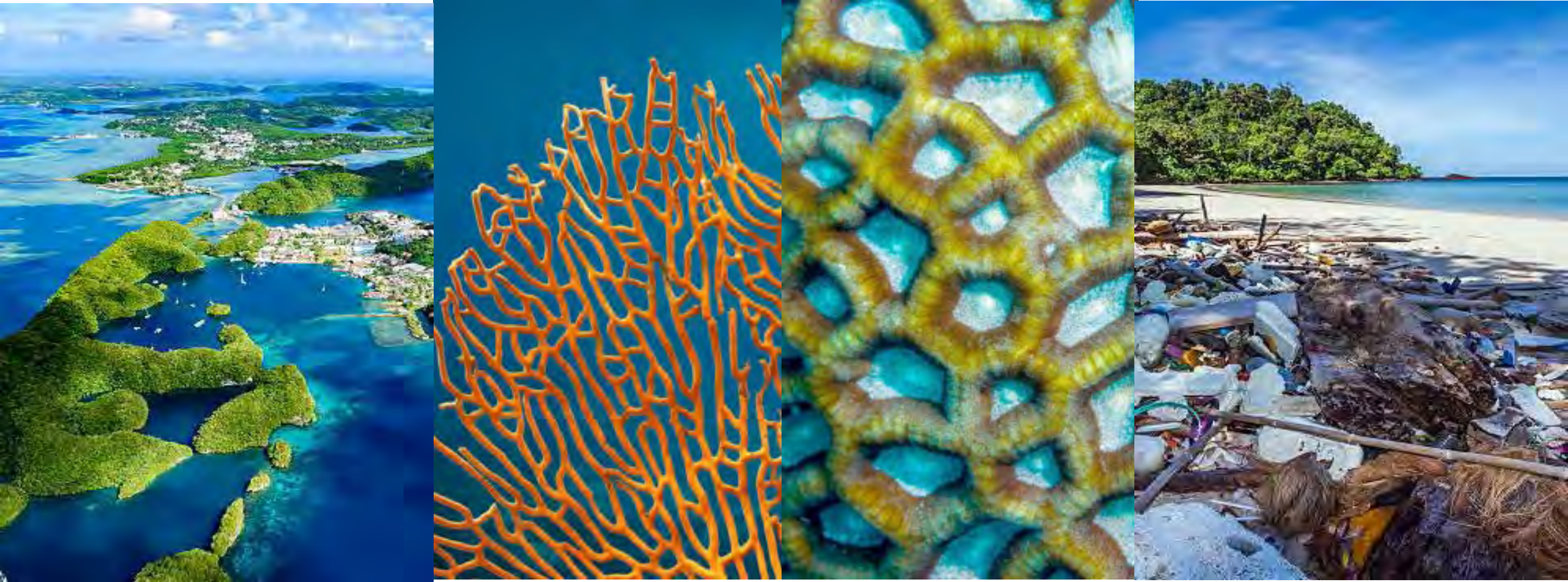


Jaipur Declaration on 3R and Circular Economy ~

Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society in Asia and the Pacific (2025-2035)



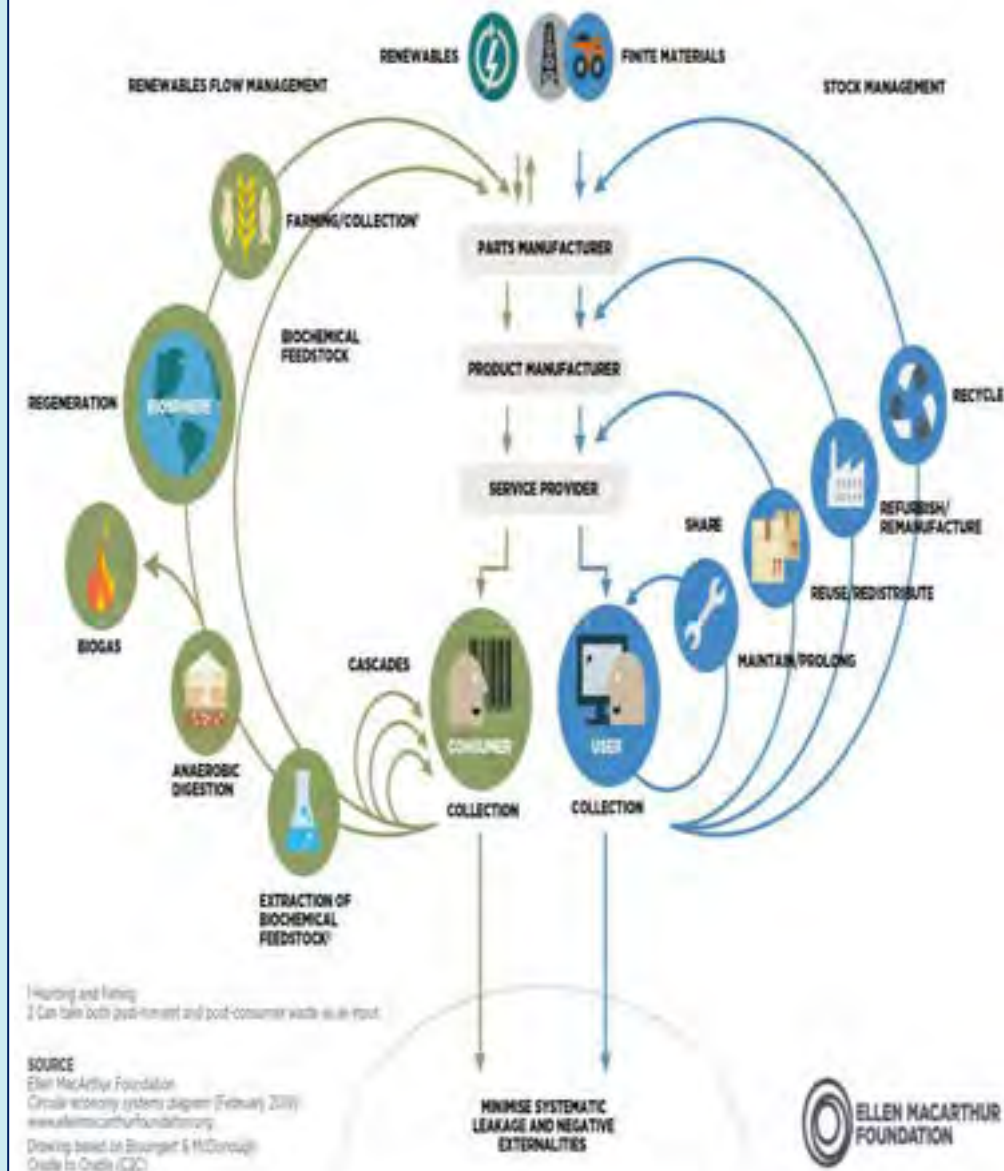
UNCRD-3RINCs Special Session at 11th 3RINCs, 11-13 May 2025, Jeju, Republic of Korea

Choudhury Rudra Charan Mohanty

Environment Programme Coordinator, UNCRD- DSDG/UN DESA

Key facts:

- Even if net-zero emissions by 2050 vis-a-vis 1.5° C climate goal target is met under the Paris Agreement, costs to the global economy relating to climate change are projected to reach **USD 54 trillion by 2100**.
- Applying circular economy strategies in just five key areas (**cement, aluminum, steel, plastics, and food**) can eliminate almost half of the emissions from the production of goods – **9.3 billion tonnes of CO2 in 2050**.
- Global material use may increase to between 170 and 184 billion tonnes by 2050 (IRP, 2017). In business-as-usual scenario, we could **see resource use up by 60% from 2020 levels by 2060** (Global Resources Outlook, 2024).
- As per UNEP, the Asia-Pacific accounts for approximately two-thirds to global growth, and **63 per cent of the global material use**, and under a business-as-usual scenario global plastic waste could almost triple, reaching around **1.2 billion tonnes by 2060**
- The policy and scientific community have realized that farming, overfishing, mining and deforestation have now reached such a scale that they are reducing the resilience of the biosphere where life thrives, and also the need to become **net zero, zero waste** and **nature positive** in order to enhance the resilience of countries and societies by halting and reversing nature and biodiversity loss.
- Circular economy holds the promise for systemic transformation of our society as it fundamentally aims to design out waste & pollution, keep products and materials for extended use and regenerate and restore natural ecosystems.
- Closing circularity gap serves the higher objective of preventing further and accelerated environmental degradation (The Circularity Gap Report, 2021)

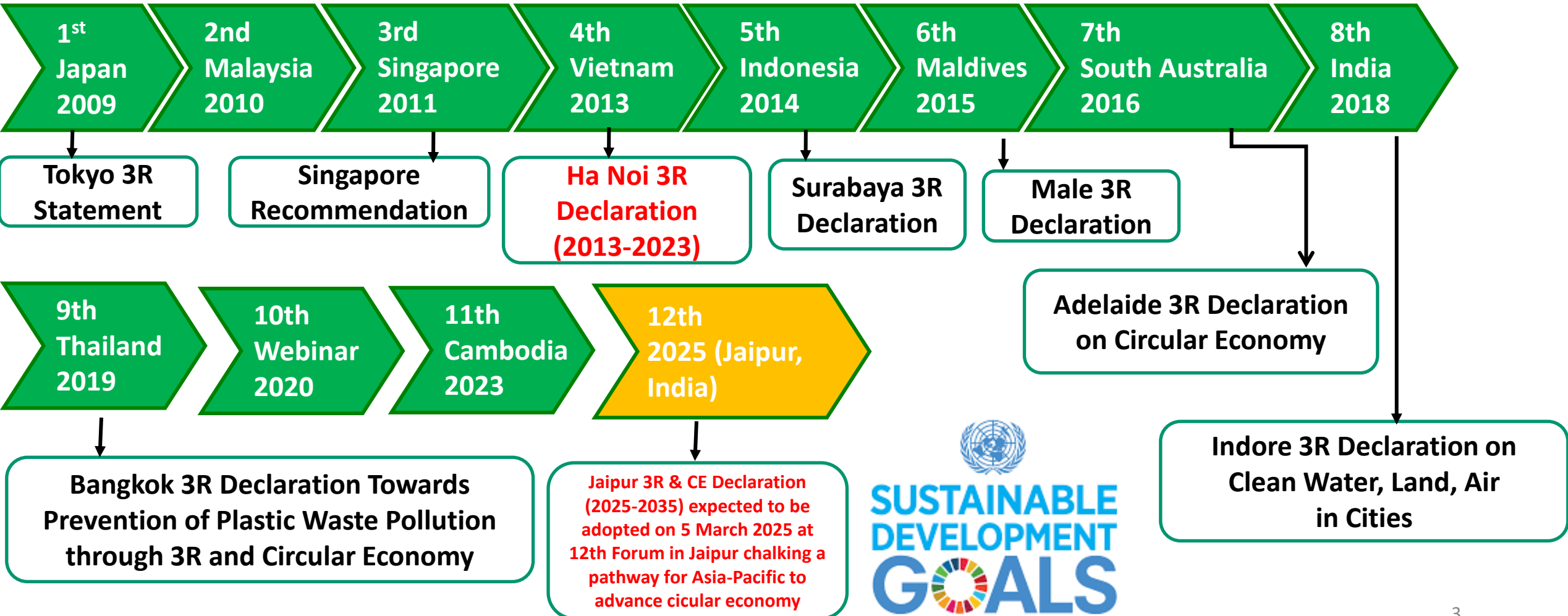


Source: Completing the Picture: How the circular economy tackles climate change (2021).

UNCRD/UN DESA High-Level Regional 3R and Circular Economy Forum in Asia and the Pacific



Aligned with SDGs and with support of MoE-Japan, UNCRD 3R & CE initiative calls for lasting supply security of resources as the basis for sustainable development. It aims to provide a policy framework to implement 3R & resource efficiency measures to achieve circular economic development – an alternative economic growth model which is not at the expense of finite natural resources and ecological assets, rather regenerative. UNCRD's 3R & circular economy initiative brings up both the policy, scientific & research community & private sector to convene on an annual basis the high-level Regional 3R & Circular Economy Forum in Asia-Pacific to strengthen the science-policy interface in addressing 3R & resource efficiency as the basic for economic growth, pollution prevention and strengthening resilience of cities & communities, and after all, to achieve the international agendas & agreements – SDGs, Paris Agreement, NUA, among others.



JAIPUR DECLARATION on 3R and Circular Economy - Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society in Asia and the Pacific (2025-2035)

- Jaipur Declaration (2025-2035) is aligned with global frameworks, including the Sustainable Development Goals (SDGs), Paris Agreement, and Kunming-Montreal Biodiversity Framework, to combat climate change, environmental pollution, and biodiversity degradation, aims to guide a pathway for the Asia-Pacific countries in advancing circular economy.
- Supports SDG 3 (Good Health & Well-Being), SDG 6 (Clean Water & Sanitation), SDG 11 (Sustainable Cities), SDG 12 (Responsible Consumption), SDG 13 (Climate Action), SDGs 14 (Life Below Water) & SDG 15 (Biodiversity Conservation), among others.



JAIPUR DECLARATION (2025-2035) - Key Objectives & Significance

- **Promoting Circular Economy:** Focus on sustainable actions to create a material cycle-based, low-carbon, resilient and zero waste society in Asia-Pacific.
- **Enhancing Resource Efficiency:** Reducing dependence on finite raw materials and natural resources and promoting circularity across industries to reduce material and carbon footprints.
- **Integration of 3R and Circular Economy Principles Across Development Sectors:** Embeds Reduce, Reuse, Recycle (3R) principles into key economic and development sectors, including manufacturing, construction, transport, textile and fashion, energy, forestry, agriculture, food, water, tourism, trade, and commerce, among others.
- **Addressing the Triple Planetary Crisis:** Help tackling climate change, nature & biodiversity loss, and growing pollution through sustainable practices and programmes, including nature based solutions (NbS), which are in harmony with nature.
- **Aligning with Global Frameworks & Agreements:** Help accelerate the 2030 Agenda for Sustainable Development and SDGs, Paris Agreement, New Urban Agenda, and Kunming-Montreal Biodiversity Framework, among others, and also aims to support the upcoming international legally binding treaty to end plastics pollution .
- **Boosting Economic Resilience & Employment Generation:** Encouraging local industries, reducing import dependency, and creating new (green) employment opportunities through promotion of environmental goods and services, e.g., resource recovery, recycling and waste management services, composting services, EPR services, renewable energy (WtE), eco-towns and eco-industrial zones, eco-friendly packaging and product design (design for environment / DfE), circular supply chains, Product-as-a-Service (PaaS), agroecology and regenerative agriculture, food waste management services, eco-friendly textiles and fashion, green building and infrastructure (circular construction), etc.
- **Strengthening Public-Private Partnerships (PPPs):** Encourages multi-later partnerships [in line with the objectives of Surabaya Declaration (2014)], including collaboration between governments, businesses, and research institutions to accelerate innovation in waste minimization, resource efficiency, and green manufacturing.
- **Promoting Behavioral Change and Consumer Awareness:** Integrates circular economy principles into education and public awareness campaigns to cultivate a sustainability-driven mindset, sustainable life style, and encourage responsible consumption and production.



JAIPUR DECLARATION on 3R and Circular Economy (2025-2035)

(voluntary & legally non-binding)

- 1.0 Introduction
- 2.0 Declaration
- 3.0 Common Vision & Goals on 3R and Circular Economy
 - 3.0a Common Vision
 - 3.0b Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society
- Cluster I-V – 3R and CE Goals
- Guidance Note 1: Reference and Indicative List of examples of Strategies to Support the Voluntary Implementation of the Jaipur Declaration on 3R and Circular Economy (2025-2035)
- Guidance Note 2: Reference Set of Indicators for Assessing the Progress of Implementation of the Jaipur Declaration on 3R and Circular Economy (2025-2035)
- Guidance Note 3: Guidelines for Sharing Country Progress on Implementation of Jaipur Declaration on 3R and Circular Economy (2025-2035)

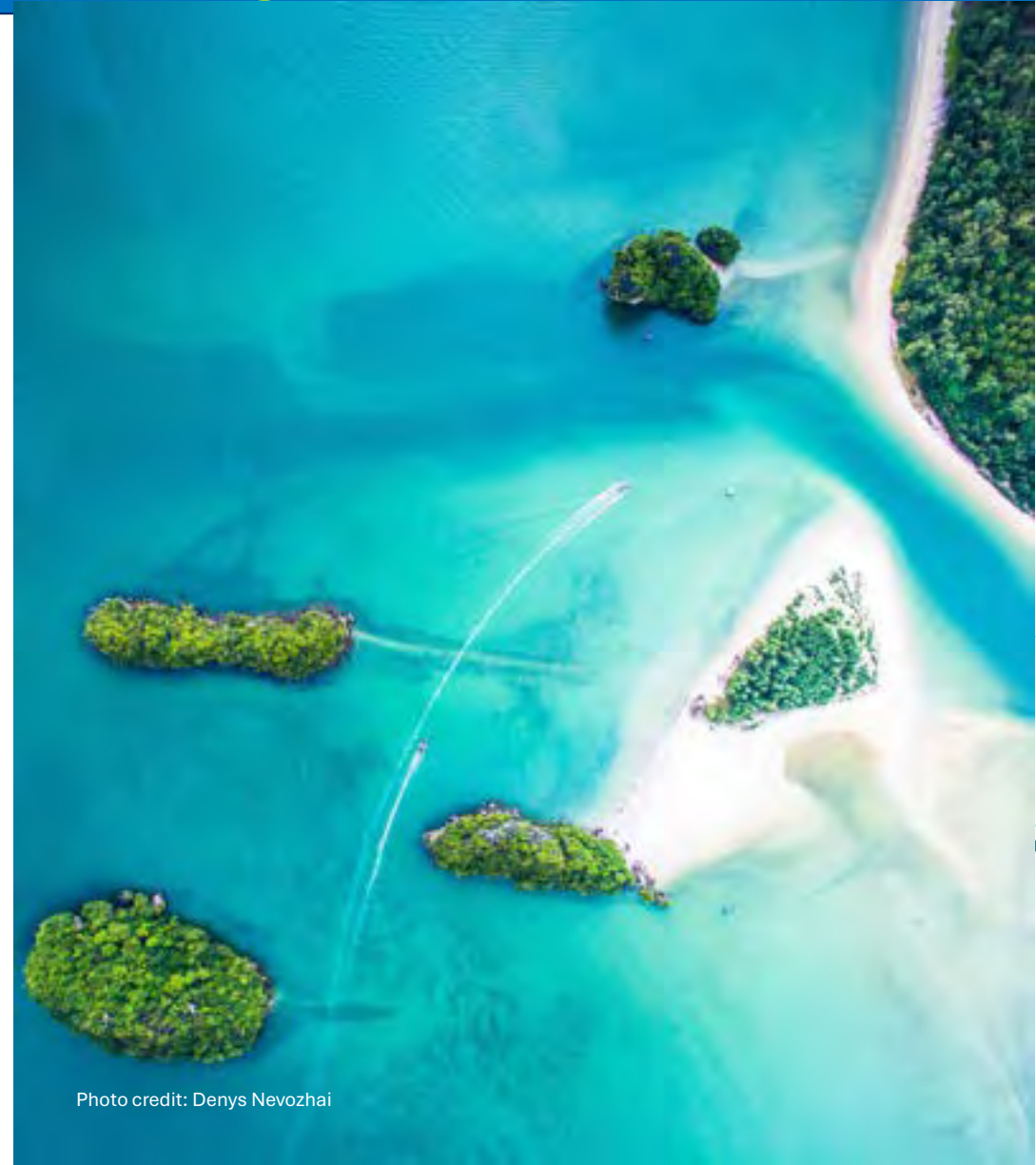


Photo credit: Denys Nevozhai

JAIPUR DECLARATION on 3R and Circular Economy (2025-2035)

- **1.0 Introduction**
- While rapid economic growth has led to higher living standards, it is also diminishing the region's resource efficiency and natural capital – shrinking forests, declining biodiversity, disappearing wetlands and water resources, among others. Given the weight that Asia Pacific brings to resource use globally, any improvement in Asia Pacific's resource efficiency will have significant global impacts.
- Resource security, environmental benefits and sustainable economic growth are at the heart of a circular economy , which not only provides an important basis in achieving SDG 12 (sustainable consumption and production), but also trigger meaningful synergies in combined efforts in achieving other SDGs such as SDG 6 (clean water and sanitation), SDG 11 (safe, resilient, sustainable cities and communities), SDG 13 (combat climate change), SDG 14 (life below water), and SDG 15 (life on land), among others.
- The 3R and circular economy approaches allow countries, through well-designed policies, to harness overarching synergies and avoid trade-offs in several areas of environmental and health impacts including resource depletion, air pollution and climate change, water and soil quality, loss of nature and biodiversity, among others.



Photo credit: Denys Nevozhai

JAIPUR DECLARATION on 3R and Circular Economy (2025-2035)

2.0 Declaration: Preamble

- *Acknowledging* that moving towards a circular economy provides enormous social, economic and environmental benefits such as efficient use of finite natural resources, contributing to reduction of pollution and GHG emissions, limiting the depletion of natural capital and loss of biodiversity and ecological assets, making an economy resilient by reducing its material imports dependency, and creating new employment opportunities
- *Recognizing* the issues and challenges faced by Small Island Developing States (SIDS) in achieving sustainable development in view of their unique and particular vulnerabilities, including their small size, remoteness, narrow resource and import base, and exposure to global environmental challenges and external economic shocks.
- *Noting* with concern that the high and rapidly increasing levels of plastic pollution represent a serious environmental problem at a global scale, negatively impacting the environmental, social and economic dimensions of sustainable development;
- *Recognizing* that plastic pollution includes micro-plastics;
- *Welcoming*, thereby, United Nations Environment Assembly (UNEA) resolution 5/14 on "End Plastic Pollution: Towards an internationally legally binding instrument

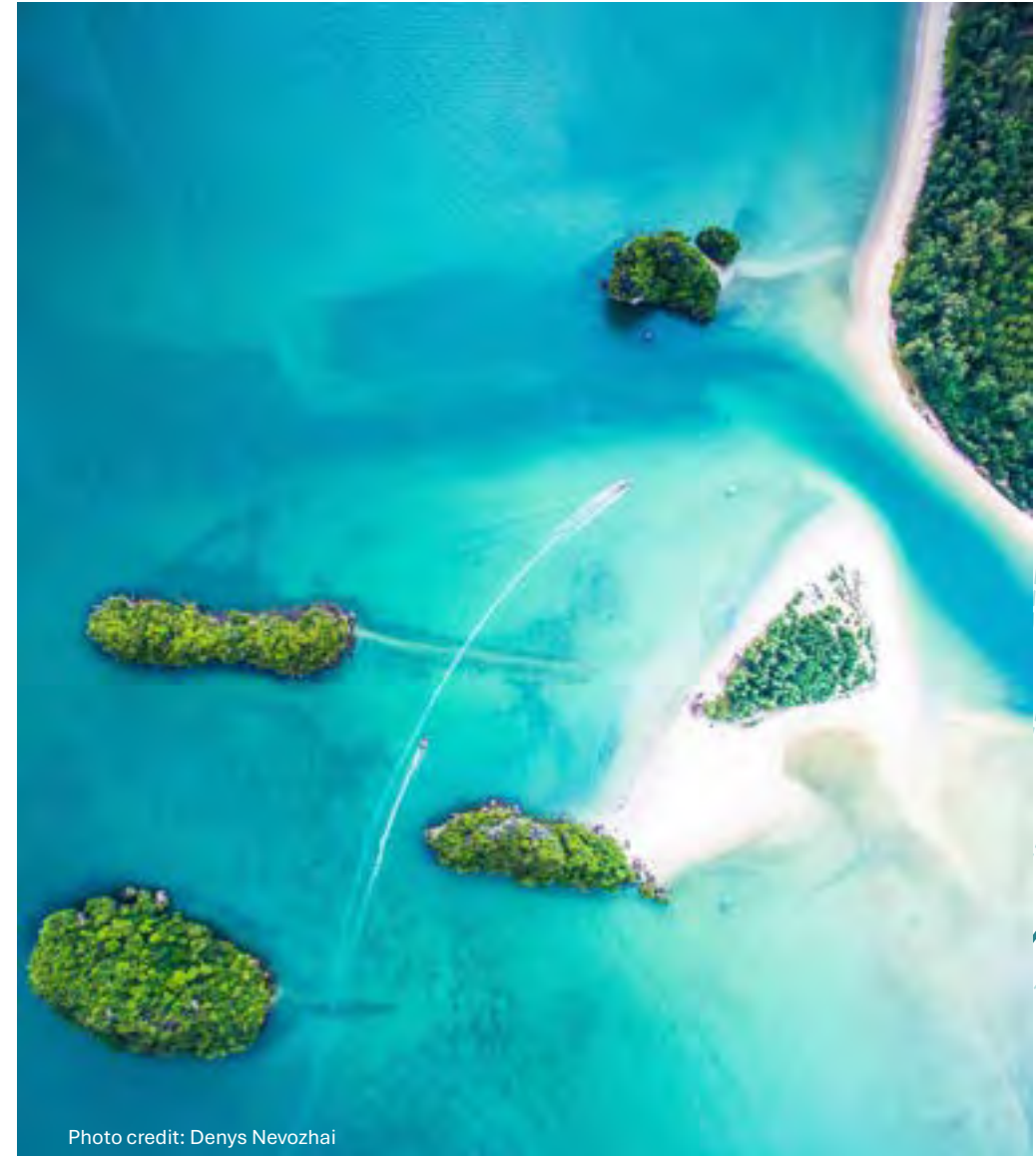
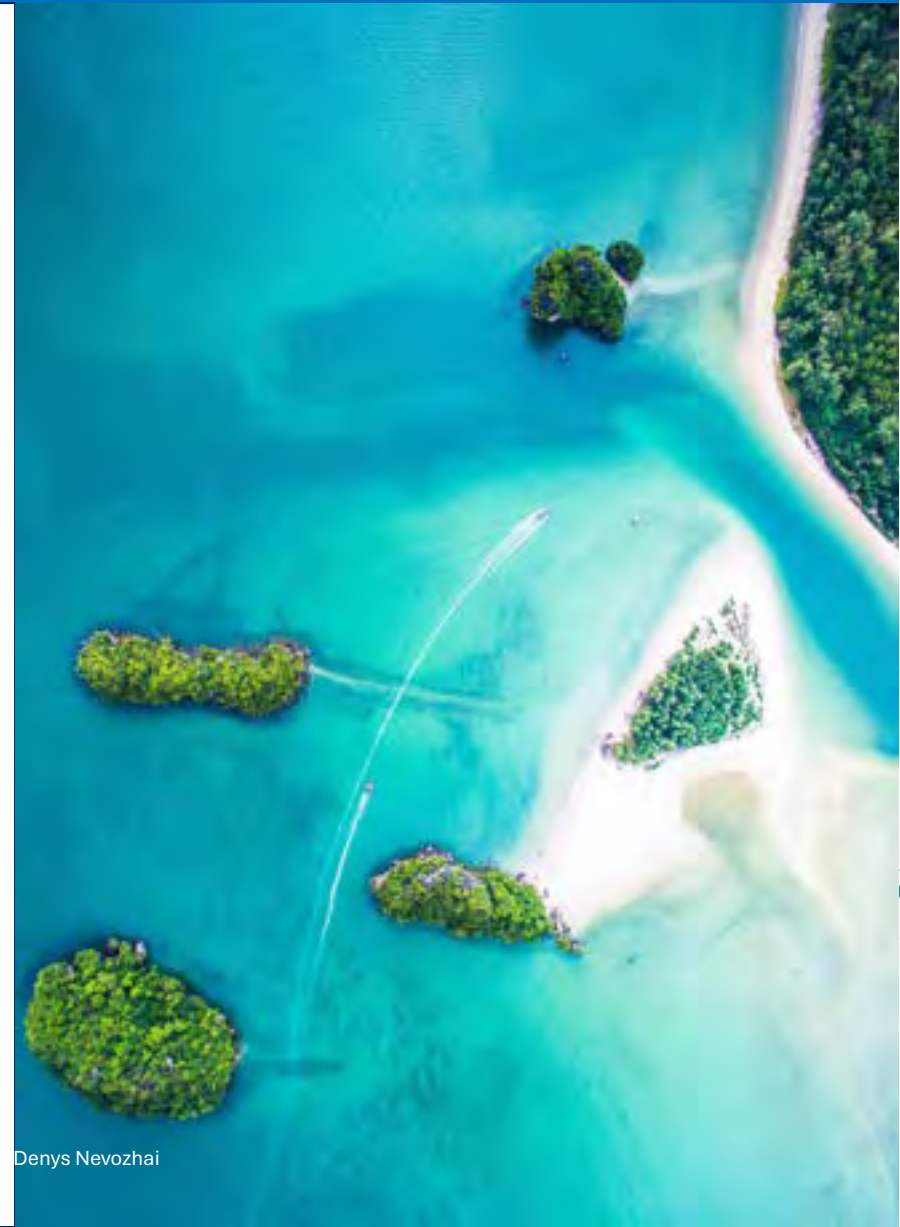


Photo credit: Denys Nevozhai

JAIPUR DECLARATION on 3R and Circular Economy (2025-2035)

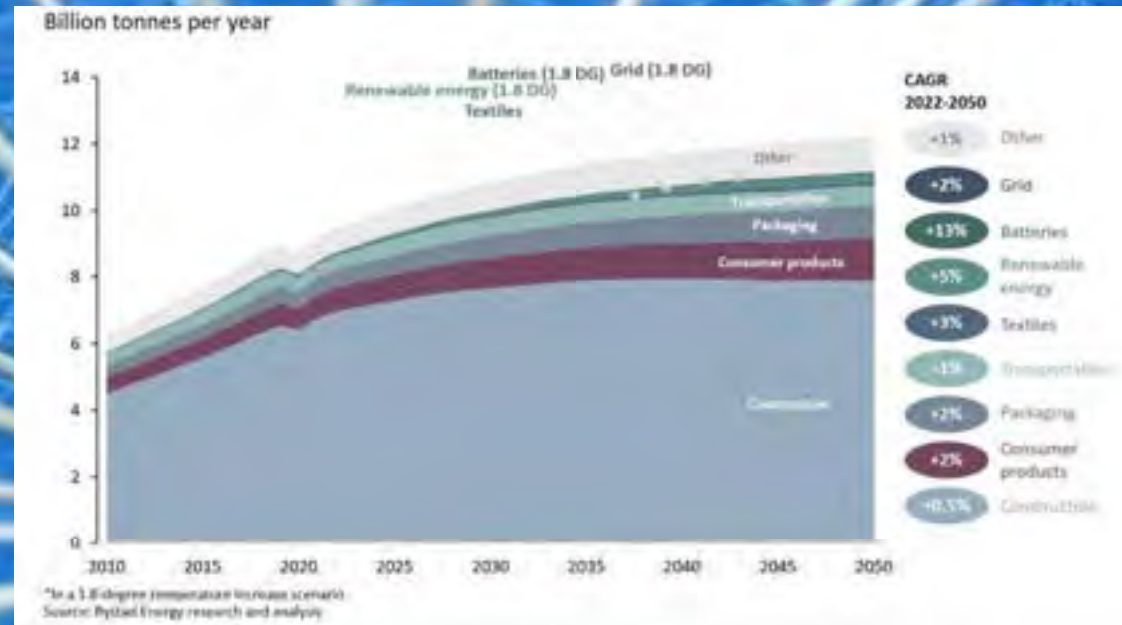
- 3.0 (a) Common Vision
- The fundamental principle of a circular economy is to prevent waste and pollution. It is imperative to prevent or minimize pollution by increasing resource efficiency and circularity along value chains. Further, eliminating the use of hazardous and polluting substances in manufacturing processes and products (e.g., through green chemistry), reducing emissions and other forms of leakage (such as hazardous chemicals and fertilizers), greening industries and MSMEs, and adopting more sustainable lifestyles also minimizes the negative impacts on public health, natural ecosystems and biodiversity.



3.0 (b). Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society

- **Cluster I:** Promote Sustainable Resource Management, Resource Efficiency and Low-Carbon Society (*Goals: 1, 2 & 3*).
- **Goal 1:** Achieve significant improvement in materials, energy, and water efficiency through 3R and circular economy
- **Goal 2:** Maximize utilization of biomass, including agriculture waste, as a resource, not waste (bio-economy) through 3R and circular economy
- **Goal 3:** Maximize resource efficiency in micro, small and medium enterprises (MSMEs) through 3R and circular economy

Expected material demand by sector (2010 to 2050)



Source :<https://www.rystadenergy.com/insights/materials-demand-article>

Materials use increase



2011



2060

	2011	2060
Metals	8Gt	20Gt
Fossil fuels	14Gt	24Gt
Biomass	20Gt	37Gt
Non-metallic minerals	37Gt	86Gt

Source :<https://www.rystadenergy.com/insights/materials-demand-article>

3.0 (b). Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society

Cluster II: Achieving Clean Environment (Land, Water, Air, Ocean and Mountains) through 3R and Circular Economy (*Goals: 4, 5, 6, 7 & 8*).

Goal 4: Achieve significant improvement in water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse

Goal 5: Reduce adverse environmental impacts in cities by paying special attention to land and air quality and municipal and other waste management as well as sand, coral and other construction materials

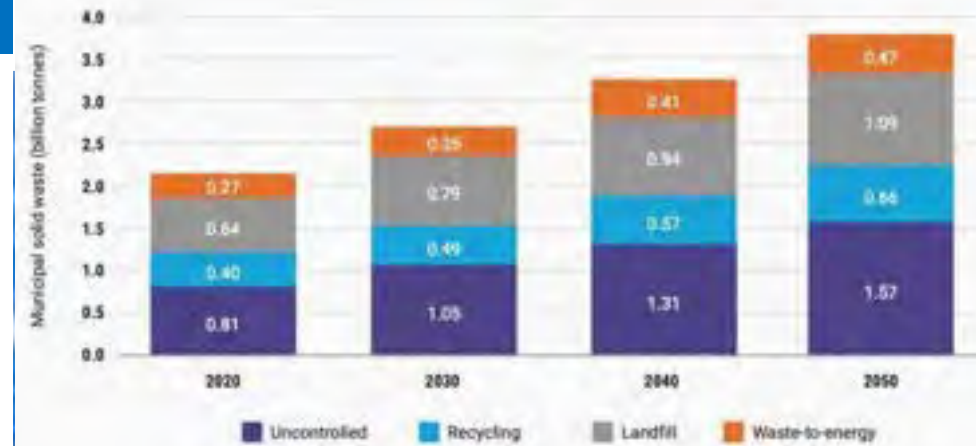
Goal 6: Reduce adverse environmental impacts of mining operations by greening the entire supply chain focusing on resource efficiency and ecosystem restoration

Goal 6 (a): Reduce adverse environmental impacts on mountain ecosystems from mining, farming and tourism activities

Goal 7: Reduce hazardous chemicals and persistent organic pollutants (POPs) in materials, products and wastes, including plastics

Goal 8: Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris, abandoned, lost or otherwise

Projected global MSW destinations from 2020 to 2050 under a business-as-usual approach



Source: The Global Waste Management Outlook 2024



3.0 (b). Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society

- **Cluster III: Sound Material Cycle Society and Resource Recirculation towards Zero Waste and Circular Society**
(Goals 9: 9a, 9b, 9c)

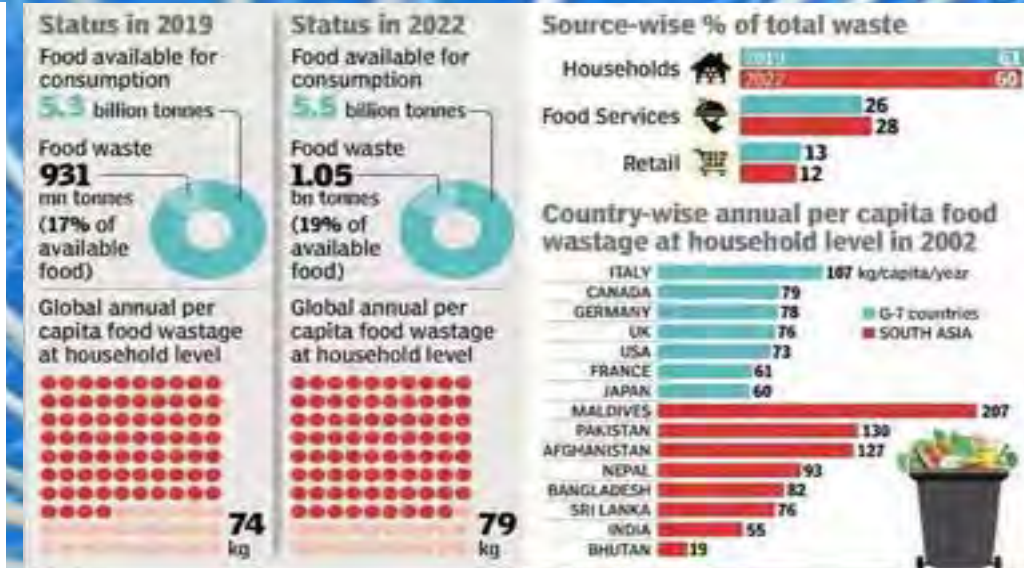
Goal 9. Minimize demand and pressure on virgin raw materials and avert resource constraints by implementing 3R and circular economy for all waste streams

Sub Goal 9 (a). Mainstream circular economy in all forms of municipal waste (solid and dry waste, wet waste, wastewater and sewage sludge) and industrial waste

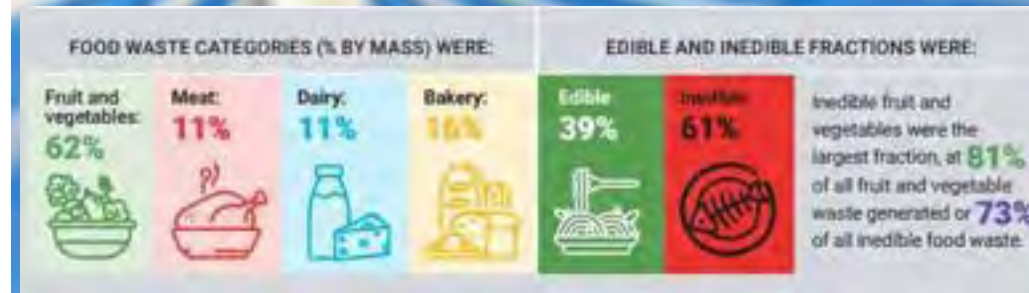
Sub Goal 9 (b). Achieve circularity and minimize food loss and food waste at every stage of the food supply chain, promoting sustainability and resource efficiency

Sub Goal 9 (c). Enhance 3R and circular economy policies and programmes, including technological innovations, for construction & demolition (C&D) waste

Food loss and waste account for 8-10% of annual global greenhouse gas emissions; cost USD 1 trillion annually (Source: unfccc)



Source: UNEP Food Waste Index Report, 2024



Source: UNEP Food Waste Index Report, 2024

3.0 (b). Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society

Cluster III: Sound Material Cycle Society and Resource Recirculation towards Zero Waste and Circular Society
(Goals 9d, 9e, 9f, 9g, 9h).

Sub Goal 9 (d). Advance circular economy approaches in rural sector with an objective to reduce ecological impacts, create new employment opportunities and alleviate poverty

Sub Goal 9 (e). Achieve resource efficiency and circularity in metal sector

Sub Goal 9 (f). Achieve resource efficiency and circularity by optimizing the use of single use plastics

Sub Goal 9 (g). Achieve resource efficiency and circularity for waste electrical and electronic equipment (WEEE)

Sub Goal 9 (h). Promote safe and sustainable medical and healthcare waste management with a focus to waste-prevention and reduction actions for healthcare organizations

In 2022, 62 million tonnes of e-waste (82% more compared to 2010) was generated globally, with projections reaching 82 million tonnes by 2030.

Just 1% of rare earth element demand is met by e-waste recycling. (Source: <https://unitar.org>)



Cluster III: Sound Material Cycle Society and Resource Recirculation towards Zero Waste and Circular Society *(Goals 9i, 9j, 9k, 9l, 9m, 9o, 9p)*.

Sub Goal 9 (i). Promote safe and sustainable hazardous waste management with a focus to waste-prevention and reduction actions for industries, including MSMEs

Sub Goal 9 (j). Achieve resource efficiency and circularity for solar wastes, in particular panels, photovoltaic cells and related equipment

Sub Goal 9 (k). Achieve circularity for end-of-life batteries

Sub Goal 9 (l). Achieve circularity for end-of-life vehicles

Sub Goal 9 (m). Promote safe and sustainable used oil waste management with a focus to waste-prevention and reduction actions for both domestic and industrial sector

Sub Goal 9 (n). Sub Goal 9 (n). Achieve resource efficiency and circularity for waste tyre and rubber

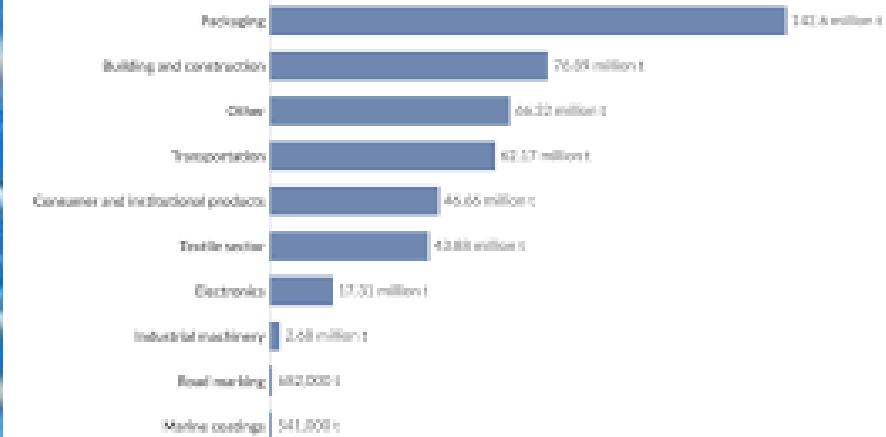
Sub Goal 9 (o). Significantly improve disaster waste management and resource recovery and response through circular economy

Sub Goal 9 (p). Achieve resource efficiency and circularity for textile waste (fashion industry)

3.0 (b). Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society

Annual global plastic use, 2019

Measured in tonnes per year.

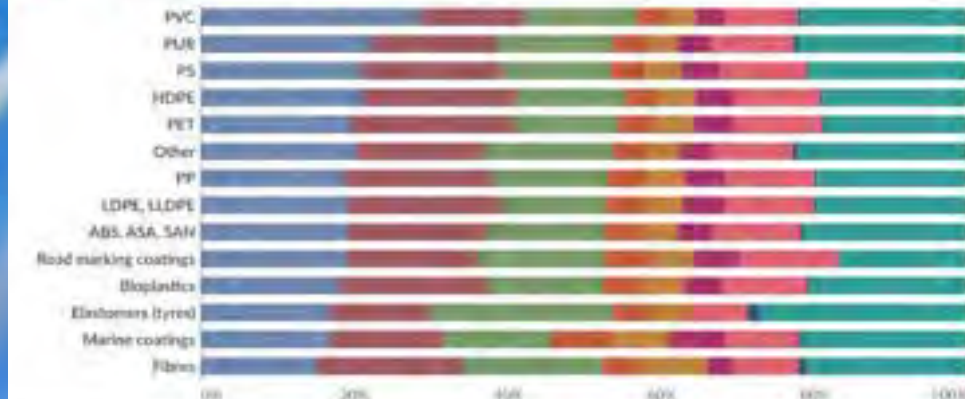


Data source: OECD (2022)

Plastic waste generation by region and polymer, 2019

Polymer types are as follows: Acrylonitrile Butadiene (AB), Acrylonitrile-Styrene Acrylate (ASA), Styrene Acrylonitrile (SAN), Polyurethane (PUR), Polyvinyl Chloride (PVC), Polystyrene (PS), Linear Low-Density Polyethylene (LLDPE), Polypropylene (PP), Polyethylene Terephthalate (PET), High Density Polyethylene (HDPE).

Legend: Europe, China, Asia (excl. China and India), Middle East & North Africa, India, Sub-Saharan Africa, Americas (excl. USA), Oceania, United States.



Data source: OECD (2022)

Our World in Data

3.0 (b). Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society

Cluster IV: Resilient Economies and Societies and Cross-cutting Socio-Economic Goals (*Goals: 10,11 (11a, 11b, 11c) & 12*).

Goal 10. Strengthen resilience to climate change, natural disasters, and health emergencies and pandemics through 3R and circular economy, including nature-based solutions

Goal 11. Achieve Social Empowerment and Security

Sub Goal 11 (a). Ensure decent, safe working environment, and personal protective equipment for all waste workers by formalizing informal waste workers with appropriate legal waste management framework and achieve sustainable transition for them to become key waste management actors in a circular economy

Sub Goal 11 (b). Complete elimination of illegal engagement of children in the informal waste sector

Sub Goal 11 (c). Ensure adequate social protection such as life insurance, health insurance and other support mechanisms for all waste workers by formalizing informal waste workers with appropriate legal waste management framework including such support mechanisms.

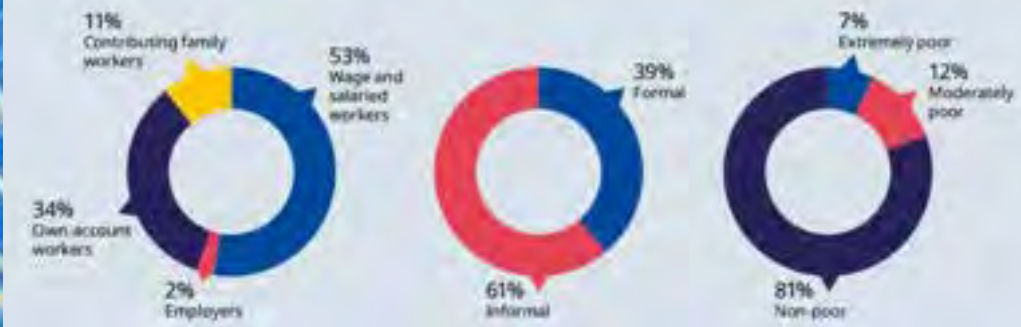
Goal 12. Create green jobs towards new employment generation, including women and youth empowerment ensuring just transition

Half billion people struggle to find decent work

(Source: World Employment and Social Outlook: Trends 2020)

Figure 1.2

Characteristics of global employment, 2019 (percentages)



3.0 (b). Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society

Cluster V: Means of Implementation - Partnerships, Technology Transfer, Research and Development, National and International Financing and Investments, Institutional Capacity Building and Information Sharing (*Goals 13: 13a, 13b, 13c*).

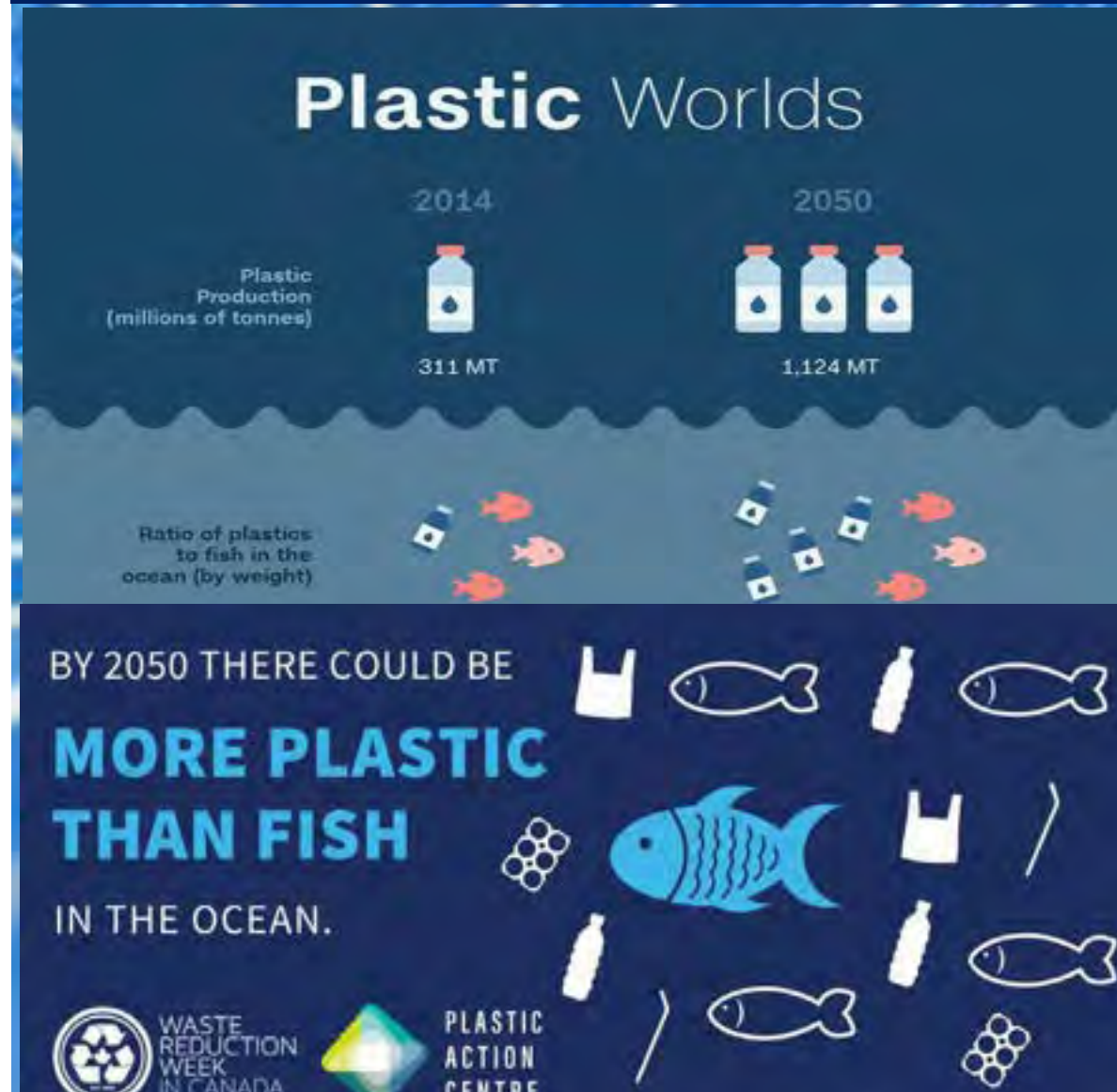
Goal 13. Strengthen means of implementation

Sub Goal 13 (a). Promote multi-layer partnerships, including public-private-partnerships (PPPs) as the basis for advancing circular economy in all development sectors

Sub Goal 13 (b). Foster traditional knowledge and innovation and technology transfer and collaborative research and development (R&D) programmes on circular economy appropriate to different sub-regions

Sub Goal 13 (c). Enhance international and public and private partnerships and cooperation for building an enabling environment in SIDS, LLDCs and other countries in need to promote environmentally-sound waste management and recycling domestically and internationally to increase their circularity

Escalation of plastic waste around the world 1950 to 2050



3.0 (b). Sustainable 3R and Circular Economy Goals for Achieving Resource Efficient, Clean, Resilient, Sound Material Cycle and Low-Carbon Society

Cluster V: Means of Implementation - Partnerships, Technology Transfer, Research and Development, National and International Financing and Investments, Institutional Capacity Building and Information Sharing (*Goals 13d, 13e, 13f, 13g, 13h*).

Sub Goal 13 (d). Identify relevant funding mechanisms including means to access, and mobilize national and international financing and investments towards circular economy

Sub Goal 13 (e). Information sharing and capacity building programmes targeting key government institutions and agencies and industrial authorities and private sector including MSMEs

Sub Goal 13 (f). Strengthen policy and regulations, including green public procurement, for integrating circular economy principles in all development sectors

Sub Goal 13 (g). Strengthen public awareness and integrate 3R and circular economy in formal education, including empowering consumers, producers and traders

The Partnership Enabling Ecosystem, The SDG Partnership Guidebook, UN DESA & TPI, 2020



Source: desapublications.un.org

Appendix:

- **Guidance Note 1:** Reference and Indicative List of examples of Strategies to Support the Voluntary Implementation of the Jaipur Declaration on 3R and Circular Economy (2025-2035)
- **Guidance Note 2:** Reference Set of Indicators for Assessing the Progress of Implementation of the Jaipur Declaration on 3R and Circular Economy (2025-2035)
- **Guidelines for Sharing Country Progress on Implementation of Jaipur Declaration on 3R and Circular Economy (2025-2035)**
- **Guidance Note 3:** Guidelines for Sharing Country Progress on Implementation of Jaipur Declaration on 3R and Circular Economy (2025-2035)

Discussion Questions:

1. *What role the Jaipur Declaration (2025-2035) could play in the context of transitioning to NetZero, zero waste and nature positive?*
2. *What are the key policy changes or initiatives and institutional arrangements that would drive this transition at both the national and regional levels?*
3. *What are the key challenges governments are likely to face in implementing the Jaipur Declaration on a national scale?*
4. *How can we ensure effective collaboration between the public and private sectors towards better implementation of Jaipur Declaration?*
5. *What role do extended producer responsibility (EPR) and eco-design play in fostering the circular economy in line with the Jaipur Declaration?*
6. *What role could innovation and technology, including a strong science-policy interface, play in facilitating the implementation of Jaipur Declaration?*
7. *How can emerging technologies such as AI, blockchain, and IoT contribute to better waste management, resource efficiency, and overall circularity?*
8. *How can international collaboration and partnerships be strengthened to ensure that the Jaipur Declaration on the circular economy has a global impact?*
9. *What role do global frameworks like the United Nations Sustainable Development Goals (SDGs) and Paris Agreement play in supporting the implementation of the Jaipur Declaration?*