



Centre for Science & Technology of the  
Non-Aligned and Other Developing Countries  
(NAM S&T Centre), New Delhi (INDIA)



Indian Ocean Rim Association (IORA)  
(Mauritius)

# International Workshop on **ROLE OF SCIENCE, TECHNOLOGY AND INNOVATION (STI) IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS - 2030**

*(A VIRTUAL EVENT)*

**24-25 May 2022**

Jointly Organised by

**INDIAN OCEAN RIM ASSOCIATION SECRETARIAT (MAURITIUS)**

**&**

**CENTRE FOR SCIENCE & TECHNOLOGY OF THE NON-ALIGNED AND  
OTHER DEVELOPING COUNTRIES (NAM S&T CENTRE), NEW DELHI (INDIA)**

## **WORKSHOP REPORT**

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## INTERNATIONAL WORKSHOP ON

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# ROLE OF SCIENCE, TECHNOLOGY AND INNOVATION (STI) IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS – 2030

**VIRTUAL-MODE**

**24-25 MAY, 2022**

## WORKSHOP REPORT

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Science, Technology and Innovation (STI) have been recognized as one of the main drivers of economic development and environmental sustainability. STI plays an even more important role in the context of the “Global Development Agenda 2030” for achieving the Sustainable Development Goals (SDGs) and its set forth targets.

STI is an important driver for increased productivity and value addition that stimulates the growth and competitiveness of a nation. Application of STI is necessary for enabling and accelerating global transformation towards prosperous, inclusive and environmentally sustainable economies in developing and developed countries alike. In the context of the SDG framework, the implementation of the Goals is replete with a number of challenges for which a close collaboration between the policy makers, STI communities and other development professionals and stakeholders is required. For effective implementation of most of the 17 SDGs and achieving their set targets, it is necessary that STI has to be directly and indirectly applied with appropriate focus, especially in the Emerging Economies (EE), Least Developed Countries (LDCs) and Small Island Developing States (SIDS).

In order to deliberate on the role of STI in achieving SDGs and to discuss the dynamics of STI systems as well as the challenges and opportunities in accelerating STI-driven development in the NAM and IORA Member Countries, the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, jointly with the Indian Ocean Rim Association (IORA) Secretariat, Mauritius, organised an International Workshop on the “*Role of Science, Technology and Innovation (STI) in Achieving Sustainable Development Goals – 2030*” during 24-25 May 2022. The Workshop was hosted by the IORA Secretariat and organised in Virtual-Mode.

The Workshop took place under the auspices of the NAM S&T Centre and IORA Memorandum of Understanding (MoU) that was concluded in 2019 in Abu Dhabi, UAE.

The Workshop successfully facilitated the exchange of information and expertise on the application of STI for achieving Sustainable Development in IORA and NAM S&T Centre Member Countries. Besides, understanding the importance of application of Science & Technology in various sectors/sub-sectors for successful implementation of SDGs, the need for capacity building, better decision making, policy formulation, efficient management of resources, amongst others in developing countries was also discussed.

139 scientists, academicians, researchers, technologists, engineers, consultants, policy-makers, S&T practitioners, international organisations and NGOs from various NAM and IORA Member Countries participated in the Workshop to promote academia-industry interactions and public-private partnerships in achieving SDGs with the application of STI.

A copy of the final Workshop programme is attached as **Annexure I**.

The Opening Session was facilitated by *Director, IORA Secretariat, Mr. Gareth Rees*. The Opening remarks were given by *H.E. Dr. Salman Al Farisi, Secretary General, IORA*. During his remarks, he said that it was a privilege for the IORA Secretariat to host this important event in collaboration with the NAM S&T Centre under the MoU between the NAM S&T Centre and IORA that was signed in 2019. He added that IORA is an apex regional organisation in the Indian Ocean region consisting of 23 Member States and 10 Dialogue Partners promoting international partnership and STI cooperation. He also appreciated the NAM S&T Centre's commitment to support the strategic goals on STI to develop capacity of NAM Member Countries. He mentioned the importance of the platform for academicians, scientists, experts and professionals from various NAM and IORA Member Countries through the Workshop to understand the dynamics of STI and related investment in R&D infrastructure; and to plan out various activities and projects that can be taken up to help achieve "SDGs-2030". He concluded that the ideas, learnings, and key recommendations from the Workshop can help facilitate the NAM S&T Centre and IORA Member Countries to take the realm of STI to the next level. In support of the above, a presentation on "IORA" was made by Mr. Rees, highlighting the establishment of a sectoral working group in IORA dedicated to enhancing cooperation in Science, Technology and Innovation. Following this, *Dr. Amitava Bandopadhyay, Director General, NAM S&T Centre* welcomed the participants and provided an overview about the NAM S&T Centre, describing the organizational structure, objectives and major scientific activities of the Centre. He outlined that the NAM S&T Centre is an inter-governmental organization based in New Delhi and has 47 Member Countries spread over the African, Asian, European and Latin American continents. The Centre was established in August 1989 with the aim of promoting South-South cooperation in Science and Technology for collective self-reliance of developing countries. He thanked Mr. Rees and his entire team for all the support to the NAM S&T Centre in organizing and hosting this joint workshop. With a commonality of interest of working towards sustainable development of the

countries from the Global South and Island States, he expressed hope that the collaborative relationship between the two organisations – NAM S&T Centre and IORA will be strengthened to complement each other to meet their respective objectives. A vote of thanks was given by Mr. Rees which marked the end of the opening session.

*Technical Session - I was titled “Strategies and Means of Implementation of the SDGs in Emerging Economies (EE), Least Developed Countries (LDCs) and Small Island Developing States (SIDS) in the Indian Ocean Region (IOR)”.*

A presentation on *“Domestication of the UN Sustainable Development Goals in South Africa”* was made by *Dr. Dumisani Mthembu, Acting Director, Multilateral Cooperation, Department of Science & Innovation (DSI), South Africa*. The study undertook to map South Africa’s National Development Plan (NDP) - 2030 alongside the SDGs 2030 to assess the level of convergence and synergy between the two. The assessment revealed that the NDP and the SDGs are aligned and share similar objectives, such as reducing unemployment and eradicating poverty and inequality. It showed 74% alignment of the NDP and the SDGs; 57% of the targets of SDGs were fully addressed in the NDP while 17% of the targets were partially addressed. The study indicated concern that the plan to implement the SDGs was not fully inclusive.

Following this, a presentation on *“Mauritius as a Smart Tourism Destination: Technology for Enhancing Tourism Experience to Achieve Sustainability”* was given by *Dr. Randhir Roopchand, Dean, Université des Mascareignes (UDM), Business and Management, Mauritius*. The research provided an overview of how technology is shaping pathway for Mauritius to become a “Smart Tourism” destination. It analyzed the megatrends in digitalization and analyzed different indexes for ICT to assess the readiness of Mauritius. Different Mauritian tourism websites and metrics were used to gather data for analysis. The research showed that the hospitality industry is investing in new technological tools due to increasing customer satisfaction to achieve sustainability objectives. The *hospitality.mu* and *marideal.mu* portals are clear examples of the digitalization trends in the tourism industry with the increasing use of the internet by consumers at all levels of the value chain. The research also showcased some examples of real applications of technology in the tourism sector being adopted at the national and international level.

The session was concluded with an open discussion and summarizing the key takeaways by the Session Moderator.

*Technical Session - II was titled “Knowledge Access for the Developing Economies on the Relevant Technologies Available for Achieving SDGs”.*

Under this session, a paper on *“Towards Blue and Green Innovation in Mauritius: Roadmap for Energizing the Future”* was presented by *Dr. Poonam Veer*

*Ramjeawon, Research Coordinator, Mauritius Research and Innovation Council (MRIC), Mauritius.* Her paper summarized the current state of the blue and green sectors in Mauritius, including gaps and challenges and technological needs. Several strategic orientations and actions were proposed, which set the foundation for the development of a roadmap to promote economic growth through research, innovation and commercialization in the blue and green sectors of Mauritius.

Afterwards, Ms. Mamta Bhardwaj, Senior Scientist, DST-Centre for Policy Research, India, delivered a presentation on *"A Case Study on Role of Higher Educational Institutions in Achieving SDG-9"*. She concluded that Science Diplomacy can play a crucial role in international collaboration in S&T activities and IP/Teach transfer. The research and scientific institutions of cross border countries should work in tandem and address the real challenges; and organizations like IORA and NAM S&T Centre can play important role to promote cross border tie-ups in R&D and tech transfer. Awareness, entrepreneurship and skill development play crucial role to address the issues pertaining to Sustainable Goals set by the UN.

Following this, a presentation on *"Role of Science, Technology and Innovation in Achieving Sustainable Development Goals - Hydro Geochemical Analysis as Complement to Integrated Water Resources Management of Shallow Coastal Aquifer in Ghana"* was made by *Mr. Festus Anane Mensah, Senior Research Scientist, Geotechnical and Materials Eng. Division, CSIR-Building and Road Research Institute (CSIR-BRRI), Ghana.* He concluded that enhancing the capacity of data generation and research institutions for improved data collection networks and assessment techniques is imperative in achieving SDGs via STI. A well scientifically coordinated integrated water resources management can lead to appropriate combination of resources, facilities and conservation programs for the expansion of water systems to meet current and future water demand to accommodate the population growth.

A paper on *"Healthy Technologies for Sustainable Development"* was presented by *Mr. Vincent Obino Orucho, Principal Research Officer, Ministry of Education, Kenya.* The study highlighted the role of Research, Technology and Innovation in delivering an effective health care especially through early and effective diagnosis. It analyzed the effectiveness of different innovative diagnostic and response mechanisms and the role they have played to overcome the disease burden and to achieve Goal 3 of the sustainable development agenda. The paper was mainly focused on three areas: (i) the burden of disease before the technological advancement, (ii) the effect of the technological advancements and (iii) the challenges that need to be addressed to achieve better health for the world.

The session ended with an open discussion and summarization of key takeaways by the Session Moderator.

*Technical Session - III was titled "Capacity Building of Participating Countries for Sustainable Implementation and Related Social Innovation to Make Progress in this Field".*

A presentation on *"Global Pilot Project on STI Roadmap for SDGs"* was made by *Dr. David Njubi, Director, Scheduled Sciences, Kenya*. Dr. Njubi highlighted various aspects of the Pilot Project and summarized the outcome.

A presentation on *"Environmental Management of Coastal Areas for their Sustainable Development within the Framework of the UN Decade of Ocean Sciences (2021-2030)"* was given by *Dr. Nataliya Milchakova, Head of Laboratory, Federal Research Center, A.O. Kovalevskiy Institute of Biology of the Southern Seas (IBSS), Russia*. Her research study included an analysis of the status and development of national, regional and local protected areas, including marine protected areas, assessing the modern structure of natural complexes of the Crimean Peninsula and the Sevastopol Region, their biological and landscape diversity, human-induced factors and their negative effects. The study showed that Crimea as "International Center of Biological Diversity" needs to develop a set of measures aimed at improving the quality of the environment for the conservation of valuable coastal complexes, the development of scientific studies to improve the conservation status of protected areas and develop a friendly environment aimed at using coastal areas and marine aquatories that can provide them with sustainable development and help them to support natural conservation potential.

Afterwards, *Dr. Charu Gupta, Professor, Amity Institute of Herbal Research & Studies (AIHRS), Amity University, India* delivered a presentation on *"Socio-Economic Empowerment of Rural Women through Training on Preparation of Value-Added Products for Income Generation & General Well-being."* In her study, the rural women of villages of Western Uttar Pradesh district of Saharanpur were trained on the agro-technology and processing of medicinal and aromatic plants (mainly lemongrass & basil) to produce value added products. The market linkage was also developed through the project where the rural women got returns from the sale of their plantation. This model became a success story and thus, got replicated in other adjoining rural areas of the same district.

*Vice-Chancellor, Nepal Academy of Science and Technology (NAST), Nepal, Dr. Sunil Babu Shrestha*, delivered a talk on *"Realizing Sustainable Urban Development through Science, Technology and Innovation."* He explained how the knowledge application of STI in the form of sustainable urban planning, affordable housing system, productive greening, intelligent transportation system, renewable energy, smart waste management, sustainable production and consumption pattern etc. can contribute for Sustainable Urban Development (SUD). He also provided some recommendations to mobilize the role of STI for SUD and recommended the concept of

Food Green City (FGC) for integrating urban agriculture with urban planning and management.

A presentation on *“Implications of Water Policy on Coastal Pollution: A Case Study of Mogadishu Coast”* was then given by Mr. Hassan Osman Hassan, Head Section of Climate Change Adaptation, Department of DRR at the Ministry of Humanitarian Affairs & Disaster Management, Ministry of Communication and Technology, Somalia. In his study, three different locations in the Mogadishu City were selected and a total of 12 water and sediment samples were collected during winter and summer to study physical, chemical and biological characteristics of water and sediments. Based on the results, it was found that the major source of the pollution (65%) was originated from external pollutants (foreign ships). The parameters that caused the pollution in the selected locations were chemical parameters (44%) followed by biological parameters (42%). This study concluded that most of the selected locations recorded higher values that exceeded the acceptable and recommended standards of the World Health Organisation (WHO) and the Environmental Protection Agency (EPA).

Mrs. Smreetee Cyparsade, Disaster Monitoring Officer, National Disaster Risk Reduction and Management Centre, Mauritius delivered a presentation on *“Disaster Risk Reduction and Management - Mauritian Perspective.”* During her presentation, she briefed about the National Disaster Risk Reduction and Management Centre (NDRRMC) which is under the aegis of the Ministry of Local Government and Disaster Risk Management. Since 2015, Mauritius adopted the Sendai Framework for Disaster Risk Reduction, thus supporting the shift from ‘Managing Disasters’ to ‘Managing and Reducing Disaster Risks’. Mauritius is working towards addressing the challenges of the climate change and has invested significantly both in its mitigation and adaptation; despite the limited resources being available to promote resilience and sustainability.

The session ended with an open discussion and summarization of key takeaways by the Session Moderator.

*Technical Session - IV was titled “Barriers to Technology Transfer such as, High Cost of Transition towards Environmentally Sustainable Societies and Economies in the Context of South-South and North-South Cooperation.”*

A presentation on *“Following Scientific Recommendations in Political Decision-Making: An Asset for Achieving Sustainable Development Goals”* was given by Prof. Jean Maharavo, Researcher, National Oceanographic Research Center, Madagascar. He summarized that one of the main problems that occurs with achievement of SDGs is the failure to consider scientific recommendations in the political decision making. In most cases, the political reasons are not compatible with scientific analyses and as a result, the decision makers ignore the suggested



recommendations. For a country like Madagascar, which is rich in biodiversity, scientific studies and technological innovations should be supported by the government to protect the natural resources.

Afterwards, *Dr. W.S. Winanti, Principal Engineer, Research Centre for Environment & Clean Technology, BRIN, Indonesia* gave a presentation on *“Barrier Analysis for Technology Transfer to Enhance Action of Climate Change and SDG Goals.”* She explained that STI is one of the means of implementation to leverage SDGs as well as climate change goals, and technology transfer is important in supporting developing countries in mitigating and adapting to climate change which can be done through cooperation in the fields of technology research, innovation, application as well as capacity building. Technology transfer must be supported by other means of implementation, such as finance and policies that support the achievement of climate change targets and SDGs goals. There are many barriers to technology implementation that must be overcome, such as technical, social, regulatory, financial, institutional, capacity building, IPR and social & culture barriers. These barriers need to be identified, analyzed and mapped to translate problems into recommended solutions. Activities in analyzing and enabling barriers for technology transfer require collaboration with all relevant stakeholders, both nationally and internationally. It was also recommended that cooperation among and outside the NAM Member Countries needs to be strengthened, if necessary, by establishing a platform for collaboration through sharing of information on various S&T issues including transfer of technology.

A presentation on *“Challenges in Achieving Sustainable Development Goals related to Construction Sector in Sri Lanka”* was then given by *Mr. T.D. Denagama, Lecturer, University of Vocational Technology, Sri Lanka*. Since construction industry is one of the biggest sectors in Sri Lanka, it mainly affects environment, economic and socio-cultural aspects. There are number of challenges towards achieving SDGs related to construction sector in Sri Lanka such as: lack of education, legal influence, economic strength, coordination & monitoring and political and government support. Providing necessary education towards SDG's to the students & workforce, strengthening active legal framework, promoting research & innovation, proper coordination between regulatory bodies, stakeholders & general public will be effective to overcome the existing challenges towards sustainable development.

Following this, a presentation on *“Innovative Capacity in the Field of Blue Biotechnology”* was given by *Dr. Svetlana Gorbunova, Senior Researcher, Federal Research Center, A.O. Kovalevskiy Institute of Biology of the Southern Seas (IBSS), Russia*. One of the areas of IBSS scientific activity is *“Investigation of biotechnological complexes and production of biologically active substances and technical products of marine origin.”* There were three main approaches followed: (i) cultivation of hydrobionts, (ii) biotechnologies for processing raw materials from hydrobionts, (iii) biotechnologies for reclamation of marine areas. The researchers of A.O.

Kovalevsky IBSS have developed technologies using *Arthrospira Platensis*, *Dunaliella salina*, *Chlorella Sp*, *Cylindrotheca Closterium*, *Phaeodactylum Tricornutum* and some other algae for production of dietary supplements and a source of valuable compounds. Methods for obtaining beta-carotene, astaxanthin, fucoxanthin, and phycobiliproteins have been optimized.

The session ended with an open discussion and summarization of key takeaways by the Session Moderator.

The Concluding Session was chaired by *Director General, NAM S&T Centre; Dr. Amitava Bandopadhyay* and *Director IORA Secretariat, Mr. Gareth Rees*. It was concluded that in order to commit to achieve the laudable SDGs and its set forth targets, it is important to recognize STI as a key driver to implement most of the SDGs especially in EE, LDCs and SIDS in the IOR and other parts of the Global South. To address the global challenges, it is necessary for the NAM and IORA Member Countries to integrate "STI-SDGs Blueprint" in their national policy to achieve the set goals within the timeframe. STI policy initiatives towards - eradicating poverty, ending hunger, reducing inequalities, providing better access to quality education, access to affordable clean energy, water and sanitation, building resilient and safe infrastructure, cities and communities, sustainable production and consumption patterns, promoting sustainable industrialization, building inclusive and sustained economic growth should be effectively implemented and periodically monitored - all while working to preserve the environment and biodiversity, oceans and forests. Information on SDG good practices, success stories and challenges should be shared to strengthen the means of implementation.

This was followed by a Working Session: An Outcome Document - during which a *Resolution* with a set of S&T recommendations were discussed and unanimously adopted by the Workshop participants to help, advice and facilitate the NAM S&T Centre and IORA Member Countries to achieving SDGs within the set timeframe. A copy of the adopted Resolution is attached as **Annexure II**.

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## Annexure I: Final Workshop Programme

### IORA - NAM S&T Centre Joint Workshop on the "Role of Science, Technology and Innovation (STI) in Achieving Sustainable Development Goals – 2030"

24-25 May 2022 from 11:00-15:00hrs (Mauritius Time: GMT+ 4 hrs)

#### Programme/Agenda

| DAY 1 - TUESDAY, 24 MAY 2022 |                   |   |
|------------------------------|-------------------|---|
| Agenda Item #                | Time (GMT+ 4 hrs) | Details   |
|                              | 10:30-11:00       | <b>Technical Connectivity Check by Host (Testing Phase) – CISCO WebEx platform</b>  |
| 1.                           | 11:00-12:00       | <p><b>Opening Session</b></p> <p>Mr. Gareth Rees, IORA Secretariat &amp; Programme Director (5 mins)</p> <ul style="list-style-type: none"> <li>• Opening Remarks, H.E. Salman Al Farisi, IORA Secretary General (5 mins)</li> <li>• Presentation on IORA, Mr. Gareth Rees, IORA Secretariat (10 mins)</li> <li>• Opening Remarks &amp; presentation on the NAM S&amp;T Centre, Dr. Amitava Bandopadhyay, Director General, NAM S&amp;T Centre (15 mins)</li> <li>• Vote of Thanks &amp; housekeeping, Mr. Gareth Rees, IORA Secretariat (5 mins)</li> </ul> <p><b>Virtual Group Photo (2 mins)</b></p>   |
| 2.                           | 12:00-12:45       | <p><b>Technical Session I - Strategies and Means of Implementation of the SDGs in Emerging Economies, LDCs and Small Island Developing States (SIDS) in the Indian Ocean Region (IOR)</b></p> <p><b>2 Speakers:</b> (15 mins each)</p> <ol style="list-style-type: none"> <li>1. Presentation on <i>"Domestication of the UN Sustainable Development Goals in South Africa"</i> by Dr. Dumisani Mthembu, Acting Director, Multilateral Cooperation, Department of Science &amp; Innovation (DSI), South Africa</li> <li>2. Presentation on <i>"Mauritius as a Smart Tourism Destination: Technology for Enhancing Tourism Experience to Achieve Sustainability"</i> by Dr. Randhir Roopchand, Dean, Université des Mascareignes (UDM), Business and Management, Mauritius</li> </ol> <p><b>Open Discussion:</b> 10 mins</p> <p><b>Key Takeaways by Moderator</b> - Dr. Amitava Bandopadhyay, Director General, NAM S&amp;T Centre (5 min)</p> |
|                              | 12:45-13:00       | <b>Comfort Break</b>  |

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|----|-------------|--|
| 3. | 13:00-14.15 | <p><b>Technical Session II – Knowledge Access for the Developing Economies on the Relevant Technologies Available for Achieving SDGs</b></p> <p><b>4 Speakers:</b> (15 mins each)</p> <ol style="list-style-type: none"> <li>1. Presentation on <i>“Towards Blue and Green Innovation in Mauritius: Roadmap for Energising the Future”</i> by Dr. Poonam Veer Ramjeawon, Research Coordinator, Mauritius Research and Innovation Council, Mauritius</li> <li>2. Presentation on <i>“A Case Study on Role of Higher Educational Institutions in Achieving SDG-9”</i> by Ms. Mamta Bhardwaj, Senior Scientist, DST-Centre for Policy Research, India</li> <li>3. Presentation on <i>“Role of Science, Technology and Innovation in Achieving Sustainable Development Goals - Hydro Geochemical Analysis as Complement to Integrated Water Resources Management of Shallow Coastal Aquifer in Ghana”</i> by Mr. Festus Anane Mensah, Senior Research Scientist, Geotechnical and Materials Eng. Division, CSIR-Building and Road Research Institute (CSIR-BRRI), Ghana</li> <li>4. Presentation on <i>“Healthy Technologies for Sustainable Development”</i> by Mr. Vincent Obino Orucho, Principal Research Officer, Ministry of Education, Kenya</li> </ol> <p><b>Open Discussion:</b> 10 mins</p> <p><b>Key Takeaways by Moderator</b> - Dr. Dumisani Mthembu, Acting Director, Multilateral Cooperation, Department of Science &amp; Innovation : 5 min</p> |
|----|-------------|--|

**END OF DAY 1**

**DAY 2 - WEDNESDAY, 25 MAY 2022**

| Agenda Item # | Time (GMT+ 4 hrs) | Details   |
|---------------|-------------------|---|
|               | 10:30-11:00       | Technical Connectivity Check by Host (Testing Phase) – CISCO WebEx platform   |
| 4.            | 11:00-12:45       | <p><b>Technical Session III – Capacity Building of Participating Countries for Sustainable Implementation and Related Social Innovation to Make Progress in this Field</b></p> <p><b>6 Speakers:</b> 90 mins (15 mins each)</p> <ol style="list-style-type: none"> <li>1. Presentation on <i>“Global Pilot Project on STI Roadmap for SDGs”</i> by Dr. David Njubi, Director, Scheduled Sciences, Kenya</li> <li>2. Presentation on <i>“Environmental Management of Coastal Areas for their Sustainable Development within the Framework of the UN Decade of Ocean Sciences (2021-2030)”</i> by Dr. Nataliya Milchakova, Head of Laboratory, Federal Research Center, A.O. Kovalevskiy Institute of Biology of the Southern Seas (IBSS), Russia</li> <li>3. Presentation on <i>“Socio-Economic Empowerment of Rural Women through Training on Preparation of Value-Added Products for Income Generation &amp; General Well-being”</i> by Dr. Charu Gupta, Professor, Amity Institute of Herbal Research &amp; Studies (AIHRS), Amity University, India</li> </ol> |

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|------------------------|-------------|--|
|                        |             | <p>4. Presentation on <i>“Realizing Sustainable Urban Development through Science, Technology and Innovation”</i> by Dr. Sunil Babu Shrestha, Vice - Chancellor, Nepal Academy of Science and Technology (NAST), Nepal</p> <p>5. Presentation on <i>“Implications of Water Policy on Coastal Pollution: A Case Study of Mogadishu Coast”</i> by Mr. Hassan Osman Hassan, Head of Section of Climate Change Adaptation, Department of DRR at Ministry of Humanitarian Affairs &amp; Disaster Management, Ministry of Communication and Technology, Somalia</p> <p>6. Presentation on <i>“Disaster Risk Reduction and Management - Mauritian Perspective”</i> by Mrs. Smreetee Cyparsade, Disaster Monitoring Officer, National Disaster Risk Reduction and Management Centre, Mauritius</p> <p><b>Open Discussion:</b> 10 mins</p> <p><b>Key Takeaways by Moderator</b> - Dr. Randhir Roopchund, Dean, Université des Mascareignes (UDM), Mauritius): 5 min</p>   |
| 5.                     | 12:45-14:00 | <p><b>Technical Session IV – Barriers to Technology Transfer Such As, High Cost of Transition Towards Environmentally Sustainable Societies and Economies in Context of South-South and North-South Cooperation</b></p> <p><b>4 Speakers:</b> 60 mins (15 mins each)</p> <p>1. Presentation on <i>“Following Scientific Recommendations in Political Decision-making: An Asset for Achieving Sustainable Development Goals”</i> by Prof. Jean Maharavo, Researcher, National Oceanographic Research Center, Madagascar</p> <p>2. Presentation on <i>“Barrier Analysis for Technology Transfer to Enhance Action of Climate Change and SDG Goals”</i> by Dr. W.S. Winanti, Principal Engineer, Research Centre for Environment &amp; Clean Technology, BRIN, Indonesia</p> <p>3. Presentation on <i>“Challenges in Achieving Sustainable Development Goals related to Construction Sector in Sri Lanka”</i> by Mr T.D. Denagama, Lecturer (Probationary), University of Vocational Technology, Sri Lanka</p> <p>4. Presentation on <i>“Innovative Capacity in the Field of Blue Biotechnology”</i> by Dr. Svetlana Gorbunova, Senior Researcher, Federal Reseach Center, A.O. Kovalevskiy Institute of Biology of the Southern Seas (IBSS), Russia</p> <p><b>Open Discussion:</b> 10 mins</p> <p><b>Key Takeaways by Moderator</b> - Dr Nitin Gopaul, Research Coordinator, Mauritius Research and Innovation Council : 5 min</p> |
|                        | 14:00-14.15 | <b>Comfort break</b>   |
| 6.                     | 14.15-15.00 | <p><b>Working Session: Outcome Document &amp; Way Forward</b></p> <p>Co-Chairs: NAM S&amp;T Centre &amp; IORA Secretariat</p> <p>Discussion and Adoption of Resolution &amp; Key Takeaways</p>   |
| 7.                     | 15.00-15:15 | <b>Closing Session: Closing Remarks by the NAM S&amp;T Centre &amp; IORA Secretariat</b>   |
| <b>END OF WORKSHOP</b> |             |  |



## Resolution

on

### Role of Science, Technology and Innovation (STI) in Achieving Sustainable Development Goals (SDGs) - 2030

WE, THE DELEGATES, participating in the International Virtual Workshop on “The Role of Science, Technology and Innovation (STI) in Achieving Sustainable Development Goals (SDGs) – 2030” jointly organized by the Centre for Science and Technology of the Non-aligned and Other Developing Countries (NAM S&T Centre), New Delhi, and the Indian Ocean Rim Association (IORA) from May 24-25, 2022 at Ebene, Mauritius;

**WELCOMING** that the Joint Workshop took place under the auspices of the NAM S&T Centre-IORA Memorandum of Understanding (MoU) on the “Application of Science, Technology and Innovation for Sustainable Development” signed in November 2019;

**COMPRISING** the scientists, academicians, researchers, technologists, engineers, consultants, policy-makers and other S&T practitioners from various NAM S&T Centre and IORA Member States;

**COMMITTING** ourselves to achieving the laudable development goals set forth by the global community at the United Nations Sustainable Development Summit held in September 2015, which calls for an urgent action by all countries - developed and developing - in a global partnership to eradicate poverty, improve health and education, reduce inequality and facilitate economic growth – all while tackling climate change and working to preserve the environment and biodiversity, oceans and forests;

**RECOGNIZING** the critical role and contributions of Science, Technology and Innovation (STI) in building and maintaining national competitiveness in a global economy, addressing global challenges and promoting sustainable development;

**REALIZING** STI as a key driver to implement most of the SDGs especially in Emerging Economies (EE), Least Developed Countries (LDCs) and Small Island Developing States (SIDS) in the Indian Ocean Region (IOR) and other parts of the Global South;

#### **RESOLVE AND RECOMMEND THAT -**

- STI policies should comprise strategies for promoting sustainable development and achieving the Sustainable Development Goals (SDGs);
- Adequate funding mechanisms for capacity building in STI should be in place in the areas of basic sciences, R&D infrastructure, intellectual property rights (IPR), technology transfer & commercialization, incubation, and development of S&T Parks;

- A holistic measure on STI-driven sustainable development should be developed in line with the UNDP Human Development Index (HDI);
- Environmentally sound STI best practices and traditions should be encouraged and propagated;
- Realizing the importance of healthy ocean ecosystem, trends for strengthening blue economy, methods for climate change mitigation and adaptation and sustainable use of ocean resources to be promoted;
- Responsible and responsive regulatory mechanism should be developed for social, economic and environmental initiatives; taking into account all the three pillars of sustainable development;
- STI policy initiatives for implementation of SDGs should be developed at national and regional levels, effectively implemented and mechanisms should be developed to periodically monitor and evaluate its progress;
- There is a strong need to ensure women's empowerment and gender equality to facilitate successful transfer of Environmentally Sound Technologies (ESTs) at the household and community levels;
- Approaches involving technological innovations should be geared towards bridging the deepening digital divide within developing societies;
- Indigenous people should be involved to integrate indigenous knowledge systems, culture and traditional knowledge to support the implementation of SDGs;
- All developmental STI initiatives should essentially reflect the specific socio-cultural ethos;
- STI should be harnessed to develop more sustainable products and services and behavioural/attitudinal changes should be encouraged in line with current and future consumption patterns;
- Projects and programmes on STI for sustainable development should be implemented by countries individually and collectively;
- The governments of NAM S&T Centre and IORA Member countries, relevant S&T institutions and other stakeholders and communities are encouraged to rededicate themselves and act on their obligations to provide for sustainable living, meeting the developmental goals and aspirations of the people of the nations that would ensure peace and prosperity of people and planet, now and into the future;
- A pilot program on application of STI for SDGs should be explored to enhance global cooperation for a **Technology Facilitation Mechanism (TFM)** as envisioned in the Agenda 2030;
- SDG good practices, success stories and lessons learned in the implementation of SDGs should be shared through online digital platforms, print media and social media;

This resolution does not represent the views or positions of the IORA or NAM S&T Centre Member States, but a set of technical recommendations from the workshop participants to IORA and NAM S&T Centre Member States for their consideration. These recommendations are non-binding and may be taken up at their discretion.

**THUS, RESOLVED AND ADOPTED UNANIMOUSLY ON THE 25<sup>TH</sup> MAY 2022 VIRTUALLY.**

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**INTERNATIONAL VIRTUAL WORKSHOP ON  
'ROLE OF SCIENCE, TECHNOLOGY AND INNOVATION (STI) IN  
ACHIEVING SUSTAINABLE DEVELOPMENT GOALS – 2030'**

**24-25 MAY 2022**

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