards.

### **Establishment of Resource Centers**

Resource Centers are being established at Federal and Provincial levels under the respective Textbook Boards, Curriculum Wing, and National Book Foundation with the support of the Federal Government through donor agencies as a facility for reference and resource material and training activities towards enhancement of quality of textual and other learning materials. These Centres will ultimately contribute towards the enhancement of quality of textual and other learning materials produced in Pakistan.

### **Orientation Workshops for Writers of Textbooks and Teacher Trainers**

The implementation of the reforms introduced through new curricula and learning materials to be developed largely depends upon the effective strategies to be adopted by the Federal and Provincial Governments and all other related institutions. The Federal Government has contemplated to produce master trainers in various areas of curriculum implementation process. As a first step, orientation workshops are being organized for the writers and authors of textbooks and publishers on how to transform new national curricula into textual material effectively according to the learning objectives and learning outcomes identified in the new national curricula. Similarly, orientation workshops will also be organized for the teacher trainers on the concepts and methodologies of new curriculum and how to deliver it in the schools by the school teachers in accordance with the learning objectives and learning outcomes identified in the new national curricula.

Ministry of Education has been addressing the dual challenge of provision of access and quality improvement in education aggressively and effectively. The policies, action plans and strategies adopted are reflective of the commitment and resolve of the government to address all the foregoing concerns effectively and expeditiously to provide for quality education to all its citizens so essential for the sustainable growth of the economy and for a better future of our generations to come.

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*(The writer of this article is the Joint Educational Adviser, Curriculum Wing, Ministry of Education, Government of Pakistan, Islamabad)*