

**15<sup>TH</sup> MEETING OF COMSTECH GENERAL ASSEMBLY**

**ISLAMABAD, 31 MAY – 01 JUNE 2016**



**OIC General Secretariat**

**Report on activities and programmes**

**in the domains of**

**Science and Technology, Higher Education, Health and Environment**

## **I. INTRODUCTION**

1. Science and Technology, Higher Education, Health and Environment constitute crucial domains for the OIC and its specialized and affiliated institutions. The transnational nature of the contemporary challenges of poverty, disease, environmental degradation, climate change, water and food security necessitate collective responses at the global level. All these problems have scientific dimensions and provide for a new role of science in international policy-making and diplomacy.
2. Collaboration in science and technology provides useful channels of communication and understanding where political relations are complicated. They thus act as confidence building measures and can be useful in supplementing the broader political objectives of the OIC. Scientific and technological collaboration between the OIC Member States offers an immense scope for direct socio-economic benefits to its people in terms of sharing of expertise and pooling of resources. The OIC Member States share cultural values and beliefs and most of them are at the same level of development and face similar challenges. Thus, in addition to the scientific collaboration of the OIC Member States with advanced Western countries, their various commonalities make a strong case for collaboration among themselves.
3. In recognition of the leading role of Science and Technology for socio-economic development, the Vision 1441H for Science and Technology and the OIC Ten Year Programme of Action (TYPOA) and its successor: OIC 2025: Programme of Action (POA) placed special emphasis on the promotion of science, technology, innovation, higher education and research. As a result of concerted actions by the OIC Member States and activities and programmes of the relevant OIC institutions encouraging progress has been achieved towards the achievement of the objectives and targets enshrined in the Vision 1441H and the TYPOA. However, during the implementation effort, many challenges have been identified. The OIC Member States still have a long way to go to catch up the technologically advanced countries in terms of science, technology, innovation, research and higher education.

## **II. OVERVIEW**

### **Science and Technology**

4. Research in science and technology is the key to progress towards a knowledge-based and innovation-driven economy. R&D intensity (i.e. GERD as a percentage of GDP) reflects the innovative capacity of a country. A higher R&D intensity indicates that relatively more resources are devoted to the development of new products or production processes. Currently, OIC Member States spend about 0.81% of their GDP on R&D on average which is quite lower than the EU average of 1.87% and the world average of 2.22% as well as the targeted rate of 1% as implied by TYPOA.
5. The availability of abundant and highly qualified researchers is also an essential condition to foster innovation and promote the scientific and

technological development of a country. OIC Member States, on average, have 615 researchers per million people which is well behind the world average of 1604 per million people. It is also short of the target set by Vision 1441H of 1441 researchers per million by the year 2020 (1441 Hijri).

6. To a certain extent, the performance in academic research can be well reflected by the number of scientific articles published in indexed journals. OIC Member States as a whole published 108,821 articles which represents more than four-fold increase compared to 20,242 articles published in 2000. Nevertheless, the total amount reached is still below those of some individual countries in Europe and elsewhere.
7. Intellectual property rights, especially patents, are the key factors contributing to advances in innovation and scientific development. According to the patent applications data by filing office, 2.35 billion patent applications were made in the world including regional patent offices. With a total of 34,933 applications, the OIC Member States constituted 1.5% of the global patent applications while Republic of Korea and Germany, alone, accounted for 8.0% and 2.6% of the global applications respectively. High-technology exports (HTE) are products with high R&D intensity, which mostly depend on an advanced technological infrastructure and inward FDI in high-tech industries. Based on the latest available data, OIC Member States exports 76 billion USD worth of high-technology exports, which constituted only 3.8% of the global HTE.

## **Education**

8. Education is the core of human capital formation and central to development of a society as formal education is highly instrumental to improving the production capacity of a society. Net Enrolment Rates (NERs) in primary schools have displayed a rather stable trend all over the world since 2000 and reached 84% in 2011 while the average NER in OIC Member States was around 74% during this period. This indicates that almost one-fourth of the children in OIC Member States who are at their primary school age have not registered in primary schools – as compared to only 2-3% in developed countries. The average secondary school NER in OIC Member States has increased from 43% to 50% between 2000 and 2011 though the attained level is not sufficient to consider secondary education system as fairly inclusive. In terms of tertiary school Gross Enrolment Ratio (GER), OIC countries, with an average rate of 22.6% as of 2013, lagged behind other developing countries (24.9%) and far behind the developed countries (78.0%). In the same year, the world average GER was 29.4%.
9. With an average adult literacy rate of 72.3%, OIC Member States as a group lagged behind the world average of 82% and also the other developing countries' average of 85%. Despite being an important strength of the OIC Member States, young population faces considerable challenges in the social and economic life in a significant number of member States. Inadequate education and lack of required skills make it especially difficult for youth in finding jobs in the labour market.

## Health

10. Development of modern and sustainable health systems is one of the main drivers of socio-economic progress across the globe. Generally, maternal, new born and child health (MNCH) correlates very strongly with the quality of health care services and preventive measures. It is considered as an important indicator on overall coverage and effectiveness of a health care system and status of socio-economic conditions in a country/region. Over the last two decades, many OIC Member States have witnessed significant improvement in health care coverage and services and, consequently, they recorded declining trends in maternal, new-born and child mortality rates. According to the WHO figures, maternal mortality ratio has declined from 574 deaths per 100,000 live births in 1990 to 293 deaths per 100,000 live births in 2013. Similarly, child mortality rate has also declined from 125 deaths per 1000 live births in 1990 to 66 per 1000 live births in 2013, corresponding to a decline of 47 per cent.
11. Progress in achieving universal health care coverage remained highly uneven in OIC Member States. In many of them, health care system is seriously suffering from various problems and challenges related to ensuring adequate financing resources and infrastructure, workforce and international health regulations. According to the latest estimates, in 2013, average per capita total health expenditure in OIC States amounted to US\$ 186. This contrasts unfavorably even with the corresponding figure for the non-OIC developing countries, which was US\$ 325. There were only 25 health personnel (physicians, nurses and midwives) per 10,000 people just above the critical threshold of 23, which is considered necessary to deliver the basic health services in a country/region. This ratio was reported at 41 for non-OIC developing countries, 46 for the world and 118 for developed countries.in 2013.

## Environment

12. Ozone depletion, loss of biodiversity, depletion of natural resources and desertification have all played an important role in environmental unsustainability. Global warming and climate change is one of the most serious threats to the global environmental sustainability today. Abnormal weather conditions and thus the unexpected natural disasters such as floods, droughts, or tsunamis, which cause the death or evacuation of many people especially the poor, are the main concern. However, among the OIC Member States the impacts of climate change vary due to their geographic locations, degree of reliance on agriculture and adaptive capacities. For example, agriculture sector will be more affected in Member States located in hot regions like Africa and South and East Asia compared to those located in comparatively cold region of Central Asia & Europe. Similarly, being the high emitters of CO<sub>2</sub>, OIC Oil Exporting Countries are more vulnerable to climate change but due to higher income and economic development levels many of them could adapt to climate change more conveniently than the low income OIC Least Developed Countries. Furthermore, rising sea level will be more catastrophic for

some of the OIC Member States compared to others depending on their location near the sea.

### **III. OIC ACTIVITIES AND PROGRAMMES**

13. The OIC agenda on science and technology derives from its broader political, social and economic agenda. As such, the primary consideration for the OIC is to mobilize political commitment for the promotion and advancement of S&T as an enabler and driver for socio-economic development and addressing the multifarious challenges facing the OIC Member States.
14. Within the framework of the overarching objective outlined above, the OIC activities and programmes in the domain of Science and Technology have focused on strengthening of R&D as part of institutional framework for science, technology and innovation, national strategies for science and technology, conducting STI Foresight Studies, encouraging private sector participation in R&D, and promoting emerging technologies such as nanotechnology and biotechnology. Some specific projects and activities undertaken pursuant to various decisions of the OIC policy-making forums are summarized below.

#### **Atlas of Islamic World Science and Innovation Project**

15. Atlas of Islamic World Science and Innovation Project: Under this Project, which was implemented by the OIC in partnership with the Royal Society of UK and other international partners, key trends and trajectories in science and technology-based innovation in selected OIC Member States were mapped.
16. Five country reports, namely: Egypt, Jordan, Indonesia, Malaysia and Kazakhstan were launched under the project. A Final Report, summarizing the key findings of the country reports and drawing broad conclusions about the status of science, technology and innovation in the OIC countries was officially launched during the 7<sup>th</sup> Islamic Conference of Ministers of Higher Education and Scientific Research held in Rabat on 18-19 December 2014.
17. Similar studies for other OIC Member States could be useful in terms of determining the opportunities and challenges and defining the right approaches for advancing S&T.
18. Accordingly, as directed by the 41<sup>st</sup> session of Council of Foreign Ministers (CFM), COMSTECH Secretariat has already prepared the draft project proposal for the COMSTECH Science Report programme, which will be a successor programme to the Atlas Project. It is expected formally launched during the 15<sup>th</sup> General Assembly to be held in Islamabad on 31 May- 01 June 2016.
19. The COMSTECH Science Report proposes to cover a broader cross-section of OIC Member States and will be updated after regular intervals of every 3-4 years.

### **Peaceful application of nuclear energy**

20. In collaboration with the IDB and IAEA, the OIC General Secretariat is pursuing projects for the strengthening and establishment of cancer radiotherapy facilities in the OIC Member States from Africa, where cancer has become one of the major causes of death. Similar projects are being considered for Asia. Likewise, projects on isotope hydrology and mosquito sterilization are being pursued in earnest in collaboration with the IDB and IAEA. In this connection, OIC General Secretariat, IDB and IAEA have signed Practical Arrangements to set forth the framework cooperation between the three institutions to support common Member States efforts in the area of comprehensive cancer control.
21. The said measures and collaborative projects highlight the potential of regional cooperation in tackling the challenges of disease, access to safe drinking water and other developmental issues.

### **Centers of Excellence**

22. As a follow up to the Vision 1441H on Science and Technology and the OIC Ten Year Programme of Action, it was decided among the OIC institutions to identify 10 best Centers of Excellence to strengthen them to the highest standards with financial support of IDB/OIC that can be used for high level training of scientists/engineers for promoting cutting edge research in frontier fields of S&T. A joint Committee of OIC-IDB and COMSTECH selected 5 Centers of Excellence in 2011 (13th General Assembly of COMSTECH).
23. The five Centers are as follows: i. International Center for Diarrheal Disease Research (ICDDR), Dhaka, Bangladesh; ii. International Center for Chemical and Biological Sciences (HEJ Research Institute of Chemistry), Karachi, Pakistan; iii. Department of Physics, Middle East Technical University (METU), Ankara, Turkey; iv. Institute of Advanced Studies in Basic Sciences, Zanjan, Islamic Republic of Iran and v. National Institute of Agronomy Research (INRA), Rabat, Morocco.
24. Of the above, three centers namely ICDDR of Dhaka, INRA of Rabat and METU of Ankara have received funding from IDB to support their respective activities in research and training of scientists. Efforts are underway to extend the necessary financial support to the other remaining three. The joint Committee will, in due course, initiate the process to identify five new Centers of Excellence from among the IDB S&T prize winning institutions so as to make them 10 as envisioned in 1441H.
25. Furthermore, IDB is in the process of preparing information brochures on IDB S&T Prize winning institutions, which includes the five Centers of Excellence jointly selected by the IDB, COMSTECH and the General Secretariat. The brochures are intended to facilitate identification of existing strengths of various institutions and opportunities for fostering scientific and technological collaboration.

## Higher Education

26. The OIC2025: POA emphasizes the critical impact of higher education for the socio-economic development of the OIC Member States and in equipping its youth to contribute meaningfully to the society. The OIC Charter lists the advancement and acquisition of knowledge, development of science and technology and promotion of research and cooperation among Member States in these fields, as priority objectives.
27. OIC Educational Exchange Programme: Solidarity through Academia in the Muslim World: With a view to taking practical steps towards strengthening the bonds of Islamic solidarity and achieving its renaissance, the OIC General Secretariat has put in place a framework for greater cooperation and linkages in academia i.e. learning, teaching and research.
28. The Programme aims at promoting solidarity through academia and cooperation among Member states in the crucial field of higher education. Participation of public and private sector universities of the OIC Member States in the Programme is steadily increasing. The total number of scholarships offered under the Programme at the graduate, masters, doctoral and post-doctoral levels has reached 300. Scholarships announced under the Programme cover a wide range of fields including physical sciences, social sciences, engineering, humanities, ICT etc.
29. A dedicated webpage for the Programme facilitates timely provision of information about scholarship offers to the widest possible audience. The Programme also provides for exchange of students, meeting faculty deficit in the universities, distance learning, joint research projects, training facilities, vocational and specialized courses to cater to the specific requirements of the interested Member States.
30. Azerbaijan, Brunei Darussalam, Egypt, Turkey and universities from Member States and Observers; COMSATS Institute for Information Technology (CIIT), International Islamic University Malaysia (IIUM), National University of Science and Technology (NUST), Pakistan, University of Lahore (UOL), The Cyprus International University (CIU), The Eastern Mediterranean University (EMU), The European University of Lefke (EUL), The Girne American University (GAU), The Near East University (NEU), The Middle East Technical University METU have offered scholarships under the OIC Educational Exchange
31. Adoption of 'Key Performance Indicators: A Guide for Assessment and Quality Enhancement for Universities in the Islamic World': In October 2011, the OIC Ministers of Higher Education adopted a document entitled 'Key Performance Indicators (KPIs): A Guide for Assessment and Quality Enhancement for Universities in the Islamic World'. This document is meant to serve as a guide for universities in the OIC Member States for achieving academic excellence, enhancement of R & D, improvement of quality of education to compete with the World Class universities. Further guidelines to facilitate the implementation of the KPIs by the universities in

the OIC Member States have also been developed. These were adopted by the 6th Islamic Conference of Ministers of Higher Education and Scientific Research in Khartoum in November 2012.

32. Strengthening of OIC universities: The period under review has seen progressive strengthening of the OIC universities i.e. Islamic University of Technology (IUT), Dhaka, Islamic University of Niger (IUN), Niamey, Islamic university in Uganda (IUIU), Kampala, and International Islamic University Malaysia (IIUM), Kuala Lumpur.
33. The OIC universities have seen expansion of faculties, development of infrastructure, new ICT facilities, training of staff and improvements in educational standards.
34. IUT: The University has so far been admitting only male students due to lack of physical facilities for the female students. The IUT is planning to build a female dormitory within the existing campus. The Government of Bangladesh has kindly offered to provide TK. 16.40 crore (equivalent to US \$ 2 million) for this purpose. The construction work is expected to begin in 2016.
35. IUN: In 2014, a philanthropist donated US\$ 65 million for the construction of educational facilities for female students at the IUN. A tripartite agreement, between IUN, IDB and government of Niger, was signed in Niamey on 20 November 2014 in this regard. The construction of female campus will be an important milestone in the development of IUN. The Islamic Solidarity Fund (ISF) has established a specific budgetary provision for the establishment of the college of agriculture and college of nursing at the IUN. SESRIC is arranging a visit of trainers from Istanbul Metropolitan Municipality Center for Art and Vocational Training to design joint training programmes in vocational training for IUN. SESRIC is planning to organize internship programmes for the IUN students in OIC Member States through its International Student Internship Programme.
36. IUIU: In 2014, the Faculty of Health Sciences was inaugurated at the IUIU with the help of Habib Family (Saudi Arabia) and University of Lahore (UOL). The Habib Medical Teaching Hospital has been associated with the Faculty of Health Sciences. SESRIC has facilitated the signing of an agreement between the IUIU and Doctors Worldwide, Turkey, for the establishment of a School of Medicine in the newly established Faculty of Health Sciences at the IUIU. Academic programmes will include Bachelor of Medicine and Bachelor of Surgery, Masters of medicine in General Surgery, Masters in Internal Medicine and Master of Medicine in Public Health. Doctors Worldwide will also arrange for visiting faculty, curriculums, laboratory materials etc. SESRIC will provide support for senior visiting faculty form other OIC Member States as well.
37. IUIU is currently faced with severe financial resource constraints and is unable to meet its obligations. The staff salaries are the lowest in Uganda and other countries in East Africa. Due to high inflation and increased cost of living, the University is gradually losing its qualified staff especially

PhDs. The University has no resources to provide this relief. While a second Waqf, in addition to King Fahad Waqf property, is being established to supplement the revenues of IUIU, it will take around five years to complete. The OIC strongly appeals to the Member States to consider providing the shortfall of US\$ 1.5 million per year for five years as a stop gap arrangement to bring into effect the announced 20% salary relief for the IUIU staff.

38. IIUM: The International Islamic University Malaysia (IIUM) has been assisting in reviewing the performance of the IUT and invited the other three OIC-Affiliated universities to send their teaching staff for further studies at the International Islamic University Malaysia (IIUM) with financial support to be provided by the IIUM. Under the framework of its cooperation MoU with IIUM, the IUT has sought the services of a faculty member specialized in Innovation and Entrepreneurship from IIUM to facilitate the launching of a new course in the subject. Under the provision of the same MoU, a faculty member of the IUT has obtained his Ph.D. from IIUM. A number of teaching staff of IUIU are following their post-graduate studies at the IIUM

## **Health**

39. The domain of health is an important sector amongst the various areas identified for joint Islamic action in the Ten Year Programme of Action (TYPOA). The OIC 2025: POA, Islamic Summit Conferences, Islamic Conferences of Health Ministers and the Council of Foreign Ministers, place special emphasis on programmes and activities, with the involvement of WHO and relevant international organizations, for combating diseases and epidemics, strengthening child health and eradication of polio.
40. Adoption of the OIC Strategic Health Programme of Action: 2014-2023: The 4th Islamic Conference of Health Ministers (ICHM), held in Jakarta on 22-24 October 2014, adopted the OIC Strategic Health Programme of Action (SHPOA) 2014-2023. The SHPOA provides a framework for focused action and international collaboration for the next ten years to deal with the most pressing challenges and needs of the OIC Member States in the health sector. The adoption of the SHPOA and its Implementation Plan is expected to impart a new impetus to the OIC health agenda and the programmes and activities of the OIC and its institutions in this field. Several international partners, including WHO, UNICEF, UNFPA and Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria, are cooperating with the General Secretariat for the implementation of the SHPOA.
41. Self-Reliance in vaccines and drugs: The OIC General Secretariat and relevant OIC institutions have been carrying out efforts for the promotion of self-reliance in vaccines and drugs in the OIC Member States. These include:
  - cooperation among the OIC Member States in the development and harmonization of standards on pharmaceuticals and vaccines. In this

regard, the 4<sup>th</sup> ICHM established a Technical Committee for the Development and Harmonization of Standards in the OIC Member States and adopted a Two-Year Action Plan for the Committee. This will facilitate the objective of collective self-reliance by removing existing barriers to trade and marketing of vaccines between the OIC Member States and encouraging manufacturers to consider strengthening their manufacturing capacities to cater to an enlarged market demand

- promotion of cooperation and partnerships with a view to pooling of resources, expertise and experience between private and public sector manufacturers across OIC Member States thus leading to the enhancement of the collective capacity in the production of vaccines. A mechanism has been established for the vaccine manufacturers from the OIC countries to work together for the promotion of self-reliance in supply and production of vaccines in accordance with the Short, Medium and Long Term Plan of Action towards Self Reliance of Vaccines in the OIC Region adopted by the 4<sup>th</sup> ICHM
- training and capacity-building activities on pre-qualification, validation and certification procedures for OIC vaccine producers.

42. International partnerships for preventing and combating diseases: The OIC General Secretariat continues to work in cooperation with international partners such as WHO, UNICEF, UNFPA, the Global Polio Eradication Initiative (GPEI), Global Fund, USAID in accordance with the bilateral work programme to enhance collaboration in the health sector.
43. Polio eradication: Polio continues to be among the critical issues that need to be addressed in earnest by the OIC Member States. 55 of the 57 OIC Member States successfully stopped polio transmission at least once in their countries. Afghanistan and Pakistan are the only two remaining polio-endemic countries OIC Member States. Encouraging progress, however, has been made in case of Pakistan. In addition, all wild poliovirus (WPV) outbreaks have been stopped with the last case in Iraq, and since August 2014 Africa is now over a year without polio.
44. The OIC General Secretariat together with the IDB are supporting the work the International Islamic Advisory Group (IAG) for Polio Eradication. The Islamic Advisory Group is co-chaired by Al Azhar Al Sharif and (IIFA) and includes Ulema (Islamic scholars), medical experts, experts from academia and other prominent personalities including the Secretary General of the OIC, President of the Islamic Development Bank and the President of the International Islamic Fiqh Academy (IIFA). The objective of IAG is to provide high-level global leadership and guidance for building ownership, solidarity and support for the health related challenges facing the Muslim world. It has been instrumental in obtaining religious injunctions (Fatwas) and mobilizing both political and financial support in favour of polio eradication campaigns. It has further advocated with national and local religious leaders on the religious duty of parents and

communities to protect children and to allow health workers to carry out their duties in safety.

45. HIV/AIDS, Tuberculosis and Malaria: The General Secretariat has been pursuing close cooperation with the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria pursuant to the Memorandum of Understanding (MoU) signed between the two sides in 2009. The General Secretariat has also agreed on a Joint Work Plan with the Stop TB Partnership.
46. Ebola Virus Disease (EVD): As a part of OIC's efforts to mobilize support for Ebola-affected countries, a meeting of OIC Member States was held in Geneva on 29 September 2014. The meeting was chaired by the honourable Minister of Health of Indonesia, and attended by the WHO Director General Dr. Margaret Chan. The meeting was useful in terms of updating the Member States about the status of EVD and its adverse impact in affected countries. Based on the requests received from Guinea and Sierra Leone, the OIC requested all Member States for the provision of requisite medical equipment, supplies, financial resources and trained personnel.
47. As a follow-up to the Geneva meeting, on 5 November 2014, OIC and IDB jointly organized a resource mobilization meeting for efforts against EVD. The meeting announced urgent financial assistance to countries affected by Ebola epidemic. In addition to the financial pledges, the assistance also included material resources, equipment and supplies, as well as trained health workers and associated work force. The IDB announced at the Conference a package of assistance including a grant amounting to US\$10 million as seed money for mobilization of additional resources from NGOs and philanthropists to support efforts to fight EVD.
48. The Islamic Development Bank further received US\$ 35 million grant from the late King Abdullah bin Abdulaziz, Custodian of the Two Holy Mosques and former King of Saudi Arabia to support the efforts of the West African countries affected by Ebola Virus Disease namely Guinea, Liberia, Mali and Sierra Leone.
49. The OIC contributions to efforts against diseases such as polio, malaria, and tuberculosis and Ebola virus disease are being increasingly acknowledged at the international level.
50. Mother and Child Health projects: Mother and child health is among the priority areas in the OIC Health agenda. Pursuant to the Cooperation Framework, entitled "reaching every mother and baby in the OIC with emergency", agreed between the General Secretariat and the US Government in 2008, two pilot projects on mother and child health were initiated in Bangladesh and Mali. Plans for Mali and Bangladesh included contribution to national awareness about maternal and newborn health as a national priority, support to make progress toward MDGs 4 and 5, and community awareness campaign and mobilization to improve the quality and use of maternal and newborn care. The joint project in Mali was

suspended in January 2012 due to political unrest while the project in Bangladesh is proceeding well.

51. The OIC General Secretariat is collaborating with the UNFPA office in Ankara and SESRIC to engage religious and cultural leaders to assist and facilitate implementation of the joint project on Mother and Child Health (MCH). English translation of six training materials prepared by the UNFPA office in Ankara for religious and cultural leaders was shared with USAID. The UNFPA Office in Ankara and SESRIC are considering possibility of organizing training courses for the trainers on the subject.
52. A Consultative Meeting on Development of Joint Cooperation Activities in OIC Member Countries in the areas of Maternal, New-born and Child Health and Nutrition (MNCH) in line with OIC Strategic Health Programme of Action 2014-2023 (OIC-SHPA) was held at SESRIC HQ in Ankara, Republic of Turkey on 02-03 April 2014. The meeting was attended by the OIC General Secretariat, SESRIC, IDB, WHO, UNFPA, USAID, JHPIEGO, MCHIP, and MNCH experts from the Ministry of Health of Turkey. The main objective of the Consultative Meeting was to discuss the possibilities and modalities of transferring knowledge and expertise in the field of MNCH to OIC Member Countries. The meeting covered, among others, ways and means for integrating and coordinating the efforts of the participating institutions towards promoting the transfer of knowledge and expertise to OIC Member States; so that services in the area of MNCH would be accessible by all communities and contribute more to the wellbeing of OIC citizens.
53. Accordingly, an OIC collaborative programme with the participation of SESRIC, IDB, WHO, UNFPA and USAID was established. The Programme is aimed at reducing maternal and newborn mortality in 7 selected OIC Member States namely Afghanistan, Cameroon, Chad, Guinea, Guinea-Bissau, Mali, Mauritania, Mozambique, Nigeria, Sierra Leone and Somalia. The First meeting of the Focal Points for the Programme was held in (Ankara, 19-20 January 2015.) Representatives of seven concerned Member States attended the meeting. The Meeting was also attended by representatives of Turkey in its capacity as host country, SESRIC, IDB, WHO, UNFPA and USAID. Participants were provided with a questionnaire which would act as a tool to support their respective countries to identify bottlenecks and solutions to scaling-up Maternal and Newborn Care. Upon completion of the survey, participating Member States will submit their findings to the OIC and other partners to facilitate the preparation of bankable projects geared towards reducing mortality of mother and child in those countries.

## **Environment**

54. The challenges of environmental degradation and climate change are assuming increasing significance for OIC Member States. The OIC General Secretariat and the OIC institutions have accordingly stepped up their activities and programmes in these areas.
55. The 12th session of the Islamic Summit Conference, held in Cairo, Egypt, from 6-7 February 2013, underscored the need for robust global

cooperation, especially for countries vulnerable to adverse consequences of climate change, including adequate financing and transfer of technology, capacity support from developed to developing countries under the UN Convention on Climate Change.

56. OIC Water Vision: The OIC Water Vision was adopted by the Conference of Ministers Responsible for Water held in Istanbul in March 2012. The OIC Water Vision gives a brief overview of the diverse water environments across the OIC countries and the different dimensions of water related challenges being faced by them. It recognizes the critical role of the OIC in promoting cooperation among Member States on water-related issues and its ability to bring together expertise from diverse countries with unique water characteristics.
57. The Water Vision not only identifies the opportunities for concerted action but also lays out a roadmap for promoting collaboration, including exchange of best practices, capacity building and knowledge sharing, among Member States in all aspects of water. The Conference of Ministers Responsible for Water also adopted a set of recommendations for the implementation of the OIC Water Vision.
58. First Meeting of National Focal Points for the OIC Water Vision was held in Istanbul, Turkey on 3-5 June 2015 to consider concrete measures for the implementation of the OIC Water Vision, focusing on exchange and knowledge sharing; collaborative activities in research, policy and management support amongst OIC knowledge centers on water; capacity building and enhancement, outreach development; and organization of specialized forums and conferences. The meeting agreed to complete assessment of capabilities available within Member States and identification of gaps to facilitate the process of matching the capacities with the needs. The Meeting also agreed to establish a database of Water experts in the OIC region who could be called upon to provide onsite training and any other technical support to Member States.
59. Terms of Reference for a body mandated to follow-up implementation of OIC Water Vision were adopted by the 3rd session of Islamic Conference of Ministers Responsible for Water (ICMW) held in Istanbul on 17-19 May 2016.
60. OIC Green Technology Blue Print: The OIC General Secretariat is coordinating closely with COMSTECH for the finalization of the OIC Blue Print on Green Technologies. The feasibility study for the Blue Print has been conducted by the University of Technology Malaysia (UTM) with the generous support of the IDB.
61. Capacity building Programmes: In today's world multilateral negotiations have become increasingly specialized dealing with intricate technical aspects of various problems. For example, the negotiations on climate change require diplomats to be familiar with scientific background of the climate change phenomenon. Similarly multilateral disarmament and arms control negotiations are highly dependent on scientific and technological

advice. Scientific and technological input for multilateral negotiations is therefore an essential part of modern day international relations. It is therefore essential for the OIC to focus efforts on enhancing the capacity of its diplomats to meaningfully participate in complex international negotiations through basic training in scientific aspects of issues on the international agenda.

62. As a part of their capacity-building activities and programmes, OIC institutions should focus on training and capacity-building courses for relevant officials of Member States on issues related to the development and promotion of renewable energies, climate change and environment.

#### **IV. ASSESSMENT AND RECOMMENDATIONS**

63. The Vision 1441 H articulated a vision for the development of STI in the OIC countries, identified key areas for national action and intra-OIC collaboration and set forth certain targets. While the OIC Member States moved forward in many respects, they collectively fell short of achieving the targets and goals set by TYPOA and Vision 1441H.
64. The essential prerequisites for translating any vision into reality include the mobilization of necessary political will, allocation of requisite financial resources, elaboration of a clear roadmap and implementation mechanisms with clearly define responsibilities for various stakeholders. Implementation of the Vision 1441 H and the TYPOA could have been improved by focusing more on these crucial aspects.
65. The responsibility for elaborating implementation plans, mobilizing resources and promoting appropriate partnerships to carry forward the objectives of the Vision 1441 H rested mainly with the OIC institutions. While the heads of the OIC, COMSTECH and IDB did their best to provide the necessary leadership and impetus for the advancement of STI and to promote the implementation of the Vision 1441 H and TYPOA greater ownership by the Member States of these initiatives would have provided a significant impetus to the implementation effort.
66. The lack of well-defined STI policies and strategies as well as inadequate STI institutional framework at the national level is one of the impediments in the way of defining objectives and identifying opportunities for intra-OIC collaboration. Documents on technology mapping and foresight can serve as important reference documents and guides for planning and prioritization of S&T projects and long term STI strategies.
67. The OIC institutions need to adopt a calibrated approach towards promoting intra-OIC cooperation based on the varying levels of STI advancement of the Member States (the previous approach has been to include everyone thus making projects difficult to move forward).
68. On the side of financing, necessary adjustments in the IDB financial procedures were required to come up to the political mandate and expectations arising from the Vision 1441H and the OIC 2025: POA.

Moreover, there is a need to look for alternate sources of funding, such as venture capital for STI projects since the IDB, being a development bank, is primarily geared towards supporting public development projects.

69. The lack of proper understanding of the true potential of S&T on the part of policy makers and bureaucracies is often one of the contributing factors hindering the implementation of STI related commitments. In this regard it is important to strengthen the training and capacity-building programmes of OIC institutions in the area of STI policy and planning.
70. There is need within the OIC to pay special attention to private sector participation in R&D, public-private and academia-industry partnerships. While the OIC institutions have been focusing on promoting collaboration between researchers and scientific communities, attention should also be devoted to the need for capacity-building and awareness of the private sector regarding the significance of their patronage of R&D.
71. It is extremely important to create suitable conditions at the OIC level in terms of favourable legal and fiscal regimes, market access and protection of investment to ensure the viability and success of any joint project involving various stakeholders from several Member States.
72. The ultimate goal of all development plans revolves around improving the quality of life of our people. They have the right to expect a fair and equitable access to basic needs such as water, education, healthcare, food and shelter. Strategies in the field of science and technology, therefore, should be directed at bringing about change in the daily lives of our people. COMSTECH, therefore, should expand the scope of its activities to include challenges in the social and economic realms including issues of governance, transparency, equitable access to useful technologies, public services and management.
73. Coordination and cooperation among OIC institutions has to be institutionalized in order to harmonize and integrate respective activities and programmes related to science and technology. The COMSTECH has a key role in clearly delineating the roles and distribution of labour between the OIC institutions working in the field of STI in order to avoid duplication and overlapping. Regular interaction among the institutions under the aegis of COMSTECH is necessary.
74. It is hoped that, the lessons learnt to date will guide the elaboration of the Implementation Plan for the OIC 2025: Programme of Action in the domain of Science, Technology and Innovation in which COMSTECH and other relevant OIC institutions are expected to play a major role. It is also hoped that 15th COMSTECH General Assembly will provide policy and strategic guidance in this regard.

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