Ensure sustainable consumption and production patterns

OUTLOOK

The prospects for making progress are mixed. Although the region overall is becoming more material and energy efficient, overall levels of consumption and waste in the region are growing. Rising incomes and lifestyle changes are expected to further drive this upward trend. Concerted public and private action is needed to change production and consumption patterns in the face of fundamental challenges, such as increasing energy demand, resource depletion and ecosystem degradation while basic needs are not being covered.

THE PHOTO

A worker turns composting organic waste to improve decomposition in the Integrated Resource Recovery Centre in Matale, Sri Lanka

Photo credit: ESCAP
INSIGHTS

- The Asia-Pacific region continues to be the fastest-growing and most dynamic production hub among the regions in the world. It is the production centre for food and exports for two-thirds of the world’s population. These drivers are resource-intensive, with the environmental costs of their inefficiencies not reflected in the price of goods. Nor is a sufficient level of profit from export-driven economic growth reinvested in managing the environmental impacts of production.

- The urgency of transforming the economic strategies and business models in the region is crucial to achieving SDG 12, and the entire range of physical and socioeconomic factors that underpin consumption and production patterns, including infrastructure, lifestyles and economic structures. This underscores the importance of going after the root causes of unsustainable consumption and production patterns across the SDGs, particularly SDG 8 and SDG 9, by embedding the environmental impacts in employment and economic growth policies.

- The highest potential for resource-efficiency gains exists in developing economies that are locked into inefficient, resource-intensive consumption and production patterns. With appropriate green economy policies, incentives and access to technology, there is scope for increasing efficiency gains in these countries. But early action is needed to avoid further lock-in to inefficient technologies and infrastructure.

- National Environmental Economic Accounting can be used as a tool for internalizing the cost of using environmental resources and the resulting waste and emissions into economic decision-making. Examples include the assessment of trends in the use and availability of natural resources, the extent of emissions and discharges into the environment resulting from economic activity and the amount of economic activity undertaken for environmental purposes.¹

BRIGHT SPOTS

Sustainable management and efficient use of natural resources

- The intensity of domestic material consumption, calculated as direct import plus domestic materials extraction, minus direct exports, increased by 23 per cent in the region as a whole between 2000 and 2015. However, in all subregions, there was a marked reduction in domestic material consumption between 2000 to 2015 (South-East Asia by 15 per cent, South and South-West Asia by 31 per cent, North and Central Asia by 25 per cent and Pacific islands by 21 per cent) compared with the increasing global average of 8 per cent between 2000 and 2010.² The exception to this downward regional trend is East and North-East Asia, which grew by 76 per cent between 2000 and 2015 (see the SDG 7 profile for energy intensity trends).
Waste reduction and management

- There is a growing movement towards sustainable and low chemical-input agriculture, as well as green chemistry methods and material innovation to remove toxins from the value chain. An example is the initiative by 13 countries to adopt a new set of safety and quality standards for machinery manufactured, traded and used in the Asia-Pacific region.\(^3\)

- The number of countries in the region committing to at least one international environmental agreement on hazardous waste and other chemicals has increased. There are signs that awareness and use of techniques to incentivize and reward sustainable consumption and production behaviour is increasing.

**HOTSPOTS**

Sustainable management and efficient use of natural resources

- The Asia-Pacific region requires two times the input of resources than what the rest of the world requires to produce one unit of GDP.\(^4\) In 2010, the region’s GDP\(^5\) required the use of 2.4 kilograms of materials per unit of GDP, compared with the global average of 1.3 kilograms per unit of GDP. Without a decoupling of GDP growth from resource use, the region is likely to be using 80 billion tonnes of materials by 2050,\(^6\) with severe environmental and social impacts and looming shortage.

- The region’s domestic material consumption increased at an average annual rate of 5.6 per cent between 2000 and 2015, more than five times the population growth rate. Various factors contributed to this increase, including rapid industrialization, urbanization and massive infrastructure and transport development.\(^7\)

- In absolute terms, domestic material consumption has more than doubled, from 22,887 million tonnes in 2000 to 51,369 million tonnes in 2015, with most of the growth coming from East, North-East and South-West Asia.\(^8\)

Waste reduction and management

- Total greenhouse gas emissions of economies in Asia and the Pacific in 2012 were 26,725 million tonnes of \(\text{CO}_2\) equivalent, reflecting around a 4 per cent average rate of annual increase since 2000.\(^9\) This is despite the decrease of emissions intensity by 44 per cent, from 1.9 tonnes in 2003 to 1 tonne per $1,000 GDP in 2011.\(^10\)

- Urban areas in the region generate about 1.21 million tonnes of municipal solid waste a day. By 2025, this amount will more than double, to 2.65 million tonnes daily.\(^11\) In the past five years (2010–2015), e-waste from East and South-East Asia grew by 63 per cent.\(^12\)
• Each year, an estimated one third of all food produced worldwide—equivalent to 1.3 billion tonnes and worth around $1 trillion—ends up in the bins of consumers and retailers or spoiled due to poor transportation and harvesting practices. In the region, it is estimated that 15–50 per cent of fruits and 12–30 per cent of grains are lost between the producer and the market.

• Given the realization that plastic is now turning up in 100 per cent of fish catch in some regions of Asia and in sea salt and that the quantity of plastic in the ocean’s gyres is growing, some observers are considering plastic pollution a crisis on the scale of a “global threat”, comparable with global climate change, food insecurity and water scarcity. Weak statistical capacity to monitor the extent of marine pollution, particularly microplastics, and its implications hinder policy development to fully tackle this issue.

• A large part of both the positive and negative contributions to advancing SDG 12 will come from private businesses and consumers, which suggests a renewed commitment to effectively implement a “penalize or reward” policy regime appropriate to the scale of operations and types of goods and services.

Institutionalizing policy and action

• Only a minority of industries and businesses in the region have implemented measures to support conscious consumer behaviour change, such as environmental labelling and consumer information services. In 2016, businesses from only 23 of the Asia-Pacific regional member States have participated in the global voluntary Corporate Sustainability Reporting initiative, accounting for 35 per cent of the global total. Making information accessible to both consumers and producers will empower consumers to make more sustainable choices.

• Developing Asian countries accounted for close to a third of global subsidies on fossil fuel consumption in 2012, equivalent to about 1.5 per cent of GDP. Removal of such subsidies would result in the decrease of demand and use of fossil fuels. Reduction of fossil fuels can lead to considerable financial savings for governments. For example, in the Islamic Republic of Iran, fossil fuel use reductions led to a savings of $5.3 billion; in Indonesia, it saved $10 billion in one year. These funds can be reinvested into social development policies, as was done in Indonesia.

• Fossil fuel subsidies also support the production of cheap chemicals, and the carbon footprint of chemicals is substantial. Virtually all chemicals are sourced from fossil fuels.

• The economic value attributable to ecotourism has been underestimated in traditional national income accounting, thereby hindering a complete valuation of tourism for the benefit of cultural heritage protection and poverty reduction.

• Technical and statistical capacity issues impede the monitoring of the sustainability of production and consumption patterns. Reliable data on food waste and loss, household solid waste generation, industrial waste and effluents management and treatment are poor or non-existent for most countries in the region.
EMERGING ISSUES

- Recent studies traced high chemical inputs for food production to damaging impacts on the health of consumers in the region and abroad. These impacts are not yet fully documented, however, because of the time required for the problems to fully manifest and develop.

- Chemical management is therefore critical in the Asia-Pacific region, especially chemicals from plastic and textile industry waste, mercury and dioxin emissions. Regional cooperation is needed to create a framework for influencing multinational corporations to avoid their use of chemicals and non-organic packaging, which are prohibited in other regions.

- Water pollution from untreated wastewater in the region is exceeding the capacity for purification of rivers and lakes, thus calling for a better understanding of the contemporary water cycle. Action to improve the effectiveness of toxic waste and pollutants management is important.

- Requiring the business sector to apply lifecycle analysis to their products, materials used and services will trigger important changes in the value chain. These changes could be a game changer in terms of reducing wasteful lifestyles and improve environmental and social sustainability and overall well-being.

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, 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