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# G-20 MOES

Ministry of Earth Sciences



## G20 - RESEARCH AND INNOVATION INITIATIVE GATHERING (RIIG)



### "MATERIALS FOR SUSTAINABLE ENERGY"

2nd RIIG event



The 2nd and 3rd Research and Innovation Initiative Gathering (RIIG) conferences were organised during 2nd - 3rd March in Ranchi and 23rd -24th March in Dibrugarh, respectively. The Ranchi RIIG event, coordinated by the Council of Scientific and Industrial Research (CSIR), New Delhi, highlighted the theme 'materials for sustainable energy'. The event was addressed by eminent scientists, academic and industrial experts who emphasised the significance of using alternative and innovative energy sources as well as the role of G20 leadership in steering transition towards sustainable energy storage, distribution, and management for a shared global future. The event was graced by about 21 foreign delegates from 16 G20 member countries, invited countries and international organizations along with 40 Indian experts who shared their views and expertise on new age energy solutions for a sustainable future.

## >>> VASUDHAIVA KUTUMBAKAM

The RIIG Chair, Dr. S. Chandrasekhar, Secretary, Department of Science and Technology (DST) emphasised the imperativeness of meeting our energy requirements sustainably from the existing mineral and material wealth. 'Sustainable energy' was stressed upon by Dr. N. Kalaiselvi, Secretary, DG, CSIR & Secretary, Department of Scientific and Industrial Research (DSIR) as key to embarking on the road to achieving a sustainable future which underpins the theme of the G20, 'Vasudhaiva Kutumbakam' or 'One Earth, One Family, One Future'. The national and international experts urged the G20 nations to work together to advance research and create technology solutions for a common future with net zero emissions, particularly in these times of profound shifts in global economy and growing concerns of climate change. Indonesia and Brazil, the members of the troika, along with other G20 delegations reaffirmed the significance and need for united action and global partnerships on part of all G20 member countries to rise up to sustainably meet the global challenges of energy and material requirements based on science-based innovations and development. Potential areas and opportunities for cooperation in various aspects of 'sustainable energy' were discussed through the course of the event, particularly under, challenges related to energy, materials and devices, solar energy utilization, photovoltaic technology and green energy. On the sidelines of the event, the G20 delegates were delighted to visit the arts and craft stalls organised by the Jharkhand state Government at Patratu Lake complex who showcased their unique culture, crafts and traditional skills.



# ONE EARTH, ONE FAMILY, ONE FUTURE



## 3RD RIIIG EVENT

### ➤➤➤ BUILDING A SUSTAINABLE AND CIRCULAR BIO-ECONOMY

The 3rd RIIIG event was held at Dibrugarh, Assam which provided a platform for representatives from the Indian scientific community, G20 member countries, invited countries, and international organisations to steer discussions around the theme of 'Circular Bio-economy'. The two day conference was coordinated by the Department of Biotechnology, Ministry of Science & Technology. A broad representation with around 56 international delegates from 26 different countries made the deliberations on 'building a sustainable and circular bio-economy' more inclusive. The G20 delegations exchanged scientific views and policy perspectives on the identified sub-themes: Agriculture Challenges and Opportunities, Industry towards Decarbonisation, Bio-Energy, and Bio-resource Management.



### ➤➤➤ ZERO WASTE MANAGEMENT

Secretary, Department of Science and Technology (DST) and RIIIG Chair, Dr. S. Chandrasekhar, stressed on 'zero waste management' as the need of the hour which aligns closely with the LiFE mission– Lifestyle for Environment, one of the focus areas of India's G20 presidency. Dr. Rajesh S. Gokhale, Secretary, Department of Biotechnology, encouraged the G20 delegates to steer multilateral leaderships for planning and developing new programs and initiatives that drive futuristic solutions in the focus areas of agriculture, industry and energy.

### ➤➤➤ BLUE BIOECONOMY

Secretary, Ministry of Earth Sciences (MoES), Dr. M. Ravichandran, in his address, emphasised the significance of collaboration in research and innovation for sustainably harnessing blue bioeconomy majorly from renewable living ocean resources, especially for the G20 countries that are ocean based economies. He elaborated that oceans are the major reservoirs of carbon and can capture carbon 35 times faster than their terrestrial counterparts; one of the highest contributors to the World's economy, employing millions of people along the coast line. Thereby, renewable use of the ocean, seas, and marine resources can be critical enablers of sustainable development. Deliberations at the event centred around mainstreaming circular bio-economy models across various sectors that warrant mindful and deliberate utilization of resources over mindless and wasteful consumption which simultaneously reduces waste, reuses resources, and preserves our planet.



## 2ND ENVIRONMENT AND CLIMATE SUSTAINABILITY WORKING GROUP (ECSWG) MEETING, GANDHINAGAR

### »»» COMBATING THE ENVIRONMENT AND CLIMATE CRISIS

The second meeting of the Environment and Climate Sustainability Working Group (ECSWG) was held at Gandhinagar, Gujarat from the 27th – 29th of March, 2023. Building on the discussions from the first ECSWG, where constructive deliberations among the G20 countries took place on Arresting Land Degradation, Accelerating Ecosystem Restoration and Enriching Biodiversity; Promoting a Sustainable and Climate Resilient Blue Economy, and Encouraging Resource Efficiency and Circular Economy, the G20 member countries at the 2nd ECSWG meeting reaffirmed their commitment towards combating environment and climate crisis, with a renewed sense of urgency.



### »»» WATER CONSERVATION

The 2nd ECSWG commenced with a side event on water resources management wherein presentations on by G20 member countries highlighted important issues in water conservation. India has unique traditional water management practices, and to showcase the same the Ministry of Jal Shakti led thematic site visits to the Adalaj Vav, Sabarmati siphon, Sabarmati riverfront, and Narmada main canal. During other sessions of the day the G20 countries presented their best practices in Water Resource Management. The second day of the meeting witnessed elaborate discourse on the themes of (a) **Biodiversity, Land degradation & Ecosystem Restoration** and (b) **Resource Efficiency and Circular Economy**

A special address was given by Ms. Darshana Vikram Jardosh, Union Minister of State for Railways and Textiles, Government of India on the 3rd day of the ECSWG meeting acknowledging the efforts of the G20 countries, towards a comprehensive approach to address climate change.



## ➤➤➤ MARINE RESOURCES

This was followed by a very engaging technical session and discussion to outline ways for effectively accelerating the transition to a Sustainable and Climate-resilient Blue Economy. Dr. M. Ravichandran, Secretary, Ministry of Earth Sciences (MoES) delivered the opening remarks for the session where he recounted the benefits of conserving marine resources and emphasized a holistic and integrated approach towards coastal and ocean management aided by marine spatial planning which enables harnessing the socio-economic potential of the ocean in a balanced manner. Further, two important concepts, i.e., **Conservation and Restoration of Coastal and Marine Ecosystems and Mainstreaming Marine Spatial Planning** were introduced during this session. Further, the delegates also deliberated on the draft G20 High-Level Principles for a Sustainable and Climate Resilient Blue Economy.



Presenters during this session which included experts from the Indian National Centre for Ocean Information Services (INCOIS), the United Nations Development Program (UNDP), the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), and the National Centre for Sustainable Coastal Management (NCSCM) emphasized the need for protecting and conserving coastal and marine ecosystems for a healthy ocean, ecosystem conservation from Blue Carbon initiative, mainstreaming Marine Spatial Planning for a sustainable Blue Economy and MSP Global Initiative.

The concluding technical session of the day was on the alignment of the Global Biodiversity Framework 2022 and its implementation modalities under the priority of biodiversity, land degradation, and ecosystem restoration. Ms. Leena Nandan, the G20 Chair for India and Secretary, Ministry of Environment, Forest and Climate Change urged the G20 members to continue with their collaborative approach under India's Presidency to ensure an inclusive, action-oriented, and decisive outcome. The day concluded with the delegates visiting the Dandi Kutir, which is the world's largest and only Museum built on **one man's story - Mahatma Gandhi, Father of the Nation**. The delegates were delighted with a tour of the experiential museum.

The 2nd ECSWG meeting ended on a note of collaboration with a goal to refine the proposed outcomes under the G20 India Presidency by incorporating the feedback of the delegates and best practices shared during the sessions. All the G20 countries agreed on the pressing need for concentrated global efforts and the immediate action required towards climate change given the current scenario.

The discussions done during this meeting will be taken forward at the 3rd ECSWG meeting, which is scheduled to take place in Mumbai from 21st – 23rd May 2023 with the **'Mega Beach Cleaning Event'** and **'the Oceans-20 Dialogue'** marking the highlights of the event.

