



COMSATS'

**Experience of
Science Diplomacy**

Commission on Science and Technology for
Sustainable Development in the South
(COMSATS)

Member States



Bangladesh



China



Colombia



Egypt



Gambia



Ghana



Iran



Jamaica



Jordan



Kazakhstan



Korea, D.P.R



Morocco



Nigeria



Pakistan



Palestine



Philippines



Senegal



Somalia



Sri Lanka



Sudan



Syria



Tanzania



Tunisia



Turkey



Uganda



Yemen



Zimbabwe

COMSATS' Experience of Science Diplomacy

Brief Introduction

The Commission on Science and Technology for Sustainable Development in the South (COMSATS) is an outstanding example of Science Diplomacy. Conceived as an inter-governmental and international organization, it brought together countries of the South in an attempt to accord pivotal role to science and technology for the socio-economic development and prosperity of the developing countries. In 1994, the leaders from the developing countries extended their political support to promoting sustainable development and science and technology. At the Foundation meeting of COMSATS that year, an impressive array of representatives from the developing world and international organizations demonstrated the will to give priority to education, research and development and generation of knowledge.





The unrelenting mission of the Organization is:

“To help create a world where all nations are at peace with one another and capable of providing a good quality of life to their populations in a sustainable way, using modern scientific and technological resources.”

This overarching aim required an innovative structural arrangement that would provide multiple levels of cooperation and interaction among various stakeholders, most importantly, the institutions of the North. COMSATS, therefore, can be regarded as a pioneer in propagating the core principles of the Sustainable Development Goals (SDGs). Its objective of South-South and North-South cooperation corresponds with the concept of Triangular cooperation. Since its inception, COMSATS has focused on sustainable socio-economic development through science, technology and innovation – an aspiration which is inbuilt in the SDGs. The World Academy of Sciences (TWAS) and COMSATS’ Technical Advisory Committee composed of 10 internationally renowned scientists provide connections with the North on a more permanent basis. Linkages with the United Nations agencies such as UNOSSC, UNESCAP, UNESCO and others provide COMSATS and its member states an additional leverage for institutional opportunities.

COMSATS Diversity

COMSATS' member states present a picture of diversity, in terms of regions, levels of development, culture and socio-economic template. Beginning with a relatively small number of member states, it now represents 27 countries from three continents: Asia; Africa and Latin America and a population of 37.3 % of the total world population. There is also variation in COMSATS' member states in terms of Gross Domestic Products (GDP), Human Development Index (HDI) and science and technology indicators and investments. The GDP ranges between US\$ 12.24 trillion to US\$249.7 billion. Similarly, GDP Growth rate varies from 7.4 % to 0.8 %. HDI shows that 9 of the member states are in high category; 7 in medium and 9 in low. From the more advanced countries to Less Developed countries (LDCs), there is scope for robust Science Diplomacy and mutual collaboration. The capacity to invest in R&D and science and technology is directly co-related with the availability of resources. COMSATS' objective is to effectively bridge this gap by enabling sharing of the collective strengths of its member states.

Structural Capacity

Over the last 25 years, COMSATS has played an important role in overcoming some of the development constraints faced by its member countries. Its Network of 22 International Scientific Centres of Excellence (CoEs) has



been instrumental in fostering scientific cooperation. In the field of higher education COMSATS, has encouraged member states to award scholarships. Its Centre of Excellence and flagship project, COMSATS University (CUI), has provided 100 scholarships to applicants from member states that have been availed predominantly by students from Africa. Correspondingly, the CUI faculty and students have benefitted from the opportunities offered by the developed countries/institutions, such as Commonwealth, European Union, US and other countries. This circular cooperation symbolizes the essence of Triangular cooperation.

In order to give more focus to the research work within the framework of COMSATS, focused International Thematic Research Groups have been constituted, each led by one of the Centres of Excellence. The areas are climate change and environmental protection; Information Technology; Natural



Products Sciences
Mathematical
Modeling; Agriculture
Food Security and
Biotechnology;
and Renewable
Energy. The ITRG
arrangement allows
various Centres,
under the lead
Centre, a framework
for exchanging
information/data and

pooling of resources and expertise for research and collaboration.

Core Principles of COMSATS

COMSATS has all along been cognizant of the soft aspect of cooperation through Science Diplomacy especially as it helps in: i) building cooperative arrangements; ii) pooling of scientific knowledge and resources; iii) promoting knowledge-based economies and societies; iv) fostering of sustainability, development and constructive transformation; and v) most importantly

overcoming the development challenges confronted by the world today. The exigencies of the Fourth Industrial revolution call for nuanced scientific policy frameworks and governance structures. Through conferences, seminars, lectures, workshops and training programmes, COMSATS' idea is to inculcate the growing importance of Science Diplomacy. In the digital age, it is imperative to propagate smart technologies, broadband and 3D and IoT. COMSATS' has the privilege of being the pioneer internet service provider since the early 1980s. Aligning ICT related activities with the demands of modern time remains a desired goal for COMSATS.

Prominent Initiatives

The development challenges which have inter-related global impacts require synchronized global and regional cooperation and collaboration. Climate change, soil degradation, loss of biodiversity, disasters and droughts necessitate reliance on collective wisdom and expertise as these problems are not geographically bound. More pronounced effects can be seen as growing water scarcity is aggravating food insecurity and causing health problems. Water availability is a challenge confronted by most member countries. An



international workshop arranged in Cairo on Water Resources: Expected Crises and Strategies for Predomination highlighted the importance being attached to water issues. The realization is that if not tackled, the potential for conflict because of migration and disparities could lead to serious instability. Bio-economy and biotechnology initiatives can potentially provide answers to efficient use of natural resources and to preventing their depletion. Interaction with China's Tianjin Institute of Biotechnology (TIB) and COMSATS' pursuit of creation of Technology Parks, universities and dedicated Centres in its member countries continues relentlessly. With the



aim of providing a network for climate and sustainability, recently COMSATS has set up COMSATS Centre for Climate and Sustainability (CCCS). It allows 13 climate change centres in the member countries to exchange information and data.

Under the umbrella of ISESCO (Islamic Educational, Scientific and Cultural Organization), since 2005 various activities have been organized including capacity building workshops and training programmes. The

workshops have been in the areas of Repair and Maintenance of Scientific Equipments in Teaching, Research Institutions and Small Scale Industries; Internet Security; Nanotechnology; National Innovation System and Intellectual Property; and Applications of ICT in Education, Healthcare and Agriculture. ISESCO recently arranged a workshop in Tunis on Agriculture, Biotechnology and Food Security. It was well attended by the African countries. In order to elicit support of Muslims countries for science and technology, COMSATS concluded MoU with OIC last year.

COMSATS and SDGs

Integration of SDGs in the plans, programmes and visions COMSATS is reflected in several of its initiatives. Notwithstanding the fact that COMSATS' activities traditionally had been well within the framework of recently developed SDGs, focus now is on creating awareness about the role of S&T in the implementation of SDGs. Three events were organized towards this direction. An international seminar on SDGs: The Role of Universities was organized last year with the participation of international speakers from US, Australia, Turkey and TWAS as well UNDP Resident Representative in Pakistan.

Deliberations were held on three subtopics: Promotion and Advocacy for SDGs; SDGs Implementation: Perspectives on Education, Research and Development; and Frontier Technologies: Scientific Institutions Driving Innovation. A follow-up seminar titled SDGs Implementation: Collaboration among Universities was also held last year.

As a manifestation of COMSATS' desire to build human resource for the future, engagement of youth in various activities has been encouraged. This has involved participation in Commonwealth Youth Forum; NAM summit's side event on youth as well as the recent World Science Forum. It is our desire to give an institutionalized



shape to the Youth related initiatives by constituting at some stage COMSATS Youth Forum. To commemorate the First UN Day on Multilateralism and Diplomacy for Peace, a seminar on the Role of Youth in the Implementation of SDGs was held in April 2019. To sensitize the young scientists from COMSATS' member states to relevant SDGs, a workshop was held recently in Turkey in collaboration with TWAS and TUBITAK.

Looking Ahead

COMSATS' keen interest is expanding on key areas which are: Institution building; frontiers of technology in the region through pioneering projects; capacity building; facilitating academic and scientific excellence; policy advocacy; participation in international forums and South-South and Triangular cooperation; promotion of joint research for common solutions; information dissemination and management. In so far as the future vision

is concerned, efforts could be devoted to developing more nuanced collaboration among member states/CoEs in emerging technologies; S&T collaboration between COMSATS and International Organizations; formalizing future vision in keeping with collective aspirations; and commercialization of research through Technoparks.

Conclusion

Technological innovations and transformations are impacting our lives deeply. Correspondingly the planetary challenges are necessitating changes and compelling the global community to shift from “business-as-usual” to proactive and hands-on approaches. The Fourth industrial revolution is posing more challenges for the developing countries due to weak governance structures, weak policy frameworks, lack of awareness, capacity and smart education, insufficient funds and the challenges of poverty, hunger, disease and over population. The emerging paradigms also present opportunities with scopes for expanded Science Diplomacy framework. COMSATS has intelligently integrated some of the latest transformative trends in its activities. It stands to benefit from the leadership of the Commission’s Chairman, the President of Ghana, H.E. Nana Akufo-Addo, who is leading development of Africa and championing the cause of the countries of the South particularly in the context of SDGs.

Science Diplomacy is an effective tool for outreach and networking and for creating influential inter-linkages. In COMSATS’ quarter-century long experience, demonstrable ownership can be created if the member countries took active interest in helping COMSATS Secretariat play an active role to the advantage of its member countries.



Centres of Excellence



BCSIR-Bangladesh



Embrapa Agrobiologia-Brazil



ICCES-China



TIB-China



CIF-Colombia



NRC-Egypt



CSIR-Ghana



IROST-Iran



ICENS-Jamaica



RSS-Jordan



KazNU-Kazakhstan



NMC-Nigeria



CUI-Pakistan



ICCBS-Pakistan



AQU-Palestine



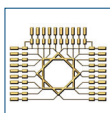
UCAD-Senegal



ITI-Sri Lanka



IRCC-Sudan



HIAST-Syria



TIRDO-Tanzania



CERTE-Tunisia



TÜBİTAK-Turkey



For past 25 years, COMSATS has remained committed towards sustainable development of the Global South through ST&I cooperation among nations and institutions. The Heads of State level apex forum in S&T achieves its mandate through various technical cooperative activities relating to capacity building, skill-development, knowledge sharing, scientific and academic exchanges and institution building. With growing membership of its Commission and international Network of S&T institutions, the organization also has strong partnerships with a number of international and national institutions from the North and the South.

COMSATS takes pride in 25 years of excellence in

Capacity-Building; Institutional Building; Multilateral Research; Science Diplomacy and Advocacy; S&T Collaboration and Partnership; Academic and Scientific Exchanges.



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