

NAM

S&T Newsletter



A Quarterly of the
Centre for Science and Technology of the Non-Aligned
and Other Developing Countries (NAM S&T Centre)

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FROM THE DG'S DESK

Greetings and best wishes to our Esteemed Readers!!



It gives me immense pleasure to present this quarterly issue of the NAM S&T Centre Newsletter, which highlights the Centre's sustained efforts to promote science, technology and innovation for equitable and sustainable development across its Member Countries and other stakeholders. The period has been characterised by significant scholarly engagements, and substantive progress on capacity-building and knowledge dissemination initiatives.

Notable events during this quarter include an International Workshop on 'Generic Drugs: Science, Technology, Regulatory Issues and Societal Dimensions in the Developing World', organized by the NAM S&T Centre, New Delhi, India in partnership with the JSS Academy of Higher Education & Research (JSS AHER), Mysuru, Karnataka, India, and the Indian Association of Colleges of Pharmacy (IACP), Chennai, Tamil Nadu, India during 23-24 April 2026 in Mysuru, Karnataka; and an International Conference on "Lifestyle Diseases in the Developing World: Perspectives, Current Status and Future Challenges" that was jointly organized by the JSS Academy of Higher Education and Research, Mauritius and the NAM S&T Centre, New Delhi during 14-15 May 2026, which culminated in the adoption of the Mauritius Resolution 2026 in Moka, Mauritius. Both gatherings brought together policymakers, academic experts and industry representatives to deliberate on scientific, regulatory and socio-economic dimensions of healthcare innovation with special reference to non-communicable diseases. These events together have made significant contributions to the United Nations Sustainable Development Goal – 3 (Good Health and Well-Being).

On the publication front, we are delighted to announce the publication of two new books titled "Science, Technology and Innovation in Achieving Sustainable Development Goals" published by Springer Nature, Singapore and "Generic Drugs: Science, Technology, Regulatory Frameworks and Socio-Economic Aspects" published by M/s Allied Publishers, New Delhi.

Two new Fact Files entitled "Green Polymers" and "Life and Livelihoods in the Himalayas: Perspectives from Nepal" were released, presenting concise insights into emerging scientific and developmental issues in the Global South. These were prepared and published in collaboration with the JSS Science & Technology University, Mysuru, Karnataka, India and the Nepal Academy of Science & Technology (NAST), Lalitpur, Nepal respectively.

Continuing on the line of commitment of the Centre towards nurturing young researchers to promote international scientific exchange and collaborative research among Member Countries and partner institutions, we are pleased to announce the recipients of the 'Joint NAM S&T Centre - ZMT Bremen (Germany) Fellowship-2026'.

We are also pleased to announce that JSS University Noida, Uttar Pradesh, India has joined the NAM S&T – Industry Network as Member from April 2026. We warmly welcome our new Partner.

I extend the Centre's appreciation to our Member Countries, Members of NAM S&T – Industry Network and other partners & stakeholders for their continued and sustained support.

Happy Reading!!

Amitava Bandopadhyay
(Amitava Bandopadhyay)
Director General

Centre Organised

International Workshop on
**Generic Drugs: Science, Technology, Regulatory
Issues and Societal Dimensions in the Developing World**
Mysuru, Karnataka, India; 23-24 April 2026

Generic drugs are therapeutically equivalent to branded medicines and play a vital role in ensuring affordable and equitable healthcare, particularly in developing countries. However, their development and adoption involve scientific, technological, regulatory and societal challenges, including bioequivalence, quality assurance, intellectual property rights and public trust. Addressing these issues requires collaboration among scientists, regulators, policymakers, industry



Inauguration of the International Workshop on "Generic Drugs: Science, Technology, Regulatory Issues and Societal Dimensions in the Developing World"

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International Conference on
**Lifestyle Diseases in the Developing World:
Perspectives, Current Status and Future Challenges**
Moka, Mauritius, 14-15 May 2026
(Hybrid Mode)

In recent decades, Lifestyle Diseases, also known as Non-communicable Diseases (NCDs), such as diabetes, cardiovascular diseases, cancer, chronic respiratory illnesses and obesity have emerged as the leading cause of morbidity and mortality across the globe, including in the developing world. These diseases are deeply intertwined with rapid urbanization, sedentary behavior, poor dietary patterns, digital over-reliance and increasing stress levels. While historically framed as the healthcare burden of high-income nations, the shifting epidemiological landscape has brought a disproportionate



Inauguration of the International Conference on "Lifestyle Diseases in the Developing World: Perspectives, Current Status and Future Challenges" (LSD-2026)

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stakeholders, healthcare professionals and social science experts.

In this context, the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, India, in partnership with the JSS Academy of Higher Education & Research (JSS AHER), Mysuru, Karnataka, India; and the Indian Association of Colleges of Pharmacy (IACP), Chennai, Tamil Nadu, India, organized an International Workshop on “**Generic Drugs: Science, Technology, Regulatory Issues and Societal Dimensions in the Developing World**” during 23-24 April 2026 in Mysuru, Karnataka, India. The Workshop brought together over 300 participants from academia, industry, regulatory agencies and healthcare sectors to discuss challenges and opportunities related to generic drug development, regulation, quality, accessibility and public acceptance. The Workshop aimed to strengthen collaboration, promote affordable healthcare and contribute to the achievement of Sustainable Development Goal 3 (SDG-3): *Good Health and Well-Being*.

The Workshop commenced with a Keynote Address by **Dr. Bobby George**, Senior Vice President and Group Head, Regulatory Affairs, Reliance Life Sciences Pvt. Ltd., Navi Mumbai, Maharashtra, India, on '*Assessing the Impact of Changing National Priorities of U.S. FDA on the Industry*'. He highlighted the major policy shifts within the U.S. FDA, including accelerated approvals, domestic manufacturing promotion, AI-driven regulatory reviews and the Commissioner's National Priority Voucher programme, and discussed their implications for innovation, cost reduction and regulatory uncertainty.

Dr. Vishal Kumar Gupta, Dean (Academics), JSS AHER, Mysuru, Karnataka, India welcomed the dignitaries and participants and highlighted the significance of the Workshop.

Following the ceremonial lamp lighting, **Dr. H. Basavanagowdappa**, Vice-Chancellor, JSS AHER, Mysuru, Karnataka, India emphasized the importance of generic medicines in affordable healthcare, encouraged prescribing medicines by generic names and urged pharmacists to address misconceptions surrounding generics.

Dr. B. Suresh, Pro-Chancellor, JSS AHER, Mysuru, Karnataka, India underscored India's global leadership in generic pharmaceuticals and stressed the need for unified international strategies to address emerging healthcare challenges.

Dr. Amitava Bandopadhyay, Director General, NAM S&T Centre, New Delhi, India highlighted the Centre's commitment to South-South cooperation in Science, Technology and Innovation and emphasized collaborative efforts to address scientific, technological, regulatory and societal challenges related to generic medicines.

The Chief Guest, **Dr. Bobby George**, in his address, encouraged participants to utilize the Workshop as a platform for networking, collaboration and knowledge exchange.

Dr. M.D. Karvekar, Director, Krupanidhi College of Pharmacy, Bangalore, Karnataka, India emphasized India's role as the 'pharmacy of the world' and highlighted the contribution of generic medicines to affordable global healthcare.

Dr. T. Jayapal Reddy, Chairman, St. Peter's Institute of Pharmaceutical Sciences, Andhra Pradesh, India stressed the importance of futuristic approaches, including artificial intelligence and advanced research methodologies, in strengthening the generic drug sector.

Dr. T.V. Narayana, Principal, Vikas Institute of Pharmaceutical Sciences, Andhra Pradesh, India reiterated the importance of generic medicines in ensuring affordable and accessible healthcare.

During the Inaugural Session, recently published book titled “**Generic Drugs: Science, Technology, Regulatory Frameworks and Socio-Economic Aspects**”, a joint initiative of the NAM S&T Centre and JSS AHER, was formally released. The book has been jointly edited by **Dr. K. Bangarurajan**, Professor (Regulatory Affairs), JSS College of Pharmacy, JSS AHER, Mysuru, Karnataka and Former Joint Drugs Controller (India), Central Drugs Standard Control Organization (CDSCO), New Delhi, India; **Dr. Subhas G. Malghan**, Former Deputy Director, Office of Science and Engineering Labs, U.S. Department of Health and Human Services, USA; and **Dr. M. P. Venkatesh**, Associate Professor (Regulatory Affairs), JSS College of Pharmacy, JSS AHER, Mysuru, Karnataka, India.

In addition, another book titled “**Dimensioning Healthcare Acts**”, authored by **Dr. Bobby George**, was also released.

In his Presidential Address, **Dr. C.G. Betsurmath**, Executive Secretary, JSS Mahavidyapeetha, Mysuru, Karnataka, India emphasized the role of generic medicines in expanding equitable healthcare access and highlighted India's leadership in the global generic pharmaceutical sector while acknowledging challenges related to intellectual property rights and public trust.

The Inaugural Session concluded with a Vote of Thanks delivered by **Dr. T.M. Pramod Kumar**, Principal, JSS College of Pharmacy, Mysuru, Karnataka, India.

The two-day Workshop comprised six Panel Discussions and nine expert presentations.

Panel Discussion I on '*Future of Generic Development – Bridging Science, Innovation and Affordability*' featured **Ms. Sumathi Vinay Rao**, **Dr. Vijay Kulkarni**, **Mr. Harish K. Jain** and **Dr. Shailesh Biradar** as Panelists, and was moderated by **Dr. T. Jayapal Reddy**. The discussion focused on the future of generic pharmaceuticals, emphasizing innovation, affordability, sustainability and advanced technologies. Panelists highlighted the evolution of generics from low-cost alternatives to contributors to improved therapeutic outcomes and patient-centred care. Key developments discussed included super generics, API innovation, drug repurposing, biosimilars, AI, machine learning, automation and Industry 4.0 technologies. The panel recommended strengthening research, encouraging student participation, adopting advanced technologies, promoting sustainable manufacturing and pursuing global regulatory harmonization to improve global healthcare delivery.

Expert Talks Session I which was moderated by **Dr. M.D. Salahuddin**, featured two expert presentations.

Paper Presentation I was presented by **Dr. Vijay Kulkarni**, Co-Founder & Director, Swalava Enterprises Pvt. Ltd., Bangalore, India on '*Hot Melt Extrusion- A New Approach to Enhance Drug Capability*' discussing BIRAC-supported work on improving Albendazole bioavailability through advanced formulation technologies.

Paper Presentation II was made by **Dr. Muthia Rahayu Iresha**, Junior Researcher, National Research and Innovation Agency (BRIN), Jakarta, Indonesia on '*Exploring Rhizome-Derived Bioactives for Sarcopenia Prevention Using Network Pharmacology and In Silico Modeling*' highlighting computational approaches for affordable drug development.

Panel Discussion II on '*Advancing Manufacturing Excellence in Generic Pharmaceuticals*' featured **Dr. D. Roy**, **Dr. Paul Watts**, **Dr. Girish Pai K.** and **Mr. Raja Agnihotri** as Panelists, and was moderated by **Dr. T.V. Narayana**. Discussion focused on maintaining quality while ensuring affordability, strengthening GMP implementation, workforce competency and academic-industry collaboration. Emerging technologies such as continuous manufacturing, automation and process modernization were identified as key drivers of efficiency and

quality. The panel recommended stronger quality management systems, transparency, technology adoption and regulatory harmonization to ensure affordable, reliable and high quality medicines worldwide.

Expert Talk Session II was moderated by **Dr. Arulkumaran**, and featured one expert presentation.

Paper Presentation III was made by **Mr. Zuhair Mohammad Abdelqader Abuawwad**, Executive Manager, New Trend TIC Company, Ramallah, Palestine on *'Impact of Digital Transformation and Artificial Intelligence on Pharmaceutical Manufacturing Quality in Developing Countries'* highlighting AI-based quality prediction, automated defect detection, predictive maintenance and digital twin technologies as tools to enhance manufacturing quality and GMP compliance.

Panel Discussion III on *'Bioequivalence, Quality and Trust – Ensuring Confidence in Generic Medicines'* featured four panelists: **Dr. M.S. Lokesh Prasad**, **Prof. Shital Mahindra Mohanlal Maru**, **Mr. Rahul Vakknalli** and **Mr. Puneet Kumar Gupta** and was moderated by **Dr. Praveen Devanandan**. Discussion focused on bioequivalence, quality assurance, regulatory expectations and public trust. Panelists emphasized that confidence in generic medicines requires more than bioequivalence alone and highlighted the importance of quality systems, pharmacovigilance, real-world evidence, transparent regulation and manufacturing consistency. Recommendations included stronger surveillance, workforce training and clinician engagement harmonization to achieve consistent therapeutic outcomes and strengthen public trust.

Expert Talk Session III was moderated by **Dr. Anupama Koneru**, and featured one expert presentation.

Paper Presentation IV was made by **Dr. Paul Watts**, SARChI Chair and Distinguished Professor, Nelson Mandela University, Port Elizabeth, South Africa on *'The Application of Flow Chemistry to Manufacture Generic APIs in Africa'* emphasizing continuous-flow technologies for affordable and sustainable API manufacturing.

Panel Discussion IV on *'Navigating Global Regulatory Pathways for Generic Medicines'* featured **Smt. Annam Visala**, **Dr. V. Ravichandiran**, **Dr. Amaresh Tumbagi** and **Mr. Craig Patrick Kiester** as Panelists, and was moderated by **Dr. K. Bangarurajan**. The discussion focused on approval pathways for generic medicines and biosimilars in India and the United States. The panel examined the roles of CDSCO and State Licensing Authorities, bioavailability and bioequivalence requirements, CMC documentation, quality assurance and the impact of the Hatch-Waxman Act. Stronger pharmacovigilance, regulatory coordination and investment in advanced manufacturing and biosimilar research were recommended to ensure safe, effective and affordable healthcare worldwide.

Expert Talks Session IV was moderated by **Dr. T.M. Pramod Kumar**, featuring two expert presentations.

Paper Presentation V was made by **Dr. Aye Myat Mon**, Deputy Director, Department of Research and Innovation, Ministry of Science and Technology, Yangon Region, Myanmar on *'Generic Drug Approval in Myanmar: Regulatory Framework, Market Challenges and Public Health Implications'* discussing regulatory reforms, quality assurance challenges and market realities.



Group Photo of the International Workshop on "Generic Drugs: Science, Technology, Regulatory Issues and Societal Dimensions in the Developing World"

Paper Presentation VI was given by **Dr. Nawraj Rummun**, Biopharmaceutical Unit Centre for Biomedical and Biomaterials Research, University of Mauritius, Republic of Mauritius on *'Barriers to Generic Drug Adoption in Mauritius'* highlighting public misconceptions, preference for branded medicines and the need for education and policy reform to strengthen trust in affordable healthcare.

Panel Discussion V on *'Intellectual Property, Patent Landscapes and Access to Affordable Medicines'* comprised of three panelists: **Dr. Rajesh Srinivasan**, **Dr. G. Selvaraj** and **Dr. Ramgopal Rao S.** and was moderated by **Dr. Balamuralidhara V.** Discussion focused on balancing innovation with affordability through intellectual property frameworks. The panel examined TRIPS provisions, Section 3(d) of the Indian Patent Act, compulsory licensing, innovation-driven growth and India's efforts toward pharmaceutical self-reliance. Recommendations included strengthening R&D investment, commercialization, patent awareness, academia-industry collaboration and domestic API production for strengthening pharmaceutical self-reliance while ensuring affordable access to medicines and sustainable growth of the generic pharmaceutical sector.

Expert Talks Session V which was moderated by **Dr. Gurubasavaraj V. Pujar**, featured two expert presentations.

Paper Presentation VII was made by **Dr. Mohamed Abdalla Mohamed Mohamed Hamzawy**, Professor, Pharmacology & Toxicology and Dean, Faculty of Pharmacy, Fayoum University, Egypt on *'From Innovation to Elimination: Lessons from the Egyptian Generic Sofosbuvir Model for Strengthening the Generic Drug Ecosystem in the Developing World'* emphasizing interdisciplinary collaboration, evidence-based policy and integrated regulatory frameworks to strengthen access to essential medicines and improve public health outcomes in developing countries.

Paper Presentation VIII was made by **Dr. Gan Bahadur Bajracharya**, Chief Scientific Officer, Nepal Academy of Science & Technology (NAST), Lalitpur, Nepal on *'Rheum nobile: A Himalayan Rhubarb With Effective Healing Effect'* highlighting its traditional medicinal applications and pharmacological potential.

Panel Discussion VI on *'Generics and Global Health – Ethics, Access and Societal Impact'* featured **Dr. M.D. Karvekar**, **Dr. Srinath K.M.** and **Mr. Amanulla Khan** as Panelists, and was moderated by **Dr. Shilpa Palaksha**. Discussions focused on ethical prescribing, patient adherence, pharmacy education and societal perceptions of generic medicines. Panelists emphasized the importance of patient education, rational prescribing, responsible substitution practices and stakeholder collaboration to improve trust in generics and expand healthcare access.

Expert Talk Session VI which was moderated by **Dr. H.V. Gangadharappa**, featured one expert presentation.

Paper Presentation IX was made by **Prof. Shital Mahindra Mohanlal Maru**, Dean, School of Pharmacy & Health Sciences, United States International University, Nairobi, Kenya on *'Development of Pharmaceutical Industry in Sub Saharan African Region: A Strategic Plan under South-South Collaboration'* discussing strategies for strengthening local pharmaceutical manufacturing through improved formulation science, bioequivalence capacity, regulatory harmonization, local API production, public-private partnerships and supply-chain resilience.

Each Session was concluded with a comprehensive discussion to enhance learning and get diverse perspectives on the Panel Discussions and presentations.

The Valedictory Session began with welcoming remarks by **Dr. H.V. Gangadharappa**, Associate Professor and Head, JSS College of Pharmacy, Mysuru, Karnataka, India.

Dr. Amitava Bandopadhyay congratulated the organizers and highlighted the relevance of the Workshop's discussions for developing countries, emphasizing stronger industry-academia collaboration to advance affordable healthcare and achieve SDG-3.

Dr. M.D. Karvekar stressed the importance of ensuring that economically disadvantaged populations are not deprived of healthcare due to cost barriers.

Dr. Sudeendra Bhat R., Controller of Examinations, JSS AHER, Mysuru, Karnataka, India highlighted the significance of affordable, high-quality medicines, ethical manufacturing practices and effective utilization of off-patent molecules.

Dr. Vishal Kumar Gupta presented an overview of the Workshop and emphasized the importance of South-South cooperation, scientific partnerships and strengthened regulatory frameworks in building resilient healthcare systems.

The Valedictory Session concluded with a Vote of Thanks by **Dr. Meghana G. S.**, Assistant Professor, JSS College of Pharmacy, Mysuru, Karnataka, India.

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transition to low and middle-income countries. Emerging economies confront a dual burden of infectious diseases and growing metabolic disorders linked to lifestyle changes. This shift threatens public health infrastructures and strains personal and national financial resources.

To address these vulnerabilities and to foster international knowledge exchange, the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, India, in partnership with the JSS Academy of Higher Education and Research, Mauritius (JSSAHERM), organized an **International Conference on "Lifestyle Diseases in the Developing World: Perspectives, Current Status and Future Challenges" (LSD-2026)** during **14 – 15 May 2026** in **Moka, Mauritius** (in hybrid mode). The Conference established a collaborative global forum to address the challenges to achieve the United Nations Sustainable Development Goal (SDG 3): Good Health and Well-being. The event brought together **82 participants** from **11 countries** (*Canada, India, Indonesia, Kenya, Malaysia, Nepal, Palestine, South Africa, Zambia, Zimbabwe and the host country Mauritius*), comprising a diverse group of medical experts, policymakers, financial strategists and researchers to develop preventive and curative strategies for addressing NCDs.

Opening Ceremony: The proceedings of the Conference were moderated by **Ms. Bhumika Devi Fakeer**, JSSAHERM. She warmly welcomed the Chief Guest **Dr. The Honourable Kaviraj Sharma SUKON**, Minister of Tertiary Education, Science and Research, Government of Mauritius, distinguished dignitaries, invited speakers, delegates and students attending the conference in both physical and virtual modes.

The **Welcome Remarks** were delivered by **Prof. (Dr.) Ashish D. Wadhvani**, Head, Faculty of Health Sciences and Dean, School of Pharmacy, JSSAHER, Mauritius. He extended a warm welcome to all dignitaries, invited speakers, delegates and participants. He acknowledged the valuable partnership with the NAM S&T Centre in advancing shared goals related to science, technology, healthcare and sustainable development.

The **Opening Remarks** were delivered by **Dr. Amitava Bandopadhyay**, Director General, NAM S&T Centre, New Delhi, India. He stressed the importance of international scientific collaborations, equitable partnerships and capacity building among member countries. Dr. Bandopadhyay highlighted the NAM S&T Centre's continued commitment to supporting member countries to align their healthcare models with global development goals through effective South-South cooperation. He expressed his sincere gratitude to **Dr. The Honourable Kaviraj Sharma SUKON**, Minister of Tertiary Education, Science and Research, Govt. of Mauritius; and President, NAM S&T Centre Governing Council, for graciously accepting the invitation to attend the Inaugural Session as the Chief Guest, despite his demanding schedule.

Prof. (Dr.) Praveen Mohadeb, Chief Executive Officer and Vice-Chancellor, JSSAHERM during his **Opening Remarks** welcomed the dignitaries, invited guests, speakers and participants, and provided an overview of JSSAHERM's vision, achievements and contributions to higher education and healthcare in Mauritius.

The Conference was officially inaugurated by the **Chief Guest, Dr. The Honourable Kaviraj Sharma SUKON**, Minister of Tertiary Education, Science and Research, Republic of Mauritius. In his **Inaugural Address**, he warmly welcomed the participants, speakers, researchers and delegates from across the developing world. The Minister emphasized the need for multidisciplinary research and collaborative efforts. He noted that addressing the growing burden of NCDs requires a comprehensive approach that integrates technological innovation, public awareness and preventive healthcare. He further highlighted the financial implications that chronic diseases impose on national healthcare systems, emphasizing the need for preventive strategies and long-term policy planning. Following his address, he **officially released the LSD-2026 Conference Booklet (e-Abstract Booklet)**.



Group Photo of the International Conference on "Lifestyle Diseases in the Developing World: Perspectives, Current Status and Future Challenges" (LSD-2026)

A formal **Vote of Thanks** was delivered by **Mr. Naveen K.P.**, Registrar, JSSAHERM, and acknowledged the efforts of the organizing committee, faculty members, staff, students, sponsors and volunteers.

The Inaugural Session concluded with **Prologue Address**, delivered online by **Dr. H. Basavanagowdappa**, Vice Chancellor, JSSAHER, Mysuru, Karnataka, India. In his address, Dr. Basavanagowdappa described lifestyle diseases as the "new pandemic" of the modern era, highlighting their rapid rise across both developed and developing nations. He emphasized that the objective of healthcare should not merely be to increase life expectancy but to ensure healthier, more productive and meaningful lives.

The two day Conference was held in **4 Technical Sessions** comprising of 3 Keynote Lectures, 15 Paper presentations, 8 Student presentations including 2 e-posters presentations, a **Panel Discussion**, and the **Adoption of Resolution**.

Technical Session I on “**Epidemiology of Lifestyle Diseases in Developing Nations**” comprised a Keynote Lecture, an invited speaker presentation, four paper presentations and one student paper presentation.

The session began with the first **Keynote Address** by **Dr. Lakshmi Nagendra**, Associate Professor, Department of Endocrinology, JSS Medical College, Mysuru, Karnataka, India on the topic “**Osteoporosis as a Neglected Non-Communicable Disease in Developing Countries**”. The address underscored the importance of early diagnosis, preventive interventions and policy initiatives to address the growing burden of osteoporosis in resource-constrained settings.

The first **invited speaker**, **Dr. Sankaragoundan Palayam Palanisamy Dhanabal**, Professor of Pharmacognosy and Principal, JSS College of Pharmacy, Ooty, India, delivered a presentation on “**Integrative AYUSH Approaches for NCDs in Developing Countries**”.

Thereafter, there were four paper presentations by: **Dr. Elly Ochieng Munde**, School of Physical and Biological Sciences, Tom Mboya University, Kenya, on “**Lifestyle Diseases in Kenya: Current Status, Burden, and Future Public Health Challenges**”; **Dr. Pravinkumar Ranchhodhbhai Dudhagara**, Department of Biosciences, Veer Narmad South Gujarat University, India, (online) on “**Navigating Lifestyle Transitions and Integrative Restoration by Microbiome-Metabolome Analysis in Indian Colorectal Cancer Patients**”; **Dr. Kartika Afrida Fauzia**, Researcher, Research Center for Pre Clinical and Clinical Medicine, National Research and Innovation Agency (BRIN), Indonesia, on “**Increasing Trends of Chronic Respiratory Diseases in Outpatients Clinic Based on ICD-10 Classification by Sex and Age Group: A Retrospective Analysis, 2019–2024**”; and **Dr. Tatsha Chandra Bholah**, Lecturer, University of Technology, Mauritius, on “**Prostate Cancer in Mauritius: Bridging the Genetic Evidence Gap**”.

The session concluded with a student paper presentation by **Mr. Nitin Kumar Busguth**, PhD Scholar at JSSAHER, Mauritius. His study, “**Patient Counselling and its Impact on Quality of Life of Patients: A Cross-Sectional Study**” examined the role of structured patient counselling in improving treatment adherence, disease understanding and overall quality of life among patients.

Technical Session II on “**Integrative Approaches to NCD Prevention**” commenced with a second **Keynote Address** of the Conference by **Dr. Vidushi Shradha Neergheen**, Associate Professor, Centre for Biomedical and Biomaterials Research, University of Mauritius, on the topic “**Advancing the Role of Biodiversity in Biomedicine, Nutraceuticals Development, and Public Health in Mauritius**”. She discussed how indigenous plant resources and natural products can contribute to health promotion while supporting sustainable development.

Subsequently, in the session, there were two paper presentations, four student presentations and a **Panel Discussion**.

Dr. Deegendra Khadka, Senior Scientific Officer at the Nepal Academy of Science and Technology (NAST), Nepal, presented his research paper entitled “**Evaluation of Antidiabetic Potential of Rhododendron arboreum Flower Extract in Experimental Diabetes Mice**”. He discussed the increasing prevalence of diabetes in developing nations and the need for affordable therapeutic alternatives. Another paper as online presentation was by **Dr. Raghad Ghassan Mohammad Tanbour**, Assistant Professor of Internal Medicine, Arab American University of Palestine, Palestine on “**Suggestive Approach for Handling Cancer Patients during the COVID-19 Pandemic: Perspectives from a Developing Country on How to Adapt Current Practice**”. Drawing from clinical experiences during the pandemic, Dr. Raghad discussed challenges encountered in providing cancer care amid healthcare disruptions and resource limitations.

Four Student paper presentations were presented by **Mrs. Neelima Sowmya Annavarapu**, PhD Scholar at JSSAHERM, on “**Antimicrobial Evaluation of Fucoidan Extracted from Mauritian Brown Seaweeds Using Minimum Inhibitory Concentration (MIC) Assay**”; **Mrs. Tina Dassyne**, PhD Scholar at JSSAHERM on “**An Investigation on Mauritian Endemic Plants and Their Biological Activities: Phytochemical Profiling and Bioactivity Assessment of Hyophorbelagenicaulis, Dictyosperma album, and Latania loddigesii**”; **Ms. Shubhiksha S.D.** from the Department of Pharmacy Practice, JSS College of Pharmacy, Ooty, India on “**From Gut to Heart: the Role of Microbial Metabolites in Atherosclerosis in South Indian Population – an Exploratory Study**” and **Dr. Indrajit Banerjee**, PhD Scholar at JSSAHERM on “**Gestational Diabetes Mellitus in Mauritius: A Hospital-Based Cross-Sectional Study**”.

The **Panel Discussion** on “**Strengthening Lifestyle Disease Control in the Global South**” featured distinguished experts from academia, research and public health, including – **Prof. (Dr.) Praveen Mohadeb**, Mauritius; **Dr. Lakshmi Nagendra**, India; **Dr. Kartika Afrida Fauzia**, Indonesia; **Mr. Saiton Murindi**, Zimbabwe; **Dr. Vidushi Shradha Neergheen**, Mauritius; **Prof. (Dr.) Balaraj B. M.**, Mauritius; and **Dr. Elly Ochieng Munde**, Kenya.

The discussion was moderated by **Prof. (Dr.) Jaishree Vaijanathappa**, Head, Faculty of Life Sciences and Faculty of Management Studies JSSAHERM. The panel discussion was highly interactive and generated significant engagement from participants representing diverse countries and professional backgrounds. Overall, the panel concluded that lifestyle diseases are driven by a combination of biological predisposition, modern sedentary behavior, dietary transitions, economic pressures and systemic healthcare limitations. Addressing them requires an integrated approach combining behavioral change, preventive care, public awareness and coordinated national policy action.

On the second day of the Conference there were two Technical Sessions: **Session III** on “**Youth, Mental health and Sedentary Lifestyles/ Digital health and AI for LSD**”; and **Session IV** on “**Nutrition Transition and Urbanisation/ Health system strengthening for NCD Control/ Emerging trends, Metabolic disorders, Obesity and Diabetes in the Global South**”.

Third **Keynote Address** of the Conference was by **Mr. Sadeck Vawda**, General Manager, UNICORN (MSJ Ltd), Mauritius, on “**Lifestyle Medicine and Lifestyle Drugs: Concept and Applications**”, further strengthened the transition from problem identification to intervention-oriented thinking.

During the day, eight papers were presented by – **Ts. Dr. Kalaivani Chellappan**, Associate Professor, Department of Electrical, Electronics & System, Faculty of Built & Environment, Universiti Kebangsaan Malaysia (UKM), Malaysia, on “**Digital Health and AI for Lifestyle Disease Management: Opportunities and Challenges in Low-Resource Settings**”; **Dr. Manish Putteeraj**, Senior Lecturer, University of Technology, Mauritius, on “**TikTok and the Fear of Missing out: Analyzing Social Media Consumption and Mental Wellbeing**”; **Dr. Shiva Shankaran Chettiar**, Director, Genexplore Diagnostic and Research Centre, India, on “**Microbiome-Metabolome Dysbiosis in PCOS among Indian Women: A Multi-Omics Evidence of Lifestyle-Driven Reproductive Health Disruption**”; **Dr. Zareen Beebeejaun-Muslum**, Senior Lecturer and Head, Mahatma Gandhi Institute, Mauritius on “**Women, Work–Family Balance and Lifestyle Diseases: The Hidden Costs of Urbanization in the Global South**”; **Prof. Rajesh Vagiri**, Rhodes University, South Africa, virtually on “**Mental Health and Non-Communicable Diseases: The Role of a Pharmacist**”; **Mr. Saiton Murindi**, Department of Food Processing Technology, Harare Institute of Technology, Zimbabwe on “**Assessing the Compliance of Sodium Levels in Packaged Foods and Beverages Sold in East Africa to WHO Global Benchmarks**”; **Prof. Varsha Bangalee**, Associate Professor (Pharmacy Practice) Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, South Africa, virtually on “**TikTok, Truth and Treatment: How Digital Health Content Shapes Patient Behaviour in Lifestyle Disease Management**” and **Mr. John Lumbala Chitoti**, Lecturer, Copperbelt University,

Zambia, presented on “*GLUT4 Polymorphisms and Type 2 Diabetes Risk in People Living with HIV: From Global Systematic Review to Primary Investigation in Lusaka, Zambia*”, highlighting the intersection of genetic susceptibility, infectious diseases and metabolic disorders.

3 Student and early-career researcher presentations added depth to the session, including a study on “*Hypertension in the Elderly Population of Mauritius*” by **Dr. Praveen Shivchandra Mohadeb**, PhD Scholar, JSSAHERM. Student's two e-poster presentations included “*An Epidemiological Study on the Prevalence and Assessment of Bone-Related Disorders in Mauritius*” by **Dr. Khayati Moudgil**, PhD Scholar, Faculty of Health Sciences, and “*The Impact of Social Media on Adolescents' Psychological Well-being*” by **Ms. Nishpa Juggoo**, PhD Scholar, Faculty of Health Sciences – both from JSSAHERM.

The Conference proceeded with the **Adoption of Mauritius Resolution 2026** on “**Lifestyle Diseases (LSD) in the Developing World: Perspectives, Current Status and Future Challenges**”, outlining key recommendations and future action points derived from the Conference deliberations. Extensive discussions were held, after which the **Resolution was unanimously adopted** by the participants with recommendations for the concerned ministries, agencies and other authorities in their countries.

The Conference concluded with **Closing Remarks** by **Prof. (Dr.) Praveen Mohadeb** who expressed his sincere gratitude to NAM S&T Centre's representatives. He also extended heartfelt thanks to the Organizing Committee Members, Volunteers, Sponsors and all dignitaries.

The Conference drew to a successful closure with the enduring reminder that “**health is not everything, but without health, everything is nothing**”.

MAURITIUS RESOLUTION ON LIFESTYLE DISEASES 2026

Lifestyle Diseases (LSD) in the Developing World: Perspectives, Current Status and Future Challenges

14 – 15 May 2026, Mauritius

WE, THE DELEGATES, participating in the International Conference on “*Lifestyle Diseases in the Developing World: Perspectives, Current Status and Future Challenges (LSD 2026)*”, organized by the **JSS Academy of Higher Education and Research, Mauritius (JSSAHERM)** in association with the **Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre)**, New Delhi, India, held during **14–15 May 2026 in Mauritius**;

Representing governments, academic and research institutions, healthcare organizations, industry stakeholders, and policymakers from various Non-Aligned and developing countries like Indonesia, Kenya, Malaysia, Nepal, Palestine, South Africa, Zambia, Zimbabwe, India and Mauritius;

RECOGNIZING THAT:

- Lifestyle diseases or Non-Communicable Diseases (NCDs), including cardiovascular diseases, diabetes, cancer, chronic respiratory diseases, and mental health disorders, are the leading causes of morbidity and mortality globally, with a rapidly increasing burden in developing countries.
- Developing nations are experiencing a **dual burden of disease**, where infectious diseases persist alongside the rising prevalence of lifestyle-related conditions, compounded by urbanization, sedentary lifestyles, unhealthy diets, and socio-economic disparities.
- The increasing burden of lifestyle diseases poses a significant threat to achieving the **United Nations Sustainable Development Goals (SDGs)**, particularly:
 - **SDG 3:** Good Health and Well-being
 - **SDG 4:** Quality Education
 - **SDG 1:** No Poverty
 - **SDG 10:** Reduced Inequalities
 - **SDG 17:** Partnerships for the Goals
 - **SDG 5:** Gender Equality

REALIZING THAT:

- Prevention, early detection, and management of lifestyle diseases require **multi-sectoral, interdisciplinary, and community-driven approaches**, tailored to the socio-economic and cultural contexts of developing countries.
- There is a pressing need for **strengthened health systems**, improved surveillance mechanisms, equitable access to essential medicines, and integration of innovative technologies such as digital health and artificial intelligence into healthcare delivery.
- Regional collaboration and **South-South cooperation** under the framework of NAM S&T Centre can significantly contribute to knowledge exchange, capacity building, and sustainable healthcare solutions.

RECALLING THE AIMS OF THE CONFERENCE:

- To deliberate on the **current trends, risk factors, and socio-economic burden** of lifestyle diseases in developing regions;
- To share **scientific innovations, preventive strategies, best practices, and policy frameworks** for effective NCD management;
- To strengthen **health systems and improve primary healthcare responses** for the prevention and control of lifestyle diseases;
- To promote **evidence-based policymaking and encourage integrated multi-sectoral approaches** to addressing NCD challenges;
- To foster regional and international collaboration, knowledge-sharing and partnerships for combating the growing burden of NCDs.

COMMITTING OURSELVES:

To support the global agenda of achieving the **United Nations Sustainable Development Goals (SDGs) 2030**, particularly reducing premature mortality from NCDs and promoting health and well-being for all through equitable, sustainable, and collaborative strategies.

UNANIMOUSLY RESOLVE AND RECOMMEND THE FOLLOWING:

1. **Strengthen NCD Surveillance Systems:**
Develop robust national and regional surveillance systems to generate accurate data for evidence-based planning and policy formulation.
2. **Promote Preventive Healthcare Strategies:**
Enforce lifestyle modifications through public health campaigns focusing on healthy diet, physical activity, tobacco cessation, and mental well-being.

3. **Enhance Primary Healthcare Systems:**
Strengthen primary healthcare infrastructure for early detection, screening, and management of lifestyle diseases, particularly in rural and underserved areas.
4. **Encourage Multidisciplinary Research and Collaboration:**
Foster partnerships among academia, industry, and governments to conduct research addressing region-specific health challenges.
5. **Leverage Digital Health and Artificial Intelligence:**
Training the healthcare professionals for digital health and artificial intelligence and Promote the use of telemedicine, mobile health technologies, AI, and data analytics for improving accessibility, diagnosis, and management of NCDs.
6. **Address Social Determinants of Health:**
Develop policies targeting poverty, education, urbanization, and environmental factors contributing to lifestyle diseases.
7. **Focus on Youth and Mental Health:**
Implement targeted interventions addressing sedentary lifestyles, digital addiction, and mental health challenges among youth populations. Conduct education based awareness programmes at school levels.
8. **Promote Gender Equity in Healthcare:**
Address disparities affecting women in access to healthcare, risk exposure, and disease outcomes. Provide flexible work arrangement facilities and wellbeing activities.
9. **Integrate Traditional and Complementary Medicine:**
Encourage evidence-based integration of traditional practices, including yoga and indigenous medicine, into preventive healthcare frameworks.
10. **Improve Access to Essential Medicines and Technologies:**
Ensure affordability, availability, and accessibility of essential medicines, diagnostics, and healthcare services.
11. **Capacity Building and Workforce Development:**
Strengthen training programs for healthcare professionals, researchers, and public health workers in NCD prevention and management.
12. **Promote Regional and Global Partnerships:**
Establish collaborative platforms among NAM member countries for sharing best practices, resources, and innovations.
13. **Climate Change, Food Security and Health:**
Recognize and address the impact of environmental and climate factors on lifestyle diseases and public health.
14. **Policy Advocacy and Governance:**
Encourage governments to adopt **evidence-based, inclusive, and sustainable health policies** aligned with SDGs and Universal Health Coverage goals.

FINAL DECLARATION

This resolution represents a set of **technical recommendations** from the Conference participants to the **JSSAHERM** and **NAM S&T Centre Member Countries** for their consideration.

These recommendations are **non-binding** and may be adopted or implemented at the discretion of the respective governments and institutions.

The discussions, conclusions and recommendations expressed during the Conference are intended solely for academic, scientific and policy dialogue purposes and should not be construed as medical advice, clinical guidance or legally binding directives. They reflect the collective perspectives and expert opinions of the participating delegates and experts during the Conference.

THUS, RESOLVED AND ADOPTED UNANIMOUSLY

on the 15th May 2026 at Mauritius.

Participation of NAM S&T Centre in "Foundations of Science Diplomacy: A Training Programme for Early and Mid-Career Researchers"

The Training Programme on "Foundations of Science Diplomacy: A Training Programme for Early and Mid-Career Researchers" was held in Cape Town, South Africa, from 21-23 June 2026. The programme was jointly organised by the Future Earth Africa Hub Leadership Centre (FEAHL), South Africa; the National Research Foundation (NRF), South Africa; the University of Venda (UNIVEN), South Africa; and the International Science, Technology and Innovation Centre for South-South Cooperation under the Auspices of UNESCO (ISTIC), Malaysia; with participation of the NAM S&T Centre, New Delhi as a Scientific Partner.

The training programme was designed to equip early- and mid-career researchers (EMCRs) from the Global South with foundational knowledge, practical skills and professional networks to enable their effective engagement in the field of Science Diplomacy.

The NAM S&T Centre nominated and provided financial support to four delegates to participate in the programme: Prof. Dr. Mona Mohammed Ahmed ElNaa from the Academy of Scientific Research and Technology (ASRT), Cairo, **Egypt**; Dr. Loice Jekpurgat Koskei from Koitaleel Samoei University College, Mosoriot, **Kenya**; Dr. Mohd Amiruddin Bin Abd Rahman from Universiti Putra Malaysia, Selangor, **Malaysia**; and Dr. Melody Ndemera from the Harare Institute of Technology, Harare, **Zimbabwe**. In addition, Prof. Dr. Kiran Bhujun, Director - Tertiary Education and Scientific Research, Ministry of Tertiary Education, Science and Research, Government of Mauritius, **Mauritius** was nominated as a Resource Person for the training programme.

Centre Welcomes

JSS UNIVERSITY NOIDA

As A New Member of the NAM S&T Industry Network

The NAM S&T Centre warmly welcomes the **JSS UNIVERSITY NOIDA**, Uttar Pradesh, India as an esteemed member of the NAM S&T - Industry Network.

JSS UNIVERSITY NOIDA is committed to leveraging education, science, and innovation for societal progress and sustainable development. Rooted in the philosophy of **Educate, Empower, Excel**, JSS UNIVERSITY NOIDA fosters academic excellence, ethical leadership, interdisciplinary research, and global engagement thereby promoting scientific cooperation, capacity building and technology-driven solutions.

JSS UNIVERSITY NOIDA is a multidisciplinary institution committed to excellence in education, research, and innovation. Through its Schools of Engineering and Technology, Management, Sciences, Pharmacy, Humanities, and Life Sciences, the University is building a future-ready ecosystem focused on emerging areas such as Artificial Intelligence, Data Science, Digital Health, Public Health, Sustainability, and Entrepreneurship. The University is also expanding its academic portfolio with programmes in AYUSH (India's traditional and alternative healthcare systems) and Wellness, Life Sciences and Health Technology, Law and Humanities, and Leadership and Governance.

The University's Science & Technology Entrepreneurs Park (JSS STEP), established in 2004, promotes knowledge-based and innovation-driven entrepreneurship by supporting technology ventures, fostering industry collaboration, and creating employment opportunities through incubation and innovation.

Guided by the enduring legacy of JSS Mahavidyapeetha in Education, Service and Nation-building, JSS UNIVERSITY NOIDA is committed to nurturing globally competent professionals and advancing transformative knowledge through excellence in education, research, human resource development, international collaboration, technology transfer, and the application of science and technology for inclusive and sustainable development.



RELEASE OF THE FACT FILE ON GREEN POLYMERS

The Fact File on “**Green Polymers**”, a joint initiative of the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, India and JSS Science and Technology University (JSS STU), Mysuru, Karnataka, India, was formally released by **Dr. Amitava Bandopadhyay**, Director General, NAM S&T Centre, New Delhi, India on 24 April 2026 at the SJCE Board Room, JSS STU, Mysuru, Karnataka, India. The Fact File has been authored by **Dr. B. S. Madhukar**, Associate Professor, Department of Chemistry, JSS STU, with contributions from **Dr. S. Suriyanarayanan**, Associate Dean (Research), **Ms. Yashaswini V. L.**, JSS STU and the Scientific Staff of the NAM S&T Centre.

The document highlights green polymers as sustainable, biodegradable and recyclable alternatives to conventional plastics. It covers their properties, synthesis methods, recent advances and applications in various sectors. It also discusses market trends, challenges, adoption strategies and their role in supporting the United Nations Sustainable Development Goals (SDGs) and “Circular Economy”.

The Fact File release event commenced with welcome remarks by **Dr. V.N. Manjunath Aradhya**, Dean (Research), JSS STU, Mysuru, Karnataka, India. The

Principal Contributor, **Dr. Madhukar**, outlined the significance of the document and expressed his gratitude to the NAM S&T Centre for its support and collaboration in bringing out this valuable publication.

Dr. Amitava Bandopadhyay commended the academic leadership of JSS STU for its commitment to sustainability and noted that the Fact File is a strong reflection of the successful partnership between the two institutions. Dr. Bandopadhyay also highlighted the ongoing collaborative activities between the NAM S&T Centre and JSS STU.

Prof. A. N. Santosh Kumar, Vice-Chancellor, JSS STU, Mysuru, Karnataka, India highlighted the need for greater public awareness of the environmental impacts of plastics and the role of such publications in promoting scientific understanding and environmental responsibility.

The event concluded with a Vote of Thanks delivered by **Dr. C. Nataraju**, Dean Engineering and Principal, Sri Jayachamarajendra College of Engineering (SJCE), JSS STU, Mysuru, Karnataka, India who stressed the value of continued collaboration to address sustainability challenges. The release of the Fact File received significant media attention and was covered by “**The Hindu**”, one of India's leading national newspapers helping to disseminate the key messages of the Fact File to a wider audience.



Release of the Fact File on “Green Polymers”

Special Feature

Science & Technology for Sustainable Living

Abstract

Science and Technology (S&T) are beyond the understanding of common people, and with each passing day, this knowledge gap is increasing as new knowledge is being created. In science, we are in the business of establishing truths while technology is the application of scientific knowledge to achieve practical goals. S&T can be used to change the environment around us, develop innovations and foster industrialization, improve health and wellbeing and provide us with better food security.

This article takes the reader through a brief look on how science and technology can be used in achieving Sustainable Development Goals (SDGs) set under the UN Sustainable Development Agenda 2030, particularly to address important issues on meeting basic human needs such as food safety and security, health and well-being, and clean water & sanitation. It also briefly discusses how important problems can be solved through the use of Science Diplomacy.

Introduction

Advances in Science and Technology (S&T) have made tremendous impact on humanity and society in general. The most significant examples are in the areas of industrial revolution, agricultural innovation, food science & technology, information and communication technology, building and construction technology, drugs and pharmaceuticals, transportation technology, etc. which have completely transformed the life of all of us, especially the common people. However, in spite of tremendous advancements in science and technology in various disciplines, there are lot of disparities between the industrially advanced countries (Global North) and the developing countries (Global South). Developing countries have not been able to fully avail the benefits of S&T due to lack of adequate R&D investment, infrastructure and human resources, poor policy making capabilities, huge digital divide, and above all, lack of resources.

Knowledge of science and technology should be utilized to benefit all strata of society equally, and not for a particular section of people, or a particular group of countries. S&T should be effectively and efficiently used to solve the common problems facing humanity, such as, poverty, hunger & food security, diseases, scarcity of potable water, illiteracy, environmental degradation, climate change and many other such issues.

Sustainable Human Well-being

Human well-being is dependent on three pillars, viz., economic conditions, socio-political status, and environmental conditions. These factors have been interlinked through various Sustainable Development Goals (SDGs) set under the UN Sustainable Development Agenda - 2030.

Technologies can be leveraged for improvement in processes that are essential for survival, development and well-being of humanity. Advances in technology help meet basic human needs and drive economic growth through increased productivity, reduced costs, reduced resource use and environmental impact, and new or improved products and services. In spite of shortfalls in many countries globally, considerable progress has been made in the improvement of agricultural productivity, nutrition and healthcare - all of which have been driven by technologies.

Many of the SDGs are related to sustainable human life. The most important elements of sustainable living include, among others, food security and safety, good health and well-being, and availability of potable water and sanitation facilities.

Food Security and Safety

Persistent global under-nutrition and a growing concern about inefficient agricultural practices, especially in developing countries, led the world leaders to deliberate from time to time to come up with a definition of 'Food Security'. The statement "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" gives the widely accepted definition of the concept of food security. This has evolved further over time, and contemporary definitions were proposed based on the work of many experts, which incorporate four main dimensions: food availability, food access, utilization, and stability. Policies and programmes to ensure sustained food security are designed on the basis of this concept (FAO: <https://www.fao.org>).

Food safety is an important consideration for designing policies and programmes on food security. For food safety, quality of foods should be monitored throughout the entire food chain starting from harvesting, transportation, processing and storage - for microbiological contamination, heavy metals toxicity, presence of impermissible colours, flavours, preservatives, other additives, pesticide and antibiotic residues, and agricultural chemicals. The food industries, as well as governments must take the responsibility for providing good quality and safe foods and food products to consumers in order to protect public health and prevent adulteration. Concerned authorities in governments should adopt most appropriate food control systems through legislation and enforcement, set up food testing laboratories and deploy adequate manpower. In this context, the Government of India introduced the Food Safety and Standards Act (FSSA) in 2006 which aims to ensure the availability of foods that are safe for human consumption to prevent food borne illnesses; regulate the manufacture, storage, distribution, sale, and import of foods; and mandates the Food Safety and Standards Authority of India (FSSAI) to administer the Act and perform various functions, including laying down science-based standards for foods (FSSAI: <https://fssai.gov.in>).

Many developing countries face great challenges for food security since they suffer from acute shortage of food as a result of low productivity due to the use of obsolete agricultural technologies, small land holding, lack of farm mechanisation, adverse effects of

climate change and also huge post-harvest wastage; and over and above, large populations to feed.

Moreover, developing countries lack facilities for proper storage, transportation, cold chain and access to food preservation and processing technologies. There is very limited regulatory mechanism, and shortage of trained manpower, funds and systems required for implementation of an efficient mechanism for quality control of foods.

Good Health and Well-being

The Sustainable Development Goal on Good Health and Well-being (SDG-3) aims to ensure healthy lives and promote well-being for all at all ages.

Achieving Universal Health Coverage (UHC) is one of the major targets of SDG-3. According to the World Health Organization (WHO), UHC means that all people have access to the full range of quality health services they need, when and where they need them, without financial hardship. It covers the full continuum of essential health services, from health promotion to prevention, treatment, rehabilitation, and palliative care across the life course (WHO: <https://www.who.int>). However, there are tremendous inequalities in the level of health coverage among different sections of people, and also between industrially advanced and developing countries. Major challenges in achieving SDG-3 are in areas such as maternal mortality, premature deaths due to major non communicable diseases, and unequal access to essential healthcare services. In order to obviate such challenges, substantial investment and focus are required. Policy initiatives must be taken by developing nations to address the inequalities in healthcare access among vulnerable sections of people. Urgent action is also needed to tackle the environmental factors such as air & water pollution and climate change which affect human health.

In order to achieve UHC, WHO recommends primary healthcare based health systems, which is the most inclusive, equitable, cost-effective and efficient approach to enhance people's physical and mental health, as well as social well-being (WHO: <https://www.who.int>).

It is needless to emphasize on the importance of science and technology in ensuring good health and well-being for all which was evident all over the world during the COVID-19 pandemic. Science, technology and innovation play an important role in the development of essential drugs and vaccines, diagnostic techniques, prevention and treatment of diseases, telemedicine, and improving health delivery by using digital technology.

Clean Water and Sanitation

The famous British Actress of classical Hollywood era Ms. Audrey Hepburn once said “Water is Life, and Clean Water is Health”. In one simple sentence, she has summarized two important Sustainable Development Goals (SDGs): (i) Promote well-being and ensure healthy lives for all people at all ages (SDG-3) and (ii) Ensure availability and sustainable management of water and sanitation (SDG-6).

According to the UNESCO report presented during the United Nations 2023 Water Conference in New York, 26% of the global population lacks safe drinking water, while 46% do not have access to well-managed sanitation facilities (UN: <https://www.sdg.un.org>). Freshwater is a limited resource, and efficient water management is a very important factor for societal survival and functioning. Water scarcity is becoming a major global challenge due to rapid population growth, urbanization and increasing pressure from agriculture, industry and energy sectors. The changes in landscapes, adverse effects of climate change, growth in food and energy production, mass migration of people to urban centers and severe competition for water by the municipal, agricultural, industrial, and energy sectors are altering the quantity and quality of the freshwater resources on which we solely depend to survive, both physically and economically. To face the looming water crisis, we need to tackle the strategic policy and management issues as an integrated part of the solution towards accomplishing water sustainability.

Decades of misuse, poor management, and over-extraction and contamination of freshwater and groundwater supplies have exacerbated water stress and deteriorated aquatic ecosystems. Therefore, there is an urgent need to establish strong national and international mechanisms in order to prevent severe consequences of the existing global water crises and to ensure sustainable and equitable distribution of water to all.

Gaps in access to water supply and sanitation, growing population, water-intensive patterns of growth, increasing rainfall variability and pollution are making water one of the greatest risks to economic progress, poverty eradication and sustainable development. Achieving the UN Sustainable Development Goals (SDGs) for water, especially Goal 6- 'Access to Water and Sanitation for All', requires an integrated approach by the stakeholders and policymakers to manage and allocate water resources. However, there are many challenges to provide clean water and sanitation for all, which include: water scarcity, water pollution, unplanned and uncontrolled use of groundwater resources, lack of basic sanitation to more than 30% population, and secondary pollution of water resources.

In order to ensure availability of adequate clean water and sanitation facilities, countries of the global south should take policy initiatives on increasing investment, human and institutional capacity building, using smart and digital technologies for water management, and promoting community participation.

Science Diplomacy and Sustainability

Nearly a century ago, Max Ehrman wrote in his famous poem Desiderata: “Go placidly amid the noise and haste and remember what peace there may be in silence”. Today with wars and regional conflicts of all hues raging around the world, the days of silence are entities of the past. With each passing day, the situation is going from bad to worse and the existence of mankind is under serious threat. It was once thought that for all potential problems facing the world, “Diplomacy” will provide an acceptable solution. However, many of today's problems are much more complex than those the world leaders faced a few decades ago, and needs new tools, strategies and solutions that go beyond diplomacy. Science and technology interventions are required to confront the consequences of environmental pollution; climate change and natural disasters; scarcity of food and water and devastating effects of pandemics such as Covid-19. Political Diplomacy alone cannot solve them.

Science diplomacy is not new, but it has never been more important. Many of the defining challenges of the 21st Century from climate change and food security, to poverty reduction and nuclear disarmament have scientific dimensions. No one country will be able to solve these problems on its own. The tools, techniques and tactics of foreign policy need to adapt to a world of increasing scientific and technical complexity. To quote Rt. Hon Gordon Brown, MP and former Prime Minister of United Kingdom (Royal Society, 2010):

'Many of the challenges we face today are international and whether it's tackling climate change or fighting disease—these global problems require global solutions ... That is why it is important that we create a new role for science in international policy making and diplomacy ... to place science at the heart of the progressive international agenda.'

Science is considered as a neutral area and has no nationality. It is easier to develop international cooperation through science and technology rather than through political or military relations. There is a common interest for all in the fields of science & technology and can be effectively used as a tool for diplomacy for developing better relationships amongst all countries. While many nations in the global north have used this tool very effectively, the countries in the global south are trying to catch up. The relationship between development and the applications of science and technology is amply expressed in the words of Nobel Laureate, the late Prof. Abdus Salaam (TWAS 2004):

"The globe of ours is inhabited by two different species of humans – the developed and the developing. What distinguishes one species from the other is the ambition, the empowerment and the elan, which basically stems from their differing mastery and utilization of present day science and technology".

Recognising the importance of science and technology, many newly independent nations in 1940s to 1960s have pursued foreign policies that allowed them to cooperate even with countries with opposing views and ideologies. An example is the policy of "Non-Alignment" pursued by India which in the decades after independence continued with an active foreign policy with the specific objective of enhancing their science and technology base. The foundations made in those early years have allowed India to achieve remarkable success in developing its STI manpower base, infrastructure and ecosystem.

Science diplomacy has assumed greater importance in the recent years, especially in relation to the need for global efforts in confronting some of the challenging problems related to food security; health; environment; energy etc. which are addressed by the UN Agenda 2030 with the Sustainable Development Goals (SDGs). Most of the 17 SDGs and their 169 targets have strong scientific and technological dimensions and achieving these goals and targets within the timeframe is very complex and challenging. This requires global scale sustained cooperation and efforts in the application of science and technology. In the case of crisis situations such as Covid-19 pandemic, the need for science diplomacy is even more significant (Amitava Bandopadhyay, 2023).

Conclusion

In hindsight, the problems addressed by the SDGs have different dimensions for the global north and the global south. Significant differences amongst developing countries exist in the preparedness to achieve SDGs. In many cases, the absence of adequate human capacity and S&T infrastructure as well as appropriate national S&T strategies and policies pose a serious bottleneck. Recent reviews have indicated that the progress in terms of implementing many of the SDGs is not satisfactory and needs concerted efforts from all stakeholders – both from the developed as well as the developing countries. Advancing science and technology and strengthening a country's S&T base for achieving SDGs require serious international cooperation. The lofty goal of achieving "Sustainability" is a distant dream and as noted American Poet Laureate Robert Frost wrote in his famous poem "Stopping by the Woods on a Snowy Evening":

*The woods are lovely, dark and deep;
But I have promises to keep;
And miles to go before I sleep;
And miles to go before I sleep.*

References

- FAO: <https://www.fao.org> - Food and Agriculture Organization of the United Nations.
- FSSAI: <https://fssai.gov.in> - Food Safety and Standards Authority of India, Ministry of Health and Family Welfare, Government of India.
- WHO: <https://www.who.int> - World Health Organization.
- UN: <https://www.sdg.un.org> - United Nations.
- The Royal Society (2010): New Frontiers in Science Diplomacy: Navigating the Changing Balance of Power; RS Policy Document 01/10, Royal Society, London.
- TWAS (2004): Building Scientific Capacity: A TWAS Perspective - A Report of the Third World Academy of Sciences, Trieste, Italy.
- Amitava Bandopadhyay (2023): STI Diplomacy and Developing Countries - Current Issues and Challenges; Science, Technology and Innovation Diplomacy in Developing Countries: Perception and Challenges, V. Ittekkot and J. K. Baweja (eds.), Springer Nature Singapore Pte. Ltd., Singapore, pp. 1-5.

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Science, Technology & Innovation News

HEALTH

Australia becomes the 30th Country to Eliminate Trachoma as a Public Health Problem

The World Health Organization (WHO) has validated Australia for eliminating trachoma as a public health problem, marking a significant milestone in the health of Indigenous peoples and in global efforts to combat neglected tropical diseases (NTDs). Trachoma, the world's leading infectious cause of blindness, no longer represents a public health problem in the country. Australia is among a growing number of countries that have successfully eliminated trachoma, contributing to global progress towards the targets set out in the WHO road map for NTDs 2021–2030. Trachoma is caused by the bacterium *Chlamydia trachomatis* and spreads through close contact with infected individuals, contaminated surfaces, and flies that carry eye and nose discharge. Repeated infections can lead to scarring of the eyelids, turning eyelashes inward, and ultimately causing blindness if left untreated. "WHO congratulates Australia on this important achievement," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "This success reflects sustained commitment, strong partnerships, and a focus on reaching populations most affected by health inequities. It brings us closer to a world free from the suffering caused by trachoma."

Australia's Journey to Elimination - Australia's achievement reflects decades of targeted public health action, particularly in remote Aboriginal and Torres Strait Islander communities, where trachoma persisted despite its earlier disappearance from the rest of the country. National efforts intensified with the establishment of the National Trachoma Management Programme in 2006, which implemented the WHO-recommended SAFE strategy: surgery for trichiasis, antibiotics to treat infection, promotion of facial cleanliness, and environmental improvement. Regular screening of all communities classified as at being risk of trachoma by teams of qualified health workers formed an important part of the Programme. Interventions were delivered through coordinated partnerships between federal and state governments, Aboriginal community-controlled health services, and local communities. Over time, sustained screening, treatment, and prevention activities, including improvements in housing, water, sanitation and hygiene, led to a steady decline in trachoma prevalence. Australia's approach included adaptations to reflect its context, such as targeted treatment based on community-level data rather than mass drug administration, and strong integration with environmental health programmes. "Elimination of trachoma is a win for the eye health of communities across Australia, particularly those whose lives have been impacted by a disease that is entirely preventable," said Mark Butler, Minister for Health and Ageing, Australia. "This major milestone is thanks to Aboriginal and Torres Strait Islander leadership, community commitment and sustained investment over many decades. "This recognition from the World Health Organization reflects decades of work led by Aboriginal Community Controlled Health Organisations, alongside local health workers in remote First Nations communities," said Malarndirri McCarthy, Minister for Indigenous Australians. "Their work has been critical to eliminating trachoma as a public health problem in Australia". WHO continues to support countries working to eliminate trachoma and other NTDs, ensuring that progress reaches those most in need and that gains are sustained through strong surveillance, appropriately integrated into national health systems, and mainstreamed within the wider health sector and beyond.

www.who.int/news; 29 April 2026

New MRI Technology Maps 20-plus Brain Biomarkers in a Single 14-minute Scan

Whole-brain images from a healthy volunteer encompassing 21 biomarkers, taken in a single MRx scan. The information provides a comprehensive spectrum of information on tissue metabolism, neurotransmission, physiological function and structural characteristics. These biomarkers offer potential for better early detection and more accurate diagnosis and prognosis of brain diseases. New multiplexed imaging technology using standard clinical MRI systems can simultaneously map more than 20 biomarkers in high resolution, providing a comprehensive view of the brain with a single scan. Researchers at the University of Illinois Urbana-Champaign demonstrated the multiplexed MRI technology (MRx) by characterizing brain tumors and multiple sclerosis lesions—revealing different structural, physiological and molecular changes within the diseases. Led by Zhi-Pei Liang, a professor of electrical and computer engineering and a member of the Beckman Institute for Advanced Science and Technology at the University of Illinois, the team has reported its findings in the journal *Nature*. Liang said "MRx can be a powerful tool for non-invasive tissue characterization, helping to advance personalized, precision and predictive medicine. By providing rich, multidimensional biomarkers to capture disease progression and treatment response, this capability could open new opportunities for more precise diagnosis, individualized treatment planning and improved patient outcomes". Conventional MRI generates high-resolution images using magnetic resonance signals from water molecules in biological tissues. These images are primarily used in clinical practice to visualize and assess tissue structure and pathology. More than 100 million MRI scans are performed worldwide each year. MRx expands the capabilities of conventional MRI by enabling simultaneous imaging of signals from multiple molecules, such as brain metabolites and neurotransmitters, in addition to water. Building on previous work on high-resolution metabolic imaging, Liang's group developed the MRx technology to enable clinical MRI scanners to capture more than 20 biomarkers at once. "MRx is a new artificial-intelligence-powered imaging framework that can measure many markers without the need for contrast agents," said study co-author Rong Guo, a former student in Liang's group who is now a senior scientist at Siemens Healthineers. "With our integration of ultrafast data acquisition and physics-based machine learning methods for data processing, MRx overcomes several longstanding bottlenecks to fast, high-resolution multiplexed imaging," Guo said. "This gives clinicians and researchers a better understanding of not only the brain's structure, but also its physiology and molecular processes, within a single imaging framework." A whole-brain MRx scan can be completed in approximately 14 minutes—well within a clinically acceptable time frame and significantly shorter than conventional multicontrast clinical MRI protocols, which can take up to an hour, the researchers said. The researchers demonstrated the power of MRx to provide more accurate characterization of diseases by applying it to patients with brain tumors and multiple sclerosis. For multiple sclerosis, the combined MRx biomarkers enabled characterization of lesions at different stages by detecting changes related to inflammation, demyelination, gliosis, axonal injury and metabolic activity—without the need for contrast agents. "Diseases such as tumors, multiple sclerosis and neurodegenerative disorders are highly heterogeneous. The rich set of biomarkers obtained using MRx has the potential to provide deeper insights into brain function and disease processes, while also improving the sensitivity and specificity of detection and diagnosis", said Yudu Li.

www.medicalxpress.com/news; 6 May 2026

BIOTECHNOLOGY

Light without Electricity? Glowing Algae could Make it Possible

Imagine a sea of glowing blue lights pulsing to the beat of the music. But instead of glow sticks filled with toxic chemicals, the luminescence comes from living algae, shimmering on demand. In a new study published in *Science Advances*, researchers at the University of Colorado Boulder and collaborators unveil a new technology that could make it possible. They've successfully turned on the "light switch" in algae and kept them lit up using simple chemical solutions. The finding opens the door for future technologies such as autonomous robots that can operate in dark environments and living sensors for water quality.

With the success of the project, Wil Srubar, a professor in the Department of Civil, Environmental and Architectural Engineering said, "I was curious if we could create a world in which we don't use electricity but rather use biology to produce light. This discovery really paves the way for engineering other living light materials and devices."

The Science of Natural Bioluminescence - In the natural world, a wide range of animals, from fireflies to anglerfish and even certain mushrooms, produce their own light, a phenomenon known as bioluminescence. In the deep ocean, as much as 90% of creatures may be able to glow and glitter through chemical reactions inside their cells. *Pyrocystis lunula*, a type of bioluminescent algae, is one of the organisms that emit an icy blue glow sometimes seen in ocean waves. Subsisting only on seawater, sunlight, and carbon dioxide (CO₂), these photosynthetic organisms flash when they are agitated, for example - by crashing tides or passing boats. But those flashes last only milliseconds. Srubar and his team wondered if they could keep the lights on with chemistry instead. Previous research has suggested that exposure to different chemical compounds could activate *P. lunula*'s bioluminescent reaction.

Using Chemistry to Sustain the Glow - So the team exposed the algae to an acidic solution with a pH of 4, similar to that of tomato juice, and a basic solution with a pH of 10, comparable to mild soap. They found that both environments could trigger light production in *P. lunula*. In the acidic condition, the algae could stay aglow for as long as 25 minutes, with light appearing bright and concentrated. In the basic condition, the glow was more diffused and short-lived. "It was a very exciting moment when we found the right chemical stimulant that allowed the light to stay on for a long time," says Giulia Brachi, the first author and research associate in the Department of Civil, Environmental and Architectural Engineering. "This is the first time we have figured out how to sustain luminescence."

3D-Printing Living Light Structures - To turn these glowing algae into usable materials, the researchers embedded them into a naturally derived hydro-gel, a type of water-based gel material. They then used 3D printing to shape the material into structures and shapes, from a crescent pattern to a CU Buffalo logo. By exposing the structures to the acidic or basic solution, they prompted the *P. lunula* inside to emit light, illuminating the entire structure in a blue glow. Inside these printed structures, the algae remained alive for weeks. The acidic condition worked best, with *P. lunula* in these 3D-printed structures retaining 75% of their brightness even after four weeks.

Potential Applications and Environmental Impact - The findings could have wide applications beyond making eye-catching designs. These living materials could someday help light up autonomous robots for deep-sea or space exploration without the need for batteries. Next, the team is exploring whether *P. lunula* may respond to other chemicals. If so, they could also serve as a tool for water quality monitoring and light up when toxins are present. Beyond their ability to light up spaces, *P. lunula* also offers an environmental benefit. Because these algae are photosynthetic, they convert carbon dissolved in seawater into energy.

"We're storing carbon while we're producing light, whereas conventionally, we emit carbon to light up spaces," Srubar said.

www.phys.org/news; 6 May 2026

ENERGY & GREEN TECHNOLOGY

From Tough Plant Waste to Everyday Products - This Light-Powered advance opens a path to Greener Plastics

A pioneering technology capable of converting lignin, one of the world's most abundant organic compounds, into vanillin and biodegradable materials has been unveiled by the University of Alicante (UA), in collaboration with the Polytechnic University of Valencia (UPV). The study, published in *Nature Communications*, offers a sustainable method for repurposing plant waste and identifies viable alternatives to the fossil fuels that currently drive the chemical industry.

Lignin is a complex organic polymer that constitutes nearly 30% of plant biomass. Due to its intricate chemical structure, it has long been one of the greatest unresolved challenges for biorefineries. Conventional processing methods typically yield highly heterogeneous mixtures that are notoriously difficult to separate and refine. To overcome this, the UA-led team developed an innovative photocatalyst based on anthraquinone an affordable and highly stable material. When activated by ultraviolet light, this catalyst selectively breaks down the most abundant chemical bonds within lignin.

"In this study, we present a technology that allows us to transform lignin into high-value products using nothing but light and ambient conditions," explained Dr. Néstor Guijarro, the study's principal investigator. The photocatalyst captures light and harnesses that energy to split the lignin selectively. "Furthermore, we have integrated this system into a flow reactor, allowing the entire process to run continuously, efficiently, and at a scalable level," the UA researcher added.

The process yields vanillin, the primary molecule responsible for the aroma of vanilla as its main product, achieving a record weight yield of 7.1%. This is equivalent to extracting 94% of all available aromatic monomer units. Vanillin is a highly sought-after organic substance heavily utilized in the food, cosmetics, and chemical sectors. Laboratory trials demonstrate that these sustainable additives significantly enhance the flexibility, strength, and shape-memory performance of the bioplastics without compromising their workability. According to the authors, the research represents a major leap forward toward the comprehensive commercial use of lignin. It establishes the technical framework for a new generation of sustainable, high-value biorefineries, directly aligning with European green transition and circular economy mandates.

www.techxplore.com/news; 3 June 2026

CLIMATE CHANGE

Massive Marine Heatwave caused Caribbean Coral Reefs to Collapse much Faster than Predicted

Coral reefs are among the most productive ecosystems on Earth, and their importance to people is fundamental. They feed hundreds of millions through small-scale fisheries, underpin tourism across the Caribbean, and serve as natural breakwaters that protect the coast from storms and reduce flooding events. All the benefits reefs provide rely on a delicate balance between reef construction and erosion. Tropical reefs are essentially vast limestone structures, built slowly over centuries as corals deposit calcium carbonate skeletons. At the same time, waves and various reef organisms like parrotfish, sea urchins and boring sponges chip away at them. An eroding, flattening reef begins to lose its capacity to provide benefits to other species, and to people. In 2023 and 2024, surface temperatures climbed to record highs in the world's oceans, and a marine heatwave of unprecedented length and intensity spread across the tropics. Satellites from the US National Oceanic and Atmospheric Administration detected heat stress that could cause corals to bleach across more than 80% of the planet's reef areas. During these periods of extreme stress, corals expel the symbiotic algae that give them their colour and most of their food – turning them stark white and leaving them vulnerable to starvation, diseases and eventually death. Across the North Atlantic, including the Caribbean, the heat stayed for months, with heat stress two-to-three times higher than reefs had ever experienced. Heat stress, the phenomena of high temperatures putting fragile ecosystems under pressure, can permanently alter their ability to function. This triggered what is now recognised as the fourth global coral bleaching event, the most severe one that has been documented. Widespread coral bleaching during the 2023 marine heatwave.

Caribbean Reefs are Eroding Fast - In a new study, it was found that across the Caribbean, the 2023 marine heatwave – combined with a deadly disease known as stony coral tissue loss disease has pushed reefs over a threshold scientists thought was a decade or more away. They are now eroding faster than corals can rebuild them. During study of reefs in the Mexican Caribbean and the Gulf of Mexico, data collected before the heatwave (2018–2022) was compared with surveys after it (2023–24). At each reef, the study counted live corals and organisms that break down the reef, like parrotfish and sea urchins. From those counts, it was estimated how much reef-building (carbonate production) and reef-breaking (bioerosion) was happening, then calculated the net result – whether the reef was gaining or losing material.

The results were stark: between 70% and 75% of our Caribbean sites had tipped from net growth into net erosion. They are now losing calcium carbonate faster than corals can add it. The threshold that earlier models had suggested might be crossed over during the next decade or so has already arrived. This shift was driven by the loss of fast-growing, branching and plate-forming corals, especially the *Acropora* species, which have very high growth rates and disproportionately contribute to reef building. One of our most unsettling findings is that the Caribbean reef sites that still had high coral cover and high carbonate production before the disease and heatwave were the ones that lost the most. Some lost up to 8 kilograms of calcium carbonate per square metre per year. Findings of the study suggest rethinking of how to approach coral restoration will have to diversify. Exploring approaches such as moving heat-tolerant genes between populations (assisted gene flow) and breeding corals that survive heat better (selective breeding) might be a promising path. But restoration alone will not be enough. Reversing the decline requires rapid cuts in greenhouse gas emissions to slow the frequency and intensity of marine heatwaves, alongside serious local action on pollution, nutrient runoff, sedimentation and disease the stressors that weaken corals before the heat arrives.

www.theconversation.com; 5 May 2026

SCIENCE AND SOCIETY

Researchers Create First-of-Its-Kind Index of Evolving Policy Landscape around Health Care Artificial Intelligence

As hospitals and health systems rapidly adopt artificial intelligence (AI) technologies, a new study by investigators at the Icahn School of Medicine at Mount Sinai finds that the policies governing health care AI are expanding quickly but remain fragmented across regulators, governments, and standards organizations. The researchers analyzed 240 health care AI-related policies published between 2016 and 2025 using their newly developed framework called the Health & AI Policy Index. The analysis found that oversight efforts are accelerating worldwide, though no single, unified framework currently exists to guide how AI should be deployed, monitored, and governed in clinical settings. The study is published as a paper titled “Mapping AI regulation in health care with the Health & AI Policy Index”. The findings come as AI tools are increasingly being used in patient care, diagnostics, administrative workflows, and clinical decision support, raising growing questions about safety, accountability, transparency, and implementation standards.

“Artificial intelligence is moving into health care faster than many organizations can fully evaluate or govern it”, says lead author Will Moss, a health care AI policy intern at the Icahn School of Medicine at Mount Sinai. “Our goal was to create a clearer picture of the rapidly evolving policy landscape and help health systems better understand the governance challenges emerging alongside AI adoption.” The researchers found that governance efforts are developing through a patchwork of regulations, institutional guidance, technical standards, and policy initiatives rather than through a centralized system. The authors say this fragmented environment may create operational and compliance challenges for health systems attempting to responsibly integrate AI technologies.

“Health systems are increasingly recognizing that successful AI adoption requires more than just implementing new tools”, says senior author Girish N. Nadkarni, MD, MPH, Chair of the Windreich Department of Artificial Intelligence. “It also depends on strong oversight, internal governance structures, and clear accountability around how these technologies are used”. The study also highlights the growing role academic medical centers and large health systems may play in shaping real-world AI governance practices as adoption accelerates. “Questions around transparency, patient safety, and accountability are becoming central to the future of health care AI,” says Dr. Nadkarni. “Our work helps identify where policy efforts are growing, where gaps remain, and where additional coordination may be needed.”

To conduct the study, researchers used the Health & AI Policy Index to catalogue and analyze health care AI-related policies published over nearly a decade. The framework was designed to help track emerging policy trends and better organize the rapidly growing body of AI policy activity affecting health care delivery. Future work may include analyzing how governance approaches differ across jurisdictions and how health systems operationalize AI governance in real-world clinical settings.

www.newswise.com; 1 June 2026

Joint NAM S&T Centre – JSS STU, Mysuru, India Fellowship Programme 2025

Research Completion Report of

Mr. Simon Muhiu, Tutorial Fellow, Department of Mechanical Engineering,
Dedan Kimathi University of Technology (DeKUT), Kenya

Project Title: “ISO 14224-Aligned Failure Classification and Reliability Analysis of Grinding Systems in the Cement Industry: A Predictive Maintenance Framework”



Mr. Simon Muhiu undertook his research under the joint supervision of **Prof. (Dr.) G. Mallesh**, Professor, Department of Mechanical Engineering, Sri Jayachamarajendra College of Engineering (SJCE), JSS Science and Technology University (JSS STU), Mysuru, Karnataka, India and **Dr. James Wakiru**, Dedan Kimathi University of Technology (DeKUT), Kenya.

The study focused on improving reliability assessment and maintenance decision-making in cement manufacturing systems by integrating ISO 14224 standards with Natural Language Processing (NLP) for structured analysis of historical failure data. The NLP-based approach enabled clearer classification of failure modes and revealed patterns of equipment degradation, thereby improving the understanding of system reliability behaviour and supporting predictive maintenance planning.

The work demonstrated the value of combining engineering standards with modern data-driven methods in industrial maintenance practices and laid a foundation for his Ph.D studies in the area.

The fellowship provided valuable academic engagement and technical exposure through interactions with mechanical engineering researchers. It strengthened his analytical and research skills, particularly in applying research techniques alongside engineering standards for maintenance optimization. The experience will further contribute to his ongoing work on reliability-based maintenance strategies and improved his understanding of approaches to enhancing industrial system performance and availability in cement manufacturing environments.

Research Completion Report of

Dr. Chummun Vedendranand Sharma, Scientific Officer, National Environmental Laboratory,
Ministry of Environment, Solid Waste Management and Climate Change, Mauritius

Project Title: “Mauritian Coastal Algal Bloom: A Review on Occurrence, Pollution Sources and Associated Environmental and Human Health Risk”



Dr. Chummun Vedendranand Sharma undertook his research under the supervision of **Prof. Pushpa Tuppap**, Professor, Department of Environmental Engineering and **Prof. S. Suriyanarayanan**, Associate Dean (Research), JSS Science and Technology University (JSS STU), Mysuru, Karnataka, India.

The study examined the increasing occurrence of coastal algal blooms in Mauritius, with a focus on their spatial distribution, driving factors, pollution sources and associated environmental and human health risks. The research highlighted that algal blooms, which are becoming more frequent in Small Island Developing States (SIDS), are primarily driven by nutrient enrichment processes linked to anthropogenic activities. It was identified that nutrient runoff from agriculture, untreated or inadequately treated wastewater discharge and expanding coastal urbanization are major contributors to eutrophication in Mauritian coastal waters. These pressures are further intensified by climate variability, including rising sea temperatures and altered rainfall patterns.

A key finding of the study is that algal blooms pose significant threats to marine ecosystems, including coral reef degradation, biodiversity loss and oxygen depletion leading to fish mortality. The research also emphasized the socio-economic and public health implications, particularly the potential exposure to harmful algal toxins and the negative impacts on fisheries and tourism, two critical sectors of the Mauritian economy. The study underscored that effective management of algal blooms requires an integrated understanding of land-sea interactions, pollution dynamics and climatic influences.

Drawing from comparative insights gained during the fellowship, particularly from the Indian context, the research identified best practices such as Integrated Coastal Zone Management (ICZM), continuous environmental monitoring systems, early warning mechanisms and stronger policy enforcement frameworks. The study argued that sustainable management of coastal ecosystems in Mauritius is achievable through a combination of scientific monitoring, regulatory strengthening, stakeholders engagement and international collaborations.

During the fellowship, Dr. Chummun was actively engaged in academic and knowledge exchange activities at JSS STU. He participated in technical discussions, working sessions and seminars with faculty members and researchers, and delivered a presentation to undergraduate students in Environmental Engineering, thereby contributing to academic dialogue and capacity building.

The fellowship resulted in several tangible outcomes, including enhanced research capacity, improved analytical approaches to coastal environmental assessment and the development of a comprehensive review manuscript intended for submission to an indexed scientific journal. It also facilitated the identification of practical, policy-relevant strategies that can be adapted to the Mauritian context. Based on the findings, the study proposed key policy recommendations, including the establishment of a national monitoring programme for algal blooms, strengthening wastewater and nutrient management regulations, developing early warning systems, promoting integrated coastal management approaches, and enhancing public awareness

and stakeholder engagement. The research also highlighted the importance of continued regional and international collaboration in addressing marine environmental challenges.

The outcomes of this work provide a strong foundation for future research, collaboration and policy development aimed at enhancing coastal resilience and sustainability in Mauritius.

Research Completion Report of
Dr. Zin Mar Nyo, Associate Professor, Electrical Power Engineering Department,
 Government Technical Institute (Kyaukse), Myanmar

Project Title: “Optimum Design of Micro Grid Hybrid System for the JSS Science and Technology University Campus”



Dr. Zin Mar Nyo undertook her research under the supervision of **Dr. Mohan N**, Associate Professor and Head, Department of Electrical and Electronics Engineering, Sri Jayachamarajendra College of Engineering (SJCE), JSS Science and Technology University (JSS STU), Mysuru, Karnataka, India.

The main objective of the study was to develop an optimal micro grid hybrid energy system that can efficiently meet the electricity demand of the university campus while reducing energy costs, improving system reliability and minimizing environmental impacts.

The research focused on analyzing the existing electrical load demand of the university campus and evaluating the potential integration of renewable energy resources such as solar photovoltaic (PV) systems and wind energy with the utility grid and energy storage technologies. Load data, solar resource information and economic parameters were collected and analyzed to identify suitable system configurations. The HOMER Pro software was used as the primary simulation and optimization tool. Different combinations of system components, including solar PV arrays, wind turbine, diesel generator, grid connections, converters and battery storage systems were modeled and simulated. Technical, economic and environmental performance indicators were considered during the optimization process. The system configurations were evaluated based on Net Present Cost (NPC), Cost of Energy (COE), renewable energy contribution and greenhouse gas emission reduction.

The simulation results demonstrated that the integration of renewable energy sources into the campus power system can significantly reduce dependence on conventional grid electricity. The optimized hybrid micro grid configuration provided improved energy efficiency and enhanced reliability while maintaining economic feasibility. The study also highlighted the importance of properly sizing the system components to achieve the best balance between investment cost and operational performance. These findings contributed significantly to the understanding of micro grid design methodologies, renewable energy integration techniques and energy management strategies. The research objectives were successfully achieved and the findings provide useful recommendations for future implementation of sustainable energy systems within educational institutions. The outcomes of this study can support decision-makers in planning energy-efficient and environmentally friendly campus power systems.

In conclusion, the research work was completed successfully and contributed to the enhancement of knowledge and practical understanding in the fields of renewable energy integration, micro grids and sustainable power system design.

JOINT NAM S&T CENTRE - ZMT BREMEN (GERMANY)
FELLOWSHIP PROGRAMME -2026 AWARDEES

Sl. No.	Country	Name of Recipient & Affiliation	Topic of Research	Group Leader ZMT
1.	Indonesia	Dr. Frida Sidik , Senior Researcher, Research Centre for Ecology, Research Organization of Life Science and Environment, National Research and Innovation Agency (BRIN), Bogor	Dynamics of Naturally Regenerated Restored Mangroves and Their Carbon Potentials	Prof. Dr. Martin Zimmer , Mangrove Ecology, ZMT, Bremen
2.	Malaysia	Dr. Syuhaida Binti Ismail , Associate Professor, Universiti Teknologi Malaysia (UTM), Kuala Lumpur	Mainstreaming Nature-based Solutions into Climate-Resilient Blue Economy Policy for Port-Community Tropical Coastal Ecosystems	Prof. Dr. Marie Fujitani , Working Group Leader, Deliberation, Valuation & Sustainability, Institute for Geography, FB08, University of Bremen, Bremen
3.	Sri Lanka	Mr. R.M.N.P.K. Jayasinghe , Director (Research) Acting, Gem and Jewellery Research and Training Institute, Welivita	A Data Science Pipeline for Blue Economy Decision-Making: Machine Learning and Geospatial Modelling for Sustainable Pearl Farming Site Selection in the Gulf of Mannar, Sri Lanka	Dr. Daniel Schürholz , Data Science & Technology Working Group, ZMT, Bremen

Meetings and Visits of Director General, NAM S&T Centre

Meeting with H.E. Mr. Sanjeev Ranjan, Secretary General, Indian Ocean Rim Association (IORA), Mauritius and Ms. Zelda Vrolick, Director, IORA

Dr. Amitava Bandopadhyay, Director General, NAM S&T Centre, New Delhi visited IORA Secretariat, Ebene, Mauritius on May 14, 2026 and had a courtesy meeting with the Secretary General, IORA. During the short meeting, Dr. Bandopadhyay presented a copy of the new book published by the NAM S&T Centre titled *“Generic Drugs: Science, Technology, Regulatory Frameworks and Socio-Economic Aspects”* through Allied Publishers, New Delhi. Mr. Pankaj Buttan, Data Processing Manager, NAM S&T Centre joined the meeting along with Dr. Bandopadhyay.

Dr. Bandopadhyay also met Ms. Zelda Vrolick, Director, IORA and Ms. Kritika Nukchady, Senior Programme Officer, IORA and had detailed discussion in regard to the upcoming Joint Conference being organised by IORA Secretariat and NAM S&T Centre on the topic *“Education in the Context of Emerging Technologies: Challenges, Opportunities and Way Forward”*. The Conference would be held in Physical Mode in Mauritius during February 2027 in association with the Ministry of Tertiary Education, Science and Research (MoTESR), Govt. of Mauritius. The Conference would be attended by representatives from IORA Member States, NAM S&T Centre Members Countries, NAM S&T-Industry Network Members and other delegates from the Global South.

Book Launch

Generic Drugs: Science, Technology, Regulatory Frameworks and Socio-Economic Aspects

The official release of the book titled *“Generic Drugs: Science, Technology, Regulatory Frameworks and Socio-Economic Aspects”* was held on April 23, 2026 at JSS Academy of Higher Education & Research (JSS AHER), Mysuru, Karnataka, India during an International Workshop on *“Generic Drugs: Science, Technology, Regulatory Issues and Societal Dimensions in the Developing World”* organized jointly by the NAM S&T Centre, New Delhi, India; JSS AHER, Mysuru, Karnataka, India; and the Indian Association of Colleges of Pharmacy (IACP), Chennai, Tamil Nadu, India.



Official Release of the Book titled *“Generic Drugs: Science, Technology, Regulatory Frameworks and Socio-Economic Aspects”*

The book was formally released in the presence of distinguished dignitaries – **Dr. Bobby George**, Senior Vice President and Group Head, Regulatory Affairs, Reliance Life Sciences Pvt. Ltd., Navi Mumbai, Maharashtra, India; **Dr. C.G. Betsurmth**, Executive Secretary, JSS Mahavidyapeetha, Mysuru, Karnataka, India; **Dr. B. Suresh**, Pro-Chancellor, JSS AHER, Mysuru; **Dr. H. Basavanagowdappa**, Vice-Chancellor, JSS AHER, Mysuru; **Dr. Amitava Bandopadhyay**, Director General, NAM S&T Centre, New Delhi; **Dr. Vishal Kumar Gupta**, Dean (Academics), JSS AHER, Mysuru; **Dr. T. Jayapal Reddy**, Chairman, St. Peter's Institute of Pharmaceutical Sciences, Andhra Pradesh; **Dr. M.D. Karvekar**, Director, Krupanidhi College of Pharmacy, Bangalore, Karnataka; and **Dr. T.V. Narayana**, Principal, Vikas Institute of Pharmaceutical Sciences, Andhra Pradesh.

The book is jointly edited by **Prof. K. Bangarurajan** (Corresponding Editor), Professor (Regulatory Affairs), JSS College of Pharmacy, JSS AHER, Mysuru, Karnataka and Former Joint Drugs Controller (India), Central Drugs Standard Control Organization (CDSCO), New Delhi, India; **Dr. Subhas G. Malghan**, Deputy Director (Retd.), Office of Science & Engineering Labs, U.S. Department of Health & Human Services, Washington DC, USA; and **Dr. M. P. Venkatesh**, Associate Professor (Regulatory Affairs), JSS College of Pharmacy, JSS AHER, Mysuru, Karnataka, India.

As healthcare systems worldwide grapple with escalating costs and the growing burden of disease, generic drugs offer a viable and sustainable alternative to branded medicines, helping to expand access to healthcare without compromising quality, safety or efficacy. Their strategic importance is further amplified in the pursuit of global health equity, where timely access to affordable medicines remains a critical determinant of public health resilience and improved health outcomes. Recognizing the significance of this subject, the NAM S&T Centre published this book through **M/s Allied Publishers Private Limited, New Delhi, India**. This volume comprises **17 chapters** authored by experts from various countries, and is envisaged to serve as a valuable resource for scientists, healthcare professionals, pharmaceutical regulators, policymakers and various stakeholders across the developing world. The publication contributes significantly to the global knowledge base on pharmaceutical equity and underscores the transformative role of Science, Technology, and Innovation (STI) in strengthening healthcare systems, in alignment with United Nations Sustainable Development Goal 3 (Good Health and Well-Being).

The book launch marked an important milestone in the continuing collaboration between the NAM S&T Centre and JSS AHER, Mysuru - reflecting their shared commitment to advancing knowledge, fostering international cooperation and promoting evidence-based approaches to healthcare and pharmaceutical development.

Fact Files

Life and Livelihoods in the Himalayas: Perspectives from Nepal



The Himalayan region supports diverse livelihood systems that have evolved over time in response to changing socio-economic, environmental and demographic conditions. In Nepal, mountain communities have traditionally depended on agriculture, livestock rearing, forestry and local trade. However, migration, tourism, market integration, infrastructure development and climate change have significantly transformed these livelihood patterns. While new opportunities have emerged through high-value agriculture, non-timber forest products, community-based tourism and labour migration, challenges such as climate change, labour shortages, human-wildlife conflict and declining agricultural activities continue to affect mountain communities.

Recognizing the importance of sustainable mountain livelihoods for economic development, environmental conservation and community resilience, the NAM S&T Centre has published its fourteenth Fact File titled **“Life and Livelihoods in the Himalayas: Perspectives from Nepal”**. It provides a comprehensive overview of the evolution of livelihood systems in Nepal's Himalayan region, demographic transitions, emerging livelihood opportunities, the growing importance of agriculture, forestry, tourism and migration, and the key challenges that must be addressed to promote sustainable livelihoods in mountain communities. Although this Fact File primarily focuses on Nepal, many of the livelihood patterns, challenges and adaptive strategies discussed herein are equally relevant to other Himalayan and hilly regions across the developing world.

This Fact File has been authored by **Dr. Gobinda Basnet**, Consultant, Nepal Academy of Science and Technology (NAST), Nepal, and edited by **Dr. Rabindra Prasad Dhakal**, Secretary, NAST. The document also benefited from the guidance of **Prof. Dilip Subba**, Vice-Chancellor, NAST and **Mr. Madhusudan Bandyopadhyay**, Senior Adviser, NAM S&T Centre.

Green Polymers



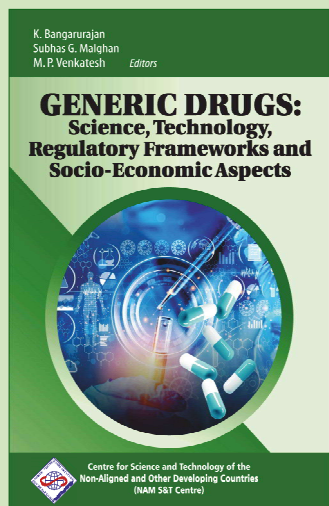
Plastic pollution, resource depletion and environmental degradation have increased the demand for sustainable alternatives to conventional plastics. Green polymers, derived from renewable biological sources and designed to be biodegradable and recyclable, offer an eco-friendly solution by reducing dependence on fossil fuels, lowering greenhouse gas emissions and supporting Circular Economy. They are widely used in packaging, agriculture, healthcare, textiles, electronics and energy applications, promoting sustainable industrial development.

Considering the growing significance of sustainable materials in addressing global environmental challenges, the NAM S&T Centre has published its Twelfth Fact File titled **“Green Polymers”**. The document provides a comprehensive overview of green polymers, including their classification, properties, synthesis, applications, roles in the circular economy, market trends, challenges, future prospects and strategic recommendations for accelerating their adoption, particularly in the developing countries.

This Fact File has been authored and edited by **Dr. B.S. Madhukar**, Associate Professor, JSS Science and Technology University (JSS STU), Mysuru, Karnataka, India. Valuable expert and editorial advice was received from **Dr. S. Suriyanarayanan**, Associate Dean (Research), JSS STU, Mysuru and **Mr. M. Bandyopadhyay**, Senior Adviser, NAM S&T Centre for the Fact File.

New Publications

Generic Drugs: Science, Technology, Regulatory Frameworks and Socio-Economic Aspects



The increasing burden of diseases and the rising cost of healthcare worldwide have intensified the need for affordable and accessible medicines. Generic drugs have emerged as a critical component of modern healthcare systems by providing cost-effective alternatives to branded medicines without compromising quality, safety or therapeutic effectiveness. Their strategic importance is further amplified in the context of global health equity, where timely access to affordable remedies remains a critical determinant towards public health resilience. Recognizing the importance of the subject, the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi has published the book entitled “**Generic Drugs: Science, Technology, Regulatory Frameworks and Socio-Economic Aspects**”.

The book comprising 17 chapters is organized into four thematic sections and provides a multidisciplinary perspective on the evolving landscape of generic pharmaceuticals. With contributions from leading scholars, scientists and practitioners from diverse regions, the book offers valuable insights into how generic medicines can support equitable healthcare systems and improve access to essential medicines across the developing world. Uniting economic analysis, clinical trial review, market assessment and policy critique, it offers a nuanced picture of how generics can transform patient care and the broader healthcare system. The articles presented in the book also look into role of Generic Drugs in achieving UN Sustainable Development Goal – 3 (Good Health and Well-Being). The publication is envisaged to serve as a critical resource for those shaping the future of public health, pharmaceutical policy and relevant research.

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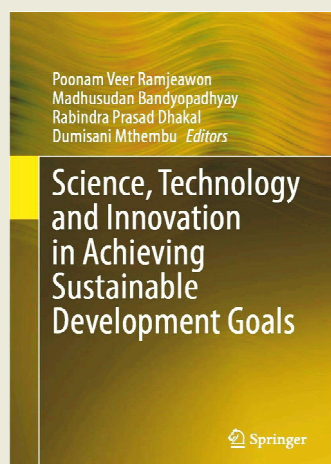
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Epilogue: *Bobby George (India)*

Science, Technology and Innovation in Achieving Sustainable Development Goals



Science, Technology and Innovation (STI) plays crucial roles in the implementation of the 17 UN Sustainable Development Goals (SDGs) which collectively have the objectives of eradicating poverty, protecting the planet, and ensuring prosperity for all by 2030. STI serves as a critical enabler by driving transformative solutions across economic, social and environmental dimensions in both the developed and developing world. Considering the importance of the subject, the *Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre)*, New Delhi, India has brought out a book titled “**Science, Technology and Innovation in Achieving Sustainable Development Goals**”.

The edited book contains 19 chapters contributed by experts and researchers from developing countries, viz., Bangladesh, Ghana, India, Iraq, Malaysia, Mauritius, Nepal, Sri Lanka and Somalia. These chapters collectively focus on four broad areas: **meeting basic human needs; fostering sustainable and inclusive societies; ensuring the responsible use of natural resources and strengthening global partnerships and institutional frameworks**. Together, these contributions provide a holistic understanding of the complexities of *Sustainable Development* and the critical role of STI-driven transformations. The publication is a valuable resource material for policymakers, researchers, academics, development practitioners and international organizations.

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