



COMSATS

Paving the Way for Sustainable Development
through Science & Technology



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

Member States



Bangladesh



China



Colombia



Egypt



The Gambia



Ghana



Iran



Jamaica



Jordan



Kazakhstan



Korea, DPR



Morocco



Nigeria



Pakistan



Palestine



Philippines



Senegal



Somalia



Sri Lanka



Sudan



Syria



Tanzania



Tunisia



Türkiye



Uganda



Yemen



Zimbabwe

September 2023



INTRODUCTION

The Commission on Science and Technology for Sustainable Development in the South (COMSATS) is an inter-governmental organization of the developing countries with a mandate to help them jointly meet their developmental challenges through right application of S&T. An international organization based in Islamabad, Pakistan, COMSATS was founded in 1994 as a result of an agreement among the countries participating in the organization's Foundation Meeting. At present, COMSATS has 27 Member States and a Network of 24 International Science and Technology Centres of Excellence that facilitate pursuit of its mission of South-South cooperation.

The organization's apex forum is its Commission that comprises of Heads of the Member States that



**H.E. Mrs. Benazir Bhutto, the then Prime Minister of Pakistan,
at the foundation meeting of COMSATS (1994)**



meet at the General Meetings. The statutory bodies of COMSATS are the ministerial-level Consultative Committee, a Coordinating Council comprising of the heads of S&T Centres of Excellence, and a Technical Advisory Committee comprising of experts from the North and the South. The Coordinating Council along with the TAC and the Secretariat are the organs of COMSATS' Network.

Hon. Nana Addo Dankwa Akufo-Addo, President of Ghana, is the current Chairperson of COMSATS. The Federal Secretary for Science and Technology, Government of Pakistan, is the ex-officio Chairperson of the Consultative Committee. In addition, Prof. Ashraf H. Shaalan, Former President of COMSATS Centre of Excellence in Egypt, National Research Centre (NRC), currently chairs the Coordinating Council.

As stipulated in its International Agreement, the Secretariat of COMSATS is permanently located in Islamabad. It is being run through generous annual grant by the Government of Pakistan as the host country.



COMSATS Secretariat



Hon. Nana Addo Dankwa Akufo-Addo
Chairperson COMSATS
(President of Ghana)



Mr. Ali Raza Bhutta
Chairperson
Consultative Committee
(Federal Secretary, Ministry of
Science & Technology)



Prof. Ashraf Shaalan
Chairperson Coordinating
Council
(Former President, NRC,
Egypt)



Ambassador Dr. Mohammad Nafees Zakaria
Executive Director COMSATS



Mission Statement

The mission of COMSATS 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.'





Programmes

As a cooperative strategy, COMSATS works to create synergies for scientific infrastructure building among the Network members, partner organizations and individuals. The aim is to develop a necessary pool of human resources and facilitation for undertaking a variety of capacity-building programmes, bilateral and multilateral cooperative research, and consultancy/advocacy.

The size and scope of the programmes and projects of COMSATS vary from regional to national to international levels. The South-South and North-South cooperation programmes of COMSATS are in various cross-cutting themes, including information and communication technologies (ICTs), environmental sciences, nanotechnology, biotechnology, renewable energy technologies, internet security, mathematical modelling, telemedicine, and repair & maintenance of scientific instruments. The key programmes and projects of COMSATS broadly fall under the following categories:

- **Sustainable Development:** COMSATS' original mission, aims and objectives envisaged on its inception directly pertain to UN's inclusive development agenda, such as Millennium Development Goals (MDGs) and later the Sustainable Development Goals (SDGs). For meaningful contributions towards achievement of the SDGs, COMSATS has aligned its plans and activities increasingly with these goals and targets falling under its mandate. In this regard, recent activities that transpired from this focus related to energy efficiency, sustainable water management, sustainable agriculture, industry 4.0, and bioenergy.
- **Capacity-Building:** COMSATS organizes/co-



organizes and sponsors capacity- building S&T events under various themes that are of direct relevance to the socio-economic needs of its Member States. These events are organized in collaboration with various international partner organizations and Centres of Excellence.



- **Science Diplomacy:** COMSATS has been engaged in advocacy of science at all levels through its different organs, activities of COMSATS Secretariat as well as a number of other means. However, COMSATS Science Diplomacy programme was formally institutionalized in 2015 after an MoU with The World Academy of Sciences. The recent launch of the COMSATS' Science Diplomacy Programme is a new approach towards addressing needs of scientists, diplomats, journalists and policy-makers to build peace among nations using scientific knowledge and principles for allowing informed decision making.
- **Multilateral Research:** COMSATS' International Thematic Research Groups (ITRGs) are undertaking



joint research projects in various fields of science and technology in order to jointly address common issues and challenges hampering socio-economic growth of COMSATS' Member States. These groups comprise of research scientists belonging to COMSATS' Member States and other developing countries. The six ITRGs have the following themes: (i) Information and Communication Technologies (led by CUI-Pakistan); (ii) Agriculture, Food Security and Biotechnology (led by IRCC and University Khartoum, Sudan); (iii) Natural Products Sciences (led by ICCBS-Pakistan); (iv) Climate Change and Environmental Protection (led by ICCES-China); (v) Mathematical Modeling (led by NMC-Nigeria); and (vi) Renewable Energy (led by IROST-Iran). Apart from serving as a platform for joint research projects, the ITRG programme facilitates exchange of experts, sharing of laboratory resources, and knowledge-sharing among the member institutions. Moreover, opportunities of short-term trainings are provided to the group members in order to build their capacity in the target areas and enable them to perform their research components more effectively. The travel expenses during ITRG meetings, expert-exchanges, and short-term trainings of the group members are covered by COMSATS, while the host institutions provide facilities for boarding and lodging.

- **Postgraduate Scholarships and Fellowships:** COMSATS offers a number of scholarships that include a standing offer of 100 scholarships at CUI to students from COMSATS' Member States. Among recipients of these scholarships have been students from The Gambia, Jordan, Nigeria, Palestine, and Sudan. Also scientists from developing countries are offered fellowships to work at the Centers of Excellence for short-term academic activity in



science and technology. Apart from CUI- Pakistan, these fellowships are offered by TIB-China, ICCES-China, ICCBS-Pakistan, NRC-Egypt and KazNU-Kazakhstan.

- **Short-term Training Programmes:** With a view to build capacity of scientific institutions of Member States, scientists and technicians are provided short-term hands-on trainings at Centres of Excellence with relevant expertise and strength. The travel cost is borne by COMSATS, while the host institutions provide boarding and lodging.



- **Institution Building:** Scientific institution building has been one of the strong suits of COMSATS, since early after its inception. Two such success stories are in the host country: an ISP (COMSATS Internet Services) and a higher education institution in IT (COMSATS University Islamabad). A Karachi-based institution, COMSATS-COMSTECH-MTM-IT Centre (1999) and one in Syria, Syrian-COMSATS-COMSTECH Information Technology Centre (2001), were also established, later in the fields of Information Technology.



To provide an institutional platform for coordination, facilitation, advocacy, and regional and international collaboration in Climate Change, COMSATS has set up a Network of COMSATS Centre for Climate & Sustainability (CCCS) in its 20 member states.

COMSATS in collaboration with American Institute of Pakistan Studies (AIPS) had also established an International Centre for Training and Development (ICTD). The Centre provides trainings by foreign experts in areas of climate change, intellectual property rights, higher education and leadership, and energy policy.

- **Web-portals:** COMSATS has been developing and maintaining web-portals for its partner organizations. For example, the Islamic World Science Net (www.icpsr.org.ma) was developed in 2007 and maintained for the Islamic World Educational, Scientific and Cultural Organization (ICESCO) till 2016. COMSATS also developed 'Industrial Information Network (IIN)' for UNIDO. COMSATS also has a dedicated page on the web-portal of United Nations Office for South-South Cooperation (UNOSSC).
- **Incentivizing Research and Development:** COMSATS is a privileged partner of Al-Khwarizmi International Award of IROST, Iran, since 2000. Every year, COMSATS sponsors the cash award and certificates of the first and second prize winners of the Award.
- **Distinguished Professorship Scheme:** COMSATS' Distinguished Professorship Scheme aims to build capacity of R&D organizations and universities of Member States through lectures delivered by renowned scientists and professors. In this regard,



the travel cost of the visiting professor is borne by COMSATS, while the host institutions provide facilities for boarding and lodging.

COMSATS also launched a lecture series on 'South-South and Triangular Cooperation for Socio-economic development in the South' to help share knowledge, experience and insights on how to effectively address the socio-economic needs of the developing countries through South-South and Triangular Cooperation in science and technology.

- **Publications:** COMSATS' scientific journal called "Science Vision" contains research and review articles which focus on the impact of science and technology on sustainable socio-economic development. Another important set of publications brought out from time to time by COMSATS Secretariat is the 'COMSATS' Series of Publications on Science and Technology'. COMSATS' national and international events focus on promoting science and technology, highlighting policy, and emphasizing best practices. These are included in the afore-mentioned series. Apart from these, COMSATS regularly publishes a bi-monthly newsletter, which, inter alia, contains information on the activities of COMSATS Secretariat, COMSATS' Member States, and Centres of Excellence. COMSATS also brings out joint publications with its partner organizations, such as COMSATS-TWAS 'Excellence in Science'.



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



Summary of Activities (1994 - 2019)



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



COMSATS' WORK ON SUSTAINABLE DEVELOPMENT GOALS



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



Flagship Projects

Some of COMSATS' success stories, rooted strongly in its strength of scientific capacity-building, ICTs and building scientific human capital as an engine of economic growth, are as below:

COMSATS Internet Services (CIS): Started in 1996,

CIS is the pioneer Internet Service Provider (ISP) of Pakistan. Currently, it is providing services to major cities of the country. CIS is a diversified ISP that offers Internet as well as data and cloud computing services to corporations, government, and academic institutions. They also work for CIS Technology Park general welfare by providing tele-health services for rural and remote areas in Pakistan.



CIS' Telehealth services are operational through a network of Telehealth clinics across Pakistan. Cooperation at provincial levels has resulted in the new Telehealth Clinics throughout Baluchistan in addition to the ones already working in Punjab, Khyber Pakhtunkhwa (KPK) and Islamabad.

(www.comsats.net.pk)





COMSATS University Islamabad (CUI): CUI was established in 1998 as a flagship project and acquired the degree-awarding status from the Government of Pakistan within two years. The institution that had started from a very small facility has phenomenally grown over the years to now have impressive campuses in seven cities and a virtual campus. Having been granted a structure of full-fledged university, COMSATS Institute of Information Technology became COMSATS University Islamabad in 2018.

(www.comsats.edu.pk)



COMSATS Telehealth (CTH): COMSATS Telehealth (CTH) has been making significant contributions toward socio-economic condition of the marginalized communities of the remote and inaccessible areas of Pakistan in the form of benefits of IT for health being passed on to them since 2001.

Initiated as a pilot project in Gujar Khan, CTH continues to provide online healthcare services to the remote communities of Pakistan with operations now housed at COMSATS Internet Services Technology Park. CTH is currently benefitting the following areas of Pakistan:





Jhelum, a number of rural areas of Baluchistan including Gwadar, Quetta, Mastung, and rural Islamabad. Around 100,000 patients have been provided tele-consultations by the doctors from the COMSATS Telehealth Resource Centre located in Islamabad via audio-visual connections, peripheral medical tools and software.

CTH has also been at the forefront in host country, Pakistan, for creating awareness among public and private stakeholders through events and interventions aimed at capacity building, knowledge sharing and skill development.

(www.ehealthcomsats.com)

COMSATS has an open offer of training and consultancy to the Member States interested in similar institution building in any pertinent field.



International Cooperation

COMSATS provides an institutional platform for South-South and North-South technical cooperation in areas of mutual interest, such as Education, Information Technology, Environment, Energy, and Health.



COMSATS actively facilitates exchange of expertise and technology among its Member States. In that direction, the organization is currently implementing various programmes and projects in collaboration with its Member States as well as some international organizations/agencies. For implementing its South-South and North-South cooperation programmes, COMSATS has developed working relations with the following international organizations:

- Abdus Salam International Centre for Theoretical Physics (AS-ICTP);
- American Institute of Pakistan Studies (AIPS);
- Alliance of International Science Organizations (ANSO);
- Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre);
- Chinese Academy of Sciences (CAS);
- Commonwealth Secretariat;
- European Commission (EC);
- International Centre for Genetic Engineering and Biotechnology (ICGEB);
- International Development Research Centre (IDRC);
- Islamic World Educational, Scientific and Cultural Organization (ICESCO);
- Ministry of Science and Technology (MoST) of China;
- Organization of Islamic Cooperation (OIC);
- OIC Standing Committee on Scientific and Technological Cooperation (COMSTECH);
- Oman National Computer Emergency Readiness Team (OCERT);
- Pacific Islands Development Forum (PIDF)
- South Centre;
- Statistical, Economic and Social Research and Training Centre (SESERIC);
- The World Academy of Sciences (TWAS);



- United Nations Development Programme (UNDP);
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP);
- United Nations Educational, Scientific and Cultural Organization (UNESCO);
- United Nations Industrial Development Organization (UNIDO);
- United Nations Office for South-South Cooperation (UNOSSC);
- University of Sustainability.

COMSATS' ongoing quest for cooperative action has resulted in sixty-seven(67) agreements with various partners.

Some Recent Cooperative Arrangements

- **Alliance of International Science Organizations (ANSO)**

COMSATS has been endorsed for the membership of the Alliance of International Science Organizations (ANSO), Beijing, China, in 2019. The endorsement for membership was made during the ANSO Governing Board meeting held in November 2019, in Beijing. By virtue of this membership, COMSATS' Network shall be able to participate in ANSO's activities, including fellowships and scholarships; prize and awards; training programmes; collaborative research; and professional associations.

- **Commonwealth Secretariat**

In June 2018, the Commonwealth Secretariat officially approved the accreditation of COMSATS. The accreditation



provides formal recognition of the organization becoming a part of a large network of accredited civil society and professional organizations associated with the Commonwealth.

- **United Nations Educational, Scientific and Cultural Organization (UNESCO)**

Having signed an MoU with the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2015, COMSATS has been engaged with the organization for achieving common objectives. Recently, COMSATS held four capacity-building events in China, Pakistan, and Sri Lanka under COMSATS-UNESCO South-South Regional (Asia-Pacific) Technical Cooperation Programme (Biennium 2020-21).

- **Organization of Islamic Cooperation (OIC)**

In March 2019, COMSATS entered into an Agreement with OIC for the promotion of STI for achieving sustainable socio-economic development through sharing of experiences, expertise and resources.

- **United Nations Office for South-South Cooperation (UNOSSC)**

COMSATS and UNOSSC joined hands in November 2018 for promoting science-led sustainable development in its twenty-seven (27) Member States through joined activities aimed at South-South and Triangular Cooperation.

- **Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC)**

Furthering its collaboration, COMSATS renewed the



MoU with SESRIC for joint cooperative schemes and programmes in areas of common interest including STI, sustainable and social development.

- **South Centre**

COMSATS join hands with South Centre in September 2018, in order to advance South-South and Triangular Cooperation through various regional and cross-regional cooperation initiatives.

Centres of Excellence



BCSIR-Bangladesh



Embrapa Agrobiologia-Brazil



ICCES-China



TIB-China



CIF-Colombia



NRC-Egypt



UTG-Gambia



CSIR-Ghana



ITS-Indonesia



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-Türkiye



COMSATS Secretariat

Shahrah-e-Jamhuriat, G-5/2, Islamabad, Pakistan

Ph: (+92-51) 9214515-7, Fax: (+92-51) 9216539

URL: www.comsats.org, Email: comsats@comsats.org



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