Background

Over the last few decades we are facing a rapidly increasing global demand for natural resources which are finite, and the same trend is expected in the near future. Unsustainable global patterns of production and consumption have led to resource depletion, environmental damage and economic shocks, leading the international community to take resource use issues seriously.

Accordingly, concerns over resource depletion and constraints have also gained greater prominence. Resource supply constraints and price shocks can not only produce potentially severe economic and social consequences, but can also engender political and social conflicts when vital resources are unequally distributed. In addition, resource extraction, utilization and disposal also typically impose significant environmental burdens, many of which, particularly climate change, are becoming acute in the 21st Century. Therefore, judicious use of resources is in every society’s interest through a combination of conservation and efficiency measures for economic, social and environmental sustainability.

In India, extraction of primary raw materials increased by around 420% between 1970 and 2010 which is lower than the Asian average but higher than the world average. While extraction of biotic materials only increased by a factor of 2.4, extraction of abiotic materials, particularly of non-metallic minerals, show remarkable augmentation. Notably, extraction of non-metallic minerals - predominantly used for construction - has significantly increased during the recent decades, reflecting the fast-growing demand of the construction sector. Compared to extraction, India’s exports and imports are still small in terms of quantity. However, both have grown significantly. Increased extraction, imports and exports have resulted in an increase in material consumption in India meeting the increasing demand of a fast-growing economy. According to UNEP-Data, India consumed about five billion tons of materials in 2010, out of which about 42% were renewable biomass and 38% non-metal minerals, fossil fuels and metals. Projections indicate that by 2050, the total consumption of biotic and abiotic materials will be nearly fivelfold compared to 2010 and the share of abiotic materials will be four times that of biotic materials.

An emerging country like India needs to address the disproportionate and steadily increasing share of resources required to support changing lifestyles and raw materials for industry. With a growing economy, India is expected to have the world’s third largest consumer group by the year 2020 - with a consumption share of 13%. With such consumption levels, the demand for resources will be increasingly huge and may eventually lead to impacts on economy, environment, and access to these resources.

Therefore, it is critical that India adopts a comprehensive strategy to promote resource efficiency throughout the economy. Such a strategy will be essential in meeting the internationally accepted Sustainable Development Goals (SDGs), especially the one related to “Sustainable Consumption and Production”, SDG 12; it will also make a significant contribution towards meeting India’s commitment to the Nationally Determined Contributions (NDCs) in the 2015 Paris Climate Agreement. Finally, a Resource Efficiency strategy has great congruence with several Government of India priorities such as Make in India, Zero Defect, Zero Effect, Swachh Bharat (Clean India) Mission, and green and inclusive growth.
Resource Efficiency is a priority for the G7 nations since 2015 and the G20 will also be focusing on it this year. It is proven that a growing realization of sustainable and efficient use of resources is environmentally, economically and socially beneficial. This is particularly true for rapidly industrializing countries like India which need increasing amounts of resources for industrial production as well as for providing improved quality of life to its citizens. As one of the major economies of the world and among the fastest growing, India’s material consumption will become the third highest in the world by 2020 with an expected global consumption share of 13%. If current trends and business as usual continue, India will triple its current (2015) resource demand by 2050, then using as much materials as all OECD countries combined consume today. Not only is India facing significant challenges in terms of resource extraction pressures and related environmental degradation, it is also increasingly import dependent for many critical minerals and metals portending both, economic and strategic risk.

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, on behalf of the German Ministry for Environment, Nature Conservation, Building and Nuclear Safety (BMUB), has been supporting the bilateral cooperation on Resource Efficiency since 2014 jointly with the Indian Ministry of Environment, Forests and Climate Change (MOEFCC), and together with the Indian knowledge partners The Energy and Resources Institute (TERI) and Development Alternatives as well as with the European knowledge partners Institut für Energie- und Umweltforschung (IFEU), and VDI Zentrum Ressourceneffizienz GmbH (VDI-ZRE). This cooperation has supported the establishment of the Indian Resource Panel (InRP) under the MoEFCC, comprised of eminent experts and with the objective to provide policy advice to the Government of India. The InRP was formally launched at the 1st International Workshop on Fostering Resource Efficiency organized by MoEFCC, GIZ on behalf of BMUB and its partners in New Delhi, November 2015. The InRP has now developed recommendations towards a framework for an Indian Resource Efficiency Programme (IREP) as a guide for policy makers. As a follow up to the 1st International Workshop, MoEFCC and GIZ on behalf of BMUB are organizing the 2nd International Workshop on Fostering Resource Efficiency to discuss the InRP’s contributions and way forward with a wide range of national and international stakeholders.

The workshop will address the following specific questions:

- How can the overarching RE strategy contribute to the implementation of SDGs, NDCs and key government programs?
- What will be the elements of the framework document for developing a Resource Efficiency strategy for India? How can the InRP support in promoting the mainstreaming of Resource Efficiency in government policy throughout the economy in India?
- How to address the key challenges and barriers to create an enabling framework for the industry to innovate and apply policy instruments across supply chains?
- How to bolster the international linkages with the International Resource Panel, EU and German initiatives on Resource Efficiency to assess environmental impacts of products and materials and global material flows?

Target Group

- Government of India: Ministry of Environment, Forests and Climate Change as well as line ministries such as Industries, Energy, Mining, Steel, Urban Development, regulators such as Central Pollution Control Board, Bureau of Indian Standards, Bureau of Energy Efficiency and selected urban local bodies
- Private Sector: Industrial associations as well as industry leaders especially from the selected sectors covered in the IREP study
• Civil Society and Research Institutes engaged with related topics
• Representatives from the EU, German Government as well as other bilateral and multilateral agencies working on the resource issue in India

Expected Outcomes

The workshop aims to inform participants about the need for and ways to promote Resource Efficiency in India by highlighting the work of the InRP and its recommendations for developing a Resource Efficiency Programme for India. It will also share information on the bilateral cooperation on Resource Efficiency as well as the way forward for Resource Efficiency in India in cooperation with the EU. The event will engage a variety of national and international experts to develop recommendations on the best ways to take the work of the InRP forward in terms of mainstreaming Resource Efficiency in government policy and throughout the economy in India and globally.
## Agenda

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<tr>
<th>Time</th>
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<td>09:00 – 09:30</td>
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| 09:30 – 10:30 | Inaugural Session and Launch of Indian Resource Efficiency Programme (IREP)  
(Moderation: Uwe Becker, GIZ)                                                       |
|            | • Welcome Address by Mr. Rakesh Kumar, Director, Ministry of Environment,  
Forest and Climate Change (MoEFCC), Government of India  
• Resource Efficiency relevance for G20: Dr. Helge Wendenburg, DG Directorate  
Water Management and Resource Conservation, Federal Ministry for the Environment,  
Nature Conservation, Building and Nuclear Safety, Germany (BMUB)  
• ProgRess I & II, the German Program for Resource Efficiency: Dr. Bettina  
Rechenberg, Head of Department III, Sustainable Products and Production,  
Circular Economy, German Federal Environment Agency (UBA)  
• Resource Efficiency from the European Perspective: Ms. Henriette Faergemann,  
First Counsellor - Environment, Energy, Climate Change, Delegation of the European Union to India  
• Opening Remarks by Mr. Ajay Narayan Jha, Secretary, Ministry of Environment,  
Forest and Climate Change (MoEFCC), Government of India  
• Launch of InRP’s Recommendations for the Indian Resource Efficiency Programme (IREP): Handover ceremony to the MoEFCC by InRP (tbc)  
• Vote of Thanks: Ms. Tanja Feldmann, Deputy Country Director, GIZ |
| 10:40 – 11:00 | Press Conference                                                       |
| 10:30 – 11:00 | Tea + Coffee                                                           |
| 11:00 – 12:30 | Session 1: Journey undertaken by Indian Resource Panel (InRP) (Moderator: Journalist,  
Ms. Preeti Mehra (The Hindu Business Line))  
• Key Note - Resource Efficiency approaches in India and linkages InRP-IRP:  
Mr. Vijay Kumar (TERI & IRP Member)  
Interview Session: Interview of InRP & IRP members on developing policy  
recommendations and linkages between InRP and IRP:  
• IRP Member:  
Mr. Vijay Kumar (TERI)  
• InRP Members and former Secretaries MoEFCC:  
Mr. Rajen Habib Khawaja (ASCI), Dr. Prodipto Ghosh (TERI), Dr. Tishyarakshit Chatterjee (IIPA)  
• InRP Members from Academia, NGO, Industry:  
Dr. Ashok Khosla (DA), Dr. Prasad Modak (EMC), Ms. Seema Arora (CII)  
Followed by Q/A with audience |
12:30 – 13:30  | Networking Lunch (Films on RE and interventions in construction and automobile sectors)

13:30 – 15:00  | **Session 2: Resource Efficiency (RE) in the Economy (Moderator: Zeenat Niazi (DA))**
- **Special Address** by Mr. Rajani Ranjan Rashmi, Special Secretary, Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India.
- **Key note1 - RE opportunities for Indian economy**: Ms. Seema Arora, CII (InRP Member)
- **Key note2 - RE business models for the Indian economy**: Dr. Prasad Modak, EMC (InRP member)
**Presentations:**
- **RE in the international industrial context**: Dr. Monika Dittrich, IFEU
- **Case studies from RE pilot interventions in Automotive Sector**: Mr. Souvik Bhattachariya, TERI
- **Case Studies from RE pilot interventions in Construction Sector**: Mr. Krishna

15:30 – 16:00  | Tea + Coffee

16:00 – 17:45  | **Session 3: Panel discussion on the Way forward to integrating Resource Efficiency (RE) in the development policy (Moderator: Mr. Bishwanath Sinha JS (InRP Convener))**
- **Key Note - RE challenges and opportunities in the Indian and G20 context and how can EU REI Project support this development**: Dr. Ashok Khosla (InRP & IRP, DA)
**Panel Discussion:**
- Representative from MoEFCC, JS Mr. Bishwanath Sinha
- Representative from BMUB, Dr. Helge Wendenburg
- Representative from UBA, Dr. Betina Rechenberg
- Representative from CPCB, Ms. Mita Sharma
- Representative from EU, Ms. Henriette Faergemann
  Representative from InRP: Dr. Tishyarakshit Chatterjee or Dr. Prodipto Ghosh (tbc)
- Representative from UNIDO, Mr. René van Berkel

Followed by Q/A with audience

17:45 – 18:00  | Conclusions, Summary
  Vote of Thanks
  GIZ

18:00 – 19:30  | High Tea