

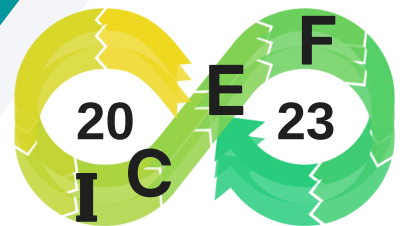
INDIA CIRCULAR ECONOMY FORUM

#ICEF2023

29-30 June

IHC,
New Delhi

KEY RECOMMENDATIONS & ACTION PLAN



INDIA CIRCULAR ECONOMY FORUM
ICEF2023

Hosted by



International Council For Circular Economy

Knowledge Partner



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ICEF2023

India Circular Economy Forum, 2023!

Transitioning from throwaway culture!

ICCE, the International Council for Circular Economy, stands as the premier and largest international network for professionals, corporates, and organizations engaged in advancing the Circular Economy. With a resolute mission, ICCE is dedicated to expediting the transition to a restorative and regenerative economic model that emphasizes circularity at its core.

India Circular Economy Forum (ICEF) is the flagship annual knowledge initiative of ICCE that identifies key elements of a circular economy and showcases solutions and learnings, bringing together people from all sectors. It brings together business leaders, policymakers, and experts from both India and around the world.

Grant Thornton Bharat LLP collaborated with ICCE as the knowledge partner for the second edition of the India Circular Economy Forum (ICEF2023) held on 29-30 June 2023 at IHC, New Delhi.

The forum explored several key themes essential to circularity, including the crucial role of segregation in the circular economy, the development of circular business models, the establishment of regenerative systems, financing opportunities for circularity, the application of BioCNG technology in India, and circularity within the Indian Textile Industry. These themes sparked insightful discussions and offered practical insights for driving the circular economy forward.

The key action areas and recommendations are shared with line ministries such as MoEFCC, MoHUA, MoMSME, MIETY, CPCB and NITI Aayog. The forum serves as a bridge between the industry and the policymakers to enable a circular transition and build India as a powerhouse globally.

Welcome Address

Warmly welcoming all attendees to the second edition of India's Circular Economy Forum, ICEF 2023, Ms. Shalini Goyal Bhalla started the importance of mending the throwaway culture and becoming conscious consumers. She emphasized that the ICCE recognizes the necessity of such changes to make the circular economy a reality. With three years of successful operation, she expressed heartfelt gratitude to all those who had contributed to advancing the principles and practices of the circular economy. Through these collective efforts, a global community has been fostered, committed to sustainable and resource-efficient development.

Recognizing the undeniable threat of climate change globally, Ms. Shalini Goyal Bhalla stressed the need for immediate action to prevent catastrophic consequences. She believed that through education, innovation, and adherence to climate commitments, the necessary changes could be made to protect the planet. India, with its strength, resilience, and adapted policies, had integrated climate change initiatives, international policies, and strategies to address climate-related hazards and natural disasters. The council's accomplishments included the establishment of Circular Lab, which had become a catalyst for regional transformation.

The key recommendations and action plan from the previous year had highlighted two important gaps: knowledge and skill gaps needed for circular transformation, and the need for a platform that would represent India as a single voice promoting the Indian way of adapting the circular economy through specific actions dedicated to economic, social, and environmental sectors. Within one year, the council had successfully established the India Circular Economy Stakeholder Platform, a sector-agnostic platform that explored cross-sectoral opportunities to convert waste into wealth. The platform aimed to create a point of national convergence on initiatives, experiences, critical issues, perspectives, and expectations related to circular economy in India. A rich Secretariat had been established, consisting of founding members, industry, academia, and third-sector entities. Interested organizations could contact the team members for further details.

The global momentum for the circular economy is growing, and the ICCE is at the forefront of this transformation. She highlighted the recognition of the council as the leader in the global south, promoting south-south collaboration, innovation, and collaboration at the World Circular Economy Forum (WCEF2023) in Helsinki, Finland. The event was attended by 44 key global leaders who discussed the role of the global south in the global circular transition. With five government representations, the Council is leading the South-South cooperation. She emphasized that circular economy was the need of the hour and had been made a mandatory part of Indian urban development. She expressed enthusiasm for the present and unwavering optimism for the future.

Looking ahead, she urged everyone to seize the opportunities that lay before them. She pledged to continue advocating for supportive policies, collaborating with key stakeholders, and extending the reach to new regions and sectors.



Welcome Address



In his speech, Mr. Deepankar Sanwalka expressed his appreciation for the work being done by ICEF and his organization's pride in being associated with their initiative. He discussed the concept of "mottainai," a Japanese term that emphasizes not wasting anything without utilizing its full potential, which aligns with the principles of the circular economy. Reflecting on the Indian context, Mr. Sanwalka highlighted the concept of "Jugaad" as both a frequently abused term for taking shortcuts and an embodiment of innovation at a basic level. He explored the need for a mindset shift in India towards reusing and extending the life of resources due to historical experiences of scarcity. The transition from a throwaway culture to a circular economy model was emphasized as necessary, given limited resources and the aspiration to meet people's needs.

Addressing the environmental challenges, Mr. Sanwalka discussed the significant amount of waste generated in India, including plastic waste, and the negative consequences such as landfills. He stressed the need to work alongside the government to develop solutions and emphasized the profitability and long-term sustainability potential of circular economy practices. Highlighting the economic benefits, Mr. Sanwalka cited estimates from the Ellen MacArthur Foundation, suggesting that the circular economy could generate half a trillion dollars for India by 2050. He emphasized the indirect benefits, such as water table rise, and the potential for capturing and creating a business case around those benefits.

In terms of job creation, Mr. Sanwalka referred to the International Labour Organization's estimation of 18 million net new jobs resulting from the transition to a circular economy. He expressed his belief that India, as the fifth-largest economy, has the opportunity to lead this transition, driven by the need to meet economic and ecological goals. He also stressed the importance of creating awareness at the school level and incorporating circular economy concepts into textbooks to drive a fundamental shift in mindset.

He suggested exploring the role of technology and its enablement in the circular economy space. He encouraged research and development efforts to enhance resource efficiency, reduce waste generation, and create value from discarded resources. Collaboration between industry, academia, and the government was emphasized as crucial for knowledge exchange and fostering innovative solutions.

Mr. Deepankar Sanwalka
Senior Partner
Grant Thornton Bharat LLP

Opening Plenary

Anirban Ghosh, the Head of the Centre for Sustainability at Mahindra University, shared how the Earth Overshoot Day has been steadily moving closer to January 1st, emphasizing the need to address the transition to a throwaway culture. Reflecting on the reasons behind this culture shift, he prompted the audience to consider their use of traditional neem twigs for teeth cleaning, contrasting it with the prevalent use of non-biodegradable toothbrushes. He highlighted the challenges posed by a growing population seeking convenience, resulting in increased waste generation.



Mr. Ghosh outlined Mahindra Group's journey towards achieving a zero waste to landfill approach. Within the group, they coined the term "zero waste to landfill" and managed to certify three locations as diverting more than 99% of waste from landfills in less than a year. He mentioned repurposing metal waste from their "metal tailoring" business to create transformer cores, demonstrating how circular economy principles can generate new revenue streams. Another example involved converting food waste into compressed natural gas and utilizing the byproduct carbon dioxide to make aerated water at the Mahindra World City, Chennai.

Mr. Ghosh emphasized the potential for new businesses, employment opportunities, and technological advancements in the circular economy. He discussed the importance of revolutionizing material usage and processing methods, citing ongoing experiments to recover valuable metals from slag waste. He also mentioned the development of an auto recycling ecosystem to recover materials from abandoned vehicles, contributing to the circular economy.

Mr. Ghosh reminded the audience that nature itself operates in a circular manner and attributed waste generation to human actions. He encouraged individuals to make small contributions to transition away from a throwaway culture, starting with simple changes like switching from plastic toothbrushes to bamboo alternatives. He concluded by urging the audience to embrace sustainability and make it a personal commitment, acknowledging the presence of startups sharing innovative solutions during the conference. He emphasized that the transition to a circular economy will happen through small steps and shared Mahindra Group's "Make Sustainability Personal" program as an example.

Mr. Anirban Ghosh
Head, Centre for Sustainability,
Mahindra University

Opening Plenary



Mr. Naresh Tyagi expressed his privilege to be part of the two-day event. He acknowledged the need to understand the origins of the throwaway culture and accepted the responsibility of individuals for the shift towards irresponsible consumption. He highlighted the inefficiency in our system, whether in manufacturing or consumption, as the root cause of waste generation. He emphasized the growing importance of sustainability, circularity, and achieving the SDGs by practicing responsible consumption and production. He discussed the three pillars of circularity: waste reduction, behavioral change for reuse and recycling, and the use of renewable and sustainable resources in manufacturing.

He applauded the initiatives taken by the Indian government, including the Mission Life program, to address circularity, renewable energy, and achieving net-zero targets. However, he emphasized that citizens and consumers must play an active role in driving the transition to a circular system. He shared his organization's efforts in the textile and apparel retail sector, such as the "ReEarth for Our Tomorrow" program, which focused on resource efficiency and achieving zero waste to landfill. By implementing various strategies and reducing packaging waste, the organization successfully eliminated thousands of tons of waste from their system.

As a practitioner and citizen, he stressed the importance of responsible behavior and the need for a transition from a throwaway to a circular culture. He discussed ABFRL's targets and achievements in economic, ecological, and social aspects. He highlighted the certification of their facilities, such as the True Zero Waste Certificate with gold scoring for their garment industry facility. He further emphasized the significance of sustainability, inclusive growth, innovation, digitization, and collaboration in driving systemic change. He acknowledged the challenges in creating an industry ecosystem for circular economy practices but viewed it as a great opportunity for India. He commended ICCE for their leadership in creating awareness and expressed his satisfaction with their collaboration on the ACT project focused on circular textiles.

While concluding his address, Mr. Tyagi congratulated ICCE for their efforts in leading the way for the global South and emphasized the importance of collective action and collaboration to bring about systemic change.

Mr. Naresh Tyagi
Chief Sustainability Officer,
Aditya Birla Fashion and Retail Limited (ABFRL)

Opening Plenary

Expressing a sense of privilege to contribute to ICEF2023, Mr. Siira emphasized the urgency of addressing the current consumption patterns across developed as well as developing economies, a starting point for interventions around circular economy. He noted that the shift towards convenience has resulted in an unsustainable gap between consumption and the planet's regenerative capacity.

Further, Mr. Siira echoed Ms Bhalla's sentiments about the importance of the event's theme. He too recognized the gravity of the shift required in our consumption patterns, acknowledging the urgent need to bridge the gap between our current practices and the planet's regenerative capacity. He emphasized on Europe's commitment to research, innovation, and policy development. He highlighted European Union's Circular Economy Action Plan as a comprehensive strategy that intertwines economic growth with sustainability. Mr. Siira also stressed about how international policies on Extended Producer Responsibility (EPR) and ambitious recycling targets have prompted industries to adopt circular principles, globally.

Mr. Siira concluded by aligning with Mr. Tyagi's call for individual contributions and collective action. He emphasized that Europe's path towards a circular economy, like India's, hinges on a shift in mindset and behavior. This theme resonates across continents, emphasizing the global nature of the challenge and the need for united efforts. He highlighted the importance of collaboration between governments, businesses, academia, and civil society, mirroring the collaborative spirit of ICEF2023.

In closing, Mr. Siira's address inspired participants to draw lessons from experiences of the diverse set of stakeholder representation in the Forum, fostering new partnerships in the circular economy space. His words set the stage for further discussions on accelerating the journey towards a sustainable and circular future.

Mr. Kimmo Siira
Counselor – Trade and Investment,
Embassy of Finland



Plenary Address



Mr. Herlevi commenced the plenary session by outlining the reasons that necessitate our transition towards a circular economy. He laid emphasis on addressing global challenges such as climate change, resource scarcity and inequality by promoting circular practices. Mr. Herlevi also stressed on other socio-economic benefits of circular economy including but not limited to job creation, reduced reliance on exported raw materials, increased economic resilience, increased access to affordable products and services.

Mr. Herlevi underscored SITRA's commitment to circular economy both in Finland and internationally, and their contribution to promoting circular economy through research and advocacy. He referred to SITRA's work in the Finnish society to develop a national roadmap for a circular economy and publish a guidebook for other countries on how to prepare effective national sustainability roadmaps. Mr. Herlevi mentioned SITRA's role in establishing the World Circular Economy Forum (WCEF), which has become one of the most important multilateral collaborative platforms on circular economy that encourages dialogue between governments, corporations and civil societies.

He further elaborated on the work done in WCEF2022 that was held in Kigali, Rwanda, organized jointly by African Circular Economy Alliance (ACEA), the Republic of Rwanda, the African Circular Economy Network (ACEN) and SITRA. The forum discussed various challenges Africa faced such as resource scarcity, poverty and environmental degradation and focused on integrating traditional sustainable practices with innovative and disruptive solutions to ensure sustainable agriculture, improve soil health and create more resilient food system. WCEF 2023, held in Helsinki, Finland prioritized sharing solutions from across the globe and showing how a circular economy can help both nature and the economy. Various business and financial institutions emphasized the potential of a circular economy and discussed solutions to challenges stakeholders face in their bid to transition towards circular practices. Mr. Herlevi highlighted the role of a circular economy in addressing the increasing demand for metals and minerals as the world continues to be electrified.

Mr. Herlevi applauded ICCE for enabling South-South Cooperation at WCEF2023. "The cooperation would help fastening the global Circular transition. The cooperation should consider expanding to North-South collaboration as a next step" said, Mr. Herlevi.

Mr. Kari Herlevi,
Project Director, Circular Economy,
Finnish Innovation Fund, SITRA

Plenary Address

Mr. Koekkoek started his address by laying emphasis on the importance of transitioning towards a global circular economy, highlighting his understanding of the existing circular economy landscape in EU and India. He spoke about the role of EU-India cooperation to attain circular economy targets, and the role of monitoring policy implementation and assessing progress made on the EU India roadmap towards building a circular economy. He also appreciated and welcomed India's leadership to enable global collaboration for circular economy.

He stated that the resource extraction and processing of materials contribute to about half of greenhouse gas emissions, and more than 90% biodiversity loss and water stress. This scenario is further exacerbated by the prevalence of linear consumption models, accelerating the demand for raw materials in an unsustainable manner. Mr. Koekkoek, thus, argued that an alternative model of resource efficiency, integrating a circular economy approach, is imperative. Circular economy addresses the environmental degradation resulting from resource extraction by keeping resources within the production and consumption systems at their highest value and for as long as possible.

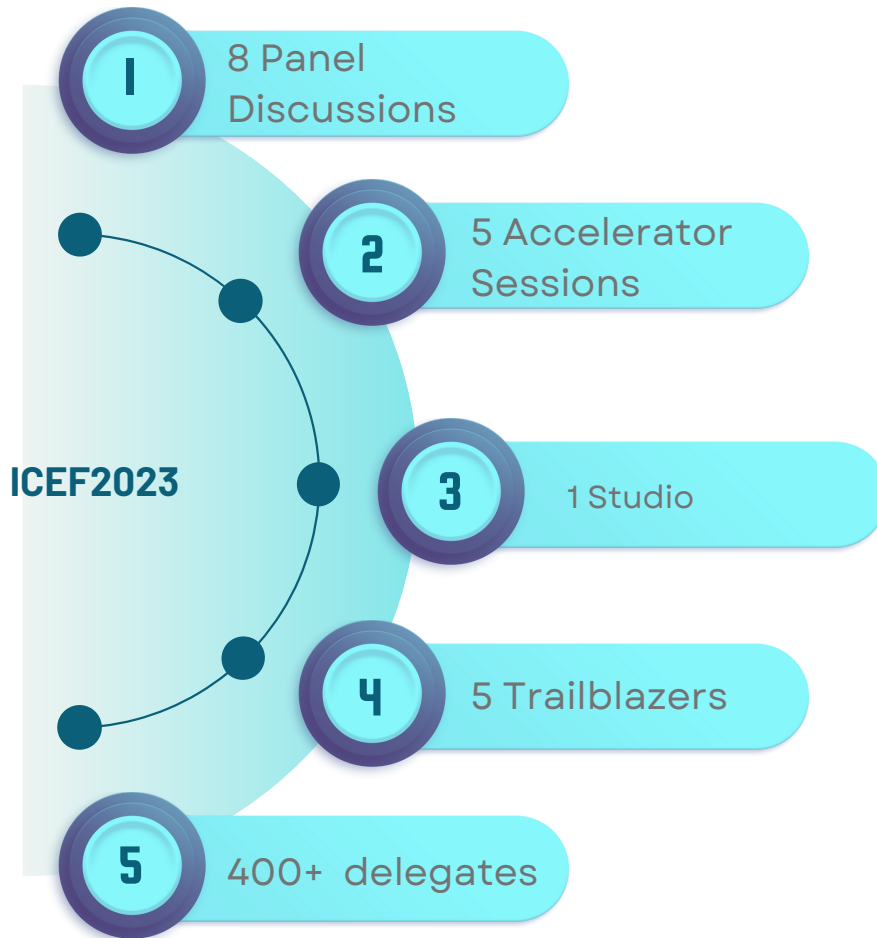
Mr. Koekkoek further spoke about circular economy as a concept gaining traction in both EU and India and strongly welcomed India's leadership in steering the circular economy transition nationally, regionally, and globally. He lauded the various policies and programs of the Government of India that showed its prioritization of the circular economy approach, focusing on sustainable consumption and production patterns, including the National Resource Efficiency Framework, the ban on single use plastics, and the launch of Mission LiFE and Swachh Bharat Mission 2.0. Simultaneously, he highlighted circular economy initiatives of the EU such as the European Green Deal and the Second Circular Economy Action Plan. However, Mr. Koekkoek acknowledged that a global transition towards circular economy cannot happen in isolation and that nation states need to collaborate. Referring to the recently established EU-India Trade and Technology Council and India's G20 presidency, he stated that the EU saw India as a prominent partner in this global transition and wished to increase engagement with India both at the bilateral and multilateral level.

Mr. Koekkoek shed light on the importance of assessing EU and India's collective progress towards targets for attaining the circular economy approach through diligent monitoring of implementation of policy and regulations. He gave a few examples, including tracking the transition of EU towards circular approaches through a defined M&E framework and the role of the Circular Economy Plan to strengthen the existing M&E systems. All key factors of the circular economy should be included in this monitoring system to fully capture progress and inform decision makers. Considering the market potential and the ever-increasing number of firms leveraging the idea of circular economy, Mr. Koekkoek ended his address by highlighting the need for new opportunities to collect and use data from new sources to assess, analyze and measure circularity of emerging business models.

Mr. Edwin Koekkoek,
First Counsellor, Energy and Climate Action,
European Union Delegation to India



Statistics



20% Female Speakers



Start-ups

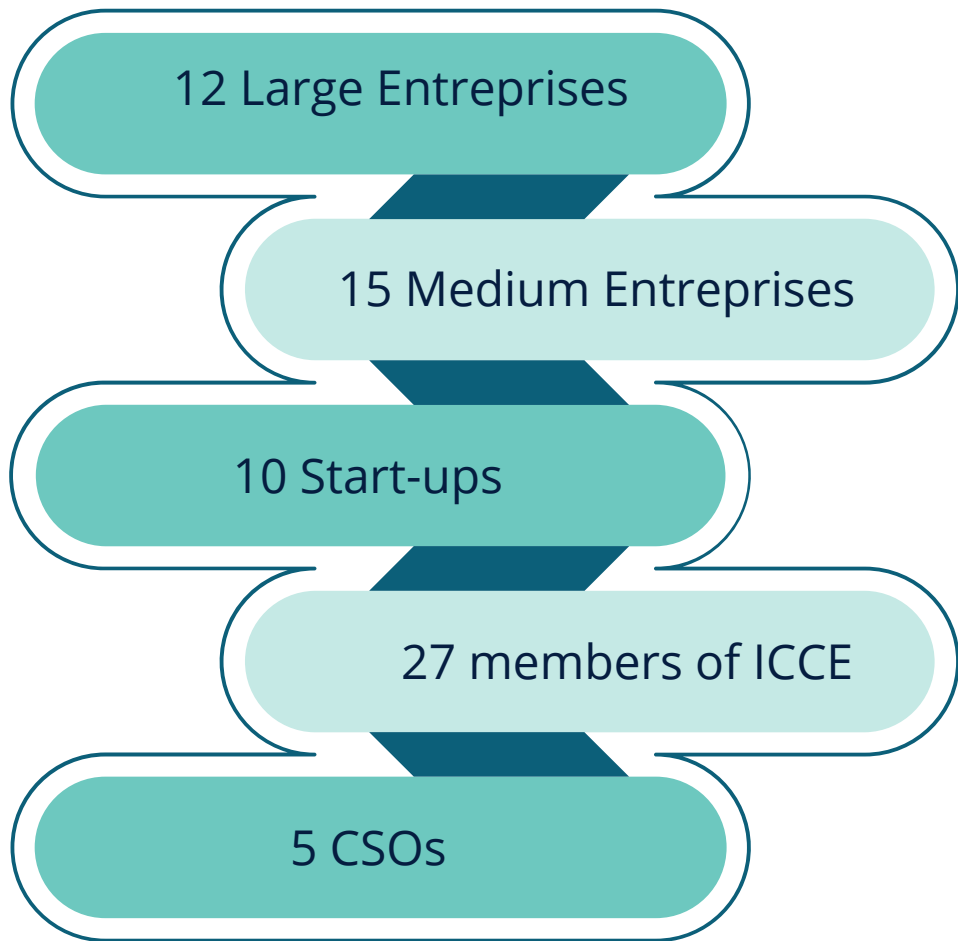


Government Representations



Embassies

Statistics



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International Entities

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International Speakers

Role of Segregation in Circular Economy

29th June'23



From Left to Right:

Mr. Sarvotham Pejavar, CEO, Zecomy

Ms. Ekta Narain, Co-Founder and CBO, Recykal

Mr. Pankaj Arora, Director, Grant Thornton Bharat LLP (Moderator)

Mr. Dhirajkumar Santdasani, Associate – Urbanisation, NITI Aayog

Key Takeaways

- Collection of waste through clean segregated channels is vital to ensure efficient recycling that promotes circular economy
- Reduce leakage of generated waste to landfills through waste segregation at source by adopting a phased approach; starting with source segregation of wet and dry waste to move towards more sophisticated segregation channels, which can be seen in Goa or Pune in India
- Strengthen waste segregation at source through policy enablement measures, including (a) capability (knowledge of primary segregation), (b) infrastructure (convenient and easy to segregate waste) and (c) motivation (consequences and benefits)
- Incentivize positive behavioral change towards sustainable waste management practices through social engineering
- Create awareness and enable innovation in the waste management landscape through collaboration of stakeholders
- Persuade all stakeholders to work in a collective manner towards strengthening of waste segregation systems

Key Recommendations

- Financial incentives or disincentives: Government agencies and regulatory bodies may implement provisions to incentivize people to adopt waste segregation and recycling measures. These incentives could include financial incentives or disincentives such as 'Pay as You Throw' policy proposed by NITI Aayog.
- Multi-stakeholder collaboration: Local government bodies may focus on effective implementation of SWM regulations by engaging with communities and collaborating with private sector organisations and CSOs, which have implementation and monitoring experience across the collection and segregation segment of the SWM value chain at the local level.
- Scaling up implementation of digital solutions: Many million plus population cities have adopted RFID based technology and GPS tracking to improve the efficiency of door-to-door waste collection. These technologies may be scaled up in cities in population category of 1-10 lakh as well as cities with population less than 1 lakh.
- Leadership Commitment: Leadership commitment from local elected representatives, such as Mayors, can significantly accelerate city-wide adoption of positive waste management practices. Regular door-to-door collection drives and consultation workshops with citizens and local influencers can foster cooperation between the citizens and local authorities in waste segregation efforts.
- Market linkages for secondary raw materials: It will be of utmost importance to encourage the adoption of business models that create market linkages for secondary raw materials, with focus on metal, paper and glass waste recovery from the municipal solid waste. This can incentivize waste generators to adopt segregation practices and contribute to the circular economy by promoting the use of recycled materials across various allied industries.

Assessing Circularity: Tools and Methods

29th June'23



From Left to Right:

Ms. Shruti Sharma, Professor, TERI SAS (Moderator)

Mr. Sundeep Singh, MD – Sustainability, Accenture

Ms. Sangeetha Raghuraman, Director, PWC

Mr. Ashok Menon, Director Sustainability, SABIC

Mr. Roy Vercoulen, Founder, Circular IQ, CTI Tool Developer (Virtually present)

Key Takeaways

- The importance of data-driven business cases: Well-articulated business cases supported by data regards material efficiency, circularity linked to climate change, and circular initiatives connected to social impact can benefit in securing funding and driving circular initiatives.
- Trade-offs and challenges: Several trade-offs such as short-term versus long-term gains, incentivization versus penalization, local suppliers versus global supply chains should be recognized to implement circular practices.
- Stakeholder alignment and value distribution: Fairly distributing the value realized from circular initiatives across stakeholders becomes crucial for successful implementation.
- Systems thinking and holistic approach: A shift in thinking about processes over products is essential to change the way we design industrial processes.

Key Recommendations

- Standardise Materials Accounting: Develop tools around circularity that include material accounting, calculating impact of materials through life-cycle assessment analysis and tracking their usage should be the foundation for identifying robust and implementable circular business models.
- Develop Robust Business Cases: Private sector innovators should be encouraged to demonstrate profitable, data-driven business cases to for circular initiatives. This would help secure funding and support by MSMEs for projects in the circular economy space.
- Integrate customized Circular Performance Targets into organisational planning framework: There is a need to encourage companies to customize circular performance targets (reduction of waste generation, proportion of usage of virgin materials, reuse and recycling targets etc.) and measurements metrics, based on their organizational context and goals. Key Performance Indicators (KPIs) may be identified across the closed loop value chains, contextualized to the supply chains of the respective organisations.
- Adopt Systems Thinking approach: Companies will need to consider the interconnectedness of their circular initiatives across the organisational supply chain and make informed decisions, to allocation and utilize funds in an efficient manner.
- Adopt Internationally Accepted Measurement Tools: It will important for organisations to adopt internationally accepted measurement tools like the Circular Transition Indicator (CTI) framework, developed by World Business Council for Sustainable Development. Adoption of these tools shall provide a consistent and transparent way to measure progress in the circular economy, set targets, and collaborate with suppliers.

Circular Business Models

29th June'23



From Left to Right:

Mr. Nishant Prakash, Managing Director, 2Impact, Netherlands

Mr. Rutger Bosch, Leader Circular Economy, SABIC

Ms. Sanchita Jindal, Former Adviser (Scientist G), MoEFCC, Government of India

Mr. Brajesh Kr. Dubey, Professor, IIT- Kharagpur (Moderator)

Mr. Rakesh Vazirani, Head of Sustainability, TÜV Rhineland Group

Mr. Kapil Gupta, Global Head Commodities, Wipro India

Key Takeaways

- India is well-positioned to take a lead in circular business models due to available resources and talented individuals. Collaboration and stakeholder engagement are crucial for achieving net-zero targets.
- Knowledge about circular business models among students is limited. Incubators can play an important role in developing closed-loop approaches.
- Gamification can be an effective approach to drive engagement and support for circular business models.
- Circular business models can bring economic benefits, such as cost savings and increased customer loyalty.
- Hospitals and healthcare facilities can reduce their carbon footprint through sustainable practices and circular approaches.
- Policy support and regulatory frameworks are needed to incentivize circular business models.
- Standards and education play a vital role in the implementation of circular business models.
- The focus of circular business models is to maximize resource efficiency and minimize waste, not achieve zero resource use.
- EU has introduced additional attributes to the energy label, such as battery life and repairability scope.

Key Recommendations

- **Establish Guidelines for Circular Business Models:** Develop guidelines to ensure consistency and clarity in evaluating Circularity, with focus on maximising resource efficiency, minimising waste, and optimizing value recovery from waste, will promote implementation.
- **Focus on Innovation and Research:** Identification and quantification of the value generated will help encourage innovation in developing new circular business models, especially for high-value equipment and critical minerals, covering metals and mining sector.
- **Promote awareness generation to invigorate demand for services:** Government bodies may focus on increasing knowledge and awareness levels about circular business models among students, professionals, and the citizens through new methods like gamification techniques.
- **Consider additional attributes in Product Labeling:** Government may explore introduction of additional attributes related to circularity in product labeling, such as repairability scope and durability of products (product life-cycle). This could promote demand among consumers.
- **Integrate Circularity in the Healthcare Sector:** There is a need to promote circular practices in sectors like healthcare to reduce their carbon footprint and enhance sustainability. Opportunities may be explored for hospitals and healthcare facilities to adopt circular approaches.

Building Regenerative Systems

29th June'23



From Left to Right:

Mr. Prabhjot Sodhi, Sr. Program Director, CEE (Moderator)

Mr. Harsh Mehrotra, Co-Founder and CEO, Blue Planet Skills

Mr. Sudhir Kumar, Former Advisor, NITI Aayog

Ms. Anjali Taneja, Sr Policy Specialist, CSTEP

Ms. Tejashree Joshi, Head – Environment, Sustainability, Godrej & Boyce

Mr. Steve Wong, CEO, Fukutomi

Key Takeaways

- The panel recognized the need to shift from an extractive to a regenerative economy as a priority for Indian economy to reach the 5T mark
- The importance of extended producer responsibility (EPR) and extended consumer responsibility (ECR) are important players in helping shape a regenerative economy
- The significance of system thinking and interconnectedness, and the challenges and solutions related to material collection, separation, and recycling was emphasized
- Additionally, the role of policy measures and standards in promoting circularity and the importance of collaboration among stakeholders were highlighted.

Key Recommendations

- Implementation and monitoring Extended Producer Responsibility (EPR) and Extended Consumer Responsibility (ECR): Government bodies need to adapt policies to encourage EPR and ECR measures to ensure that producers take responsibility for the entire lifecycle of their products, including proper waste collection, segregation and recycling techniques. Consumers may also be encouraged to be more conscious of their consumption and disposal practices.
- Enable Comprehensive Waste Collection and Segregation: There is a need to invest in building municipal capacities for waste collection, segregation, and proper disposal methods, which has been enabled by Swachh Bharat Mission (Urban). Further, targeted support is required for sustainable capacity building.
- Focus on Material Reuse, Recycling, and Upcycling: The policymakers may focus on promotion of reuse, recycling, and upcycling of materials to reduce waste and extend the life cycle of products. Policies that encourage organisations to adopt circular design and production practices can be instrumental in achieving the circular economy targets.
- Encourage Research and Innovation: There is a need to encourage research and innovation in circular technologies and practices. Investments in R&D can lead to the development of new solutions and technologies that support the circular economy, fostering the growth of start-up ecosystem as well.

Trailblazers: Industry Sessions

29th June'23



Key Industry approaches:

- Encourage Product-Centric Sustainability: There is a need to promote a product-centric approach to sustainability in the apparel industry, emphasizing the use of environmentally and socially responsible materials and designs that prioritize durability and longevity, increasing the overall product life-cycle.
- Implement Extended Producer Responsibility (EPR) and Circular Practices: Policy measures are required around integration of EPR mechanisms and circular practices in the apparel industry to reduce waste, promote circularity, and ensure proper waste management.
- Recognize and Certify Sustainable Initiatives: There is a need to develop certifications and rankings that recognize and incentivize sustainability efforts in the apparel industry, encouraging businesses to adopt more sustainable practices.
- Support Waste Utilization and Decarbonization: In the cement industry, policy measures may focus on the utilization of waste materials from other industries in cement production to reduce the industry's carbon footprint. Policies may support decarbonization strategies like thermal substitution and the use of alternative fuels.
- Invest in Renewable Energy and Water Sustainability: Taking the example of cement sector, policies may be formulated to support sustainable practices in water usage and investment in renewable energy in cement production to minimize environmental impact.
- Raise Awareness on Repairability: There is a need to promote awareness among consumers and repairmen about repairability concepts to encourage responsible consumption and reduce generation of electronic waste at source.
- Streamline Waste Collection Systems: Policies may focus on measures for streamlined waste collection systems, including support to the implementation of innovative initiatives such as repair cafes.

Circular practices within the apparel industry- ABFRL

Mr. Padmakar Pandey, Assistant Vice President of Sustainability showcased how ABFRL acknowledged the need for sustainability and began their sustainability journey in 2014. They focused on energy, carbon, waste, and water management, achieving significant milestones by 2020.

ABFRL adopted a product-centric approach to sustainability, prioritizing the use of environmentally and socially responsible materials like sustainable cotton and recycled fibers. They implemented initiatives to reduce waste, promote circularity, and practice responsible packaging. This involved garment take-back programs, collaborations with innovators to find alternatives to plastic packaging, and tracking waste management to achieve zero waste to landfill.

ABFRL showcased examples of sustainable product development, such as garments made from natural dyes and upcycled materials. They emphasized durability and longevity in product design to extend the lifespan of their products. Stakeholder engagement, safety measures, and corporate social responsibility initiatives, including education and community development, were also prioritized.

ABFRL's sustainability efforts were recognized through certifications and rankings, including being the first retail company in India to achieve an A-rating in the Dow Jones Sustainability Index. They collaborated with organizations like the Ellen MacArthur Foundation and worked towards creating a circular textile and apparel industry in India. Mr. Pandey acknowledged that sustainability is an ongoing process with evolving goals and challenges, emphasizing the need for continuous adaptation and improvement in sustainability practices within the apparel industry.

Mr. Padmakar Pandey, Assistant Vice President
Aditya Birla Fashion Retail Ltd.



Circularity in the Cement Industry – JSW Cement

Mr. Manoj K. Rustagi from JSW Cement highlighted the urgency of addressing environmental challenges and promoting circularity as a vital solution. He focused on the sustainability initiatives and achievements of JSW Cement, a part of the JSW Group. Rustagi highlighted their progress in reducing their carbon footprint and decarbonizing building materials. One key strategy involves utilizing waste materials from other industries as raw materials in cement production, such as blast furnace slag for GGBS (Ground Granulated Blast Furnace Slag), which has a lower carbon footprint. JSW Cement has successfully integrated waste materials, with approximately 67% of their input raw materials being waste from various industries. They also focus on thermal substitution, replacing coal with alternative fuels, and promote plastic waste management by utilizing recycled plastic. Additionally, they implement sustainable practices in water usage and invest in renewable energy.

JSW Cement's commitment to sustainability has earned them recognition, including the CIA ITC Sustainability Award for Corporate Excellence. They have undergone ESG ratings and achieved the top ranking globally for construction materials, demonstrating their leadership in sustainability within the industry.

Looking ahead, JSW Cement has ambitious expansion plans to meet the growing cement demand in India driven by infrastructure development and housing needs. They aim to establish a pan-India presence by initiating new projects in different regions of the country.

Mr. Manoj Kumar Rustagi,
Executive VP & Chief Sustainability and Innovation Officer
JSW Cement



Project Repair Cafes - Goa Institute of Management

Dr. Vishwesh Singbal, Assistant Professor at the Goa Institute of Management, shared the project outcomes of Repair Cafes in Goa. Dr. Singbal explained that Repair Cafes originated in the Netherlands, where volunteers from different domains gather periodically in public spaces to repair various items. The project aimed to promote responsible consumption and production aligned with the UN SDG 12. It specifically explored the feasibility of implementing Repair Cafes in Goa, considering previous attempts and the challenges faced.

Krithika Mahajan, a student at the Goa Institute of Management, presented a detailed report on the findings and analysis of the project. The report investigated consumer attitudes towards electronic device repairability and assessed the feasibility of establishing repair cafes in Goa. The research involved collecting data on repairs conducted in Goa, understanding e-waste management processes, identifying challenges faced by the unorganized repair sector, and creating awareness among consumers and repairmen about repairability and repair cafe concepts.

The research methodology included secondary and primary research, examining e-waste reduction efforts and conducting consumer surveys and interviews with repair shop owners. The findings indicated that consumers preferred seeking minor repairs at local shops due to cost considerations, but awareness of repairability did not significantly influence their purchasing decisions. Interviews with repair shop owners revealed varying receptiveness to repair cafes, with rural owners showing more interest. Insights from the state pollution control board highlighted the need for streamlined waste collection systems. In summary, establishing repair cafes in Goa requires collaborative efforts and further research involving stakeholders to overcome challenges and ensure successful implementation.

Mr. Vishwesh E. Singbal
Assistant Professor
Goa Institute of Management



Key Recommendations

- Launch awareness campaigns to educate citizens about the importance of repair cafes, their environmental benefits, and how they can contribute to reducing electronic waste.
- Provide financial incentives or grants for organizations or individuals who establish and operate repair cafes. These incentives can be in the form of tax breaks or subsidies to cover operational costs and training programs for repair experts.
- Promote consumer rights related to the right to repair, ensuring that consumers have access to repair information, spare parts, and affordable repair services for their electronic devices and appliances. The manufacturers must be discouraged from designing products that are difficult to repair.
- Establish vocational training programs to develop repair skills and expertise among youth and unemployed individuals, creating a skilled workforce to support repair cafes and repair services.
- Establish government-led repair centers to provide repair services for essential public infrastructure, such as electronics in schools, hospitals, and government offices. This can set an example for the public and private sectors.
- Encourage government agencies to procure products from manufacturers who support repairability and have initiatives to reduce electronic waste.

Beyond Compliance – Making Sustainability Strategic

Opening remarks for the accelerator session were given by Ms. Paulina Chromik, Second Secretary for Economic and Commercial Affairs in the Netherland Embassy. She emphasized on the importance of strategic partnerships between nation states and collaboration between corporate and government institutions to strengthen our efforts to transition towards a circularity. She highlighted the efforts made by collaborations between India and the Netherlands through a broad range of water related projects under the “Strategic Water Partnership” signed in 2021. The session was hosted by Mr. Nishant Parekh, Managing Director at 2Impact, a sustainable management consulting firm based in Netherland that helps companies develop sustainable strategies, plan and track implementation, address plans according to current regulations to works towards the ESG goals. Mr. Parekh addressed pressing global issues that threaten sustainable human and environmental development such as climate change, biodiversity loss, energy and water crisis, and increasing pollution levels, and ways in which businesses can be empowered to be a part of the solution. He also underscored two important aspects of transitioning towards a circular economy, (a) the need for consistent regulations surrounding the circular economy approach at both national and global level.

He gave examples of regulations in the European Union (EU) such as the Corporate Sustainable Due Diligence Directive (CSDDD) that requires companies to identify and prevent, end or mitigate any actual or potential adverse impacts of their own activities or that of their suppliers, on human rights and the environment. This encourages sustainable production not only in the home country but only also throughout the supply chain. And (b) the need for organized and reliable sustainability data collection and reporting of quantifiable indicators such as carbon footprint data. He finally provided three case studies of companies taking sustainable initiatives towards circularity and invited industry changemakers on stage to share their journey towards decarbonization, circularity, and addressing human rights.

Mr. Nishant Parekh, Managing Director
2Impact, Netherlands



Key Recommendations

- **Consistent Regulations for Circular Economy:** There is a need for consistent regulations and guidelines surrounding the circular economy approach at both national and global levels. The European Union's Corporate Sustainable Due Diligence Directive (CSDDD) can be cited as an example of effective regulations that promote sustainable production throughout supply chains.
- **Organized Sustainability Data Collection and Reporting:** Policy measures may promote frameworks for organized and reliable sustainability data collection and reporting, particularly quantifiable indicators such as carbon footprint data. Such frameworks will help businesses measure their environmental impact and progress towards sustainability goals.
- **Recognition and Support for Non-Financial Attributes:** Policies may encourage recognition and valuation of non-financial attributes, such as workplace ethics and environmental commitments, as a par of business valuations.
- **Responsible Sourcing and Collaboration across Supply Chains:** Policy tools may be formulated for encouraging businesses to adopt responsible sourcing practices and collaborate with stakeholders across the supply chain to fund and implement new innovations that minimize carbon footprint and promote sustainability.
- **Disclosure of Corporate Non-Financial Information:** Policies may stress the importance of corporate disclosure of non-financial information and sustainability data. This may enable better management of sustainability efforts and supports decision-making towards more sustainable practices.

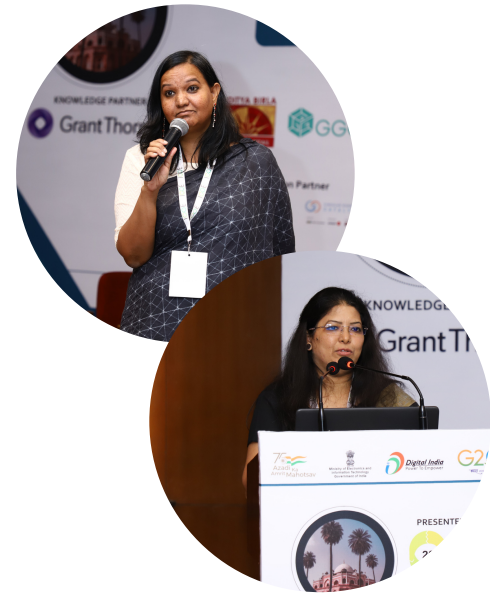
Circular System Design

29th June'23

Ms. Gautam began the session by building a clear understanding of circular systems, which are group of distinct interrelated processes which work collectively to produce a desired output. From an economic perspective, these processes include production of goods, transportation of said goods to respective markets, their consumption and eventual disposal. The interconnectedness of these processes results in unintended consequences in the quest to solve a singular problem; for example, toxins from overfilling landfills and polluting groundwater have been an unintended consequence of our solutions aimed to address the waste disposal challenge. She shared her insights about how this was a result of poor system design where instead of solving the problem, the focus was on addressing the symptoms. This situation is further complicated by a VUCA environment (Volatile, Uncertain, Complex, and Ambiguous). While innovations in technology, communication, and transportation as well as inter-dependent supply chains have helped improve our living standards and inter-connectedness, it has also increased the extent of challenges surrounding the VUCA world.

She emphasized on three main factors, while designing circular systems (a) product (b) planet, and (c) people or alternatively (a) industry (b) ecology, and (c) society. She also engaged the session participants through activities around the concept of life cycle thinking, covering material extraction, manufacturing, packaging, and transportation, as well as the use and all the end-of-life impacts of a product, process, or material. She ended her session by sharing examples of such innovations in startups like Repeat in Amsterdam, Safi Organics in Kenya, and Everdrop in Germany.

Ms. Mamta Gautam, Associate Senior Designer and Faculty, National Institute of Design
Ms. Shalini Goyal Bhalla, Managing Director, ICCE



Key Recommendations

- Incentivizing of models that promote reuse, repair, refurbish and remanufacturing should be promoted
- Bring in standards to improve the quality to meet the international standards and to promote exports of Indian goods and services
- Policy focus should shift from end-of-life usage to reducing the waste starting from the design phase
- Introduce/Develop circular metrics for industry in India to promote the reporting and limit greenwashing practices within the industry
- Use digitization to promote subscription-based model to promote services instead of products
- Make repairing booklet an integral part of each product to enable consumer to repair high-value products
- Promote modularity in designing of products to encourage easy of

Welcome Address

Dr. Abhinav Akhilesh addressed the audience by welcoming them. He started his address by shedding light on a very important issue for India's forum, i.e., implementing sustainable and circular economy models. India's role as a fast-growing economy and one of the few countries meeting their nationally determined contributions was emphasized. He stated that implementing circular economy practices have the potential to create 20 million additive GDP over the next three years. The adoption of circular economy principles can benefit sectors such as agriculture, by enabling organic farming, precision irrigation, and crop residue management, leading to reduced chemical inputs, water conservation, and food security. Embracing the circular economy allows usage of resources more efficiently. He elaborated on how the concept of circular economy is expanding beyond plastics to include textiles, metals, and mining, with efforts to make the coal industry carbon neutral by 2047. The collective willpower and determination of individuals and organizations involved in the forum is seen as positive.



Dr. Abhinav Akhilesh
Partner
Grant Thornton Bharat LLP



Mr. Pooran Chandra Pandey
Advisor
ICCE

Mr. Pooran Chandra Pandey started his address by explaining the importance of history and stated that learning from past mistakes is crucial for finding solutions to present concerns. History is regarded as a discipline that helps us comprehend the paths taken by people before us. According to him, the issues of today have their roots in the past, and by delving into history, it is possible to identify what went wrong and devise remedies. Setting aspirations and striving to fulfill them is a key aspect of progress. Neglecting the human environment will lead to its deterioration over time, and each country possesses unique characteristics and distinctions. He explained that climate change, circular economy, and sustainability are thoroughly interconnected. He put pressure on finding effective ways to engage and motivate the youth to contribute on the sustainable and economic growth. He argued the necessity of international cooperation at the time failure of treaties and spoke about the crucial step of involving people in policymaking. Mr. Pandey concluded by emphasizing the importance of collaboration and partnerships with like-minded individuals and organizations collective progress.

Opening Plenary



Mr. Freddy Svane
Ambassador
Royal Danish Embassy

Mr. Freddy Svane ended the plenary session by giving his speech. He emphasized the importance of individual responsibility in addressing environmental challenges. He mentioned some of his and family's own efforts to reduce their ecological footprint and how others were skeptical of their ability to live sustainably. He also highlighted the need for common objectives and targets in addressing global issues like climate change but acknowledged that different countries may need to take different approaches based on their circumstances. Mr. Svane mentioned Denmark's stance on not expecting developing countries to immediately stop using coal, but rather advocating for a more sustainable and circular economy approach. He expressed his belief that individual responsibility is crucial in achieving a greener and more sustainable world, and that it is not enough to rely solely on government or private sector actions. Finally, he concluded by briefly explaining about a "green strategic partnership" which focuses on sustainable consumption and waste reduction.

Mr. Chatterjee emphasized the need for innovative solutions and changes to address this issue. He highlighted the role of technological design in developing a more sustainable economy, specifically focusing on smartphones and gadgets. With the complexity of these devices, composed of over 69 elements from the periodic table and over 10 rare Earth elements, he emphasized the need to find alternatives to materials that will be depleted within the next 20 years. He stressed the importance of taking immediate action, particularly regarding the production of sustainable products, including green screening, resource efficiency, standardization, right to repair for longer product life, and skill development for the informal sectors to be included in the circular economy. He shared that their ministry has been actively working on developing low-cost technology and missions to address challenges associated with expensive solutions from developed countries. They have developed technologies for printed circuit boards, catering to both low-grade and high-grade boards since 2007, and have shared these technologies with multiple companies in the industry. They have also developed technology for plastics, enabling the production of value-added products like masterbatch for car bumpers.



Mr. Sandip Chatterjee
Scientist G,
MEITY
Government of India

Special Address



Mr. Tiwari stated the significance of the circular economy at both national and global levels. He emphasized the low global recycling rate and the challenges posed by population growth, increasing consumption demands, and rising greenhouse gas emissions. He highlighted India's position as the third-largest emitter of greenhouse gases and the potential future scarcity of resources necessary for development and improving quality of life in the country. These factors contribute to the strain on resources and the environment, necessitating immediate action. He noted the significant growth in resource consumption in India over the past decade, aligning with the country's ambition to become a \$5 trillion economy, and emphasized the urgent need for a shift towards a circular economy to address these challenges.

Furthermore, Mr. Tiwari stressed the importance of formulating effective policies that can be implemented on the ground. He discussed the challenges faced in meeting solid waste management timelines and achieving 100% solid waste management in India, citing litigations faced by states due to non-compliance. He emphasized the need for comprehensive policy interventions that address the entire ecosystem rather than specific challenges. He also highlighted the importance of technology, stakeholder engagement, and awareness in waste management initiatives, citing various instances to support the need for this paradigm shift. He emphasized the importance of investment in infrastructure development and the creation of demand for recycled materials through policy interventions and green procurement policies. He acknowledged the progress being made at the ground level, citing the example of funding and utilization plans in Uttar Pradesh. He emphasized the need for behavioral change and campaigns to promote waste segregation and expressed optimism about collaboration and convergence of strategies towards the common goal of a circular economy.

Mr. Ashish Tiwari
Secretary,
DoEFCC,
Government of U.P.

Mission LiFE and Circular Economy

30th June'23



From Left to Right:

Ms. Vijaylaxmi Patil, Program Manager – Impact, Orbit, NSRCEL

Mr. Ashish Tiwari, Secretary, DoEFCC, Government of Uttar Pradesh

Mr. Sudhir Kumar, Former Advisor- NITI Aayog

Mr. Ramendra Verma, Partner and National Sector Leader for Government, Grant Thornton Bharat LLP

Mr. Keshav Singhal, VP Sustainability (ESG), Capri Global – (Moderator)

Key Takeaways

- Startups play a vital role in disrupting unsustainable markets and transitioning towards a circular economy.
- Consumers hold significant power as they control demand, influencing corporate responses and government priorities.
- Governments have the capacity to lead change through various initiatives that inspire both consumers and corporations.
- Collaboration between the government and civil societies is crucial in developing realistic climate change action plans.
- Waste segregation at the source is essential to unlock its economic potential and environmental benefits, ultimately transforming waste into wealth.
- Fostering a mindset of environmental stewardship is key to building a more sustainable future.

Key Recommendations

- **Strengthen Policy Implementation:** Focus on effective policy implementation through clear timelines and adequate resources to ensure that regulations are effectively enforced.
- **End-to-end Value Chain approach:** Sustainability challenges should be addressed comprehensively from production to disposal. This may require rehabilitation or reskilling of some units.
- **Support Startups and Innovation:** Startups and innovations that disrupt unsustainable markets and contribute to the transition towards a circular economy should be supported and incentivized.
- **Emphasize Experiential Learning and Capacity Building:** Experiential learning and capacity building initiatives, such as Mission Karmyogi, should be used to enhance knowledge and skills related to sustainability and circular economy principles.
- **Foster Environmental Stewardship:** Foster a mindset of environmental stewardship among individuals, businesses, and communities. This can lead to a greater sense of responsibility towards the environment and contribute to building a more sustainable future.

Partnership for a Global Circular Economy

30th June'23



From Left to Right:

Mr. Anuj Duggal, Head - Sustainability , ESG, NASSCOM

Mr. Pooran Chandra Pandey, Advisor, ICCE

Dr. Abhinav Akhilesh, Partner, Grant Thornton Bharat LLP

Mr. Suneel Pandey, Senior Fellow and Director, Environment & Waste Management Division, TERI

Mr. Rahul Kapoor, Joint Secretary (NULM & PM SVANidhi), MoHUA

Dr. Swati Lodha, Director, MET Institute of Management, Mumbai (Moderator)

Key Takeaways

- Create awareness among the children about the importance of a sustainable lifestyle and climate change
- Promote inclusive thinking among all the policy makers and investors to come up with proactive approaches to overcome challenges
- Persuade consumers, society, and educational institutes to assume responsibility
- Establish linkages between the livelihoods of people and the concept of circular economy
- Collaborate the different sectors to pool the resources

Key Recommendations

- **Promote Awareness Among Children:** Focus on creating awareness among children about the importance of adopting a sustainable lifestyle and addressing climate change. Education and awareness programs can instill a sense of responsibility and environmental stewardship from a young age.
- **Encourage Responsibility Among Consumers, Society, and Educational Institutes:** Explore focus on consumers, civil society, and educational institutions to assume responsibility for adoption of sustainable practices. Active engagement from these stakeholders is crucial for the success of circular economy initiatives.
- **Establish Linkages Between Livelihoods and Circular Economy:** Promoting circular practices can lead to economic opportunities and sustainable livelihoods for communities.
- **Convergence across sectors:** Convergence across different sectors to pool resources and expertise. The quadruple helix approach, involving the government, industry, civil society, and educational institutions, can facilitate effective collaboration for circular economy initiatives.
- **Prioritize Metrics and Measurements:** Data-driven decision-making and attention to both intuition and data can lead to successful and impactful circular economy projects.

Catalyzing Finance for Enabling Circularity

30th June'23



From Left to Right:

Mr. Prabhjot Sodhi, CEE

Ms. Mehar Kaur, Junior Environmental Policy , Resource Efficiency Advisor, GIZ India

Mr. Venkat Bhargava Sreedhara, Financial Sector Specialist , World Bank

Mr. Ajeya Bandopadhyay, South-Asia Lead, IFC (World Bank Group)

Mr. Rishi Shah, Partner, Grant Thornton Bharat LLP (Moderator)

Key Takeaways

- Institutionalize thinking to redefine priorities in favour of circularity and create an enabling environment for start-ups developing sustainable solutions
- Increase recycling rates across the country to increase scale of operation and bankability of circular start-ups that utilize recycled waste as raw materials
- Enable investor confidence in the circular economy markets through well-defined sustainability standards and quality certification systems
- Raise awareness within start-ups about the benefits of leveraging blended finance and reaching out to impact investors to ensure smooth flow of finance to enable circularity
- Encourage policy support in creating necessary market infrastructure and adequate incentives to ensure smooth flow of finance through financial instruments like green bonds or sustainability linked loans

Key Recommendations

- Enabling start-ups for circularity: Create encouraging innovative financing mechanisms to mobilize the private sector to invest in circular start-ups can increase the flow of finance towards circular economy goals.
- Enable Investor Confidence: Implement well-defined sustainability standards and quality certification systems to enhance investor confidence in circular economy markets. Initiatives like green bonds and sustainability linked loans can also incentivize investment in circular projects.
- Promote Blended Finance: Promote blended finance, combining concessional finance with private capital, to mobilize greater funding for circular initiatives. This can enable multiplier effect on existing investments.
- Enable Market linkages: Create necessary market infrastructure and incentives to ensure the sustainability of financing for businesses by creating a long-term pool of funds, with focus on operations and maintenance of infrastructure.
- Monitor Circular Economy Progress: Establishing a national-level taxonomy and precise framework to measure circular economy progress would help efficient monitoring and evaluation of business performance are crucial for building investor confidence.

Designing Out Waste in a Circular Economy

30th June'23



From Left to Right:

Mr. Anurag Asati, Co-Founder, The Kabadiwala (Moderator)

Mr. Manoj Kumar Rustagi, Chief Sustainability and Innovation Officer, JSW Cement

Ms. Dipshikha Banerjee, Head of Technology, Siegwerk

Mr. Akhilesh Mohan, Assistant GM, Recity Network

Key Takeaways

- Promote sustainable business models to ensure circular economic approach is followed
- Collaborate industry players, government agencies, and research institutions for achieving sustainability goals in the cement and other sectors
- Emphasize the need for a circular business model that extracts value from unusable recyclable waste
- Incentivize positive behavioral change towards sustainable waste management practices through social innovations

Key Recommendations

- **Incentivize Circular Business Models:** Create incentives for businesses to adopt circular business models by providing financial support or tax benefits to encourage more companies to focus on waste management and sustainable practices.
- **Support Technological Advancements:** Invest in research and development to support technological advancements, especially in recycling and waste management to help address challenges in recycling certain materials and contribute to a circular business model.
- **Implement Social Innovations:** Promote social innovations that incentivize positive behavioral change towards sustainable waste management practices. For example, creating awareness campaigns and offering rewards for recycling efforts can encourage individuals and businesses to participate in sustainable practices.
- **Optimize Supply Chain:** Emphasize the importance of supply chain optimization in achieving sustainability goals. Efficiencies in the supply chain can lead to reduced waste, resource conservation, and overall sustainability improvements.

Climate Mitigation Potential Using BioCNG in India

The Accelerator Session by the Global Green Growth Institute which is an international organization that promotes sustainable and inclusive economic growth, known as green growth, in developing and emerging countries.

Mr. Jeevesh began his keynote address by emphasizing the recalibration of relations between human beings and nature throughout human civilization. He provided an example of how power and transportation have become essential parts of our lives, but their conveniences have had adverse effects on nature. He discussed the search for new energy sources for electricity and transportation, including solar, wind, hydrogen, and zero-emission sources. He highlighted the need for ambitious targets in the circular economy and the importance of oil, gas, petroleum, and marketing companies in achieving this mission, emphasizing that government subsidies alone are not enough. The private sector and the demand from the people are also crucial, and scaling up efforts will lead to cost reduction. He mentioned the importance of collaboration among stakeholders and the need to address challenges in waste collection, segregation, and conversion into wealth. In conclusion, he expressed optimism about the transformations that will take place and the ideas that will emerge from discussions at ICEF 2023.

Ms. Neha Mudaliar began her address by discussing the traditional approach of judging an economy and a country based solely on production and GDP growth, highlighting the need to consider the quality of life for people. She shared her involvement in the sustainability space for over a decade and emphasized the challenges faced by circular economy enterprises compared to traditional businesses due to the lack of institutional ecosystems and policies that incentivize circularity. She stressed the urgency of changing this situation as time is running out for the environment, land, freshwater resources, and oceans. She presented a compelling picture depicting the impact of climate change on both fellow citizens and living organisms. She also mentioned a recent study by the Ellen MacArthur Foundation, which shows that becoming a more circular economy can cover 45% of our emissions, decoupling from the consumption of finite resources. GGGI is working on a waste to energy project where they are also selling the carbon credit for it.



Speakers-

- Ms. Rushalee Gupta, Consultant, GGGI
- Mr. Jiwesh Nandan, IAS, Senior Advisor GGGI & NPC
- Ms. Neha Mudaliar, Country Representative India, GGGI
- Dr. D. K. Khare, Senior GGGI Advisor, Ex-MNRE
- Mr. Anshu Yadav, BioEnergy Officer, GGGI

Key Recommendations

- **Policy Incentives for Circular Economy Enterprises:** Provide institutional ecosystems and policy incentives that support circular economy enterprises. This can help level the playing field between traditional businesses and circular economy enterprises, encouraging more companies to adopt circular practices.
- **Scaling Up Efforts and Cost Reduction:** Emphasize scaling up efforts in adopting circular business models. Increased demand from the private sector and people can lead to cost reduction and wider adoption of circular practices at scale.
- **Green Hydrogen and Net Zero Targets:** Policymakers may explore and support innovative programs, such as green hydrogen production, and work with states or regions that aim to achieve net-zero emissions targets. These initiatives can contribute to reducing carbon emissions and environmental impact.
- **Technical Assistance and Support:** Policymakers can enable provision of technical assistance and support to circular economy projects and initiatives. This support can help overcome challenges associated with converting organic residues into valuable products and facilitate the development of viable business models.

Promoting Innovative Entrepreneurial Approaches for Circularity in the Textile Ecosystem in India

The accelerator session focussed on sharing perspectives and knowledge from the industry, innovators, decision makers, academia and civil society on the scope and challenges facing integration of circularity in the textile sector. GIZ with its partners discussed innovation, business practices and models, collective industry agenda and requisite policy support. The session also included the release of a baseline assessment report for the joint project 'Approaches for Circular Textile and Apparel Industry in India' between GIZ India and ABFRL. The project conducted a nation-wide Innovation Challenge to scout for ideas promoting circularity in the sector. Some promising innovation identified through this initiative were also showcased at the session.

The event commenced with a speech delivered by Ms. Prajakta Verma, JS, Ministry of Textiles. She shared the potential for collaboration and innovation. She facilitated introductions between upcyclers and ministry representatives, sparking discussions about establishing a platform that would bring together various initiatives. Recognizing the strength of alliances, the aim was to harness this collective power. Additionally, courses on sustainable textiles were introduced to meet the growing demand in this field, recognizing the need for a workforce well-versed in sustainable practices. Furthermore, the concept of Extended Producer Responsibility (EPR) was introduced, underscoring the significance of contributions from all ministries and the necessity for policy changes.



Speakers:

Ms. Prajakta Verma, Joint Secretary , Ministry of Textiles
Mr. Naresh Tyagi, Chief Sustainability Officer, ABFRL
Mr. Mohammed El-Khawad, Cluster Coordinator , GIZ

Panelists:

Mr. Gigi Mathews, India Country Director , Enviu
Mr. Shreyans Kokra, Founder, Canvaloop
Mr. E. Sakthi Vel, MD, Punarbhavaa Sustainable Products
Ms. Anita Patil, Core Team Member, Goonj

Key Recommendations

- **Establishing an Industry Ecosystem:** Create an industry ecosystem that encourages circular practices and sustainable resource management.
- **Grassroots Level Solutions:** Practical solutions and initiatives should be implemented at the grassroots level by engaging with local communities, workers, and women to promote circularity and sustainable practices.
- **Collaboration and Partnerships:** Collaboration among various stakeholders, including government organizations, private sector companies, startups, social impact ventures, and NGOs, is essential to bring together expertise, resources, and innovation.
- **Adopt Sustainable Packaging Practices:** Promote sustainable packaging practices that consider the entire product life cycle.
- **Repurposing Agricultural Waste:** Initiatives that focus on repurposing agricultural waste into circular materials, can be encouraged and supported by incentivizing them.
- **Centralized Waste Processing Units:** The establishment of centralized waste processing units for sorting as demonstrated by Goonj, can be encouraged to sort, process, and transform waste into usable products.
- **Transparency and Traceability:** Emphasize transparency and traceability in waste management initiatives. Collaborations with brands, manufacturers, and solution providers can prioritize waste hierarchy, including upcycling, recycling, and proper disposal.
- **Empowering Women and Underprivileged Communities:** Efforts like the all-women team at the sorting centers showcase the importance of empowering women and underprivileged communities in waste management and circular economy initiatives. Policymakers can promote inclusive policies that empower marginalized groups to participate in sustainability efforts.
- **HSN code for recycled textiles:** The recycling industries convert spinning waste and garment cut waste into recycled fabric. Products made from recycled textiles, such are in demand in the Western countries and sell at a premium. But currently there is no HSN code present for the recycled textile articles. A separate HSN code would help to ensure that recycled textiles are taxed appropriately and that the recycling industry is able to compete fairly with other industries.

Life Cycle Assessment

A wholistic approach is needed while evaluating the environmental performance of any product, service supply chain configurations, systems. Life Cycle Assessment (LCA) is a tool which helps us achieve the same. As it is being discussed in recent times, by combining principles of the circular economy with LCA methodologies, product developers can measure the environmental performance of various product and supply chain configurations, compare circular strategies and ensure a positive environmental balance from the design of new circular products or services. Since it is still uncertain what the best strategy is for recycling, reuse, and other end-of-life recovery options, LCA is a great tool to evaluate options and quantify results. In addition, it can help define targets and indicators to measure and foster circularity over time.

This accelerator session introduced the concept of LCA, highlighted how LCA is a critical component in achieving circularity in real practice sense and the benefits of combining principles of the circular economy with LCA methodologies in achieving the overall goal of circularity in true sense.



Key Recommendations

- **Life Cycle Assessment and Life Cycle Costing:** Promote the use of Life Cycle Assessment (LCA) and Life Cycle Costing (LCC) to evaluate the environmental and economic impacts of products and processes. This can help in making informed decisions that prioritize sustainability and reduce the environmental footprint.
- **Balancing Economic Growth and Consumption:** Focus on a balanced approach that promotes economic growth while reducing excessive consumption. This may involve exploring strategies that optimize resources, promote sustainable practices, and create green job opportunities.
- **Transitioning to a Circular Economy:** Encouraging the transition from a linear economy to a circular economy is essential. This may involve designing products and business models that minimize waste, maximize resource efficiency, and prioritize sustainability throughout the entire product life cycle.
- **Implementing Holistic Waste Management:** Policies may lay emphasis on holistic waste management approaches that address various waste streams, such as wastewater, solid waste, and stormwater. Learning from successful models like Singapore's approach can help in creating effective waste management policies and systems.
- **Data Collection and Accuracy:** To conduct meaningful Life Cycle Assessments and make informed decisions, policymakers may focus on reforms to drive the collection of accurate and relevant data. This may involve investing in data collection infrastructure and promoting transparency in data reporting.
- **Comprehensive Analysis of Environmental Impact:** There is a need to encourage a comprehensive analysis of the environmental impact of various activities, including the assessment of emission gases like CO₂ and impact categories such as water depletion, acidification, oxidation, etc. This can guide policy decisions that prioritize environmental protection and improvement.

Circular Labs

Dr. Swati Lodha spoke about MET, an educational trust aimed at providing educational resources to rural and remote areas through e-empowered learning processes, extensive internship with the industry, case studies, scenario building, terrain appreciation, strategic response building exercises and experiential learning. MET consciously attempting to bridge the gap between knowledge and skills. She shared how the Circular Lab that has been established in collaboration with ICCE at Institute of Management, MET has enabled a culture of research and innovation in their college. She pointed out following as the barriers to Circular Economy:

- Lack of experiential learning in integrating industry case studies and application of Circular Economy principles for addressing real life challenges
- Lack of participatory and case study based approaches in academic curriculum
- Lack of awareness about CE based business models and available support by the government and private sector for developing newer models, particularly in the hinterlands



Key Recommendations

- Training the trainers program for innovation centers to propagate Circular models through best global best practices
- Case study based teaching pedagogy will be participatory and discussion oriented and will be able to encourage and enable behavioural change
- Incubation support for fostering development of business models structured around frugal innovation
- Industry-academia partnerships that help build case studies supporting transition to circularity
- Creating awareness about Circular business models including those around newer ideas of product life extension, product as a service



Vehicle Scrap Management

Mr. Rajesh provided an overview of CERO, which stands for Zero Pollution, Zero Wastage, and Zero Import of Metal Scraps. CERO represents India's pioneering effort in organized automobile recycling, focusing on minimizing the environmental impact through eco-friendly practices for recycling scrap vehicles. He emphasized the significance of vehicle recycling in India, particularly due to the increasing presence of ferrous scrap.

Key Recommendations

- Supporting Organized Automobile Recycling: Support and promote initiatives which focus on organized automobile recycling to minimize environmental impact and promote eco-friendly practices.
- Encouraging Zero Pollution and Zero Waste: Emphasize the importance of zero pollution and zero waste goals in various industries and sectors. This may involve setting targets, providing incentives, and implementing regulations to promote sustainable practices and reduce the environmental footprint.
- Monitoring and Evaluation: Regular monitoring and evaluation of circular economy initiatives and educational programs can be crucial to assess their effectiveness and make necessary improvements. Policymakers should establish mechanisms to track progress and measure the impact of circular economy policies and educational interventions.

ACE - Awards in Circular Economy

30th June'23

Mr. Gargava extended his heartfelt gratitude to the gathered participants for their presence on this significant occasion, as they collectively acknowledged and celebrated remarkable achievements in the space of circular and sustainable practices. Mr. Gargava noted with appreciation the dedication and commitment demonstrated by individuals, businesses, and organizations in embracing this ideology and translating it into tangible realities.

The ACE awards held a distinct place within the framework of ICEF2023, serving not only as a platform for recognizing excellence but also as a wellspring of inspiration and a driver of change. As the high-performing individuals and entities were felicitated, the ceremony was a tribute not only to their accomplishments but also to the spirit of innovation, responsibility, and resilience that the awardees personified. These ACE awards, as Mr. Gargava emphasized, went beyond boundaries, acknowledging not just outstanding business practices but also highlighting those who harnessed their entrepreneurial spirit to address critical social and environmental issues. This harmonious fusion of purpose and profit, he contended, was a true reflection of circular economy principles where economic advancement aligns seamlessly with environmental stewardship and societal well-being.

In the backdrop of ICEF2023, a profound sharing of knowledge and experiences unfolded, and collaborations were kindled. The awards ceremony stood as a living testimony to the strength of collective action and the potential unleashed by partnerships, both within industries and across sectors. It was these collaborative endeavors that were pivotal in stimulating innovation, ensuring scalability, and fostering enduring impact. Mr. Gargava, while congratulating the awardees, viewed the occasion not merely as a culmination but as a cornerstone to future success stories in the circular economy space. Their positive endeavors served as inspiration, encouraging others to follow suit, advocating for the integration of circular practices into the mainstream, and serving as a testimony that responsible business wasn't a mere choice but an essential imperative.

He concluded by thanking all educators, and entrepreneurs for their role as champions of change, for embracing the principles of a circular economy, and for their integral role in the ICEF2023. His parting words resonated with a collective call to action, a commitment to inspire and collectively work towards a sustainable and circular future.

Mr. Prashant Gargava
Member Secretary
CPCB



Key Highlights of India Circular Economy Forum (#ICEF2023)



Inauguration of ICEF2023



Release of third Annual Report of ICCE



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