



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



An Overview of COMSATS' Activities in 2020





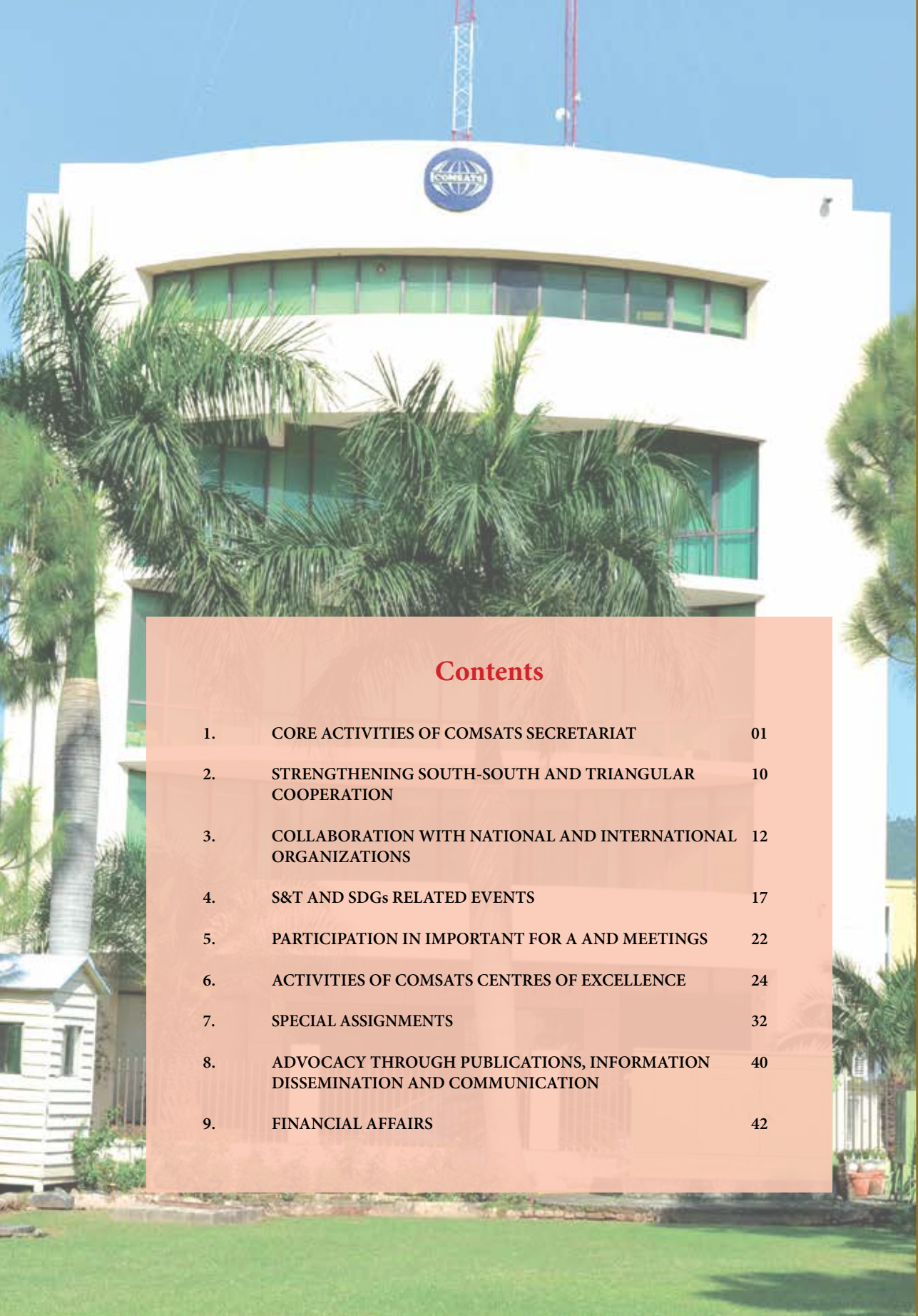
An Overview of COMSATS’ Activities in 2020

(Excerpted from COMSATS’ Annual Report 2020)

March 2021



Commission on Science and Technology for
Sustainable Development in the South
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CORE ACTIVITIES OF COMSATS SECRETARIAT

COMSATS Secretariat provides secretarial assistance to both the Commission and the Network of Centres of Excellence. It is responsible for regularly holding statutory body meetings as well as following up on their deliberations and decisions. The Secretariat also executes COMSATS' programmes and activities in partnership with other inter-governmental agencies, national S&T institutions, R&D organizations, members of academia and scientific community across the world. Other core activities of the Secretariat relate to: pooling and management of financial resources; enhancing the membership of COMSATS and its Network; and special liaison with the host country, apart from regular engagement with all Member States.



COMSATS' High-Profile Meeting on side-lines of African Union Summit (February 9, 2020)

The Honourable Nana Addo Dankwa Akufo-Addo, President of Ghana and Chairperson of COMSATS, hosted a High-Level COMSATS Meeting in Addis Ababa, Ethiopia, on 9th February 2020, on the side-lines of the 33rd African Union (AU) Summit Meeting. The main agenda of the High-Level Breakfast Meeting was the fourth General Meeting of the Commission and Accra Forum on Science and Technology for Sustainable Development, which were scheduled to be held in the second quarter of 2020. Additionally, through this meeting, COMSATS aimed at sensitizing participating high-level officials about its international programmes designed to meet the scientific and technological needs of its member states with the purpose to achieve economic and social development at large.

Presided over by the Honourable President of Ghana, the meeting was attended by two Presidents, a Vice President, and seven Ministers. The Secretary to COMSATS Commission, Executive Director COMSATS, Dr. S. M. Junaid Zaidi was also present during the meeting. Other officials representing COMSATS included Chairperson of its Coordinating Council, Prof. Ashraf Shaalan; Advisor to the President of the COMSATS' focal point in Turkey, Scientific and Technological Research Council of Turkey (TÜBİTAK), Prof. Dr. Orkun Hasekioğlu; Advisor (Climate Change) at COMSATS, Amb. (R) Shahid Kamal; and Deputy Director (Systems) COMSATS, Mr. Nisar Ahmad.

Addressing the dignitaries, Hon. Nana Addo underscored the role COMSATS is playing in advocacy of science and technology as an important tool for peace and progress in the developing countries. He appreciated



the support extended by the Government of Pakistan to COMSATS for its contribution in assisting developing countries in the field of science and technology. He was confident that COMSATS is well placed to help foster greater partnerships to advance science and technology for the development of Africa.

In his remarks, Dr. Zaidi highlighted the significance of promoting greater collaboration with countries in Africa and underscored the need to increase COMSATS' membership in Africa. He also highlighted the new initiatives taken by COMSATS in the areas of climate change, sustainable development and fostering partnerships with the United Nations, Commonwealth, European Commission, and international and regional organizations in addressing developmental challenges.

Speaking on the occasion, the Honourable President of Nigeria appreciated the work done by COMSATS and affirmed that Nigeria recognizes the centrality of science and technology in the development process and will ensure adequate resource allocation for research and development. Foreign Minister of Nigeria and Minister for Science & Technology of Uganda, expressed interest in seeking assistance of COMSATS with regard to improving the state of science and technology education in African schools, increasing capacity development efforts and forging closer cooperation with COMSATS' Centres of Excellence.

Concluding the meeting, the Honourable Chairperson of COMSATS called for intensifying cooperative activities of COMSATS in priority areas to strengthen capacities in meeting UN Sustainable Development Goals.

Major outcomes of the Meeting

- Strengthened Membership Campaign;

offers of State membership extended in person to high level officials of Ethiopia, Ivory Coast, Equatorial Guinea, and Eswatini;

- Improved presence in Africa; with President of Ghana's strong international portfolio and 12 African countries as COMSATS' members, the meeting resulted in building new inroads on the international cooperation front;
- Stronger Networking and Projection; the meeting was widely covered in African media, harnessing due recognition for COMSATS' mandate and activities in Africa and the organization's potential for more development activities and regional and international cooperation in Africa.

4th Meeting of COMSATS Consultative Committee (November 11, 2020)

The Fourth Meeting of COMSATS Consultative Committee chaired by H.E. Mr. Chaudhry Fawad Hussain, Chairperson COMSATS Consultative Committee and Federal Minister for Science and Technology, Government of Pakistan, was held virtually on November 11, 2020. The Meeting was attended by 30 country delegates from 19 member states: Bangladesh, China, Colombia, Egypt, Ghana, Iran, Jordan, Kazakhstan, Nigeria, Pakistan, Palestine, Somalia, Sri Lanka, Sudan, Tunisia, Turkey, Uganda, Yemen, and Zimbabwe.

The meeting also had participation from international organizations, including the South Centre, Switzerland; International Centre for Genetic Engineering and Biotechnology (ICGEB), Italy; United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Thailand; The World Academy of Sciences (TWAS), Italy; and the United Nations Educational, Scientific and Cultural Organization (UNESCO), Pakistan. COMSATS Centres of Excellence in China,





Colombia, Egypt, Gambia, Iran, Indonesia, Jordan, Jamaica, Kazakhstan, Nigeria, Pakistan, Syria, Sri Lanka, Tunisia, and Turkey, as well as diplomatic missions of Jordan, Sri Lanka, Tunisia, and Yemen in Islamabad also attended the meeting virtually.

Inaugural Session

The Meeting was inaugurated by the Secretary to the Committee and Executive Director COMSATS, Dr. S.M. Junaid Zaidi, on behalf of the Chairperson COMSATS Consultative Committee. In his remarks on the occasion, Dr. Zaidi considered scientific collaboration an important area for South-South and Triangular cooperation and encouraged COMSATS' Member States to use COMSATS' platform for incubating partnerships and finding new and innovative approaches to support and speed up implementation of Sustainable Development Goals (SDGs).

In his message read out in the beginning of the event by Dr. Muhammad Tariq Masood, Joint Scientific Adviser at the Ministry of Science and Technology of Pakistan, the Chairperson Consultative Committee highlighted Pakistan, the host country of COMSATS Secretariat, as an ardent supporter of COMSATS' mandate since inception. The Honourable Minister, who later joined the meeting through video conference, urged COMSATS' Member

States to work collaboratively and pool their indigenous resources for development of vaccine against coronavirus.

Technical Proceedings

During the proceedings, the Meeting deliberated upon a nine-point agenda that, inter alia, pertained to COMSATS' programmes and activities during 2016- 2020; financial matters; and new initiatives for enhancing COMSATS' science-led South-South and Triangular Cooperation.

The Meeting approved the 9-point Provisional Agenda and the Minutes of the previous Meeting of COMSATS Consultative Committee (26th October 2015, Accra, Ghana). As per regular practice of the event, the Executive Director COMSATS, Dr. S.M. Junaid Zaidi, delivered a brief presentation on COMSATS' programmes, activities and achievements during the period since the last Consultative Committee meeting. The presentation by the Executive Director was followed by remarks by the country delegates highlighting various S&T-related initiatives of their respective governments for addressing the contemporary challenges, including the COVID-19 pandemic. The delegates also shared their future aspirations in the light of their countries' priority areas. The country delegates who attended the meeting were:

- Prof. Jibin Sun, Deputy Director General of Tianjin Institute of Industrial Biotechnology (TIB), China,
- Dr. Eduardo Posada F., Director of Centro Internacional de Fisica (CIF), Colombia,
- Prof. Gena Elfeky, Supervisor of the Scientific & Cultural Relations Sector, Academy of Scientific Research and Technology (ASRT), Egypt,
- Mr. Mbakeh Camara, Director of University Relations, The University of The Gambia, The Gambia,
- Hon. Dr. Dia-Eddin Arafah, Secretary General, Higher Council for Science and Technology (HCST), Jordan,
- Prof. Dr. Tlekkabul Ramazanov, Vice-Rector for Research & Innovations, Al Farabi Kazakh National University (KazNU), Kazakhstan,
- Pharm. Abayomi Oguntunde, Director (Bioresources Technology Research & Development), Department of Bioresources Development, Federal Ministry of Science & Technology (FMST), Nigeria,
- Prof. Stephen E. Onah, Director/ Chief Executive, National Mathematical Centre (NMC), Nigeria,
- Dr. Ahmed Othman, Director General (R&D), Ministry of Higher Education & Scientific Research, Palestine,
- H.E. Dr. Intisar Sigheiroun Alezein (Ms.), Minister of Higher Education and Scientific Research, Government of Sudan,
- Ms. Deepa Liyanage, Additional Secretary, State Ministry of Skill Development, Vocational Education, Research and Innovation, Sri Lanka,
- Prof. Samia Charfi Kaddour, Director General of Scientific Research, Ministry of Higher Education and Scientific Research, Tunisia,
- Dr. Orkun Hasekioğlu, Advisor to the President of the Scientific and Technological Research Council of Turkey (TÜBİTAK), Turkey,
- Dr. Martin Patrick Ongol, Deputy Executive Secretary, Uganda National Council for Science and Technology (UNCST), Uganda,
- Dr. Adnan Zain Alsaggaf, Ministry of Higher Education and Scientific Research, Yemen,
- Hon. Prof. Fanuel Tagwira, Permanent Secretary, Ministry of Higher and Tertiary Education, Science and Technology Development, Zimbabwe,
- Prof. M.H.A. Hassan, the Honorary Member of COMSATS Technical Advisory Committee (TAC).

Meeting Outcomes

The meeting resulted in revitalized commitment from the focal ministries of COMSATS' Member States for supporting COMSATS.

The delegates called for and agreed on having stronger ties among scientists and researchers for solving common development challenges; effective cooperation and initiatives at highest levels for emergent situations, such as COVID-19 pandemic; scientific and academic exchanges; as well as developing strategies for addressing issues, such as food security and climate change.

The areas identified for cooperation and mutual support included: multilateral research, refugee management, science diplomacy training, data science, climate sciences, energy, post-pandemic preparedness, agriculture, biotechnology, food security and nutrition, capacity building, knowledge economy, and SDGs.

23rd COMSATS Coordinating Council Meeting (July 14, 2020)

The twenty-third meeting of COMSATS Coordinating Council was held virtually on



14th July 2020. The meeting was attended by the Council members or their representatives from 19 Centres of Excellence of COMSATS including BCSIR (Bangladesh), ICCES (China), TIB (China), CIF (Colombia), NRC (Egypt), UTG (The Gambia), CSIR (Ghana), ITS (Indonesia), IROST (Iran), ICENS (Jamaica), KazNU (Kazakhstan), NMC (Nigeria), ICCBS (Pakistan), CUI (Pakistan), AQU (Palestine), ITI (Sri Lanka), HIAST (Syria), TIRDO (Tanzania), and TUBITAK (Turkey). In addition to the Council members, the meeting was attended by the officials of COMSATS Secretariat who joined the meeting from Islamabad.

The meeting resulted in continued exchange and networking; the Network was strengthened by two institutions; renewed commitment and resolve to working together in regular and unprecedented circumstances; pledges of technical, financial and academic support. Here is a glimpse at the meeting deliberations.

Inaugural Session

The meeting was inaugurated by Prof. Dr. Ashraf Shaalan, Chairperson of COMSATS Coordinating Council, who appreciated the efforts made by COMSATS Secretariat for organizing the online meeting amid COVID-19 crisis. He welcomed the two new Centres of Excellence belonging to Indonesia and The

Gambia to COMSATS' Network.

Welcoming the participants, the Executive Director COMSATS, Dr. S. M. Junaid Zaidi, remarked that this crisis has strengthened the resolve of COMSATS and its Coordinating Council to continue striving for the promotion of South-South and Triangular Cooperation in STI for coming up with solutions to such and other problems of the developing world through all possible means.

Technical Deliberations

The technical deliberations were based on 11-point agenda of the Meeting. The implementation status of the decisions taken by the Council in its last meeting held at the Tianjin Institute of Industrial Biotechnology (TIB), China, and Report of COMSATS' Annual Activity since that meeting were found to the Council's satisfaction. The Council expressed immense pleasure and satisfaction on the completion of COMSATS' 25 years of existence and appreciated the consistent support of the Government of COMSATS' host country, Pakistan, other Member States and Centres of Excellence.

The COVID-19 pandemic constituted an important point of discussion, under which ideas and experiences, and technical undertakings of the centres were shared. An in-



house review showed an array of activities that COMSATS Centres of Excellence have been engaging in, with regard to their governments' responses to COVID-19, including:

- Indigenous solutions to preparing basic protective equipment, such as production and distribution of hand sanitizers and masks;
- Specialized research towards better health safety such as Nanofiber Filters” of high protection N95-N99/FFP2- FFP3 masks, ventilators for hospital use, and immunity boosting food products, etc.;
- Studies on genetic variations and their correlation with the disease severity; progression clinical outcomes of the disease and genomes sequencing of the virus;
- Developing testing facilities as well as providing mass scale testing, as well as R&D on vaccines against COVID-19; and
- Awareness building activities for students and professionals and community integration in COVID-19 pandemic management.

Under different agenda items, the Council deliberated upon the ongoing projects and programmes, including COMSATS Centre for Climate and Sustainability (CCCS), postgraduate scholarships and post-doctoral fellowships offered by various Centres of Excellence, capacity-building activities, Telehealth programme, activities of International Thematic Research Groups, publications, and other programmes for achieving SDGs.

Some recommendations by the Council to effectively achieve the Networking objectives pertained to:

- Member States and Centres of Excellence joining and supporting COMSATS Centre for Climate and Sustainability;
- Urge to Centres of Excellence to benefit from the postgraduate scholarships and post-doctoral fellowships available among the Centres;
- Continuing efforts for building capacities of the scientific community in its member states, especially through joint SDG-related projects and programmes prepared by the Centres of Excellence; and
- Emulating such digital health initiatives, such as COMSATS Telehealth in their member countries and institutions.

The Council appreciated payment of the Annual Membership Contribution by China, Jamaica, Kazakhstan, Pakistan, Sri Lanka and Nigeria since the last Council meeting. Moreover, the Centres pledged to play due role in sensitizing their respective governments to the importance of making consistent financial contribution to COMSATS' programmes. It was decided that the next meeting of the Coordinating Council will be hosted by the International Centre for Chemical and Biological Sciences (ICCBS), Karachi, Pakistan, tentatively scheduled for March 2021.

Follow-up of the Decisions of the 23rd Coordinating Council Meeting of COMSATS

The decisions and recommendations of the meeting followed-up by COMSATS Secretariat pertained to following matters.

Capacity-building Events

The Council had advised COMSATS to continue capacity building activities in accordance with the needs and priorities of the Centres of Excellence and Member States. In this regard, COMSATS organized various capacity-building events during 2019-20, most of which were held virtually due to the COVID-19 related travel restrictions.



New Lecture Series Launched

COMSATS initiated an online lecture series on South – South and Triangular Cooperation for socio-economic development in the South, in which eminent experts from member countries and international partner organizations are sharing their insights on how to effectively address the socio-economic needs of the developing countries through South – South and Triangular cooperation in science and technology.

Visitors from Network Members

Following UTG-The Gambia's pledge of actively participating in COMSATS' activities, Prof. Dr. Faqir Muhammad Anjum Chaudhry, Vice Chancellor, UTG, visited COMSATS Secretariat on 31st December 2020 with a view to explore the possibilities of collaboration with other Centres of Excellence, including CUI-Pakistan and ICCBS-Pakistan.

Establishment of COMSATS Joint Centres (CCIR & CISARI - AIR)

Following its pledge to enhance collaboration with other Centres of Excellence, TIB-China has announced the establishment of 'COMSATS Joint Centre on Industrial Biotechnology (CCIB)', under the framework of the National Technology Innovation Center of Synthetic Biology (NIC-Synbio), at TIB with support of the Chinese Ministry of S&T and Tianjin local government.

ITS-Indonesia announced establishment of COMSATS-ITS Center of Advance Research and Innovation on Artificial Intelligence, IoT and Robotics (CISARI - AIR) at vicinity of ITS. The Centre would aim to initiate joint research and development cooperation among COMSATS member countries in emerging technologies such as big data analytics, internet of things (IoT), artificial intelligence, robotics,

cloud computing, 3D printing, etc.

Scholarships

Following the pledge made by Centres of Excellence to avail the postgraduate scholarships available at CUI-Pakistan, 28 applications were received during the reporting period, all of which have been accepted by CUI and offered admissions. Moreover, Alliance of International Science Organizations (ANSO) invited COMSATS, an ANSO Member, to recommend four students belonging to its Member States for availing scholarships for young students.

Offers and Exchanges of Expertise

CIF-Colombia is designing a training course for the researchers belonging to other Member States/Centres of Excellence, which would be announced soon. During the Council meeting, TUBITAK-Turkey had offered to share its expertise with regard to combating COVID-19 with other members of the Network, which was done during online sessions held on 27th October 2020 and 5th December 2020. Moreover, in order to facilitate collaboration on this subject, COMSATS organized a webinar on 'digital health in COVID-19: sharing experiences of COMSATS' South Asian member states' on 7th September 2020.

Activities of COMSATS Centre for Climate and Sustainability (CCCS)

During the reporting period, CCCS organized nine (09) webinars in collaboration with various Centres of Excellence, focusing on 7 Sustainable Development Goals (SDGs): SDG-2 Zero Hunger, SDG-3 Human Health and Well-being, SDG6 Clean water and Sanitation, SDG-7 Affordable and Clean Energy, SDG-11 Sustainable Cities and Communities, SDG-13 Climate Action and SDG-15 Life on Land.





Activities of COMSATS Telehealth

During the aforementioned meeting, the Centres of Excellence were urged to replicate COMSATS Telehealth in their countries. In this connection, opportunities of collaboration with RSS-Jordan were explored through several virtual meetings held between Pr. Medical Officer and Telehealth Coordinator at COMSATS Secretariat, Dr. Azeema Fareed, and officials of RSS.

Proposals Submitted and Funding Won

During the 23rd Council meeting, it was agreed that COMSATS Secretariat will facilitate the submission of the joint project proposals, having relevance to the Sustainable Development Goals, prepared by the Centres of Excellence to the donor agencies and international partner organizations for potential funding. In this regard, COMSATS had submitted some proposals to ANSO for joint research projects with the participation of several Centres of Excellence. Out of these proposals, two led by CUI-Pakistan and TUBITAK-Turkey have been approved by ANSO.

Virtual Arrangement of 4th Consultative Committee Meeting

The Council deemed it important to continue

the process of holding statutory body meetings as far and frequently as possible. As per the Council's suggestion, it was to hold the COMSATS Consultative Committee meeting virtually keeping in view the present COVID-19 related travel restrictions, the 4th meeting of COMSATS Consultative Committee was held virtually on 11th November 2020, under the chairmanship of H.E. Chaudhry Fawad Hussain, Federal Minister for Science and Technology, Government of Pakistan.

Reconstitution of the Technical Advisory Committee (TAC) and Strengthening the Network

In light of the decision made during Council meeting, efforts are underway to re-constitute the COMSATS Technical Advisory Committee (TAC). Moreover, in light of the decision regarding the expansion of COMSATS' Network, COMSATS Secretariat is interacting with renowned research centres and universities in Spain, Yemen, and Zimbabwe for possible induction in the Network.

Annual Membership Contribution

During the 23rd Council meeting, the Council members pledged to play due role in sensitizing their respective governments to the importance of making due and sustained



annual membership contribution towards COMSATS. In this regard, during the reporting period, AMC was received from China (US\$ 45,035), Kazakhstan (US\$ 20,000), and Nigeria (US\$ 10,000).

Presentation Sessions by the Network Members

As a follow up of 23rd Coordinating Council Meeting, and in order to enhance interactions and collaborations among the Centres of Excellence for initiating joint programmes for the benefit of the Member Countries, COMSATS organized 13 online sessions during which the Centres of Excellence made presentations covering their ongoing activities and offers of collaboration with other Centres of Excellence in terms of joint research work/ training opportunities/ technology-transfer.

Enhancement of Membership

Commission

During 2020, owing to the challenges posed by the pandemic, campaigning for enhancing COMSATS' Commission was mostly carried

out online and local interactions. In this regard, ambassadors and dignitaries in Pakistan and abroad were approached and sensitized. The countries approached were: Afghanistan; Bosnia and Herzegovina; Bulgaria; Germany; Ukraine.

As part of membership campaign, COMSATS Secretariat also plans to reach out to the Central Asian states, such as Azerbaijan, Uzbekistan and Turkmenistan.

Network of International S&T Centres of Excellence

Following the approval of Chairperson Coordinating Council, Prof. Dr. Ashraf Shaalan, and endorsement by the members of COMSATS Coordinating Council, on 28th June 2020, two Centres from The Gambia and Indonesia, respectively, have been inducted to COMSATS' Network of International S&T Centres of Excellence. Inclusion of these two Centres, i.e., University of The Gambia (UTG) – Gambia, and Sepuluh Nopember Institute of Technology (ITS) – Indonesia has increased the number of COMSATS Network members to reach twenty-four (24).

STRENGTHENING SOUTH-SOUTH AND TRIANGULAR COOPERATION

One of the functions of COMSATS is to support major initiatives designed to promote indigenous S&T capacity through synergies among relevant Governments in the North and the South. Dignitaries, officials and delegations from a number of countries are engaged on regular basis to establish and promote linkages to help strengthen triangular cooperation in a number of fields, including education, training and research, climate change, SDGs and more.



Meetings with Diplomats and Officials from COMSATS' Member States

During 2020, meetings were held with the foreign missions of COMSATS' Member States based in Islamabad with a view to sensitize them on COMSATS' international programmes, future aspirations as well as to seek the possibilities of initiating new R&D projects in their countries. These meetings also aimed at seeking the support of their offices for furthering cooperation between COMSATS and their countries. During the reporting period, meetings were held with the following officials and diplomats:

- H.E. Khadija Mohamed Almakhoumi, Ambassador of Somalia to Pakistan (January 13, 2020);
- H.E. Dr. Tarek Dahroug, Ambassador of Egypt to Pakistan (July 21, 2020);
- H.E. Mr. Borhene El Kamel, Ambassador

of Tunisia to Pakistan (January 21, 2020);

- H.E. U. L. Niyas, Acting High Commissioner of Sri Lanka to Pakistan (March 11, 2020).

Meetings with Diplomats of Potential Member States

During the reporting period, meetings were also held with the representatives of foreign missions of non-member states with a purpose to enhance COMSATS' membership and explore other avenues of cooperation. The officials were briefed about the scope, mandate and mission of COMSATS, its international programmes along with benefits and obligations of joining COMSATS as a Member State. Financial aspects like Annual Membership Contribution (AMC) made by Member States were also highlighted during these meetings. These meetings were held with the following officials:



- H.E. Mr. Volodymyr Lakomov, Ambassador of Ukraine to Pakistan (January 21, 2020);
- H.E. Mr. Bernhard Schlagheck, Ambassador of Germany to Pakistan (January 23, 2020);
- H.E. Dr. Aleksandar Borisov Parashkevov, Ambassador Extraordinary and Plenipotentiary of Bulgaria to Pakistan (March 13, 2020);
- H.E. Mr. Ahmad Shakir Qarar, DHM, Embassy of Afghanistan in Islamabad (October 08, 2020);
- H.E. Mr. Sefik Dzaferovic, Chairman of the Presidency of Bosnia and Herzegovina (November 04, 2020).



COLLABORATIONS WITH NATIONAL AND INTERNATIONAL ORGANIZATIONS

Over the years, COMSATS has expanded its cohort of national and international partners to foster broader and more effective collaborations in Science and Technology and launch new programmes and activities with its Centres of Excellence for sustainable socio-economic development of the Member States. Still growing, these partnerships aim to complement the programmes of COMSATS focusing on capacity-building of S&T community in developing countries.



Centre for Environmental Economics (CEE), University of Chinese Academy of Sciences (UCAS)

During July 2020, COMSATS established cooperative ties with the University of Chinese Academy of Sciences (UCAS) through signing an Agreement with its umbrella institute, the Centre for Environmental Economics (CEE).

According to the Agreement, the two sides shall undertake joint research activities, exchange publications and information material through mutually agreed channels, conduct capacity-building activities, as well as secure funding from potential international donor agencies for the collaborative projects.

Subsequent to the signing of the Agreement, a virtual meeting was held on 27th July 2020, to chalk out modalities of the partnership. Furthering the cooperation, COMSATS joined hands with UCAS and ANSO for a three-

month long online ‘Training on Sustainable Development and Leadership Enhancement’ starting from 28th October 2020.

European Union Pakistan

With a view to advancing the cooperation with European Union Pakistan, H.E. Ms. Androulla Kaminara, the new Ambassador of the European Union to Pakistan, was invited for a meeting at COMSATS Secretariat. Her Excellency was accompanied by Ms. Anne Marchal, Deputy Head of Mission at the European Union Delegation to Pakistan, for the meeting that was held on 20th February 2020.

It was informed during the meeting that with the aim to promote research and innovation-led economic growth in its Member States, COMSATS aspires for setting-up regional hubs in cutting-edge areas of science and technology. Taking note of this, Ms. Kaminara stated that strong academic linkages are at the core of such



initiatives which also need a prominent place in a country's policies. Ambassador Kaminara considered capacity-building of the scientists and technicians a key factor in this connection.

International Centre for Training and Development (ICTD)

Since its inauguration in 2019 under an MoU between COMSATS and the American Institute of Pakistan Studies (AIPS), ICTD is building capacities in areas of climate change, intellectual property rights, higher education and leadership, and energy policy. During the reporting period, ICTD held following trainings relating to ranking and quality assurance of universities.

- Lecture on ranking and universities – importance and challenges, January 03, 2020;
- Interactive session on the ranking and quality assurance of universities, February 18, 2020.

Chinese Ministry of Science and Technology (MoST)

During 2020, COMSATS further strengthened its partnership with the Chinese Ministry of Science and Technology (MoST), COMSATS Focal Point in China, through signing of a

Memorandum of Understanding.

Various means of cooperation agreed in the MoU include strengthening STI collaboration and exchanges; boosting STI people-to-people exchange; establishing joint laboratories for high-level scientific study and collaborative research and development; and engaging in science park cooperation and facilitating technology transfer, among others.

As a result of this partnership, MoST is providing patronage to the Tianjin Institute of Industrial Biotechnology (TIB) – one of the twenty-four COMSATS Centres of Excellence – in establishing the COMSATS Joint Centre for Industrial Biotechnology. Furthermore, Torch Hi-tech Industry Development Centre of MoST is facilitating the establishment of S&T Park on Biotechnology in Jhelum District of Pakistan. To discuss the modalities, a virtual meeting was also held between COMSATS and the senior officials of the Torch Hi-tech Industry Development Centre on 3rd June 2020.

National Centre for Physics

Under an Agreement with the NCP signed in 2016, COMSATS has been providing joint fellowships to young scientists from COMSATS' member states apart from supporting joint research projects between



NCP and scientific institutions in COMSATS' member states; and facilitating information sharing, scientific exchanges and technology transfer.

During the reporting period, Dr. Raphael Mmaduka Obodo, a PhD scholar from the University of Nigeria, completed a part of his research work at the National Centre for Physics (NCP), Pakistan, under COMSATS-NCP joint fellowship scheme.

Dr. Obodo's research published in reputable international journal Science Direct, can be accessed here: <https://doi.org/10.1016/j.mset.2019.10.006>

National Disaster Management Authority (NDMA)

On 16th October 2020, a Memorandum of Understanding was signed between COMSATS' flagship project, COMSATS Internet Services (CIS), and the National Disaster Management Authority (NDMA) of Government of Pakistan, with an aim to support tele-health services and trainings in natural and human-induced disasters. Dr. S.M. Junaid Zaidi, Executive Director COMSATS, and Mr. Muhammad Idrees Mehsud, Member DRR, NDMA, signed the agreement in a ceremony held at NDMA, Prime Minister's Office, Government of Pakistan.

The guiding principle of the MoU is to facilitate the provision of tele-health services through the Resource Center at Isolation Hospital and Infectious Diseases Treatment Centre (IHITC) Islamabad. Towards this end, CIS will help mobilize resources and build the technical capacity of IHITC.

South Centre

COMSATS – South Centre MoU was on 3rd September 2018 entailing cooperation in

various regional and cross-regional initiatives as well as exchange of information and technical resources among common member states.

During 2020, intellectual input in the form of an article was featured in SouthViews of The South Centre. The article on “COVID-19 Crisis and Developing Countries: Digital Health Perspective” authored by Ambassador Fauzia Nasreen, Advisor (SDGs); Dr. Azeema Fareed, Principal Medical Officer; and Ms. Huma Balouch, Sr. Assistant Director (Programmes), COMSATS Secretariat. It can be accessed here: <https://www.southcentre.int/southviews-no-198-8-june-2020/>.

United Nations Development Programme (UNDP)

On 8th January 2020, a virtual meeting was held between COMSATS and United Nations Development Programme (UNDP) officials materialized as a result of Agency's deep interest in COMSATS' forthcoming General Meeting and Accra Forum on S&T for Sustainable Development to be held under the patronage of Hon. Nana Akufo-Addo, President of Ghana and Chairperson of COMSATS. However, the two high-level events were later postponed due to unavoidable circumstances related to COVID-19 Pandemic.

Familiarizing the UNDP officials with the organization and its statutory activities, Dr. Zaidi and Ambassador Kamal shed light on the objectives, expected level of participation, and anticipated outcomes of the Accra Forum. They considered the participation and support of the relevant agencies of United Nations crucial for realizing the objectives of the event. The UNDP officials took keen interest in the event, and expressed willingness to cooperate with COMSATS and the Government of Ghana in this regard.



United Nations Office for South-South Cooperation (UNOSSC)

COMSATS' agreement with UNOSSC signed in November 2018 provided an impetus to South-South cooperative activities of COMSATS. During July-August 2020, COMSATS was featured as the 'Partner of the Month' by South-South Galaxy Platform of the United Nations Office for South-South Cooperation (UNOSSC) as part of its initiative to promote organizations on their exceptional South-South and triangular cooperation efforts.

Based on mutual agreement, COMSATS was promoted on the social media channels of South-South Galaxy and UNOSSC. Besides, COMSATS' profile and initiatives were also projected in South-South Galaxy's bi-monthly newsletter (<https://www.southsouth-galaxy.org/comsats-south-south-cooperation-partner-of-the-month/>). South-South Galaxy platform of UNOSSC also regularly shared information material on COMSATS Centre for Climate and Sustainability (CCCS) and its events on Galaxy portal as well as its social media network.

During the reporting period, COMSATS also participated in three events organized by UNOSSC in partnership with other international organizations (Chapter 5).

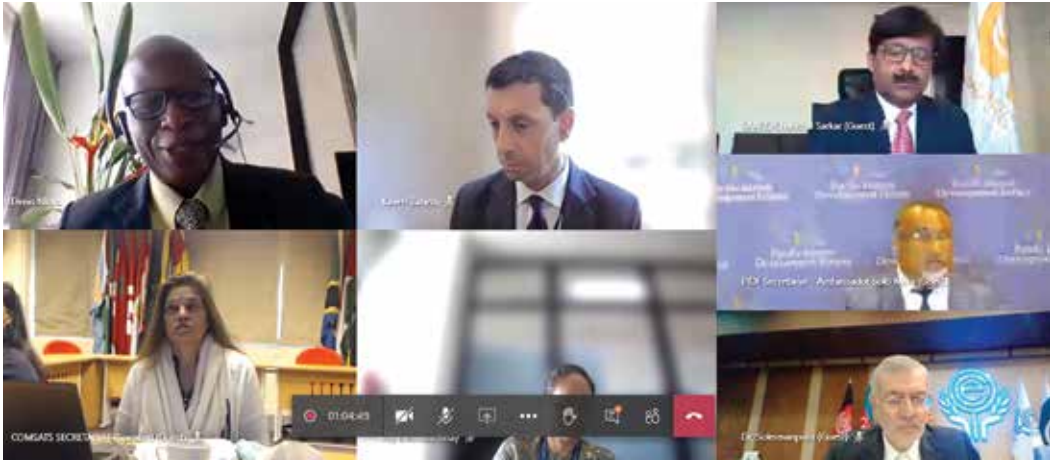
University for Sustainability

Based on similar mandates, COMSATS and the University for Sustainability announced partnership to collaboratively advance science, technology and innovation for sustainable development and the promotion of peaceful coexistence necessary to accelerate a just and humanitarian transformation to sustainable development.

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)

COMSATS established strong working relations with UNESCAP through signing an MoU on 20th December 2017. During the reporting period, COMSATS participated in the 3rd Asia-Pacific Forum on South-South and Triangular Cooperation held under the theme "The Role of South-South Cooperation





in Building Back Better from COVID-19 Pandemic in the Asia and the Pacific”, on 25th November 2020.

Furthermore, Mr. Tengfei WANG, Economic Affairs Officer, Trade, Investment and Innovation Division, UNESCAP, also participated in the fourth Consultative Committee Meeting of COMSATS as an observer (Chapter 1).

United Nations Educational, Scientific and Cultural Organization (UNESCO) Pakistan

During 2020, COMSATS cooperation with UNESCO Pakistan resulted in an event held to commemorate World Science Day for Peace and Development (Chapter 7).

Mr. Raza Shah, National Professional Officer (Natural Sciences), UNESCO Pakistan, also participated in the fourth Consultative Committee Meeting of COMSATS as an observer (Chapter 1).

The World Academy of Sciences (TWAS)

COMSATS partnered with TWAS Young Affiliates Network (TYAN), TWAS Sub-Saharan Africa Regional Partner (TWAS SAREP), TWAS Latin America and the Caribbean Regional Partner (TWAS LACREP), TWAS Arab Regional Partner (TWAS-AREP), and Association for Computing Machinery – Women Europe (ACM-W) for holding 2nd African Symposium on Big Data, Analytics and Machine Intelligence and the 6th TYAN International Thematic Workshop “Data Science for Solution driven and Sustainable Response to current developing world challenges”, in December 2020 (Chapter 4).

International Centre for Genetic Engineering and Biotechnology (ICGEB)

During 2020, COMSATS’ interaction with ICGEB was limited to participation of the organization’s representative as an observer in the fourth Consultative Committee Meeting of COMSATS held in November 2020 (Chapter 1).



S&T AND SDGs RELATED EVENTS

Capacity-building activities are an important feature of COMSATS' programmes aimed at strengthening South-South Cooperation. Events in important scientific areas and those related to SDGs are regularly held to strengthen scientific linkages; build indigenous capacities; and promote S&T as a tool for development. These events provide a useful platform to the members of the scientific community, development experts, donor/development agencies, and the decision-makers in particular from Member States, to share their views and experiences on contemporary issues of importance for S&T-led socio-economic development as well as accomplishment of SDGs and their various targets. A new component this year has inevitably been COVID-19, also reflected in this Chapter.



Lecture on Ranking and Universities – Importance and Challenges (January 03, 2020)

COMSATS in collaboration with the Inter University Consortium for the Promotion of Social Sciences Arts and Humanities (IUCPSS) and the International Center for Training and Development (ICTD) organized a lecture on “Ranking and Universities – Importance and Challenges” at COMSATS Secretariat, Islamabad, on 3rd January 2020.

Delivered by Prof. Syed Sohail Hussain Naqvi (Rector of University of Central Asia – Kyrgyzstan and former Executive Director of the Higher Education Commission of Pakistan), the lecture had the participation of Vice Chancellors from the public and private sector universities, senior academicians, and

several former employees of Higher Education Commission (HEC).

Lecture on Belt and Road Initiative and its Implications on Sustainable Development in Pakistan (January 15, 2020)

COMSATS and the Global Think Tank Network (GTTN) organized the first lecture under their joint Distinguished Guest Lecture Series on 15th January 2020. Senior Advisor at Flint Global and a former Europe Minister of Portugal, Mr. Bruno Macaes, delivered the lecture on “Belt and Road Initiative and its implications on sustainable development in Pakistan”. The lecture was attended by a number of officials from academia, COMSATS Secretariat and GTTN.



Roundtable Dialogue on Sino-Pak Agriculture Cooperation – Way Forward (January 20, 2020)

A roundtable dialogue on “Sino-Pak Agriculture Cooperation – Way Forward” was held at COMSATS Secretariat, on 20th January 2020. Jointly organized by COMSATS and the Institute of Peace and Diplomatic Studies (IPDS), the forum highlighted the ongoing Sino-Pak Agriculture Cooperation during the second phase of China Pakistan Economic Corridor (CPEC). The dialogue was attended by research scholars, various stakeholders from enterprises, academicians, diplomats, and members of the civil society.

Session on University Ranking & Quality Assurance (February 18, 2020)

An informational session on the ranking and quality assurance of universities was jointly organized by COMSATS’ International Centre for Training & Development (ICTD), the Inter University Consortium for the Promotion of Social Sciences Arts and Humanities (IUCPSS) and the Applied Higher Education Singapore, at COMSATS Secretariat, on 18th February 2020.

Over 30 participants from higher education institutions from different cities of Pakistan; Multan, Peshawar, Lahore, Rawalpindi, Islamabad, and Abbottabad attended the session.

Startup Founder Workshop on How to Build Successful Team and Businesses (March 03, 2020)

COMSATS, in collaboration with the American Institute of Pakistan Studies (AIPS) and the Inter University Consortium for the Promotion of Social Sciences Arts and Humanities



(IUCPSS), organized a Startup Workshop on “How to Build Successful Team and Businesses”, on 3rd March 2020.

The workshop was conducted by Ms. Cathy Simpson, and had the participation of over 50 female students and faculty members from different universities of Pakistan.

Awareness Talk on Coronavirus Preparedness in the Workplace (March 09, 2020)

An awareness talk on “Coronavirus preparedness in the workplace” was organized at COMSATS Secretariat for the employees, on 9th March 2020. The talk delivered by Dr. Zawar Ali, Vaccinologist and Travel Health Physician at Excel Labs, Pakistan, covered various aspects of the epidemic, including disease prevention and control.

Webinar on Role and Challenges of Youth in Global Crisis – COVID-19 (May 04, 2020)

An international webinar to commemorate National Youth Day of China was organized by COMSATS on 4th May 2020. The webinar, titled “Role and Challenges of Youth in Global Crisis – COVID-19”, was aimed at realizing the





transformative role being played by youth in numerous settings and spheres for the effective translation of various targets of United Nations Sustainable Development Goals (SDGs); as well as suggesting ways to apply youth's potential to help deal not only with the current coronavirus pandemic but also with looming global threats and challenges to sustainable development, such as climate change.

Webinar on Climate Change Risks and Impacts on Vulnerable Communities Post COVID-19 (July 08, 2020)

COMSATS Centre for Climate & Sustainability (CCCS) and Centre of Excellence for Research & Applied Sciences on Climate Change & Sustainable Development of National Research Centre (C3SD – NRC), Egypt, jointly organized a webinar on Climate Change Risks and Impacts on Vulnerable Communities Post COVID-19, on 8th July 2020. The webinar was aimed at bringing stakeholders from Global South to share information, experience and knowledge on addressing challenges of COVID-19, environmental sustainability and food security.

Speakers from six scientific and research institutions, including four CCCS Network

members in Jamaica, Palestine, Pakistan and Sri Lanka, respectively, participated in the webinar.

Webinar on Impacts of Climate Change on South Asian Monsoon (July 28, 2020)

On 28th July 2020, COMSATS Centre for Climate and Sustainability (CCCS) organized a webinar on “Impacts of Climate Change on South Asian Monsoon”. Experts and scientists from Bangladesh, Nepal, Pakistan, and Sri Lanka joined in the webinar with their views on the variability of the monsoon and its relationship with the changing global climate system as well as the adverse impacts of climate-mediated changes on South Asian region at large.

International Webinar on Digital Health in COVID-19: Sharing Experiences of COMSATS’ South Asian Member States (September 07, 2020)

COMSATS, in collaboration with the Commonwealth Centre for Digital Health (CWCDH), organized an international webinar on ‘Digital Health in COVID-19: Sharing Experiences of COMSATS’ South Asian Member States’, on 7th September 2020. The main purpose of the event was to gather relevant stakeholders from COMSATS’ South Asian Member States for sharing experiences in response to the COVID-19 pandemic, in particular, COVID-19 related digital health solutions at governmental and institutional level. The webinar was virtually attended by a number of relevant individuals from Pakistan and abroad.

On the occasion, Dr. Sania Nishtar, SAPM on Poverty Alleviation and Social Protection and Federal Minister, Government of Pakistan, delivered the keynote address.



Dr. Vajira Dissanayake, Chairperson, Commonwealth Centre for Digital Health; Dr. Selim Reza, Deputy Secretary at the Ministry of Science and Technology, Bangladesh; Prof. Dr. Md. Aftab Ali Shaikh, Chairman of Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh; Dr. Anil Jasinghe, Secretary, Ministry of Environment and Former Director General, Health Services, Sri Lanka; and H.E. Vice Admiral (Rtd.) Mohan Wijewickrama, High Commissioner of Sri Lanka to Pakistan, also spoke on the occasion. Other technical inputs of the event came from Dr. Ghazna Khalid, Member of Prime Minister's Task Force on COVID-19, Government of Pakistan and experts from Bangladesh, Sri Lanka and Pakistan.

Webinar on Challenges to Agriculture and their Solutions in the Global South (September 09, 2020)

COMSATS Centre for Climate and Sustainability (CCCS) hosted a webinar on "Challenges to Agriculture and their Solutions in the Global South", on 9th September 2020. The event was aimed at discussing climate change triggered challenges to agriculture and food security in the developing world within the framework of Sustainable Development Goal 2 (SDG2). Speakers from the regions of Africa, Asia and Latin America participated in the webinar that established the importance of sharing knowledge, good practices and success stories among experts from the Global South to address challenges in achieving food security within the framework of South-South Cooperation.

Webinar on Sustainable Water Governance in the Global South under Changing Climate (October 08, 2020)

COMSATS Centre for Climate and

Sustainability (CCCS) in collaboration with COMSATS' Centre of Excellence in Jordan, the Royal Scientific Society (RSS), organized a webinar on "Sustainable Water Governance in the Global South under Changing Climate". Held on 8th October 2020, the webinar had the overarching theme of Sustainable Development Goal 6 (SDG6) – Clean Water and Sanitation.

Training Workshop on Becoming Internationally Recognized SIYB Trainer (October 26 - November 05, 2020)

COMSATS, in collaboration with Start and Improve Your Business (SIYB) of International Labour Organization (ILO) and IIU Business Incubation Center (IIU-BIC), Pakistan, organized an eleven-day long training workshop on "Becoming Internationally Recognized SIYB Trainer". SIYB is a management-training programme of ILO. Held from 26th October to 5th November 2020, this SIYB Training of Trainers (ToT) workshop trained 12 individuals belonging to various institutions and sectors. The training was conducted by Lead Master Trainers from Pakistan, Sri Lanka and Uganda, Engr. Muhammad Ahsen Mirza, Mr. Gemunu Wijesena, and Mr. David Katenderi.

Webinar on Challenges of Rapid Urbanization in the Global South (October 29, 2020)

To observe United Nations World Cities Day 2020, COMSATS Centre for Climate and Sustainability (CCCS) organized a webinar on "Challenges of Rapid Urbanization in the Global South", on 29th October 2020. The webinar was co-organized by COMSATS Centre for Climate & Sustainability (CCCS) and COMSATS' Centre of Excellence, Tanzania Industrial Research and Development Organization (TIRDO).



Webinar on “Breast Cancer Awareness: Give Hope, Save Lives” (October 29, 2020)

With October celebrated as the Breast Cancer Awareness Month worldwide to help generate necessary support and awareness about the disease, COMSATS Secretariat highlighted the impact of this issue of great concern to a big population of the world by holding a webinar entitled “Breast Cancer Awareness: Give Hope, Save Lives” on 29th October 2020.

Webinar on Energy Efficiency and Cleaner Production Practices in Industry (November 25, 2020)

COMSATS Centre for Climate and Sustainability (CCCS) in collaboration with the Environment and Cleaner Production Institute (ECPI) of the Scientific and Technological Research Council of Turkey (TUBITAK), Turkey, organized a webinar on Energy Efficiency and Cleaner Production Practices in Industry. Held on 25th November 2020, the webinar had the overarching theme of Sustainable Development Goal 7 (SDG7) – Affordable and Clean Energy.

2nd African Symposium on Big Data Analytics and Machine Intelligence & 6th TYAN International Thematic Workshop “Data Science for Solution driven and Sustainable Response to Current Developing World Challenges” (December 03 – 04, 2020)

COMSATS partnered with the World Academy of Sciences (TWAS) Young Affiliates Network (TYAN), TWAS Sub-Saharan Africa Regional Partner (TWAS SAREP), TWAS Latin America and the Caribbean Regional Partner (TWAS LACREP), TWAS Arab Regional Partner (TWAS-AREP), and Association for Computing Machinery – Women Europe (ACM-W) to organize the 2nd African Symposium on Big Data Analytics and Machine Intelligence and the 6th TYAN International Thematic Workshop “Data Science for Solution driven and Sustainable Response to current developing world challenges”. The two events were virtually held on 3rd and 4th December 2020, and had the participation, inter alia, of over 50 researchers, scientists, faculty members and data scientists.



PARTICIPATION IN IMPORTANT FORA AND MEETINGS

Events and organizational meetings of partner and potential partner organizations are utilized as means to aiding joint efforts for regional and international development. Based on commonalities of mandates, reciprocal representation in statutory meetings and capacity building events are encouraged as networking opportunities. These serve to garner mutual support, explore avenues of cooperation, and start and foster possibilities of joint initiatives.



Webinar on “Regional, Sub-regional and Interregional Organizations in the Global South as Actors in Responding to COVID-19” (15th July 2020)

Dr. Azeema Fareed, Principal Medical Officer at COMATS Secretariat, participated as a panelist in the United Nations Office for South-South Cooperation (UNOSSC) and UNDP Seoul Policy Centre (USPC) joint webinar. The webinar, titled “Regional, Sub-regional and Interregional Organizations in the Global South as Actors in Responding to COVID-19”, was held on 15th July 2020.

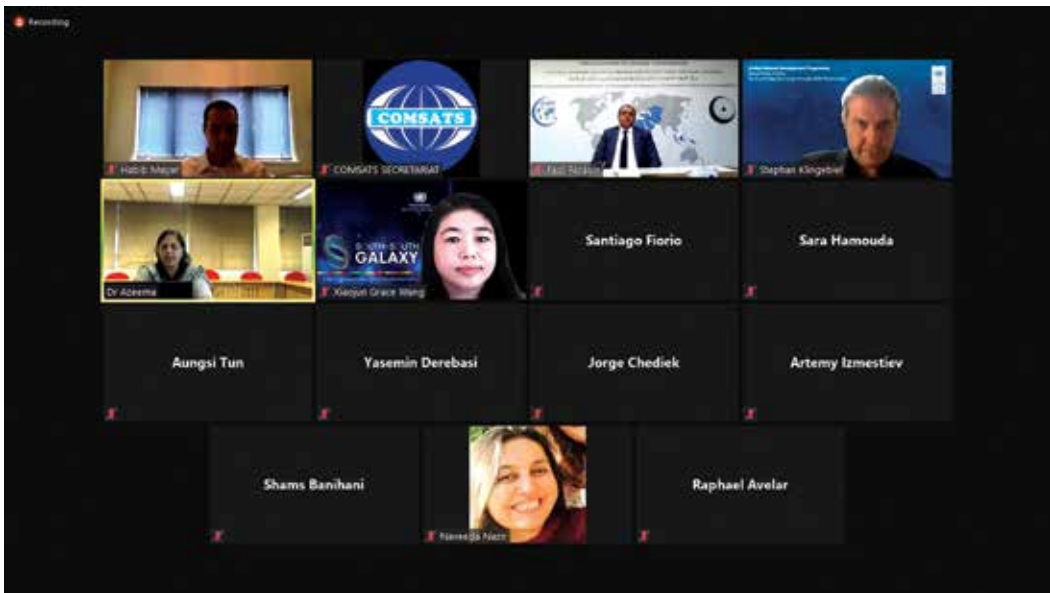
In her talk, Dr. Fareed gave an overview of COMATS’ international programmes, and activities in the Southern region while also highlighting major breakthroughs in R&D made by COMATS’ Network during the past few months in its fight against the corona pandemic.

3rd Asia-Pacific Forum on South-South and Triangular Cooperation (25th November 2020)

A key player in South-South and Triangular Cooperation in the region, COMATS participated in the 3rd Asia-Pacific Forum on South-South and Triangular Cooperation held under the theme “The Role of South-South Cooperation in Building Back Better from COVID-19 Pandemic in the Asia and the Pacific”, on 25th November 2020. The forum was jointly organized by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP); the United Nations Office for South-South Cooperation (UNOSSC); the Government of Indonesia; and the Thailand International Cooperation Agency (TICA) of Ministry of Foreign Affairs of Thailand.

Ambassador (R) Fauzia Nasreen, Advisor (SDGs) at COMATS Secretariat, gave a talk during the session on “Regional and sub-regional responses promoting South-South





cooperation in addressing COVID-19 in Asia-Pacific” and shared COMSATS’ key activities that helped share information, knowledge and experience as well as built relevant synergies among COMSATS’ Member States to aid individual countries’ responses to COVID-19.

2020 UN Regional SSC and TrC Focal Points Network Retreat (15th December 2020)

As a regional player advocating South-South

and Triangular Cooperation, COMSATS was invited to participate in United Nations Office for South-South Cooperation (UNOSSC)’s event on 2020 UN Regional South-South and Triangular Cooperation Focal Points Network Retreat, held on 15th December 2020.

Amb. (R) Fauzia Nasreen, Advisor (SDGs) at COMSATS Secretariat, shared COMSATS’ stance during the session on “Digitalization as a cross-cutting issue in United Nations programmes and the role for South-South and Triangular Cooperation” of the event.

ACTIVITIES OF COMSATS CENTRES OF EXCELLENCE

A group of twenty-four S&T/R&D and higher education institutions from different developing countries, predominantly COMSATS' Member States, is affiliated with COMSATS constituting its Network of International S&T Centres of Excellence. The Network serves as COMSATS' technical resource for South-South cooperation, in line with these institutions' mandates of having programmes of scientific research and development. This section covers reports received from COMSATS' Centres of Excellence, as well as news of some Centres covered in COMSATS Newsletter over the year.



Al-Farabi Kazakh National University (KazNU), Kazakhstan

During 2020, R&D activities of Al-Farabi Kazakh National University (KazNU), Kazakhstan, included:

- A project of KazNU won "Stop Coronavirus" Contest held by Science Fund JSC, Kazakhstan, to find effective solutions for addressing COVID-19 pandemic. The project aims to develop a technology from *Spirulina platensis* cyanobacteria biomass and its different combinations with useful plants for synthesizing new immunostimulators.
- KazNU won a grant from the Islamic World Educational, Scientific and Cultural Organization (ICESCO), Morocco, for implementing a project to combat coronavirus. The project is aimed at production of universal new generation antiseptics and disinfectants.
- KazNU opened a biomedicine research center with a view to conduct research on infectious diseases and cancer; natural drugs and biologically active substances against diseases; and comprehensive study of the human immune system.

Honors, Awards & Achievements

- KazNU is being recognized as the Leader in the Web of Science Core Collection in the "Physics" subject field over the last three years at "Science Leader - Web of Science Awards 2020".
- KazNU secured 165th place in QS World University Rankings by moving up 42 positions from the last year.
- Academic Ranking of World Universities-European Standard (ARES) commended





KazNU with an AA+ level, joining the ranks of leading European universities.

Al-Quds University (AQU), Palestine

Al-Quds University (AQU), Palestine, developed a fully computerized ventilator from locally available materials amid shortage of standard commercial ventilators and other respiratory support machines and their building blocks in Palestine. The prototype was designed by a team of senior professors from medicine and engineering faculties of AQU and successfully passed a series of rigorous preliminary medical, safety, and technical tests.

Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh

Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh, became one of the Bangladeshi research institutions to completely sequence the genome of SARS-CoV-2. This research development was aimed at facilitating global efforts to develop a vaccine against the virus.

COMSATS University Islamabad (CUI), Pakistan

R&D activities of COMSATS University Islamabad (CUI), Pakistan, included the

following:

- Dr. Azeem Mehmood Butt from the Department of Biosciences of CUI developed a unique dualgene LAMP test for the detection of COVID-19 infection that can yield results in 30 minutes.
- A team from Medical Imaging and Diagnostics (MID) laboratory of CUI participated in the prestigious MICCAI BraTS challenge 2020 hosted by the Perelman School of Medicine at University of Pennsylvania, USA.

Research Output

In year 2020, three hundred (300) research projects, two fifty-six (256) travel grant applications and seventeen (17) seminar/workshop applications were submitted to different funding agencies out of which one hundred and twenty-four (124) research projects, one hundred and thirty-one (131) travel grants and seven (7) seminars/workshops have been funded by different funding agencies.

Capacity-building Activities

Patents	US	PK	Grand Total
Filed	5	1	6
Granted	6	2	8

- In year 2020, CUI-ORIC's planning divisions conducted 06 trainings on various topics for over 118 professionals from a number of organizations, industries and universities.
- During 2020, one hundred and sixty (160) renowned researchers, diplomats, delegations, students and faculty members visited CUI.

Academic Exchanges

- During 2020, a total of 17 international



students joined CUI in undergraduate and postgraduate programs from 10 different countries mainly from Afghanistan, Benin, China, Iraq, Japan, Sri Lanka, Kenya, Sierra Leone, and USA.

- Under the Pak-Sri Lanka Higher Education Cooperation Programme of Higher Education Commission (HEC) of Pakistan, several Sri Lankan students will be offered scholarships for pursuing their undergraduate, postgraduate, and doctoral degree studies in various disciplines at CUI.

Awards and Honors

CUI improved its position and was ranked 2nd in Pakistan and at 221 in world in THE University Impact Rankings 2020.

Council for Scientific and Industrial Research (CSIR), Ghana

During 2020, R&D activities of Council for Scientific and Industrial Research (CSIR), Ghana, included:

- The Food Research Institute of CSIR launched a “Safefish” project with the funding from the African Union and the European Commission, the Food Research

Institute of CSIR launched a “Safefish” project with the funding from the African Union and the European Commission.

- As part of the Modernizing Agriculture in Ghana (MAG) programme, the Institute for Scientific and Technological Information of CSIR (CSIR-INSTI) designed four digital applications to promote demand-driven research and support alternative methods of extension delivery.
- CSIR, Ghana, is executing a four-year partnership project Titled “Achieving Wider Uptake of Water-Smart Solutions” to apply water smart solutions, such as recycling to recover resources from waste water for reuse.

International Collaborations

- During 2020, CSIR-Ghana, signed a five-year agreement with Lakehead University, Canada, to reinforce research and cooperation in sustainable forest management in Accra, Ghana.
- The Forestry Research Institute of Ghana (FORIG) of CSIR signed a Memorandum of Understanding (MoU) with thirteen bee-farming cooperatives in the Ashanti Region to train its members in bee farming business to help improve their economic





welfare and livelihoods.

- Institute of Industrial Research of CSIR (CSIR-IRR), Ghana, entered into a partnership with HATOF Foundation for an 18-month long project for effective waste management.

Higher Institute for Applied Science and Technology (HIAS), Syria

Higher Institute for Applied Science and Technology (HIAS), in collaboration with the Arab School for Science and Technology (ASST), the Higher Commission for Scientific Research in Syria (HCSR), the Atomic Energy Commission of Syria (AECS) and COMSATS, organized a workshop on “Challenges and Innovations in Nanotechnology” from 18th – 19th December 2019, in Damascus, Syria. The Workshop was aimed at providing effective platform for networking among Syrian and international researchers to help create a roadmap for nanotechnology advancement in Syria.

Industrial Technology Institute (ITI), Sri Lanka

To support the government and private sector in their fight against the corona virus,

Industrial Technology Institute (ITI), Sri Lanka, initiated some new projects. Below are some of the R&D projects in pipeline at the Institute:

- ITI – SLINTEC – USJP joint project on the development of nano-herbal antiviral mask;
- ITI – SLINTEC joint project on nano formulated alcohol-based surface sterilization formulation;
- ITI herbal-based anti-viral surface sterilizer/protective-mask/gears sterilizer;
- Development of in-house anti-viral protective mask testing procedure.

International Center for Chemical and Biological Sciences (ICCBS), Pakistan

COVID-19 related research and development activities at International Center for Chemical and Biological Sciences (ICCBS) included:

- Research teams working at ICCBS are employing modern tools, methods and techniques for the genomic analysis of COVID-19 from Pakistan; establishment and optimization of diagnostic kit for COVID-19; study of virus-human cell interactions; and finding possible treatment of COVID-19.
- A team of young scientists at the Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD) of the International Center for Chemical and Biological Sciences (ICCBS), Pakistan, identified potential therapeutic compounds, namely Remdesivir, Saquinavir, and Darunavir, as well as two natural compounds as potential drug candidates against COVID-19.
- The Center for Bioequivalence Studies and Clinical Research (CBSCR) of Dr. Panjwani Center for Molecular Medicine and Drug Research, ICCBS, in



collaboration with the Indus Hospital, Karachi, initiated the clinical trials of the Traditional Chinese Medicine (TCM) “Jinhua Qinggan Granules” in Pakistan as a treatment for COVID-19 mild patients.

International Collaborations

ICCBS and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) entered into an Agreement to mutually establish a UNESCO Chair on ‘Medicinal and Bioorganic Natural Product Chemistry’ at ICCBS. The UNESCO Chair was approved in UNESCO General Assembly held in September in 2020.

International Centre for Climate and Environment Sciences (ICCES), China

Scientific activities of International Centre for Climate and Environment Sciences (ICCES), China, during 2020 included:

- In 2020, Associate Professor Lijing Cheng from ICCES established an oceanic multivariate (temperature, salinity, stratification, etc.) grid observation data set, serving 90 countries, including multiple Belt and Road countries.
- In November 2020, ICCES signed an MoU with the Islamia University of Bahawalpur, under which both parties agreed to cooperate on international exchange programmes.
- In December 2020, Director ICCES, Prof. Zhaohui LIN, signed a tripartite collaborative agreement for Doctoral Training with the National University of Kazakhstan for joint supervision of two doctoral students for their theses on ‘Characteristics of atmospheric droughts and their future projections in Northern Kazakhstan’ and ‘Dangerous weather phenomena in western Kazakhstan in the



context of climate change’.

Iranian Research Organization for Science & Technology (IROST), Iran

On 17th February 2020, Iranian Research Organization for Science & Technology (IROST), Iran, held the 33rd Al-Khwarizmi International Award ceremony. The Award is conferred annually to researchers, inventors and innovators from all over the world for outstanding scientific achievements.

Ten laureates from Iran and five from Australia, China, South Korea, and the United States were conferred Khwarizmi International Award (KIA) by the President of Iran, H.E. Mr. Hassan Rouhani.

The selected projects related to development of thermal solar energy technology, synthesis of peptide radioactive raw materials, research and development of pharmaceuticals from marine species, research, design and implementation of renewable technologies in micro-networks, and Bitban malware analysis platform.

Over the years, COMSATS has been sponsoring the cash prize and certificates of the first and second prize winners of the Award since 2000.





National Research Centre (NRC), Egypt

To help support national efforts against COVID-19, National Research Centre (NRC), Egypt, developed and conducted clinical trials of four vaccines against the novel coronavirus (COVID-19). The four vaccines include an inhibitor vaccine consisting of the H1N1 influenza virus and induced pieces of the emerging coronavirus.

The second vaccine has been grown on tissue culture. The third vaccine contains DNA loaded with parts from the DNA of coronavirus representing surface proteins from the virus. The fourth vaccine contains surface proteins from the virus which stimulate an immune system response to produce antibodies in four forms.

Royal Scientific Society (RSS), Jordan

Some national and institutional contributions of Royal Scientific Society (RSS), Jordan, to COVID-19 included:

- RSS' start-up incubator (iPARK) is supporting Khaleek bil bait – 'Stay at Home' – a mindset incubation and acceleration platform that launched an innovation hackathon on 2nd April 2020.
- Biosafety and Biosecurity Centre of RSS

has been engaged in testing coronaviruses in bats as part of a Global Research Project. To facilitate the local health authorities, it is also conducting test for COVID-19.

- The WANA Institute – the think tank arm of the RSS – published a report entitled 'Chronicling the Coronavirus: A Perspective from Jordan' highlighting Jordan's response to the crisis in its initial weeks.
- RSS submitted a project on "COVID-19 in Wastewater Cycle: Survival, Risks and Surveillance" to UN-Habitat that was accepted in December 2020. The project will start in early 2021.

Major research activities of RSS during 2020 included:

- Testing of SARS-CoV-2 in wastewater and sludge in selected wastewater treatment plants in Jordan;
- "BIM for Energy Efficiency in the Public sector (BEEP)" project under the Framework of EU Funded Programme "ENI CBC Mediterranean Sea Basin Programme", in collaboration with Consiglio Nazionale delle Ricerche (CNR), Italy;
- Guidance development and case study documentation of green chemistry and technologies;
- A first step valorization of waste

atmospheric carbon dioxide via its sustainable capture;

- Completion of the ‘Adapt ICT knowledge system’ under the programme of “Increasing the Resilience of Poor and Vulnerable Communities to Climate Change Impacts in Jordan through Implementing Innovative Projects in Water and Agriculture in Support of Adaptation to Climate Change” supported by the UNFCCC-Adaptation Fund.

During the reporting period, RSS established UK-Jordan El Hassan bin Talal Research Chair for Sustainability, Advanced Research Centre and a Pharmaceutical Innovation Division at its Biosafety and Biosecurity Centre.

HRH Princess Sumaya bint El Hassan, President of RSS, Jordan, issued the following statements:

- Opinion Editorial on “Steering a Course to Sanity for International Institute for Applied Systems Analysis (IIASA)”;
- Statement on “A Call for Unified National and Global Science and Technology Responses to the COVID-19 Pandemic”;
- Arab Women in Science (Editorial in Science magazine).

In addition, RSS issued several publications in reputed journals during the reporting period that related to renewable energy, waste management, biotechnology, biodegradable materials, nanotechnology, biochemistry, and microbiology, among others.

Some Agreements Reached by RSS, Jordan, in 2020	
Partnering Body	Modalities of Cooperation
Higher Council for Science and Technology (HCST), Jordan (4th February 2020)	‘Leaders in Innovations Fellowship (2020), Royal Academy of Engineering UK’
British Academy (7th February 2020)	Establishment of Jordan – United Kingdom El Hassan bin Talal Research Chair in Sustainability
CARBON LIMITS (10th February 2020)	Development of Article 6 strategy for supporting Jordan to participate in market mechanisms under the Paris agreement
IK Healthcare, Geneva (22nd June 2020)	Establishment of the Pharmaceutical Innovation Division at RSS Biosafety and Biosecurity Centre
United Nations Development Programme (UNDP) (21st October 2020)	Joint program for investing in SDG Acceleration in Jordan
Universiti Putra Malaysia (30th June 2020)	Joint research and development work in materials design and discovery

International Collaborations

RSS became a member of the International Institute for Applied Systems Analysis (IIASA) in July 2020; elected member of the Alliance of International Science Organizations in November 2020; and elected member of the Compact Muon Solenoid Program at the European Organization for Nuclear Research (CERN), Switzerland, in August 2020.

Awards and Honors

The National Energy Research Centre at RSS won the Energy Globe Award - world's most prestigious award for sustainability – for its work on “Solar Water Pumping Project in Jordan Valley and the Highlands”.

The Scientific and Technological Research Council of Turkey (TUBITAK), Turkey

Some major R&D activities of The Scientific and Technological Research Council of Turkey



(TUBITAK), Turkey, during 2020 included:

- TÜBİTAK MAM, in collaboration with the National Boron Research Institute (BOREN), Turkey, developed a new domestic car that is powered by an electric motor and hydrogen fuel;
- By using electrospun nanofiber technology, the Materials Institute of TÜBİTAK Marmara Research Center (MAM), Turkey, has produced “Nanofiber Filters” of high protection N95-N99/FFP2-FFP3 masks;
- As part of the project titled “Synthesis of Hydroxychloroquine Sulphate and Production in Tablet Dosage Form with National Capabilities” conducted by the COVID-19 Platform of Turkey under the umbrella of TÜBİTAK, feasibility studies started for synthesis of an active ingredient, Hydroxychloroquine Sulphate, and its indigenous production at large scale.

Awards and Honors

Due to efficient waste management activities carried out under “Zero Waste” project, TÜBİTAK Marmara Research Centre (MAM), Turkey, has been awarded with a “Zero

Waste Certificate” by the Turkish Ministry of Environment and Urban Planning.

Associate Professor Dr. Dilek Dünder Erbahar, Senior Research Specialist in CBRN Sensor Technologies Project Group at TÜBİTAK Marmara Research Center (MAM), Turkey, has been awarded L’Oréal-UNESCO “For Women in Science Prize”.

Tianjin Institute of Industrial Biotechnology (TIB), China

Scientists from the Tianjin Institute of Industrial Biotechnology (TIB), China, together with other Chinese R&D institutions, including Capital Medical University, Institute of Microbiology, and Beijing Institutes of Life Science isolated two neutralizing antibodies—B38 and H4—that bind to the glycoprotein spike of the SARS-CoV-2 virus and thereby prevent the virus from entering host cells.

Isolated from recovered COVID-19 patients, the two antibodies were found to neutralize the virus in cell culture and target a shared epitope. Experiments already carried out on mice confirmed that antibodies can reduce the virus load in the lungs and can be mixed to contain the infection.



SPECIAL ASSIGNMENTS

For the benefit of its Member States, COMSATS undertakes special assignments, such as conducting scientific studies, undertaking pilot projects, or implementing educational programmes. Other than CUI, two COMSATS' flagship projects, COMSATS Internet Services and COMSATS Telehealth continue their operations and are being overseen by COMSATS Secretariat. The administration related to graduate students from Member States studying at CUI is also a special assignment of the Secretariat. Activities of COMSATS Centre for Climate & Sustainability (CCCS) that have grown over the last year or so and COMSATS' Science Diplomacy have also been summed up in this Chapter.



COMSATS Telehealth Programme (CTH)

During 2020, COMSATS Telehealth (CTH) continued playing its role in provision of healthcare, capacity-building programs and awareness campaigns. The focus of most of these activities remained upon information dissemination related to pandemic, training of the Telehealth staff and patient care in COVID and non-COVID cases without much exposure to both patients and the doctors.

Access to Healthcare

As the COVID-19 pandemic gained momentum in Pakistan, policy-makers and health authorities started to realize the importance of Telehealth as a tool to provide healthcare to keep movement of patients to a minimum. As other digital health and Telemedicine initiatives mushroomed within Pakistan, COMSATS Telehealth endeavored

to expand its network of Telemedicine clinics through new collaborations with the Government of Balochistan through People's Primary Healthcare Initiative (PPHI), resulting in establishment of new Telehealth clinics at Mastung, Dukki, Cowki Jamali and Washuk. By the time the first wave subsided, a number of these centers had been established and the number of patients consulting these clinics spiked. After the initial months, the patients' number declined as the second wave hit the country. During the reporting period, the total number of patients presenting to Telemedicine clinics leveled around 4000. Majority of the patients benefitting from CTH were women seeking facilitation for maternal care and antenatal ultrasounds.

Capacity-Building

Following capacity-building and awareness raising events were organized under the auspices of CTH during the reporting period:





- An awareness talk on “Corona Virus preparedness in the workplace”, was held at COMSATS Secretariat for the employees on 9th March 2020. The talk delivered by Dr. Zawar Ali (Vaccinologist and Travel Health Physician at Excel Labs, Pakistan) covered various aspects of the epidemic, including disease prevention and control.
- COMSATS in collaboration with the World Health Organization (WHO) and the Ministry of National Health Services, Regulations and Coordination (MoNHSR&C), Government of Pakistan, organized a virtual training on Sexual, Reproductive and Maternal Health (SRH) for Telemedicine providers from 8th – 12th June 2020 and 13th – 24th July 2020, respectively. The training provided a whole package of care from prenatal period to post-natal care of the pregnant women along with the other aspects of women’s health on the whole. In addition, good practices on the use of Personal Protective Equipment (PPEs) as recommended by WHO and other preventive measures to be taken by the reproductive and maternal health professionals within the context of COVID-19 were also the part of the course.
- COMSATS in collaboration with the Commonwealth Centre for Digital Health (CWCDH) organized a webinar titled “Digital Health in COVID-19: Sharing Experiences of COMSATS’ South Asian Member States”, on 7th September 2020. Speakers from the three South Asian member countries, i.e., Pakistan, Bangladesh and Sri Lanka, participated in webinar that was attended by a number of relevant individuals from Pakistan and abroad. Discussions during the event touched upon issues relating to cooperation in policy and strategy sharing at government and institution levels; data collection and analytics; joint publications based on indigenous researches and success stories; training of doctors and young practitioners for better pandemic response; application of digital technologies for pandemic as well as for non-emergency response, building better infrastructure in remote areas that are affected the most in both situations.
- With October celebrated as the Breast Cancer Awareness Month worldwide to help generate necessary support and awareness about the disease, COMSATS Secretariat highlighted the impact of this issue of great concern to help the population of the world by holding a webinar. The webinar entitled “Breast Cancer Awareness: Give Hope, Save Lives”, was virtually held on 29th October 2020.



Collaborations

A Memorandum of Understanding (MoU) was signed between COMSATS' flagship project, i.e., COMSATS Internet Services (CIS) and the National Disaster Management Authority (NDMA) of Government of Pakistan with an aim to support Tele-health services and trainings in natural and human-induced disasters.

Visitors

Visitors of Telehealth Resource Centre during reporting year included:

- Ms. Tanya Aidrus, Special Assistant to Prime Minister on Digital Pakistan Initiative (2nd July 2020);
- Two-member delegation from Yaran-e-Watan (30th July 2020);
- Prof. Dr. Ghazna Khalid, Member of the Parliament, Member Task Force on COVID-19, Ministry of Science and Technology (MoST), Government of Pakistan (6th August 2020).

Other visitors of Telehealth Resource Centre during reporting year include: Dr. Zaeem Zia (District Health Officer Islamabad); Mr. Muhammad Jahanzeb Khan (Deputy Chairman Planning Commission); Mr. Khalid Rafiq

(DG-IT Board, AJK) and Secretary Health (KPK). In addition, District Support Managers of PPHI, DHO (Washuk) also visited the rural Telehealth clinics in their respective areas after setting-up of these clinics were completed. During the calendar year, a virtual visit of the Telehealth for Mr. Mahmoud Farfoura from the Royal Scientific Society (RSS), Jordan, was also arranged.

COMSATS Internet Services (CIS)

Operational since 1996, COMSATS Internet Services (CIS), is the pioneer Internet Service Provider (ISP) of Pakistan. CIS is currently operating in 20 cities and has customers belonging to prominent organizations in public and private sectors, well-known national and international companies and firms, software and business companies, foreign missions, non-governmental organizations, universities, social development and research organizations.

CIS Core Services

CIS offers nine services known as 'The Colors of CIS', comprising; Tornado® (Wireless broadband), Hawaii™ (Domain, hosting, and VPS) and COMSpeed™ (Optical Fiber Connectivity). Value-added services of CIS are Hurricane™ (On-demand broadband), Prism™ (Website development), Viacon™





(Video conferencing), COM Meeting™ (web Conferencing Service) and COMSATS Innovation and IoT.

Bird Eye View and Surveillance System Development.

Data Centers

CIS expanded its IT & Data Center infrastructure with the latest state-of-the-art equipment at CIS Technology Park building, Islamabad. CIS' data centres include the features, such as capacity 1,526 sq. ft. and approximately 45 racks can be accommodated; IPV6 enabled (27001:2013 ISO Certified); Precision Cooling System along with Humidity Controller; Fire Suppression along with four Stage Fire Alarm; N+1 Electric System including UPS and backup electric generators; Power backup facility; Deployed L-Root Servers; Entirely backed Cyber Security System with round the clock surveillance; Completely Biometric Security System and Advanced Huawei & Juniper firewalls protectors.

Innovation and IoT Department

R&D in energy sector under CIS-IoT has resulted in developing the Net Metering, generating real time report for client to monitor energy utilization. Other related activities include development of the following IoT applications/tools: Soil Moisture Detector,

Video Conferencing

Due to COVID-19 in reporting year, the rapid shift on virtual systems and online platforms for meetings resulted in further utilization of related services of CIS. CIS provides video-conferencing services within Pakistan and abroad by means of well-equipped Video Conferencing Studios, located in Islamabad, Peshawar, Lahore and Karachi. During 2020, the video-conferencing platforms were also established for the potential customers as per demand.

Bandwidth Growth

To ensure high uplink and downlink speeds for customers, CIS gets bandwidth from multiple providers. In the reporting year, CIS bandwidth grew from 5 GBPs in 2019 to 6 GBPs in 2020.

CIS Tele-Health (ComClinic)

The current status of CIS Tele-clinics, along with activities in the capacity of digital health services of the reporting year have been covered in the earlier section of this chapter.

COMSATS Centre for Climate & Sustainability (CCCS)

In recognition of the inter-connections between climate change and sustainable development, COMSATS Centre for Climate & Sustainability (CCCS) was set-up in 2019 to serve as an innovative partnership model to work in a spirit of global solidarity to solve shared challenges within the framework of South-South and Triangular Cooperation.

In pursuit of this vision, CCCS mobilized COMSATS' member countries and its institutions to foster information exchange, knowledge brokerage, sharing good practices, collaborative actions and multi-partnerships based on South-South and Triangular Cooperation. CCCS functions as a virtual platform for promotion of multi-stakeholder interaction across the 4Cs: Connectivity, Communication, Coordination and Collaboration.

Membership

So far, twenty COMSATS' member countries are a part of CCCS network through 25 institutions. In order to increase Africa's representation in CCCS' network, discussions were held with representatives from five Senegalese institutions. Virtual meetings were also held with the Potsdam Institute for Climate Impact Research, Germany, and the University of Kent, UK, to initiate cooperation.

Focus on SDGs and Working Scope

CCCS member institutions agreed to focusing on 7 Sustainable Development Goals (SDGs) considered crucial for developing countries in terms of their relevance to climate change and sustainable development. These goals are: SDG-2 (Zero Hunger), SDG-3 (Good Health and Well-being), SDG-6 (Clean water and Sanitation), SDG-7 (Affordable and Clean

Energy), SDG-11 (Sustainable Cities and Communities), SDG-13 (Climate Action) and SDG-15 (Life on Land).

Webinars

In the backdrop of COVID-19 pandemic, CCCS opted to start with a series of webinars so as to keep the member institutions connected and cooperation among them continued. By the end of the year, CCCS had organized/co-organised nine webinars on a range of subjects in the context of the agreed SDGs. CCCS webinars generated a lot of interest and in the process over 65 scientists, researchers and policy-makers were involved.

Besides CCCS partner institutions, numerous other institutions around the world attended the webinars. An important aspect of CCCS webinar initiative was to develop closer working links with partner institutions by inviting them to co-host the webinars. This helped to forge stronger connections with partners.

Collaborations with United Nations Office on South-South Cooperation (UNOSSC)

Cooperation between COMSATS and UNOSSC continued under an agreement signed in November 2018 between the two. Material on CCCS was featured in the UNOSSC South-South Galaxy portal and information on all the webinars organized by CCCS as well as in cooperation with its partners was regularly posted on the Galaxy portal.

CCCS Web Portal

Recognizing the critical importance of digital platforms, a CCCS website has been designed and developed for building connectivity and collaboration among COMSATS' partner institutions as well as for showcasing the work





of CCCS at the international level. Discussions on launching of the portal early during 2021 are ongoing with COMSATS Internet Services (CIS).

Going Forward

CCCS efforts of building a network of scientists and experts is in line with the increased recognition that science, technology and innovation are the primary drivers for a more sustainable and prosperous future. Going forward, the Center is aimed to continue co-opting new member institutions in the Global South as well as with institutions from the North so as to engage in Triangular Cooperation.

COMSATS Science Diplomacy Programme

Since inception, COMSATS has been engaged in advocacy of Science at all levels through its different organs. The organization through activities under Science Diplomacy aims to address the needs of scientists, diplomats, journalists and policy-makers to build peace and harmony among nations through scientific knowledge. During 2020, the activities under the programme included relevant international observance, government engagement and COVID-19 awareness, and discussions and exchanges.

International Observances

World Science Day for Peace and Development

To commemorate World Science Day for Peace and Development, a seminar was arranged on November 10, 2020, with the collaboration of United Nations Educational, Scientific and Cultural Organization (UNESCO) Pakistan, the Organization of Islamic Cooperation Standing Committee on Scientific and Technological Cooperation (COMSTECH), the Economic Cooperation Organization Scientific Foundation (ECOSF), the Pakistan Science Foundation (PSF) and the Pakistan Academy of Sciences (PAS).

H.E. Mr. Chaudhry Fawad Hussain, the Federal Minister for Science & Technology, graced the occasion with his guest appearance. Ms. Patricia McPhillips from UNESCO Pakistan, was the Guest of Honour on the occasion.

International Day for South-South Cooperation

On 16th September 2020, an international webinar on “Current Challenges: Imperative of South-South Cooperation”, was arranged by COMSATS in order to mark UN’s International Day for South-South Cooperation. The speakers of the webinar included: H.E. Mr.



Chad Blackman, Barbados Ambassador and Permanent Representative to the UN and other international organizations based in Geneva, Switzerland; Dr. Denis Nkala, Regional Coordinator and Representative at UNOSSC, Asia and the Pacific Office; Senator Hazel Thompson-Ahye of Trinidad and Tobago; and Ms. Ellen Thom, Technical Officer, Reproductive Health at WHO Pakistan (representing H.E. Dr. Palitha G. Mahipala, Head of Mission, WHO Pakistan).

International Day of Clean Air for Blue Skies

COMSATS Centre for Climate and Sustainability (CCCS) hosted a webinar to mark the first ever International Day of Clean Air for Blue Skies, on 7th September 2020. The event was aimed at sharing knowledge, good practices and experiences on various aspects of air pollution and impact of deteriorating air quality on sustainable development and growth.

International Youth Day

COMSATS in collaboration with ICYF-ERC, THE Society, ICHI Foundation China, IEEE-CUI, USIDHR, GSW International Youth Union Azerbaijan, COVID-19 Youth Task Force and Pakistan-Azerbaijan Alumni Association, organized a Seminar titled “Youth Engagement for Global Action”, on 12th August 2020 to commemorate UN’s International Youth Day (IYD).

Honorable Mr. Shehryar Khan, Pakistani Minister to SAFRON and Narcotics & Chairman Kashmir Committee, honored the event as a Chief Guest. The event was also graced by the presence of Prof. Dr. Ghazna Khalid, Advisor to NDMA on COVID-19.

World Cities Day

To mark United Nations World Cities Day



2020, COMSATS Centre for Climate and Sustainability (CCCS) organized a webinar on “Challenges of Rapid Urbanization in the Global South”, on 29th October 2020. The webinar was co-organized by COMSATS Centre for Climate & Sustainability (CCCS) and COMSATS’ Centre of Excellence, Tanzania Industrial Research and Development Organization (TIRDO).

Breast Cancer Awareness Month

In order to mark Breast Cancer Awareness Month, a webinar entitled “Breast Cancer Awareness: Give Hope, Save Lives” was held on 29th October 2020. On the occasion, Dr. Farheen Raza, Chief Registrar Radiology Department at Pakistan Institute of Medical Sciences (PIMS) Islamabad, delivered the keynote address. Dr. Samina Naeem, ex-Associate Professor of Health Services Academy, and Consultant at WHO Pakistan, and Dr. Azeema Fareed, Principal Medical Officer, COMSATS Secretariat also spoke on the occasion.

Discussion Session on Future of S&T System in Pakistan

On 29th April 2020, a meeting was held at COMSATS Secretariat to discuss the future prospects of S&T in Pakistan. The meeting was attended by the dignitaries, including





Prof. Dr. Atta-ur-Rahman (Chairman of Prime Minister Task Force on S&T, Pakistan); Dr. Akram Sheikh (Co-Chair and Distinguished Senior Fellow at Global Think Tank Network (GTTN), Islamabad); Prof. Dr. Muhammad Iqbal Choudhary (Coordinator General of COMSTECH & Director of the International Center for Chemical and Biological Sciences (ICCBS), Karachi); Prof. Dr. Anwar-ul-Hassan Gilani (Former Chairman of the Pakistan Council for Science & Technology (PCST), Islamabad); Dr. Aslam Baig (Distinguished National Professor at the National Centre For Physics (NCP), Islamabad); Dr. Kauser Abdulla (Distinguished Professor and Dean of Postgraduate Studies at Forman Christian College, Lahore); Dr. Zabta Khan Shinwari (Professor of Biotechnology at Quaid-e-Azam University, Islamabad); Dr. Khalid Mahmood Khan (Secretary General NASIC); Mr. Parvez Butt (Former Chairman PAEC); and Dr. S. M. Junaid Zaidi (Executive Director COMSATS).

Some Interactions with Host Country, Pakistan

During the reporting period, meetings with following government officials were held.

These meetings were aimed at sensitizing the officials of COMSATS' on-going activities and future plans as well as exploring avenues of cooperation in areas of telemedicine, ICTs and higher education:

- H.E. Mr. Fawad Chaudhry, Federal Minister for Science and Technology (MoST), Government of Pakistan, and Chairperson COMSATS Consultative Committee (24th June 2020);
- Prof. Dr. Ghazna Khalid, Honourable Member of the Parliament, and Member Task Force on COVID-19 of the Ministry of Science and Technology, Government of Pakistan (6th August 2020);
- Two-member delegation of Yaran-e-Watan initiative of Ministry of National Health Services, Regulation and Coordination (MoNHSR&C), Government of Pakistan (30th July 2020);
- Ms. Tanya Aidrus, Special Assistant to Prime Minister on Digital Pakistan (2nd July 2020);
- Mr. Jehanzeb Khan, Deputy Chairperson Planning Commission of Pakistan (9th November 2020).

ADVOCACY THROUGH PUBLICATIONS, INFORMATION DISSEMINATION AND COMMUNICATION

COMSATS' publications are an important means of outreach and advocacy for the organization, which is done through a bimonthly Newsletter, COMSATS' official website and other publications, and promotional material. From time to time, COMSATS also collaborates with different institutions to bring out joint publications on work and matters of common interest. Dissemination of important information, news and articles, electronic and social media further aides this activity throughout the year.

COMSATS Newsletter

During the calendar year 2020, the last issue of the 11th volume (2019) and five issues of the 12th volume (2020) of the newsletter documented and presented the activities of COMSATS Secretariat as well as its Centres of Excellence. Apart from the standard sections



covering the activities of COMSATS Secretariat and Centres of Excellence, following reports were covered as 'Special Section': COMSATS High-Level Breakfast Meeting, Addis Ababa, Ethiopia;

23rd Meeting of COMSATS Coordinating Council (Online); and Post 23rd Coordinating Council Meeting Virtual Presentation Sessions.

Articles with themes related to COVID-19 pandemic, women empowerment, digitalization, science diplomacy and cooperation for development served as means to disseminate important information on these important topics. Furthermore, devoted sections on scientific breakthroughs and S&T and development related news from Member States helped create awareness on potential of science for socio-economic development.

Rising to the communication challenges and needs related to COVID-19 pandemic during 2020, efforts were made to present views from relevant experts. In this vein, a special interview on COVID-19, infodemic and e-health with Dr. Najeeb Al-Shorbaji, President, Jordan Library and Information Association, and Former Director Knowledge, Ethics and Research, World Health Organization (WHO) Headquarters, Switzerland, was published during the reporting period.

The Newsletter was widely distributed to all the member countries, COMSATS' Centres of Excellence and other related organizations, mainly through electronic means. Present and past issues of COMSATS Newsletter are available for viewing and downloading at the following URL: http://comsats.org/?page_id=150.

Print, Electronic and Social Media

As per practice, COMSATS' official website was kept updated with information on various undertakings and related aspects of the organization. The information made available on the website included: announcements, news and reports of all major happenings of the organization; new and updated information material; and updated contact information of members of major organs of COMSATS.

As part of its advocacy of science and development issues, COMSATS engages with the local print media by means of important





messages and information on the organization. Major events having COMSATS' participation included: 94th Birth Anniversary of Prof. Dr. Abdus Salam (Jan 29); International Women's day (March 08); 73rd Independence Day of Pakistan (August 14); 69 years of Pakistan – China diplomatic relations (May 20); and 70th Anniversary of People's Republic of China (October 01).

COMSATS also published a number of articles in news journals featuring its various projects and initiatives and highlighting development-related issues in the Global South, as well as contemporary issues and challenges.

COMSATS' officials also remained engaged with news channels and electronic media to help advocate the organization's objectives that are centered upon the principles of scientific collaboration, inclusion, and sustainability in every aspect.

COMSATS also effectively utilized its social media platforms – Twitter (COMSATS_en), Facebook (COMSATSoofficial), LinkedIn (company/comsats), and Instagram (comsats_en) to highlight recent developments, scientific

breakthroughs, success stories and best practices for achieving sustainability by all means. COMSATS also continued its advocacy of SDGs through social media, in particular during the 5th Anniversary month of 2030 Global Agenda (September 2020).

COMSATS' activities were also promoted on the social media channels of South-South Galaxy and UNOSSC as part of latter's 'Partner of the Month' campaign. This was done by highlighting the organization's vision, mission and objectives, good practices on South-South and Triangular cooperation, aided by visual material, information on key partners, and publications.

COVID-19 Awareness

A devoted web-page "CORONA and Sustainable Development" (http://comsats.org/?page_id=6712) was developed by COMSATS to serve as a repository of information on the pandemic with respect to elements and entities relevant to COMSATS as well as to showcase the relevant strength and developments at COMSATS' Centres of Excellence and the rest of the world.

FINANCIAL AFFAIRS

The major source of finances for operations of COMSATS Secretariat is annual contribution of the Government of Pakistan towards running cost of COMSATS Secretariat. The other member states of COMSATS pay Annual Membership Contribution (AMC) towards COMSATS on voluntary basis. The AMC received from member states is kept as 'Trust Money' and is spent on activities of respective countries.

The Government of Pakistan, being the host country, funds the running costs of COMSATS Secretariat. The Government of Pakistan also pays an Annual Membership Contribution (AMC) towards COMSATS. Apart from these financial commitments, during the reporting period (January to December 2020), COMSATS received AMC from China, Kazakhstan, Nigeria and Pakistan.

Since creation of COMSATS' Endowment Fund during the 2nd General Meeting of COMSATS held on 16-17 April 2012, in Islamabad, Pakistan, the Government of Pakistan has issued US\$ 0.1 million equivalent to PKR 10 million out of the total commitment of US\$ one million (PKR 100.00 million).

The financial statements on accounts of COMSATS Secretariat for the financial year ended on June 30, 2019, was audited by M/s HLB IJAZ TABUSSUM & Co., Chartered Accountants. They have been approved by the Coordinating Council of COMSATS in its 23rd (On-line) Meeting held on 14 July 2020. The accounts for the financial year ended on June 30, 2020, have also been audited by M/s HLB IJAZ TABUSSUM & Co., Chartered Accountants.

The auditors' report and audited financial statements for the year 2020 will be submitted to the Coordinating Council of COMSATS for approval in its next meeting expected to be held in March 2021.





COMSATS' Centres of Excellence



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