

TerraGreen

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WORLD SUSTAINABLE DEVELOPMENT SUMMIT 2025

PARTNERSHIPS FOR ACCELERATING SUSTAINABLE
DEVELOPMENT AND CLIMATE SOLUTIONS

WSDS SPECIAL ISSUE



EDITORIAL



“ The 24th edition of the World Sustainable Development Summit (WSDS) will focus on the pivotal role of partnerships in catalysing transformative action and advancing global sustainability objectives. ”

Multifarious challenges confronting the world are complex and interconnected, necessitating collective action. The most recent report on Sustainable Development Goals (SDGs) reveals that only 14 per cent of the 169 targets are progressing as planned, while 20 per cent aren't even being tracked. To advance sustainable development and climate solutions, all actors need to step up relentless efforts and building alliances is the key.

The 24th edition of the World Sustainable Development Summit (WSDS) will focus on the pivotal role of partnerships in catalysing transformative action and advancing global sustainability objectives. Under the theme 'Partnerships for Accelerating Sustainable Development and Climate Solutions', WSDS 2025 will be held from March 5–7, 2025, aiming to provide a platform for global leaders, thinkers and research fraternity to engage in a collective discourse and knowledge exchange. The Summit will aim to outline a clear pathway to strengthen partnerships among governments, businesses, civil society, and other key stakeholders around the shared purpose of designing sustainable solutions—driving meaningful change and lasting impact.

The cover story in this Special Issue of *TerraGreen* and other articles place emphasis on partnerships for accelerating sustainable development and climate solutions. Partnerships are vital for speeding up progress, promoting shared responsibility, and innovative solutions. By combining resources and expertise, partnerships can turn adversities into opportunities and generate tangible outcomes to tackle global challenges.

This special edition of *TerraGreen* covers a wide range of themes including but not limited to Just Energy transition, green job opportunities, SDGs, climate action in India, agroecology, energy efficiency, climate finance and carbon market, gender-responsive climate budgeting, sustainable agriculture, sustainable development, and COP29. The articles showcase results from in-depth research and provide insights to drive action and design futuristic strategies. Some of the opinion pieces are portrayed in the form of 'innovation showcase' that include any innovative initiative, or technology that organizations in the sustainability sphere are testifying/implementing/promoting. Such narratives and practices may trigger further collaborative research, informed decision-making and timely action. A wide range of contributions from various authors that make robust, informative, and well-analysed propositions will go a long way in fostering climate adaptation strategy and building resilience while safeguarding our biodiversity and the ecosystems.

Happy reading!

A handwritten signature in black ink, reading 'Vibha Dhawan'.

Vibha Dhawan

Director-General, TERI

Knowledge Co-production

A collaborative research approach to addressing sustainability's wicked problems

Sustainability challenges are inherently complex, as they intersect in physical, biological, and social dimensions. Solutions proposed by scholars, researchers, and policymakers often face real-world constraints, making it difficult to implement risk-free resolutions. Via this article, **Sagarmoy Phukan, Dr Amit Kumar Jaglan, and Prof. Shaleen Singhal** offer how innovative approach can help us to overcome such constraints. This approach assists in overcoming the limitations of linear models, where researchers and policymakers operate within defined boundaries.

Around two decades ago, we examined how key environmental concerns were likely to unfold for India. Projections were made and strategies were recommended to address air pollution, water pollution, solid waste management, and land degradation-related challenges for articulating the alternative scenario (Pachauri, Singhal, and Kandra 2004) for 'India 2025'. This led to a call for improvement

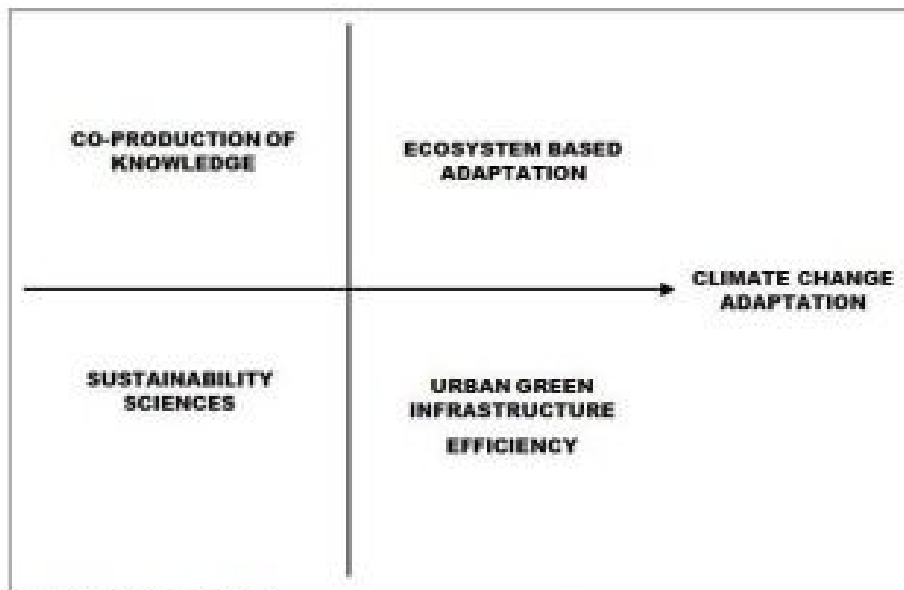
across dimensions such as improved environmental governance and effective corporate environmental responsibility. Though these dimensions drew attention back then, today they still pose complexity and urgency to deal with and might remain so beyond 2025!

Sustainability challenges are inherently complex, as they intersect in physical, biological, and social dimensions (UNESCO, 2023). Solutions

proposed by scholars, researchers, and policymakers often face real-world constraints, making it difficult to implement risk-free resolutions (Lönngrén and van Poeck, 2021). These can be termed as 'wicked problems' as they are impossible-to-solve problems and require multidimensional viewpoints and assessments to offer holistic, practical solutions (Rittel and Webber, 1973; Lönngrén and van Poeck, 2021).

Photo credit: Nishchint Srivastava





Source: Singhal and Kumar, 2024

One innovative approach to addressing such problems is integrating multiple stakeholders through the co-production of knowledge (Maas, Pauwelussen, and Turnhout 2022). This approach assists in overcoming the limitations of linear models, where researchers and policymakers operate within defined boundaries.

Knowledge co-production is a collaborative and iterative process involving diverse stakeholders to tackle

complex sustainability challenges. By treating science and politics as inseparable and co-constituted, this approach generates context-specific knowledge and facilitates social learning while strengthening capacity, fostering social capital, and driving actionable sustainability practices. At the Emerson Centre of Excellence for Sustainability Studies at TERI-SAS, we attempt to strengthen the interface between science, policy and practice, valuing the

interplay of political, economic, cultural and institutional factors. Overarching and specific recommendations are being developed by adapting knowledge co-production approach for areas such as energy and climate change, ecosystem-based adaptation and green infrastructure (Singhal and Kumar, 2024), sustainable smart cities, water and waste management, and sustainable consumption and production. For instance, we are using the approach towards developing a holistic framework to strengthening capacities of higher educational institutions (HEIs) for transitioning towards net zero. This participatory approach engages institutional leaders, academics, administrative staff, and students to collaborate on reducing emissions and achieving sustainability goals. The framework integrates scientific evidence with stakeholder values, opinions, and perceptions to provide context-specific sustainability policies. By combining science, social behaviour, governance, and financial considerations, the model fosters actionable and inclusive sustainability strategies for campuses.

We are also adapting the knowledge

Photo credit: Somi Rishabh



Photo credit: Saptarshi Majumdar



co-production approach in assessing and developing the water, sanitation, and hygiene (WaSH) management strategies for the Maha Kumbh Mela. WaSH challenges at this mega event arise due to the influx of millions of devotees. Our study involves 14 key stakeholders, including pilgrims, Mela authorities, government officials, civil society organisations, vendors, and fishermen, to map perceptions, attitudes, and behaviours that affect WaSH outcomes. Through surveys and stakeholder interviews, we emphasize cultural sensitivity, inclusivity, and equity, ensuring sustainability practices align with spiritual values while addressing hygiene needs.

Our studies raise the significance of knowledge co-production approach in generating actionable insights and diverse, value-driven decision-making options. For example, at the Kumbh Mela, religious beliefs often take precedence over hygiene with limited yet much needed behavioural change. Our preliminary findings suggest that interventions designed and led by engagement of multiple stakeholders including religious leaders, are essential

to address such deeply ingrained cultural practices. In conclusion, addressing wicked problems in sustainability necessitates knowledge co-production that strengthens science-policy-practice interface. By fostering collaboration, inclusivity, and cultural sensitivity, knowledge co-production provides robust frameworks for tackling complex sustainability challenges. At its core, this approach acknowledges the diversity of problem dimensions and stakeholder priorities, enabling the development of actionable, context-specific solutions.

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TERRAGREEN (WSDS SPECIAL ISSUE)

The world is off track. According to the latest progress report on the Sustainable Development Goals (SDGs), of the 169 targets, only 14% are on track, while 20% are not even monitored. Alarming, 14% of targets show regression, including those related to hunger, education, employment, and the environment. The first global stocktake underscores the gravity of these challenges. Achieving ambitious temperature goals requires a 43% reduction in emissions by 2030, yet current nationally determined contributions are projected to achieve only a 2% cut. These gaps reveal not only shortfalls in implementation but also deficiencies in the data needed to guide progress.

Acceleration in sustainable development and climate solutions is clearly needed, and partnerships are key to this effort. The challenges facing the world are multifaceted and interconnected, demanding collective action. Partnerships are essential for accelerating progress, fostering shared responsibility, enabling collaborative efforts, and driving innovative solutions. By pooling resources and expertise, partnerships can deliver tangible outcomes to address complex global issues.

The 24th edition of the annual flagship multistakeholder event of The Energy and Resources Institute (TERI), the World Sustainable Development Summit (WSDS), to be held on 5-7 March 2025 in New Delhi. The Summit deliberations will focus on the umbrella theme: 'Partnerships for Accelerating Sustainable Development and Climate Solutions'.

This special edition of TerraGreen covers a wide range of contributions from partners and experts on climate action, green growth, energy transitions, sustainable agriculture, sustainable infrastructure, youth stewardship, market instruments, gender, innovations, and sustainable consumption.

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