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)[1]

This guidance note outlines a reference and indicative list of strategies the countries may use for implementing the Jaipur Declaration which is a legally non-binding and voluntary document, and thus countries may opt for developing a number of additional or alternative strategies taking into consideration respective national priorities, circumstances and capabilities

The objective of such a comprehensive list of reference and indicative strategies is to provide guidance for the countries to develop their own strategies.

Also the linkages with SDGs (in second column) are also indicative ones for reference purpose only, not limited to the particular SDGs indicated.

Sustainable 3R and Circular Economy Goals	Contribution to SDG and other international agendas and agreements	Reference and Indicative List Strategies and Actions to Achieve the Goals of the Jaipur Declaration (2025-2035)
Cluster I: Promote Sustainable Resource Management, Resource Efficiency and Low-Carbon Society (Upstream Processes) Sustainable resource management, supply security of natural resources, and resilient ecological assets are at the heart of a circular economy and sustainable development. Majority of the natural resources are finite therefore it is critical that the world finds environmentally and economically viable way of using these scarce resources to achieve lasting supply security of resources and minerals – a critical underpinning factor to achieve the SDGs. Given the decline in Asia's natural capital – shrinking forests, declining biodiversity, depleting freshwater resources, and growing pollution and resource extraction, it is imperative for the policy makers of Asia to promote and implements various policy instruments and institutional arrangements in support of greater resource efficiency such as - regulatory		

[1] No country is obliged to implement the Guidance Note

instruments (e.g., EPR, standards for recycling), economic and financial instruments, information based instruments (raise public and industry awareness and education), voluntary initiatives (public-private partnerships), and formalization of the informal sector.		
Goal 1: Achieve significant improvement in materials, energy, and water efficiency	SDG 7.3, SDG 12, SDG 13	- establishing sustainability principles and appropriate policies to regulate the improvement of product durability, reusability, upgradability and reparability, addressing the presence of hazardous chemicals in products, and increasing their energy and resource efficiency; - view all forms of wastes as valuable resources that can contribute to jobs and new economic opportunities; - give highest consideration to source (upstream) reduction of wastes so that minimum waste goes for final disposal; - establish necessary laws that promote design-for-environment (DfE) – either product or services – to reduce environmental impacts and resource consumption (materials, energy, water, and other land and biological resources); - promote policies and programmes targeting a set of both producers and consumers behaviours to reduce society's overall use of resources, to minimize generation of wastes, and circular economic utilization of wastes generated; - promote robust resource recovery and recycling industries, including core resource recovery businesses, manufacturing firms, wholesale and retail businesses;

		- take full advantage of global carbon markets through waste-to-energy schemes, biomass generation of energy (biogas), and methane capture systems; - reduce energy subsidies to encourage more efficient use of energy; - Integrate energy efficiency policies with national programmes on GHG emission reduction and renewable energy; - develop and promote energy efficient design standards and/codes for household electric and electronic appliances, buildings and vehicles; - promote energy efficient infrastructure such as -solar infrastructure, transport (mass transit), NMT (walking and bicycling) friendly urban areas and green buildings; - develop and promote cleaner vehicle technologies and alternative fuels; - establish and administer realistic water prices to encourage efficient use of water; - promote domestic water conservation efforts such as through toilet and shower retrofitting; - promote and practice intensive farming with multiple crops intermixed to increase the crop yield per unit of water and land

		input (agriculture being a major consumer of water resources in most countries); - strongly accelerate the pace of transition towards renewable energy, especially in end-use sectors such as transport, building and industry; - increase traceability of substances contained in the circular products, which will require standardization and interoperability of systems and data within and outside the region.
Goal 2: Maximize utilization of biomass, including agriculture waste, as a resource (bio-economy), not waste, through 3R and circular economy	SDG 1, SDG 2, SDG 8, SDG 12, SDG 13	The cross-cutting nature, sustainable and circular bioeconomy provides a comprehensive approach to addressing several interlinked global challenges, including hunger and poverty, biodiversity loss, and climate change, in line with the SDGs, the Paris Agreement, the UN Decade on Ecosystem Restoration, and other Multilateral Environmental Agreements. For instance, farming practices that allow nature to rebuild soils and increase biodiversity by allowing the wider food system to return biological materials to the earth rather than wasting them are in line with the concept of circular economy. Similarly, biogas, made primarily of methane and carbon dioxide, can be produced from both composting and anaerobic digestion, and used as a source of energy similar to natural gas. This type of energy recovery is part of a bio-circular economy since it is a byproduct of the process of returning organic material to the soil. Bioeconomy is a leapfrogging approach that offers enormous potential to deliver a truly innovative economic model whereby fossil-based resources

		(such as oil and gas, conventional plastics, synthetic fabrics, concrete) are replaced by biological alternatives.[2] - promote full scale utilization of bio-mass and crop residues for bioenergy and biomaterials (bio-economy); - reduce waste of biomass at each major source; promote composting that can significantly reduce the volume of the bio-mass waste stream; - develop viable biomass processing industry (increase number, size, variety of companies recovering discarded biomass for fuel, power, materials); - promote new business opportunities in emerging biomass recovery fields; - promote animal feed production plants and animal food chain in order to close the loop; - promote biomass as sustainable building materials; - policy makers need to evaluate the relative costs and value derived from competing uses for discarded bio-mass [e.g., composting, animal feed, generation of bioenergy and and production of bio-products (e.g., papers, building materials, bio-plastics, textile products from coconuts, banana, and pineapple, etc.);

[2] UN FAO. 2022. Sustainable and Circular Bioeconomy in the Climate Agenda - Opportunities to Transform Agrifood Systems

		- work towards mainstreaming solutions for climate change mitigation and adaptation across farmlands, forests, grasslands, aquatic environments, bio-based industry and waste management into bioeconomy strategies towards national and regional low-carbon, non-polluting growth strategies;
Goal 3: Maximize resource efficiency in micro, small and medium enterprises (MSMEs) through 3R and circular economy	SDG 9, SDG 12, SDG 13	Considering the importance of MSMEs, representing between 80 and 90% of the industries, resource efficiency at scale can only be achieved with and through the MSMEs, important job creators and drivers of green economy, while actively contributing to greening the value chains. Through the delivery of green products and services, green MSMEs foster sustainable production and consumption, and positively contribute to the transition to circular economy. As key adopters and inventors of environmental and social innovations in their products, services and value chain, they are at the forefront of climate adaptation and mitigation, through innovative resource efficiency, waste minimisation, responsible waste management and recycling approach since they depend a lot on local resources and ecosystems. Yet, the potential of MSMEs remains largely untapped, including for decarbonizing, decoupling and digitalization. - promote policies and programmes to integrate industrial farms, network or chains of farms, eco-industrial parks and regional infrastructure to support resource optimization so that industrial byproducts circulate fully in the local production system; - promote policies and programmes to integrate different production and consumption systems in a region so that the resources circulate among industries and urban systems;

		- give due consideration to eco-innovative MSMEs in the green and sustainable public procurement system; - establish facilitation mechanisms between public authorities, banks and investors and MSMEs, such as consultation and catalyst platforms or coalition at local, national and regional levels, to provide enabling capacities and support scaling up for effective impact in delivering circular economy; - promote and enable MSMEs in innovative practices for improved utilization of bio-mass and all types of waste materials; - promote green energy in MSME sector; and - provide tailored training courses for SMEs and MSMEs on greening supply chain and circular economy.
Cluster II: Achieving Clean Environment (Land, Water, Air, Ocean, Mountains) through 3R and Circular Economy		
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	SDG 3.3, SDG 3.9, SDG 6, SDG 12, SDG 14, SDG 15	- reduce pollution discharges to water bodies through appropriate policy, regulations and technology solutions; - promote new business models and public-private-partnerships (PPP) to attract the private and business sector and explore new funding sources to help close the existing funding gap for sustainable and safe drinking water supply and sanitation services;

		- regular monitoring of Water Quality Index and hazardous chemicals concentration in water bodies; - develop national inventories of hazardous chemicals releases (e.g., Pollutant Release and Transfer Register System).
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	SDG 3.9, SDG 11	Considering the relatively closed urban systems, they constitute the right place for resource efficiencies and urban mining for circular economies; through adequate procurement policies and incentives, cities, towns and local communities can drive circularity, making best and optimal use of local and "imported" resources, minimizing wastes and maximizing reuse and recycling. - complete ban of illegal dumping and open burning of waste; - promote strategies for city-level integrated solid waste management, including household hazardous waste; - promote sustainable waste management, including source reduction, separation, transportation, recycling, and recovery in whole supply chain closing the loop; - regular monitoring of Air Quality Index and hazardous chemicals concentration in air; - develop national inventories of hazardous chemicals emissions (e.g., Pollutant Release and Transfer Register System); - promote public participation in various waste management activities;

Goal 6. Reduce adverse environmental impacts of mining operations by greening the entire supply chain focusing on resource efficiency and ecosystem restoration	SDG 3, SDG 8, SDG 12, SDG 13, SDG 15	Mine waste typically includes rocks, sludge, tailings, wastewater and other by-products, depending on the type of mining method, type of ore, the geological set-up and processing techniques. The goal is to valorise as the mining waste into resources that can be further utilised in the process or in new end-uses and products. Higher material efficiency, development of new end-uses for by-products, striving for zero-waste and improving the recyclability of raw materials and by-products, are critical to the shift to circular economy solutions. - reduce adverse environmental impacts of mining operations by greening the entire supply chain (exploration, mining, processing, raw materials, design, production, use/reuse, collection, recycling) while focusing on elements such resource efficiency as impact on employment, poverty alleviation, health, and GDP growth; - address demand-side pressure, business self-regulation, and green supply chain management through the application and development of good practices for the improvement of local economic, social and environmental conditions such as corporate environmental and social responsibility (CESR) and in line with the principles of Just Transition; - promote the development of product standards and recognition mechanisms that facilitate the greening of mineral products; - encourage increased and efficient reuse and recycling of metals and mineral products that can form the basis for more efficient urban mining practices;

		- invest in repairing, recycling and reusing within manufacturing and supply chains, rather than mining virgin materials.
Goal 6 (a). Reduce adverse environmental impacts on mountain ecosystems from mining, farming and tourism activities	SDG 12, SDG 13, SDG 15	Mountain areas contain primary resources such as forests, water, and minerals. These resources are limited and thus must be managed in a sustainable, circular manner that would ensure their continued supply. Mountain areas also provide ecosystem services such as carbon sequestration and storage, support of biodiversity, clean water, landscapes, and recreation and tourism opportunities. - ensure thorough assessments (e.g., EIA and LCA) are conducted before any mining operation to evaluate potential impacts and develop mitigation strategies; - promote resource efficiency and support the shift toward a low-carbon and climate-resilient economy in the mining, agriculture, food and forestry sectors; - utilize terracing, contour farming, and maintaining vegetation cover to prevent soil erosion on slopes; - restore mined areas by planting native vegetation, improving soil health, and reintroducing wildlife to rehabilitated sites; - promote sustainable construction which may drive demand for bio-based products from the mountain and forestry sector;

		- develop and enforce guidelines for tourist activities that protect natural habitats, limit waste generation, and prevent habitat disruption; - limit the number of visitors through permits and seasonal closures to reduce strain on the ecosystem; - design and build eco-friendly hotels, lodges, and facilities that blend with the environment and use sustainable materials; - raise awareness among tourists about the fragility of mountain ecosystems and encourage responsible behavior, such as following marked trails and avoiding littering; - designate sensitive areas as protected zones where mining, farming, and extensive tourism are prohibited or highly regulated;
Goal 7. Reduce harmful chemicals and persistent organic pollutants (POPs) in materials, products and wastes, including plastics	SDG 3, SDG 9, SDG 11, SDG 12, SDG 14, SDG 15	- as the first and foremost priority avoid use of hazardous chemicals and POPs (Clean); if there is no suitable substitute, and the utility of the use is indispensable, consider cyclical use as a fundamental principle (Cycle); and further minimize hazardous chemicals and POPs waste to the environment, and decompose and stabilize waste stock used in the past as much as possible (Control); - strengthen policy, regulatory and financial incentives to phase out or/and phase down hazardous chemicals, design out pollution and waste generation, increase the circular use of materials, ensure

		compliance with waste hierarchy principles and improve residual waste management; - strengthen institutional and human capacity for implementation and enforcement of related policies and programmes; - promote research and education programmes on green and sustainable chemistry keeping in mind health and environmental benefits; - raise awareness and empower producers, consumers and other stakeholders on green and sustainable chemicals and products; - phase out or/and scale down hazardous chemicals (e.g. POP flame retardants) from plastic production by supporting plastic and product manufacturers in increasing recyclability and identifying and introducing alternatives to hazardous chemical additives using green chemistry solutions; - promote product innovation and redesign by building the capacity of manufacturers in the (re)design of eco-friendly products, sustainable or alternative non-plastic packaging, product recyclability and phase-out or/and phase-down of hazardous chemicals used in products; - promote design and manufacture electronic and electrical products with less toxic material inputs (design for environment).

		- implement prevention and reduction programmes targeting single-use plastics, styrofoam containers and products containing hazardous substances;
Goal 8. Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris, abandoned, lost or otherwise discarded fishing gears and nutrient pollution	SDG 3, SDG 12, SDG 14.1, SDG 14.2, SDG 14.3	- explore state-of-the-art technologies and techniques being used to measure and monitor plastic waste in municipal and marine environments; - implement actions to tackle practical challenges in municipal solid waste management systems for terrestrial and marine environments; - limit use of plastics and their presence in the environment and natural ecosystems through effective government regulations and multi-stakeholder engagement along the value chain; - reduce excess nutrients lost to the environment including through more efficient nutrient cycling and use - promote the use of less harmful fishing gears and control their disposal into the sea;
Cluster III: Sound Material Cycle Society and Resource Recirculation towards Zero Waste and Circular Society		
Goal 9. Minimize demand and pressure across supply chain on virgin raw materials and avert resource constraints by implementing 3R and circular economy for all waste streams		Managing materials sustainably is at the heart of the triple environmental crisis - climate change, biodiversity loss and waste and pollution. The basic foundation of 3R and circular economy lies with the practices that involve uses or consumption of smaller amount of physical resources and virgin raw materials and generating lesser waste that could be fully reused or recycled. The route to sustainable development is through minimizing

		natural capital inputs through out the entire life cycle of products and services that drive local, national, regional and global economies. 'Just-in-time' use of waste materials should be considered without losing the value of the wastes. Also not just flow of materials, emphasis should also be given to redesigning, re-generating, and re-purposing. Renewal, regeneration, and conservation of natural capital (land resources – forests, farms, aquifers, grasslands, urban space; aquifer systems – rivers, lakes, wetlands, coastal and marine ecosystems; the atmosphere; and the dynamic cycles of nature) form the foundation for achieving not only sustainable resource efficiency and zero waste society, but also the SDGs, the Paris Agreement, and the UN Decade on Ecosystem Restoration, among other international agendas and agreements.
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	SDG 11, SDG 12, SDG 15	- develop and enforce guidelines to include a standard protocol for disaggregating the household and non-household fractions of municipal waste; - enact and implement necessary policy and regulatory frameworks to fully use the potential of dry waste in the circular economy; - provision of fiscal incentives to encourage use of recycled products, including tax rebate on recycled products to increase its competitiveness and marketability; - establish and accelerate appropriate extended producers' responsibility (EPR) frameworks or schemes; - achieve full-scale utilization of the organic component of municipal waste stream, including food waste, as a valuable resource towards

		composting, energy recovery, employment creation and preventing landfilling; - mandate the inclusion of food waste prevention as part of national waste prevention programmes; - take necessary actions to directly engage and encourage key players able to influence food waste reduction; - consider ways to encourage transparent communication by corporate and business sector along the food value chain regarding their actions to tackle and prevent food waste; - launch public awareness campaigns on sustainable lifestyles in relation to prevention of food waste; - establish comprehensive policies and programmes on mandatory use of certain percentage of recycled material in place of virgin materials taking into consideration the absence of alternatives such as medical, welfare, food safety, sanitary and disaster response use; - mandate source segregation for the success of circularity in wet waste; - facilitate and expedite environmental clearance for waste processing plants and other green industries; - promote composting in support of sustainable agriculture (both urban and rural farming) and food security;

		- incentivising of bio-methanation (biogas plants) towards energy security; - achieve adequate sewage treatment capacity in a time-bound manner; - preparation of new standards for designated reuse; - develop policies and regulatory framework for wastewater (including storm water) reuse (wastewater recycling and reuse offers a reliable, long-term source of water supply to help meet non-potable water demand); - promote source segregation, collection & recycling of plastic waste, application of scientific methods of recycling, comprehensive methods for plastic waste management; - create institutional mechanism to promote circular economy in wastewater; - encourage use of recycled water in industries, especially in thermal power plants and in urban agriculture; - promote scientific treatment of sludge so that they can be utilised as a resource; - introduce national policy on sludge reuse and recycling; - introduce comprehensive standards on recycle and reuse of processed sludge;

		- promote transparency in monitoring the volume and end destination of residues from waste pre-treatment, treatment and recycling processes in the entire supply chain; - develop and enforce guidelines for industrial wastes minimization and management through the value chain, promote efficiency, reduce, recovery, reuse and recycle, as well as remanufacturing.
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	SDG 1, SDG 2, SDG 12, SDG 13, SDG 14, SDG 15	- encourage sustainable farming and production methods that minimize losses, such as precision agriculture, better forecasting, and efficient inventory management; precision agriculture can optimize crop yields, reduce food losses at harvest, and minimize waste from damaged produce; - raise awareness among consumers about food preservation, meal planning, and understanding expiration dates to reduce household food waste; - promote collaboration and partnerships to engage stakeholders across the supply chain—including farmers, retailers, and consumers—to create a cohesive strategy for reducing food loss and food waste; - implement systems for repurposing food scraps and unsold food, such as composting, anaerobic digestion, or donating to food banks;

		- utilize sustainable and innovative packaging designs that extend shelf life and reduce spoilage, e.g., Modified Atmosphere Packaging (MAP) or vacuum sealing can preserve freshness and reduce waste; - improved storage conditions in warehouses and retail outlets can reduce spoilage, especially for perishable goods; - promote innovative food technologies to use food byproducts such as fruit peels, stems, or leftover grains to create new food products or ingredients in the food manufacturing process; - encourage composting of food waste at the household, business, and community levels; community composting programs and local composting facilities can reduce landfill waste, thereby CH4 emissions, and generate valuable organic material for agriculture; - support large-scale composting systems for organic waste that create soil regeneration and enhance soil fertility for sustainable farming, reducing the need for chemical fertilizers; - convert food waste into biogas through anaerobic digestion, which can be used for energy production, and the resulting digestate can be used as compost or soil enhancer; - advocate for policies that require food industries and businesses to donate edible surplus food to charities instead of discarding it;

		- implement standardization in food labeling to help consumers understand when food is still safe to eat, reducing the discarding of perfectly good food; - conduct regular audits of food waste to track progress, identify inefficiencies, and make data-driven decisions to improve practices across the supply chain; - promote and enable responsible and efficient segregation at source of all kinds of wastes; - promote use of artificial intelligence (AI), the Internet of Things (IoT), and blockchain technology to track food waste and optimize supply chain operations, such as real-time tracking of food shelf life and demand planning, and also to ensure transparency in the food supply chain, from farm to dining, helping to track where food waste occurs and improving food safety.
Sub Goal 9 (c). Enhance 3R and circular economy policies and programmes, including technological innovations, for construction & demolition (C&D) waste	SDG 8.4, SDG 11, SDG 12, SDG 15	- promote measures to improve the durability and adaptability of built assets in line with the circular economy principles for buildings design; - build adequate capacity for processing of C&D waste so that material value of C&D waste is not lost into landfills causing environmental and economic losses; - introduce policies and programme, including provision of incentives, towards reduction in virgin construction raw material usage in different building projects;

		- develop an integrated nationwide infrastructure for waste management towards resource recovery; - support green business models that takes into account end-of-life recovery options in the design phase; - extend tax rebates on recycled C&D products; - promote recycling industries in C&D areas; - significantly enhance role of the private sector; - promote standards & regulations for recycling of C&D waste, including hazardous waste, e.g., asbestos, which can not be easily recycled; - promote green building codes appropriate to local ecosystems;
Sub Goal 9 (d). Advance circular economy approaches in rural sector, including covering agricultural commodities and waste, with an objective to reduce ecological impacts, create new employment opportunities and alleviate poverty	SDG 12, SDG 1, SDG 2	- promote circular agriculture in rural areas with a focus on using minimal amounts of external inputs, closing nutrients loops, regenerating soils, and minimizing the impact on the environment; - promote organic farming and reduce the dependence on chemical fertilizers, and pesticides; - promote agroforestry (tree planting in combination with crops or pastures) that can help restore biodiversity in agricultural landscapes, while increasing soil fertility by enhancing the accumulation of organic matter from decaying nature, thereby making the agriculture more circular by reducing the dependency on chemical fertilizers, pesticides

		and plastics (agroforestry can also reduce the need for plastic mulch by making the use of leaves and other plants as organic matter); - promote agroforestry in combination with livestock farming to lower ecological impacts (using crop residue biomass as animal fodder reduces the available soil cover, whereas using more available biomass from trees to meet livestock needs helps maintain constant soil cover and reduce soil erosion; - build necessary system and supporting infrastructure to promote systematic segregation, collection and recycling of household wastes in rural areas (plastics, metals, end-of-life batteries and e-wastes, etc.) - achieve full-scale prevention of food loss and food waste in the overall food supply chain between farm to consumer (production, post harvesting and storage, processing and packaging, distribution, consumption).
Sub Goal 9 (e). Achieve resource efficiency and circularity in metal sector	SDG 8.4, SDG 12	- metal sector needs to be at the forefront of circular economy model through adoption of 6R principles of reduce, recycle, reuse, recover, redesign and remanufacture; - develop sound monitoring and knowledge-base on extraction, processing, transportation, use and disposal of materials (that constitute a very large part of the energy consumption, and thereby closely linked to GHG;

		- promote sound resource recovery, recycling policies and technologies for end of life vehicles; - promote where appropriate sub-regional partnerships for improved resource efficiency and circularity; - explore specific volume-based targets to promote the recovery of critical, valuable materials from end-of-life products, including developing indicators that would demonstrate both in terms of volume and value the circularity of materials in the country; - build data, information, and knowledge-base on domestic metal ores, industrial extraction, and industrial consumption;
Sub Goal 9 (f). Achieve resource efficiency and circularity of plastics aiming at phasing out the problematic and single use plastics	SDG 3, SDG 8.4, SDG 12, SDG 13. SDG 14, SDG 15	- enact legislation and regulation to limit the availability and use of single-use plastic products taking into consideration the absence of alternatives such as medical, welfare, food safety, sanitary and disaster response use; - promote an environment that avoids on the first hand the usage of single use plastics and replaces them with reusable packaging where packaging is needed; - promote a systematic waste characterisation study and conduct a comprehensive assessment mechanism to determine how and why single-use plastic items are used, public appetite for change, and reusable alternatives and recycling potential;

		- promote bio-based and compostable plastics that have emerged as alternatives to some traditional plastics. Compostable alternatives often require processing in a commercial composting facility to break down; - weight of single-use plastic products imported and sold (million tons/year)
Sub Goal 9 (g). Achieve resource efficiency and circularity for waste electrical and electronic equipment (WEEE)	SDG 3, SDG 8.4, SDG 12	Circular economy fundamentally replaces the end-of-life concept with restoration and regeneration, shifts towards usage of superior design of materials, products, systems and business models for waste elimination. It aims at retaining value of resources, products and materials at their highest by keeping them in use as long as possible, minimizing wastage at each stage of the life-cycle, and extracting the maximum value through reusing, repairing, recovering, remanufacturing and regenerating products and materials at the end of each service value. Electronic and Electrical Equipment (EEE) manufacturing is largely dependent on high material consumption of metals like iron, copper, silver, gold, aluminium, manganese, chromium and zinc along with various rare earth elements which are finite resources. Rate of extraction of these abiotic resources for EEE manufacturing is significantly higher than the rate of their formation in nature. WEEE is considered as one of the rich sources of secondary raw materials and can contribute towards resource security and environmental sustainability. Circular economy approach is imperative to fulfil the aspirations of the countries on the resource needs and security. Possible strategies to deal with WEEE could include:

		- develop and improve national legislation and enforcement to create a robust e-waste management system based on extended producer responsibility (EPR) and the "polluter pays" principle; - provide adequate resources and financing for environmentally sound e-waste management including safe collection, segregation, recycling and disposal; - regulate industry to incentivize, including through adequate finance, responsible manufacturing of electronics, using safer and less toxic materials and take-back mechanisms; - promote business models that allow the producers and manufacturers of EEE to efficiently co-ordinate on collection, reporting and proper treatment of e-waste, whilst also encouraging repair, remanufacture, refurbishment and preparation for re-use of products; - promote policies that supports integration of circularity principles in design, manufacturing, consumption and finally end of life management of products; - promote polices that support recovery and utilization of secondary raw materials, circular products with longer use-life, quality assurance for repair and refurbished products, advanced recycling technology to mine secondary materials from e-waste;

		- promote ICT tools to take full advantage of the potential and synergies of two major revolutions of our time - the circular economy and the Industry 4.0; - mandate separate collection and proper treatment of WEEE and sets targets for their collection as well as for their recovery and recycling; - strengthen capacity of formal recycling facilities; - create required market facilities in support of resource recovery industries; - develop necessary infrastructure that encourages networks of recovery and recycling – which have co-developed smart logistics for waste collection, separation and transportation together with municipalities, citizens and industry – to secure waste streams at economies of scale which lower investment risks; - promote where appropriate sub regional partnerships for improved resource efficiency and circularity; support business infrastructure for business models that takes into account end-of-life recovery options in the design phase; - eliminate illegal processing of e-waste (keeping in mind health and environmental issues); - formalize collection and processing of e-waste;

		- promote active media and PR campaign to raise public awareness on refurbished products; - promote eco-labelling schemes and green consumerism; - launch public awareness campaigns on sustainable lifestyles; - strengthen regional capacities, following guidance from the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (including the new revised annex of Basel Convention), other appropriate conventions and the Sustainable Development Goals (SDGs);
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	SDG 3, SDG 11, SDG 12	The medical and healthcare sector generates millions of tonnes of waste regionwide each year. Medical and healthcare wastes directly or indirectly negatively impact the environment, public health, and well-being in many ways. Improper disposal of such wastes can contribute to climate change, biodiversity loss and pollution that contaminate air, water, soil and ocean. Possible strategies to deal with medical and healthcare wastes could include: - implement strategies for more efficient sorting, reuse or reprocessing of single-use medical devices, composting, and other approaches to prevent waste; - address circularity concepts early in the procurement stage when assessing various medical products and services and establish dialogue

		with manufacturers and collaborate to prevent the creation of waste and increase reusability; - promote practices that reduce the volume of waste generated and ensure proper waste segregation at source; - raise public awareness of the environmental impacts of medical and healthcare waste and that most non-hazardous waste from healthcare facilities is potentially recyclable or compostable; - promote safe and environmentally sound treatment of hazardous medical and healthcare waste where feasible, e.g., autoclaving, microwaving, incineration steam treatment integrated with internal mixing, or chemical treatment; - progressively build a comprehensive waste management system that clearly addresses responsibilities and resource allocation for the safe handling and disposal of healthcare waste; - promote toxic free medical and healthcare institutions and facilities by excluding carcinogenic, mutagenic, toxic, or hazardous substances from products and services used in healthcare; - protect health workers from the hazards of handling, storing, transporting, treating or disposing waste and ensure they are reasonably covered with life and health insurance, including provision of necessary personal protective equipment;

		- educate health workers on various health hazards linked to medical and healthcare waste and provide them with required training and capacity building on proper waste segregation, waste handling, storage, and disposal in line with appropriate national waste policies and regulations as well as WHO guidelines; - promote state of art research in managing healthcare wastes.
Sub Goal 9 (i). Promote safe and sustainable hazardous waste management with a focus to waste-prevention and reduction actions for industries, including MSMEs	SDG 3, SDG 8, SDG 12	- focus on designing products and services that are durable and recyclable which includes using recycled or renewable materials, implementing modular designs, and considering the entire life cycle of the product; - implement educational campaigns to enhance knowledge on circularity practices for MSMEs that can help fuel and sustain demand and supply of circular products and services; - introduce tax-breaks for MSMEs who operate closed-loop models, while penalties could be imposed on businesses that generate excess waste in the production process; - improve access to the technology and infrastructure that help MSMEs migrate towards circularity;
Sub Goal 9 (j). Achieve resource efficiency and circularity for solar wastes, in particular panels, photovoltaic cells and related equipment	SDG 8.4, SDG 11, SDG 12	- establish national inventory on data and information on generation and recycling of solar panel wastes (note: raw material for new solar panel include glass, silicon, and valuable metals such as silver, copper and aluminium);

		- support business infrastructure for business models that takes into account end-of-life recovery options in the design phase; - explore EPR option in solar sector.
Sub Goal 9 (k). Achieve circularity for end-of-life batteries	SDG 8.4, SDG 11, SDG 12	- support business innovation and green skills training as well as information campaigns, including promotion of extended producer's responsibility to strengthen the link between producers and end-of-life battery management options as well as eco-design requirements to make re-use and repair activities economically viable; - promote research and green business models for second-life e-mobility batteries in stationary applications such as integrated energy storage systems and battery cabinet, etc.;
Sub Goal 9 (l). Achieve circularity for end-of-life vehicles	SDG 8.4, SDG 9, SDG 12,	- where relevant to vehicle manufacturers, the circularity strategy should be applied to the manufacturer as a whole and not at the vehicle type level; - mandatory dismantling should be explored and promoted towards resource recovery, and removal of parts and components for reuse or remanufacturing should remain driven by market demand, safety standards (road worthiness) and ecological feasibility (toxicity, CO2 footprint, durability, etc); - EPR should be explored, and ensure that producers are made financially responsible for vehicles when they reach end-of-life or become waste;

		- promote environmentally friendly design for disassembly, remanufacture and recycling; - adopt material substitution and dematerialisation strategies; - promote recovery of more and better-quality raw materials, including plastics, steel and aluminium;
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	SDG 8.4, SDG 11, SDG 12, SDG 13	- promote waste oil infrastructure and appropriate technologies to transform waste oil into valuable products like lubricants, asphalt blends, and industrial fuels, etc.; - promote research and development to harness economic and environmental benefits of waste oil recycling;
Sub Goal 9 (n). Achieve resource efficiency and circularity for waste tyre and rubber	SDG 8.4, SDG 11, SDG 12	- promote innovation in design and manufacturing with an objective to increase longevity of tyres (as the cultivation of new sources of rubber decoupled from deforestation), and achieve sustainable reuse and recycling of tyre materials; - explore appropriate technologies for converting waste tyres into roads construction materials; - explore means or opportunities to promote resource recovery such as black carbon materials from end-of-life tyres and use them to produce synthetic fuels (including biogas); - support business infrastructure for business models that takes into account end-of-life recovery options in the design phase;

Sub Goal 9 (o). Significantly improve disaster waste management and resource recovery and response through circular economy	SDG 11, SDG 12	- promote the reuse, recycle and reduction of final disposal for large amounts of disaster waste; - prevent the deterioration of the living environment and/or health due to abandoned disaster waste / accident due to hazardous materials; - support reconstruction of infrastructure to be stronger than in pre-disaster stage and build-back-better (B-B-B)
Sub Goal 9 (p). Achieve resource efficiency and circularity for textile waste, including fashion industry	SDG 8.4, SDG 12, SDG 13	- launch public awareness campaigns on sustainable lifestyles; - explore investments in the re-use and recycling infrastructure for textiles with an objective to create local jobs and boost innovation in all phases of textiles' lifecycle; - promote sustainability system building, including Extended Producer Responsibility (EPR) scheme for textile - promote research and development into innovative technologies for the circularity of the textiles sector, e.g., fibre-to-fibre recycling; - recognize and promote green production technologies in textile sector; - promote innovation in textile production processes (through green and sustainable chemistry) by supporting collaboration between innovators, fibre producers, chemical suppliers, textile mills and brands to develop and demonstrate alternative processes, materials

		and/or chemicals with the desired properties that avoid using hazardous substances; - promote business opportunities and markets for recycling and ruse, including second-hand textiles.
Cluster IV: Cross-cutting Socio-Economic Goals and Resilient Economies and Societies		
Goal 10. Strengthen resilience to climate change, natural disasters, and health emergencies and pandemics through 3R and circular economy, including nature-based solutions	SDG 9, SDG 13, SDG 14, SDG 15	- establish the explicit connections between resilience and circular economy strategies across all line Ministries and agencies; - promote continuous learning and adaptation, including distinguishing different types of resilience (resilience to recover from a shock, resilience to adapt or resilience to transform); - promote circular economy strategies that halt degradation of natural and ecological assets by reducing the demand for virgin raw materials, decreasing pressure on ecosystems that improve climate adaptation and resilience against increasing frequency and magnitude of natural disasters; - achieve environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment; - implement effectively the Sendai Framework for Disaster Risk Reduction (2015-2030) with improved coordination with national laws

		and policies on circular economy and other landmark United Nations agreements such as the Paris Agreement (UNFCCC, 2015), the Habitat III New Urban Agenda (2016), the Convention on Biological Diversity (CBD), and the United Nations Convention to Combat Desertification (UNCCD); - promote agroforestry to increase forestation and decrease soil erosion towards ecosystem restoration and resilience, and strengthen social resilience by diversifying income; - scale up of efforts to build urban resilience especially of coastal cities, towns and local community through nature-based solutions;
Goal 11. Achieve Social Empowerment and Security		By addressing social inequities, empowering marginalised communities, and promoting inclusivity, the circular economy can drive positive social change. The circular economy aims to promote alternative economic systems by prioritizing the well-being of people and the planetary ecosystems. By implementing circular principles such as resource efficiency, waste minimization, and fair distribution and recirculation of resources, the circular economy can bridge social disparities and promote social security, equity and justice. Policy makers should recognize the interplay between environmental sustainability and social empowerment and security issues to effectively leverage circular economy policies and programmes for social equity and justice goals. At the same time, circular economy initiatives provide opportunities for policy makers to empower marginalised communities and promote social equity and justice. By ensuring that circular projects and business models are inclusive and benefit all sections of the society, policy makers can address social

		inequalities so that no one is left behind in line with the central philosophy of SDGs.
Sub Goal 11 (a). Ensure decent and safe working environment and personal protective equipment for all informal waste workers and achieve sustainable transition for them to become key waste management actors in a circular economy	SDG 3, SDG 8, SDG 12, SDG 16	- improve working conditions and work-related toxic exposure at waste collection, dismantling, recovery and disposal facilities; - work progressively towards shifting from minimum wage to living wage for informal waste workers so that no one is left behind; - motivate companies to achieve the dual goals of promoting decent work and improving their bottom line while positively contributing to sustainable economic development and creating a more equitable society; - incorporate informal waste workers into the formal economy, providing training, protective equipment and other measures to ensure occupational safety, especially for the women and the youth; - implement relevant rules and regulations to protect the informal workers, including ensuring their access to welfare, health care, and safety protection;

Sub Goal 11 (b). Complete elimination of illegal engagement of children in the informal waste sector	SDG 3, SDG 4, SDG 16	- establish children's environmental health surveillance and monitoring systems that include indicators related to hazardous wastes such as e-waste; - bring more quantities of wastes (e.g., e-waste) under proper organised treatment by expanding the formal infrastructure, and minimising the hold of the informal waste management industry; - work with schools and educational institutions to actively prevent and respond to child labour by engaging with at-risk youths and families; - provide assistance to families of at-risk children to access services that may protect them from child labour, such as social protection, documentation and birth registration; - deploy appropriate social services to help families remove children from the e-waste workforce; - empower the community, parents, youth, children and NGOs through various public awareness campaigns; - all relevant Ministries, in particular the Ministry of Health, Ministry of Education and Ministry of Environment should work together to develop and expand children's environmental health capacities and address concerns related to children's exposure to e-waste and other industrial hazardous wastes;

		- improve the capacity of paediatric and primary health care system to detect and diagnose children's illnesses related to e-waste and other industrial hazardous wastes, and raise awareness among health professionals and the general public of this pollution concern; - support research and contribute to existing knowledge on the health impacts of pregnant women and children who are involved in the e-waste sector;

Sub Goal 11 (c). Ensure adequate social protection such as life insurance, health insurance and other support mechanisms for informal waste workers	SDG 1.3, SDG 3.8, SDG 8.3, SDG 8.8, SDG 10.4, SDG 11.6, SDG 16.7,	- register informal waste workers, create databases and registries to formally recognize and categorize informal waste workers, which is the first step toward extending social protection benefits; - encourage the integration of informal waste workers into formal waste management systems by providing incentives like access to social protection benefits and occupational training; - design insurance products specifically suited to the needs of informal workers, which may have lower premiums and flexible payment schedules; - provide subsidies or co-payment schemes to reduce the financial burden of purchasing insurance; this can be supported by government funds or partnerships with NGOs and private insurers; - develop policies to include informal waste workers in national social security schemes; this could cover unemployment benefits, maternity leave, and pension plans; - support the creation of waste worker cooperatives or associations, which can negotiate better working conditions, ensure fair pay, and collectively purchase insurance policies; - provide training for waste worker associations to manage group insurance schemes, advocate for their rights, and engage with stakeholders effectively;

		- advocate for legislative reforms that mandate social protection inclusion for informal workers, such as labor rights, occupational safety standards, and access to health services; - set legal minimum standards for health, life insurance, and social security benefits that apply to all workers, regardless of their employment status; - ensure that informal waste workers have access to personal protective equipment, such as gloves, masks, and boots, reducing their exposure to occupational hazards; - establish health clinics or mobile units that offer free or affordable health check-ups, vaccinations, and treatments specifically for informal workers; - conduct awareness campaigns and training sessions on occupational health and safety practices to reduce workplace accidents and health issues; - increase awareness among informal workers about their rights and the social protection mechanisms available to them, and advocate for their inclusion in social protection schemes at the policy level; - promote public-private-partnerships (PPPs), and partner with private companies, local governments, and NGOs to provide social protection programs; for instance, waste management companies can contribute

		to insurance premiums or offer employment contracts that include health benefits.

Goal 12. Create green jobs towards new employment generation, including women and youth empowerment ensuring just transition[3]	SDG 1, SDG 2, SDG 5, SDG 16	- government and private sector should work towards achieving a paradigm shift to link the environmental and social consciousness of diverse groups including women with the wide range of jobs, including manual labour and technical positions in waste management sector; - governments should work with business and unions to recruit and retain women in non-traditional occupations. Mobilizing female labour supply through targeted programs and gender quotas is potentially the most effective way to increase green jobs for women; - overcome all forms of barriers to achieve greater female participation as well as person with disabilities in the waste management workforce through combating discrimination and implementing family-friendly policies;
Cluster V: Means of Implementation - Partnerships, Technology Transfer, Research and Development, National and International Financing and Investments, Institutional Capacity Building and Information Sharing		
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	SDG 17.16, SDG 17.17	- national, regional and local authorities should encourage and support the development and use of standards, metrics and methods for quantifying, reporting and managing natural capital risks and opportunities;

[3] The concept of just transition, is broadly defined by ILO as ensuring that no one is left behind or pushed behind in the transition to low- carbon and environmentally sustainable economies and societies.

		- governments should work with companies that depend on or affect natural capital to ensure greening the entire supply chain; - financial institutions should ensure that they do not support companies that deplete natural capital; - governments should work with scientific and academic institutions to mobilize, harness and disseminate existing knowledgebase on circular economy to accelerate the implementation of the SDGs; - governments should catalyse triangular cooperation (government-scientific and research organizations-business and industry sector) in advancing a science-based policy making towards effective implementation of circular economy in all development sectors; - public-private and donors communities should nurture experimental spaces for collaboration on circular economy; and taking science-policy-business interfaces to the next level, those experimental spaces can reap new partnerships and foster co-creation of transformational ideas on circular economy;
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	SDG 17.6, SDG 17.7, SDG 17.8	- multilateral organizations, governments and public authorities should make concerted efforts to facilitate multi-directional (North-South, South-North and South-South) transfer of technologies related to circular economy; - technologies essential in advancing circular economy implementation should be made available under flexible terms to developing countries;

		- national governments and development partners should promote an open network of technological infrastructures for MSMEs to promote the integration of advanced manufacturing technologies into their production processes; - development agencies, research and development (R&D) institutions, technological centres, universities, and business enterprises should work together to promote eco-innovative technologies and eco-industrial parks to support sustainable and resource-efficient production patterns, including industrial symbiosis; - promote digitalization and role of artificial intelligence (AI) in circular economy should be explored;
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	SDG 12, SDG 14, SDG 15, SDG 17	- strengthen institutional capacity for improved data collection and management; - promote public-private-partnerships; - develop human capacity through dedicated training and capacity building programmes; - promote regional and international cooperation towards resource (including recyclables) recirculation;
Sub Goal 13 (d). Identify relevant funding mechanisms including means to access, and mobilize national and international financing and investments towards circular economy	SDG 17.3, SDG 17.5	- enhance actions required to raise capital through green credits, green bonds to finance projects aimed at moving waste management practices up the waste hierarchy (disposal -> recycling -> reuse -> reduce);

		- progressively introduce and implement and/or gradually raise taxes on waste – e.g. for landfill, incineration, plastic bags, etc; - support micro-finance and alternative finance mechanisms accessible for MSME towards transitioning to circular economy; - mobilize required resources in support of building 3R infrastructure such as eco-industrial zones, resource recovery facilities, and science parks, etc;
Sub Goal 13 (e). Information sharing and capacity building programmes targeting key government institutions and agencies and industrial authorities and private sector, including MSMEs	SDG 17.9	- provide support for jobs training as well as support to social enterprises to boost the repair sector, in particular, aiming to help remove socio-economic barriers to repair activities, such as competition with recycling and energy recovery; - promote appropriate industrial practices such as ecolabelling schemes, energy audits, environmental accounting systems, eco-industrial parks; - implement capacity building programmes for relevant government institutions so that they could ensure transparency around the environmental outcomes of arising from different recycling options;
Sub Goal 13 (f). Strengthen policy and regulations, including green public procurement, for integrating circular economy principles in all development sectors	SDG 12, SDG 13, SDG 14, SDG 15	- promote the transition towards a circular economy, including waste management and planning approaches that fundamentally emphasize waste prevention as opposed to end-of-pipe waste management; - promote sustainable consumption and production patterns through well-planned land use, rapid scale up of renewable energy and energy

		efficiency, and effective sustainable urban mobility plans, with fewer cars and more public mass transit options; - encourage changes in patterns of demand and consumption, including through regulation, promotion of sustainable advertising and marketing practices, and consumer education, to reduce environmental impact and pollution; - consider wider role of economic instruments (landfill tax, incineration tax, EPR, taxes on plastic carrying bags and packaging, etc., in promoting circular economic objectives (e.g., landfill tax could encourage alternative treatment options such as energy recovery or recycling); - include ecosystem services evaluation in economic strategies; - promote policies and programs to enhance nature-based solutions in support of circular economy; - embed circularity in practices and NDC pledges surrounding biomass, construction sector, transportation sector and waste management; - encourage collaboration between educational institutions, businesses, and community organizations to develop real-world projects and initiatives that demonstrate the practical application of circular economy principles.
Sub Goal 13 (g). Strengthen public awareness and integrate 3R and circular	SDG 4, SDG 12.6, SDG 12.7, SDG 12.8	- promote 3R and circular economy as part of the sustainable environmental education at pre-school, primary school, secondary

economy in formal education, including empowering consumers, producers and traders on 3R and circular economy		school, tertiary or advanced institutions of higher education, training institutes for state and national government employees. - promote targeted campaigns through news, TV programs and social media to promote better public understanding of the environmental implications of the "consumer society" and to bring about transformational changes in purchasing behaviour and lifestyle choices. - promote industry-wide (including MSMEs) awareness by disseminating best industry practices, management tools and technologies, including information clearinghouse and networks, extension services and technical assistance systems, demonstration projects, industry associations, and training facilities. - introduce appropriate consumer law towards empowering consumers and providing them with cost-saving opportunities, including provision of trustworthy and relevant information on products at the point of sale, including on their lifespan and on the availability of repair services, spare parts and repair manuals. - promote green public procurement (public authorities to procure goods produced from or with a certain fraction of secondary raw materials; - promote targeted campaigns for traders to raise awareness on environment responsibilities to their activities;

Guidance Note 2: Reference Set of Indicators for Assessing the Progress of Implementation of the Jaipur Declaration on 3R and Circular Economy (2025-2035)[4]

This guidance note outlines a reference list of indicators the countries may use for assessing the progress of implementation of the Jaipur Declaration which is a legally non-binding and voluntary document, and thus countries may opt for developing a number of additional or alternative indicators taking into consideration respective national priorities, circumstances and capabilities.

The objective of such a comprehensive list of indicators is to provide guidance for the countries towards assessing the progress of implementation of 3R and Circular Economy Goals.

The Countries may wish to develop their own set of indicators in order to determine specific, quantifiable targets within a timeframe using the reference list of indicators.

Sustainable 3R and Circular Economy Goals	**Indicators for Assessing the Progress of Implementation of Jaipur Declaration (2025-2035)**
Cluster I: Promote Sustainable Resource Management, Resource Efficiency and Low-Carbon Society	
Goal 1: Achieve significant improvement in materials, energy, and water efficiency	Material efficiency: - material footprint, material footprint per capita, and material footprint per GDP (SDG Indicator 12.2.1) - domestic material extraction per capita (tons/capita) - domestic material consumption per capita (tons/capita) (SDG Indicator 12.2.2) - domestic material consumption per GDP (SDG Indicator 12.2.2)

[4] No country is obliged to implement the Guidance Note

	- national recycling rate, tons of material recycled (SDG Indicator 12.5.1) - ratio of virgin materials to total material inputs in production process - ratio of actual/potential recycled materials - materials productivity (economic output per unit of material input is a useful measure of resource efficiency) - waste disposal per economic output (economic output per unit of material disposed in open dumps, landfills, incinerator, etc.) - number and area of landfill sites - number of eco-industrial zones (that demonstrate industrial symbiosis) <u>Energy efficiency</u>: - ratio of renewable/fossil fuel resources - energy productivity (the economic output per unit of energy input) - amount of fossil-fuel subsidies per unit of GDP (SDG Indicator 12.c.1) - renewable energy share in the total final energy consumption (SDG Indicator 7.2.1) <u>Water efficiency</u>: - change in water-use efficiency over time (SDG Indicator 6.4.1)
Goal 2: Maximize utilization of biomass, including agriculture waste, as a resource (bio-economy), not waste, through 3R and circular economy	- % of biomass utilization for bioeconomy (bio-energy & bioproducts) - reduction in the volume of biomass sent to landfills or incineration - amount of biomass recovered through recycling and composting - number of new bio-based products developed and commercialized - total revenue generated from bio-based products like bioplastics, biofuels, biochemicals, and organic fertilizers

	- number of policies or regulations promoting biomass utilization in the bio-economy - % of energy derived from biomass in the total energy mix - number of businesses incorporating biomass-based products or bio-based alternatives into their operations or supply chains - number of educational or dedicated research programs on biomass utilization and bio-economy - number of international collaborations or partnerships for biomass utilization
Goal 3: Maximize resource efficiency in micro, small and medium enterprises (MSMEs) through 3R and circular economy	- % of MSMEs that are minimising waste and saving energy in their efforts to become more resource efficient - % of MSMEs that are recycling by reusing materials or waste - % of SMEs that design products that are easier to maintain, repair or reuse - % of MSMEs that sell their scrap material to other companies - % of MSMEs that predominantly use renewable energy for their production - % of MSMEs that are progressively addressing water efficiency
Cluster II: Achieving Clean Environment (Land, Water, Air, Ocean, and Mountains) through 3R and Circular Economy	
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	- proportion of wastewater that is treated, in order to reduce pollutants before being discharged to the environment, by level of treatment (primary/secondary/tertiary) - biological oxygen demand (BOD) and chemical oxygen demand (COD) of major rivers and lakes

	- Government policies and programmes to prevent illegal dumping or discharge of wastes into waterbodies - presence and concentration of hazardous chemicals in water bodies
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	- proportion of municipal solid waste collected and managed in controlled facilities with regards to the total waste generated by the city (SDG Indicator 11.6.1) - Government policies and programme towards prevention of open burning of wastes - emissions of hazardous chemicals from relevant sources - hazardous chemicals concentration in water bodies
Goal 6. Reduce adverse environmental impacts of mining operations by greening the entire supply chain focusing on resource efficiency and ecosystem restoration	- annual investment in rehabilitation (including afforestation) of mining areas - rehabilitated mining sites that have exhibited return of wildlife and their ecological functions in ecosystems, the increase in soil fertility, nutrient cycling, and carbon sink - recycling rate of mining waste - recycling rate of mining waste water - national policies and programmes on environmental performance evaluation and voluntary-reporting by of mining industry - national policies and programmes on environmental auditing of mining industry - national and foreign direct investment in mining eco-efficiency
Goal 6 (a). Reduce adverse environmental impacts on mountain ecosystems from mining, farming and tourism activities	- decrease in the area of land disturbed by mining activities in mountain ecosystems - volume of mining waste recycled or safely disposed of - number of land rehabilitation or restoration projects aimed at restoring ecosystems affected by mining.

	- number of mining operations incorporating circular economy principles to reduce waste and resource consumption. - % of tourism businesses adopting circular economy practices (e.g., recycling, waste minimization) - % of wastewater from mining or tourism facilities treated before discharge - improvement in water quality parameters (e.g., dissolved oxygen, pH, nutrient levels) in mountain ecosystems - changes in populations of key indicator species in mountain ecosystems (measure of health of biodiversity) - number of illegal dumping sites eliminated in mountain ecosystems and enforcement of regulations - number of community-based initiatives promoting sustainable practices in mountain areas
Goal 7. Reduce harmful chemicals and persistent organic pollutants (POPs) in materials, products and wastes, including plastics	- party to international multilateral agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information required by each relevant agreement (adapted from SDG Indicator 12.4.1) - hazardous waste generated per capita (SDG Indicator 12.4.2) - proportion of hazardous waste treated, by type of treatment (SDG Indicator 12.4.2)
Goal 8. Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris, fishing gears and nutrient pollution	- index of coastal eutrophication (SDG Indicator 14.1.1) - density of plastic debris (SDG Indicator 14.1.1) - average marine acidity (pH) measured at agreed site of representative sampling stations (SDG Indicator 14.3.1)
Cluster IV: Sound Material Cycle Society and Resource Recirculation towards Zero Waste and Circular Society	

Goal 9. Minimize demand and pressure across supply chain 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	- proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities (SDG Indicator 11.6.1)
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	- % of food loss during production, harvesting, and post-harvest stages (measured in % of total food produced) - % of food waste at the retail and consumer levels (measured in % of food purchased or consumed) - % of food waste diverted from landfills (measured in % of total food waste) - number of R&D initiatives targeting food waste and circularity
Sub Goal 9 (c). Enhance 3R and circular economy policies and programmes, including technological innovations , for construction & demolition (C&D) waste	- total amount of waste produced by construction and demolition - amount of recovered construction material through an inclusive recycling programme - number of policies supporting green and environment friendly buildings
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	- nitrogen use efficiency - % of total crop area organically management - total land areas (arable + grazing land) under agroforestry - total number of jobs created in composting sector (million) - total number of women employed in agriculture sector (million)
Sub Goal 9 (e). Achieve resource efficiency and circularity in metal sector	- industrial minerals extraction per capita (tons/capita), - consumption of metals per capita (tons/capita) - total consumption of metals (million tons)

	- national recycling rate of metals (million tons/year)
Sub Goal 9 (f). Achieve resource efficiency and circularity of plastics aiming at phasing out the problematic and single use plastics	- plastic waste generation split into applications and polymers (million tons/year) - weight of single-use plastic products sold (million tons/year)
Sub Goal 9 (g). Achieve resource efficiency and circularity for waste electrical and electronic equipment (WEEE)	- quantities of WEEE generated, collected, recycled - quantities of material recovered as second resources (total, by type) - number of national EPR programmes for 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	- total medical waste generated (million tons) - % of medical waste segregated and treated - % of medical waste safely disposed - total expenditures on healthcare waste management sector
Sub Goal 9 (i). Promote safe and sustainable hazardous waste management with a focus to waste-prevention and reduction actions for industries, including MSMEs	- total number of government institutions involved in building capacity of MSMEs in greening the supply chain - total number of non-governmental organizations (NGOs) involved in building capacity of MSMEs in greening the supply chain
Sub Goal 9 (j). Achieve resource efficiency and circularity for solar wastes, in particular panels, photovoltaic cells and related equipment	- quantities of solar waste generated, collected, recycled - national recovery rate (total, per categories) - quantities of used EEE exported (total and per categories) - number of national EPR programmes for solar waste
Sub Goal 9 (k). Achieve circularity for end-of-life batteries	- quantities of end-of-life batteries generated, collected, recycled - national recovery rate (total, by type) - batteries designed for reuse and end-of-life dismantling recovery - number of national EPR programmes for end-of-life batteries
Sub Goal 9 (l). Achieve circularity for end-of-life vehicles	- average age of cars when they are returned to official demolition centres - number of national EPR programmes for end-of-life vehicles

	- reuse/recovery rate of end-of-life vehicles (% of weight of vehicles) - reuse/recycling rate of end-of-vehicles (% weight of 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	- quantities of used oil waste generated, collected, recycled - national recovery rate (total) - number of national EPR programmes for used oil
Sub Goal 9 (n). Achieve resource efficiency and circularity for waste tyre and rubber	- quantities of tyre waste generated, collected, recycled - national recovery rate (total) - number of national EPR programmes for waste tyre
Sub Goal 9 (o). Significantly improve disaster waste management and (resource) recovery and response through circular economy	- total disaster waste generated (million ton) - % of disaster waste segregated - % of disaster waste recovered as secondary resources - % of disaster waste recycles
Sub Goal 9 (p). Achieve resource efficiency and circularity for textile waste (fashion industry)	- quantities of textile waste generated, collected, reused recycled - national recovery rate (total, by type)
Cluster V: Cross-cutting Socio-Economic Goals and Resilient Economies and Societies	
Goal 10. Strengthen resilience to climate change, natural disasters, and health emergencies and pandemics through 3R and circular economy, including nature-based solutions	- government policies and programmes that support integration of circular strategies into climate mitigation and disaster risk reduction - types of nature based solution promoted or employed towards strengthening resilience against impacts of climate change, natural disasters and pandemics
Goal 11. Achieve Social Empowerment and Security	
Sub Goal 11 (a). Ensure decent, safe working environment, and personal protective equipment for all informal waste workers and achieve sustainable transition for them to become key waste management actors in a circular economy	- proportion of informal waste sector employment in total employment, by sex (adapted from SDG Indicator 8.3.1)

	- fatal and non-fatal occupational injuries per 100,000 workers engaged in informal waste sector, by sex and age (adapted from SDG Indicator 8.8.1)
Sub Goal 11 (b). Complete elimination of illegal engagement of children in the informal waste sector	- proportion and number of children aged 5-17 years engaged in informal waste sector, by sex and age (adapted from SDG Indicator 8.7.1) - number of inspections or monitoring activities conducted to identify child labor in the waste sector - number of legal actions taken against employers or individuals engaging children in illegal waste work - existence of laws and policies specifically prohibiting child labor in waste management - number of children withdrawn from the informal waste sector and enrolled in school - percentage of rescued child workers receiving rehabilitation support - access to free or subsidized education for children in vulnerable families - number of awareness campaigns conducted to discourage child labor in the waste sector - number of children with health problems (respiratory problems, injuries) due to working in the informal waste sector
Sub Goal 11 (c). Ensure adequate social protection such as life insurance, health insurance and other support mechanisms for informal waste workers	- percentage of informal waste workers with health insurance - percentage of waste workers receiving financial support during emergencies - percentage of waste workers receiving occupational health and safety training

	- proportion of waste workers who have regular access to necessary personal protective equipment (PPE), such as gloves, masks, and uniforms - percentage of informal waste workers covered by social security programs such as pension schemes, unemployment benefits, or disability support - existence of policies addressing social protection for informal workers - enforcement of labor rights and social protection laws (high, medium, low or absence) - percentage of waste workers aware of social protection schemes
Goal 12. Create green jobs towards new employment generation, including women and youth empowerment ensuring just transition	- total number of green jobs created in waste sector - proportion of green jobs to total new employment - % of women employed in green jobs - contribution of green jobs to national economy (% of GDP) - number of green businesses started by women and youth - availability of financial support or incentives for women and youth-led green businesses - number of policies or regulations supporting green job creation;
Cluster VI: Means of Implementation - Partnerships, Technology Transfer, Research and Development, National and International Financing and Investments, Institutional Capacity Building and Information Sharing	

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	- amount in United States dollars committed to public-private-partnerships for waste management infrastructure (adapted from SDG Indicator 17.17.1)
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	- number of collaborative research and experimental projects implemented on circular economy - cases of international technical cooperation on circular economy - number of patents on circular economy (resource efficiency and resource recovery technology, eco-product design)
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 enhance environmentally-sound waste management and recycling domestically and internationally to increase their circularity	- size of the waste recycling market (million US$) - number of international and regional waste management partnerships - volume of financial support from international partners for waste management projects - number of technical assistance programs for waste management - amount of investment in waste management and recycling infrastructure - proportion of funding allocated to innovative or new technologies for recycling and waste management - number of technology transfer projects implemented - number of training programs for waste management professionals - number of public-private partnerships for waste management initiatives - proportion of private sector investment in waste management projects

Sub Goal 13 (d). Identify relevant funding mechanisms including means to access, and mobilize national and international financing and investments towards circular economy	- dollar value of financial and technical assistance (including through North-South, South-South, and triangular cooperation) committed to developing countries (SDG Indicator 17.9.1) - number of companies benefitted from public grants for the creation of new circular business models - numbers and amount of international grants on circular economy - economic growth of circular economy (% of GDP)
Sub Goal 13 (e). Information sharing and capacity building programmes targeting key government institutions and agencies and industrial authorities and private sector, including MSMEs	- number of national and city government officials trained on circular economy principles and green procurement principles - number of MSMEs trained on circular economy principles and greening the supply chain
Sub Goal 13 (f). Strengthen policy and regulations, including green public procurement, for integrating circular economy principles in all development sectors	- number and name of line Ministries that have integrated circular economy in their work programmes and projects - new laws and regulations that discourage linear practices and promote circular practices - number of companies with certification based on life cycle or eco-design
Sub Goal 13 (g). Strengthen public awareness and integrate 3R and circular economy in formal education, including empowering consumers, producers and traders	- number of international events hosted for the promotion of the circular economy - number of awareness raising activities carried out for plastic use reduction - number of awareness campaigns on marine litter - number of NGOs working in the field of circular economy - number of Universities imparting education on circular economy - number of PhD scholars in the field of circular economy - number of start-ups supported by the government

Note: The proposed list of indicators are mainly drawn from

- SDG Tier 1, Tier 2 indicators
- Hanoi 3R Declaration indicators
- Few new indicators are proposed as relevant

Guidance Note 3: Guidelines for Sharing Country Progress on Implementation of Jaipur Declaration on 3R and Circular Economy (2025-2035)[5]

The UNCRD Secretariat of the Regional 3R and Circular Economy Forum in Asia-Pacific will develop and propose the countries the draft guidelines for sharing their progress on implementation of Jaipur Declaration at the future Forums.

[5] No country is obliged to implement the Guidance Note

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)

1.0 Introduction

The post-2015 development agenda – Transforming our world: the 2030 Agenda for Sustainable Development – and the underlying Sustainable Development Goals (SDGs) adopted by the Member States of the United Nations, represent a plan of action for people, the planet and prosperity and reflect the commitment of the countries to shift the world onto a more sustainable and resilient path. Through adoption of the Agenda, the Member States called for, among others, a world in which consumption and production patterns and use of all natural resources are sustainable keeping in view the national circumstances.

Whereas in the last 50 years, global use of materials has nearly quadrupled outpacing the population growth.[1] The world consumed 28.6 billion tonnes of materials in 1972, 54.9 billion tonnes in 2000, and in 2019 it surpassed 100 billion tonnes[2], and if business as usual prevails, the material use may increase to between 170 and 184 billion tonnes in 2050.[3] Whereas, half of total greenhouse gas (GHG) emissions and more than 90% of biodiversity loss and water stress come from resource extraction and processing.[4] [5]

Rising waste levels accompanied by the rapid acceleration of consumption with over 90% all materials extracted and used are wasted, the rate of extraction has continued to threaten the planet's future and consequently the human lives on it. On the other hand, only 8.6% of materials make it back into the economy.

This growth in resource use has been largely driven by rapid urbanization, new infrastructure development in cities, a growing consumer base with spending power, industrial transformation, and global manufacturing centres in the region.

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.[6] Given the weight that Asia Pacific

[1] OECD (2018). Global material resources outlook to 2060: Economic drivers and environmental consequences. Paris. OECD
[2] Circle Economy (2022). The Circularity Gap Report 2022.
[3] International Resource Panel (IRP) (2017). Assessing global resource use: A systems approach to resource efficiency and pollution reduction. Nairobi. UNEP
[4] Global Resources Outlook Report 2019, UNEP International Resource Panel (IRP)
[5] India has expressed reservation on this sentence.
[6] India has expressed reservation on this sentence.

brings to resource use globally, any improvement in Asia Pacific's resource efficiency will have significant global impacts.[7]

Renewal and conservation of natural capital form the foundation for achieving sustainable resource efficiency and resource security. Natural capital assets are embodied in the land (forests, farms, aquifers, grasslands, urban space), the aquatic systems (rivers, lakes, wetlands, coastal and marine ecosystems), the atmosphere and the dynamic cycles of nature. The route to sustainable development is, in part, through minimizing net natural capital inputs throughout the entire life cycle of the products and services that drive local, national, regional and global economies. [8]

While many countries in Asia and the Pacific have become net importers of raw materials and are already approaching their limits on domestically available natural resources and minerals, the policy and scientific community have recognized the large challenges of resource supply security, increasing waste and pollution, and climate change as critical constraints to future growth and rising material standards of living in the region. Waste is ultimately connected to most environmental problems, from climate change, biodiversity loss, and pollution to leakage of wastes into natural ecosystems (land, air, water and ocean). Asia-Pacific is also highly vulnerable to increasing frequency and magnitude of natural disasters, thereby enhanced resilience of cities and communities (both urban and rural) will be a defining feature of overall sustainability of the region.

Under the Regional 3R and Circular Economy Forum in Asia and the Pacific, the Hanoi 3R Declaration (2013-2023) with its 33 goals was a first unprecedented voluntary commitment of Asia-Pacific countries in moving towards a more resource efficient, circular and resilient societies. The Hanoi 3R Declaration provided an umbrella policy framework for developing and implementing 3R[9] policies and programmes at all levels to help Asia-Pacific countries shift from linear to more resource efficient, circular and resilient societies.

Though policy and regulatory frameworks exist in most countries in the region, the member countries have demonstrated varying degree of achievements on the implementation of the goals of the Hanoi 3R Declaration. The achievements include enactment, elaboration and implementation of new policies and regulations, strengthening institutional arrangements, technological interventions, new and innovative financing mechanisms, development of dedicated 3R infrastructures (e.g., science parks, theme parks, resource recovery facilities, eco-industrial zones, among others), greening of MSMEs, increased public awareness, growing partnerships such as the PPPs, evolution of extended

[7] https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency
[8] ADB and IGES (2008). Towards Resource-Efficient Economies in Asia and the Pacific. Manila. Philippines
[9] For the purpose of this document, 3Rs refer to the principle of reducing waste, reusing and recycling resources and products. Reducing means choosing to use things with care to reduce the amount of waste generated. Reusing involves the repeated use of items or parts of items which still have usable aspects. Recycling means the use of waste itself as resources. Waste minimization can be achieved in an efficient way by focusing primarily on the first of the 3Rs, "reduce," followed by "reuse" and then "recycle." https://www.env.go.jp/recycle/3r/en/outline.html

producer responsibility (EPR) based recycling mechanisms, and proliferation of international collaborative research programmes, among others. While resource productivity is steadily increasing in many countries, the total waste generation and material consumption is also increasing across the region.

The 2030 Agenda for Sustainable Development and the SDGs not only call for equitable economic growth, but also provide important political and institutional framework to implement 3R (reduce, reuse, recycle) and resource efficiency measures to achieve circular economy development which can create the conditions for sustainable development meeting the needs of the growing population without relying on the use of primary resources or virgin raw materials. Resource security, environmental benefits and sustainable economic growth are at the heart of a circular economy[10], 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.[11] As the UNEA resolution on promoting synergies, cooperation or collaboration for national implementation of multilateral environmental agreements and other relevant environmental instruments, adopted at the sixth session of the United Nations Environment Assembly in 2024 highlighted the importance of synergies to address interlinked environmental issues, increasing synergies to address interlinked environmental issues, increasing synergies play a key role to overcome the triple planetary crises of climate change, biodiversity loss, and pollution and to achieve net-zero, climate resilient, circular and nature positive economies.

In a similar vein, the Paris agreement and countries' commitment to GHG emission reduction efforts have created opportunities to harness the co-benefits of resource efficiency and climate mitigation. 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.

A circular economy makes use of various strategies such as 3R (reduce, reuse and recycle) that together minimize and eliminate waste, lower material and resource consumption, and

[10] While there is no agreed definition of a circular economy, there have been some attempts to describe the nature of a circular economy by ISO, UNEP and UNIDO, among others. For instance, ISO 59004 aims to support organizations in contributing to the 2030 Agenda for Sustainable Development by facilitating a transition from linear to a circular economy which emphasizes the sustainable management and renewal of natural resources. Similarly, UNEP defines circular economy is an economic model that focuses on eliminating waste; increasing reuse, recycling and recovery of materials; reducing use of finite resources and shifting to renewable alternatives; and decreasing negative elements such as pollution. Whereas UNIDO defines circular economy is an alternative to the traditional linear economic model where resources are kept in use for as long as possible, maximum value is extracted from them, and waste is relocated from the end of the supply chain to the beginning, giving the used materials a new life. The transition to a circular economy aims to adopt resource efficient and cleaner production systems to allow companies increase their competitiveness while protecting the environment.

[11] India has expressed reservation on this sentence.

other environmental footprints. There is an intrinsic link between a circular economy and climate change mitigation, and transitioning to a circular economy can mitigate GHG emissions that emerge from extractive industries, manufacturing, construction, transportation and other sectors, including through MSMEs.[12]

Extraction and processing of material resources (fossil fuels, minerals, non-metallic minerals and biomass) account for over 55 per cent of GHG emissions.[13] Currently the world is consuming 100 billion tonnes of materials a year. Implementing circular economy practices such as resource-efficient construction, sustainable food production, avoiding planned obsolescence for consumables (including electronics and textiles) and sustainable transportation planning can lead to substantial decreases in GHG emissions.[14]

There is an urgent need to move away from the resource intensive and wasteful linear economy towards a regenerative circular economy while many national and corporate pledges toward achieving net-zero GHG and CO2 emissions by 2050 under the Paris Agreement on climate change.[15]

2.0 Declaration

Preamble

We, the participants, who are representatives of Asia and the Pacific countries, international organizations, bilateral and multilateral agencies, non-governmental organizations (NGOs) including the business sector and MSMEs, research organizations, and 3R and circular economy experts and professionals, having met at the High-Level 12th Regional 3R and Circular Economy Forum in Asia and the Pacific, held in Jaipur City, Rajasthan State, India, 3-5 March 2025, adopt the non-legal, non-binding, voluntary *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)*, inspired by the Sustainable Development Goals, the Paris Agreement on Climate Change, the New Urban Agenda and other global Agreements,.

We affirm our interest in, and commitment to, realizing a decade (2025-2035) of progress in sustainable actions and measures towards transitioning to circular economy and achieving resource efficient, clean and pollution free, resilient, sound material cycle and low-carbon society in Asia and the Pacific.

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

[12] India has expressed reservation on this paragraph.
[13] UNEP Global Resource Outlook 2024. Bend the trend Pathways to a liveable planet as resource use spikes.
[14] https://www.circularity-gap.world/2021 - India has expressed reservation on this sentence.
[15] India has expressed reservation on this paragraph.

capital and loss of biodiversity and ecological assets, making an economy resilient by reducing its material imports dependency, and creating new employment opportunities;

Stressing the importance of supply security of critical minerals and materials towards realizing a net-zero economy and ensuring that critical minerals and materials supply chains follow the highest possible environmental, social and governance standards;

Recognizing the need to alleviate pressure on primary supply of natural resources and strengthening circularity along supply chains, and thereby underscoring the importance to increasing recovery and recycling of critical minerals and materials from waste electronic and electrical equipment (WEEE), end-of-life vehicles, mine tailings, construction and demolition waste, and other recoverable and recyclable materials;

Acknowledging the global and regional agreements that have a direct or indirect relevance for the resource and waste management in Asia-Pacific - the 2030 Agenda for Sustainable Development and the underlined Sustainable Development Goals (SDGs), (the Paris Agreement on climate change, the New Urban Agenda, the Addis Ababa Action Agenda on Financing for Development, the Sendai Framework for Disaster Risk Reduction 2015-2030, the UN Decade on Ecosystem Restoration (2021-2030), the Kunming-Montreal Global Biodiversity Framework (2022), the Global Framework on Chemicals (2023), the United Nations Convention to Combat Desertification (UNCCD), the Basel Convention, the Rotterdam Convention, the Stockholm Convention, the Minamata Convention on Mercury, Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014–2024, outcomes of various consultations of the Intergovernmental Negotiating Committee on an international legally binding instrument on plastic pollution, including in the marine environment, the Hanoi 3R Declaration (2013-2023), Malé 3R Declaration for the Promotion of 3R and Resource Efficiency Towards Protection of Local Environment and Marine Ecosystem (2015), the Adelaide 3R Declaration on Circular Economy (2016), the Indore 3R Declaration of Asian Mayors (2018), the Bangkok 3R Declaration (2019) on prevention of plastic waste pollution, inter alia among others;

Underscoring the fact that ecosystem based approach and nature based solutions allow ecosystems to fully realize their natural cycles and best deliver their goods and benefits of humans and nature[16], and thereby ***noting*** the *Resolution 5: Nature-based Solutions for Supporting Sustainable Development* of the fifth session of the United Nations Environment Assembly (UNEA-5.2, 2022) that aims to promote actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems and calls for more collaboration and resources;

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

[16] Regional Activity Center for Sustainable Consumption and Production (SCP/RAP), 8 Feb 2022

global environmental challenges and external economic shocks. This includes a large range of impacts from climate change and potentially more frequent and intense natural disasters, and that they remain constrained in meeting their goals in all three dimensions of sustainable development, the Small Island Developing States Accelerated Modalities of Action (SAMOA Pathway)[17];

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 and ***welcoming*** United Nations Environment Assembly (UNEA) resolution 5/14 on "End Plastic Pollution: Towards an internationally legally binding instrument";

Acknowledging that many of the objectives and targets of the SDGs are directly or indirectly supported by 3R and circular economy policies that improve resource efficiency and waste management, making the 3R one of the most important policy instruments to achieve decoupling of economic growth from material use;

Noting that while some countries have made substantial progress in advancing institutional and governance mechanisms for the implementation of 3R policies and programmes, a conventional style of governance still prevails in the region. While the responsibility for the 3R often resides within environmental agencies, the responsibility and commitment of other government agencies is not always at its full potential to harness the multifaceted benefits in resource and waste management, climate and water that could be possible by creating appropriate institutional arrangements that foster coordination and collaboration among national government agencies and between national and local governments;

Recognizing that advancing 3R and circular economy in the region requires new knowledge-based policy research, collaboration and mutual learning among research partners based in different countries in the region;

Recognizing the significance of education and public awareness to empower individuals to embrace sustainable practices in accordance with SDG targets 4.7 and 12.8;

Acknowledging the importance of multi-layer partnerships and alliances both at national and international level[18], including public and private partnerships and triangular

[17] https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/samoa_pathway.pdf

[18] For example, the Global Alliance on Circular Economy and Resource Efficiency (GACERE, 2021), which is an alliance of governments at the global level willing to work together on and advocate for a global just circular economy transition and more sustainable management of natural resources at the political level and in multilateral fora. Bringing together governments and relevant networks and organizations, the Global Alliance on Circular Economy and Resource Efficiency (GACERE) aims to provide a global impetus to initiatives related

cooperation (government, scientific and research organizations, business and industry sector), in advancing science-based policy making with best available science and traditional and indigenous knowledge towards effective implementation of 3R and circular economy in all development sectors;

Stressing the important role of cities in promoting integrated management of resources and wastes, and in delivering circular economy, notably through partnerships for exchanges of experiences;

Express our resolution to voluntarily develop, introduce, and implement policies, programmes, and projects towards realizing the following sustainable 3R and circular economy goals in the region, with a goal to achieve resource efficient, clean, resilient, sound material cycle and low-carbon society in Asia and the Pacific.

3.0 Common Vision and Goals on 3R and Circular Economy -

a. Common Vision

We recognize that in support of implementing sustainable development in its three dimensions – environmental, social, and economic and in moving towards resource efficient and zero waste societies - we need to integrate 3R and circular economy principles in all sectors taking into account national needs, priorities and circumstances.

We further understand that all the UN member countries are concurrently implementing a number of interlinked and mutually reinforcing international agendas and agreements such as the 2030 Agenda and its Sustainable Development Goals (SDGs), the Paris Agreement, the Kunming-Montreal Global Biodiversity Framework (2022), the Global Framework on Chemicals (2023), the United Nations Convention to Combat Desertification (UNCCD), the UN Decade of Ecosystem Restoration 2021-2030, the Stockholm Convention on Persistent Organic Compounds (POPS), the Sendai Framework for Disaster Risk Reduction 2015-2030, the Habitat III New Urban Agenda, the Addis Ababa Action Agenda, the Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014–2024, the SAMOA Pathway, the 2050 Strategy for the Blue Pacific Continent[19], and the Antigua and Barbuda Agenda for SIDS (ABAS) – a Renewed Declaration for Resilient Prosperity, inter alia among others. The success of these agendas and agreements will largely depend on how effectively we integrate 3R and circular economy principles in the overall economic and social development system, including the development sectors such as industries, manufacturing, construction, transport, energy, forestry, agriculture, food, water, coastal and marine,

to the circular economy transition, resource efficiency, sustainable consumption and production patterns, and inclusive and sustainable industrialization. https://www.unep.org/gacere; https://www.unido.org/news/launch-global-alliance-circular-economy-and-resource-efficiency-0

[19] https://forumsec.org/sites/default/files/2023-11/PIFS-2050-Strategy-Blue-Pacific-Continent-WEB-5Aug2022-1.pdf

tourism, trade and commerce, etc., including through MSMES. A Circular economy is also an overarching principle in achieving synergies and needed collaborations in national and international efforts to achieve these international agendas and agreements. The benefits derived from implementing 3R and circular economy policies and measures should be equitable across all income groups, genders, and disadvantaged groups ensuring a "just transition" so that "*no one is left behind*", as called for by the United Nations.

We recognize that a circular economy attaches importance to the systemic approach and circular flow of resources (both renewable and non-renewable) and provides a meaningful framework to integrate both the biological or renewable resource cycle (3R, renewable flow management, regeneration, restoration of natural ecosystem and biodiversity) and the non-biological or non-renewable resource cycle (reduce, reuse, refuse, refurbish, repair, remanufacture, repurpose, recover (both resource and energy), recycle, and replace, among others) while minimizing waste and increasing circularity reducing resource extraction and preventing systematic leakage of wastes into ecosystems and negative externalities. As the concept of regeneration is at the heart of the natural cycle, instead of degrading the nature as is observed in a linear economy, a circular economy builds natural capital with the philosophy of 3R + Renewable.[20]

We also recognize that cities and other subnational actors can play an important role in enhancing a circular economy, through sharing of best practices of policies and actions, fostering collaboration for enhanced technical know-how and that a multi-stakeholder platform may further enable cities and other stakeholders to take feasible actions in the transition to circularity.

We in this context highlight the importance of business actions and strengthening the partnership with the private sector to achieve our goals related to 3R and circular economy, recognizing that scaling more circular business models and operations and fostering innovation throughout value chains, ranging from extraction, processing, manufacturing, reusing and repairing, remanufacturing, to recycling and recovery, are essential in reducing material footprints and associated environmental impacts. Building an enabling environment for the private sector including MSMEs for enhancing 3R and circular economy practices and providing tools to assess their circularity are also important policy aspects.

We further recognize that biodiversity and well-functioning and healthy natural ecosystems are the very foundation of our economies and social well-being, and in similar vein the importance of the Kunming-Montreal Global Biodiversity Framework (2022) that calls for urgent policy actions globally, regionally and nationally to achieve sustainable development so that the drivers of undesirable change that have exacerbated biodiversity loss will be reduced and/or reversed to allow for the recovery of all ecosystems and to achieve

[20] For instance, farming practices that allow nature to rebuild soils and increase biodiversity by allowing the wider food system to return biological materials to the earth rather than wasting them are in full complementarity to the principles of circular economy.

the 2050 Vision of the Convention on Biological Diversity of living in harmony with nature where "*biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people*."[21] A circular and resource efficient economy plays an important role by reducing the demand of primary raw materials and resources, which is biodiversity-inclusive[22] and has significant potential to lower pressures on biodiversity.

Achieving Net Zero will largely depend on significant reduction of energy demand for material extraction and processing. The two dimensions of Net Zero – energy and resource management and carbon sequestration – need to be in harmony that carbon is removed from the atmosphere, used in the economy without being released, and stored for longer periods of time. The nature-based solutions such as restoration of ecosystems, forest protection, afforestation, sustainable forest management and carbon farming sequestration can significantly help remove carbon dioxide (CO2) from the atmosphere. Similarly, increased circularity such as through long term storage in wood construction (such as building with wood stores carbon sequestered by trees when they were growing), re-use and storage of carbon in products such as carbon mineralisation in certain building materials, contributes towards Net Zero. Reducing methane emissions at the waste management phase is also critical in addressing climate challenges in the entire life-cycle of resource use flows.[23]

Today, the Earth is facing critical challenges - climate disruption, nature and biodiversity loss, pollution and waste.[24] 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.

Therefore, we, the Asia-Pacific countries, express our resolve to voluntarily develop, introduce, and implement policies, programmes, and projects towards realizing the following sustainable 3R and circular economy goals in the region to not only achieve resource efficient, circular and resilient societies but also to pave ways towards achieving the Sustainable Development Goals, the Paris Agreement, the Kunming-Montreal Global Biodiversity Framework, the UN Decade on Ecosystem Restoration, the Global Framework on Chemicals,

[21] https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf
[22] By maintaining the value of products, materials and other resources in the economy for as long as possible, enhancing their efficient use in production and consumption, and returning them to the product cycle at the end of their life, a biodiversity-inclusive circular economy aims to reduce the need for resource extraction and reduce waste, which can help reduce the current rate of biodiversity loss.
https://www.eea.europa.eu/publications/the-benefits-to-biodiversity

[23] India has expressed reservation on this paragraph.
[24] https://press.un.org/en/2022/sgsm21243.doc.htm

the Basel Convention, the Rotterdam Convention, the Stockholm Convention, and other global international agreements:

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

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 (bio-economy), not waste, through 3R and circular economy

Goal 3: Maximize resource efficiency in micro, small and medium enterprises (MSMEs) through 3R and circular economy

Cluster II: Achieving Clean Environment (Land, Water, Air, Ocean and Mountains) through 3R and Circular Economy

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 discarded fishing gears and nutrient pollution

Cluster III: Sound Material Cycle Society and Resource Recirculation towards Zero Waste and Circular Society

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

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

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). 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)

Cluster IV: Resilient Economies and Societies and Cross-cutting Socio-Economic Goals

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

Cluster V: Means of Implementation - Partnerships, Technology Transfer, Research and Development, National and International Financing and Investments, Institutional Capacity Building and Information Sharing

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

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

c. Implementing the Jaipur Declaration on 3R and Circular Economy (2025-2035)

Implementation of the Jaipur Declaration will be led by the national and local governments and supported by all proponents of the Declaration. It will require coordination across sectors and government levels. The implementation of the goals of the Jaipur Declaration will be guided by the national circumstances and capacities of the member countries. Realizing the goals of the Jaipur Declaration will require strengthening existing and building new operational and synergistic partnerships with the development community consisting of inter alia, multilateral and bilateral development finance organizations, academia, private sector, and civil society.

The governments supporting the Jaipur Declaration on 3R and Circular Economy and our international partners call on UN organizations, regional and sub-regional commissions, such as UN-ESCAP, UN-ECE, UNEP, UNIDO, ILO, FAO, WHO, UNU-IAS, SACEP, ASEAN Secretariat, and SPREP as well as relevant other regional intergovernmental organizations and cooperative frameworks to coordinate with UNCRD, in its capacity as the Secretariat of the Regional 3R and Circular Economy Forum in Asia and the Pacific, on joint efforts to support the implementation of the Jaipur Declaration.

An important step in the implementation of the Jaipur Declaration is to translate the goals of the Declaration in national and local policies, strategies, targets and projects while taking into consideration respective national priorities, circumstances and capabilities.

To guide and support the implementation of the Jaipur Declaration, its supporters (development community, private sector, scientific and research community, and civil society) agree to develop better coordination in support of the Jaipur Declaration.

To support the implementation of the Jaipur Declaration, the local and national governments can help in: (a) sharing knowledge and best practices; (b) developing and implementing capacity building programs; (c) where relevant, in developing and implementing pilot programs and projects and; (d) in reaching out to the multilateral and bilateral development communities and donors to assist them to align their capacity building, technical and financial assistance in Asia-Pacific with the objectives of the Jaipur Declaration.

To enhance collaborations between cities in Asia and Pacific countries and beyond to further promote exchange of best practices, lessons and technical know-how in areas of 3R and Circular Economy, “Cities Coalition for Circularity (C-3)” could be formed as a collaborative and partnership platform or mechanism to accelerate implementation of Jaipur Declaration (2025-2035). A voluntary working group could be formed to decide on the contours and to operationalize the C-3 as collaborative knowledge platform.

Bilateral and multilateral development finance organizations that provide support to national and/or local governments in waste management sector have a key role to play in the implementation of the Jaipur Declaration. These organizations are called upon to align their technical and financial assistance with the targets and strategies of the Jaipur Declaration.

The Jaipur Declaration has been adopted by the member countries. Guidance documents have been prepared to suggest indicative strategies to countries as per national policies, circumstances and capabilities. A collaborative knowledge platform C-3 has also been adopted.