12

RESPONSIBLE CONSUMPTION AND PRODUCTION

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

I. SUMMARY

The region has regressed on sustainable consumption and production (SCP) and urgently needs to reverse material consumption and footprint trends to meet the goal, notwithstanding progress on individual targets. Rising incomes and lifestyle changes and continued resource-intensive growth patterns are expected to further exacerbate resource depletion and ecosystem degradation. Concerted public and private action is needed to increase resource efficiency, fundamentally shift consumption patterns and production processes, improve waste management systems, and transition toward a more circular economy approach.

Countries should by now realise that we have a global socio-ecological crisis, and it is real and present, and not looming. This crisis is closely related to social unrest, stability and peace. COVID-19, in addition, has caused millions of people to lose their jobs. This means that national action plans/national development plans should prioritize issues associated with responsible production and consumption, and strongly focus on green economy, clean energy, green chemistry, and generating associated employment opportunities. They should also focus on giving their universities a mandate and support to conduct research into more sustainable packaging, more recyclable plastics, more degradable plastics, and clean energy.

II. CURRENT STATUS

- Asia and the Pacific is fast becoming the largest market in the world1 with the strongest economic growth of all regions, driven by infrastructure development, increasing domestic private consumption and intraregional trade. However, this growth remains largely founded on unsustainable consumption and production patters that exacerbate inequality and environmental degradation, intensifying existing risks and vulnerabilities in a changing climate. Since, early 2020, due to the COVID-19 pandemic, economic growth has been hit, especially some sectors such as tourism, transport, and circular supply chains in production.

- The region plays a central role in global value chains, but at low rates of resource efficiency, presenting significant opportunities for circular economy practices. The unprecedented growth of product demand in Asia in particular requires an equally strong shift towards sustainable consumption to decouple resource use and growth. The region is at a turning point if we aim prevent industrialization and urbanization leading to irreversible resource depletion and environmental degradation that will endanger economic and social development in the long term.

- While there is some progress toward conducive policies for SCP, the large material footprint and weak waste recovery and prevention systems in Asia-Pacific are causes for concern. One of the major reasons is that many countries are becoming global production centres which is in addition to the pressures of domestic consumption due to the population and increasing middle-income group. However, broadly the technology and behaviour shift for sustainable consumption and production is not yet at par with many developed countries. Therefore, there are significant opportunities to shift toward circular integrated approaches that can lead to multiple benefits across all three dimensions of sustainable development.From the survey to support the development of Goal Profiles for the APFSD the following key issues were highlighted by member states and development partners:

    - 63% of respondents were somewhat confident tor positive that SDG 12 will be achieved at the national level while 18% were not confident. 54% noted that COVID-19 may have had a moderately positive impact in terms of achieving SDG 12.

    - It was noted that COVID-19 will exacerbate inequalities and the wealth gap in the region and that a focus on gender aspects of this goal on SCP is needed.

    - A shift to online meetings during the pandemic has resulted in a reduction in travel and associated GHG emissions.

    - Some key action points identified included: a need to increase awareness on the issue and impacts of over consumption and product life cycles; need for increased action on food waste; advocacy for life styles changes; and the adoption of an holistic approach that integrates government, private sectors with media action.

    - Emerging issues identified through the survey: while national SCP plans are in place there is a need to increase focus on implementation; need to increase focus on supporting start-ups including through training for a skilled workforce and increasing access to markets; generation of waste stemming from COVID-19 related protective personal equipment.

    - Key challenges identified through the survey: need to increase workers participation in developing and undertaking production processes; increased adoption of single use protective personal equipment; pressure on supply chains because of COVID-19, including of raw materials; social media can promote over consumption as participants show off their consumption of goods.

- Most important means of implementation identified by the survey included, in order of priority: need for increased public awareness on SCP; political commitment; and effective financing and legal frameworks.

- The region is well aware of key issues related to SCP. At the Third Forum of Ministers and Environment Authorities of the Asia Pacific, which took place from 24th to 25th of January 2019 in Singapore, environment ministers from the region discussed: A transformative approach to sustainable consumption and production in the region would include action by governments, private sector and citizens in five key areas: 1) innovative polices such as integrated approach to policy making across sectors and across ministries and the adoption of economic instruments to promote sustainable resource use and promote a polluter pays principle; 2) innovative financing solutions that mobilize and align public and private financing for sustainable development including microfinance; 3) innovative technology including Industry 4.0, big data, blockchain and artificial intelligence as well as increased technology transfer and localization; 4) innovative business models including circular supply chains, sharing platforms to optimize the use of goods between users, resource efficiency and recovery, product life extension and right to repair and product as a service for customers to become product users rather than owners; and 5) innovative behavioral change including rethinking environmental education, social media and emerging social platforms, nudging and nationwide campaigns.

A. AREAS WHERE GOOD PROGRESS IS MADE

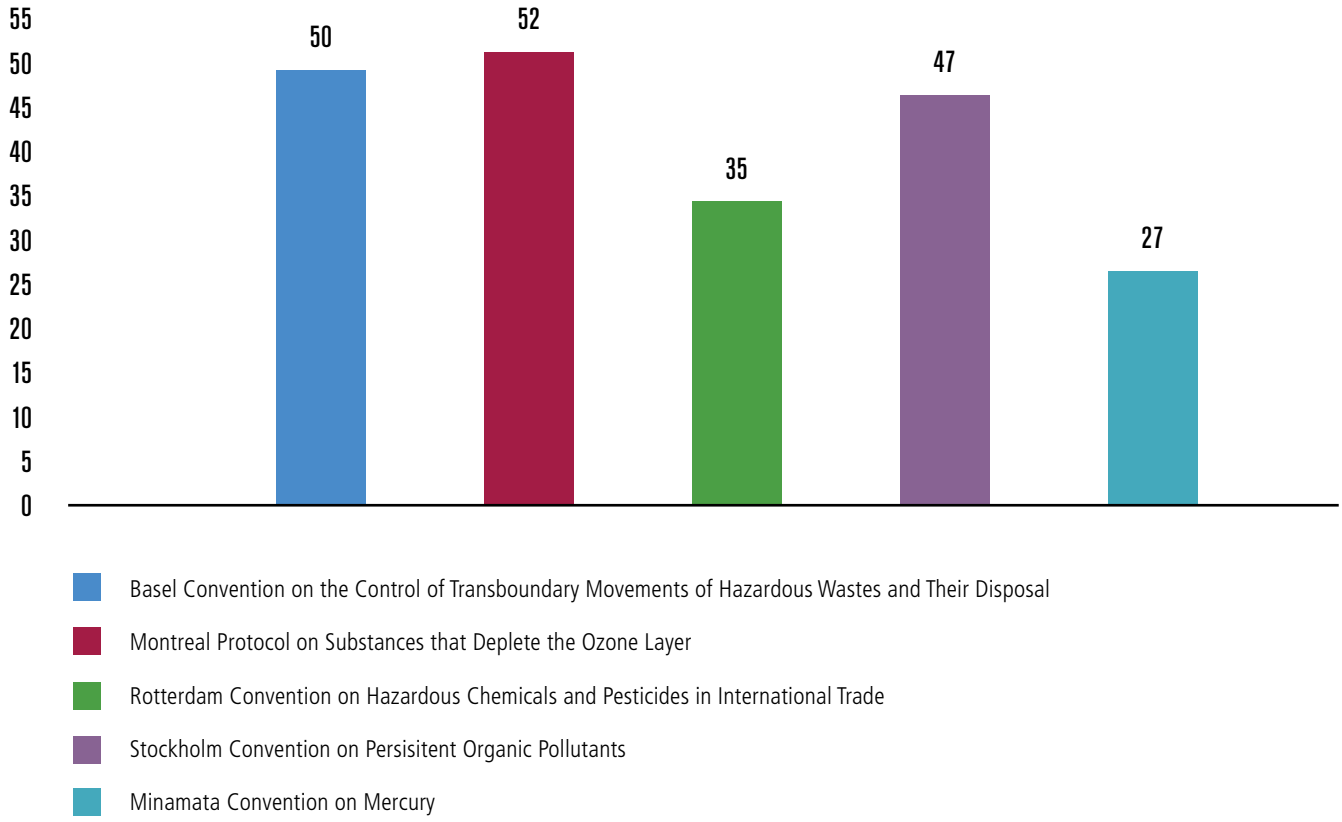
National action plans and public procurement (targets 12.1 and 12.7)

National governments increasingly recognize public procurement as a tool to incentivize the development of markets for green products and services in a 'greener' economy. Key considerations include pollution reduction, improved energy and resource efficiency, and the reduction of waste and hazardous materials.[4] At least one quarter of the region's countries has developed SCP-friendly policies and national action plans. Policy instruments for SCP need to work together towards achieving strategic objectives, but the right 'mix' depends on each country's context and specificity. In the Asia-Pacific region, a conventional emphasis is laid on promoting efficiency, improving value chains or applying improved technology processes, with a strong focus on energy and climate change. Increasing attention is being given to developing socially-oriented policies and projects on lifestyle changes. Several Asia-Pacific countries, most with an SCP strategy or integrated policy, have developed sustainable public procurement policies with a focus on environmental issues.[2,3]

Environmentally sound management of chemicals and waste (target 12.4)

Chemical production in the region was projected to increase by 46 per cent from 2012-2020[5]. Rapid industrialization, rising consumer demand and population growth in the region demand improved chemicals and hazardous waste management and regulation of industrial and consumer chemicals and pesticides. In recent years, a number of countries[6] have started to improve chemical regulation by creating national inventories (such as in Viet Nam and Thailand), implementing regulations for the registration, evaluation, authorisation and restriction of chemicals (REACH, such as in the Republic of Korea), or revising existing chemical regulations (such as in China, Japan, Indonesia and Australia). China has become the world's largest producer and consumer of pesticides and while developing countries in the region continue to use toxic broad-spectrum pesticides, the ban and phase out of highly hazardous pesticides continues in the region (such as in Viet Nam, Lao PDR and China).[7] An increasing number of countries in the region commit to at least one MEA on hazardous waste and other chemicals, which has, inter alia, led to the phasing out of ozone-depleting gases from consumption and production and improved regulation of chemicals.[8] Stricter enforcement of regulations and agreements will provide opportunities for low-cost solutions in the region's hazardous waste management market.

Figure 1: Number of Asia-Pacific Countries Party to international agreements on hazardous waste and other chemicals



Source: InforMEA. Available from https://www.informea.org/

Corporate sustainability reporting (target 12.6)

Sustainability reporting in Asia Pacific has grown by 6 percentage points since 2017 to 84 percent. Many countries and jurisdictions in the region are among the global leaders including Japan (100 percent), Malaysia (99 percent), India (98 percent), and Australia (92 percent).

The region produces around one-third of the world's corporate sustainability reports that demonstrate companies' progress in adopting sustainable practices. National regulations and policy instruments to encourage sustainability reporting in the region have increased by about 75 per cent since 2013.[9] For instance, many stock exchanges in Asian countries, including India, Malaysia, Thailand, China and Singapore, have made sustainability reporting mandatory for listed companies.[10] The Global Reporting Initiative Live Tracker recorded 5,114 corporate sustainability reports published from 2015-2017 in Asia-Pacific.[11]

B. AREAS REQUIRING SPECIFIC ATTENTION AND ASSOCIATED KEY CHALLENGES

Material footprint and resource use (target 12.2)

The material footprint per unit of GDP in Asia-Pacific is far higher than the world average. Material Footprint/$ was 1.16kg/$ globally and 1.82kg/$ in Asia Pacific in 2017. Between 2005 and 2017, per capita consumption of natural resources increased by 58 per cent and domestic material consumption[12] rose to 11.6 Mt of materials per person, remaining highest in upper middle income economies and

doubling in East and North-East Asia since 2005. The construction and manufacturing sectors have the largest material footprint, followed by the services and agricultural sectors. Resource efficiency has been declining in the region since the beginning of the century and there was an alarming rate of recoupling of resource use and economic growth, resource inefficiency, for the period from 2010 to 2015.[13] Purchasing power of the growing middle class in Asia in estimated to increase to USD 32.6 trillion by 2030 (from 4.95 billion in 2005), accounting for over 80 per cent of global growth in demand.[14] This unprecedented growth in demand requires an equally rapid transition to SCP to decouple resource use and growth for sustainable development. Resource efficiency can help to reframe environmental challenges and resource constraints into opportunities for technical innovation and industrial competitiveness.

Waste reduction and management (target 12.4)

Urban areas in the region generate about 1.21 million Mt of municipal solid waste a day. By 2025, this amount will more than double.[15] The majority of growing Asian towns and cities use open dump sites and only approximately 10 per cent of solid waste ends up in properly engineered and managed landfill sites. The countries with fast growing markets and underdeveloped waste management systems in Asia are contributing towards plastic waste leakage into the environment and oceans.[16] 42 per cent of global demand for polyethylene terephthalate (PET) bottles comes from Asia Pacific[17] and will surge by more than 140 per cent, accounting for one-third of the global total by 2020.[18] Percentage of treated wastewater in Asian cities is particularly low, ranging from 14 per cent in Indonesia, to 10 per cent in the Philippines, 9 per cent in India and only 4 per cent in Viet Nam.[19] The region generates 1 million Mt of hazardous waste daily.[20] Asia generated 18.2 million Mt of e-waste in 2016, growing by 63 per cent in 5 years in East and Southeast Asia (2010 to 2015) with the highest quantity of global e-waste generated in China (7.2 million Mt). [21] While some countries have passed respective legislation, the official collection rate across the region lies at around 15 per cent and as low as 6 per cent in Pacific island states.[22] The majority of hazardous e-waste in the region is managed by the informal sector. The incidence of food waste in industrialized Asia exceeds European levels and is high in cities across the region.[23]

However, the COVID-19 pandemic was not good for beating the plastic pollution as on the one hand, there was an alarming increase in single use plastics, and on the other hand the government focus was shifted to support and protect citizens during this pandemic.

In addition, the COVID-19 pandemic exacerbates government's capacities on waste management in particular due the increasing amounts of wastes and potentially reducing recycling rate because of hygienic safety.[40] Amounts of daily healthcare waste have increased rapidly. For instance, it is reported that the amount of daily healthcare waste in major cities of Asia (such as Hanoi, Bangkok, Jakarta, Kuala Lumpur and Manila) has increased almost 6 folds in comparison to before the pandemic.[41]

Consumer information and education (target 12.8)

The lack of recognized labels and standards is a key barrier to enabling consumers and public administration to make informed decisions when choosing goods or services. However, countries in Asia are increasingly developing national eco-labels and other consumer information tools. Cooperation and harmonization of eco-labels must be strengthened, inter alia through mutual recognition agreements, as in the case of Japanese and Thai eco-labels. Efforts to mainstream SDGs into education must be intensified to increase consumer awareness and ensure behavioural change in the long term. This is also reflected in the wide range of options in tertiary education on sustainable development in various countries under various initiatives including in response to the SDG target 12.8 refers to "Target 12.8 by 2030 ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature".

Sustainable tourism (target 12.B)

Asia-Pacific is the second most visited registered region (324 million international tourist arrivals in 2017),[27] with tourism is forecast to grow, calling for accelerated SCP patterns in the sector. While tourism can drive environmental sustainability, heritage protection and poverty reduction, poor tourism governance threatens ecosystems and biodiversity, drives pollution and unsustainable resource consumption.[28] Concrete environmental measures and monitoring instruments towards resource efficiency, reducing waste and emissions and protecting biodiversity, are largely absent and detailed only in approximately half of the tourism policies in the region. However, since early 2020, tourism sector has been hit due to COVID-19 pandemic. This impact on tourism has shown reduced negative environmental impacts and emergence of biodiversity providing an opportunity for policy-makers and tourist industry to redesign tourism post COVID-19 focusing on co-existence of tourism with nature and biodiversity.

With the COVID-19 pandemic, the tourism sector has collapsed world-wide, with an UNCTAD study projecting a worst case scenario of $3.3 trillion losses globally (https://unctad.org/webflyer/covid-19-and-tourism-assessing-economic-consequences). Many economies in the Asia-Pacific region are heavily dependent on tourism for generating GDP and employment. While many governments have been focused on shoring up the tourism sector and developing mechanisms to revive the tourism market, this crisis provides an opportunity to re-gear the tourism sector towards more sustainable tourism policies and models. This includes promoting low-volume and higher-value tourism, which would reduce negative impacts from tourism activities and operations.

Fossil fuel subsidies (target 12.C)

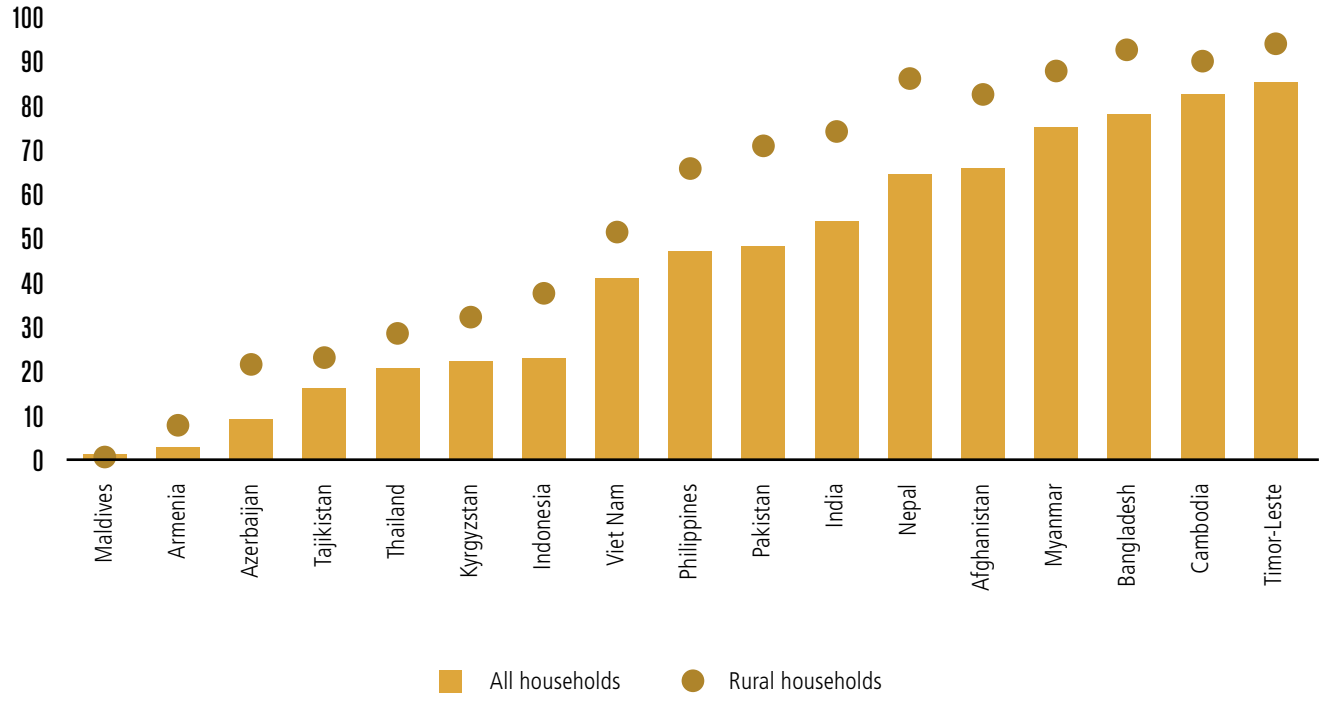
Developing Asian countries accounted for close to a third of global subsidies on fossil fuel consumption in 2012, equivalent to about 2.5 per cent of GDP.[29] Removal of such subsidies would result in the decrease of demand and use of fossil fuels, which can lead to considerable financial savings for reinvestment. For example, in the Islamic Republic of Iran, fossil fuel use reductions led to a savings of USD 5.3 billion, and Indonesia saved USD 10 billion in a year.[30] Fossil fuel subsidies support the production of cheap chemicals, and the carbon footprint of chemicals is substantial given that virtually all chemicals are sourced from fossil fuels. In addition, the use of fossil fuels has a major impact on climate change. Distorted local retail energy prices prevent low-carbon innovations (such as electric car) to be cost competitive. While these subsidies are provided with good intentions, blanket energy subsidies, on the contrary, have benefited non-intended groups of the population such as the high-income households instead of the low-income as its intention.[42] There was a considerable shift in political will to phase-out coal fired power plants and the related investments.[43]

C. INTEGRATION OF HUMAN RIGHTS AND GENDER EQUALITY CONSIDERATIONS

Economic growth has boosted fossil fuel use and hazardous waste production. Women, who are more exposed to with indoor air pollution and often care for the sick, are disproportionately affected. Asia and the Pacific has made tremendous economic progress in recent years, as evidenced by substantial reductions in poverty[1] and increases in GDP, which has more than tripled[23] in South Asia, East Asia and the Pacific since 2000. This growth has heightened consumption and waste production. In 2017, the region generated an estimated 104 kilograms (kgs) of hazardous waste per capita.[4] Regional variations are wide, with North and Central Asia contributing the highest amount of waste at 1,154 kgs per capita and South and South-West Asia contributing the lowest at 5 kgs per capita . Gender differentials exist in waste management – with men more likely than women to be employed in this sector in most countries. Women, on the other hand, are more likely to contribute to waste management in the form of unpaid work[5] **(Target 12.4)**. The remarkable poverty gains that took place in the region since 1990,[6] along with the substantial GDP rise in the same period, have also resulted in increased energy needs. To meet the heightened energy demand, countries have turned to fossil fuels. Their use has rose from 83 per cent to 88 per cent between

2005 and 2015.[7] This has tremendous environmental and human health costs. Related air pollution may result in respiratory disease and low birth weights for pregnant women. In addition, as women are often in charge of care responsibilities, air pollution may increase their care burdens as family members get sick and school cancelled. The use of fossil fuels at home also affects women disproportionately, who are often in charge of cooking and typically spend more time at home **(Target 12.c)**. In Asia and the Pacific, an estimated 51 per cent of households use unclean fuels for cooking and heating, most of which are fossil fuels – with rates rising to 70 per cent for households in rural areas.

Figure 2: Proportion of households using unclean fuels for cooking, by location (percentage)



Source: DHS and MICS surveys (2006-2018). Note: Unclean cooking fuels include coal/lignite, charcoal, wood/straw and animal dung

Unsustainable consumption and production, with negative impact on the management of natural resources and waste, undermines the effective enjoyment of all human rights. It links particularly closely to the right to health including the right to safe, clean, healthy and sustainable environment, the right to adequate food and the right to safe drinking water, as well as the right of all peoples to freely dispose of their natural resources. The human rights implications and environmental damage of unsustainable consumption and production are felt most acutely by disadvantaged segments of society, including rural communities and the urban poor, women, children, ethnic minorities, people with disabilities, and other marginalized groups. It is therefore important to recognize and address the underlying causes of discriminate impacts on vulnerable groups, to empower and engage these groups in participatory processes, and to realize the right to information and to education. Existing human rights commitments also obliges States to strengthen accountability and the capacity of government entities and businesses to take action towards SDG 12.

III. PROMISING INNOVATIONS AND BEST PRACTICES

Circular economy approaches

As a major global production centre, the region has the potential to be a model for sustainable manufacturing, consumption, and takeback system. A number of Asian countries are beginning to address SCP from a circular economy or 3Rs perspective (reduce, reuse, recycle): Japan's Food Recycling Law sets recycling targets for food product manufacturers, wholesalers, retailers, and restaurants, and promotes the use of food waste as livestock feeds and fertilizers.[31] Despite a traditional focus on production and value-chains, an emerging prominence of socially oriented approaches can be observed in Asia-Pacific. PACE (Platform for Accelerating the Circular Economy)[32] is delivering concrete initiatives on the ground, covering plastics and marine litter, electronics and e-waste, and sustainable procurement practices. Radically increasing impact requires novel approaches such as these, with shared ownership, common goals and commitment to coordinated action.

Sustainable Tourism Pledge Pilot in Thailand
UNESCO has joined forces with the Tourism Authority of Thailand and Expedia to launch a Sustainable Tourism Pledge for hotels. While it is being piloted in Thailand, the intention is to spread the concept around the world, changing the nature and impact of global tourism. The pledge takes an industry-first approach to environmental and cultural protection, requiring hotel operators to introduce firm measures to eliminate single-use plastics and promote local culture. In order to keep the impact and momentum going, the pledge must be renewed each year, with fresh actions promised to help towards the overall goals. The commitments for the year ahead must be measurable and should be achievable to ensure that, little by little, huge changes can be enacted. The pledge is designed to inspire and provide incentives to local tourism businesses in key destinations, such as coastal areas and World Heritage sites, to support sustainable tourism and safeguard heritage in line with the internationally agreed Sustainable Development Goals .

Promoting Sustainable Consumption through Education for Sustainable Development (ESD)
UNESCO has been spearheading the global movements to advance ESD since 2005. Starting in 2020, "ESD for 2030" seeks to promote the role of local communities as a platform for multi-stakeholder action. In the Asia-Pacific region, there are over 50 Regional Centres of Expertise on ESD (RCEs), which are multi-stakeholder network of formal education institutions – schools, universities and vocational training centres – and institutions that incorporate non-formal education (NFE) into their mandates, including local government offices, environmental NGOs, local enterprises, media, zoos, botanical gardens and parks working together to facilitate learning and action through ESD in a local setting. On the issue of sustainable consumption, for instance, RCE Delhi has successfully raised awareness among school students, teachers, school communities and society at large on the issue of waste, encouraging students as well as teachers to practice the '4Rs' – refuse, reuse, reduce, and recycle – in their daily lives and make responsible consumption choices through innovative approaches to learning. As the region continues to grow in terms of both its economies and populations, the need for education as a tool for enabling sustainable development will continue to increase, along with the need for educators to impart this knowledge and sets of practices to the communities in which they operate.[10]

National Sustainable Consumption and Production Blueprints

Malaysia has placed sustainable consumption and production at the core of its national planning process, with the development of its National Sustainable Consumption and Production Blueprint 2016-2030. This strategy was designed through a broad consultative process and identifies ten complementary pathways: public procurement, households; industry; circular economy; buildings; mobility; food; tourism; communication, education and public awareness; and coordination and monitoring. An analysis of the current situation, and a clear description of how obstacles can be overcome, and targets achieved, has been developed.[33]

Bhutan's Environment Strategy includes a new goal on sustainable consumption and production, and the country is also developing a national action plan on sustainable consumption and production.

Vietnam recently adopted a National Action Plan on Sustainable Consumption and Production.

Green public procurement to leverage sustainable development in Korea

The Ministry of Environment, in collaboration with the Korea Environmental Industry and Technology Institute and the Korean Public Procurement Services, introduced several initiatives including: the development of green public procurement guidelines, the introduction of the Korea Eco-label, the establishment of a Green Products Information Platform for purchasers, and a nation-wide online monitoring system. State organizations are required to submit a yearly implementation plan on green purchase and annual performance records to stimulate public demand and a green market. In 12 months, the total public expenditure in green purchase more than tripled to KRW 787 billion KRW (USD 787 million) in 2005. In 12 months, the total public expenditure in green purchase more than tripled to KRW 787 billion KRW (USD 787 million) in 2005) Compared to 2005 the total public expenditure in green purchases(KRW787), has been nearly quadrupled in 2019 to KRW3,879 billion (3.879 billion $). The number of products certified by the Korea Eco-Label nearly quadrupled in 2012 compared to 2004[34]. There was also be an Increase in the number of certified products from 326 in 2001 to 17,813 in 2020.

Improving information and communication on product sustainability

Guidelines for Providing Product Sustainability Information[35] of the Consumer Information Programme of the 10-Year Framework of Programmes on SCP and the SDG Goals (10YFP) were launched for the Asian region during the India Sustainability Standards Conference 2017. The Guidelines are a tool for companies and other stakeholders to contribute to SDG target 12.8. The Guidelines are undergoing testing in India and China to assess and improve sustainability communications. Powered by the 30 SCP Youth Ambassadors from 22 countries, the 4 Billion Dreams sustainable lifestyle project was launched to create conversation and provide insight into current lifestyle patterns, working towards SDG 12.8. Sri Lanka also launched SCP roadmap including consumer information. Based on the interest, UNEP organized a webinar on SDG 12.1 (Sustainable Public Procurement) for South Asia with SACEP (South Asia Cooperative Environment Programme).

IV. PRIORITIES FOR ACTION

1. The outcomes of the round table on Sustainable Development Goal 12 were informed by the relevant goal profile and focused attention on the following action areas for Asia and the Pacific.

2. Accelerate efforts for **efficient plastic waste management.** Strong regulatory and legal frameworks are needed to address land and marine pollution issues and to control plastics movements. National roadmaps to address plastic waste can catalyze action including supporting investment in alternative material to plastics. Support to local governments to invest in capital and infrastructure is needed for a circular economy approach, and to harness effective policy instruments, such as Extended Producer Responsibility, fiscal policy, and regulatory instruments. Basel Convention Annex 2 has a list of materials that need to be tracked and plastic scraps could be added to this list. Involve all schools and universities and convert them into environmentally friendly practicing places.

3. Accelerate efforts to **strengthen monitoring systems and indicators.** To measure progress and prioritize action, monitoring systems and indicators need to be developed that integrate natural resources, socio-economic development, and policies, from process to impact. The number of

people from the general public and schools and universities' awareness should be raised – behavior should be measured. All monitoring data should be publicly available.

4. Accelerate **awareness raising on sustainable consumption and production and Goal 12.** Sustainable consumption and production policies and action plans are shaping up in countries at national and sub-national levels. However, the policymakers and stakeholders are not yet fully aware of the sustainable consumption and production implications cutting across all the sectors and all the Sustainable Development Goals. Therefore, further work on awareness-raising and capacity building on mainstreaming sustainable consumption and production across different sectors and national and sub national policies and actions is required. Capacity building on implementation of sustainable consumption and production policies, action plans and reporting on Goal 12 can also to be included along with awareness raising as one of the key priority areas for action. Awareness of the general public, schools and universities should be enhanced (science-education for the general public and educational institutes).

5. Accelerate **mainstreaming of approaches through sustainable consumption and production integration into core national strategies** and more holistic approaches to sustainable consumption and production policies that address production as well as lifestyles and consumption in all sectors such as energy, agri-food and other agri-industries, mobility, construction, housing, tourism, public procurement, small scale industries, health and education.

6. Accelerate **empowerment of women entrepreneurs.** Women are in the position to provide sustainable products and services in any sector to every corner of communities. Financing women entrepreneurs in sustainable products and services as well as providing capacity building, ensuring their access to technology, designing supporting policies, and establishing financial frameworks are the keys to ensure sustainable consumption and production patterns. Shifting towards more sustainable habits in daily consumption in workplaces, homes, schools, and communities as well as ensuring a proportional representation and participation of women in all facets of decision making at all levels, such as in industries and policy planning can promote sustainable consumption and production processes.

7. Accelerate efforts to **promote green recovery as the engine for COVID-19 recovery.** Countries should be encouraged to take the socio ecological crisis more seriously given for example the state of plastic and air pollution in the region. Human health and environmental sustainability should be the new normal, and they should be high on the list of national priorities. Also, the removal of subsidies to energy products (petroleum products, electricity production, and electricity consumption) should be part of the overall framework of the country's tax reform. The revenue freed up from the rationalization of the energy products could be used to provide social welfare and social safety nets for those who are affected by COVID-19. Governments can create an enabling environment for sustainable consumption and production as a vehicle for green recovery.

8. Accelerate efforts to **enhance stakeholder involvement.** For instance, we can encourage corporate change through policy tools. Business taxonomy to translate circular economy for sustainable consumption and production that makes business sense is needed. Clear roadmaps and targets for business transitions to a circular economy can enhance stakeholder involvement. Appropriate policy tools including regulations, taxes and subsidies will trigger corporate decisions on green innovation investments as well as regenerative of economy by design and encourage green consumption. Extend producer responsibility to make the products durable. The informal sector is often overlooked but it is a key to drive a circular economy in the region. To achieve Goal 12 targets and given that Pacific Islands are vulnerable to the changing climate, a transition to a low carbon society is needed. Initiatives to reduce greenhouse gas emissions such as paperless society are

urged. New or existing platforms such as Partner for green growth and global goals 2030 and Low Emission Development Strategy, can be used to strengthen stakeholder engagement.

9. Accelerate efforts to **strengthen the regulatory frameworks for sustainable consumption and production.** Despite the economic benefits of resource efficiency, market forces alone are insufficient and too slow to overcome systemic barriers to sustainable consumption and production. All countries need a strong regulatory framework to make the transition to responsible consumption and production before planetary boundaries are crossed, and in time for major capital investments in the region. Three policies that can support this include strict industrial standards on environmental protection and pollution mitigation, the internalization of environmental externalities into the price of goods and services, and strict standards on air pollution and emissions from vehicles. Regulatory frameworks should also create an enabling environment for private sector to produce sustainability and for consumers to consume sustainably.

10. Accelerate efforts to **implement the 10-Year Framework of Programmes.** With a rapidly urbanizing population and a growing middle class, the 10YFP programmes on consumer information, sustainable tourism and sustainable lifestyles and education provide toolkits and lessons learned from other countries that can be rolled out in the region. Accelerated and active engagement of private sector and youth should be in focus to implement the 10 YFP project.

11. Accelerate efforts for **an integrated circular economy approach**. The region must transition toward a more circular model that strengthens resource efficiency (Goal 12.2), improves waste management (Goal 12.3, 12.4, 12.5) and embeds environmental impacts in various sectoral and national development policies. A shift toward circular production and consumption pathways can reduce pollution on land and in water (Goal 14, 15), lead to innovation in industry and energy infrastructure, reduce greenhouse gas emissions (Goal 7, 9, 13), and provide decent jobs to reduce poverty and inequality (Goal 1, 8, 5, 10). Social engineering, citizen awareness, effective incentives and financing to make circularity feasible in local businesses is needed. Technological innovation — in technologies that make circular economies possible, and viable policy roadmaps and coordination can also support action.

12. Accelerate efforts to **strengthen capacity building, technical and financial support.** Sustainable consumption and production is significantly externally driven with many processes requiring technical assistance from, and funding of, external actors. Strengthening domestic support and the development of financial instruments at national levels is needed. Technology transfer and Capacity building on Hi-Tech are needed for Asian countries. Climate Finance initiatives should be collaborated on between private sectors and international agencies.

TARGETS

12.1
Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead and taking into account the development and capabilities of developing countries

12.2
By 2030, achieve the sustainable management and efficient use of natural resources

12.3
By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

12.4
By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5
By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6
Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.7
Promote public procurement practices that are sustainable, in accordance with national policies and priorities

12.8
By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

12.a
Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

12.b
Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

12.c
Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

ACKNOWLEDGEMENTS

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ENDNOTES

1. UN ESCAP (2017), Economic and Social Survey of Asia and the Pacific 2017: Year-end Update, available from http://www.unescap.org/publications/economic-and-social-survey-asia-and-pacific-2017-year-end-update

2. Based on a recent global review and the ongoing pilot reporting for SDG 12.1.1. (forthcoming). Countries referred to include Bhutan, China, Indonesia, Japan, Malaysia, Mongolia, Republic of Korea, Singapore, Philippines. See also UN Environment (2017), Factsheets on Sustainable Public Procurement in National Governments, available from http://www.scpclearinghouse.org/sites/default/files/factsheets2017.pdf.

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