

**DRAFT Chair's Summary**

**11<sup>th</sup> Regional 3R and Circular Economy Forum in Asia and the Pacific,**

**8-10 February 2023, Siem Reap, Cambodia**

**(Theme: Integrating Circular Economy in Major Development Sectors towards Achieving Zero Waste Societies and the SDGs)**

**I. Introduction**

1. Asia-Pacific has been the most dynamic region globally and most growth in resource use has been triggered by rapid urbanization and industrial transformation. The policy and scientific community in Asia and the Pacific have recognized the large challenges of resource supply security, increasing waste and pollution, climate change and increasing frequency and magnitude of natural disasters as critical constraints to future growth and rising material standards of living in the region.
2. The UN member countries are concurrently implementing a number of international agendas and agreements which are inter-linked and mutually reinforcing - such as the 2030 Agenda for Sustainable Development and the underlined SDGs, the Paris Agreement on Climate Change, the New Urban Agenda, the Addis Ababa Action Agenda (AAAA), the Nairobi Mandate, the Sendai Framework for Disaster Risk Reduction, the UN Decade on Ecosystem Restoration, among others. The 2030 Agenda for Sustainable Development and the SDGs, in particular, not only call for equitable economic growth, but also provide an important political and implementation framework to implement 3R and resource efficiency to achieve circular economic development – an alternative economic growth model which is not at the expense of finite natural resources and ecological assets, rather it is regenerative.
3. In recent years, the circular economy has gained increasing prominence as an approach which offers solutions to some of the world's most pressing crosscutting sustainable development challenges. A circular economy is a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing energy and material loops. By addressing the root causes, the concept of a circular economy, an economy in which waste and pollution do not exist by design, products and materials are kept in use, and natural systems are regenerated provides much promise to accelerate implementation of the 2030 Agenda to achieve the SDGs. 3R and circular economy not only provide an important basis in achieving the SDG 8 (decent work and economic growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 12 (sustainable consumption and production) but also meaningful synergies in combinedly achieving the other SDGs such as SDG 6 (clean water and sanitation), SDG 13 (combat climate change), SDG 11 (safe, resilient, sustainable cities and communities), and SDG 14 (life below water), among others.
4. UNCRD's 3R and circular economy initiative brings both the policy and scientific community to convene on an annual basis the Regional 3R and Circular Economy Forum in Asia-Pacific to strengthen the science-policy interface in addressing 3R and resource efficiency as the basic for economic growth, pollution prevention and strengthening resilience of cities and communities, and after all, to achieve these international agendas and agreements. The adoption in 2015 of both the 2030 Agenda for Sustainable Development and the Paris Agreement on climate change established a

foundation for the coherent implementation of climate action and sustainable development objectives across all levels and sectors. Globally, the waste management sector accounts for some 3.5% of anthropogenic GHG emissions. Many countries have adopted policies to reduce waste, recycle resources and secure landfills to reduce environmental and climate impacts.

5. The UNEA-5 (Fifth Session of the United Nations Environment Assembly) with theme of “Strengthening Actions for Nature to Achieve the Sustainable Development Goals” also called for strengthened action to protect and restore nature and promote nature-based solutions to achieve the SDGs in its three complementary dimensions (social, economic and environmental). Similarly, the High-Level Political Forum (HLPF) 2022 focused on the impact of COVID-19 on the 2030 Agenda and actions to recover better while accelerating progress towards the Sustainable Development Goals. To this regard, there is a need for all the member countries and citizens to seize the opportunity to work together to improve resource efficiency, reduce waste and pollution and shape a new circular economy.
6. With the above background, Ministry of Environment, Kingdom of Cambodia, the Ministry of the Environment of the Government of Japan (MOEJ), and the United Nations Centre for Regional Development (UNCRD) of Division for Sustainable Development Goals (DSDG) / UN DESA co-organized the 11th Regional 3R and Circular Economy Forum in Asia and the Pacific (Hybrid) on 8-10 February 2023 in Siem Reap, Kingdom of Cambodia, with the theme of “*Integrating Circular Economy in Major Development Sectors towards Achieving Zero Waste Societies and the SDGs*”. The 11th Forum provided an opportunity to discuss the on-going process of preparing the new declaration-3rd Drafting committee meeting-cum-Experts Consultation on Pre-zero draft of new 3R and Circular Economy Declaration (2024-2034) and launch the pre-final version of ‘The Second State of 3Rs in Asia and the Pacific- Advancing Circular Economy in Asia and the Pacific Towards Achieving the Sustainable Development Goals’ Report.
7. The 11<sup>th</sup> Regional 3R and Circular Economy Forum in Asia and the Pacific Forum was attended by more than 391 participants (both physical and virtual participants combined) comprising high level government representatives and policy makers from relevant Ministries such as Ministry of Environment, Ministry of Urban Development, Ministry of Industry, Ministry of Energy, and Ministry of Natural Resources and Environment, City Mayors/Local Government representatives, experts and international resource persons, including representatives of scientific and Research and Development (R&D) institutions in the areas of 3R/resource efficiency/waste management/life cycle assessment and management, representatives of UN and international organizations, including international financial institutions, multilateral development banks and donor agencies, representatives of the private and business sector and NGOs etc. and other stakeholders from thirty-eight countries including Australia, Bangladesh, Cambodia, P.R. China, Cook Islands, Federated States of Micronesia, Fiji, Greece, India, Indonesia, Japan, Kiribati, Lao PDR, Maldives, Malaysia, Republic of Marshall Islands, Republic of Mauritius, Republic of Korea, Mongolia, Myanmar, Nauru, Nepal, Pakistan, Palau, Papua New Guinea, The Philippines, Samoa, Singapore, Solomon Islands, Spain, Sri Lanka, Thailand, Tokelau, Tonga, Tuvalu, Viet Nam, and USA.

## II. Opening Ceremony

8. Welcoming the participants, **Mr. Khim Finan**, Deputy Governor of Siem Reap province, extended his deep appreciation to the Ministry of Environment, Cambodia; the Ministry of Environment, Japan and the United Nations Centre for Regional Development (UNCRD) for jointly hosting the 11th

Regional 3R and Circular Economy Forum in Asia and the Pacific. He said that this Forum would be very important and would provide us an insight for further enhancing applications of 3R and circular economy principles in key development sectors in the long run. He expressed concerns in various sectors and innovative models that could further enhance waste management practices and ensure environmental sustainability in our economic sectors, especially tourism industry. He mentioned that this forum could help us to achieve the sustainable development while ensuring environmental quality in our province and beyond.

9. **H.E. Mr. Shigeki Kobayashi**, State Minister, Ministry of the Environment, Japan welcomed the participants to the 11th Regional 3R and Circular Economy Forum in Asia and the Pacific. He expressed his deepest appreciation to Ministry of Environment, Kingdom of Cambodia. He acknowledged that each country has promoted their actions on 3R and circular economy under the Ha Noi 3R Declaration (2013-2023) since 2013. He mentioned that this forum gives a unique opportunity to provide further inputs and suggestions to the current draft of the Second State of 3R Report, which will be launched during the 12th Regional 3R and Circular Economy Forum in 2024. He also mentioned that the successor to the "Ha Noi 3R Declaration" is being prepared with a new set of targets which is related to 3R and circular economy for a new decade from 2024, as well as indicators to track the progress of their achievements. He underscored the Circular Economy Roadmap which includes the sets of comprehensive policy directions including major materials and value chains for a circular economy toward 2050 with milestones such as doubling the amount of recycling of plastics and metals by 2030. Japan will take the leadership to advance resource efficiency and circular economy agenda during G7 meeting this year.
10. **Kazushige Endo**, Director UNCRD welcomed all the participants to the opening of the 11th Regional 3R and Circular Economy Forum in Asia and the Pacific. The forum is the first in-person conference since 2019 when the Covid-19 infection had spread globally. He thanked the Government of Cambodia for organizing the forum under challenging circumstances. The forum title is “Integrating Circular Economy in Major Development Sectors towards Achieving Zero Waste Societies and the SDGs” which is very relevant in the context of our collective actions and collaborative efforts towards achieving the international agreements such as the 2030 Agenda and the SDGs, the Paris Agreement, and the New Urban Agenda, among others. Moving towards circular and zero waste societies is a multi-stakeholders effort through coalitions and partnerships. The policy and scientific community in Asia and the Pacific have recognized the global challenges of resource supply security and increasing waste and pollution as critical constraints to future growth and rising material standards of living. The 11th Regional 3R and Circular Economy Forum provides opportunities for all of us to discuss and share experiences and exchange views and best practices to accelerate integration of 3R and circular economy in major development sectors.
11. While addressing the participants, **Ms. Alissa Chaker**, Resident Representative of United Nations Development Programme (UNDP) mentioned that as more people migrate from rural areas to cities, a host of environmental, social, and economic challenges ensue, including a significant increase in waste generation. This forum provides a useful discussion on 3R approach of reducing, reusing, and recycling to resolve many of development challenges by contributing to various SDG goals. She underscored the importance of circular economy’s aim to close the loop in value chains, use resources in the most sustainable and efficient way possible, and reduce the need for raw materials minimizing resource extraction and waste generation, and creating millions of green jobs. She mentioned that United Nations Development Programme has been working in Cambodia with a generous support of

Japan and formulated the first National Circular Economy Strategy and Action Plan, which defines the country's vision and strategies for moving towards circular economy.

12. **Maimunah Mohd Sharif**, United Nations Under-Secretary General and Executive Director, UN-Habitat in her special address stated that waste management was the biggest problem facing the humanity. Local governments all over the developing countries are dumping the wastes. 3R that means Reduce, Reuse and Recycle are essential to reduce the waste as well as reducing the expenditure of the urban local bodies. During the last four years, UN-Habitat has been promoting Waste wise Cities programme. Presently, 500 cities are members of this Waste wise Cities Programme. UN-Habitat is encouraging more cities to join this programme. The United Nations General Assembly on 14 December 2022 formally recognized the importance of zero-waste initiatives and proclaimed 30 March as the International Day of Zero Waste, to be observed annually beginning in 2023. Zero-waste initiatives can foster sound waste management and minimize and prevent waste. Maimunah urged upon the cities and communities to adopt the concept of 3R and integration of Circular Economy approach.
  
13. **Li Jinhua**, United Nations Under-Secretary General for Economic and Social Affairs (UN DESA) in his special address mentioned that the chosen theme of the Forum - Integrating Circular Economy in Major Development Sectors towards Achieving Zero Waste Societies and the SDGs – was very befitting as countries and international community are accelerating efforts to achieve resource efficient, circular and carbon neutral societies. DESA attaches paramount importance to assisting countries get back on track and achieve the 2030 Agenda for Sustainable Development. In that regard, the SDGs that are the focus of your deliberations, namely SDGs 11, 12, 13, and 14 provide an important framework for member countries to devise and implement policies and programmes covering the 3R's of environment, that is Reduce, Reuse, and Recycle that contribute to reducing the amount of carbon-dioxide in the atmosphere and save the environment. Recognizing the instrumental role of UNCRD in facilitating the high-level Forum on a regular basis to advance the 3Rs and circular economy in the region, he expressed deep appreciation to the Government of Japan for extending its valuable and generous financial support to make the 3R and circular economy initiative possible. Resources are indispensable for human survival, development, peace and prosperity. Resource security not only occupies an important position in national security but also provides an underpinning factor to achieve the SDGs. While recognizing the agenda item on the sustainability of Tonle Sap – the largest freshwater lake in Southeast Asia and a precious ecosystem on the planet, he mentioned the upcoming UN 2023 Water Conference that aims to realize sustainable use of water resources. The United Nation's Sustainable Development Goals Report 2022 states that unsustainable patterns of consumption and production are the root causes of the planetary crises of climate change, biodiversity loss and pollution. These crises and the resulting environmental degradation, threaten human well-being and the achievement of the SDGs. He expressed hope that the outcome of the Forum would pave the way for further strengthening international cooperation and partnerships in the areas of 3R and circular economy towards achieving the SDGs and other internationally agreed development frameworks. Looking ahead to the high-level political forum (HLPF) in July as well as the 2023 SDG Summit, countries will have an opportunity to carry out a comprehensive review of the state of the SDGs, respond to the impact of multiple and interlocking crises facing the world, and provide high-level political guidance on transformative and accelerated actions leading up to the target year of 2030 for achieving the SDGs. He extended an invitation to Forum participants to participate actively at these two upcoming important events.

14. **H.E. Mr. SAY Samal**, Minister of Environment, the Kingdom of Cambodia in his inaugural address, warmly welcomed all the participants on behalf of the Royal Government of Cambodia and the Ministry of Environment, the ministers, delegates, national and international guests and all the participants in the historic city of Siem Reap for the 11th Regional 3R and Circular Economy Forum in Asia and the Pacific. He expressed his appreciation to all the partners, particularly the Ministry of the Environment of Japan, the United Nations Center for Regional Development, and the Siem Reap provincial authorities at all levels for the excellent collaboration in organizing this important event. He felt that the Forum was a good opportunity to discuss, share lessons learnt and best practices, as well as scientific insights, for assessing key possible options and recalibrating the policy measures in response to emerging circumstances and priorities to insure environmentally sound, climate resilient and inclusive economic growth in our region. It was expected that the outcomes from the Forum would bring about transformative approaches to enhancing pollution and waste management, resource circularity, and nature regeneration and achieving Zero Waste Societies and SDGs in the Asia-Pacific region and beyond.
15. In the last two decades, Cambodia had achieved a remarkable economic growth, averaging over 7% per annum, just to be interrupted by the COVID-19 outbreak. Despite this global crisis, causing economic slowdown in all countries around the world, Cambodia has managed to gradually reopen the country and recover economic activities faster than expected. At the same time, Cambodia has also faced new environmental challenges, such as wastes, pollutions, and nature degradation. These, combined with climate crisis, require new and more comprehensive solutions. Cambodia has been making efforts to address the challenges. Cambodia has adopted the Long-term Strategy for Carbon Neutrality, the National Policy and Strategic Plan for Green Growth, Green Building Guidelines, and the Circular Economy Strategy and Action Plan, and the like. The country has put in place policies, regulations, technical and financial resources to allow sub-national administrations to gradually take on more environmental responsibilities. Cambodia has also been working with all stakeholders, including the Government of Japan to address plastic pollution and marine debris, which has become a severe global environmental crisis, with a wide range of long-term social and ecological implications. Besides, within ASEAN, in line with the ASEAN Socio-Cultural Community Blueprint 2025, Cambodia has been collaborating with other Member States under various environmental-related mechanisms, especially the ASEAN Strategic Plan on the Environment (ASPEN). Covering such key areas as “Sustainable Consumption and Production”, “Environmentally Sustainable Cities”, and “Combating Marine Debris in the ASEAN Region”, these collaborations are aligned well with the main goal of the Regional Forum and would provide positive synergy. Further, Cambodia in her capacity as the Chair of ASEAN has initiated “ASEAN Green Deal” to put ASEAN on a sustainable path. He underscored the need to make a more fundamental shift toward more holistic, synergistic and integrated approaches to waste management, in short-to-medium and long terms, as well as to leverage opportunities of circular economy, so as to achieve Zero-Waste Societies and SDGs.
16. **Prof. Yukari Takamura**, University of Tokyo, Japan, delivering the keynote address on Day 1 “*Achieving the SDGs and Carbon Neutrality: Strengthening Science-Policy-Business Interface towards Resource Circulation and Circular Economy*”, explained top 10 global economic loss events in 2018 and 2019, significant economic loss events in 2022, top 10 human fatality events in 2022, global climate related economic loss trends (1980-2016) and global economic losses from natural disasters since 2000. The cumulative scientific evidence is unequivocal. Climate change is a threat to human well-being and planetary health. Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all. The world is moving towards climate neutrality. Paris

Agreement (2015) has clearly stipulated long-term goal for decarbonisation. Japan has pledged to reduce GHG emission to net zero by 2050. More than 140 countries and EU have now pledged to reduce emission to net zero. COP26 also resolved to pursue efforts to limit the temperature increase to 1.5 °C. She further remarked as to how the technologies will fill the gap between 2030 and 2050. She elaborated top 10 polluters and impact of unsound management of plastic wastes. For building the circular economy, government leadership, producer responsibility and consumer education and awareness will enable market mechanisms that drive higher resource productivity, innovation and economic growth. The new normal towards net zero will bring dynamic and radical changes in businesses towards green economy. Science based target initiatives will enable several companies to go 100% renewable. Financial institution and investors are changing their behaviour. Governments push companies to integrate climate risks into their business. Financial institutions and investors move towards net zero of investment portfolio. Referring to Circular Economy Roadmap of Japan, she mentioned it aims at doubling of plastic recovery volume, reduction in food loss by 4 million tonnes or less and doubling of metal recycling. The key strategy is to realizing carbon neutrality and a circular economy at the same time.

17. Delivering the keynote address on Day 2 on “*Circular Economy and Green Energy Transition towards Transforming Regions and Future Proof Communities – Case of Multisectoral Coolgardie Regional Transformation Alliance for Achieving the Climate change Mitigation and the SDGs*”, **Mr. Hemant Chaudhary**, Founder and CEO of Circular Economy Alliance Australia (CEAA) presented the case study of Coolgardie Transformation Alliance and how a facilitator can play an important role in transformation by linking different stakeholders on one platform and drive it. The facilitator can play a vital role in integrating the different interventions carried out by different stakeholders who are striving to achieve SDGs and climate goals. The platform can facilitate the stakeholders for resource and circularity. It can clearly drive and mentor the stakeholders in achieving them. He further emphasized that multisector collaboration among stakeholders is key to success for transformation and achieving the climate goals.
18. Delivering the keynote address on Day 3 on “Circularity in Solar Energy Systems to Reduce Solar Waste Materials”, **Mr. Upendra Tripathy**, Visiting Professor, National Institute of Advanced Studies (NIAS), Bengaluru, India and Former Founding Director General of International Solar Alliance (ISA) and Former Secretary, Ministry of New Renewable Energy (MNRE), Government of India, mentioned that the amount of solar energy hitting the earth in one hour is more than enough to power the world for one year. Solar waste — the electronic waste generated by discarded solar panels — is sold as scrap in the country. According to a report by the National Solar Energy Federation of India (NSEFI), India could generate over 34,600 tonnes of cumulative solar waste in India. It can increase by at least four-five-fold by the next decade. India should focus its attention on drafting comprehensive rules to deal with solar waste. Key drivers for solar panels recycling are policy and economic drivers, market drivers, social drivers and environmental drivers. However, significant prospect lies in circular economic utilization of solar waste.

### **III. Creating Synergies in Achieving SDGs and Paris Agreement on Climate Change through Circular Economy**

19. Circular economy is at the heart of solutions to deal with triple planetary crisis – climate, bio-diversity loss and pollution. Circular economy provides a vital interface between the SDGs and the climate agenda. There is an intrinsic link between circular economy and climate mitigation, and transitioning

to circular economy can mitigate CO2 emissions that emerge from extractive industries, SMEs, manufacturing, construction, and transportation, etc.

20. Food and Agriculture Organisation of the United Nations (UN- FAO) recognises the role of circular bioeconomy to achieve climate and sustainability goals. There are threats to agrifood systems. The agrifood sector is responsible of pollution and 1/3 of global emissions. 30% of soils are already degraded. 14% of the world's agricultural production is lost and 17% of available food is wasted. Urban waste sent to landfill has 20-50% organic content that was not treated or composted. Several countries have identified circular bioeconomy as a strategy to achieve their NDCs. Long-term Low Emission Development Strategies (LT-LEDS) by several countries have included bioeconomy practices in their climate agenda. Bioeconomy is a priority area in FAO's programme of work towards the 2030 Agenda, supporting countries to develop and implement of integrated bioeconomy strategies and policies and deploy sustainable innovations (technological, social, policy, institutional, and financial). For achieving SDG 2030, ten aspirational principles are suggested for a sustainable bioeconomy for society, governance, environment and economy.
21. Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia, has developed a strategic framework for the role of circular economy to achieve net zero emissions that highlights SDG12 to move economies towards responsible consumption, infrastructure and production to enable sustainable growth; using circular economy as the means to achieve SDG12, green growth for a coherent sustainability-productivity agenda; circular economy as materials efficiency and circular economy policies to harness market mechanisms and improving economic welfare through efficient prices (allocative efficiency), productive and competitive markets (productive efficiency) and creation of new markets, products and services (dynamic efficiency). For transition to net-zero and circular economy, policies should aim at transforming current systems.
22. Integrating circular economy in major development sectors towards achieving zero waste societies and the SDGs cannot be done efficiently and successfully without the SMEs, as demonstrated by SEED, entrepreneurship for sustainable development in its support to eco-inclusive enterprises. Therefore, there is a need to walk the talk together in this journey and movement to support and enable SMEs and entrepreneurship for delivery of circularity and sustainability. Greening and empowering SMEs through innovative financing is to key to achieve societal resilience, SDGs and climate agenda. However, tremendous challenges lies in SME-led circular low-carbon economy transition which could be overcome by collective action catalyst involving public and private stakeholders.
23. Cambodia has taken several actions on climate change that inter alia include development of Long-Term Strategy for Carbon Neutrality (LTS4CN). Cambodia formulated Climate Change Strategic Plan 2014-2023, the first comprehensive national policy document responding to climate change. The National Monitoring and Evaluation (M&E) Framework for the response to climate change has been developed and regular climate public expenditure reviews undertaken. The country submitted the first Nationally Determined Contribution (NDC) in 2015 (27% reduction) and updated it in 2020 (41.7% reduction). Cambodia's first Biennial Update Report (BUR) was submitted in 2020, and the Third National Communication (TNC) in 2022. The country submitted her Long-Term Strategy for Carbon Neutrality in December 2021 with 2050 carbon neutral target. The National Energy Efficiency Policy and the Power Development Plan (up to 2040) have been approved in 2022.
24. LTS4CN key targets include (a) Agriculture - less methane-intensive rice cultivation, direct seeding practices, alternate wetting and drying practices, promotion of organic fertilizer and deep fertilizer

technology, feed additives for cattle, improved fodder management, introduction of composting technology; (b) Forests and other land uses - reducing the deforestation rate by 50 percent in 2030, stopping deforestation by 2045, afforestation, improved forest management and forest restoration, agroforestry and commercial tree plantation, full implementation of the REDD+ Investment Plan by 2050; (c) Energy - no new coal generation capacity beyond already committed projects, use of natural gas as a dispatchable transition fuel, investments in liquified natural gas (LNG) import, storage and infrastructure, increase in solar, hydro, biomass and other renewables to 35 percent of the generation mix by 2050, of which 12 percent is from solar, investments in grid modernization, flexibility and storage energy efficiency measures in buildings and industry, energy efficiency measures in buildings and industry, fuel switching to electricity for cooking, substitution of coal in the industrial and power sector

25. Cambodia's Roadmap for Sustainable Consumption and Production (SCP) 2022-2035 is one of the policy tools to achieve sustainable development goals (SDGs), especially SDGs 12 with the greatest potential to contribute simultaneously to a range of SDGs. The SCP Roadmap has a life cycle thinking and aims to drive sustainability in development in Cambodia that secures economic prosperity while safeguarding environmental quality and natural resource integrity. It is the time to mainstream SCP into national policymaking and socioeconomic development as SCP can pave the way towards a more integrated policy, addressing both supply and demand sides, towards the achievement of sustainable development. There are many opportunities for SCP interventions in the economy and society, particularly through public-private partnerships. In addition, Circular Economy Strategy and Action Plan 2021-2035 has been developed to enable the improvement of many aspects of economy and society for Cambodia and the attainment of environmental sustainability by promoting more efficient use of energy and material resources while mitigating impacts from resource overuse and waste generation as well as improve resources circularity. The way forward to implement these policies will include some priorities areas such as providing technical skills to entrepreneurs and SMEs and further mobilization of funds from various sources to support the implementation on the ground.
26. The Forum noted that the circular economy would be a key solution to reducing greenhouse gas emissions and a entrepreneurial business culture would make a significant difference. Developing an adequate and trustworthy business support ecosystem and inter-connections and reaping the full benefits of bio and digital economy would be necessary for mitigating GHG emissions and creating essential carbon sinks. Finally, the remaining CO<sub>2</sub> emissions could be tackled with carbon capture, use and storage.

#### **IV. Circular Economy Towards Sustainable Tourism**

27. The tourism industry is an important economic sector in many advanced and developing economies. Prior to the Covid 19 pandemic, tourism contributed to 10.4% of the global GDP and accounted for 1 in every 4 new jobs created around the world. For tourism destinations, the circular economy offers the opportunity to enhance the sustainable development impacts of tourism, creating opportunities for the local population through which they are able to increase their standard of living, thus creating a virtuous circle between businesses and countries.
28. Sustainable tourism plays an important role in promoting circular economy principles. However, there is a need to decouple the increasing tourism demand with limited resource utilization and reduced environmental degradation. This can be achieved mainly through adopting the system approach and developing innovative local solutions.



29. Considering the limited resource available in SIDS countries, there is a major need to put higher priority to develop sustainable tourism which could contribute to cleaner and healthier environment for their environment and future generations.
30. Sustainable consumption and developing innovative and affordable alternative products for plastic seems to be one of the major success in this industry. In this approach, numerous private sector initiatives have been developed, which need to be actively promoted by the national governments with adequate policy and financial support.
31. COVID-19 was a real testing period for the hospitality industry, and the good lessons learned during this period need to be documented. Further promotion of these good practices as part of the new normal situation in this sector to make a more resilient tourism industry is the path to the development of circular economy based sustainable tourism.

## **V. Circular Economy towards Sustaining Tonle-Sap Ecosystem**

32. The Tonle Sap is the largest freshwater ecosystem in South East Asia with rich biodiversity. The lake is also important commercial and livelihoods resources, providing more than half of the fish consumed in Cambodia. Also, the floating villages located at the edge of the lake provide housing and livelihoods through fishing and eco-tourism. However, this valuable ecological, economic and socially rich area has been facing a tremendous challenge due to plastic pollution in the past years. This special session, therefore, focused on establishing a circular economy approach to sustain Tonle-Sap Ecosystem. It included five speakers and five panellists representing different sectors, such as local NGOs, SMEs, government agencies and development partners. They shared their experiences and initiatives in addressing plastic waste pollution in the region.
33. Tonle-Sap Ecosystem poses issues of plastic waste management. There is a felt need to discuss the importance of addressing plastic pollution from the land before its ending up in the rivers. For this, Cambodia works on conducting science-based research to understand the issue, developing a monitoring system, outreach and capacity building as well as conducting an eco-school competition to raise awareness among school children.
34. Cambodia has realised the importance of raising awareness to manage waste and usage of single-use plastics in Tonle-Sap to stop the pollution. Some awareness-raising activities are being implemented with the inclusion of youth and schools and engagement with local villages to encourage continued problem-solving for proper waste and plastic removal from the Lake going forward. The success of awareness programmes needs to be backed up with proper infrastructure and development of regulations for better waste management at the national and local levels.
35. It is important to develop targeted and cost-efficient prevention and mitigation measures for plastic pollution through a cross-sectoral and holistic approach, including establishing local river monitoring capacity, Exploring and assessing the effects of measures and mechanisms for the plastic value chain, Investigation of public awareness of plastic pollution from households to local community, Improved policy implementation under different cultural and socio-economic settings, and Development of integrated knowledge-based mitigation planning.

36. Cambodia Ecotourism Development Plan along Tonle Sap Lake: A GEF project includes the development of the investment Plan for Phnom Kulen National Park and Tonle Sap Landscape which is the top five eco-tourism destinations in Cambodia and to address the plastic pollution within the eco-tourism, including community-based eco-tourism. The activities in Tonle Sap aim to conserve the ecosystem from plastic pollution by developing a waste management programme to improve ecotourism and livelihood development. It has identified the importance of cultural events, and outdoor experiences to promote inclusive societal benefits minimize pressure on natural assets and protect wildlife and the landscape while contributing to the economic well-being of residents.
37. “Sustainable solutions to end rivers’ plastic pollution through Historical River Cleanup Mission (2022-2025) (Mekong, Tonle Sap & Bassac)” in cooperation with the German company EVERWAVE. There is a River Ocean Clean up mission Cambodia, 2022-2025 which aims to build strong public, private and people partnership. The group working on this has identified that removing plastic in the river is harder than on land. People participation is needed. Converting waste into resources to become zero waste is the ultimate goal. Education, infrastructure and enforcement are important factors for successful actions to reduce plastic pollution in the rivers.
38. The panel discussion highlighted that sustainable waste management is an important aspect of eco-tourism which needs to have voluntary principles in addition to government’s rules, regulations, enforcement and awareness-raising.
39. Asian Institute of Technology, Thailand has trained almost 100 professionals from all over the world on plastic pollution and marine litter with the support of Japanese government. There are a lot of academic and research activities available. The issue is the lack of infrastructure development to meet the population and urbanisation growth. There is the issue of Nano plastic, banning plastic and biodegradable plastics. Acceptable and valuable alternatives should be introduced before banning.
40. ADB has made commitments for waste management in Cambodia. About 30% of the urban portfolio is for water and infrastructure development. ADB support has included developing 12 landfills and out of them 6 are in the Tonle Sap area. ADB is promoting integrated solid waste management solutions and closely works with the government, both at national and local levels and with private sector/ service providers to create more liveable cities integrating circular economy to reduce GHGs.
41. UNDP Cambodia has provided technical support to develop the circular economy policy and action plan in Cambodia and currently working with MOE and other partners to address the plastic pollution. Most of the plastic waste in the rivers is SUPs. As a solution, reduction of waste at source, recycling and clean-up activities are required. Also, need for national and sub-national cooperation as well along the ministries, such as MOE, ministry of education, ministry of tourism etc.
42. The Institute for Global Environmental Strategies (IGES) is currently working with ASEAN/ JAIF in developing a national plastic action plan. There was a felt need to highlight the importance of good coordination between national and local levels and development partners. The leadership of MOE for facilitating multi-stakeholder cooperation, and the development of targets and policy options to implement, monitor and evaluate regularly are vital actions to reduce plastic pollution.
43. Managing plastic waste on land is much easier than handling plastic waste in rivers. Addressing plastic waste under a circular economy by applying an integrated solid waste management system based on scientific evidence and knowledge brings more economic, ecological and social benefits at

local and national levels as well as accelerates other development priorities, such as biodiversity, climate change and SDGs.

44. Public participation and raising awareness are important to reduce plastic pollution. However, this needs more innovative approaches and methods rather than one-way information sharing, such as creating fun, involvement of youth, smart system and creating benefits. However, the success of awareness programmes needs to be backed up with proper infrastructure provision, creating business models and regulations development for better waste management at the national and local levels.
45. Establishing strong partnerships and coordination among both vertical and horizontal coordination between national and local governments as well as different ministries and different stakeholders, including public, private, academic, civil society and development partners is essential for successful projects and programmes on plastics.
46. The sustainability of voluntary or mandatory activities are depending on the availability of sustainable financing mechanisms. The application of polluter pay principles and extended producer responsibilities is important to adopt a circular economy in plastic waste management.

## **VI. Circular Economy and Small and Medium Enterprises (SMEs)**

47. The tools for adoption of circular economy in SMEs, namely lifecycle approach, eco innovation, consumer information, sustainable procurement, sustainable lifestyles and trading including green marketing are available for adoption. The stakeholder participation for transition to the CE is one of the major issues, while Government, private sector and the citizens are the three key players.
48. As per UNIDO assessment, the post pandemic situation is being shaped by digitalization, production rebalancing and industrial greening. Circular Economy is necessary to address the triple planetary crisis in a comprehensive manner, yet, too often Circular Economy is narrowly interpreted as a recycling economy, whilst in a Circular Economy recycling would be the last option to consider if waste cannot be fully designed out. Circular Economy can unlock innovations leading to resource circularity, resource efficiency and resource substitutions in SMEs and economy at large. To scale up development and application of Circular Economy solutions, it is necessary to focus on industrial capability and entrepreneurial and professional competences and leveraging financing, policy incentives and market.
49. In the post covid situation, digitalization, production rebalancing and industrial greening have become important aspects. For the transformation to CE, the Indian industries, for instance, stress on capability and competence, financing, policy instruments, market demand, environmental sustainability, and people skill.
50. The socio-economic development should be the priority during CE planning to achieve competitiveness imperative. CE adoption should look carefully into the resource circularity, resource efficiency and resource substitutions in MSMEs.
51. A framework which includes the strategies for resource efficiency, new integrated market, and investment opportunities for CE for ASEAN economic community is required for the startups, MSMEs and well-established business entities. There are various business models e.g. junk shops, use of digital technology in trash bins with as example of Jakarta based start-up for plastic bottle collection

and apps for collection of recyclable waste in Thailand. There are possibilities for alternative options, such as refill shop for reducing single use plastics.

52. Leakage of plastic from recycling SMEs sectors in the surface of ponds and water bodies has been also a point of concern. There is a need for capacity building on Industries 4.0 and CE in MSEs and adherence to cleaner production. The Forum recognized a number of initiatives of Indonesia, Vietnam, Philippines and Malaysia, ASEAN-Japan for adoption of CE with the help of UN, ADB, GIZ, and JICA, among others.
53. The Ministry of Industry, Science, Technology & Innovation (MISTI), Cambodia, has an important role and responsibility in encouraging the SMEs for adoption of CE in Cambodia. The resource efficiency and cleaner production strategy and action plan (RECPSAP) 2021-2030 and Green Industries Award scheme for SMEs are among the important plans that the Forum recognized.
54. Gamagori City of Japan has adopted a PPP model and the 5<sup>th</sup> Gamagori City Comprehensive Plan, while the city has integrated all the aspects of CE, namely, the integration of economy, biosphere and the society through several awareness programmes, workshops, research and other way of communication among the stakeholders. The city has initiated the mercari group for reuse, innovative cooperation using waste oil, recycling of heavy fuel oil and recycling of waste generated in the city. The city has also established citizen centred community development for the CE adoption.
55. Government support for the registration, innovation and funding are required for SMEs in recycling business. The policy instruments should be implemented effectively. For the recycled products eco-labeling, green certification and customer awareness are the three main areas where both Government and academic institutions should support the SMEs. Financing the SMEs by the Government and funding agencies has become vulnerable in the post pandemic era while the Government should prioritize incentivizing SMEs and creating market demand for the recycled products through established policy instruments.
56. Finance is the real challenge for the SMEs involved in the recycling business. The forum proposed for the creation of an Asia -Pacific research funding body with the involvement of academic & research institutions and industry with specific focus on SMEs like Horizon 2020 / European Funding Agency.

## **VII. Bridging 3R Infrastructure Gap towards Circular and Zero Waste Societies**

57. The governance, financing, capacity building, innovation and data and assessment are key enablers to circular economy. The futuristic interventions like, (i) enabling regulation and policy, (ii) environmental education and awareness raising for behavioural change, (iii) innovative business CE solutions for replication and scaling up, (iv) green finance (e.g., EPR, blended financing, green bonds) for sustainable and (v) production and consumption, waste collection and management can lead to transition to circular economy. The integrative factor is engagement of stakeholders leading to socioeconomic transformation. Multisector collaboration among stakeholders is key to success for transformation and achieving the circularity, sustainability and climate goals.
58. In the Republic of Korea, the economic paradigm shift toward the circular economy has brought societal transition over all sectors of society including governance, finance, capacity building, innovation, and data assessment. The key issues which have emerged in the process of this socio-economic transformation in the Republic of Korea are as follows: product eco-design, regulatory

sandbox, and disposable cup deposit-refund scheme. First, the expanded “cyclic availability evaluation” covers whether the product is designed considering the environmental impacts at all stages of the life-cycle of a product. Second, the regulatory sandbox is introduced to support businesses that develop innovative services and goods for the circular economy. In 2022, the re-launched disposable cup deposit-refund scheme after 2002 went into effect in Sejong and Jeju first as pilot phases.

59. The Forum recognized the 100 Zero Waste Cities under PR China’s 14th Five Year Plan (2021-2025). Zero- Waste City refers to an urban development model that aims at reducing generation, promoting utilization of solid waste, reducing landfill and minimizing the environmental impact of solid waste by promoting green development and green lifestyles. The five tier Index System of Zero-waste City Construction includes reduction, recycle, harmless treatment, support capacity and sense of gain for general public. Shenzhen City of PR China has built Yantian and other five energy ecological parks, turning "not in my backyard" into "benefit by my backyard". There have been 97 reform measures, experience and practices which have been achieved and reapplied for other cities. Public awareness and internalization in education system is key to inculcate the zero - waste gene. The Zero Waste Cities Construction is carried out in 113 cities and 8 districts in PR China during the 14th Five-year period.
60. GIZ FABRIC Cambodia presented the global scenario of textile where its production has doubled while it is worn less by 36% and so the value lost is \$560 billion. In the fabric supply chain from fibre production to consumption of textile products around 10-15% lost in textile production. Only 1% textile is recycled while 75 to 85% is burned. Policy and regulations and public awareness are the major drivers of circular economy in the sector. Total fabric imports in 2019 in Cambodia was 1,093,640 tons with 15% loss while the yearly fabric waste was 164046 tons. In Cambodia about 60% of textile waste is disposed of in landfill. The Forum recognize the following measures - (i) improve regulatory framework to monitor and control fabric waste disposal and incentivise circular approaches; (ii) establish better sorting, pre-processing, recycling infrastructure and technology in-country i.e., connect feedstock with recyclers outside the country; and (iii) improve (digital) data management of waste streams, quantity and composition to strengthen functional circular supply chains and estimate recycling potential.
61. The Forum recognized the presentation made on awareness raising for plastic free Mekong River based on 3R principles in cooperation with One Earth and One Ocean. The organic content has come down while plastic waste has increased in waste composition. About 7 to 10 tons of market waste is channelized into compost plant using windrow technology. The plastic clean-up efforts in Mekong River include - (i) collecting plastic in riverbanks on Mekong River; (ii) awareness raising and event clean up; and (iii) provision of waste bins. The efforts include - waste separation, cleaning, drying, pressing of plastic waste and finally transportation to warehouse and incineration in Cement Kiln.
62. The Forum recognized the presentation made by UNDP Cambodia on circular economy measures towards zero waste societies in Cambodia with a focus on plastic waste. Cambodia promotes 4R (3R+ refuse) in managing its plastic waste. Some of the measures include - (i) National Circular Economy Strategy and Action Plan (2021-2035); (ii) policy matrix to promote bioplastics, recycling and awareness raising activities and (ii) a draft regulation on plastic management including new measures on single-use plastic (SUP) & EPR. UNDP’s priority areas of work in plastic management include - (i) enabling regulation and policy, (ii) environmental education and awareness raising for behavioral change, (iii) innovative business CE solutions for replication and scaling up, (iv) green finance (e.g., EPR, blended financing, green bonds) for sustainable production and consumption, waste collection and management.

### **VIII. Eco-friendly alternatives to Single-Use Plastics (SUP)**

63. The Forum noted the presentation made by Basel Convention Regional Center for Asia and the Pacific on the impacts of large production volume and littering and mismanagement of single use plastics. Problems can be found in all production, application and consumption stages. Plastic waste management includes collection and disposal and recycling, while examples in some countries' regulations stipulates plastic use ban and EPR. Lessons learned from China are legal framework, coupled with systemic actions in production and consumption such as substitution and optimization; and systemic actions in recycling and disposal.
64. Cambodian Ministry of Environment highlighted the new Municipal Solid Waste Management 2020-2030 (of 16 Feb 2021). Organic waste consists a majority (57.4%) of the waste stream, and the collection service providers are private sector, followed by market tax collector. The government has launched the digitalization of MSW Management System (SAMRAAM), wherein billing and collection information and data are available in the platform. 3R implementation fosters on waste reduction on awareness raising, recycling, composting, and participation of multi-stakeholders. Incentives such as competition are provided.
65. Cambodian Ministry of Environment presented the Implementation of Policy Measures on Reducing the Use of Plastic Products and Strengthening Plastic Waste Management for Short Term of Oct 2022. The Policy Measures promote the production of bioplastic and plastic recycling; promote the use of bioplastic products in place of plastic products and improvement of plastic waste management; and increase awareness, education, motivation, and participation to reduce the use of plastic products. Highlights among the measures are standards identification for raw material, taxation issues, and special program such as "tourism without plastic campaign".
66. The Forum noted that there are ISO standards for plastics, which can be used in the standardization measures. The Secretariat of the Pacific Regional Environment Programme (SPREP) informed that member states tried endorsing plastic ban, while awareness at all community levels and enforcement are necessary. There are challenges too in terms of replacement with alternatives, and there is a gap on the level of knowledge based on data. There are research opportunities, wherein output policy implication could serve as ways forward.
67. ADB Cambodia representative highlighted that ADB being a development bank is supporting the waste management effort through financing landfill infrastructure. As casualty were correlated to PM2.5 caused by open burning of SWM, landfill infrastructure helps reducing such casualty. The SAMRAAM information platform provides good information, drives MSW collection and steers consumer behaviour change, helps reducing waste disposal volume and further reduces demand for collection truck fleet.
68. The Forum recognized that some of the Pacific Island Countries have implemented and enforced banning of single-use plastic. There are studies that have discovered microplastics presence in breast milk and it is an issue that needs to be addressed. It is noted that one of the Pacific Island Country, Solomon Islands has successfully implemented pyrolysis technology that turns plastics to cooking gas. The pyrolysis equipment was designed and made by a local engineer with local materials to suit Solomon Islands' context with the same concept of pyrolysis technologies used in developed countries.

The pyrolysis equipment is currently used by a group of women in a community in Solomon Islands to manage their plastic waste while generating cooking gas for cooking.

69. The Forum recognized several data management issues in India. While data and information are collected in major cities, they are not readily available in suburb and rural areas. SUP studies can be strategic, and hotspot once indicated could be entry point for solution finding. While most local governments are financially weak, there can be a major role for the private sector.

## **IX. COUNTRY BREAKOUT SESSIONS ~ Country Major Achievements and Initiatives on Implementation of Ha Noi 3R Declaration (2013-2023)**

70. The participating countries have made significant progress in mainstreaming 3R and circular economy policies despite the challenges posed by the recent pandemic. There is positive progress in waste management policy development and considerable improvement in projects related to recycling, composting, and waste to energy. However, the countries face several issues and challenges in moving forward. To address these challenges and move forward, the countries have suggested to improve capacity of officials and staff to understand, monitor, review, and document 3R-related projects, enhance the technological know-how to promote effective 3R initiatives, provide financial resources to encourage and manage 3R-related initiatives, develop guidelines for sorting waste at source and volume-based waste fee, increase awareness of the public, and strengthen the enforcement of laws and regulations at all levels.

71. **Bangladesh:** City corporations and municipalities are making efforts to incorporate the concepts and guidance of the National 3R Strategy for Waste Management launched in 2010. In addition, several ministries/ divisions/agencies have initiated various programs and projects, such as a CDM project using organic wastes from urban centers (Phourashava/ municipalities), implementation of 3R pilot initiative in Dhaka and Chittagong Cities to reduce greenhouse gas emissions, co-composting project based on faecal sludge and organic waste initiated by Waste Concern, green banking initiatives to promote green projects and products, UNICEF initiated composting initiative and promoting 3Rs in 19 towns of Bangladesh, regional landfill and resource recovery facility for Jessore Municipality. Ministry of Industries, Bangladesh has enacted National Ship Recycling Act, 2018 for the smooth disposal of hazardous elements. The country has undertaken several 3R-related initiatives in the upcoming days. They include the implementation of 8th National Five Year Plan (2021-2026) that has been through incorporating improved waste management system for circular economy and the introduction of EPR for non-biodegradable disposable plastic, integration of SDGs to 8th Five year Plan, implementation of Solid Waste Management Rules 2021 and E-Waste Management Rules 2021, feasibility study on waste to energy conversion for six Municipalities in Bangladesh, and New Dhaka Clean Master Plan 2018-32.

72. **India:** The Government of India has been taking several steps in promoting the Circular Economy. The 2022-23 Budget recognised the importance of sustainable growth. In sync with a circular economy, the government formulated the Battery Waste Management Rules 2022, Plastic Waste Management Rules as amended in 2022, e-Waste Management Rules 2022. The Natural Resource Efficiency Policy, Plastic Waste Management Rules, Construction and Demolition Waste Management Rules, Metals Recycling Policy and Extended Producer Responsibility are a few such examples of the country's move towards CE. The Ministry of Housing and Urban Affairs has promoted

CE in 11 sectors as identified by NITI Aayog of India. The Private Sector is also taking necessary steps for moving towards a Circular Economy. The National Productivity Council of India which works under the Ministry of Commerce is working on the Extended Producers Responsibility by the private sector and the regulatory framework in this regard for various industries.

73. **Indonesia:** Solid Waste Management Act (No. 18/2008) is a fundamental law on waste management in Indonesia with a primary focus on municipal solid waste management. Presidential Decree No.97/2017 on National Policy & Strategy on Management of Household Waste and Household-like Waste (JAKSTRANAS) and Presidential Decree No.83/2018 on Marine Debris Management (Plan of Action on Marine Plastic Debris 2017–2025) are examples of 3R related developments. To assist these Decrees, the Ministry of Environment and Forestry (MoEF) has developed the “Plastic Waste Reduction Strategic Actions for Indonesia” The 2017-2025 action plan pledges to reduce plastic and other marine waste by 70% by 2025, which is strongly linked to overall 100% urban collection targets on land. Indonesia strongly supports waste-to-energy projects to address the energy demand and reduce greenhouse gas emissions. Presidential Regulation No. 35 of 2018 concerning the Acceleration of Municipal Waste to Energy Power Plant Development (the 2018 Regulation) was introduced to incentivize investment in new waste-to-energy power projects in 12 named cities.
74. **Kiribati:** Kiribati’s national recycling system is known as “Te Kaoki Maange” (simply means Return your Waste) which recovers beverage aluminium cans, PET bottles, and lead-acid batteries using the container deposit legislation (CDL). The Special Fund (Waste Materials Recovery) Act 2004 allows for deposits to be levied on the aforementioned items at import to pay refunds when the levied item is delivered for recycling. In addition, Kiribati is contributing 3R through New Zealand funded urban development program and regional pacific hazardous waste management project (PACWASTE Plus) coordinated through the Secretariat of Pacific Regional Environment Programme (SPREP). The Kiribati Waste Management and Resources Recovery Strategy (KWMRRS 2020-2030) was endorsed in 2020 and identified 12 different waste streams as national priorities to focus on at the national level. These priorities include asbestos, health care wastes, e-waste, plastic waste, and chemicals, to name a few. Other relevant projects include the pilot project on organic waste segregation and banning single use plastic bags (ice-block bags, single-use shopping plastic bags), and non-biodegradable nappies are ongoing. Despite the above progresses, Kiribati is still facing a lot of challenges due to the following issues; limited landmass for landfills, Lack of national capacity in waste and chemical management, Limited Financial and Human Resources, Scattering of data on waste/chemical management, Small size of private sector on the island thus lack appetite in investing in waste management business, Absence of proper solid waste management technologies at national level, Island Remoteness & Reliance on imported goods to meet national demands, dependence on overseas recycling companies to accept recyclable materials i.e. PET bottles/e-wastes/ferrous materials (mainly end of life vehicles), low price in international market thus accumulation of these waste items on the island, Limited public awareness on best waste management practices and Negative mindset toward protecting the environment from poor waste management and many more.
75. **Cook Islands:** The Cook Islands has developed several legislation, policies, and strategies that are related to 3R. Such initiatives include the Environment Act 2003, Infrastructure Act 2019, Prohibition on Importation of Plastic Shopping Bags regulation 2012, Solid and Hazardous Waste Bill (in draft), Cook Islands Single Use Plastic Ban policy 2018-2023, Solid Waste Management Policy 2016-2026, National Environment Policy (2022-2032), and Advanced Recovery and Disposal Fee policy (in draft). In addition, Cook Islands is very active in events, campaigns, and projects promoting 3R through various donor-funded schemes such as PACWASTE Plus. Cook Islands seek to implement a sustainable



financing system (known as the advance recovery and disposal fee) to fund the collection and recycling of specific recoverable items.

76. **Thailand:** The Pollution Control Department (PCD), under the Ministry of Natural Resources and Environment (MONRE), develops policies and plans for pollution control. The National Waste Management Master Plan 2016-2021 encourages individuals and businesses to follow the 3Rs, establish centralised facilities for clusters of municipalities to dispose of municipal solid waste and hazardous waste, and participate of all relevant stakeholders in solid waste management. The Roadmap on Plastic Waste Management (2018-2030) serve as a framework and direction for preventing and solving plastic waste countrywide. It targets 100% re-utilisation of plastics/recycling of plastic waste by 2027, a shift to alternative eco-friendly materials/reduction including cap seals, oxo-degradable plastic, plastic microbeads (by 2019), plastic shopping bags thinner less than 36 microns, single-use plastic cups thinner than 100 microns, foam meal boxes, plastic straws (by 2022), and the reduction of marine plastic debris by 50% 2027. The Action Plan on Plastic Waste Management phase II (2023 - 2027) covers all stages of plastic life cycle at upstream to address both design and production phases by focusing on pollution prevention/reduction and waste minimization concepts, at midstream to address both distribution and consumption phases by focusing on the sustainable consumption concept and at downstream to address the post consumption phase by focusing on resource efficiency and circularity concepts, including marine litter management.
77. **Australia:** Australia’s National Waste Policy provides the basis for collaboration among stakeholders to deliver practical approaches to national waste issues, avoid the generation of waste, reduce the amount of waste for disposal, and manage waste as a resource to provide economic, environmental, and social benefits. National Waste Report summarising Australian Waste data is released annually. Australia has implemented several 3R-related activities, including resource recovery facilities designed to sort and process discarded materials using various mechanical, biological, and thermal technologies. The government has also formulated a Ministerial Advisory Council of CE.
78. **Lao PDR:** In 2019 Lao government developed the ‘National Green Growth Strategy 2030’ to strengthen the balance between economic expansion, environmental protection, and social development to maintain high, stable, sustained, and stable economic growth. To support this further, the Lao government, with assistance from the World Bank, produced the “Get CLEAN and GREEN—Solid and Plastic Waste Management in Lao PDR” in 2022, designed to foster economic growth while transitioning towards a greener economy that builds human and natural capital, protects the environment and creates green jobs. Lao PDR is currently completed the SCP Roadmap 2022-2025, Vision 2030, integrating SCP into the 9th National Social Economy Development and Plan(2021-2025), Single Use Plastic Policy Options and Action, developing the National Plastic Action Plan of Lao PDR and in the final process to endorse the Green Public Procurement Plan Action Plan (2022-2025) and Eco-Labeling.
79. **Vietnam:** Circular economy has been legalised by the Law on Environmental Protection (LEP) 2020, in which the concept, criteria on CE have been regulated. The government recently also issued Decision No. 687/QD-TTg dated June 07, 2022, on approving the scheme for circular economy development. The Circular Economy National Action Plan is being developed and will be adopted by the end of 2023. The LEP 2020 has introduced new regulations to promote 3R and circular economy including: (i) Separation at source of domestic solid waste; (ii) Pay-as-you-through mechanism for solid waste; (iii) EPR schem applied for 6 groups of products (baterly, electronics, tyre, technical oils, packaging and end-of-life vehicles); (iv) roadmap for reduction of plastic waste. Specifically, domestic

solid waste sorting at source is mandatory for all individuals and households from 2025. The Decree No. 08/2022/ND-CP also provides regulations on phasing out single-use plastic and plastic bags in supermarket, shopping malls, resorts and hotel after 2025 and in other places after 2030. In the coming years, Viet Nam is planning to revise and update the national strategy on integrated solid waste management.

80. **Japan:** Japan states that the government strengthens efforts to further push 3Rs approach and waste management in the 4<sup>th</sup> Fundamental Plan for Establishing a Sound Material-Cycle Society (Ministry of the Environment, 2018). The following two points should be noted as current progress. The first is “The Plastic Resource Circulation Act” which was enforced in April 2022. The concept of this act is 3R plus renewable (bioplastics) and to address whole lifecycle of plastics from product design to disposal. The second is “Circular Economy Roadmap” which was launched in September 2022 related to the inspection of 4<sup>th</sup> Fundamental Plan. After discussing the role of the circular economy and the direction toward 2050, this road map summarized the direction for each material and product, business, treatment method, region and so on more specifically.
81. **Maldives:** Maldives faces many challenges but has made some achievements and advances including Waste Management Act 2022, Maldives Environmental Management Project (MEMP), Small Scale Waste to Energy Project, Maldives Clean Environment Project (MCEP), Greater Male’ Environment Improvement and Waste Management Project. Plastic related movements are also worthy of attention. Maldives has started to reduce single use plastics through President’s decree on Single Use Plastics and Single Use Plastic Phase Out Plan 2020-2023. Also, Maldives is working towards a fully implemented legal framework to support the ongoing work. Waste Management Regulation, National Waste Management Policy and Strategic Action Plan 2023, National Extended Producer Responsibility Road Map 2023, National Marine Litter Action Plan, National Waste Management and Pollution Control Master Plan are now at the drafting stage.
82. **Nepal:** In Nepal, waste management and resource circulation are basically the responsibility of local municipalities. Major local municipalities like Kathmandu Metropolitan City have drafted action plans with timeframe of five years and have started segregate and reduce the quantity of MSW. As a part of this movements, bio gasification plants and sanitary landfills are installed in some municipalities. Solid waste management projects will be completed in some municipalities within next five years with the technical support of the Solid Waste Management Technical Center at Department of Urban Development and Building Construction. As per Constitution of Nepal, waste management is the responsibility of local municipalities, it falls under the jurisdiction of the Ministry of Federal Affairs and General Administration (MoFAGA), who coordinates with the concerned municipalities at the national level. However, it was reported that some ministries, apart from MoFAGA are involved in education and capacity development of 3R.
83. **Pakistan:** In Pakistan, progress has been made on a wide range of waste management themes. Regarding legislations, Legislation on hazardous waste law, Plastic use rules (complete ban on single use plastics), Environmental Protection Motor Vehicle Regulations, Promotion of renewable energy (20% of energy mix to consist of renewable by 2030) are typical initiatives. As practical achievements, establishment of first integrated waste management facility by private sector, WTE plant in landfill site, heat recovery systems in industrial parks, interventions in leather / mining / textile / cement industry, recovery plants for E waste are worthy of attention. PR and educational campaign toward 3R by government “Clean Green Pakistan Programme” gradually become the mainstream.

84. **Singapore:** Singapore's National Environment Agency (NEA) has implemented various measures and initiatives to encourage businesses and consumers to reduce the amount of various types of MSW generated. The Singapore Green Plan 2030 builds on the sustainability efforts of preceding decades with sustainability as a new engine of growth. The Resource Sustainability Act (RSA), which was enacted in Oct 2019, gives legislative effect to the regulatory measures targeting three priority waste streams which have relatively high generation and low recycling rates. Schemes legislated through the RSA aim to address waste generation upstream, and sends a signal to producers to take into account their impact on the environment. With this aim, NEA has implemented an E-waste Extended Producer Responsibility scheme and will be mandating the segregation and treatment of food waste by large food waste generators in 2024.
85. **Tokelau:** Despite the constraints of being a small island country, steady progress was made. What should be noted is cooperation among Pacific Island countries. Waste management MOU between Samoa and Tokelau 2022 signed and updated from the 2006 version. Also, STAR (Samoa and Tokelau Association of Recycles) Cooperation was launched in 2021 and the industrial plastic recycle machine has landed in Apia, capital city of Samoa and awaiting for the constant reshipment of plastics from Tokelau. Regarding plastics, awareness programs to collect and store plastics and bottles was implemented. Also, first plastic repurposing WS was held. These are considered to be the starting points for future initiatives centered on residents in the small country. The effort by the people of Tokelau regarding Waste Management on the three Islands is not new, revising efforts and see what works for improvements both within the Islands and mentioned MOU. The strategies and approval remains in the three local Island governing elders and the EDNRE departmental vision to continually improve Waste Management contextual strategies for Tokelau's fragile natural environment.
86. **Fiji:** During the past years, Fiji joined several new international initiatives, including Policy on the '7R' for sustainable waste management, Zero Waste Pledge/Ambitions, Global Recycling Day Celebrations, Recognition of National Recycling Heroes. Also, for in-Country Project Implementation, Fiji issued Banning of Single Use Plastics/Styrofoam in 2020, started to carry out Collection Pillars of Recycling – Recognizing of Informal waste pickers, which provided gender, legal and financial literacy, and launched the first ever community-based pilot recycling project (separation at source). While, Fiji faces challenges, which are lack of recycling facilities, issues of illegal dumping causing difficulty to monitor, international circulation of re-usable and recyclable resources, need to set financial mechanisms for development of modern recycling industry, and hard to change/transform behavior and their mindset. What's more, gaps in data and information research exists, separation of waste and waste collection from the marine/outside islands is another issue waiting to be considered. For the future plan, Waste-to-energy activities would be done, domestic policies realignments and regional and international cooperation are waiting to be carried out, EPR regulation formulation would be another choice for plastic waste management.
87. **Palau:** In Nov. 2018, RPPL 10-14 Plastic Bag Reduction Act was issued. And in Nov. 2018, RPPL 10-31 Includes any liquids intended for human consumption and to eliminate the thirty-two-ounce size limitation for deposit beverage containers, and for other related are purposed, and finally implemented in Sep. 2019. In 2022, proposal for Amendment of RPPL7-244 Recycling Law, which intends to expand the CDL program to include non-beverage container such as for food, butane gas, oil, etc. Shredding project, to separate steel from rubber for repurposing waste tires in country. Funded by CDL program, Palau was able to start operation of the new national landfill in Feb. 2021, with average waste disposal capacity 30t/d, among which, 60% are commercial waste and 40% are other wastes including residential, government, schools. Palau also faces challenges, including funding for solid

waste management activities, capacity development training on public education and awareness, high shipping cost to outsider recyclers and lack of access to waste-to-energy initiatives that fit small island economies. For the way forward, introduction of Bill for an Act for Expansion of CDL program to include non-beverage containers would be formulated, and waste plus program to waste tires repurposing would be carried out with the help of SRREP.

88. **Tuvalu:** Several policies are issued since during the year 2013 to 2022, including Waste Management Act 2017, Diversion of Green Waste for Composting and mix composting with pig waste dry litter, Tuvalu Integrated Waste Policy and Action Plan 2017–2026, “Te Kete” National Strategy for Sustainable Development 2021–2030, Container Deposit Legislation and Waste Levy for import. Besides, regular awareness programs for communities and schools on waste management including 3R’s are carried out. Lack of knowledge, capacity, personnel, resources and proper technology and insufficient funding support constrains the implementation of 3R initiatives.
89. **Papua New Guinea:** Papua New Guinea (PNG) has developed its first National Waste Management Policy (2023 – 2033) with the support of JICA (JPRISM) and UNEP which provides a framework to appropriately manage, mitigate, minimize and wherever possible alleviate environmental pollution from poor waste management practices in the country. Due to the lack of a policy on waste management in the past, most 3R initiatives were carried out on ad hoc basis under donor funded projects and by the private sector. Since 2019, PNG has put in place a Ban on the import of Single Use Plastic Shopping Bags into the country and encouraged the bring your own bilum (traditional woven bags) campaign. Furthermore, there have been several waste recycling activities conducted in the country by the private sector including: collection of aluminum cans and scrap metal which are collected and exported overseas mostly to Asian markets for recycling; Take Back Schemes for HP toners/cartridges in National Capital District (NCD); construction and operation of a sanitary landfill in the NCD; and several composting projects around the country. However, challenges also exist and this include: a lack of financial resources and technical capacity; a lack of coordination between the government and the private sector; a lack of capacity to monitor and enforce 3R programs; limited infrastructure and unviable technologies such as installment and operation of incinerators that are not suitable in the country; rapid urbanization in major cities throughout the country; and the lack of awareness in the communities. Furthermore, poor waste management practices is a major concern in the country where illegal dumping, improper disposal and a lack of waste segregation/separation are quite common in homes and in communities throughout the country. To address these challenges, PNG will look to: develop a specific legislation for waste management in the country; develop waste management plans for other major cities in the country; construct sanitary landfills for major cities as well as conduct awareness raising programs.
90. **Federated States of Micronesia:** The Federated States of Micronesia (FSM) is guided by its Strategic Development Plan (SDP). Additionally, the country has in place an Environment Act (Title 25), and implemented National and State Solid Waste Management Strategies that address the problems on waste, and propose solutions through an integrated Solid Waste Management Approach of Waste Prevention, Recycling and Composting, and Disposal. Moreover, some of the states have developed Recycling Acts that address recycling issues; recycling regulations are in place and the focus is on recovery of recyclables and shipping overseas for processing and recycling. More importantly, three out of the four states have implemented Container Deposit Legislation (CDL) systems. Specifically, some of the challenges faced include: the low selling price of PET and glass bottles to overseas recycling companies due to demand; not being able to include other recyclables only aluminium cans; e-waste and waste oil disposal due to high costs of shipping and outsourcing of

vendors, and equipment. Future, working collaboratively with partners to ensure a viable recycling system is in place, and also seeking funding support to strengthen capacity building and ongoing recycling efforts is being implemented, including recycling facility, aiming to build upon sustainable systems.

91. **Republic of the Marshall Islands:** Two 3R policies exist in the Republic of the Marshall Islands (RMI) which are – (a) Styrofoam Cups and Plates and Plastic Products Prohibition and Container Deposit Act (amended in 2018) and (b) MAWC’s Solid Waste Management Plan (2019-2028). In 2016 MAWC with the support of SPREP initiated a used battery collection and recycling that MAWC continues to this day on its own. In the future, RMI plans to expand its CDL with the assistance of PacWastePlus/GEF ISLANDS Project, involving the collection of used lead acid battery, white-goods, EoL vehicles, WEEE, etc. Additionally, under the Majuro Urban Services Improvement Project with ADB is in the works to provide the construction of a incinerator, waste mining, renewal of equipment and institutional strengthening.
92. **Nauru:** Nauru has no appropriated framework to promote 3R and potential circularity, and the circular economy is non-existent, which is hard to establish without cooperation in Nauru. There is no relevant institutional arrangement for waste management to support 3R as responsibility from sourcing, retailing, use, and processing to dumpsite management is disaggregated. While Nauru has implemented a pilot segregation project, its main objectives are to gauge behavioural response, collect data, raise education and awareness, and look at potential for upscaling. Challenges in the implementation of pilot projects include fears of unknown markets and costs, community acceptance, insufficient infrastructure, and limited human and financial capacity are also constraining the 3R development. For future actions, Nauru will finalize and implement the Nauru Sustainable Urban Development Project (NSUDP), Solid Waste Master Plan which has 3R components, National Recycling Plan, and the Advance Recovery Fee/Deposit Scheme Options Report.
93. **Cambodia:** Cambodia reported their achievements in developing and implementing legal framework, policies, and strategies for MSW and plastic management. These include the Sub-Decree No.113 on Municipal Solid Waste Management was enacted in 2015; Sub-Decree No. 168 on Plastic Bag Management in 2017 aimed at discouraging the use of plastic bags at supermarkets, shopping centers, and marts through fee charges; the Decentralization and Deconcentration Reform aimed at, among others, empowering the subnational administrations (cities and districts) to strengthen the Solid Waste and Wastewater management in their local jurisdictions. Moreover, in 2021 and 2022, Cambodia introduced the Circular Economy Strategy and Action Plan 2021-2035 and Roadmap for Sustainable Consumption and Production (SCP) 2022-2035. Cambodia has also launched a number of eco-friendly activities such as the ASEAN Environmental Sustainable Cities (ESC); the ASEAN Land, Water and Air Cleaner Competition; the ASEAN Clean Tourism; the MOE Eco-Friendly Certificates given to public and private entities, and individuals for their eco-friendly performances; the National Eco-school and Eco-Pagoda Program; the ASEAN Eco-school Awards; the National Clean City Day or Clean City Awards; etc. Recently, the National Platform for Solid Waste Management has been developed and is being implemented nationwide. It is an innovative digital-based management platform ranging from managing the related Municipal Solid Waste information and data to the billing system, operated along with various mobile Apps for relevant stakeholders. At the same time, Cambodia reported such challenges as limited resources, financial and technical. For the way forward, Cambodia will continue to further strengthen and expand the implementation of these policies, strategies, and initiatives; launch the implementation of policy matrix on promoting the production of bioplastic and plastic wastes recycling, promoting the use of bioplastic and alternative products, and

enhancing education, awareness, and participation in plastic reduction. Moreover, Cambodia will encourage cities, schools, and other institutions to implement eco-friendly activities, introduce “Plastic Free Zone” at recreation areas, enhance solid waste management and landfills, promote investment in wastes treatment and recycling, and apply Extended Producer Responsibility (EPR). To guide the collective actions and ensure national synergy, an Environment and Natural Resources Code has been comprehensively drafted and White Paper on Environment and Sustainable Development is being developed.

94. **Malaysia:** Malaysia has set a National Target for 40% recycling target to achieve by the year of 2025 under the 12th Malaysian Plan. Penang as a leading state represents Malaysia has set a higher target on achieving 70% recycling rate by 2030. Currently Penang State has achieved 51% recycling rate and it is also the highest recycling rate among all states in Malaysia. In order to achieve this target, Penang city has started with some various government policies, such as Penang2030 strategic plan, Penang Green Agenda. In terms of 3R initiatives, the Penang State has implemented several policies, for example No Single-Use Campaign starting with No Plastic Bags Day, No Straw by Default, Ban of Polystyrene Containers and Waste Segregation At Source policy. As for Circular Economy implementation, SEA circular project with the collaboration with UNEP has been introduced to the local community. Penang State is also the first state to introduce the Waste Generated Must Pay Principle to focus on waste minimization within the industry sector. In Penang state, only pre-consumer plastic waste will be allowed to be imported for the plastic recycling industry, Municipal plastic waste is banned and prohibited to be imported to the State. High awareness on the 3R concept among the public has been reported since the implementation of these initiatives. They have reported several challenges including public behaviour and mindset, lack of legal frameworks and standard operation procedures for enforcement, effect of the Covid-19 pandemic, lack of facilities and infrastructure, and data availability. The State is looking forward to having a single-use framework to tackle the plastic pollution issue in the State.
95. **Tonga:** The achievements for Tonga include legal frameworks for solid waste, hazardous waste and health care waste management. Being a party member to the Basel, Rotterdam Stockholm and Minamata conventions have enabled Tonga to update their National Implementation Plan for the Stockholm convention as well as developing our Mercury initial assessment. They have donor funded projects to rehabilitate landfill sites, manage marine litter, used oil and disaster waste, developed single use plastics roadmap, manage End of Life vehicles, promotion of 3Rs in the Outer Islands, initiate circular economy through proper management of recyclables including waste to energy community projects. Tonga has limited resources, weak coordination amongst relevant stakeholders and weak public awareness and education. For way forward, Tonga wanted to increase government support, strengthen coordination amongst relevant stakeholders and increase public awareness and education.
96. **Philippines:** The main achievements in 3Rs and Circular Economy in the Philippines include the recent passage of Republic Act 11898 or the Extended Producer Responsibility (EPR) Act of 2022 amending Republic Act 9003 or the Ecological Solid Waste Management Act of 2000 where obliged enterprises are given compliance period for plastic packaging recovery. The country also formulated a National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML) which consists of strategies such as mainstreaming circular economy and sustainable consumption and production initiatives to help reduce waste, enhancing waste recovery and recycling coverage and markets, preventing leakage from collected or disposed waste into water bodies, reducing maritime sources of marine litter, and managing litter that are already existing in riverine and marine environments. Some of the challenges being faced by the Philippines on 3Rs and Circular

Economy include the low prioritization by majority of Local Government Units on solid waste management, lack of accurate data on waste recovery, lack of technical knowledge and manpower at the local level. The country's way forward includes enhanced implementation of the EPR Law, the NPOA-ML and the Key Result Areas to achieve the goals in the Philippine Development Plan for 2023-2028 that includes an increase in the number of LGUs with access to MRFs and to proper waste disposal. Lastly, educating consumers in generating less wastes will be made a focus in developing programs to stimulate demand for circular products through public procurement and economic incentives which can accelerate transition to a more circular economy.

**X. Consultation on Pre-Zero Draft new 3R and Circular Economy Declaration (2024-2034) – Successor of the Hanoi 3R Declaration (2013-2023)**

97. UNCRD introduced in detail the draft skeleton framework of the new 3R and Circular Economy Declaration (2024-2034) as the successor of the existing Hanoi 3R Declaration (2013-2023) which comes to an end in 2023. The new 3R and Circular Economy Declaration would aim to catalyze transformational changes in the resource and waste management sector in the region. This will include enabling changes to policy, institutional frameworks, financing models, data management approaches, and application of various 3R and circular economy technologies. Aligned with the objectives of the 2030 Agenda for Sustainable Development and the SDGs, the new 3R Declaration with a strong tracking framework and multi-layer cooperation and with an aim towards achieving a zero-waste future and more country-based implementation mechanisms, would be in the forefront of new collaborative approaches and interagency cooperation to enhance actions towards achieving the SDGs and other international agreements such as the Paris Agreement, NUA, Sendai Framework, among others.
98. The participants reviewed the goals and provided following suggestions and inputs to the pre-zero draft Declaration:
- a) The new Declaration once adopted should be linked with major global processes on circular economy and SDGs – such as World Economic Forum, UNEA, HLPF, etc.
  - b) disaster waste is missing and should be addressed under the goals;
  - c) education, R&D component is missing and should be addressed under the goals;
  - d) capacity building should be included as one of the means of the implementation;

**XI. Pre-Final version of Report- The Second State of the 3Rs in Asia and the Pacific- Advancing Circular Economy in Asia and the Pacific Towards Achieving the Sustainable Development Goals (SDGs)**

99. “The Second State of the 3Rs and Resource Circulation and Circular Economy in Asia and the Pacific – Advancing Circular Economy in Asia and the Pacific towards achieving the Sustainable Development Goals (SDGs)” is to assess the progress made by countries on the Ha Noi 3R Declaration (2013-2023). With an objective to achieve a low carbon and resource efficiency society, it also aims to contribute towards the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). The report is also expected to serve as a precursor to the discussions leading to the formulation of the successor of the Hanoi 3R Declaration which comes to an end in 2023.
100. The Forum reviewed the pre-final report, and the participants agreed to provide necessary comments and inputs by 31 March 2023. The final report will be officially launched at the 12<sup>th</sup> Regional 3R and Circular Economy Forum in Asia-Pacific in 2024.

## **XII. The Way Forward**

101. The economic resilience of Asian countries is increasingly threatened by resource depletion, unsustainable patterns of raw material consumption, inefficiencies throughout product value chains, and climate change. The current economic model of ‘take, make, dispose’ is predisposed towards wasting valuable materials and resources. To enhance resource efficiency and attain sustainable growth, countries in Asia need to encourage the adoption of a new economic model that looks beyond the prevalent linear growth model.
102. Circular economy helps reduce emissions in various sectors such as food systems, wastage of buildings and construction materials, and wastage in transportation. It is an important approach for Asia and the Pacific countries to implement upstream strategies that include shifting consumption patterns and designing products that use materials more efficiently and have the highest potential to reduce emissions instead of just relying on recycling at the end-of-materials life cycle.
103. Participants of the 11th Forum acknowledged that the triple environmental crisis of climate change, habitat disruption and biodiversity loss and resource depletion, growing waste and pollution, to be mitigated, requires a radical change in current consumption and production patterns and a move from the linear to a circular economy supported by the 3Rs.
104. It was noted that the sustainable management of materials across the whole supply and value chain is an essential precondition for achieving the Sustainable Development Goals (SDGs) and Paris Agreement on climate change, among others. Delegates from countries reported about significant improvements at the national, city, regional and industry level in their countries but important gaps remain that will need be addressed by the new 3R & CE Declaration (2024-2034) which is under preparation.
105. Going forward, countries need to make improvements for all material supply chains including energy materials, biological materials and technical materials, and achieve the three related objectives of the 3Rs and the circular economy, namely, to conserve natural resources, and to design out waste from the get-go, add value to materials many times over, create economic value and conserve scarce natural resources. Resources are valued and products are designed for their durability, repairability, and recyclability. This approach eliminates waste and pollution, creates circular products and materials at their highest value, and reduces environmental impacts. Participants agreed that strengthening the current policy capacity to deliver the 3Rs and circular economy will allow countries to stay within a sustainable scale of materials and resource use, to allocate materials to their best use and to share the benefits of material use more equally and equitably across society.
106. Three areas of necessary improvements will guide the further development of national 3R and CE programmes and plans. Firstly, countries need to improve the availability of robust and reliable datasets on materials extraction, waste generation, recycling and the recovery and reuse of secondary materials in economic activities. A good understanding of the material and waste flows will allow countries to set policy priorities and to monitor the success of policies.
107. Secondly, countries will need review the suit of available technologies that can support the circular economy and reduce waste and emissions. This will include an assessment of which technologies are



suitable in a national and regional context depending on affordability, existing skills of the workforce and suitability for the local waste and resource recovery challenges.

108. Thirdly, countries will invest in building policy capacity and to enhance existing capacity to address the current environmental changes in such a way that adds benefit to the economy in terms of added value and employment. This will need include new legislation, new institutional arrangements, new standards, novel financing mechanisms supporting 3R and CE business models and capacity building for business leaders and company boards. It will also address behaviour change to support sustainable consumption, local initiatives, and business decisions for a circular economy.
109. The forum recognized that new 3R and circular economy Declaration (2024-2034) will provide an important reference point for policy making in member countries and will facilitate the transition to a circular economy in a way that is adapted to the national specifics of each country.
110. Importantly, it was noted that achieving a circular economy that requires drastic changes in material use practices go well beyond improving current systems through incremental change but will require a transition process. This transition will not happen spontaneously but will require well designed policies taking into account industry and community decisions.
111. In the short-term, countries will engage in the process of developing the new 3R and CE Declaration that will guide future policy and institutional processes. In the medium-term, the Asia and the Pacific region will need to mobilise its vast innovation community to operate the new 3R and circular economy Declaration enabled through science and innovation. Countries will engage in developing new products, materials and process that conserve resources and keep them in circulation. Finally in the long-term, countries need to rebuild the technical capacity for closed loop cities and environment.
112. The production of lithium materials, for instance, are significantly growing that causes not only the reduction of the natural resources, but also causes various environmental issues associated with the mining and mineral processing activities, such as pollution of groundwater, damage to ecosystems or emission of greenhouse gases. It is an important approach for countries to implement the available and adequate lithium re-use and recovery technologies and strategies for both economic and environmental reasons.
113. National policy makers will require to develop necessary frameworks and policies to achieve the desired outcomes, the business community, whether big or small, will contribute its knowledge, and communities will engage in reorganising material supply chains to achieve the necessary improvements in living standards with the smallest environmental impacts.
114. The COVID-19 pandemic has also underlined the importance of lasting supply security of natural resources, raw materials and minerals, prioritising environment conservation and ecosystem restoration, and improving socio-economic equity, especially across developing countries. It could be an opportunity for developing Asia and the Pacific to accelerate its shift to a circular economy and help build a more resilient economy, society, and environment towards achieving the SDGs and the Paris Agreement on climate change, among others.
115. Start-ups in the Asia Pacific region are playing an important role in institutionalizing 3Rs and circular economy in the region. They will have a major role in integrating and leapfrogging technological as well as overcoming institutional challenges in future while implementing circular economy action

plans particularly use of smart solutions and artificial intelligence. Therefore, the 3R Forum could play a catalytic role in their recognition and mentoring in the new emerging ecosystem in the region.

116. While increasingly recognizing that there cannot be a just transition and CE delivery without SMEs, and considering the importance and relevance of SMEs for climate action (mitigation and adaptation), the potential of SMEs remain largely untapped. With environmental pollution and over-exploitation of resources challenging their own existence, a large number of SMEs have developed innovative ways to keep their businesses alive while consolidating local resilience. While transformative and systemic change is needed, green and eco-inclusive enterprises deliver change that a collective action catalyst can further enhance by combining innovation, circularity and entrepreneurship to push for impact at scale.

### **XIII. Closing Session**

117. The Vietnam delegation made an announcement expressing their intention to host the 12th Regional 3R and Circular Economy Forum in Asia-Pacific in 2024 in Vietnam which followed a short video documentary on Viet Nam.
118. Mr. Kazushige Endo, Director, UNCRD, thanked H.E. Mr. Say Samal, Minister of Environment, Kingdom of Cambodia and expressed his appreciation to the Government of Cambodia for great hospitality and organization of the 11th Regional 3R and Circular Economy Forum in Asia and the Pacific. Mr. Endo also thanked the participants for their enthusiastic involvement and contributions. He acknowledged that all the sessions had been completed successfully with excellent and dedicated support of the staff members of the Kingdom of Cambodia and the partner organizations. He said that the Forum comprehensively discussed on various topics including (i) linkage between circular economy, SDGs, and the S.A.M.O.A Pathway, (ii) circular economy towards sustainable tourism, (iii) circular economy towards sustaining Tonle-Sap Ecosystem, (iv) circular economy for Small and Medium Enterprises (SMEs) and other related topics. He noted that the rapid growth of population is a pressing issue and circular economy would create the condition for sustainable development to meet the needs, and mentioned about the new 3R and Circular Economy Declaration, which aims towards catalysing transitional and transformational changes in the resource and waste management sector in Asia and the Pacific region and has substantial impacts on the global community through 3R and Circular Economy with the collaboration of other UN organizations, such as UNIDO. He expressed his appreciation to the Kingdom of Cambodia, national and city governments, international organizations, development partners, experts, and stakeholders to make the 11th Regional 3R and Circular Economy Forum in Siem Reap a grand success.
119. Delivering his final closing remarks on behalf of H. E. Say Samal, Minister, Ministry of Environment, Kingdom of Cambodia, H.E. Mr. EANG Sopheleth, Secretary of State, Ministry of Environment, Kingdom of Cambodia, thanked all the participants for the grand success of the 11th Regional 3R and Circular Economy Forum in Asia and the Pacific. He acknowledged all the fruitful discussions, meaningful lessons-learnt, and insights on solutions to deal with resource management by promoting 3R and circular economy principles in our economic and social domains with the active participation and contributions from our distinguished delegates, policy makers, private sector representatives, researchers, and experts in many fields. He noted that the path ahead to recover from the most damaging pandemic of COVID-19 would be challenging amid uncertain global circumstances, and expressed his confidence that a wider and more effective implementation of 3R and circular economy

principles would be very helpful in recuperating the moments lost to the COVID-19 crisis in terms of reducing wastes, promoting material circularity, resources efficiency and local economy as well as regenerating nature. He also noted a number of issues concerning environmental problems, which were discussed and demonstrated during the Forum with strong commitments in the direction towards Zero Waste Societies and the SDGs. He expressed confidence that the stakeholders, especially the youth, are becoming more environmentally conscious, which shows the recognition of economic opportunities form transforming environment sectors. He congratulated the mayors and city administrators who signed the Indore 3R Declaration of Asian Mayors on Achieving Clean Water, Clean Land, and Clean Air in Cities as new signatories during the Forum. He further hoped that the key outcomes of the Forum would disseminate to a wider range of audiences, including political leaders, policy makers, youth, civil society and the private sector, so that the ideals of 3R principles and circular economy could effectively be turned into concrete actions to produce maximum impacts, and serve as a foundation for comprehensively addressing the vicious cycles of environmental problems. He finally expressed his deep appreciation to keynote-speakers, national and local authorities, panellists, researchers, NGO representatives and private sector for sharing their valuable knowledge, insights, and experiences on 3R, and declared the closure of the 11th Regional 3R and Circular Economy Forum in Asia and the Pacific and congratulated to next host, Vietnam.