

**IMPLEMENTATION MECHANISMS OF
THE STRATEGY FOR THE DEVELOPMENT OF
SCIENCE AND TECHNOLOGY
IN ISLAMIC COUNTRIES**

Submitted by

Islamic Educational, Scientific and Cultural Organization
(ISESCO)

and

OIC Standing Committee on Scientific and Technological Cooperation
(COMSTECH)

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INTRODUCTION

Development of applied sciences and use of the advanced technology, within the framework of the lofty and perennial Islamic values and ideas, is one of the prime objectives of the Islamic Educational, Scientific and Cultural Organization (ISESCO). In order to achieve this objective, ISESCO elaborated the “Strategy for the Development of Science and Technology in the Islamic countries”, in collaboration with the Organization of Islamic Conference Standing Committee on Scientific and Technological Cooperation (COMSTECH).

The “Working Document” of the “Strategy” was developed by Dr. Misbahuddin Shami, former Chairman, Pakistan Science Foundation, Islamabad, Pakistan. This “Working Document” was sent for its critical examination to the science experts in Kingdom of Saudi Arabia, Kingdom of Jordan, Republic of Mali, Republic of Senegal, Islamic Republic of Pakistan and Malaysia. The valuable observations and suggestions received from the experts in the ISESCO Member States on the “Working Document” were considered by an Expert Committee, which met in May, 1997, at Islamabad, Pakistan. The Expert Committee finally drafted the “*Strategy for the Development of Science and Technology in Islamic Countries*”.

The Eighth Session of the Islamic Summit Conference (*Session of Dignity, Dialogue, Participation*) held from 9-11 December 1997 (9 to 11 Shaban 1418H) in Tehran, Islamic Republic of Iran, approved the Strategy for the Development of Science and Technology in Islamic Countries. This Strategy was examined and adopted by the 18th Session of the Executive Council of the

Islamic Educational Scientific and Cultural Organization (ISESCO) held in December, 1998 at Rabat, Morocco.

With the advancement of Science and Technology during the last few decades, reliance on Science and Technology for the economic development has increased enormously. The catalytic role played by the technological advancement in improving the quality of life and prosperity in the developed countries has already influenced the developed countries to take immediate actions for the development of Science and Technology. However, most of the developing countries have failed to harness the power of science and technology for the benefit of their people due to lack of proper commitment, topsy-turvy decisions, significant weaknesses in the scientific and technological infrastructure, etc. This necessitated the formulation of the Strategy to serve as a blue print for the development of science and technology in the developing countries.

The Strategy explains the Scientific and Technological capacities and deficiencies in the Islamic countries and proposes various choices and alternatives for general use by policy makers in Islamic countries. In view of the recent advancement and development of the new technological system in the world, the Strategy recommends various approaches in order to achieve such indigenous capabilities. This is explained with examples of the Islamic countries who have wisely chosen to harness the downstream industries, to achieve a high level of designing, development and innovation which, despite a low scientific and technological base, brought immense economic advantage.

In view of the current situation of the human resource development in Islamic countries, which is interpreted with the Human Development Index (HDI) and on the basis of Capability Poverty Measure (CPM) in Chapter 2 of the Strategy, economic planning is suggested for development combined with technological

advancement in those “niche” areas which are relevant to basic needs of food (Biotechnology), health and services. The Strategy also suggests boosting the industrial sector to enable them to build technological capacities.

The Strategy defines the present status of the development of Science and Technology in the Islamic countries in Chapter 3 and indicates the weak points which need to be strengthened and gaps which need to be bridged up for harnessing technology. Development of R&D culture and environment is suggested with emphasis on scientific and technological education at various levels of education system. Acquisition of technology is suggested through new technical knowledge and the external resources along with the necessary development of support systems.

While defining the major obstacles in the scientific and technological development in the Islamic countries, the Chapter 4 defines the major strategy for technological capability building. For building innovation capabilities a number of approaches have been defined with emphasis on promotion by partnership between enterprises of various countries, and technological accumulation through linkage between enterprises and universities. Importance is laid on technical education with innovative research for acquisition of technology. Biotechnology and microelectronics have been chosen as the thrust areas because of their pervasive effect on transforming societies. Policy implications have been indicated in Chapter 5 of the Strategy. The least developed countries are suggested to focus policy on building up a scientific and technological infrastructure whereas the other developing countries are suggested to build up a large pool of scientifically and technically trained personnel.

In order to draft appropriate Mechanisms for the Implementation of the Strategy, the Standing Committee for Scientific and Technological Cooperation (COMSTECH), called a meeting of the

eminent scientists, in March 1999, at Islamabad, Pakistan, which discussed and formulated specific recommendations for the implementation of the Strategy.

Based on the Strategy, the recommendations for the Implementation Mechanism given therein and the additional recommendations proposed during the March 1999 Meeting at Islamabad, an initial draft for the Implementation Mechanisms was prepared by ISESCO.

The Islamic Educational Scientific and Cultural Organization collaborated with UNESCO in organizing the World Conference on Science from 26th June to 1st July, 1999, at Budapest, Hungary. ISESCO organized two Round Tables on the theme “*Science in Response to Basic Human Needs*” and, “*Role of Science in Development*” on 27th and 28th June, 1999, respectively during the World Conference on Science. The Round Table Conference on the “*Role of Science in Development*” discussed the ways to foster science and build endogenous scientific capacities in developing countries. ISESCO also organized the First Coordination Meeting of the Ministers of Science, Higher Education and Scientific Research of the Member States of the Organization of the Islamic Conference (OIC) on 28th June, 1999 in parallel during the World Conference on Science.

In order to devise the most efficient ways and means for the implementation of the Strategy for the Development of Science and Technology in Islamic Countries, ISESCO presented the first draft of the implementation mechanisms of the Strategy for consideration of the Coordination Meeting of the Ministers of Science, Higher Education and Scientific Research. A copy of the final communiqué is enclosed as Annex.

As per Resolution 5 of the First Coordination Meeting of the Ministers of Science, Higher Education and Scientific Research of the Member

States of the Organization of the Islamic Conference, ISESCO and COMSTECH were invited to update the figures and statistical data contained in the Strategy for the Development of Science and Technology in Islamic Countries so as to be consistent with the reality in those countries. ISESCO updated the figures and the statistical data and published the revised version of the Strategy in March, 2000.

The Resolution 6 of the Coordination Meeting invited ISESCO to send the first draft of the Implementation Mechanisms of the Strategy for the Development of Science and Technology in Islamic Countries to the Member States of the Organization of the Islamic Conference to study it and make observations thereon. ISESCO forwarded this draft to the Member States of the Organization of the Islamic Conference in July, 1999 and received comments and observations from the following Member States : State of Bahrain, People's Republic of Bangladesh, Burkina Faso, Republic of Tajikistan, Republic of Togo, Republic of Tanzania, Kingdom of Saudi Arabia, Syrian Arab Republic, Republic of Senegal, Republic of Iraq, Sultanate of Oman, State of Kuwait and Arab Republic of Egypt.

Under Resolution 7, the First Coordination Meeting set up a Scientific Committee composed of representatives of six Member States of the Organization of the Islamic Conference, namely Malaysia, Senegal, Jordan, Bangladesh, Cameroun, Morocco and ISESCO and COMSTECH to study the observations of Member States on the Implementation Mechanisms and to reformulate it before submitting it to the First Islamic Conference of the Ministers of Higher Education and Scientific Research to be held in the year 2000.

ISESCO called the Meeting of the Scientific Committee constituted under Resolution 7, at the ISESCO's headquarters, Rabat, Morocco from 13-15 March 2000 to consider the draft Implementation Mechanisms in the light of the Revised Strategy

for the Development of Science and Technology in Islamic Countries and the comments and observations received from the Member States. The meeting was attended by all Members except the representative from the Hashemite Kingdom of Jordan.

The revised version of the Implementation Mechanisms of the Strategy for the Development of Science and Technology in the Islamic Countries, reformulated by the Scientific Committee, is submitted here for consideration of the First Islamic Conference of the Ministers of Higher Education and Scientific Research, 15-18 October 2000, Riyadh, Kingdom of Saudi Arabia.

Implementation Mechanisms of the Strategy for the Development of Science and Technology in the Islamic Countries

Islamic world consist of the developing countries, which are trying their hard to achieve the scientific and technological progress to harness its benefits for welfare of their communities. However, due to various deficiencies including weak scientific and technological infrastructure, faulty policy implications, lack of adequate knowledge for technological capability acquisition, inadequate financial resources, unavailability support, lack of cooperation and coordination for technological development etc., the Islamic countries have been lagging behind in the field of Science and Technology.

Based on the Strategy for the Development of Science and Technology in Islamic Countries developed by the Islamic Educational Scientific and Cultural Organization (ISESCO), it is necessary to formulate a time targeted Implementation Mechanism to foster scientific and technological development and build endogenous capacities in the Islamic countries. Such an Implementation Mechanism should deal with problems and challenges and provide opportunities for the socio-economic development of the countries. Based on the realistic and holistic approach, the Mechanism should be comprehensive with the vision of overall sustainable development of science and technology in all the major areas with priorities given to those areas, which have direct bearing on the socio-economic development of the countries.

In order to have a realistic transition of the Strategy into the functional realities, the Islamic Educational Scientific and Cultural

Organization has drafted the broadlines of the Implementation Mechanisms which have been classified here into the following major categories:

- 1- Renewed Commitment from governments to augment support for Scientific and Technological Development
- 2- Strengthening Scientific and Technological Education systems
- 3- Promotion of Research and Development for Technological Capability Building
- 4- Development of Human Resource Through Mass Training
- 5- Establishment of an Islamic Science Advisory Body
- 6- Utilization of New Information and Communication Technologies
- 7- Coordination and Cooperation to achieve Common Objectives
- 8- Harnessing of Natural Resources and Protection of Environment

The broad-lines under the above mentioned major categories of the implementation Mechanism have been drafted and presented here in order to open it for detailed discussion during the Coordination Meeting of the Ministers of Science and Technology. The Islamic Educational, Scientific and Cultural Organization has been trying its hard to achieve its objectives. The Implementation Mechanism of the Strategy will give an impetus to the current efforts to improve its efficiency. However, in such a gigantic mission for development, it is necessary that every Islamic country should specify its own role in the process and contribute in overall efforts.

1. Renewed Commitments from Governments to Augment Support for Scientific and Technological Development

National commitment, serious political will at the highest level and governments' full financial support are indispensable for strengthening Scientific and Technological structure. The following measures are, therefore, recommended for implementation by each Member State.

Firm Commitment of Governments

- Adoption of a legislation by the legislative bodies of each Member State whereby the role of Science and Technology for achieving specified development targets in a specific time frame should be clearly defined and made obligatory on the part of the State to ensure that the policy guidelines are faithfully adhered to by all concerned.

Allocation of 1% of GNP

- The Member States should announce a firm commitment to allocate at least 1% of GNP for spending on scientific and technological developments. If the target is not achievable immediately, a definitive target date for achieving the same may be set forth by each country.

Involvement of Scientific Community in Decision Making Process

- Scientists and technologists should be involved in the central decision making as well as national planning processes by each Member State so as to strengthen all supportive systems related with the development of science and technology.

Evaluation of S&T Status

- Each Member State should assess and evaluate periodically the status of its scientific and technological system to identify the major weaknesses in the system hampering the development of science and technology and the resources needed for its future development and to ameliorate the conditions of the scientific and technological infrastructure.

Establishment of Science Commissions Bodies

- Each Member State should establish high-level Scientific and Technological Commissions/Bodies aimed at introducing new short and long term Research and Development policies to specify scientific and technological goals.

Status of the Scientist in Society

- The status of the scientists, engineers and technicians should be elevated by each Member State through better incentives on their services and achievements and more national honours.

2. Strengthening Scientific and Technological Education Systems

Starting from the elementary education to a more specialized scientific and technical education, the Islamic countries need to strengthen all educational Systems. Without any appropriate investment in education sector, all other investments are doomed to give poor dividends. In order to catch up with the literacy rate in the developed countries, there is an urgent need to initiate a new drive to provide all children, young and adults with basic education. Further, to prepare large pools of scientific and technological trained personnel for sustainable development, it is necessary to intensify advanced scientific education at all levels. It is, therefore, recommended that :

100 Percent Literacy by 2020

- A literacy rate target of 100%, to be achieved in a time period (latest by the year 2020) defined on realistic assessments of the conditions prevailing in the country, may be announced by each Member State.

Scientific and Technological Literacy

- * In view of the indispensability of science literacy in the socio-economic development and in bringing the people at par with the scientific advancement around the world, scientific and technological knowledge should be strengthened through specialized programmes and increased investment.

Strengthening Higher Education

- Universities and colleges, which serve as engines for development, through cultivating qualified personnel and research workers, should be strengthened as per minimum requirements of the population in each Member State. New science and technology faculties should be created to provide appropriate opportunities for continuing higher education.

Promotion of Research Activities

- Scientific research in higher education and postgraduate programmes should be strengthened by increase in the grants for research work. Joint research centers should be established in Universities with the goal of promoting cooperation and joint efforts of universities with the industries and private companies.

Central Fund for Human Resource Development

- A central fund should be created for offering at least 1000 scholarships each year to pursue higher studies at postgraduate ad

post-doctoral levels by outstanding science students in the Islamic countries. This fund may sponsor higher education within Islamic countries if there are enough facilities or outside Islamic countries where necessary.

3. Promotion of Research and Development for Technological Capability Building

Technology innovation absorption and application are important indicators of the overall economic development of a country. Because of the rapid technological progress in the developed countries and ignorance of scientific and technological developments in the developing countries, the difference in their relative technological strengths is widening. The creation, mastery and utilization of modern technologies is the only mean for bridging this gap. It is, therefore, recommended :

Regional Centres of Research

- In each Member State there should be at least one internationally recognized regional scientific center, specializing in a given discipline of science, where scientists from other Islamic countries could stay and work for a short period of time and where various other training facilities of world class level should be available for the young scientists. This step should enhance interactions between individual scientists and should create conditions whereby essential know-how could be exchanged within Islamic countries.

Enhancing the Facilities of Research Institutions

- The standard of the existing scientific institutions should be raised by the promotion of research and training facilities to enable them to perform research activities of international standard. The facilities and equipment of the existing research institutions should

be systematically renewed and new equipments indispensable for conducting and leading an advanced research should be installed.

Development of Advanced Technologies in Key Areas

- Research and development activities should be strengthened and “Technological Projects” should be developed in key fields of science and technology especially in biotechnology and information technology. Close cooperation between University and Industry should be promoted for the development of new technologies. Bearing in mind the specifications of economies of several Member States.

Boosting Agricultural Production

- Since agriculture is the mainstay of most of the Islamic countries, agricultural sector should, therefore, be encouraged by utilizing the suitable measures and new technologies to increase food production and other agricultural products.

Establishment of New Networks

- New Networks should be established in various important fields which should focus on advance programmes for development and on specific problems faced by the Member States such as salinity, desertification, water management, biodiversity, energy and engineering goods, etc.

Creation of Technological Data Bank

- A central Technological Data Bank should be established by the international Islamic organizations like ISESCO and COMSTECH to meet the technological needs of the Member States.

4. Development of Human Resource Through Mass Training

Development of appropriate workforce and highly qualified scientists, researchers and engineers are crucial for the development of science and technology. It is necessary to initiate specialized training programmes in all concerned institutes for the creation of the required manpower. It is therefore, recommended:

Regular Training Workshops

- Regular Training Workshops should be promoted in the best centers within the Islamic countries in order to meet the demands for technical manpower and skilled workers for sustainable development. These workshops should offer training in selected fields of specialization and should be conducted by experts of international repute/level. Enhancement of technical skills, in-service training programmes should be initiated as per requirements for development.

Organization of International Competitions

- International competitions for ingenious students in the Islamic countries such as Olympiads in Mathematics, Physics, Chemistry, Computers etc. may be organized and necessary training centers for ingenious school and university students to get them prepared for participation in the international competitions should be established in each Member State.

Establishment of New Training Centres

- A well trained technician is always at the hub of technological activity. New technical institutions should be established in each Member State to create the qualified manpower with the requisite skills. Reciprocal Training Programmes should be conducted between the research institutes, with industries and private companies.

Equal Facilities for Women

- Specific strategies to encourage an active and broad participation of women at all levels in academic, scientific and research institutions as well as in the decision making bodies should be designed and provision of equal educational and training and professional advancement opportunities for women should be ensured.

5. Establishment of an Islamic Science Advisory Body

Scientific Advisory Body plays an important role in providing professional advice and appropriate expertise to solving the problem of the overall development of science and technology in the country. It is, therefore, recommended :

Science Advisory Body

- A Science Advisory Body consisting of eminent, effective and dynamic Scientists, Technologists, Engineers, Industrialists and Planners from the Islamic countries representing various disciplines should be established by ISESCO to advise the Member States about implementation of the Strategy for the Development of Science and Technology specifically in the application of advanced technologies related to Industrial development. The Science Advisory Body should monitor implementation process under various programmes in each country to ensure that the specific recommendations are implemented in its true spirit within the specified framework of time.

Expert Panels

- Various Experts Panels should be set up from the Science Advisory Body on demand to advise the Member States on issues of critical importance. The Experts panels entrusted to promote specific programmes should meet frequently to complete the job and

should be provided with all facilities by ISESCO including office space and honorarium.

Team of Advisors

- Islamic countries are, presently, on widely different levels of industrial development having expertise in a variety of industrial and financial sectors. A team of advisors/experts may be nominated from the Advisory Body to look at the strong and weak points of economy in each country and recommend the areas where development is possible with assistance from other Islamic countries. This team should also identify priority areas of research and development keeping in view the futuristic developments of science and technology.

Islamic Consulting Groups

- The Islamic Consulting Engineering Group should be established to provide technology consulting and guidance. ICE Group should cultivate and secure human resources in scientific and technological areas, and to support technology transfers and spread of technology to medium and small sized companies. ICE Group should contribute to the spread and enhancement of science and technology through their involvement in plans, research, design, analyses, tests and evaluations for science and technology and through related consulting.

Creation of Islamic Ethical Body

- Uncontrolled and unguided advances in various scientific fields especially in Genetic Engineering have posed threats to the human society in general and Islamic society in particular. It is necessary to create an Islamic Ethical Body consisting of Muslim Scholars, scientists and researchers to analyze and study, with great care, the application of new technologies and their impact

on society, from the ethical, and Islamic and Sharia point of view and issue and disseminate necessary guidelines. Moral and ethical values of Islam and ethical responsibility of scientists should be an integral part of education and training of all scientists.

6. Utilization of New Information and Communication Technologies

The recent advances in the field of information and communication technology have brought tremendous opportunities for the developing countries in quick and easy access, share and dissemination of scientific information and knowledge. The advantages of these technological advances may be utilized at their maximum by the Islamic countries. It is therefore, recommended:

Promotion of the New Information and Communication Technologies

- Promotion of the new information and communication technologies should be accorded a top priority. Computer literacy and access to scientific and technological knowledge should be facilitated to benefit the scientific community and ordinary citizens. Computer literacy should be made compulsory at least from the secondary educational level upward.

Promotion of an Islamic Scientific Culture

- Significant progress in the Islamic countries cannot be achieved unless scientific and technological knowledge is made an essential component of the culture of the people. Access to knowledge is synonymous with the development, well being and quality of life. Specialized programmes should be initiated to cultivate an environment of scientific and technological knowledge.

Creation of Virtual Centres

- Virtual Centres should be created to foster exchange of knowledge, sharing of experiences and use of resources among the Member States. A network of such virtual Centres should be established throughout the Member States.

Internet Programmes for Rural and Remote Areas

- Internet should be spread for the rural and remote areas and suitable programmes should be conducted to extend the benefits to rural people.

Propagation of New Technologies

- Scientists, communicators, educators, artists and journalists should be encouraged to propagate the benefits of adopting the new technologies. Electronic and print media should be utilized for the popularization of new technologies.

7. Coordination and Cooperation to achieve Common Objectives

Recent technological advancement has reduced the world into a global village with increased dependency on each other. Now no nation in the world can achieve any substantial progress in the field of Science and technology in solitary. Cross-fertilization of ideas, sharing of expertise and facilities, avoidance of duplication of efforts provides an extra advantage. In the era of advancement the Islamic countries need more solidarity among themselves than before. It is therefore, recommended:

Strengthening ISESCO and COMSTECH

- ISESCO and COMSTECH are playing a catalytic role in strengthening and promoting cooperation among the Member

States. The Member States and international funding agencies especially Islamic Development agencies should provide maximum support to International Islamic bodies to increase their efficiency, strengthen and role in the development of the Islamic countries.

Bilateral and Multilateral Cooperation

- Bilateral and multilateral cooperation should be encouraged among the Member States to bring solidarity to address the common problems and achievement of common objectives.

Manpower Sharing

- * Based on the pattern of European Union, a most liberal attitude of sharing manpower within Islamic countries may be adopted. Laws to ensure work-force mobility may be enhanced to achieve this goal.

Collaboration and Coordination Among Islamic Countries

- The Member States should be bound by a common declaration to support each other and give priority to Islamic countries while importing products from abroad.

Interaction Among Science Academies

- Interaction among various science academies, governmental and non-governmental scientific organizations in the Member States should be promoted through specific programmes.

Exchange of Experts

- Great emphasis should be placed on exchange of experts within the OIC Member States so that they can share and benefit from experiences of each other.

8. Harnessing of Natural Resources and Protection of Environment

Most of the Islamic countries are rich in natural resources, however, due to weak scientific and technological infrastructure most of the countries are facing immense difficulties in harnessing their natural wealth for sustainable economic growth in the country. It is, therefore, recommended:

Sustainable Utilization of Natural Resources

- The natural resources and farmland in all Islamic countries should be harnessed to their fullest potential in accordance with their sustainable use, in terms of minimal dependence on other countries. Sustainability should not draw up on environment and social capital unacceptably or impose disproportionate burden on the future generations.

Protection of Environment and resources

- Protection of Environment is a necessary component of the development process. Environment friendly technologies should be promoted to reduce pollution. Specialized programmes should be announced to address major issues like control of deforestation and preservation of biodiversity, fisheries and aquatic resources, water management, desertification control, waste disposal for the protection of environment and sustainable management of natural resources.



Annex

The World Conference on Science

**The First Co-ordinating Meeting of
Ministers of Science, Higher Education
and Scientific Research of the Member
States of the Organization of the
Islamic Conference**

Final communiqué

Budapest, Hungary : 28 June, 1999

FINAL COMMUNIQUÉ

In keeping with the objectives of the Islamic Educational, Scientific and Cultural Organization -ISESCO- set forth in its Charter and pursuant to Resolution N° 33/8-c (IS) issued by the Eighth Session of the Islamic Summit Conference held in Tehran, Islamic Republic of Iran from 9 to 11 December, 1997 approving the Strategy for the Development of Science and Technology in Islamic countries prepared by the Islamic Educational, Scientific and Cultural Organization in co-operation with the Standing Committee for Scientific and Technological Co-operation (COMSTECH) and inviting ISESCO to lay down the implementation mechanisms of this Strategy and co-ordinate with Member States to take all the necessary steps for the implementation of the Strategy, and in the light of Resolution N° 34/25-c issued by the 25th Session of the Islamic Conference of the Foreign Ministers (Dawha, 15 to 19 March, 1999) as well as Resolution N° 8/22-ST issued by the Islamic Commission for Economic, Cultural and Social Affairs (Jeddah, 23 to 26 January, 1999). ISESCO called for the convening of a co-ordinating meeting of the Ministers of Science, Higher Education and Scientific Research in the Member States of the Organization of the Islamic Conference during the World Conference on Science organized by the United Nations Educational, Scientific and Cultural Organization -UNESCO- from 26 June to 1 July, 1999, in order to discuss the implementation mechanisms of the Strategy for the Development of Science and Technology in Islamic Countries and to take the necessary arrangements to organize the Arabo-Islamic Mobile Exhibition on Science and Technology to be organized by UNESCO with the participation of ISESCO and the co-operation of several institutions and organizations of common interests.

The Member States had responded to that invitation, and the meeting was held, by the grace of Allah, on 28 June, 1999 at the Conference Hall in Hyatt Regency Hotel in Budapest. The meeting was chaired by His Excellency Dr. Khalid Muhammad Al-Ankari, Higher Education Minister of the Government of the Kingdom of Saudi Arabia, President of the Sixth Session of ISESCO's General Conference with the attendance of His Excellency Dr. Abdulaziz Othman Altwaijri, Director General of the Islamic Educational, Scientific and Cultural Organization -ISESCO-, His Excellency Dr. Federico Mayor, Director General of the United Nations Educational, Scientific and Cultural Organization -UNESCO- and their excellencies the Ministers of Science, Higher Education and Scientific Research of the Member States of the Organization of the Islamic Conference or their representatives. The meeting was also attended by several representatives of Arab, Islamic and regional organizations in their capacity as observers.

On this occasion, His Excellency Dr. Abdulaziz Othman Altwaijri offered ISESCO's Decoration to His Excellency Dr. Federico Mayor, Director General of UNESCO in appreciation for the outstanding services made by His Excellency throughout his directorship of UNESCO as well as for his efficient role in promoting co-operation relations between UNESCO and ISESCO in the fields of common interests.

At the start of the meeting, His Excellency Dr. Khalid Al-Ankari, Minister of Higher Education of the Government of the Kingdom of Saudi Arabia, President of the Sixth Session of ISESCO's General Conference, delivered an address in which he thanked the Director General of ISESCO for convening this meeting, held at the highest scientific levels and stressed the importance of co-ordinating efforts in order to implement the strategy for the development of science and technology in the Islamic countries. He also commended ISESCO's

working paper that was characterized by a comprehensive and objective study and an in-depth analysis ; and stressed the need for the promotion of cooperation between Member States to develop scientific research.

In his address at the opening of the meeting, His Excellency Dr Federico Mayor, Director General of UNESCO, thanked the Islamic Educational, Scientific and Cultural Organization for its cooperation with UNESCO in holding international conferences on issues of common interests, expressed his view that the Islamic Organization had achieved the objectives for which it was established and his happiness about the excellent cooperation relations existing between the two organizations within the framework of a balanced partnership that is aimed to meet common objectives. He also stated that the cooperation between ISESCO and UNESCO was marked by realism, seriousness and commitment; cooperation which, he said, should be regarded as an example to follow and that it was bound to experience greater development.

Thereupon, His Excellency Dr. Abdulaziz Othman Altwaijri, Director General of ISESCO delivered an address in which he stressed the importance of convening the coordinating meeting concurrently with the World Conference on Science, thanked the Director General of UNESCO for his good cooperation with the Islamic Organization and emphasized the pressing need for practical means and adequate financial resources to start the implementation of the Strategy for the Development of Science and Technology.

The meeting discussed the draft implementation mechanisms of the Strategy for the Development of Science and Technology in Islamic countries, prepared by ISESCO. The participants considered that various implementations mechanisms and means proposed as well as the possibilities of their application to achieve scientific and

technological progress of the Muslim Ummah. The participants also took cognizance of the arrangements for holding the Mobile Arabo-Islamic Exhibition on Science and Technology to be organized by UNESCO with the participation of ISESCO and in collaboration with several countries and international and regional organizations.

After the deliberations and exchange of views on the issues under consideration, the meeting took the following resolutions :

- 1- Appreciates the contribution of the Islamic Educational, Scientific and Cultural Organization to the advancement of science and technology in Member States to enable them to keep pace with scientific progress in the world. It also commends the achievements and the programmes implemented by ISESCO which have benefitted most Member States and invites to make greater efforts in this respect.
- 2- Commends ISESCO's cooperation with UNESCO in holding the World Conference on Science and the outstanding academic contribution of ISESCO to the preparation of the Conference and the conduct of its deliberations. It, likewise, expresses its appreciation and thanks to the Director General of the Islamic Organization for his initiative to hold the coordinating meeting of the Ministers of Science, Higher Education and Scientific Research of the Member States during the World Conference on Science as well as for the good organization and preparation of the meeting.
- 3- Commends the cooperation between ISESCO and UNESCO in organizing the Mobile Arabo-Islamic Exhibition on Science and Technology to be held in the year 2000 in Grenada, Spain.
- 4- Commends the working paper submitted by ISESCO on the implementation perception of the Strategy. It also commends the practical measures and plans it contains which are likely to facilitate the implementation of this Strategy.

- 5- Invites ISESCO and COMSTECH to update the figures and statistical data contained in the Strategy for Developing Science and Technology in Islamic Countries so as to be consistent with the reality in those countries.
- 6- Invites ISESCO to send the working paper on the implementation mechanisms of the Strategy for Developing Science and Technology in Islamic Countries, to the Member States of the Organization of the Islamic Conference to study it and make observations thereon.
- 7- Sets up a Scientific Committee composed of representatives of six Member States of the Organization of the Islamic Conference, namely Malaysia, Senegal, Jordan, Bangladesh, Cameroun, Morocco, ISESCO and COMSTECH to study Member States observations on the working paper and to reformulate it before submitting it to the first Islamic Conference of the Ministers of Higher Education and Scientific Research to be held in the year 2000.