



WORLD SUSTAINABLE DEVELOPMENT SUMMIT 2024

LEADERSHIP FOR SUSTAINABLE DEVELOPMENT
AND CLIMATE JUSTICE



SUMMIT OVERVIEW



The year 2024 marked the 23rd edition of the Summit series. In its journey since 2001, the platform has become a focal point for global thought leaders and practitioners to congregate and drive ambition and action for achieving sustainable development, and to address the global challenge of climate change. The Summit series has emerged as the premier international event based in the Global South on sustainability which focuses on global futures while keeping an eye on present actions.

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Chairman's Note



Mr Nitin Desai
Chairman, TERI

The year 2024 marked the 23rd edition of the World Sustainable Development Summit (WSDS), continuing the legacy of the Delhi Sustainable Development Summit, instituted by The Energy and Resources Institute (TERI) in 2001 under the visionary leadership of Dr R K Pachauri. This year is notably special as it marks the completion of 50 years of TERI's extraordinary and persistent valuable contribution towards India's sustainable development journey.

Over the years, TERI has been steadily aiming at interlinking environment and development. TERI's continued focus has been on knowledge creation, dissemination, and dialogue on the climate crisis by bringing together people involved in decision-making on environment and development, through its flagship event, WSDS.

Recognizing that ecosystems transcend boundaries, 'sustainable development' in the global policy discourse presently aims at conserving resources whilst promoting sustainable living. India's G20 Presidency advanced cross-cutting themes of Lifestyle for Environment (LiFE) visualizing lifestyles, and behavioural modifications for stimulating mass movement. The *New Delhi Leaders' Declaration* adopted at the G20 Summit also recognized the importance of collective action in tackling environmental challenges and climate change. At COP28 in Dubai, Prime Minister Shri Narendra Modi, by launching the Green Credit Initiative, advocated for incentivizing voluntary pro-planet actions. This initiative involves the issuance of Green Credits for plantations on waste/degraded lands and river catchment areas.

Witnessing the WSDS since its inception, I have observed a gradual shift over time. By bringing together leaders who can influence sustainable development, the Summit has successfully advanced discussions beyond the stage of raising awareness to identify actionable local-level solutions to climate challenges. It has brought forth thoughtful interactions between political leaders having the capacity to translate sustainable development into policy; corporate leadership driving sustainable investments; academicians bringing in-depth knowledge of the field, and civil society vocalizing for communities. Deliberations held at WSDS continue to play a significant role in shaping global sustainable pathways.

This year's edition facilitated collaborative multi-stakeholder engagement on issues related to sustainable development, climate justice, adaptation and resilience, energy trilemma, and sustainable consumption and lifestyles amongst others. It witnessed cooperative discussions between leaders from governments, corporations,

research institutions, and other stakeholders to drive change and bring solutions holding the potential of formulating achievable sustainable solutions. Accentuating the imperativeness of drawing interlinkages between the concerns of climate action and sustainable development, TERI's Act4Earth initiative launched at the 21st edition of this Summit has successfully brought synergies between COP negotiations and sustainable development goals (SDGs), thereby encouraging outcome-based continuity on these concerns.

I congratulate the Director General of TERI, the Summit Curator, and the entire team for bringing together global leaders for this impactful event. I look forward to initiatives under the Act4Earth and the future editions of WSDS, which will strive to nudge the world to take urgent collective action for bringing intra-generational and inter-generational equity.

From the Director General's Desk



Dr Vibha Dhawan
Director General, TERI

The Energy and Resources Institute (TERI) hosted the 23rd edition of its flagship event, World Sustainable Development Summit (WSDS) from February 7-9, 2024 that gathered important stakeholders including heads of state and government, ministers, corporates, women leaders, youth, and grassroots representatives. WSDS continues to serve as a crucial platform for the conversations, actions, and solutions necessary to safeguard our planet.

This year is a significant milestone for TERI as it embarks on its golden jubilee year with a continued promise of delivering exceptional work in the field of sustainable development and climate action. India's G20 Presidency and its announcements at COP28 reflects its firm belief that equity and climate justice must be the basis of global climate action. The COP28 had key decisions to make on the operationalization of the loss and damage fund, and the first global stocktake (GST). The challenges regarding the world's hope of limiting the 1.5°C warming target by 2030 were highlighted and the role of fossil fuels was discussed. As per the GST outcome, the financial support should be significantly scaled up to meet evolving adaptation needs. It highlighted the growing gap between the needs of developing countries and the support provided for their efforts to implement their Nationally Determined Contributions (NDCs).

The overarching theme of WSDS 2024 – 'Leadership for Sustainable Development and Climate Justice', opened the possibility of deliberations on the problems encountered by the planet, especially in the global south, as well as the long-term solutions to overcome climate crisis and promote climate justice. It brought forth the growing voices from across the globe to address the looming threats of climate crisis. The Summit started with an invocation session by BK Shivani Ji, which reminded us how our contribution to the environment is also dependent on our mental wellbeing. In subsequent sessions, we witnessed deliberations on key issues such as climate finance, sustainable consumption and lifestyles, adaptation and resilience, energy trilemma, climate action, nature and ecosystems, women and youth leadership.

I extend my heartfelt gratitude to the Hon'ble Vice-President of India, Shri Jagdeep Dhankhar, for his esteemed presence at the inaugural and for setting the tone for the Summit. I thank Hon'ble Prime Minister of Guyana, H.E. Brigadier (Retd) Mark Phillips, and Shri Bhupender Yadav, Hon'ble Minister of Environment, Forest and Climate Change for gracing the inaugural session of WSDS 2024. I also express my sincere gratitude to Shri R K Singh, Hon'ble Minister of Power. It is my pleasure to share that TERI,

along with the Ministry of Power, intends to set up a world class 'Centre of Energy Transition' in Hyderabad. My special thanks to the Ministry of Environment, Forest and Climate Change for its unwavering support to the Summit since its inception. I thank all the speakers and participants for joining us and making this Summit a success.

This year's Summit owes its success to the efforts of various teams working behind it. I would like to acknowledge the core team for organizing the Summit. I thank the IT team, Events team, Communications and Publications team, the floor managers, facilitators, rapporteurs, emcees, and the staff members for making this event a great success. Special thanks to all our partners including the International Steering Committee and the Advocacy Committee for their support. We look forward to their strengthened associations in the future editions of the Summit.

While the preparations for WSDS 2025 have already started, I am pleased to share that the Summit, in tandem with its knowledge initiative – Act4Earth, has engaged on issues that require immediate attention from the world leaders.

Preface by the Summit Curator



Dr Shailly Kedia

Senior Fellow and Associate
Director, TERI

Since its inception in 2001 as the Delhi Sustainable Development Summit and in 2016 transitioning to the World Sustainable Development Summit (WSDS), this Summit series has created a space for itself as the only independently convened multi-stakeholder event on sustainable development and climate action based in the Global South. WSDS activities are enshrined in the theory of constructivism, according to which, socialization leads to emergence, cascading and internalization of norms ultimately leading to ambition, commitments, and action.

The *Global Progress Report* conducted at the midpoint year of the 2030 Agenda and the sustainable development goals (SDGs), painted a bleak picture with only 15% of assessed SDGs being on track. Apart from this, the world continues to confront planetary crises including extreme weather events, climate change, biodiversity loss, and pollution. The ever-growing conflict situation across the world could lower the policy priorities for climate and sustainability agendas. This polycrisis demands polycentric leadership to accelerate progress on SDGs and climate action. The 23rd edition of the Summit was held under the umbrella theme: 'Leadership for Sustainable Development and Climate Justice'.

The Summit was held on February 7–9, 2024 at India Habitat Centre in New Delhi. It was a pleasure to curate the Summit under the leadership of Dr Vibha Dhawan, Director General, The Energy and Resources Institute (TERI). It is extremely gratifying for me to have continued the legacy of the Summit, which was instituted under the vision of Dr Rajendra Kumar Pachauri in 2001.

The Summit discussions were informed by messages emerging from Act4Earth 2023, which concluded with COP28 in Dubai in December 2023. As part of the Act4Earth activities, outputs of COP28 Compass and *SDG Charter* were launched in Dubai at an official side event of the United Nations Framework Convention on Climate Change (UNFCCC) in the Blue Zone and messages were disseminated at other pavilions at COP28. The team also sought to engage with India's G20 Presidency through COP28.

The participation of 2 heads of state/government and 11 ministerial speakers shows the continued political traction towards sustainability. The Summit saw 800+ in-person delegates. Additionally, 23 organizations partnered for the Summit. The Summit also saw engagement with Lifestyle for Environment (LiFE) as a special initiative. The media coverage for the Summit was 1,500+, social media reach was 700,000+ and the Summit page views were more than 85,000. The myriad segments included 17 plenary sessions, 31 thematic tracks, 3 special sessions, and 15 exhibition booths, and were driven by 97 plenary speakers and 272 thematic track speakers. The Summit witnessed in-depth deliberations on issues ranging from multi-level leadership, climate action, integrating sustainable

development, lifestyles, energy trilemma, green growth to nature and ecosystems.

A 10-point *Act4Earth Manifesto*, which encapsulated the key messages emerging from the Summit deliberations, was presented at the Summit's valedictory session. With continued partnership, we hope to continue the discussions under Act4Earth and through future editions of the Summit.

I sincerely thank all our partners – International Steering Committee (ISC) members, Advocacy Committee members, TERI colleagues, who assumed various roles in the run-up to and during the Summit, colleagues from WSDS Secretariat for their untiring efforts, cooperation, and support – in conducting yet another successful edition.

Our journey, which has completed 23 successful years, still has a long way to go. The 2025 edition of the World Sustainable Development Summit will be organized under the umbrella theme of '*Partnerships for Accelerating Sustainable Development and Climate Solutions*' during March 5-7, 2025 in New Delhi. We look forward to bringing the world together once again at WSDS 2025, to continue our efforts of making sustainable development a globally shared goal.

Acknowledgements

The 23rd edition of the annual flagship event of The Energy and Resources Institute (TERI), the World Sustainable Development Summit (WSDS), was held on February 7–9, 2024 in New Delhi. The Summit deliberations focused on the umbrella theme: ‘Leadership for Sustainable Development and Climate Justice’. The Summit was supported by the Ministry of Environment, Forest and Climate Change [Nodal Ministry], and was co-branded with Mission LiFE [Lifestyle for Environment].

We thank our partners: Royal Norwegian Embassy [Country Partner], Bloomberg Philanthropies [Star Partner], The Rockefeller Foundation [Senior Partner], The Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection & International Climate Initiative [Senior Partner], The World Bank [Senior Partner], Tata Capital [Associate Partner], Johnson Controls [Associate Partner], TERI School of Advanced Studies [Associate Partner], Asian Development Bank [Associate Partner], International Energy Agency [Co-Associate Partner], Natural Resources Defense Council [Co-Associate Partner], TATA Power [Contributor-Corporate Partner], and National Bank for Agriculture and Rural Development (NABARD) [Base-Corporate Partner]. We express our sincere thanks to the Summit outreach partners: POP Movement, The World Sustainable Development Forum, Kaizzen, Outlook Group, Climate Trends, The Foreign Correspondents Club, Press Club of India, IFAT India, and Sustainability Karma.

We thank Mr Nitin Desai (Chairperson, Governing Council, TERI) and Dr Vibha Dhawan (Director General, TERI) for their leadership and trust in the WSDS team. We would like to express our sincere gratitude to the International Steering Committee of the Summit, which comprised Ms Leena Nandan, Mr Manish Bapna, Ms Kathleen McGinty, Prof. Kazuhiko Takeuchi, Mr Arne Walther, Ms Priya Shankar, and Dr Henning Wuester.

We thank the Advocacy Committee Members of WSDS: Ms Jayashree Nandi, Ms Urmi A Goswami, Dr Rajiv Chhibber, Mr Vineet Handa, Mr Himanshu Shekhar Mishra, Mr Rajiv Tikoo, Ms Bahar Dutt, and Ms Aarti Khosla.

We express our heartfelt gratitude to Ambassador Manjeev Singh Puri, Dr Prodipto Ghosh, Mr R R Rashmi, Mr Ajay Shankar, and Ambassador Ajai Malhotra, who guided us in the planning and brainstorming sessions. The Secretariat team acknowledges the colleagues from the Director General's office – Mr Shyam Sundar Nayar and Mr Ritesh Kumar Jha, who have been extremely instrumental in ensuring timely communications. We thank our capstone researcher, Ms Ishita Srivastava and consultants Ms Ipshita Mitra, Ms Anuradha Mathur and, Ms Sangeeta Badhwar and Ms Sonia Sethi for providing administrative support. We thank all the floor managers, rapporteurs, facilitators, emcees, and thematic track teams.

We thank our core coordination teams in TERI that included Information and Technology Services, Programme Cell, Communications and Publications teams, Administrative Services, Human Resources team, and Integrated Finance Unit.

Along with managing the website and mailers, the IT team at TERI worked closely with the platform team to ensure the successful delivery of the Summit. We also thank them for their efforts in ensuring that the WSDS website functions smoothly and information is disseminated efficiently by our mailers. In the IT team, we acknowledge Mr Amit Singhal, Mr Varun Prakash Pandey, Mr Rohit Chauhan, Mr Vir Bahadur Singh, Mr Vishal Anant, Ms Aarti Parmar, Mr Rahul Kumar, Ms Pawandeep Kaur, and Mr Sanu Kumar Thakur.

We thank Ms Ritu Ghai and Ms Elana Sebastian for their valuable contribution and support in event management. We express our gratitude to Mr Anil Gopalakrishnan for providing protocol related support and Mr Sudhir Singh for facilitating transportation arrangements throughout the Summit.

The Communications and Publications team has worked in promoting WSDS through media engagement, social media outreach, audio-visual content, and delivery of knowledge products including the daily bulletins and the special issue of TerraGreen. We would like to acknowledge Ms Anupama Jauhry, Ms Tanmana Rath, Mr Sumit Bansal, Ms Pragya Tiwari, Ms Rumpa Banerjee, Mr Adarsh R Krishnan, Mr Santosh Gautam, Mr Abhas Mukherjee, Mr Rajiv Sharma, Mr Vijay Nipane, Mr Sachin Bhardwaj, Mr Aman Sachdeva, Mr Sanjeev Sharma, and Ms Shreya Mago.

We thank Mr Sunit Tandon and his entire team at India Habitat Centre where we hosted the Summit. We thank Kaizzen who provided public relations services for the Summit.

We look forward to hosting a successful edition of the Summit next year as another milestone towards making 'sustainable development' a globally shared goal.

WSDS Secretariat

(Shailly Kedia, Heena Makhija, Sonali Mathur, Palak Khanna,
Madhuparna Maiti, Shivangi Raj, Ravi Nair, & John Andruse)

About WSDS

The World Sustainable Development Summit (WSDS) is the annual flagship multi-stakeholder initiative organized by The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has a legacy of over two decades for making 'sustainable development' a globally shared goal. Over the years, the Summit platform has brought together thought leaders, heads of state and government, scholars, corporates, youth groups, and civil society representatives from across the world. The Summit series has established itself as a responsible and an effective platform for mobilizing opinion-makers to drive ambition and advance pioneering actions to address some of the most relevant issues concerning sustainable development and climate change.

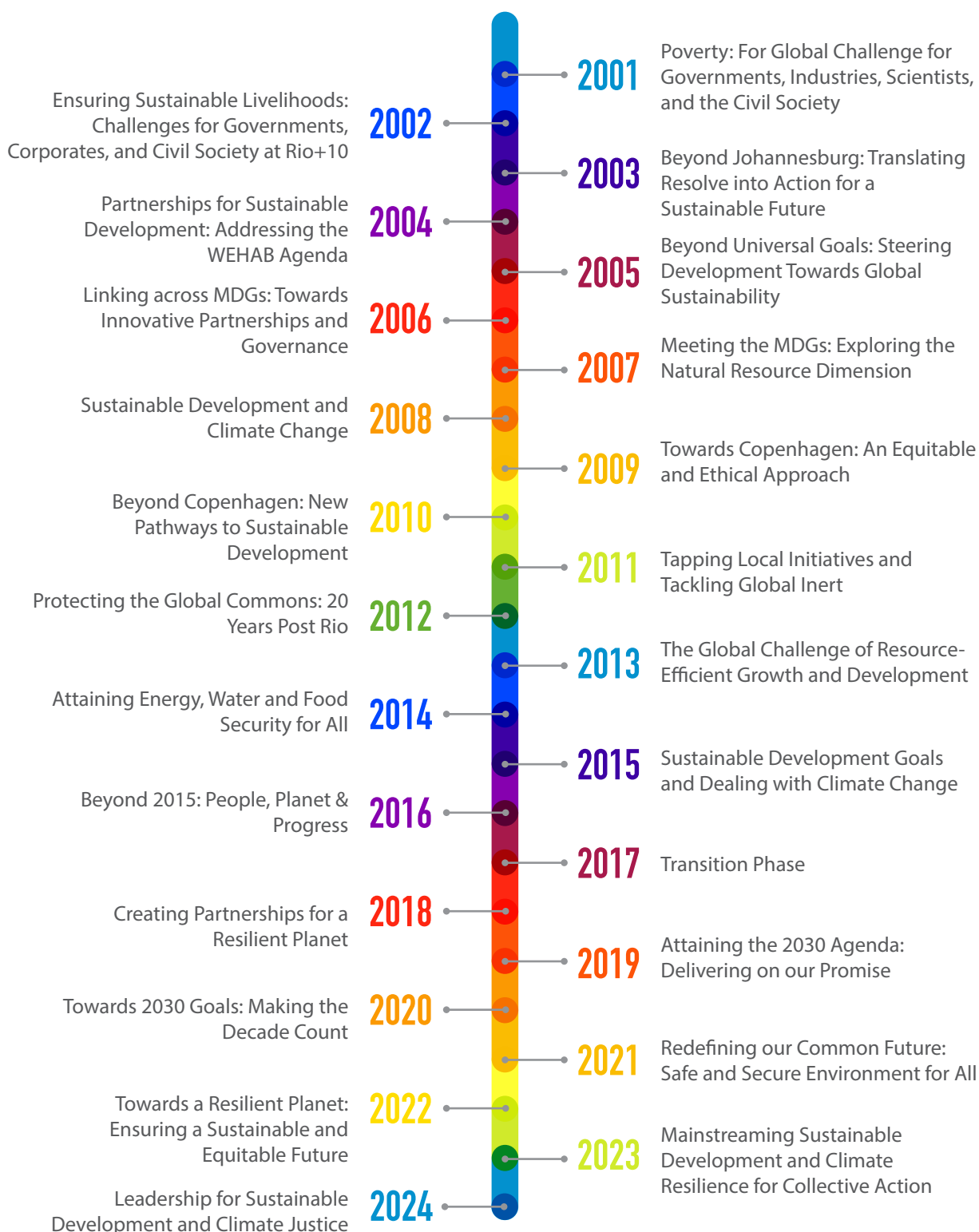
The only independently convened international summit on sustainable development, environmental sustainability, and climate solutions, based in the Global South, WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform. In its previous editions, it has involved speakers, delegates, and participants to address several key issues pertaining to climate change and environmental protection. As a result, the Summit has witnessed numerous partnerships that have promised to strengthen our collective endeavours towards imagining a sustainable and environmentally secure future. The platform has reached out to the global community via exclusive features, such as Ministerial Addresses, Plenary Sessions, Thematic Tracks, Youth Plenary, Women Leadership Session, CEO Forum, and exhibitions on sustainability initiatives.

Over the years, the Summit series has witnessed the participation of 58 Heads of State and Government, 137 Ministers, 13 Nobel Laureates, 3373 Speakers, 2045 Business Leaders, and 40,362 Delegates.

The Summit has an important role to play in not just providing a platform for dialogues, but also to create new knowledge output. This is enshrined in the theory of constructivism, according to which, learners construct knowledge rather than just passively taking in information. When leaders from various spheres come together and reflect on their experiences, they build their own representations and incorporate new information into their pre-existing knowledge. By playing a constructivist role, the Summit will seek to reinforce its commitment at all levels to enhance ambition and action to create a more sustainable and equitable world for present and future generations.

The 23rd edition of WSDS was held on February 7–9, 2024 at the India Habitat Centre in New Delhi. The Summit deliberations focused on the umbrella theme: 'Leadership for Sustainable Development and Climate Justice'. We are living in a time of polycrisis. Some of the key challenges confronting the world today include planetary crises, sliding back of sustainable development goals (SDGs), rising conflict, worsening climate situation, and more, which threaten world peace. It is more important than ever that environmental stewardship is promoted at all levels and across all spheres. Considering the multiple crises and the need for polycentric leadership, the deliberations at the 2024 edition of the Summit focused on topics, such as climate solutions, integrating sustainable development, addressing the energy trilemma, driving green growth, lifestyles, and nature and ecosystems.

Summit Series (2001–2024)



Statistics @WSDS2024

879

In-person Delegates

23

Partners

2

Heads of State/ Government

15

Expo Booths

51

Sessions

1500+

Media Coverage

350

Speakers

7000000+

Social Media Reach

11

Ministers

85,000+

Website Users

International Steering Committee



Dr Vibha Dhawan

Director General, The Energy and Resources Institute (TERI)



Ms Leena Nandan

Secretary, Ministry of Environment, Forest and Climate Change, Government of India



Mr Manish Bapna

President & Chief Executive Officer, Natural Resources Defense Council (NRDC)



Ms Kathleen McGinty

Vice President & Chief Sustainability, Government and Regulatory Affairs Officer, Johnson Controls



Prof. Kazuhiko Takeuchi

President, Institute for Global Environmental Studies (IGES), Japan



Mr Arne Walther

Former Secretary General of International Energy Forum



Dr Henning Wuester

Director, Initiative for Climate Action Transparency



Ms Priya Shankar

India Director, Climate and Environment Program, Bloomberg Philanthropies

Inaugural Address

Hon'ble Vice-President of India
Shri Jagdeep Dhankhar



Shri Jagdeep Dhankhar
Hon'ble Vice-President of India

My namaskar and warmest greetings to all!

I am greatly enthused to be standing before you today at the 23rd edition of the World Sustainable Development Summit (WSDS), organized by The Energy and Resources Institute – TERI. I extend my gratitude to TERI for hosting this crucial gathering, bringing together global leaders, experts, and stakeholders committed to the pursuit of sustainable development, a contemporaneous global need.

For the past five decades, TERI has contributed by providing transformational solutions through policy research, technological innovation, and advocacy. अथर्व वेद का पृथ्वी सूक्त कहता है— 'माताभूमिः पुत्रोऽहंपृथिव्या' (पृथ्वी हमारी माता है, हम इसके पुत्र हैं). With that kind of thinking and emotion, one cannot think of exploitation of our Mother Nature.

Our world is facing unprecedented challenges that demand collaborative and innovative solutions. Climate change, biodiversity loss, and the depletion of natural resources are threatening the foundation of our existence. The urgency of these challenges requires bold and decisive action, and forums like this provide a vital platform for collective dialogue and commitment.

In a world interconnected like never before, we must recognize that the challenges we face – know no borders. The impact of our actions reverberates across nations, affecting the most vulnerable communities and ecosystems. There can be no alternative to the formulation and adoption of people- and nature-centric approaches.

Global leadership must drive the mainstreaming of environmental protection and climate justice at all levels, embedding these principles in the very fabric of our societies. It is heartening to see India's leadership at the forefront of this global effort. The Indian government has demonstrated a steadfast commitment to sustainable development and environmental stewardship. From ambitious renewable energy targets to pioneering initiatives that balance economic growth with ecological preservation, India serves as a beacon of inspiration for nations around the world.

One of the cornerstones of sustainable development is the transition to clean and renewable energy sources. Our commitment to renewable

energy not only mitigates the impacts of climate change but also opens avenues for economic growth, job creation, and technological innovation. India's commitment is evident not only in words but in action, with the implementation of policies that reflect a dedication to the principles we advocate.

Our honourable Prime Minister, Shri Narendra Modi along with the leaders of Singapore, Bangladesh, Italy, the USA, Brazil, Argentina, Mauritius, and the UAE, launched the Global Biofuel Alliance (GBA) on 9 September 2023 during the G20 Summit in New Delhi. This marks a significant step towards a more sustainable energy future. With India targeting to become carbon neutral by 2070 and expanding use of biofuel in its transport sector, this is a right initiative in the same direction.

Electric vehicles are receiving a boost like never before. Circular economy is being increasingly stressed on, in the true spirit of sustainability. The integration of sustainability into national planning, the allocation of budgets for green initiatives, and the launch of flagship schemes that prioritize environmental protection showcase India's leadership in embracing a holistic and inclusive approach to development.

We find ourselves at a unique juncture. Our 'Amrit Kaal' is revealing itself to be the 'Gaurav Kaal' for all Indians. As we take pride in our epochal achievements, it is essential to reflect on the remarkable transformation that Bharat has undergone in just a decade. From being labelled as one of the 'fragile five' economies, we have emerged as the fifth largest global economy, with projections indicating that India is poised to become the third largest economy by 2030. This meteoric rise is a testament to the indomitable spirit of the Indian people, the visionary leadership, and the collaborative efforts that have propelled us forward.

The exponential growth we have experienced brings with it challenges, particularly in the realm of sustainability and environmental conservation. Our economic progress must be harmonized with a commitment to sustainable development, ensuring that we leave a legacy that our future generations can inherit with pride. Today, as we take rightful pride in our achievements, we must also acknowledge the looming threat of climate change and its draconian consequences for the global community at large.

India, with its rich tradition of sustainable practices, can be a guiding light for the world in adopting eco-friendly and inclusive development models. Our cultural ethos of living in harmony with nature provides a foundation upon which we can build a sustainable future for all. True to this spirit, our focus has not only been on mainstreaming sustainability into governance at home but also in steering global commitments.

Last year, the International Big Cat Alliance (IBCA) was launched by the Prime Minister for conserving global big cats including tigers. Earlier, India had spearheaded the launch of the International Solar Alliance. A Green Credit Initiative was launched by the Prime Minister on the sidelines of the 28th Session of the UN Climate Change Conference (COP28) in Dubai last year, to encourage voluntary environmental positive actions. India is home to 75 of the world's wetlands of international importance, with the second largest network of Ramsar Sites in Asia.

India's G20 Presidency has given out a strong signal with its motto – *Vasudhaiva Kutumbakam*, which translates to considering the world in the spirit of 'One Earth One Family One Future'. The *New Delhi Leaders' Declaration* adopted at

the G20 Summit, impactfully recognized the importance of collective action in tackling environmental challenges and climate change. India's G20 Presidency even furthered cross-cutting themes of LiFE (Lifestyle for Environment), which is visualized to be a lifestyle- and behaviour-stimulating mass movement. LiFE envisions mobilizing change at the individual level that holds the potential to trigger shifts at a wider scale with positive spillover effects.

Our international friends would also agree that climate change has disproportionate impacts on those who are most vulnerable and hence 'climate justice' needs to be the north star. Leadership at all levels and spheres of society is a key factor for enabling us to work in a collective spirit towards integrating sustainable development and climate justice. The optimum utilization of natural resources should be a norm, ingrained not only at a wider policy level but also within the conscience and consciousness of everyone. One's fiscal power should not determine the usage of resources, such as water, petroleum, electricity. We must remember the words of the 'Father of the Nation', Mahatma Gandhi ji: *"The earth has enough for everyone's need, but not for everyone's greed."*

The challenges we face are daunting, but they are not insurmountable. By joining forces, embracing innovation, and fostering international cooperation, we can pave the way for a sustainable and secure future for all. Let this Summit be a catalyst for action, inspiring us to redouble our efforts and work towards a world where the principles of sustainable development guide our every decision.

I congratulate TERI on yet another edition of this Summit, which continues to remain an important global platform to debate, discuss, and pave the way for just, equitable, and pathbreaking solutions to protect our planet Earth. We need to collectively act for Mother Earth – not in the near future, not tomorrow, but today – and now!

Thank you and may our collective commitment to sustainability light the path towards a better and more secure future for generations to come.

Thank you. *Jai Hind, Jai Bharat!*



सत्यमेव जयते

प्रधान मंत्री
Prime Minister

MESSAGE

Greetings and best wishes for the 23rd edition of the World Sustainable Development Summit – an occasion that also marks the completion of the 50th year of The Energy and Resources Institute (TERI). This Summit organized by TERI has been pivotal in uniting stakeholders from all corners of the world in pursuit of a common goal - sustainable development for the betterment of humanity.

Over a period of two decades, the Summit has evolved into a pre-eminent platform to foster dialogue, collaboration, and action on sustainability and combating climate change. Through the involvement of a number of Heads of State, as well as thousands of delegates, the WSDS has catalysed partnerships and collective action to address one of the most urgent challenges of our times.

This year's theme, "Leadership for Sustainable Development and Climate Justice," underscores the need for bold steps, decisive action and a clear direction towards a more sustainable and equitable future.

Today, our country has emerged as a global force multiplier in the fight against climate change. The spirit of One Earth, One Family, One Future pervaded discussions on a wide array of issues held under our G-20 Presidency, too.

Be it initiatives like Mission LiFE that motivate every individual to be a changemaker or our broader vision of Panchamrit goals, we are committed to build a cleaner, greener and sustainable future. Similarly, efforts like International Solar Alliance, Coalition of Disaster Resilience Infrastructure, Swachh Bharat Mission, PM KUSUM and PM Suryodaya Yojana are ensuring that India leads the way towards devising effective and innovative solutions that champion inclusion as well as the environment. Our thrust towards clean energy including utilising green hydrogen and biofuels also underlines our keen sense of responsibility towards the future.

The challenges we face may be daunting, but with courage, determination, and collective action, let us commit ourselves to the pursuit of a more sustainable and equitable world, where every individual can thrive, in harmony with nature.

(Narendra Modi)

New Delhi

माघ 17, शक संवत् 1945

06th February, 2024

Keynote Address

Hon'ble Prime Minister of Guyana H.E. Brigadier (Retd) Mark Phillips



H.E. Brigadier (Retd) Mark Phillips

Hon'ble Prime Minister of
Guyana

Your Excellency, Shri Jagdeep Dhankhar, Vice-President of India, Hon'ble Shri Bhupender Yadav, Minister of Environment, Forest and Climate Change; Dr Vibha Dhawan, Mr Nitin Desai and Ms Shailly Kedia; ladies and gentlemen, good evening.

It is a matter of pride for me to join the Hon'ble Vice-President of India and other dignitaries present here as we inaugurate this edition of the World Sustainable Development Summit encouraging climate-inclusive policies at the global level. Tackling the increasing threat to climate change has emerged as a priority for our leaders. In the spirit of fostering climate action, the governments of India and Guyana have been focusing on building a resilient and sustainable future. I'm glad to mention that at the beginning of this year, our relationship was further strengthened as India approved the signing of a five-year memorandum of understanding (MoU) to bolster cooperation in the hydrocarbon sector covering areas such as sourcing of crude oil, cooperation in crude oil refining, and collaboration in the natural gas sector.

My country's association with The Energy and Resources Institute goes back a long way and our longstanding relationship has seen collaboration across sectors. So, I take this opportunity, as you observe the 50th anniversary of TERI, to say congratulations to you on the first 50 years, and we look forward to working with you as you pursue the next 50 years of TERI. TERI has been engaged in grassroot-level work with Guyana as a research institute that is pioneering in enabling energy transitions and renewable energy technology use. Senior government representatives from Guyana have been a part of the previous editions of the World Sustainable Development Summit. As the world grapples with climate crisis, the theme of this year's Summit, 'Leadership for Sustainable Development and Climate Justice' presents a timely opportunity for stakeholders gathered here today to lay the foundation for sustainable and climate-sensitive policies. Since the adoption of the UN 2030 Agenda for Sustainable Development, there have been some advancements in SDG 7. The number of people across the globe without electricity has almost halved from 1.1 billion in 2010 to 675 million in 2021. Moreover, the renewable energy share in energy consumption has increased from 16% in 2010 to 19.1% in 2020. Notably, renewable energy proliferation in developing countries significantly grew by almost 10% annually. While these achievements are certainly commendable, further action is required, particularly in the least developed countries.

According to IEA's Net Zero by 2050 scenario, USD 30 billion will be required annually to achieve universal access to electricity by 2030. Otherwise, we will fall short of the target of ensuring universal access to affordable, reliable, and modern energy services. Despite the many challenges experienced globally, including lack of sustainable financing supply chain challenges, fiscal deficits, high debt levels, inflationary pressures and higher energy and material prices, national commitments must not waiver. There is a narrow window to increase progress for universal energy access and lift over 600 million out of the worst levels of energy poverty. Energy access policies and programs must expand socio-economic benefits to bridge the gap, especially for vulnerable groups and communities. The uptake of renewable energy in response to oil market volatility and the climate crisis is anticipated to considerably improve with approximately 25% of global energy consumption coming from renewables by 2030. An enabling environment to substantially increase the share of renewable energy in the global energy mix will require targeted policy interventions, technology transfer, and adequate funding. Taking advantage of the synergy between energy access and the deployment of renewable energy for electricity, heating and transportation needs present an opportunity to rapidly accelerate the renewable energy share and stay on target of the 1.5°C threshold. For the power sector alone, renewable energy would have to make up at least three-fifths of electricity generation. As the year 2030 approaches, there is a need for international cooperation and collaboration among public and private sectors to address the complexities and uncertainties in climate financing, technical capacities, policies, and regulatory frameworks to drive energy transition. Fundamentally championing sustainable energy transitions will require a transformation of our energy systems to decouple economic growth from more polluting energy sources, such as heavy fuel oil and diesel, and climate-resilient innovations.

The dependence on fossil fuels, ageing infrastructure, high energy costs and climate change vulnerability in the Caribbean countries is driving the need for sustainable energy transitions. The Caribbean community can tap into its indigenous sources, such as solar, PV, wind, hydropower, geothermal, biomass and ocean energy, and it is estimated to have a combined renewable energy potential of 10,750 megawatts. According to the IDB (Inter-American Development Bank), opportunities in the Caribbean sustainable energy market could yield USD 16 billion in net economic benefits to CARICOM (Caribbean Community and Common Market) countries in the longer term. To generate these benefits, CARICOM countries will need to invest an estimated USD 11 billion over the next 10 years.

Given its geography and terrain, Guyana is susceptible to the adverse effects of climate change including extreme weather conditions. Most of Guyana's population resides in the coastal areas and faces a high risk

of flooding. Building climate resilience and generating knowledge and adaptation within the communities remain a priority area and will act as the key to addressing the growing climate challenges. Guyana, one of the newest oil producing countries, also faces the unique paradox or opportunity to balance sustainable development, the needs of a developing country, and the demand for renewables worldwide. While the historical contribution of developing countries towards global emissions has been minuscule, securing climate finance for adaptation and access to technology transfer for decarbonization has proven to be a challenge. Nevertheless, Guyana is mindful of its international commitments as recognized in the Paris Agreement and is committed to maintaining its net carbon sink status. Moreover, by introducing policies, such as REDD+ (Reducing Emissions from Deforestation and Forest Degradation in developing countries) under our Low Carbon Development Strategy (LCDS), Guyana has been able to control the deforestation rate as almost 85% of our country remains covered by forests.

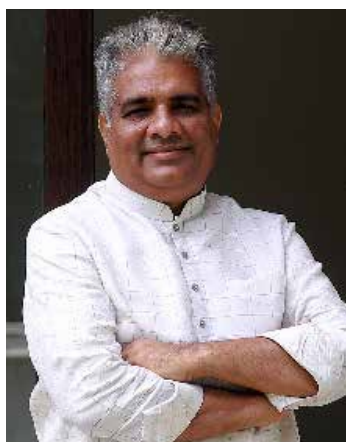
Guyana is committed to building its infrastructural capacity and aims to transition to clean energy. We launched our updated LCDS 2030 in 2022, which also focuses on aligning our policies with global climate and biodiversity goals. Our LCDS reinstates our commitment to an ambitious energy transition program which has found support from both India and TERI. Guyana aims to incorporate a mix of clean and renewable energy – solar, hydro, wind, and natural gas energy resources, to meet the country's energy needs over the next five years. It is envisioned that this plan will help add more than 500 megawatts of electric capacity for residential and commercial uses, contributing to a 50% reduction in electricity costs. Guyana's transformative energy initiatives include installation of a 300-megawatt natural gas to energy power plant, providing an important transition as the country develops its hydropower potential, commencing with the 165-megawatt Amaila Falls hydropower project that aims to generate cheaper and cleaner energy for all Guyanese communities, and support the massive expansion of renewable energy in the national grid. The country's electric utility will also be adding 33 megawatts of utility scale solar power to decarbonize the power sector further. Moreover, the distribution of 30,000 solar PV systems to off-grid hinterland and riverine households is nearly completed and will benefit close to 140,000 persons in over 240 communities at the end of this project. This initiative was made possible through a line of credit from the Government of India and for this, the people of Guyana are truly grateful. There are additional investments to advance access to renewable energy in hinterland communities with Guyana currently implementing a number of small hydropower projects. Further, the government has increased its investment in solar PV technology including two utility scale solar PV farms, solar mini grids, and rooftop solar PV systems at over 350 public buildings.

We are focusing on significant infrastructure investments, developing our energy sector, bolstering healthcare services, and diversifying our agriculture sector. Guyana also recognizes the vulnerability of children to extreme weather events and their impact on children's health and access to safe water, nutrition, and infrastructure. To ensure that our children and youth inherit a sustainable future, we have recently signed UNICEF's *Declaration on Children, Youth and Climate Action*. As also suggested by this year's theme of WSDS, leadership at the global, national, and sub-national levels will be crucial in taking timely and decisive steps towards meeting the sustainable development goals (SDGs). As we move closer to the 2030 (Agenda) target, the first global stocktake presents a concerning picture as we witness countries sliding back on some major SDGs. As representatives from across the world, political and business leaders, heads of intergovernmental organizations, and youth converge at WSDS, let us vow to deliberate upon and forge partnerships that are critical to achieving the Paris Agreement goals, and more importantly, needed to keep the planet and its people healthy. I'm happy that we have been able to continue these discussions at the highest level and wish for continued and successful dialogue along the lines of a sustainable future for all for the remainder of this year's World Sustainable Development Summit.

Thank you.

Opening Address

Hon'ble Minister of Environment, Forest and Climate Change, Government of India, **Shri Bhupender Yadav**



Shri Bhupender Yadav

Hon'ble Minister of
Environment, Forest and
Climate Change, Government
of India

Honourable Vice-President of India, Shri Jagdeep Dhankhar ji, Honourable Prime Minister of Guyana, His Excellency Brigadier Mark Phillips; Mr Nitin Desai, Dr Vibha Dhawan; excellencies, ladies, and gentlemen. It is a delight and an honour to extend my warmest welcome to the esteemed gathering for the 23rd World Sustainable Development Summit hosted by The Energy and Resources Institute (TERI).

Being a part of yet another World Sustainable Development Summit and my long association with TERI brings me great joy. The deliberations that take place at this Summit continue to be essential in determining the paths of our sustainable future. We must come together in our shared commitment to promote sustainability and equity in a society, which is plagued by the catastrophic concern of global warming and threats to global peace.

The World Sustainable Development Summit offers a vital forum for deliberating on the issues, solutions, and initiatives for the preservation of our environment. I congratulate TERI on completing 50 years of institution building. The theme of this year's WSDS: 'Leadership for Sustainable Development and Climate Justice', is especially needed to tackle climate crisis. It is essential to encourage young people to be catalysts for change and inspire the current and future leaders to support leadership to achieve the sustainable development goals and adhere to the Paris Agreement.

We believe in both fighting climate change and ensuring climate justice. As a nation that upholds climate justice, everyone in India must have access to means necessary to live with dignity. We believe, access to energy is the right for all citizens and therefore, energy must be affordable. At the same time, energy must be clean. India has shifted towards renewable resources at a fast pace between 2017 and 2023; India has added around 100 GW of installed electric capacity of which about 80% is from non-fossil fuel-based resources. India is one of the nations that has revised its NDCs (nationally determined contributions), indicating deep commitment to enhance climate action, and has submitted the long-term low emission development strategy at COP27 in Egypt. I take pride in sharing a fact with this august gathering that we have met two of our 2015 climate goals:

first being reduction in emission intensity of GDP by 33% between 2005 and 2019 which has been achieved 11 years ahead of its schedule. The second is, India has achieved 44% of electric installed capacity through non-fossil fuel sources 9 years prior to the target for 2030 (Agenda).

Friends, we need to work together to protect our planet from the triple planetary challenges of pollution, climate change, and biodiversity loss. There is a dire need to address unsustainable consumption and production. It is imperative that industrial development be directed towards sustainable production, and it should serve as a catalyst for more sustainable consumption. Our honourable Prime Minister, Shri Narendra Modi ji has outlined a one-word mantra: 'LiFE' (Lifestyle for Environment), which is at the core of India's goal for a safe planet. As we all know, in 2021 at COP26, honourable Prime Minister, Modi ji introduced 'Mission LiFE' and under the India presidency of G20, the call for sustainable lifestyles found its place in important deliberations. We saw a historic adoption of the green development pact by the G20 nations as part of the *New Delhi Leaders' Declaration*. The government's recent financial policy statement has once again strengthened India's vision for green growth across multiple sectors with the underlying thought that all future growth in the country must essentially be green.

In December 2023, I attended the 28th Conference of Parties (COP) in Dubai, UAE. The major outcome from COP28 includes a decision and an outcome of the first global stocktake (to meet) global climate ambition before the end of the decade. These global efforts will be undertaken by the countries in a nationally determined manner by considering the Paris Agreement and its different national circumstances. Another major outcome of COP28 is the agreement on the operationalization of the loss and damage fund and its funding arrangements.

The initiative of the Green Credit Programme was notified by the Government of India in October 2023. Its goal is to encourage behavioural change to inculcate a more sustainable and responsible way of living by providing incentives for businesses, communities, and individuals to undertake green measures. Under the leadership of Prime Minister, Shri Narendra Modi ji, Mission LiFE needs to be internationalized and internalized in our lives. India introduced the Green Credit Fund, which I have referred to earlier as well. India has taken a lead in many other green and climate action programmes with initiatives like CDRI (Coalition for Disaster Resilient Infrastructure), International Solar Alliance, Big Cat Alliance, and the Global Biofuel Alliance, in its commitment to a greener future. There has been a significant shift in the global industrial landscape as industry transition has climbed higher on the international agenda since the launch of 'Leadership for Industry Transformation' (LeadIT) in 2019. However, the real transition challenges of technology transfer and

finance are yet to be addressed. These challenges can be addressed by a collaborative international mechanism to facilitate technology transfer from the developed to developing countries. Leadership for Industry Transition (LeadIT) 2.0 will focus on supporting low carbon transition on the ground through a structured framework and three pillars: global forum for dialogue, technology transfer and co-development, and an 'Industry Transitions Platform'. Through these pillars, the members will continue to support, engage in, and promote industry transitions.

Towards the end, I would like to re-emphasize the fact that no country can carry out the mission to create a planet safe for humanity on its own. Equity and climate justice must be our guiding principles as we embark on this journey together. We hope that the global community will come together in the fight against climate change.

Thank you.



Tracing the Summit Days

DAY 1: 7 FEBRUARY 2024 | WEDNESDAY

INAUGURAL SESSION

TERI@50 – THE ROLE OF KNOWLEDGE INSTITUTIONS IN DRIVING LEADERSHIP AND CHANGE



ABOUT THE SESSION

The inaugural session titled, 'TERI@50 – The Role of Knowledge Institutions in Driving Leadership and Change' was held as part of the annual flagship event of The Energy and Resources Institute (TERI) – World Sustainable Development Summit (WSDS), 2024. The overarching theme for the 23rd edition of the summit, 'Leadership for Sustainable Development and Climate Justice,' was introduced as a means to deepen our understanding of global interconnectedness during a time of polycrisis. The summit aimed to deliberate and amplify perspectives from the global south on the means of implementation needed for achieving sustainable development and ensuring climate justice. Deliberations stressed the need for cooperation and collaboration amongst countries as ecosystems know no borders. It highlighted the importance of ensuring universal

access to energy and more so, clean energy. The developing countries face challenges of securing finance for adaptation and decarbonization. We need to be mindful of our international commitments whilst addressing the aspirations and needs of developing nations. While throwing light on climate negotiations from a global south perspective, the first global stocktake reflects a concerning picture as witnessed with the sliding back on sustainable development goals (SDGs). Emphasis was laid on the need for advancing partnerships amongst countries to achieve climate and sustainability goals. The aim must be to build a climate-resilient future, which allows for a people- and nature-centric approach to climate justice.

SPEAKERS

Welcome Address

- Mr Nitin Desai, Chairman, The Energy and Resources Institute

Opening Address

- Shri Bhupender Yadav, Hon'ble Minister of Environment, Forest and Climate Change

Inaugural Address

- Shri Jagdeep Dhankhar, Hon'ble Vice-President, India

Keynote Address

- H.E. Brigadier (Retd) Mark Phillips, Prime Minister, Guyana

KEY TAKEAWAYS

- The climate challenges are daunting, but can be addressed by joining forces, embracing innovation, and fostering international cooperation. TERI's achievement of completing 50 years of institution building strengthened and highlighted the organization's longstanding commitment to advancing sustainable development.
- There is a need for targeted policy interventions, technology transfer, and adequate funding to increase the share of renewable energy globally.
- Further action, particularly in the least developed countries, is required to ensure universal energy access as they face challenges, such as sustainable financing, supply chain issues, and high energy costs.
- Collaborative efforts are imperative in facilitating technology transfer, mobilizing finance, and supporting industry transitions towards low-carbon practices.
- The Caribbean countries', including Guyana's, vulnerability to climate change and the need for sustainable energy transitions must be highlighted. The potential economic benefits of investing in renewable energy in the Caribbean must be underscored. Guyana's efforts to balance sustainable development with renewable energy initiatives, such as its low carbon development strategy and investments in clean energy, should be outlined.
- India has surpassed two climate goals well ahead of schedule, including the reduction in emission intensity and the substantial increase in non-fossil fuel-based electric capacity. Hon'ble Prime Minister Modi's visionary 'LiFE' mantra prioritizes environmental considerations.
- India's leadership role at the G20, particularly in advancing discussions on sustainable lifestyles, and the significant outcomes of COP28, such as the 'Global Climate' ambition and the operationalization of the loss and damage fund is noteworthy.
- The launch of *TERI Solutions for Sustainable Development* highlighted that one of the cornerstones of sustainable development is the transition to clean and renewable energy sources.
- The integration of sustainability into national planning, the allocation of budgets for green initiatives, and the launch of flagship schemes that prioritize environmental protection showcase India's leadership in embracing a holistic and inclusive approach to development.
- Guyana is committed to children's well-being and climate action, and has signed UNICEF's 'Declaration on Children, Youth, and Climate Action.'
- There has been a progress from raising awareness among people about climate change to discussing the necessary steps to address catastrophic challenges.

Making Words Count @WSDS2024



In a world interconnected like never before, we must recognize that the challenges we face know no borders. The impact of our actions reverberates across nations affecting the most vulnerable communities and ecosystems. There can be no alternatives to the formulation and adoption of people and nature-centric approaches. Global leadership must drive mainstreaming of environmental protection and climate justice at all levels, embedding these principles in the fabric of our societies. Our economic progress must be harmonized with a commitment to sustainable development ensuring that we leave a legacy that our future generations can inherit with pride.

Shri Jagdeep Dhankhar
Hon'ble Vice-President, India



The renewable energy share in energy consumption has increased from 16% from 2010 to 19.1% in 2020. Notably, renewable energy proliferation in developing countries significantly grew by almost 10% annually. While these achievements are certainly commendable, further action is required, particularly in the least developed countries. Taking advantage of the synergy between energy access and the deployment of renewable energy for electricity, heating, and transportation needs, presents an opportunity to rapidly accelerate renewable energy share and stay on target of the 1.5°C threshold.

H.E. Brigadier (Retd) Mark Phillips
Hon'ble Prime Minister, Guyana



Leadership for industry transition 2.0 will focus on supporting low carbon transition on the ground through a structured framework based on three pillars. First is, global forum for dialogue, second is, technological transfer and co-development, and the third is, an industry transition platform. We believe in both fighting climate change and ensuring climate justice. Access to energy is a right for all citizens and therefore, energy must be affordable.

Shri Bhupender Yadav
Hon'ble Minister of Environment,
Forest and Climate Change

INVOCATION

CLIMATE ACTION, PEACE, AND SPIRITUALITY



ABOUT THE SESSION

The session delved into the global perspective, transcending geographical boundaries, emphasizing the shared responsibility to care for our planet. There is a need to recognize the sacredness of our relationship with nature, encompassing not only available resources, but also the collective human consciousness. The impact of human energy vibrations, reflected in intentions, thoughts, emotions, and choices, highlights the reciprocal nature of our interactions with the environment. The call to action was clear: it is time to pause, analyse, reflect, and heal collectively.

SPEAKERS

Guided Meditation for Healing the Self and the Planet

- Dr Vibha Dhawan, Director General, TERI
- BK Shivani, Rajyog Teacher, Brahma Kumaris World Spiritual Organization

KEY TAKEAWAYS

- The future is marked by the fusion of sustainable development, climate justice, and a harmonious relationship with the planet.
- It is the collective responsibility of all the individuals, beyond governments and research institutes, to address sustainability and climate concerns.
- When one starts consuming less, there is a shift to what one can do for the rest of the country and the world. Seva Bhaav – the ability to serve and do right by the people will reach a different level by moving towards selflessness.
- Nurturing emotional health involves creating a space free from excessive anger, and by embracing forgiveness as a path to healing and liberation, and cultivating purity in thoughts, actions, and relationships.
- Human beings are seeking peace and happiness and for that, a stressed and depressed planet cannot create a happy and healthy environment.

Making Words Count @WSDS2024



It is time to pause, analyse, reflect, and heal together. Healing collectively will allow us to heal in sync with the planet and thereby address climate impacts. A shift towards a gratitude-filled, conscious, compassionate, and economical lifestyle lays the foundation for sustainable and harmonious global living. Our choices and behaviours impact not only individuals but society as a whole, reflecting the reciprocal nature of our relationship with the environment

Dr Vibha Dhawan
Director General, TERI



Let's make our homes and workplaces a 'no-anger' zone along with being a 'no-smoking' and 'no-plastic' zone. We need to give direction with respect and dignity without losing control over one's self and without polluting the environment. Taking care of emotional health should be our priority to take care of the environmental health. One's emotional health affects the environment in two ways – what one consumes and the vibration which is radiating into the environment.

BK Shivani
Rajyog Teacher, Brahma Kumaris World Spiritual Organization



PLENARY SESSION

LEADERSHIP PANEL: FINANCING SUSTAINABLE DEVELOPMENT AND CLIMATE ACTION



ABOUT THE SESSION

The plenary session aimed at exploring the integration of sustainable development and climate change considerations in public and private institutions as well as processes, such as investment flows, budgets, and revenue collection. Discussions ranged from the need to explore new financial instruments, such as green credits, blended finance, climate insurance and green bonds, to addressing the financing gaps around climate action, especially in the developing world. The panelists discussed the need to revamp the global financial architecture, as highlighted during India's G20 and at COP28, to build a framework for channeling finance in a timely manner towards the emerging investment opportunities.

SPEAKERS

Chair: Mr Dipak Dasgupta, Distinguished Fellow, TERI

Ministerial Address

- H.E. Ms Teresa Ribera Rodríguez, Minister, Ministry for the Ecological Transition and Demographic Challenge, Spain
- H.E. Mr Andreas Bjelland Eriksen, Minister, Ministry of Climate and Environment, Norway

Leadership Address

- Mr Martin Raiser, Vice President for South Asia Region, The World Bank

Perspectives

- Dr Amar Bhattacharya, Senior Fellow, Brookings Institution and Grantham Research Institute, LSE
- Ms Priya Shankar, India Director, Climate and Environment Program, Bloomberg Philanthropies
- Ms Pamela Jouven, Director, SME Climate Hub, We Mean Business Coalition
- Dr Dhruba Purkayastha, India Director, Climate Policy Initiative

KEY TAKEAWAYS

- Climate financial flows have doubled over the past year, but are still short of the required amount. There is a need to understand how finance is distilled across sectors, countries, and groups.
- The more there is delay in investments in climate finance, the more harm climate change will do, and the higher the future cost of climate action becomes.
- While mitigation and energy investments provide opportunities for investment, adaptation action is an imperative for climate financing in the vulnerable and developing economies of the world.
- There is a need to explore innovative instruments of financing, such as green bonds, blended finance, carbon credits, as well as create an enabling policy environment to mobilize and catalyse finance from international and private sources.
- It is essential that the upcoming global finance discussions are engaged in an inclusive and participatory manner to develop a new financial target that is ambitious and more in-line with the financing gap.

Making Words Count @WSDS2024



The challenge in mobilizing climate finance is also about finding the right instruments to do so, the right incentives, the right signals, to ensure that we dedicate our efforts where they are needed. For instance, we cannot expect climate-vulnerable, fiscally constrained developing countries to have recourse to credit instruments that can accelerate mitigation and adaptation actions.

H.E. Ms Teresa Ribera Rodríguez

Minister, Ministry for the Ecological Transition and Demographic Challenge, Spain



India is an important and prioritized country for Norway, where we have invested USD 180 million in solar, transmission, and agricultural waste-to-energy plants. I look forward to global discussions on the future climate finance goal, and Norway will be an important partner.

H.E. Mr Andreas Bjelland Eriksen

Minister, Ministry of Climate and Environment, Norway



There is no better place than India to talk about sustainable development finance. There are three dimensions that we need to address in this vast agenda. The first is growth and emissions, the second is climate adaptation, and the third is financing the transition to a green, sustainable development model. India's development trajectory matters globally. Its track record today puts it on a much lower carbon emissions path than other major economies.

Mr Martin Raiser

Vice President for South Asia Region, The World Bank



Unlocking the potential of international capital is paramount for India's low-carbon transition. With only a fraction of the required investment sourced domestically, collaboration between IFSCA and CPI holds the key to bridging the climate finance gap and fostering sustainable development.

Dr Dhruba Purkayastha

India Director, Climate Policy Initiative





We are witnessing enormous potential in climate financing. Since 2015, every year, the gap between where we needed to be and where we were seemed insurmountable. Suddenly, things have changed and there is a growing sense of optimism around scaling up finance. The world capital market is USD 400 trillion in stock, and therefore, small nudges can push the envelope to address the various gaps in climate finance.

Mr Dipak Dasgupta
Distinguished Fellow, TERI



Sustainable financing for the future will rest on three pillars: more capital, Paris Agreement-aligned policies, and new investment models. Decarbonization is freedom. Scaling up low-carbon investments (LCIs) is only possible if it helps responding to immediate concerns, such as poverty, unemployment and financial instability, and reduces the gap between the propensity to save and the propensity to invest in infrastructure projects that is undermining the world economy.

Dr Amar Bhattacharya
Senior Fellow, Brookings Institution and Grantham Research Institute, LSE



Every dollar invested in clean economy will lead to four-fold returns. Scaling up private capital is crucial to finance vital low-carbon infrastructure projects, particularly in less developed economies.

Ms Priya Shankar
India Director, Climate and Environment Program,
Bloomberg Philanthropies



SMEs are not just players in the climate game, they're the game-changers. To achieve net zero, we must empower these engines of innovation. Yet, accessing finance and navigating reporting complexities remain significant hurdles. Overcoming these barriers is crucial for SMEs to drive the green transition forward.

Ms Pamela Jouven
Director, SME Climate Hub, We Mean Business Coalition



PLENARY SESSION

LEADERSHIP PANEL: INTEGRATING SUSTAINABLE DEVELOPMENT FOR COLLECTIVE ACTION



ABOUT THE SESSION

The session emphasized the unprecedented urgency of addressing climate crisis through collective action. The session revolved around the need for collective actions guided by the principles of collaboration and shared responsibility on how sustainable development goals (SDGs) can form an interconnected framework to address various challenges posed by climate change.

SPEAKERS

Chair: Dr Prodipto Ghosh, Distinguished Fellow, TERI

Leadership Message

- H.E. Ban Ki-moon, 8th Secretary-General of the United Nations, and President, Global Green Growth Institute
- Dr Achim Steiner, Administrator, United Nations Development Programme

Perspectives

- Mr Manish Bapna, President & CEO, Natural Resources Defense Council
- Ms Abanti Sankaranarayanan, Chief Group Public Affairs Officer & Member of the Group Executive Board, Mahindra Group
- Ms Vaishnavi Prabhakaran, Head Sustainability, The Tata Power Company Limited
- Dr Akanksha Chaurey, Director, IT Power Private Limited

KEY TAKEAWAYS

- There must be a framework with clear, measurable goals and implementation strategies, including funding and technology transfer along with global political will and robust actions to address the adverse effects of climate crisis.
- Innovative perspectives in the domain of energy, environment, and sustainable development to deal with the pressing concerns of climate change must be introduced.
- Effective collaboration at different levels – within corporations, governments at the national level, and through international cooperation – will address global challenges related to SDGs and climate crisis.
- Both vertical and horizontal integration is crucial and vital. Institutions that facilitate collaboration across different sectors and levels of government must be built. The success of implementing policies and achieving sustainability goals depends on creating seamless cooperation among various stakeholders.
- Harmonized reporting standards should be established. Simpler and standardized rating frameworks will help track and lead businesses towards sustainability.

Making Words Count @WSDS2024



According to the 2023 Synthesis Report of the IPCC, human activities have resulted in global warming, causing the global surface temperature to increase by 1.1°C during the period of 2011–2020. The primary sources of global greenhouse gas emissions are attributed to unsustainable practices in energy use, land use, land use change, and lifestyle patterns related to consumption and production. Addressing the climate crisis requires a combination of economic stability and political determination.

H.E. Ban Ki-moon

8th Secretary General of the United Nations & President,
Global Green Growth Institute



Incorporating sustainability into the societal genetic code necessitates a shift from reliance on fossil fuels to embracing renewable energy sources. Achieving this transition involves not only a just energy transition, but also a commitment to technological innovation to propel transformative changes in the overall system. Collective action guided through global leadership and shared responsibility is essential to promote the principles of sustainability.

Dr Achim Steiner

Administrator, UNDP



Countries have strong policies in place. The real challenge is implementation. Vertical and horizontal integration is at the heart of how we can implement effectively. When you think about local community benefits, one of the biggest challenges to deploy clean energy projects is whether or not the local communities will benefit from them, and if they don't, they will oppose the same. Cooperation must happen between public and private sectors to make that happen.

Mr Manish Bapna

President & CEO, NRDC



Within the best global environment social and governance (ESG) leading companies, the role of sustainability has had a remarkable shift in the last two–three years. Sustainability has stepped out of being a mandate of typically a small team called, corporate sustainable responsibility (CSR), which tended to operate within the manufacturing-and-operation side of business, to where it is now, in mainstream, leadership, and business conversations.

Ms Abanti Sankaranarayanan

Chief Group Public Affairs Officer & Member,
Group Executive Board, Mahindra Group



When we look beyond the projects, we are also working on transparency and reporting. There is a need for convergence in how sustainability information is reported. These are critical in terms of how companies' actions or outcomes of their actions are seen in public spaces.

Ms Vaishnavi Prabhakaran

Head-Sustainability, Tata Power Company Ltd



Agriculture and particularly horticulture that has a lot of perishable products suffer due to a lack of processing and storage facilities. Decentralized renewable energy (DRE) systems have the ability to fill this energy gap and take this into the sustainability path, but unfortunately, DRE is in fringes. Interdepartmental cooperation is important to ensure that resources lying in silos are optimally utilized, there are synergies of efforts, and there is an opportunity for cross-learning.

Dr Akanksha Chaurey

Director, IT Power Pvt. Ltd



Incorporating sustainable development across different domains via policy tools such as eco-friendly budgeting, sustainable public procurement, green investments, and regulatory frameworks, necessitates a combination of vertical and horizontal integration for effective monitoring and documentation of advancements. Sustainability should not be treated as an ancillary component of collective action, but ought to be an integral part of the primary agenda.

Dr Prodipto Ghosh

Distinguished Fellow, TERI



PLENARY SESSION

LEADERSHIP PANEL: SHAPING CLIMATE RESPONSIVE FUTURES



ABOUT THE SESSION

The session aimed at understanding the role that effective leadership could play towards accelerating climate action in a pressing timeframe to restrict global temperatures. Equity considerations are key to shaping climate-responsive futures and for designing actions related to mitigation, adaptation, loss & damage, and means of implementation. Thus, it becomes imperative to address the need for action based on countering the adverse impact of climate change, especially on the most vulnerable communities, and the role global leadership can play in shaping a climate-responsive future.

SPEAKERS

Ministerial Address

- Mr Mukhtar Babayev, Minister, Ministry of Ecology and Natural Resources, Republic of Azerbaijan

Leadership Address

- Ms Jennifer Morgan, State Secretary and Special Envoy for International Climate Action Federal Foreign Office of Germany
- Prof. Hoesung Lee, Former Chair, Intergovernmental Panel on Climate Change

Perspectives

- Ms Deepali Khanna, Vice President, Asia, The Rockefeller Foundation
- Mr Perumal Arumugampillai Kalyani, Manager - Mitigation Division, UNFCCC
- Mr Joe Phelan, Executive Director, Asia Pacific, World Business Council for Sustainable Development

Moderator: Ms Suruchi Bhadwal, Senior Fellow & Director, TERI

KEY TAKEAWAYS

- The focus of climate change needs to enlarge to involve adaptation and resilience building, alongside mitigation.
- Climate change cannot be dealt in silos. It needs to be understood in terms of its relationship with sustainable development.
- Able collective leadership is important to enable the vertical and horizontal integration of climate action across diverse stakeholder groups.
- Companies need to move away from a compliance mindset to take up more leadership roles in transition pathways.
- This is the decade for decision-making. Future consequences are dependent on the actions taken over the next five years.

Making Words Count @WSDS2024



It is important to build a clear and actionable roadmap for climate action. This shall primarily encompass building up renewable energy capacity as well as strengthening energy efficiency. A roadmap is also essential for a collective, quantifiable goal of climate finance. About USD 6 trillion would be required by 2030 by developing nations alone to address climate action. The interconnected nature of climate change requires effective leadership for negotiations and dialogues to ensure that global perspectives are reflected and comprehensive outcomes are produced for a resilient future.

Mr Mukhtar Babayev

Ministry of Ecology and Natural Resources,
Republic of Azerbaijan



There has been a shift from the previous 'climate action vs economic development' perspective. Both of these are now viewed to be complementary. Economic opportunities through climate action can be seen in the sectors of renewable energy, batteries, and green hydrogen. Green job generation shall grow significantly in the coming years. Changing the international financial structure is essential to ensure that climate action becomes the 'default' priority. We need to get strategic about existing funds and public finance, ensure domestic revenue generation for climate-resilient investments, and mobilize investments for NDCs through the private sector.

Ms Jennifer Morgan

State Secretary & Special Envoy for International Climate
Action, Federal Foreign Office, Germany



Effective climate adaptation is important to correct climate injustice, in order to protect the more vulnerable nations which aren't historically responsible for climate change. About 24 to 100 billion new jobs would emerge through climate action by 2050, alongside their co-benefits on health and food production.

Prof. Hoesung Lee

Former Chair, IPCC



Leadership must have a multifaceted approach to bring together a diverse range of stakeholders to ensure transformational change. A deep understanding of international dynamics and regional contextualization is needed to ensure meaningful and equitable negotiations at the global level.

Ms Deepali Khanna

Vice President-Asia, The Rockefeller Foundation



There is a need for enhancing multilateralism and international cooperation, cooperation of leaders within the G20 leaderships, lateral and vertical integration of climate action across stakeholder groups, and having a fair price of carbon.

Mr Perumal Arumugampillai Kalyani

Manager, Mitigation Division, UNFCCC



The world is looking to businesses to lead the way for transformation and decarbonization, and raise accountability to tackle climate change. Companies need to move away from a compliance mindset to take up more leadership roles in transition pathways.

Mr Joe Phelan

Executive Director-Asia Pacific,
World Business Council for Sustainable Development



This is the decade for decision-making. Future consequences are dependent on the actions we take over the next five years. More focus is needed on adaptation, resilience, and loss & damage, which are as important as mitigation.

Ms Suruchi Bhadwal

Senior Fellow & Director, TERI



PLENARY SESSION

LEADERSHIP PANEL: ADDRESSING THE ENERGY TRILEMMA IN A RESOURCE-CONSTRAINED WORLD



ABOUT THE SESSION

The panel discussion explored the intricate challenges of addressing the energy trilemma, which involves energy security, sustainability, and equity. Financing emerged as a significant obstacle, compounded by geopolitical tensions and narrow regulatory approaches. The session emphasized the need for a united effort to navigate resource constraints. A sustainable expansion of renewable energy is crucial, but obstacles include securing critical minerals, managing financing, mitigating risks in project installations, and optimizing infrastructure. Insights underscored electrification, responsible resource procurement, mineral diversification, and promotion of low-carbon materials.

SPEAKERS

Chair

- Mr Sumant Sinha, Founder, Chairman & CEO, ReNew Power Private Limited
- Dr Ajay Mathur, Director General, The International Solar Alliance
- Lord Adair Turner, Chair, Energy Transitions Commission
- Dr Priyantha Wijayatunga, Senior Director of Energy, Asian Development Bank
- Mr Girish Sethi, Senior Fellow & Senior Director, TERI
- Ambassador Arne Walther, Former Secretary General, International Energy Forum
- Dr Damilola Ogunbiyi, CEO and Special Representative of the UN Secretary-General for Sustainable Energy for All

Moderator: Ms Urmi Goswami, Assistant Editor, The Economic Times

KEY TAKEAWAYS

- In tackling the energy trilemma of security, sustainability, and equity, it is crucial to confront the challenge of balancing trade-offs, and addressing the lack of forthcoming money flows, especially towards the developing world.
- Electrification stands as the cornerstone of decarbonization, pivotal for fostering an energy-efficient, secure, and sustainable system. Renewable energy (RE) with storage solutions and nuclear energy present potential pathways to address the energy security challenge.
- The transition to RE presents a massive opportunity, yet, its scale is enormous, necessitating a reshaping of the economic order and existing infrastructure landscape, along with diversification of the supply chain. The pace of this transition and the allocation of resources for RE deployment vary across countries, bearing in mind the non-monolithic nature of decision-making processes.
- Emphasizing the challenge of raw material procurement must persist as a narrative to underscore the significance of securing critical minerals, thereby ensuring that key RE stakeholders are both inclined and capable of investing in these resources.
- There is a need for dedicated research and development programmes to promote energy efficiency in hard-to-abate industries, and the importance of creating demand for low-carbon products to facilitate their adoption in the market.

Making Words Count @WSDS2024



Today, the diversity and the supply chain itself sits in China. Now, the question is, what happens if there is a pandemic in the future or some other geopolitical event; we cannot fully be dependent on China as one single country to make the transition happen. We need to diversify the supply chains. We need to have India manufacturing more and more. I believe in human ingenuity. So, if things become difficult and what people are finding is not available, we need to find other solutions. And it could be sodium batteries.

Mr Sumant Sinha

Founder, Chairman & CEO, ReNew Power Private Ltd



We talked to many investors [particularly private sector] on why financing is not going in? And the answer we got was, they were not sure whether they will get a return on their investment. Another concern was, they weren't clear whether there is a pipeline for the project. They weren't sure whether there were people who would develop the projects. The way project pipelines have formed everywhere in the world, including India, is when public policies push for it, which means regulatory support. The issues of regulations, financing, land, transmission lines, and overall capital availability of the systems are pushing this [renewable energy uptake in Africa] back.

Dr Ajay Mathur

Director General, International Solar Alliance



Have a look at IEA's net zero scenario. A finding suggests, the world can achieve huge increases in prosperity, but uses less energy than it does today, and can use less primary energy. It sounds a bit surprising. The single biggest reason for that is the energy efficiency improvement, which automatically comes from electrification. An internal combustion engine turns about 25% of the input energy into what you want, which is kinetic energy, to drive a car forward and turns 75% into heat, which you didn't want to come out of a car engine. An electric car engine achieves 95% efficiency, and that's why, when we electrify our transport, we will use far less, even at the final energy level, let alone at the primary energy level. Decarbonize with renewables and nuclear (energy). And you will end up with a more energy-efficient and a more secure energy system.

Lord Adair Turner

Chair, Energy Transitions Commission



To start with the finance equation, environmental sustainability and development are not mutually exclusive. We can do both together because the renewable energy and the clean energy costs have come down drastically. For us, it is to make sure that these two go together. At the same time, we need lots of money for clean energy solutions. The governments have ambitious NDCs, but there is no action on the ground. Maybe because there is no adequate money, policy, or regulation in that process.

Dr Priyantha Wijayatunga

Senior Director-Energy, Asian Development Bank



We keep saying that efficiency is a low-hanging fruit, but to me, it seems that it has been a low-hanging fruit for a long time. We need more dedicated programs to see that these [hard-to-abate] industries move towards the most efficient pathways. Unless and until there is a demand for low-carbon steel or low-carbon cement, it is not easy for the industry players to shift and start producing [low-carbon products].

Mr Girish Sethi

Senior Fellow & Senior Director, TERI



Energy is not the end. It is a means to fuel global and national economic and social development. We all agree it should be cleaner energy and used more efficiently and it should be affordable to people. We must be mindful of disruptive geopolitics. This affects the core interest of the nation as well as the energy policies.

Ambassador Arne Walther

Former Secretary General, International Energy Forum



Today's challenges for attaining sustainable development are complex and interconnected. We, therefore, need to work together to attain a more sustainable future. It's for this reason that the World Sustainable Development Summit is extremely timely. It is a perfect gathering that can accelerate action and ambition to a more sustainable and an equitable world.

Dr Damilola Ogunbiyi

CEO & Special Representative, UN Secretary-General for Sustainable Energy for All



PLENARY SESSION

HIGH-LEVEL OPENING MINISTERIAL: LEADERSHIP IN THE TIME OF POLYCRISIS



ABOUT THE SESSION

In this thought-provoking session, the esteemed panelists highlighted the importance of consistent and action-oriented leadership in channelizing global climate action. It was stressed that poor countries are the least emitters, but they pay the highest price. Delegates deliberated on the dire consequences of the triple planetary crisis, and the need for urgent actions and bold leadership while highlighting inclusivity, good governance, rule of law, equality, and respect for human rights and justice. The delegates emphasized the need for the adoption of long-term and visionary approaches to address climate change.

SPEAKERS

Initial Interventions/Statements

- H.E. Brigadier (Retd.) Mark Phillips, Prime Minister, Guyana
- H.E. Mr Vatimi Rayalu, Minister, Ministry of Agriculture and Waterways, Fiji
- H.E. Mr Willie Tokataake, Minister, Ministry of Infrastructure and Sustainable Energy, Kiribati
- Mr P. Mudalige, Director General (Planning), Ministry of Environment, Sri Lanka

Message by Shri Narendra Modi, Hon'ble Prime Minister of India

Perspectives

- Dr Vibha Dhawan, Director General, TERI
- Mr Manish Bapna, President & CEO, Natural Resources Defense Council

Moderator: Ambassador Manjeev Singh Puri, Distinguished Fellow, TERI

KEY TAKEAWAYS

- Leadership is critical to enable an effective response to the present and future crisis, and to get the world back on track towards inclusive and sustainable development. Among urgent imperatives in this regard, is resolving the triple planetary crisis: climate change, air pollution, and biodiversity loss; urgent actions require bold leadership and a shift in mindset.
- The world faces a moral crisis as climate change is interlinked with the sustainable development goals (SDGs). It is important for world leaders to recognize the interlinkages between the two to formulate right policies and ambitious commitments, and not only promote the SDGs, but also act on limiting the global temperature rise.
- Leaders as well as countries, especially the developed countries, need to play a significant role in ensuring access to technology, resources, and finance. The need of the hour is to raise ambitions to take urgent action to limit warming within 1.5°C for a sustainable future.
- The efforts of small island states become insignificant and meaningless if the developed countries do not commit to limit their greenhouse gas (GHG) emissions. The first global stocktake concluding at COP28 presented that countries are sliding back on some major SDGs. Leadership at global, regional, and national levels will be crucial in taking timely and decisive steps towards meeting climate goals.
- Voices from the global south are different from each other, and there is an opportunity to bring coherence and alignment in climate-related issues.
- When India engages internationally, it is very uneven; sometimes, India is a progressive voice and at other occasions, it is not. India needs to consistently take the international agenda forward because it leads by example and therefore, should not shy away from embracing an even bolder agenda on climate.

Making Words Count @WSDS2024



Combating climate crisis requires consistent and action-oriented leadership in three key areas – mitigation, adaptation, and financing. While it is everyone's duty to reduce greenhouse gas emissions, the highest emitters must play a part in leading the way in setting ambitious targets because the poorest countries are contributing the least to climate crisis but paying the highest price.

H.E. Brigadier (Retd) Mark Phillips
Hon'ble Prime Minister, Guyana



Islands are sinking very fast; our coasts are being eaten by waves, and there is a loss of arable lands due to the rising salinity level. Countries need to live up to their promises, because when you talk about injustice in terms of the impact of climate change, we island (states) are contributing the least to carbon emissions, but we suffer the most.

H.E. Mr Vatimi Rayalu
Ministry of Agriculture and Waterways, Fiji



India has made bold commitments towards climate change by investing in technologies, such as green hydrogen, rooftop solar, and introducing green budgeting.

Dr Vibha Dhawan
Director General, TERI



Innovation, research, knowledge creation, partnership, and leadership will be instrumental in determining the fate for the future generation. Access to quality education, clean water, sanitation, green energy, and gender equality are integral for building a sustainable future.

H.E. Mr Willie Tokataake
Minister, Ministry of Infrastructure and Sustainable Energy, Kiribati





TERI quintessentially stands for the global south. Our work, our association with the small island states is exemplary.

Ambassador Manjeev Singh Puri

Distinguished Fellow, TERI



Environment and climate justice are civil rights issues, and climate crisis is causing loss of lives, livelihoods, shortage of food, migration, and displacement.

Mr P Mudalige

Director General (Planning),
Ministry of Environment, Sri Lanka



People from the US and European nations need to recognize that these challenges (climate crises) are not local issues, but a global concern, and they are equally responsible for high GHG emissions. People from rich nations not only need to act domestically but support internationally to overcome climate-related challenges.

Mr Manish Bapna

President & CEO, NRDC





DAY 2: 8 FEBRUARY 2024 | THURSDAY

SPECIAL SESSION

TERI ALUMNI ASSOCIATION ON VISIONARY INSTITUTION BUILDING



ABOUT THE SESSION

The 'Special Session by TERI Alumni Association on Visionary Institution Building' reflected on how The Energy and Resources Institute (TERI) was ahead of the knowledge curve and contributed to shaping and driving sustainability actions even before the term 'sustainability' became popular. The discussions attempted to create a roadmap for knowledge institutions to achieve the present climate goals.

SPEAKERS

- Dr Priyanka Kochhar, President, TERI Alumni Association (TAA)
- Dr Saroj Pachauri, Public Health Expert
- Dr Veena Joshi, TAA Member
- Dr Akanksha Chaurey, Director, IT Power Private Limited
- Dr Ash Pachauri, Founder, POP Movement
- Dr Rajiv Chhibber, Vice President, Sahajanand Medical Technologies Ltd
- Dr Vibha Dhawan, Director General, TERI

KEY TAKEAWAYS

- Reminiscences on an exceptional leader, extraordinary visionary, and incorrigible optimist – a rare institution in himself – were shared by the esteemed panelists, who discussed and reflected on the priorities Dr Pachauri would have had for the world today, and how TERI has carried his legacy forward.
- The purpose of TERI Alumni is to engage, collaborate, and provide mentorship.
- An outstanding scholar and a global titan in the world of science and climate change, Dr Pachauri was committed to the highest standards of scientific rigour. With a lot of hard work, a lot of sweat, he built a world-class institution which TERI is today.
- The goal of POP movement is to mobilize young people around the world to take climate action seriously.
- Dr Pachauri knew that 1.2 billion people have no access to electricity, and at that time, the magnitude of the problem was not even recognized, but TERI had the vision to target that project.
- Today, global leaders talk about 'Viksit Bharat' or 'Bharat@100'; those were things that TERI envisioned way beyond its time.
- Dr Pachauri would always encourage you, and his management style gave you a lot of independence.
- Green Olympiad was started to make children aware about environmental issues and provide certifications. This year, 1.5 lakh students appeared for the Green Olympiad.
- TERI doesn't leave you. Once a TERler, always a TERler.

Making Words Count @WSDS2024



The purpose of TERI Alumni is to engage, collaborate, and provide mentorship.

Dr Priyanka Kochhar
President, TAA



When he (Dr Pachauri) started, he began in a small room in Jor Bagh with nothing. With a lot of hard work, a lot of sweat, he built a world-class institution which TERI is today."

Dr Saroj Pachauri
Public Health Expert



In 2008, when Dr Pachauri asked me to start a programme on solar lantern, words such as 'energy access' and 'sustainable energy for all' were not even coined. He knew that 1.2 billion people have no access to electricity, and at that time, the magnitude of the problem was not even recognized, but TERI had that vision to target that project.

Dr Akanksha Chaurey
Director, IT Power Private Limited



Dad's vision was that the 1.8 billion youth of the world must take knowledge-inspired action to protect our planet and that's how the POP Movement was born.

Dr Ash Pachauri
Founder, POP Movement





Today, when we hear our global leaders talk about 'Viksit Bharat' or 'Bharat@100', those were things that TERI envisioned way beyond its time.

Dr Rajiv Chhibber

Vice President, Sahajanand Medical Technologies Ltd



We started working on renewables much before the world even thought about it. With a background in Botany/ Biotechnology, I would often ask myself, 'Is our growth like amoeba?' I was hired (in TERI) to work on Oilseed Brassicas, and within three months, we received a project setup and later, in two years, we got a mega grant on tissue culture. Dr Pachauri would always encourage you and his management style gave you a lot of independence.

Dr Vibha Dhawan

Director General, TERI



I left TERI in 1994. But TERI doesn't leave you. Once a TERler, always a TERler. I am proud to be part of this ever-growing family.

Dr Veena Joshi

Member, TAA

PLENARY SESSION

LEADERSHIP PANEL: INFRASTRUCTURE, RESILIENCE AND OCEANS



ABOUT THE SESSION

During the session, experts highlighted diverse efforts to address climate change impacts, particularly in the maritime sector and ocean sustainability. Collaborations, including long-term partnerships with TERI, were emphasized, exemplified by the Fiji-India Sustainable Development Conference. Various representatives discussed challenges – from Fiji’s infrastructural issues to the EU’s role in sharing good practices. Bilateral initiatives between India and Norway were noted for knowledge exchange. The Coalition for Disaster Resilient Infrastructure (CDRI) stressed incorporating disaster planning into financial planning and the need for holistic resilience. Digital solutions and philanthropic capital for project financing were emphasized, along with the importance of G20 countries assuming leadership roles in climate justice and mitigation.

SPEAKERS

Chair: Dr Vibha Dhawan, Director General, TERI

Ministerial Address

- H.E. Mr Vaitimi Rayalu, Minister, Ministry of Agriculture and Waterways, Fiji
- H.E. Mr Virginijus Sinkevičius, European Commissioner for Environment, Oceans and Fisheries European Commission

Leadership Address

- Prof. Celeste Saulo, Secretary-General, World Meteorological Organization

Interactive Discussions

- H.E. Ms May-Elin Stener, Norwegian Ambassador to India
- Mr Amit Prothi, Director General, Coalition for Disaster Resilient Infrastructure
- Ms Shloka Nath, CEO, India Climate Collaborative
- Mr Himanshu Shekhar Mishra, Senior Editor, NDTV India

KEY TAKEAWAYS

- Strengthening partnerships, like Fiji's collaboration with TERI, is crucial for addressing global climate change challenges and achieving ambitious targets for sustainability and resilience.
- It is important to collaborate globally for sustainable ocean governance, leveraging sectors like blue energy and aquaculture, to turn challenges into opportunities and promote a collective commitment to combat illegal fishing.
- The need of the hour is to integrate climate change into sustainable development efforts, prioritize early warning systems, and collaborate globally through meteorological services for accurate data, reinforcing a collective responsibility to create a sustainable future.
- Leveraging philanthropic capital to enhance government data, support holistic green infrastructure solutions, and trigger investments for transparent accountability in addressing loss and damage, is the way forward.
- It is essential to galvanize collective leadership among G20 countries for immediate and substantial emissions reduction, thereby addressing the urgency to recognize legislative and institutional dimensions in combating climate change.

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Fiji has set its ambitious targets as part of its nationally determined contributions (NDCs), including transitioning to nearly 100% renewable energy-based grid-connected power by 2030. Fiji, through its recently launched National Ocean Policy, allocates 30% of its exclusive economic zone (EEZ) as marine-protected areas (MPAs), while working towards 100% protection and sustainable management of the ocean. This complements Fiji's National Adaptation Plan, concurrently with its slow emission development strategy, which highlights the need to sustainably manage and protect marine and coastal ecosystems.

H.E. Mr Vatimi Rayalu

Ministry of Agriculture and Waterways, Fiji



We need to accelerate ocean action and turn challenges into opportunities; opportunities for the ocean economy, opportunities to create jobs and support communities while protecting the fragile ocean ecosystems. Ever since the EU Green deal, Europe is moving towards sustainable ocean management and planning. The EU shares its own best practices and provides financial support to less developed countries.

H.E. Mr Virginijus Sinkevicius

European Commissioner, Environment, Oceans and Fisheries



The National Meteorological Organization and Hydrological Services (NMHSs) play an effective role in early warning systems that help to mitigate numerous deaths in climate extreme events. Over the years, despite a rise in extreme events, WMO and its partner's efforts have helped reduce mortality rates from disasters.

Prof. Celeste Saulo

Secretary-General, WMO



Innovation is important but we must make great use of what exists today. Coastal communities can be given the opportunities to earn carbon credits through mangrove cultivation, etc.

Dr Vibha Dhawan

Director General, TERI





Indian shipyards are delivering autonomous zero emissions vessels to Norwegian partners, and it is a perfect example of maritime cooperation. Norway is facing challenges in the North Sea and in the Indian Ocean. Challenges are multiplying, coasts of Norway are getting windier, wetter every year. Norway wants to collaborate in ocean renewables, sustainable green fuels, and decarbonization in ocean clusters.

H.E. Ms May-Elin Stener

Norwegian Ambassador to India



Annual asset loss through disasters is to the tune of USD 300–350 billion, and it further increases up on adding the effects on services. Climate information, financial matrix, and understanding risks play key roles.

Mr Amit Prothi

Director General, CDRI



ICC catalyses philanthropic capital and brings together civil society to drive innovation. Philanthropic capital can augment data required by the government to build resilient infrastructure. The three areas for building resilience are: philanthropic capital, holistic solutions for green infrastructure (mangroves, etc., increasing biodiversity, nature-based solutions) and activating loss and damage.

Ms Shloka Nath

CEO, ICC



Climate change is running much faster than we are. I want to propose a new legislative and institutional approach – 1) reforming the Disaster Management Act, which is now 19 years old, and should include clauses on capacity building, dedicated Himalayan disaster research centres, more funding, etc.; 2) a dedicated National Disaster Communication Policy.

Mr Himanshu Shekhar Mishra

Senior Editor, NDTV India



16TH CONVOCATION CEREMONY OF TERI SCHOOL OF ADVANCED STUDIES

On 8 February 2024, the TERI School of Advanced Studies (TERI SAS), New Delhi, held its 16th convocation ceremony at Stein Auditorium, India Habitat Centre. TERI SAS is one of the eminent institutes in the country in the field of sustainability education. It was conceived to disseminate the knowledge base created by The Energy and Resources Institute (TERI).

In the opening address, **Col. B. Venkat, Registrar, TERI SAS**, shared insights on the leadership roles that the young generation must take on toward nation building.

Prof. Ajay Kumar Sood, Principal Scientific Advisor, Government of India, was the chief guest, who implored students and all the present attendees to keep upgrading and upskilling themselves toward promoting sustainability. Prof. Sood extended his heartfelt congratulations to the TERI graduates, emphasizing their crucial role in shaping a sustainable future. He outlined the current environmental crisis and highlighted the essential role of innovative research and policymaking in tackling climate-related challenges.

Prof. Sood foregrounded the Indian government's proactive steps toward envisioning a greener future through initiatives such as the National Green Hydrogen Mission and the Deep Tech Startup Policy. These initiatives aim to position India as a leader in renewable energy, leveraging scientific research and technological advancements for sustainable development and economic growth. He also commended the institution's contributions in pioneering R&D across fields, such as renewable energy, environmental protection, and sustainable agriculture. He praised the institution's commitment to fostering a sustainable future through scientific innovation and policy advocacy, thereby setting a benchmark for its students.

Dr Shailesh Nayak, Chancellor, TERI SAS, while awarding **230 master's degrees** and **18 doctoral degrees**, advised the students to be sincere and mature in contributing toward the growth of their country. He emphasized the need for solution-oriented approaches in order to anticipate or predict and manage global environmental challenges through research on transformative pathways, scenarios, and innovation.

Thanking Prof. Ajay Kumar Sood for his motivating speech, **Prof. Arun Kansal, Vice-Chancellor, TERI SAS**, spoke about the legacy the institution carries and how it is the collective responsibility of all, including the outgoing students, to add new feathers to the institute's cap.



PLENARY SESSION

LEADERSHIP PANEL: PROTECTING NATURE AND ECOSYSTEMS – TOWARDS INTEGRATED APPROACHES



ABOUT THE SESSION

The plenary session was organized to find answers, understand perspectives and actionable solutions to “What type of integrated approaches are needed for protecting nature and ecosystems while ensuring that no one is left behind?” In the anthropocentric discourse of climate action, biodiversity and nature have often been overlooked. It is crucial to acknowledge that climate action and nature are interconnected and cannot be treated in silos. Nature-based solutions offer valuable contributions towards climate mitigation and resilience. In the face of the triple planetary crisis of climate change, pollution, and biodiversity loss, preserving ecosystems is crucial.

The plenary session was divided into two segments: the first one was a moderated discussion, and the second segment included the launch of a policy brief titled, Enhancing Industrial Water Use Efficiency.

SPEAKERS

Moderator: Ms Jayashree Nandi, Environment and Climate Correspondent, *Hindustan Times*

- Prof. Jeffrey D. Sachs, University Professor; Director, Center for Sustainable Development in the Earth Institute, Columbia University
- Dr Erik Solheim, Sixth Executive Director, United Nations Environment Programme; former Norwegian Minister
- Mr Avinash Persaud, Special Envoy to the Prime Minister of Barbados
- Ms Temina Lalani-Shariff, Regional Director, CGIAR
- Dr Yash Veer Bhatnagar, Country Representative, International Union for Conservation of Nature
- Ms Bahar Dutt, Environment Journalist and Conservation Biologist

- Mr Rajiv Tikoo, Consulting Editor (Sustainability), Outlook Group
- Mr Ranjit Barthakur, Founder & President, Balipara Foundation

Launch of the Policy Brief - Enhancing Industrial Water Use Efficiency

- Mr Gajendra Singh Shekhawat, Hon'ble Union Minister, Ministry of Jal Shakti, Government of India
- Dr Vibha Dhawan, Director General, TERI
- Mr Mannu Upadhyay, Director, Ministry of Jal Shakti
- Mr Anshuman, Director and Senior Fellow, TERI

KEY TAKEAWAYS

- Just transition must be gender sensitive, inclusive, and should have equal opportunities for all.
- Planning and setting up facilities and infrastructure for recycling of renewable energy equipment like windmills and solar panels are necessary for a secure future.
- Informed decision-making with behavioural change is the integrated approach required to overcome ecosystem challenges.
- There is a need for credible data and working at scale.
- Incorporating economic and social dimensions within the system of nature economics valuation is essential in mainstreaming the concept of 'naturenomics'.
- Having financial solutions and regulations beyond market-based approaches, which are available at scale and fit the ecosystem, is a must.
- There is a need for new foreign exchange guarantee instruments that will attract private capital for renewables. Investment in multilateral development banks can strengthen lending power to developing countries at non-market interest rates.
- Indian states should provide their ecological value based on land, energy, water, waste, air, and carbon.
- Industry-specific water auditing and water-use benchmarks must be established.

Making Words Count @WSDS2024



The ecosystems are under profound stress everywhere in the world – every major ecosystem, the rainforests, alpine regions, coastal regions, the ocean. And the nature of the degradation taking place in these ecosystems is contributing to the anthropogenic climate change and other areas of destruction. Ecosystem protection requires regional cooperation because every major ecosystem cuts across national boundaries. We can't solve any of these problems without regional cooperation. Yet, everywhere we look, we have regional conflicts rather than regional cooperation. Even for the world's most populous, wonderful country, India, it needs cooperation with its neighbours.

Prof. Jeffrey D. Sachs

Director, Center for Sustainable Development in the Earth Institute, Columbia University



Good news is that the future will bring innovations in the area of renewables; for instance, to make it possible to do solar in the agricultural lands. We are making an enormous number of solar panels. We will need to start planning for the future and set up facilities to recycle these solar panels.

Dr Erik Solheim

Former Norwegian Minister & Sixth Executive Director, UNEP



We need to invest an additional USD 10 billion per year in multilateral development banks so that they can triple their lending (power) to the developing countries at non-market interest rates that will give us firepower to lend USD 300 billion to build sustainable and resilient communities. We need new foreign exchange guarantee instruments that will attract the cost of private capital for renewable energy projects.

Mr Avinash Persaud

Special Envoy to the Prime Minister of Barbados



The ability for us to rebalance our food systems is a critical path in terms of achieving climate change mitigation. But to do that, we need a complete understanding of our natural resources and how they intersect with food production. The notion of nature-positive production is recognized by the UN Food System Summit as one of the five critical pathways to sustainable food systems.

Ms Temina Lalani-Shariff
Regional Director, CGIAR



We need to work at scale, which requires lots of credible data and information at multiple levels. Integrated planning will have a component of convergence and dialogue; and, planning and action need money. Conservation is shifting towards becoming more inclusive.

Dr Yash Veer Bhatnagar
Country Representative, IUCN



We have systems and laws in place, but compliance and enforcement are lacking. To strengthen these systems, we need to make sure that these systems are able to function without any political pressure. We blame everything on climate change (floods, extreme heat, cloudburst), but we are not taking any responsibility for the skewed development policies and how we can correct these.

Ms Bahar Dutt
Environment Journalist & Conservation Biologist



We are still concerned about tree plantation on lands (very important of course), but what is equally important is marine life. Marine life plays a crucial role like how a tree provides oxygen and sequesters carbon. Informed awareness generation can only be taken forward by behavioural change. That will also come only when we create self-interest of communities, more ownership, and incentivizing.

Mr Rajiv Tikoo
Consulting Editor (Sustainability), Outlook Group





Unless you give nature a value, the economics of biodiversity won't happen. Until you get economic, ecological, and social dimensioning rights within the system of 'naturenomics', valuation will not happen. Every state should provide their ecological value based on land, energy, water, waste, air, and carbon.

Mr Ranjit Barthakur

Founder & President, Balipara Foundation



We are blessed with water and that is one resource without which we can't live even for a day. It is a resource which we can never create. We need to set up water use benchmarks for various industries.

Dr Vibha Dhawan

Director General, TERI



TERI has contributed and worked along with the ministry for sustainable water supply and this work must continue.

Shri Gajendra Singh Shekhawat

Hon'ble Union Minister, Ministry of Jal Shakti, Govt of India



Three quarters of land-based environment and about 66% of marine environment have undergone considerable changes due to anthropogenic activities. Mass tree mortality, coral reef bleaching, large decline in sea ice-dependent species, are concerning.

Ms Jayashree Nandi

Environment & Climate Correspondent, *Hindustan Times*



After years of policy recommendations, the Bureau of Water Use Efficiency has been set up.

Mr Anshuman

Senior Fellow & Director, Water Resources Division, TERI



DAY 3: 9 FEBRUARY 2024 | FRIDAY

YOUTH PLENARY

CLIMATE JUSTICE AS THE NORTH STAR FOR INTERGENERATIONAL EQUITY



ABOUT THE SESSION

The session aimed at understanding youth's viewpoints in the climate change discourse, and the ways in which actions led by them can contribute to combating climate change and ensuring climate justice. Engaging today's youth in climate change initiatives not only helps in harnessing their passion and creativity, but also ensures that the decisions made today have a lasting impact on their future. Governments, businesses, and communities would benefit from including young voices in the conversation, and working collaboratively to address the urgent challenges posed by climate change.

SPEAKERS

- Ms Heeta Lakhani, Founder & Director, The ClimAct Foundation
- Ms Prachi Shevgaonkar, Founder, Cool the Globe
- Mr Ivan Ransom, Founder, Resilience 2020 - Mexico
- Ms Sunaina Saxena, Editorial Team, TERI School of Advanced Studies

Moderator: Dr Ash Pachauri, Founder, POP Movement

LAUNCH OF VASUNDHARA MAGAZINE (14TH EDITION)

The 14th edition of *Vasundhara*, titled 'EquiClimate', is a meticulously crafted exploration of the theme, 'Climate Injustice: Vulnerabilities of the Vulnerable.' Focused on shedding light on the disproportionate impact of climate-related challenges on marginalized communities, often the least responsible for environmental degradation, this edition delves into intricate stories that weave together insightful articles, a thought-provoking interview, and captivating visuals. It also navigates the multifaceted effects of climate change, addressing harrowing events like the Delhi floods of 2023, the plight of displaced tribal communities, and health disparities in urban marginalized settings and agricultural struggles.

'COOL IT FOR THE CLIMATE' – COMPETITION AWARDS

The initiative aimed to promote simple sustainable practices for improving energy efficiency in refrigerant and air conditioning use. The competition provided a platform for young artists to raise awareness about the importance of energy-efficient cooling and refrigeration practices, highlighting their positive impact on the environment and health. Participants were tasked with creating posters that showcased the significance of energy-efficient cooling and refrigeration practices, emphasizing their role in conserving energy, reducing greenhouse gas (GHG) emissions, and ensuring food safety.

'GO-WSDS' CERTIFICATES TO YOUTH

The presentation of awards and GO-WSDS certificates recognized the commitment of young participants to climate activism and leadership.

KEY TAKEAWAYS

- Shaping policies, fostering collaboration, and empowering youth to lead the charge against climate change are crucial.
- Youth must be empowered by giving them the opportunity to take on decision-making roles in climate negotiations and policy formulation.
- The power of collective and transformative actions to address the complexities of climate change must be recognized. Efforts should be directed towards fostering collaboration among youth-led initiatives, communities, and stakeholders to maximize impact.
- Building networks, sharing resources, and creating platforms for knowledge exchange will be essential in mobilizing diverse talents and resources towards achieving common climate goals.
- Integrating eco-technologies into future climate strategies is an important learning. The 'Resilience 2020' initiative in Mexico illustrates how embracing sustainable technologies can contribute to reduced dependence on traditional supply chains, and create additional income sources.

Making Words Count @WSDS2024



“Actions led by youth will address climate crisis, and this will be achieved by connecting with communities, networking with like-minded people, exchanging lessons, ideas and opportunities, and by supporting each other. Youth are the leaders of today and tomorrow. You can be at the table, amplifying your voice, sharing your message, and influencing policies.”

Dr Ash Pachauri

Founder, POP Movement



If we want to make changes in policymaking and negotiations, we need young people sitting at the decision-making table. We have to empower young people to be able to speak shoulder-to-shoulder at the same table as their counterparts in other developed nations. COP21 and COP22 have helped me build the sense of community and develop the Global Youth Movement and Youth Constituency. The Youth Negotiators Academy focuses on the climate change processes and UN multilateral processes, which aim to bring young minds to the decision-making table.

Ms Heeta Lakhani

Founder & Director, The ClimAct Foundation



“Climate change is everywhere; it's like that absent devil in disguise, affecting and aggravating every single issue we see on the ground. When youth and citizens don't wait for the government and organizations to take care of the climate and community, and say that 'we want to do something about it', that's when true climate justice is realized. The launch of 'Cool the Globe' has helped unite citizens across the world to take climate actions in day-to-day activities.”

Ms Prachi Shevgaonkar

Founder, Cool the Globe



Since the outbreak of the COVID-19 pandemic, we are making everyone more autonomous; such that communities reduce their dependence on supply chains and enhance their livelihood in times of unprecedented crises. My idea solves a dual problem – how can we make people get an additional source of income? How can they do it without leaving the safety of their homes through eco-technologies?

Mr Ivan Ransom

Founder, Resilience 2020-Mexico



Vasundhara's strength lies in its well-rounded approach, combining factual information, constructive suggestions for the future, and a rich tapestry of diverse opinions. Our mission is to empower youth as agents of change by sharing stories that resonate, instil a sense of responsibility and urgency.

Ms Sunaina Saxena

Editor, TERI SAS



WOMEN LEADERSHIP SESSION

WOMEN-LED GREEN DEVELOPMENT



ABOUT THE SESSION

Transitioning to green development requires more women as leaders, investors, and entrepreneurs. Diversity in perspectives, lived experiences, and approaches brought about by women makes their involvement in participatory policymaking for climate action and sustainability more critical. The plenary focused on discussing challenges and actionable solutions in advancing women's leadership in climate action and SDG progression. The session also examined the role of women from the lens of bio-economics.

SPEAKERS

Chair: Ms Vaishali Nigam Sinha, Co-Founder and Chairperson, Sustainability, ReNew

- Ms Charlotte Morton, Chief Executive, World Biogas Association
- Dr Purvi Mehta, Senior Advisor, Global Growth and Opportunities, Gates Foundation
- Dr Dipankar Saharia, Senior Director, TERI
- Dr Shailly Kedia, Senior Fellow, TERI

KEY TAKEAWAYS

- A green economy is an outcome of a 'way of life' led by individuals, corporates, governments, and institutions at the global, national, and regional levels.
- About 80% of those who are displaced by effects of climate change are unfortunately women.
- The impact and implication of climate change is sexist. It affects women much more than it does men.
- Gender equality and equity with more women in leadership positions can ensure improved strategies in solving sustainability issues.
- The sustainability factor of a women-led farm is more diversified in terms of various commodities, which, from an agronomic perspective, becomes a much more effective mechanism as far as climate adaptation and resilience are concerned.

Making Words Count @WSDS2024



The renewable energy sector is not women-friendly due to long working hours, remote locations, etc. Today, in India, only 11% women are involved in the renewable energy sector.

Ms Vaishali Nigam Sinha

Co-Founder and Chairperson, Sustainability, ReNew



Multiple barriers surrounding women originate from how they are raised, whether they are raised to be restricted to the belief that they can't do anything or they are raised with the confidence to do everything.

Ms Charlotte Morton

Chief Executive, World Biogas Association



The impact of climate change affects women more severely. Over 45% crop production and over 70% livestock production in India is done by women but not credited for.

Dr Purvi Mehta

Senior Advisor, Global Growth and Opportunities, Gates Foundation



The main challenge in combating the effects of climate change on women is lack of awareness and quality education. Another obstacle in women development programs is lack of access to capital and technology.

Dr Dipankar Saharia

Senior Director, TERI



We must shift to discussing 'women-led development' instead of just women's development. There is an underlying assumption that women are the recipients and not the solution providers or contributors to sustainability programs.

Dr Shailly Kedia

Senior Fellow, TERI

CEO FORUM

ACCELERATING BUSINESS ACTIONS FOR REALIZING SUSTAINABLE DEVELOPMENT GOALS



ABOUT THE SESSION

The session aimed to capture the actions being undertaken by businesses as they implement the sustainable development goals (SDGs), and help realize the 2030 Agenda. The thought-provoking session concluded with the launch of TERI CBS (Council for Business Sustainability) video. The video messages from prominent industry leaders highlighted the steps being undertaken by their companies to decarbonize operations, and the role of TERI CBS in advocating for business sustainability.

SPEAKERS

Chair: Mr Sanjay Seth, Vice President & Chief Executive Officer, GRIHA Council; Senior Director-Sustainable Habitat Programme, TERI

- Mr Manish Chourasia, COO - Corporate & Cleantech Finance, Tata Capital Limited
- Ms Sugandha Gopal, Partner, JSA Advisors & Solicitors
- Mr Yasuo Takahashi, Executive Director, Institute for Global Environmental Strategies
- Mr Vineet Handa, Founder, CEO, Kaizen PR Services Private Limited
- Ms Neha Upadhyay, Founder, Guna Organics
- Dr Livleen Kahlon, Senior Fellow and Associate Director, TERI

KEY TAKEAWAYS

- Development of green taxonomies across different geographies should incorporate a common framework of what constitutes as 'green'.
- Working towards implementing those sustainable development goals (SDGs) that are synergistic in nature can help accelerate economic development.
- Right project execution frameworks incorporating timely land acquisition, evacuation infrastructure, and contract enforcement can help improve investor confidence in green projects.
- Flexible contractual frameworks that incorporate enhanced technological advancements help improve implementation and performance of green projects.
- Future workforce of the country should be imparted with not only green technical skills but also soft skills that improve their career longevity and make them resilient to future work requirements and changes.

Making Words Count @WSDS2024



There is a need to improve project execution frameworks. If we want to achieve the goal of having 175 GW of renewable energy by 2030, then it is necessary to have better frameworks for contract enforceability that will accelerate business commitment.

Mr Manish Chourasia

COO – Corporate & Cleantech Finance, Tata Capital Ltd.



The key pillars that would help businesses accelerate their actions on sustainable development include greater focus on financing green projects, improved company disclosures on sustainability, and enhanced engagements between investors and businesses.

Mr Yasuo Takahashi

Executive Director, Institute for Global Environmental Strategies



With the intent to become net zero by 2070 and ensure its execution and management, the role of the communicator becomes challenging. Corporates should look to embody sustainability practices within their employees, and this provides a crucial platform that can help improve sustainability practices within their families, and so on.

Mr Vineet Handa

Founder, CEO, Kaizzen PR Services Pvt. Ltd



There is a need to ensure holistic development in a sustainable organization, which is defined by diversity and green inclusive leadership.

Ms Neha Upadhyay

Founder, Guna Organics





Handholding is required between the industry and academia. To realize SDG 17 on 'partnerships for all', we must reach out to the right agencies and networks to reach more than two-third of the population.

Dr Livleen Kahlon

Senior Fellow & Associate Director, TERI



There is a need to focus on policy alignment and legal frameworks. Long-term agreements need to become flexible to help account for the changes in technologies, and the resulting drop in tariffs that may take place.

Ms Sugandha Somani Gopal

Partner, JSA Advocates & Solicitors



We all know that 2030 is not far away and actions on SDGs are something we are worried about in terms of where we are currently and where do we want to see ourselves by 2030.

Mr Sanjay Seth

Vice President and Chief Executive Officer, GRIHA Council;
Senior Director-Sustainable Habitat Programme, TERI

SPOTLIGHT SESSION

ENERGY TRANSITIONS FOR PEOPLE, PEACE, PROSPERITY AND OUR PLANET



ABOUT THE SESSION

The session focused on energy transitions and the progress, achievements, and milestones of India in the renewable energy space. It also highlighted the future activities, priorities, and plans. India has emerged as a leader in climate action. A special announcement was made regarding the signing of an MoU (memorandum of understanding) between the Ministry of New and Renewable Energy and The Energy and Resources Institute (TERI) for setting up the Centre of Energy Transition in Hyderabad.

SPEAKERS

- Shri R K Singh, Hon'ble Cabinet Minister (Power, New & Renewable Energy), Government of India
- Mr Nitin Desai, Chairman, TERI
- Dr Vibha Dhawan, Director General, TERI

KEY TAKEAWAYS

- The price of energy transition must be reduced, otherwise, transition will not happen.
- Adding storage, manufacturing, grid connectivity, etc., for renewables, are the only ways to bring the price down.
- For developing countries to have an alternate trajectory of development and energy transition than the developed world, there is a requirement of (and access to) infrastructure, finance, and technology.
- Greenhouse gas (GHG) emission comparison should be on per capita basis and not in terms of absolute or aggregate value.
- Increasing consumption-led development will not be a sustainable model.
- The Ministry of Power, New & Renewable Energy will sign an MoU (memorandum of understanding) with TERI, as part of which a Centre of Energy Transition will be established in Hyderabad.
- The Centre of Energy Transition should serve as an institution to study the various alternative pathways that are available for energy transition, renewable energy storage, etc.

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If the developing countries continue with their emissions at the current rate, the available space before reaching the 1.5°C target is just 4.5 years. But there is no sign of reductions. Developing countries need to be supported with technology and finance. We need to bring the price of transition down, otherwise it won't happen. Signing an MoU with TERI and setting up of an institute on energy transition can help study various pathways for transition.

Shri R K Singh

Hon'ble Cabinet Minister (Power,
New & Renewable Energy), Govt. of India



In 1997, everyone was talking about development when TERI, as an independent knowledge-based institute, shared that such a development is not sustainable. A world class 'Centre of Energy Transition' will be established in Hyderabad with the support of TERI, TERI University, and all other stakeholders.

Dr Vibha Dhawan

Director General, TERI



The most important aspect of change in the way we meet today's needs is the area of energy transition. At the global level, a crucial part of climate dialogue is being distorted. The West complains that their emissions are coming down and our emissions are increasing, but what should be addressed is cumulative emissions.

Mr Nitin Desai

Chairman, TERI

PLENARY SESSION

LEADERSHIP PANEL: SUSTAINABLE CONSUMPTION, LIFESTYLES AND CLIMATE TRANSITIONS



ABOUT THE SESSION

The session highlighted the interconnectedness of environmental, social, and economic issues, advocating for a multidimensional approach to solving problems. It called for collaboration among governments, businesses, researchers, and stakeholders to foster sustainable practices and lifestyles. The key points included simplifying processes for individuals to make sustainable choices, promoting nature-based solutions, and recognizing the interconnectedness of environmental problems.

SPEAKERS

Chair: Mr R R Rashmi, Distinguished Fellow, TERI

Ministerial Address

- H.E. Ms Steffi Lemke, Federal Minister for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, Germany

Keynote Address

- Prof. Jim Skea, Chair, Intergovernmental Panel on Climate Change

Perspectives

- Ms Nameeta Prasad, Joint Secretary, Ministry of Environment, Forest and Climate Change, Government of India
- Mr Tim Gould, Chief Energy Economist, International Energy Agency
- Mr Satyajit Bhatkal, CEO, Paani Foundation
- Dr Tejal Kanitkar, Associate Professor, National Institute of Advanced Studies
- Mr Golo J. Pilz, Advisor, Brahma Kumaris

KEY TAKEAWAYS

- It is important to advocate for a multidimensional approach that includes addressing environmental, social, and economic issues collectively to foster sustainable practices and lifestyles.
- There is a need to simplify processes for adopting sustainable choices – make them easier for individuals to opt for sustainable choices in their daily lives.
- Providing reliable sustainability information is crucial. Governments and businesses should provide consumers with accurate and reliable information to support sustainable decision-making.
- It is essential to promote values and ethics that prioritize environmental stewardship and respect for natural resources.
- Fostering awareness and understanding includes educating individuals and communities about the importance and urgency of addressing climate change and adopting sustainable practices.
- Implementing programs and initiatives that incentivize the production and consumption of environment-friendly products is essential.

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Individual-led behaviour has to be complemented with global effects and it must form part of global discourse. In a large part of the global south, consumption-led development is not the current model. It is not fully sustainable, but to a considerable degree, the rate of consumption of resources is much lower than in the rest of the world.

Mr R R Rashmi

Distinguished Fellow, TERI



The role of governments in enabling informed and sustainable decisions, particularly in areas like transport, infrastructure, and consumer information, is important while ensuring industrial resource efficiency in achieving sustainability goals.

Mr Tim Gould

Chief Energy Economist, IEA



There is a need to decouple economic development from emissions and resource use.

H.E. Ms Steffi Lemke

Federal Minister, Environment, Nature Conservation, Nuclear Safety, and Consumer Protection, Germany



By treating the world as a monolithic whole, we overlook the profound variations present both within and among nations.

Dr Tejal Kanitkar

Associate Professor, NIAS





There is a substantial contribution of high-income households to global GHG emissions, and there must be strategies to reduce emissions, including socio-cultural changes, infrastructural improvements, and technology adoption with policy support.

Prof. Jim Skea
Chair, IPCC



It is important to address demand-driven factors that influence consumption patterns, and IEA's report has projected significant reductions in global CO2 emissions through lifestyle actions.

Ms Nameeta Prasad
Joint Secretary, MoEFCC, GoI



Cynicism can never be a solution for reducing carbon emission. Apart from individual solutions, we need to create a culture of respecting natural resources. For any real movement, we will need to have behavioural change on scale and that change will have to happen everywhere.

Mr Satyajit Bhatkal
CEO, Paani Foundation



Let laughter and peace rule the world, let me be the true leader of myself first before being an example to others. Daily meditation is a powerful tool to reconnect with our inner values and bring lasting change to our behavioural patterns. If we all connect to our inner goodness, it will become easy for us as a global community to join hands.

Mr Golo J. Pilz
Advisor, Brahma Kumaris



VALEDICTORY SESSION

LEADERSHIP FOR ACHIEVING SUSTAINABLE DEVELOPMENT AND CLIMATE JUSTICE



ABOUT THE SESSION

The valedictory session marked the culmination of the 3-day World Sustainable Development Summit (2024), organized by The Energy and Resources Institute. The 23rd edition of the World Sustainable Development Summit brought together global leaders and stakeholders to discuss the imperatives of leadership for sustainable development and climate justice. Climate justice needs to be the north star to guide sustainable development. Against the backdrop of a world grappling with a multitude of crises, including planetary emergencies, setbacks in achieving sustainable development goals (SDGs), and escalating conflicts, the valedictory session underscored the urgency of promoting environmental stewardship at all levels and across all spheres. The theme of this year's WSDS was, '*Leadership for Sustainable Development and Climate Justice*'; and the esteemed panelists reaffirmed their commitment to driving action towards a more sustainable and equitable future. A promise was made to work on key issues through the 'Knowledge Initiative', '*Act4Earth*', comprising the *SDG Charter* and the *COP29 Compass*. The 10-point *Act4Earth* manifesto was launched as well. Intensive discussions, collaborative engagements, and visionary leadership towards addressing the challenges of climate change were at the forefront of the summit, which has been shaping global conversations on sustainability for over two decades.

SPEAKERS*Chair's Remarks*

- Mr Nitin Desai, Chairman, TERI

Leadership Address

- H.E. Mr Eric Garcetti, United States Ambassador to the Republic of India
- Mr Shombi Sharp, United Nations Resident Coordinator for India

Policy Perspective

- Mr Amit Raj, Director, Climate Change Division, Ministry of Environment, Forest and Climate Change, Government of India

Curator's Summary

- Dr Shailly Kedia, Curator, World Sustainable Development Summit

Launch of Act4Earth Manifesto

- (Ms Madhuparna Maiti, Ms Palak Khanna, Ms Heena Makhija, Ms Shivangi Raj, Ms Ishita Srivastava)

Vote of Thanks

- Dr Vibha Dhawan, Director General, TERI

KEY TAKEAWAYS

- For India to reach the 'zero carbon' goal in transportation, technical skill is required for local municipalities and Indian states to procure electric buses.
- Climate change needs a global perspective as the effectiveness of what one country does will also depend on what other countries are doing to meet their set targets.
- COP28 is targeting fossil fuels and giving funds for loss and damage management.
- There is an opportunity to reboot multilateralism, and India is at the forefront of international discussions.
- About 25–50% of global climate targets must be met in India.
- Addressing the polycrisis requires polycentric leadership.

Making Words Count @WSDS2024



When we talk about leadership as the theme of this WSDS, it must be leadership all around – in governance, bureaucracies across different levels of government, corporate sectors, think-tanks, and so on. TERI and the Ministry of Power and Renewable Energy are going to collaborate on the Centre of Energy Development, which will focus on training, research, and so on.

Mr Nitin Desai
Chairman, TERI



World leaders must negotiate, make ambitious goals, which I am proud of how our president has done in America (in passing necessary legislations), seeing what India has achieved as the fastest implementor of renewable energy. These things are critical, but they work when we work, where we live, where we pray, where we study, that makes things happen.

H.E. Mr Eric Garcetti
United States Ambassador to the Republic of India



In a divided world, India has emerged as a leader, as a bridge builder between the north and south, between the east and west, is a leading voice of climate justice, and a provider of development of best practices for other countries. India can make the global SDGs a reality. About 25% or even 50% of global targets must be met in India. I grew up with the slogan, 'Think globally, act locally,' and the beauty of being an Indian is that you deliver globally.

Mr Shombi Sharp
UN Resident Coordinator for India



We need far more work and effort by the global scientific community to develop the scenarios that show us what the pathway is and how to evolve along such a pathway. The government of India stands committed to combating climate change through its several programs, which include the National Action Plan, the State Action Plans, and others.

Mr Amit Raj
Director, Climate Change Division, MOEFCC, GoI





The proceedings over the past three days delved into various topics, such as energy trilemma, climate solutions, sustainable development, nature and ecosystem-based approaches, as well as sustainable lifestyles and consumption. The message is loud and clear: addressing the polycrisis requires polycentric leadership. We will work on key issues through the 'Knowledge Initiative', 'Act4Earth', comprising the SDG Charter and the COP29 Compass.

Dr Shailly Kedia

Senior Fellow & Associate Director, TERI



After the first edition, which was the brainchild of the visionary Dr R K Pachauri, our former director general, we used to have discussions and, after a few meetings, we would think – will we be able to sustain it every year, or should we have it every alternate year, or perhaps, once in four years? Then of course, we took the conscious decision to have it annually. The way the world is changing, you need to deliberate on such issues yearly rather than postponing it. I must thank all the participants for being with us till the last session. The summit has been engaging.

Dr Vibha Dhawan

Director General, TERI






















Thematic Tracks

Group A

Day 2: February 8, 2024 | Thursday | 11:30 am – 1:00 pm (IST)

Track Name	Venue	Thematic Track Partners
Approach for Operationalizing State Level Sub-national REDD+ in India	Silver Oak 1	 THE ENERGY AND RESOURCES INSTITUTE <i>Creating Innovative Solutions for a Sustainable Future</i>
Market and Finance Instruments to Propel Climate Action	Magnolia	 THE WORLD BANK <small>IBRD • IDA</small>
A Roadmap for Mainstreaming Inclusive Climate Action Planning in Urban Landscapes	Silver Oak 2	
Best Practices for Air Pollution Management and Mitigation	Juniper	
Just Transition Framework for a Sustainable Future In India's Coal Mining Regions	Casuarina	
Understanding Sustainability Dimensions of Bio-CNG in India	Jacaranda 1	 THE ENERGY AND RESOURCES INSTITUTE <i>Creating Innovative Solutions for a Sustainable Future</i>
Decarbonising Freight in India: Turning Ambition to Action	Jacaranda 2	 SHAKTI SUSTAINABLE ENERGY FOUNDATION

Track Name	Venue	Thematic Track Partners
India's Electricity Transition Pathways to 2050	Gulmohar	 THE ENERGY AND RESOURCES INSTITUTE <i>Creating Innovative Solutions for a Sustainable Future</i>
Integrated Impact: Reimagining CSR, ESG, and Philanthropy for Local, National and Global Progress	TERI Social Room	    
Media Roundtable on Leadership for Sustainable Development and Climate Justice	Marigold	
Mobilizing Finance for Low-Carbon Transition in India: Role of Green Bonds and Partnerships	TERI Conference Room	 THE ENERGY AND RESOURCES INSTITUTE <i>Creating Innovative Solutions for a Sustainable Future</i>
Sustainable Agriculture for Food Security: Exploring Climate Action and SDG Synergies	Maple	 Norwegian Embassy <i>New Delhi</i>  THE ENERGY AND RESOURCES INSTITUTE <i>Creating Innovative Solutions for a Sustainable Future</i>

Group B

Day 2: February 8, 2024 | Thursday | 2:00 pm – 3:30 pm (IST)

Track Name	Venue	Thematic Track Partners
Reducing Plastic and Chemical Waste in the Marine Environment	Juniper	
Progress and Adoption of Alternate Engines and Future Fuels for Sustainable Maritime Transport	Silver Oak 1	
Moving beyond strategies: The gender factor in the dynamics of energy entrepreneurship	TERI Social Room	
High - Level Convening of Industry Charter for Near Zero Emissions by 2050	TERI Conference Room	
Net Zero Possibilities in Textile Wastewater Treatment	Gulmohar	
Understanding Sustainability Dimensions of Bio-CNG in India	Gulmohar	
Just Transitions for Land-based Climate Action in India	Jacaranda 2	
Sustainable Skylines: Enabling Tomorrow's Architecture with a Web-Based Knowledge Hub on Advanced Building Materials and Energy-Efficient Design	Jacaranda 1	
Leading Collective Action for Greener Future	Casuarina	
Technologies for a Net Zero Iron & Steel Sector	Marigold	
Enhancing Planning, Institutional Frameworks and Capacities on Adaptation and Resilience	Magnolia	

Group C

Day 2: February 8, 2024 | Thursday | 4:00 pm – 5:30 pm (IST)

Track Name	Venue	Thematic Track Partners
Synergistic Actions for SDGs and Climate Change	Marigold	
Challenges and Solutions for Reducing Marine Plastic Pollution	Silver Oak 1	
Shaping the Future - the Path towards Net-Zero Future Fuels for Shipping	TERI Conference Room	
FPOs & Bio-fuels: Empowering Agriculture, Emerging Tomorrow	TERI Conference Room	
Net Zero Possibilities in Textile Wastewater Treatment	Jacaranda 2	
Meeting of Chief Sustainability Officers	Silver Oak 2	
Lessons and Experiences from NbS Carbon Project Development in India	Jacaranda 1	
Advancing Sustainable Building Practices: Role of Laboratories and State-of-the-art Infrastructure to Enhance Energy Efficiency & Thermal Comfort	Casuarina	
Energy storage: The Key to the Decarbonization of Electricity	Juniper	
Climate Finance: Catalyst for India's Energy Transition	Magnolia	

Partner Tracks

MARKET AND FINANCE INSTRUMENTS TO PROPEL CLIMATE ACTION (PARTNER : WORLD BANK)

This thematic track aimed at gathering insights on critical next steps to operationalize India's carbon markets and green credit programs. The panelists discussed the means to strengthen the domestic market framework and, more importantly, enhance the role and participation of the private sector in these markets, thereby fostering a collaborative approach towards achieving climate goals.

Mr R R Rashmi, Distinguished Fellow, TERI; Former Special Secretary, Ministry of Environment, Forest and Climate Change, Government of India, set the tone for the discussions by highlighting the significance of market-based mechanisms (more so, global carbon markets and instruments) and their changing role in financing climate actions.

Ms Yeshika Malik, Climate Change Specialist, The World Bank, drew attention to the pressing need of raising about USD 3 to 6 trillion every year by 2050 to achieve the goals set in the Paris Agreement. She stated that only about USD 439 billion has been made available worldwide through market-based mechanisms, which has been insufficient.

Mr Satyendra Kumar, Director, Ministry of Environment, Forest and Climate Change, Government of India, emphasized the responsibility of developed countries in the mobilization of finance instruments and the fundamental principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDRRC). He mentioned that market and finance instruments need to be observed from two perspectives: direct finance instruments are required to advance low-carbon technologies; and indirect market-based instruments related to the carbon market or any other similar market.

Mr Perumal Arumugam, Manager, Mitigation Division, United Nations Framework Convention on Climate Change, explained that the carbon market instrument is not a silver bullet solution but is one of the tools that is available in undertaking climate action. On the question of attracting investments or incentives, he mentioned that regulatory clarity on the different operative sectors is needed for advancing the same.

Mr Shalabh Tandon, Regional Director and South Asia Regional Head of Operations & Climate Change, International Finance Cooperation, stated carbon markets can have a substantial impact. Climate finance needs to be channelized to marginal and complex projects, and for that, tools like blended finance, concessional finance, and carbon market mechanism amongst others are needed.

Ms Vibhuti Garg, Director, South Asia, Institute for Energy Economics and Financial Analysis, discussed the imperative of financing clean energy initiatives in India, highlighting the significant gap between current investment levels and the necessary funding to achieve 2030 targets. She stressed the need to double or even triple annual investments to approximately USD 200 billion.

Ms Neha Kumar, Head, South Asia Programme, Climate Bonds Initiative, provided a comprehensive analysis of the complexities inherent in financing mechanisms like green bonds and their interaction with carbon markets. She emphasized that while these market-based instruments hold promise, they are not standalone solutions and must be complemented by other measures like carbon taxes to effectively address market failures.

Mr Nihal Nizar, India Policy Advisor, International Emissions Trading Association, discussed pioneering efforts in advocating for greenhouse gas (GHG) reductions through pricing and trading mechanisms, primarily focusing on compliance markets and corporate carbon credit purchasing during the 2000s.

BEST PRACTICES FOR AIR POLLUTION MANAGEMENT AND MITIGATION (PARTNER : BLOOMBERG PHILANTHROPIES)

The session addressed the urgent need to tackle global air pollution, a leading cause of global deterioration of human health. Despite various initiatives by the Indian government, many cities still exceed the National Ambient Air Quality Standards (NAAQS), thereby posing serious health risks. To combat this, the Ministry of Environment, Forest and Climate Change (MoEFCC) launched the National Clean Air Program (NCAP) in 2019, with a revised target of reducing air pollution by 40% by 2026.

Mr Ashish Tiwari, Secretary, DoEFCC, UP, shared insights from the source apportionment studies conducted for the Taj Trapezium Zone in Agra and Lucknow. These studies revealed that approximately 40-50% pollution originates from sources outside the study regions, indicating the need for broader regional interventions beyond city-level actions.

Dr Anju Goel, Associate Director, TERI, discussed the outcomes of various pilot demonstrations conducted under the Cleaner Project in India, supported by the Swiss Agency for Development and Cooperation. She highlighted India's first independent audit module to assess the efficiency of mechanized road sweepers.

Mr Sree Kumar Kumaraswamy, Program Director, Clean Air Action, World Resources Institute, presented his insights on the construction sector and focused on the significant impact of construction dust on air pollution and the urgent need to address this issue through innovative approaches. He highlighted the challenges posed by construction activities, which contribute to dust emissions, thereby exacerbating air quality concerns.

Mr Mohit Beotra, Director, A-PAG, discussed the 'Dispersed Sources Management Program', which focuses on addressing pollution from dust and garbage through a technology-enabled three-step process. The program involves identifying issues using specially trained personnel, utilizing an app to generate job tickets for problem resolution, and monitoring the implementation of solutions.

Dr Sumi Mehta, Vice President, Environmental and Climate Health, Vital Strategies, highlighted the importance of addressing air pollution, emphasizing its unequal distribution and impact on public health, particularly in urban areas. The need for comprehensive approaches to strengthen air quality management, including better data collection, accessibility, and coordination mechanisms was highlighted as well.

Prof. Sagnik Dey, Centre for Atmospheric Sciences, IIT Delhi, highlighted the need for a hybrid monitoring approach, leveraging data from different sources, such as ground monitors, satellites, and sensors for hyperlocal information. Prof. Dey shared insights from ongoing work in Kolkata and Delhi, demonstrating the efficacy of smoke guns and road-paving measures in mitigating air pollution.

Ms Karin Shepardson, Lead Environmental Specialist, The World Bank, provided valuable insights into the transition towards airshed-level management and the integration of science and policy to address air quality challenges in India. Drawing on lessons learned and best practices from global experiences, she highlighted the importance of formally designating airsheds, mandatory planning, and nested governance structures.

Dr Prashant Gargava, Director, NCAP, called for accelerated action, cross-learning, and innovation to achieve tangible improvements in air quality.

MEDIA ROUNDTABLE: LEADERSHIP FOR SUSTAINABLE DEVELOPMENT AND CLIMATE JUSTICE (PARTNER : CLIMATE TRENDS)

The recent rise in the geopolitical conflict globally has added another dimension to the world order grappling with multiple challenges, from an ever-threatening climate crisis to the sliding back of key sustainable development goals (SDGs). The adverse impact of extreme weather events, especially in a conflict situation, is usually felt the most by the vulnerable communities. There is a need for western countries to play a significant

role with respect to climate finance. Organized in collaboration with Climate Trends, the media roundtable deliberated on varying geographical perspectives on climate change and sustainable development. The panelists attempted to understand the policy perspectives, address the need for determined national and global leadership, and techniques to promote climate justice.

H.E. Vatimi Rayalu, Minister Ministry of Agriculture and Waterways, Fiji, said, everything is being done as a people and as a government to mitigate the effects of climate change, but more help is required, and that has come in the form of partnerships from India, and from organizations like TERI.

Ambassador Manjeev Puri, Distinguished Fellow, TERI, highlighted that even in the large economies, one must look at the growth at the national and sub-national levels to see the change on sustainability.

Ms Aarti Khosla, Founder, Climate Trends, said, there needs to be more balance between mitigation and adaptation; there is too much one cannot achieve if resilience is not ensured. Fundamental change is the need of the hour for which innovative sources are required as well.

Dr Amar Bhattacharya, Senior Fellow, Brookings Initiative on Climate Research and Action, foregrounded that 2.4 trillion investments are required for the developing world other than China. It must be perceived as an investment, and not as a cost. Investments will not only get climate results but also ensure sustainable outcomes.

ENHANCING PLANNING, INSTITUTIONAL FRAMEWORKS AND CAPACITIES ON ADAPTATION AND RESILIENCE (PARTNER : WORLD BANK)

The session aimed at addressing and emphasizing the role of integrated planning and institutional frameworks for climate adaptation and building systemic resilience. Lessons from various planning processes, including State Action Plan on Climate Change (SAPCC) were also discussed. The panelists deliberated on how a multi-sector planning framework enables a systematic introduction of nature-based solutions to build climate resilience at scale and in a cost-effective manner.

Dr Pablo Benitez Ponce, Senior Environmental Economist, The World Bank, highlighted the importance of planning in resilience building, citing examples of poorly planned infrastructure leading to costly consequences, such as road damage in Ecuador and the misuse of wetlands in Africa. His presentation focused on the broader concept of resilience, not only in the face of climate change but also considering other crises, such as floods, nutrition challenges, global pandemics, trade and financial issues, and conflicts affecting biodiversity.

Ms Supriya Sahu, Additional Chief Secretary to Government, Department of Environment, Climate Change and Forests, Tamil Nadu, highlighted the unique position of Tamil Nadu, with 14 out of its 38 districts located in the coastal zone, presenting both opportunities and challenges. To address the issues and harness opportunities, Tamil Nadu has established the Tamil Nadu Green Climate Company, India's first climate company, acting as a specialized special purpose vehicle.

Dr Ashish Chaturvedi, Head of the Environment, Energy, and Resilience, UNDP, reflected on India's efforts in climate change adaptation, emphasizing the importance of science in informing planning at various levels – national, sub-national, and local. Noting the evolving nature of adaptation targets, he highlighted the role of institutions and the need for more granular modeling data to systematically inform implementation.

Dr Christoph von Stechow, Senior Policy Advisor, BMZ Regional Department, India, discussed Indo-German development cooperation, moving from an environmental focus to an integrated approach addressing climate change effects. The cooperation is guided by a comprehensive risk management strategy, aligning with the World Bank's building blocks for resilience.

Ms Zeenat Niazi, Senior Vice President and Chief Knowledge Officer, Development Alternatives, emphasized combining scientific data with traditional and locally sourced information. Citizen science-based systems, incorporating GIS and ground truthing, are considered valuable for wetland and agriculture

management. She highlighted the need for robust mechanisms within the government system, especially in monitoring and evaluation, to facilitate learning and inform planning for resilience.

Mr Shubhashis Dey, Director, Climate Policy and Climate Finance, Shakti Sustainable Energy Foundation, shared a scenario, asking whether a villager in Texas or Odisha would be more resilient to natural disasters, thereby highlighting biases in our perceptions. He then questioned the allocation of aid funds, wondering if countries like India should receive more support than areas facing immediate crises like Texas.

Dr Manish Kumar Shrivastava, Senior Fellow and Associate Director, Earth Science and Climate Change Division, TERI, reflected on a slide showing a wetland used for unintended purposes due to faulty planning and said that this misuse might have been a form of adaptation to other vulnerabilities, thereby highlighting how vulnerable groups often adapt within their limitations.

Dr Shailly Kedia, Senior Fellow and Associate Director, Sustainable Development and Outreach, TERI, talked about green budgeting, which is a policy or planning innovation serving multiple purposes including enabling adaptation planning. The rationale behind this innovation lies in the fact that while state action plans on climate change may be revised infrequently (some states do so after as long as 10 years), budgets are an annual occurrence.

TECHNOLOGIES FOR A NET ZERO IRON AND STEEL INDUSTRY (PARTNER : INTERNATIONAL ENERGY AGENCY)

The session emphasized that the global emissions from industry and the steel sector need to fall by over 95% by 2050. The industry sector is crucial to transition because cement, iron, and steel cause 70% of the emissions. Material and process efficiency is key to reducing steel-sector emissions. Innovative near zero emissions technology will make inroads by 2030 and play a significant role thereafter.

Ms Rebecca Berry, Second Secretary, Climate and Energy Policy Officer, British High Commission, New Delhi, recognized that at COP26 in Glasgow, the UK along with India and 43 other countries launched the steel breakthrough agenda, which aimed to accelerate progress towards making near zero emission steel the preferred choice in global markets.

Ms Tiffany Vass, Industry Analyst, IEA, shared the global perspective of the transition for the steel sector and explained that for the global energy system to achieve net zero emissions by 2050, every country needs to set its own path according to its own capabilities. Global cooperation could help accelerate this transition.

Ms Neha Verma, Director, Ministry of Steel, stated that India is growing at a very high pace, and it will need more steel to back up that economic growth. The steel policy says that by 2030, India will double their steel production to 300 million tonne. Steel is the most carbon-emitting sector and in India, steel contributes to 12% of the emissions.

Mr Deependra Kashiva, Executive Director, SIMA said, the DRI industry can play a major role in mitigation of carbon footprints. He stated that SIMA is advocating to ensure that coal-based production switches over to the gas-based route, but the problem is, they have financial constraints and other limitations like management capabilities exist too.

Ms Sugandha Jayaswal, Resident Executive Corporate Services, Tata Steel, shared the company's action plan for 2030. She talked about the carbon footprint of the present Indian iron and steel sector through different production routes and how the scrap and CO₂ intensity varies with different routes. She explained how scrap would be an important element in decarbonization.

Mr Biswadeep Bhattacharjee, Vice President Sales and Head, Green Steel India, Primetals, acknowledged the challenges facing the steel industry in its journey towards decarbonization and emphasized the critical role of plant builders in developing and deploying technologies. As he highlighted various challenges like prevalent technical and infrastructural issues along with market dynamics for this technology, the costs were also an integral part of considerations for decarbonization until 2070, which seems possible only with an altogether behavioural change, global collaboration, and shared knowledge.

Mr Girish Sethi, Director, TERI, provided an insightful overview of the current landscape of decarbonization efforts in the steel industry, highlighting the alignment between global and local initiatives. He observed that the pathways outlined by various stakeholders, including Tata Steel, European counterparts, and themselves, reflect a shared focus on transitioning towards hydrogen and carbon capture solutions.

REDUCING PLASTIC AND CHEMICAL WASTE IN THE MARINE ENVIRONMENT (PARTNER : ROYAL NORWEGIAN EMBASSY AND MU GAMMA CONSULTANTS)

This thematic track aimed at sharing and building knowledge and capacities to tackle plastic and chemical pollution and its associated social, economic, and environmental impacts, and identifying opportunities regarding reducing plastic and chemical waste in the marine environment. Further, the session focused on opportunities for strengthening collaborations and alliances as well as building a robust knowledge-based research foundation for policy relevance.

H.E. Martine Bottheim, Deputy Ambassador of Norway to India, appreciated the progress made in the India-Norway relationship by highlighting the marine pollution initiative, which is part of the blue economic cooperation between the two countries. She added that the two countries enjoy excellent cooperation not just in blue economy but also in circular economy, renewables, food security, research, and higher education.

Ms Marianne Olsen, Research Director, Norwegian Institute for Water Research, mentioned the importance of joining forces and deliberating together to address major environmental issues faced by the world. She highlighted the concerns regarding the high magnitude of chemical and plastic pollution and the ongoing global-level discussions and negotiations on the crucial subject.

Mr Hans Nicolai Adam, Senior Research Scientist, NIVA, discussed one of the major highlights of the session – the India-Norway cooperation project on capacity building for reducing plastic and chemical pollution in India. This project is a collaboration between NIVA, Mu Gamma, SRM Institute of Science and Technology, CIPET, and Toxics Link. He foregrounded multiple aspects of this project and highlighted its multidisciplinary approach with the involvement of geographers, environmental chemists, and modellers for data analysis, who are working in a collaborative manner to address climate-specific challenges related to the marine environment.

Ms Rachel Hurley, Senior Research Scientist, NIVA, addressed the gathering on monitoring riverine macroplastic pollution. She discussed both macroplastics and microplastics, and the challenges in their treatment while focusing on the regular monitoring of rivers since rivers form an essential ecological zone, which requires special attention with respect to plastic pollution.

Ms Sissel B. Rannekleiv, Senior Research Scientist, NIVA, discussed the issue of monitoring persistent organic pollutants (POPs) in riverine and marine environment. She highlighted the impact of POPs, including their toxic effects on human health as well as the environment, in addition to their persistent and bio-accumulating properties.

Dr Girija Bharat, Managing Director, Mu Gamma Consultants (MGC), highlighted that it has taken 15 years to build a kind of momentum on persistent organic pollutants (POPs) and plastic waste management.

Dr Smita Mohanty, Director & Head (Principal Scientist), Central Institute of Petrochemicals Engineering & Technology (CIPET), stressed that, the major thing with bioplastics is that their functional properties are different than the conventional plastics; so, once they enter the recycling stream, they actually act as contaminants for the normal recycling stream.

Mr Satish Sinha, Associate Director, Toxics Link (TL), highlighted the limitations in the downstream management of plastics and emphasized that efforts, such as behavioural change at the community level, can create significant positivity.

Prof. Paromita Chakraborty, Head, SRM Institute of Science and Technology (SRMIST), highlighted the importance of understanding the source of contaminants, such as industrial sources and open discharges, while emphasizing the need for coordination among multiple stakeholders including academia and the industry.

Ms Saloni Saran Goel, Director, Religare, New Delhi, expressed her gratitude to the Government of Norway for supporting scientific research on plastic pollution and helping India in capacity enhancements as well as research work. She further emphasized the need for both government and private sectors to work in collaborations, and forums such as the WSDS for meaningful engagement and deliberations on critical climate-specific issues.

CLIMATE FINANCE: CATALYST FOR INDIA'S ENERGY TRANSITION (PARTNER : TATA CAPITAL)

This thematic track threw light on the pivotal role of climate finance in fostering economic growth, spurring innovation, and facilitating India's shift towards sustainable energy solutions. The discussion brought together industry stalwarts to dissect the complex landscape of climate finance, delving into its crucial function in guiding India towards a sustainable energy future.

Dr Vibha Dhawan, Director General, TERI, highlighted the criticality of leadership in energy transition and the need for private financing. She stated, there is a divergence between state and private actors as the state becomes increasingly responsible for directives on transition goals, whereas action is limited to the corporate world.

Mr Pankaj Sindwani, Chief Business Officer, Tata Capital, shared his remarks on climate finance and the role of financial institutions in driving India's energy transition. He discussed the creation of a global North-South by leveraging partnerships to collaborate and diversify the energy landscape.

Mr Parag Sharma, Founder and CEO, O2 Power, focused on the lack of capacity addition in renewables despite the regulatory changes surrounding it. Further, he pointed out that through the efforts of the private and public sectors, the targets could be met and policy initiatives would magnify the strength of renewables.

Mr P R Jaishankar, Director, India Infrastructure Finance Company Limited, discussed the challenge of the cost burden that awaits energy transition. The inflationary impacts and transition costs have to be factored in and accounted for, and to expedite the incorporation of international stakeholders and private capital, capacity building and incentivization can provide the needed resolve, and public finance should also cater to technology stabilization alongside capacity building.

Mr Saurabh Kumar, Vice President, Global Energy Alliance for People and Planet, reiterated the significance of synergy between different sectors to induce a change in the ecosystem and introduce grander investments. He further emphasized the role of blended finance and reforms to unlock private capital.

Mr Virender Pankaj, CEO, Aseem Infrastructure Finance, recalled the indispensability of global capital and mentioned the upside of India's fiscal management post the COVID-19 pandemic, which signals a positive environment for energy finance to proliferate.

Mr Sanjeev Aggarwal, Chairman, Hexa Climate, steered the discussion to introduce an important stakeholder in the narrative of energy transition, i.e., the consumers. His response to "Why climate finance?" was centred around the customer's need for financial savings along with the desire to do better for society and the planet. There is a need to address the stabilization of the energy transition while exploring sources for storage of electricity and whether there could be investment in a sector that is considered risky.

SYNERGISTIC ACTIONS FOR SDGs AND CLIMATE CHANGE (PARTNER : BMUV-IKI)

This thematic track deliberated on how implementation, especially with reference to the sustainable development goals (SDGs), must ramp up, and what guidance could be derived from the Global Sustainable Development Report (GSDR) and the SDG Summit. The session also explored the scope of maximizing the synergies between climate action and SDG implementation through national policy plans and current research.

Mr P. Mudalige, Director General (Planning), Ministry of Environment, Sri Lanka, presented his country's stance on SDGs and the various policies to counter environmental threats. As indicated in the budget 2024, the President included environmental penalties, focusing on green and blue economy, and setting up of climate secretariats as major national approaches. Initiatives such as the National Environment Policy and National Environment Action Plan (NEAP) framework work in line with the SDGs.

Dr Andrew Singh Tukana, Permanent Secretary, Ministry of Agriculture and Waterways, Fiji highlighted the unique circumstances and threats faced by the Fiji Islands with respect to climate change, and added that due to a lack of funding, inadequate technical expertise, and absence of financing mechanisms, the approaches adopted at the islands were unsustainable.

Dr Farran Redfern, Secretary, Ministry of Infrastructure and Sustainable Energy, Kiribati foregrounded that being an island country in the Pacific, climate change and the SDGs were priority areas for the government and people of Kiribati. Sharing the challenges faced by the nation and especially his ministry, he highlighted the core areas of concern in the sectors of water, sanitation, energy, and sustainable infrastructure.

Ms Nidhi Madan, Associate Director, Shakti Sustainable Energy Foundation, highlighted some of the best practices, actions, and lessons derived from her organization's work at the sub-national level in India. Climate change has multifaceted effects on areas such as hunger, poverty, and gender, thus highlighting the interlinkages between climate change and SDGs.

Ms Veronica Tomei, BMUV Head of Division and Commissioner for the 2030 Agenda for Sustainable Development, joined the session virtually, and agreed with the other speakers by highlighting how all the nations were indeed on the same boat and a global effort was required to counter climate change.

Ms Taina Dyckhoff, German Embassy, said that with half of the 2030 Agenda timeframe gone, it is becoming clear that global efforts need to be significantly ramped up. It is essential to discuss how synergies between climate action and SDG implementation can be maximized.

Dr Prodipto Ghosh, Distinguished Fellow, TERI, highlighted that economists like to cite a theory of one conversion, the theorem goes like this – it is better to have a dedicated policy instrument than using one policy for different policy objectives.

CHALLENGES AND SOLUTIONS FOR REDUCING MARINE PLASTIC POLLUTION (PARTNER : ROYAL NORWEGIAN EMBASSY AND UNEP)

The discussion focused on the formidable challenges encountered in the battle against marine plastic pollution. The discourses emphasized the need for comprehensive solutions spanning upstream, midstream, and downstream processes to effectively manage waste. The panel brought together distinguished representatives from the industrial sector, packaging industry, and other relevant fields to delve into these critical issues.

Mr Erlend Draget, Senior Advisor, Ministry of Climate and Environment, Norway, articulated several critical points regarding the pressing issue of plastic usage and its management. He highlighted the alarming trend of surpassing our capacity to manage plastic consumption, indicating a concerning imbalance between

production and disposal. This observation underscored the urgency for strategic interventions to curb excessive plastic usage and enhance waste management practices.

Dr Sumit Sharma, UNEP, briefed about what is happening in the country and how big the issue is, as by now, 9 billion tonne plastic has been produced, which is more than a tonne for 8 billion people living on the planet, and there are hazardous effects on the marine life as a consequence of this production.

Dr Suneel Pandey, TERI, emphasized the critical role of extended producer responsibility (EPR) in managing plastic waste efficiently. He highlighted that EPR fosters essential partnerships among producers, local governments, and waste processors, acting as a bridge that not only facilitates better waste management but also aids in funding local governance bodies.

Mr Pranay Pasricha, CHUK, discussed specific challenges in the shift away from single-use plastics (SUPs) towards more sustainable alternatives. He highlighted a widespread lack of awareness about the existence of eco-friendly options as a primary barrier.

Mr Ankit Gupta, ITC Limited, addressed the panel by elucidating the complexities involved in transitioning from environmentally detrimental packaging within various industries. He informed about the intricate nature of packaging requirements, such as the necessity for materials to be water-resistant, fire-resistant, and durable, which for many industries complicates efforts to comply with legal bans on single-use plastics and other not-so environment-friendly materials.

Ms Annupa Mattu Ahi, TOMRA, highlighted the impact of existing solutions in managing the end-of-life cycle of plastics, emphasizing not just the operational successes but the broader societal benefits these solutions have fostered. She pointed out that such innovations have been instrumental in changing behaviour towards more sustainable practices, creating green jobs, and underscoring the critical role of policy in driving both legal compliance and a shift in mindset.

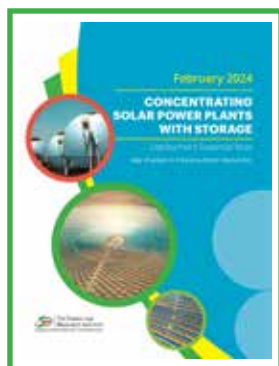
Mr Sourabh Manuja, GIZ, talked about the implementation of improved practices in urban areas to prevent plastic pollution from reaching marine environments. He highlighted the significance of establishing robust waste management systems within cities to tackle the root cause of marine litter.

Ms Pratibha Sharma, UNDP, highlighted the crucial role of material recovery facilities (MRFs) in enhancing the waste collection systems managed by urban local bodies (ULBs). By effectively sorting and processing recyclables from the waste stream, MRFs not only streamline waste management, but also contribute to the recycling ecosystem, thereby supporting ULBs in achieving their waste reduction and sustainability goals.

Launches @ WSDS2024



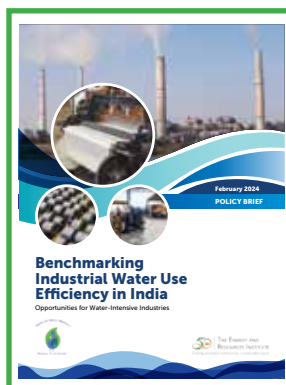
In an era marked by global challenges, the 2030 Agenda for Sustainable Development stands as a beacon, envisioning a world free from the shackles of poverty and hunger, a world where quality education and healthcare are accessible to all, and where gender equality is not just an ideal but a reality.



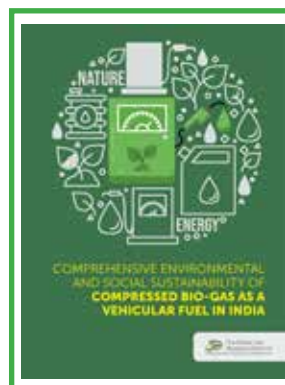
In TERI's discussion paper titled, "Roadmap to India's 2030 Decarbonization target", the creation of 500 GW non-fossil fuel capacity by 2030 was found to be feasible though challenging. The paper articulated that for achievement of India's 2030 targets announced at COP26, there is a need for creation of large storage projects, including setting up concentrated solar power (CSP plants with storage).



TERI's Solutions for Sustainable Development is a compilation of 60 'knowledge products' to instill the practice of sustainability for a wide range of stakeholders. These solutions are the tangible pathways for effective realization of sustainable development by the global community.



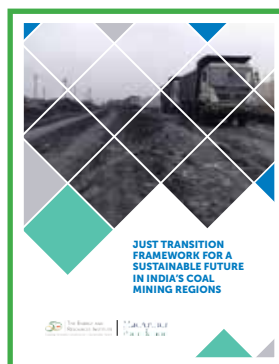
TERI, with support from the National Water Mission (NWM), Ministry of Jal Shakti, Government of India, conducted a comprehensive evaluation of water-intensive sectors in India, viz. thermal power plants, textile industries, pulp and paper industries, and iron & steel industries.



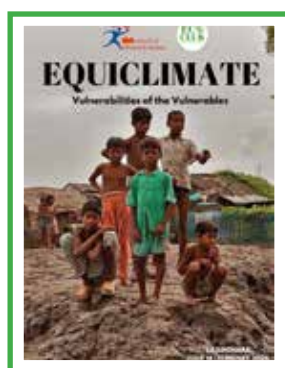
India is at the cusp of mobility revolution. At a time when India's automotive industry is undergoing substantial transformation, a diverse mobility solution is required, which still lags in terms of access to transportation facilities, and introduction of e-mobility is a challenge in immediate future.



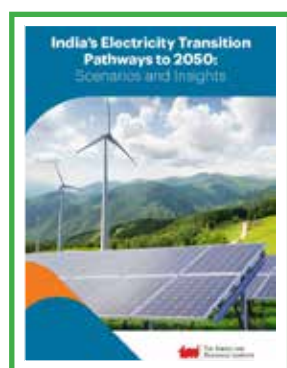
This policy brief explores the challenges that have hindered the growth of the green bonds market in India, both, at the macro sovereign-market level, as well as the micro level of issuances.



As India's energy mix diversifies, there is increasing attention on achieving a fair and equitable transition that considers the impacts on workers, communities, the environment, and related industries. To address this, TERI has developed a Just Transition Framework, informed by extensive research in India's eastern coal-belt and engagement with diverse stakeholders.



The 14th edition of *Vasundhara*, titled 'EquiClimate', is a meticulously crafted exploration of the theme, 'Climate Injustice: Vulnerabilities of the Vulnerable.' Focused on shedding light on the disproportionate impact of climate-related challenges on marginalized communities, often the least responsible for environmental degradation, this edition delves into intricate stories that weave together insightful articles, a thought-provoking interview, and captivating visuals.



Electricity transition is underway in India. The near-term and medium-term pathways up to 2030 having been studied, the study of mid-century pathways is extremely important to form optimal choices, even in the medium-term. The present study is an attempt in this direction.



Textile & Coloration Industry faces the most challenging issue of removal of colour and dissolved organics due to the presence of complex dyes and pigments in the effluent, which are not being able to be removed by conventional and biological treatment technologies. TERI has developed a novel technology called TERI Advanced Oxidation Technology (TADOX®), which involves UV-TiO₂ Photocatalysis as an Advanced Oxidation Process (AOP), which removes colour and dissolved organics.

Special Events

MoU signings



An MoU was signed between Cenergist and TERI on Technology for Solar Energy



A special announcement unraveled the intention of an MoU signing between the Ministry of New and Renewable Energy and The Energy and Resources Institute (TERI) for setting up the Centre of Energy Transition in Hyderabad.

Act4Earth Manifesto

The 23rd edition of the World Sustainable Development Summit brought together global leaders and stakeholders to discuss the imperatives of 'Leadership for Sustainable Development and Climate Justice.'

Climate justice needs to be the north star to guide sustainable development.

Polycrisis demands polycentric leadership on integrating sustainable development, protecting nature, enhancing resilience, promoting sustainable consumption, driving energy transitions, and strengthening climate actions.

It is to this end, to nudge action, raise ambition, encourage dialogue, and bring like-minded people together that a 10-point *Act4Earth Manifesto* has been formulated.

We hereby pledge to Act for Earth by:

- Formulating people- and nature-centric approaches for holistic well-being of both humanity and the natural world.
- Integrating sustainable development through policy innovations such as green budgeting and sustainable public procurement that provide the right policy and market signals.
- Critically examining existing norms and frameworks which guide climate policies and global governance processes.
- Internationalizing and internalizing sustainable consumption and environmentally sensitive lifestyles.
- Advocating for bridging the financing gap in areas of adaptation, capacity building, and innovations.
- Accelerating efforts to address the energy trilemma through partnerships and navigating the geopolitical landscape.
- Amplifying the voices of the most vulnerable communities and foster leadership at the local, national, and global levels.
- Incorporating diverse perspectives and lived experiences of women in climate action and sustainable development.
- Nudging business leadership and environment stewardship for integrating environment and sustainable development considerations in business models across value chains.
- Encouraging young people to be catalysts for change for inter-generational and intra-generational equity.

Next Steps

Post the Summit, the team will continue working on documentation and dissemination of the messages of the 23rd edition of the World Sustainable Development Summit (WSDS). The messages will be disseminated through social media, website, and mailers.

The Energy and Resources Institute (TERI) launched the Act4Earth initiative at the 21st edition of WSDS, focusing on climate action and sustainable development goals (SDGs). The two components of Act4Earth include COP29 Compass and *SDG Charter*. The initiative will seek to facilitate discussions and solutions around SDG-climate synergies.

Under COP29 Compass, TERI researchers will undertake research and stakeholder engagement on the 'Road to Baku', which will examine key issues for climate negotiations. Another topic will be on multilateralism for accelerating climate action. Under *SDG Charter*, TERI researchers will undertake research and stakeholder engagement on indicators and sustainable energy.

Along with Act4Earth, the team will also deliberate on the themes of the 24th edition of the World Sustainable Development Summit, which will be held in March 2025.



Gallery





Sessions in Progress





T-SAS Convocation



Pledge Tree



Photo Booth



Expo Booths





Cultural Evening



A cultural evening followed by a cocktail dinner was hosted by Johnson Controls International at The Hub. A cultural performance by the students of The Modern School ECNCR, Delhi in cooperation with Act Now, was enjoyed by the attendees.



Bhangra Dance by TAB Events

Green Event Certificate



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BGreenly certifies that the organisation
THE ENERGY AND RESOURCES INSTITUTE
 has a Certificate of Sustainable Event, for the event
WSDS 24 - World Sustainable Development Summit
 which takes place in **New Delhi, India**
 Date of issue: **07/02/2024**

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Francesc Casas - BGreenly's director

www.bgreenly.org



TERI was awarded the 'Certificate of Sustainable Event' by BGreenly

Important Links

WSDS 2024 Website

<https://wsds.teriin.org/2024/>

Act4Earth Manifesto 2024

<https://wsds.teriin.org/2024/act4earth-manifesto.php>

Daily Summit Bulletins

- Day 1: https://wsds.teriin.org/2024/pdf/WSDS_Bulletin_Day_1_2023-24.pdf
- Day 2: https://wsds.teriin.org/2024/pdf/WSDS_Bulletin_Day_2_2023-24_LR_full_version.pdf
- Day 3: https://wsds.teriin.org/2024/pdf/WSDS_Bulletin_Day_3_2023-24.pdf

Press Releases

<https://wsds.teriin.org/2024/news-pressrelease.php>

Videos

<https://wsds.teriin.org/2024/video.php>

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SUMMIT SERIES 2001–2024



58

Heads of State
and Government

137

Ministers

13

Nobel
Laureates

2045

Business
Leaders

3373

Speakers

40362

Delegates

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