I. SUMMARY

Encompassing large and diverse territories with different ocean basins, the Asia-Pacific region is currently not on track to reach key targets, including those related to marine pollution, the conservation of coastal areas, and marine resources for Small Island Developing States (SIDS) and least developed countries (LDCs). Regional and transboundary cooperation efforts and mechanisms are necessary for the delivery of Sustainable Development Goal (SDG) 14 and are of relevance in the socioeconomic response to COVID-19.

Ocean ecosystems are in a constant struggle to moderate the impacts of land-based lifestyles, such as the consequences of climate change for marine habitats in the form of coral bleaching, acidification, eutrophication, ocean warming, rising sea levels, harmful algal blooms, and a long list of pressures. The COVID-19 pandemic has exacerbated pre-existing challenges, including environmental issues facing marine ecosystems.

Although fisheries support the livelihoods of millions of people in Asia and the Pacific and provide a major component of the diets of communities across the region, fish stocks continue to decline, and consumption patterns are unsustainable. This situation is accompanied by additional stressors, such as climate change-induced migrations of species and harmful practices such as persistent illegal, unreported, and unregulated (IUU) fishing.
Stakeholders in Asia and the Pacific have highlighted the need for more and better sustainable waste management systems. The utilization of single-use plastics has skyrocketed during the pandemic, and rivers and oceans saw an increase in plastic pollution due to mandatory use of personal protective equipment kits, at-home tests kits, and face masks, which are usually made of polypropylene and are designed for disposal after a single use. According to the responses in the United Nations Economic and Social Commission on Asia and the Pacific (ESCAP) multi-stakeholder 2021 survey, this trend of poorly discarded waste is one of the greatest challenges in the realization of SDG 14. A secondary challenge is the collapse of coastal fisheries. Coastal communities are often overlooked and under-resourced, leaving them without the knowledge and the technical capacity to sustainably manage local waters, which requires water treatment plants before discharging waste waters into the ocean, among other necessities. In addition, when coastal populations lack the skills to take on employment in different professions, their only economic or professional option may be fishing, which may lead to overfishing and other problematic implications, such as ecosystem deterioration, if marine areas are not protected or monitored. More government regulations in these communities are needed. Climate change and unsustainable use of marine resources were also persistent challenges identified by survey respondents.

The immediate impact of the COVID-19 pandemic has included a sharp and unprecedented decline in international inbound visitors to Asia and the Pacific. This reduction is a result of quarantine measures, travel bans, and border closures both in tourist source countries and destinations. Women are more likely to engage in the tourism sector; they comprise 54 per cent of those employed in this sector, compared to 39 per cent of employed people overall. They have faced disproportionate effects on their livelihoods. Global international tourist arrivals decreased by 70 per cent in the first eight months of 2020, which has translated into a loss of US$730 billion in tourism receipts globally. The impact has been the largest in Asia and the Pacific, which witnessed a decline of more than three quarters, or 79 per cent, of tourist arrivals. In the Pacific, arrivals to Fiji dropped the most in comparison to other islands. Other countries in mainland Asia have also experienced a decrease in tourism; for example, in Thailand, international tourism has nearly disappeared since the second quarter of 2020, and the industry is now relying mostly on domestic travellers. Given a gradual and linear lifting of travel restrictions, the availability of a vaccine or treatment, and a return of traveller confidence, this trend may reverse. Nonetheless, the return to 2019 levels of tourist arrivals would take between 2.5 and 4 years.

While tourism demand may not recover in the short term, sustainable tourism could still be one of the most viable sectors in SIDS in the medium and long run. Asia-Pacific SIDS have opportunities to further develop their tourism sectors while safeguarding the marine environment, particularly given the increasing disposable income of the region’s growing middle class. For instance, the volume of Chinese outbound tourists increased from 4.5 million in 2000 to 150 million in 2018. Chinese tourists to the Asia-Pacific SIDS comprised merely 0.28 per cent of total outbound tourists, however. Considering the long-term trends, this number is likely to rise. Another opportunity is the aging population in developed countries in Asia and the Pacific, who could boost demand for warm-weather outdoor activities and indoor cultural events and attractions, such as marine-based, cruise, and culture-based tourism. Asia-Pacific SIDS also have strong advantages over potential competitors due to their rich natural environments, indigenous cultures, and existing cruise infrastructure. Before the influx of tourism begins to reach pre-pandemic levels, Governments have an opportunity to implement policies that support sustainable tourism, putting marine ecosystems at the centre of their decision-making process.
The effects of COVID-19 can be seen throughout marine ecosystems and ocean-dependent communities. While the reduction in fishing activities has impacted fisherfolk negatively in economic terms, marine ecosystems have been given an opportunity to recover, albeit temporarily. Various coastal ecosystems have experienced the return of some species, as their waters benefited from a pause in human disruptions due to lockdowns and tourism restrictions. In capture fisheries, for example, fish catch has dropped considerably as fishing activities are restricted and many fishers are prohibited from going to sea to fish, resulting in negative consequences for livelihoods and human well-being in the fisheries sector. The seafood supply chain has been disrupted due to transport restrictions and shortages of workers not only in fish production, but also in processing. This situation has drastically depressed the income of people who depend on fisheries, in particular small-scale fishers, who are most vulnerable to such impacts.

A. Progress

Only three out of 10 of SDG targets for life below water are measurable in Asia and the Pacific. The incomplete evidence, however, shows that the region is making limited progress toward this goal, primarily in reducing beach litter (target 14.1.1), despite the decreasing quality of oceans as measured by chlorophyll-a deviations. In addition, since 2015, some progress has been made in protecting marine areas, while the economic gains from sustainable fisheries continue declining (Figure I).

**Figure 2: Progress on Sustainable Development Goal 14 in Asia and the Pacific**

**Target 14.1 Marine Pollution.** Some countries have taken actions such as restricting the use of single-use plastics and developing ambitious national strategies and action plans, such as those to tackle plastic pollution in Indonesia, Malaysia, and Thailand. Country-level roadmaps towards less plastic waste include timelines to shift from voluntary to mandatory extended producer responsibility. Several countries in South-East Asia included extended producer responsibility in their roadmaps, such as Malaysia, Indonesia, Viet Nam, the Philippines, and Thailand. India introduced a draft notification on extended producer responsibility rules in October 2021 with clear targets for collecting, recycling, and the use of recycled content for producers, importers, and brand owners of plastic-based products. The United Nations Environment Programme
II. CURRENT STATUS

(UNEP) Seas of East Asia (SEA) circular project has focused on engagement with the private sector and the informal waste management sector, while bringing together actors in the plastic value chain to support and enable extended producer responsibility. These efforts support acceleration towards plastic circularity.

A few countries have already introduced some forms of nationwide bans on single-use plastic. Bangladesh became a global pioneer by instituting a nationwide ban in 2002, followed by Bhutan and Mongolia in 2009; India and Papua New Guinea in 2016; the Marshall Islands, Palau, and Sri Lanka in 2017; Vanuatu in 2018; and New Zealand in 2019. In addition, in 2021, the Government of India amended the Plastic Waste Management Rules, prohibiting the manufacture, import, stocking, distribution, and sale of some forms of single-use plastics with low utility and high littering potential. This policy measure can be considered by other member States in Asia and the Pacific for the protection of the oceans. Other countries in the region have introduced single-use plastic bans at the local level, namely Australia, China, India, Indonesia, Malaysia, Myanmar, Pakistan, and the Philippines. This effort may benefit from scaling up to the national level. Furthermore, some forms of a plastic tax or levy have been implemented. China has imposed a nationwide levy on plastic bags thicker than 25 microns (μ) at the local level; Hong Kong, China has implemented a levy on some retailers; and Taiwan Province, China has introduced a levy on disposable plastic bags and tableware. In Indonesia, 23 cities have implemented a levy on plastic bags equivalent to US$0.015 per bag on customers at selected retailers. Penang state in Malaysia introduced a 0.20 Malaysian ringgit (US$0.02) charge on plastic bags, as part of its "No free plastic bags" campaign. Viet Nam applies a levy on retailers for non-biodegradable plastic bags by weight, while Fiji imposes a levy on consumers of 0.10 Fiji dollars per plastic bag (US$.04) (UNEP, 2018a). These strategies could be replicated in other countries, learning from success stories and good practices in the region. Other regional efforts to address marine pollution issues include the Regional Seas Programme's Regional Action Plan on Marine Litter under the Coordinating Body on the Seas of East Asia, as well as the Northwest Pacific Action Plan.

Target 14.5 Marine protected areas. For this indicator, some data is available, and progress, albeit insufficient, has been made. Marine protected area coverage in Asia and the Pacific is 19 per cent of the total marine and coastal area. Good progress has occurred in some countries. For example, Palau enacted the National Marine Sanctuary Act in 2015. By establishing a no-catch area in 80 per cent of its waters, the resulting marine protected area became the sixth largest in the world. Palau is thereby combating climate change while promoting larger yields in the fishing and tourism industries. Protected areas allow Palau’s fish stocks to reproduce in a more sustainable way, resulting in additional revenue for local fisher folks. Studies suggest that when biomass increases inside protected areas, the resulting spillover of adult fish populations into non-protected waters leads to more abundant catches for local fisheries; protected waters had twice the number of fish as unprotected waters and five times the number of predatory fish.

The economic benefits of investments in marine protected areas have been measured in monetary terms as well. The estimated annual value to the tourism industry of an individual reef shark that frequents these sites is US$179,000, or US$1.9 million over its lifetime. Shark diving
approximately US$18 million annually to the Palauan economy, approximately 8 per cent of the country's gross domestic product. The annual income in salaries paid by the shark-diving industry was an estimated US$1.2 million; the annual tax income generated by shark diving was approximately 14 per cent of the country's business tax revenue. These pre-COVID-19 figures underscore the magnitude of the economic benefits of investing in SDG 14. Globally, up to 73 million sharks are killed every year primarily for their fins, which are used in the Asian delicacy shark fin soup. Even ignoring environmental benefits, the revenue generated by a live shark outweighs the short-term income produced by eating them.\(^\text{9}\)

There has also been progress at the sub-regional level. For example, the Framework for Nature Conservation and Protected Areas in the Pacific Islands Region 2021–2025 was adopted at the Tenth Pacific Islands Conference on Nature Conservation and Protected Areas, held in November 2020.

**B. Areas Requiring Attention and Associated Challenges**

**Target 14.1 Marine pollution.** Plastic production and consumption in Asia and the Pacific accounts for almost half of the global volume. To date, 75 per cent of all plastic produced has become waste, and over 150 million tons are estimated to be in our ocean.\(^\text{10}\) The pandemic has seen an acceleration of this trend, as the culture of disposability and the utilization of single-use plastics have intensified. Unless effective policies are implemented urgently, the amount of plastic debris in the ocean could triple by 2050. Macro- and microplastics have accumulated in marine environments, including oceans, damaging these ecosystems. Mismanaged land-based waste is a major source of plastic litter leaking into the environment, especially single-use plastics.

During the COVID-19 pandemic, it has become challenging for the waste management sector to handle the growing volume of single-use plastics and other solid waste, due in part to stressors such as lockdowns and inability to rely on waste pickers. The pandemic has increased the amount of waste from single-use takeaway food packaging and medical protective equipment. Meanwhile, capacity to handle this surge in waste does not exist, because many municipal governments lack the technology or technical capacity to manage solid waste efficiently.

In addition, SDG 14.1 includes nutrient pollution. Nitrate and phosphate pollution is tied to manure, industry, improper treatment of detergents in wastewater, and agro-fertilizers. This pollution, usually funnelled through rivers, can reduce the levels of oxygen and light, creating "dead zones" with incidents like mass fish die-offs and excessive algae that damage fish habitats.\(^\text{11}\)

**Target 14.4 Illegal, unreported and unregulated fishing.** Asia-Pacific is the world's largest producer of fish. China, Viet Nam, and Thailand are the world's largest exporters of fish and fish products, accounting for 23.3 per cent of total world exports related to fisheries.\(^\text{12}\) The value of
II. CURRENT STATUS

production from fisheries and aquaculture in the Pacific subregion was estimated at approximately US$3.2 billion in 2014.\(^5\) In South-East Asia, the export value of the fish caught was US$19.5 billion in 2015, and Asia accounted for 75.4 per cent of the total number of motorized and non-motorized fishing vessels.\(^6\) In terms of employment, in 2016, 85 per cent of the people employed in aquaculture and fisheries worldwide were in Asia, and there was an increasing number of fishers in 2015–2016 in the Pacific.\(^6\) Although men comprise the bulk of people engaged in fish and seafood harvesting, women are over-represented in fish processing.\(^6\) Damaging environmental practices and their consequent long-term impact on fish stocks may put women's and men's livelihoods at stake.

IUU fishing is a leading culprit in the overexploitation of fisheries resources in Asia and the Pacific; an estimated one in five fish of the landed catch is caught through IUU fishing.\(^7\) The estimate is likely to be higher in some areas, such as in the eastern Indian Ocean and in the northern and western Central Pacific.

IUU fishing and its subsequent overexploitation of fish stocks hinders the recovery of fish populations and ecosystems, with a clear disadvantage for legal fishing practices, and adverse socioeconomic impacts on fishing communities. A large number of legally caught fish goes unreported, making it impossible to assess or manage the status of the stocks. In addition, regulation of legal national fisheries is often weak, resulting in no or very minor catch restrictions, and control of regulations is often lacking. In South-East Asian, some countries have been promoting sustainable fisheries management and implementing appropriate countermeasures against IUU fishing. Fisheries management schemes such as fishing gear licensing and vessel registration could serve as effective measures to promote sustainable use and long-term conservation of marine fishery resources.\(^8\) Lastly, many fish stocks move across borders, so several countries may fish on the same stocks. There is, therefore, an urgent need for sub-regional cooperation to manage these stocks. Presently, such cooperation has only started for some tuna stocks.

Research suggests that ghost fishing gear contributes to roughly 10 per cent of the debris found in oceans and a decline of about 30 per cent in some fish populations.\(^9\) Given the pressures from overfishing in Asia and the Pacific, this gear forms an important component of marine pollution and would require specific control strategies, such as incentivizing fishing gear management schemes.

Target 14.2 & 14.3 Marine ecosystem degradation. Up to 90 per cent of coral reefs in Asia and the Pacific are expected to suffer severe degradation by 2050 because of coastal erosion, overfishing, unsustainable fishing methods, pollution, and climate change.\(^10\) The annual economic damage of ocean acidification-induced coral reef loss by 2100 is estimated at US$870 billion, representing a large loss in gross domestic product for small islands and coastal economies.\(^21\) Coral reefs are therefore of critical ecological, cultural, and economic importance, supporting the livelihoods of hundreds of millions of people in the region and beyond through vital and valuable ecosystem services such as food security, tourism, or coastal protection, and are under serious
threat. Coral reefs are interlinked to other coastal habitats, especially mangroves, intertidal flats, and seagrass beds, and their combined degradation is an aggravating factor in coastal biodiversity decline. To eliminate ecosystem degradation, the establishment of marine protected areas is key. Attention must be paid to the quality of ecosystems and the services they offer, beyond the geographical extension of the area being protected. Addressing external stressors such as wastewater, agricultural nutrient runoff, and fisheries can safeguard reefs in protected areas.

**Climate change related impacts.** While climate action is measured by SDG 13 targets, there are interlinkages with SDG 14 that affect progress toward this goal. The effects of climate change on the ocean, such as those resulting from overfishing and natural disasters, are exacerbating the existing vulnerabilities of communities that depend on coastal fisheries, which are responsible for most of the fishing sector’s contribution to food and employment. The impacts of climate change on livelihoods include rising sea levels; it has been estimated that between 0.66 to 1.7 million people in the Pacific Islands, 46 per cent of the population of Bangladesh, and many more coastal populations will be forced to migrate owing to rising sea levels by 2050, along with the loss of coastal resources and infrastructure.

Future efforts must embrace blue-green synergies, considering the role that marine protected areas play in climate mitigation through carbon sequestration. For example, Indonesia’s seagrasses and mangroves combined account for 3.4 pentagrams of carbon (PgC), approximately 17 per cent of the world’s blue carbon reservoir. The deterioration of wetlands affects carbon dioxide emissions and dissolved carbon exchange with coastal waters. In a decade, Indonesia’s marine protected area yielded US$540 million in social welfare benefits from avoided climate-change damage.

**C. Human Rights and Gender Equality Considerations**

Recent interactive dialogues during the Asia-Pacific Day for the Ocean have emphasized the challenges pertaining to gender equality in ocean-related issues. This year, the interactive dialogue on Inclusive Maritime Connectivity for Building Back Better highlighted the inclusivity dimension of shipping, focusing on the women in the maritime sector, connectivity divides affecting the Pacific region, and the welfare and safety of seafarers. Stakeholders highlighted the need for more women in the maritime industry onboard and onshore, and expressed that a safe working environment for women onboard ships can promote diversity. According to a Women’s International Shipping and Trade Association survey (2020) of 1,128 female seafarers from 78 countries, 59 per cent of them reported gender discrimination in the maritime sector. To address gender disparities, especially during the post-pandemic phase, industry and stakeholders must ensure that the sector is welcoming to women, with better teamwork, innovation, and performance.

Post-harvest operations constitute an area where women are over-represented. At present, most of these jobs are performed by informal or contributing family workers, with low pay, no benefits,
and unequal wages. Formalizing jobs in the marine harvesting and post-harvest sectors, while establishing and enforcing regulations that promote sustainable harvesting, would be important first steps to promote gender equality and sustainability.

The impacts of COVID-19 on seafarers have been stark, underlining their critical role in fisheries and shipping. Reports about seafarers stuck on ships, unable to disembark and return home, as well as their mental health and fatigue, are relevant to the human rights dimensions of SDG 14. The International Maritime Organization has pressured countries to identify seafarers as vital employees, to vaccinate them, and to ensure that they are not stranded.

In the recent Asia-Pacific Environmental Human Rights Defender Forum and the Second United Nations Pacific Forum on Business and Human Rights, stakeholders highlighted issues such as resource extraction from the deep ocean floor and deep-sea mining, which are of great concern to local communities and indigenous peoples. Deep-sea mining damages the seafloor with potential impacts on flora and fauna. Pollution caused by mining equipment and surface vessels, coupled with potential spills of fuel or toxic substances, could upset species below the ocean. In addition, pollution and waste from deep-sea mining may adversely impact fishing and seafood harvesting industries across the Pacific, putting the livelihoods of local communities at risk. Women and other vulnerable groups are particularly at risk; they are overly dependent on these natural resources due to their more limited ownership of land and other productive assets. This situation, thus, pertains directly to the right to healthy food and adequate standards of living. Therefore, there is a need to apply human rights standards, especially access to information, participation, and remedy for local communities and indigenous peoples in relation to resource extraction and exploration activities in the ocean.

Small-scale fisheries in South-East Asia and around the world play an important role in food security, poverty eradication, equitable development, and local resource utilization. The Association of Southeast Asian Nations (ASEAN) and Southeast Asian Fisheries Development Center (SEAFDEC) member States embarked on a process to provide advice about the application of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication. The application of human rights-based and gender equality approaches is fundamental to creating lasting impacts with respect to ensuring food security and alleviating poverty. Critical elements include not only secure tenure rights to land and water resources for fisheries, but also access to public services and other aspects of sustainable social and economic development. Applying human rights-based and gender equality approaches to small-scale fisheries governance and development implies a change of perspective: there is a need to put people at the centre of attention.25
III. PROMISING INNOVATIONS AND PRACTICES

1. Protecting Coastal and Marine Habitats: The Asia-Pacific region has seen recent initiatives to protect coastal and marine ecosystems. For instance, in Cambodia, China, Indonesia, the Philippines, Thailand, and Viet Nam, the UNEP-Global Environment Facility Implementing the Strategic Action Programme for the South China Sea and Gulf of Thailand (SCS SAP) Project, executed by the United Nations Office for Project Services and SEAFDEC, aims to “assist countries in meeting the targets of the approved Strategic Action Programme (SAP) for the marine and coastal environment of the South China Sea (SCS) through implementation of the National Action Plans in support of the SAP, and strengthening regional co-ordination for SCS SAP implementation.” This objective will be achieved through three main components: firstly, reducing habitat degradation and loss; secondly, strengthening knowledge-based action planning to manage coastal habitats and land-based pollution and to reduce environmental degradation of the South China Sea; and thirdly, facilitating regional and national integration and cooperation. The regional approach to managing the South China Sea Large Marine Ecosystem is essential for the successful achievement of SDG 14, which is predominantly transboundary in nature.

Efforts are already underway to protect and restore carbon sinks and arrive at nature-based solutions that integrate land and marine ecosystems in order to mitigate the impacts of climate change both on land and in the ocean. The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) already operates the North-East Asia Marine Protected Areas Network and promotes the enhancement of the ocean's capacity for blue carbon through collaboration with other sub-regional partners. At the sub-regional level, the Regional Seas Programmes have developed plans focusing on marine pollution, ecosystem-based marine and coastal planning and management, and ocean governance, including the Coordinating Body on the Seas of East Asia Strategic Directions 2018–2022 and the Northwest Pacific Action Plan Regional Action Plan on Marine and Coastal Biodiversity Conservation, which is under development.

2. Waste management and the prevention of marine pollution: Effective practices for waste management and the prevention of marine pollution include the “Closing the Loop” project led by ESCAP and funded by the Government of Japan. Closing the Loop and its partners are building tools and technology to help Governments and organizations measure and monitor plastic waste within their cities. Using innovations like artificial intelligence, satellite imaging, drones, citizen science, and waste flow modelling, the project pinpoints the “source to sea” movement of plastic leaking into the marine environment from cities. Through resource sharing and designing strategic action plans, this digital toolkit is helping cities create smarter policy approaches to combat the problem of plastic waste leaking into waterways and to shape effective action plans to end it for good. Once hotspots are identified, they can indicate policy priorities and investment strategies. Citywide action plans are underway in four cities—Da Nang, Viet Nam; Kuala Lumpur, Malaysia; Surabaya, Indonesia; and Nakhon Si Thammarat, Thailand—to reduce plastic waste and initiate innovative circular economy practices. In May 2020, Japan and UNEP announced the
CounterMEASURE II project to support action against marine plastic litter in Asia and the Pacific. The CounterMEASURE I project for the Mekong and Ganges Rivers in 2019–2020 resulted in bespoke policy recommendations for Governments to keep plastic pollution from leaking into waterways. CounterMEASURE II expands this work through several methods: by improving scientific knowledge about macro- and microplastics, hotspots, and leakage assessments, as well as about impacts on terrestrial, migratory and aquatic species; by increasing outreach and awareness; by building capacity; and by influencing policies at the city, state, and central levels. UNEP is coordinating the India-Norway Marine Pollution Initiative funded by the Government of Norway to improve the management of marine pollution in India and enable India to engage globally on this issue.

Furthermore, through the Global Eco-Industrial Parks Programme projects in Viet Nam and Indonesia as well as the Resource-Efficient Cleaner Production project in Cambodia, the United Nations Industrial Development Organization is enabling industry to adopt best practices in pollution management, including the reduction of waste and wastewater leakage into the marine environment. From a gender and human rights perspective, formalizing waste management jobs, including by establishing and enforcing legislation to promote equal wages and protect the safety of refuse workers, can enhance the participation of women and minority groups in the waste management industry, and thus enlarge their role in natural resource management and reutilization.

IV. PRIORITIES FOR ACTION

In order to accelerate progress on the delivery of SDG 14 and reverse the current regression on some targets, the following actions are recommended for priority consideration.

Priority 1: Improve data collection and sharing. There is not enough data to track progress on SDG 14. Collecting more data and making it publicly available can support effective policies that address challenges and accelerate progress. ESCAP is leading work to advance ocean accounting by co-chairing of the Global Ocean Accounts Partnership and by developing national pilot activities in Asia and the Pacific. Ocean accounts represent an exciting new pathway for integrating statistics to better understand the complex interactions between human societies, their economies, and the ocean ecosystem. Better integration of ocean data and statistics will lead to better regional and global policies that advance sustainable oceans. Additional work can enhance the availability of individual-level data to better explore how human activity contributes to ocean degradation and conservation, including by capturing women's and men's differentiated roles. This work might include scaling up existing initiatives supported by Global Environment Facility that apply natural capital accounting to guide decision-making and promote the Sustainable Blue Economy approach at the national and subnational levels of development planning. Efforts have been made to build the capacity of fishery biologists to collect data, determine reference points, and assess fish stock status and to provide inputs for formulating science-based fishery management plans. Most countries in South-East Asia rely on small-scale
fisheries, however, which are data-limited. Methods of stock assessment are needed, because some countries lack sufficient data to estimate reference points or compute stock status. There is also a need to develop marine resource databases for the region. For example, under its Blue Economy Draft Policy Framework, India identifies a need for a National Marine Resources Database including seabed resource mapping in order to address issues such as bioprospecting, mineral exploration and exploitation, and the protection of marine organisms.

**Priority 2: Enhance policy design and implementation.** Additional efforts can enhance the design of policies and adequate implementation strategies, if they are supported by a holistic approach to the challenges of the ocean as well as an understanding of interlinkages with other SDGs and of the interactions between marine and land ecosystems. ESCAP developed an accelerator for the implementation of SDG 14, optimizing development benefits aligned to national priorities by identifying pivotal interventions with a positive multiplier effect. The methodology may support Governments in pinpointing challenges and issues related to the delivery of SDG 14 targets. The interconnection of these challenges exposes the need for integral approaches where the strategic allocation of resources could have a positive accelerator effect with appropriate needs identification and with the implementation of inclusive policies. The discernment of corresponding interlinkages in the design and application of effective policies may result in accelerated outcomes for the delivery of SDG 14, augmenting effects on related SDGs, which will lead to resource and time efficiency and a faster post-pandemic recovery.

**Improve waste management and prevent marine pollution.** An enabling environment, led by Governments with the support of key stakeholders including private-sector industry, the informal sector, and consumers, would nurture circular economic practices so that plastic items do not lose their value by going to waste and instead are recirculated so their value is retained. Industry plays an important role in designing waste from their products, while Governments must provide a policy and institutional framework through economic incentives, policies, and regulations to support the transition to circularity. Consumers must also be aware that their behaviour contributes to plastic pollution in the ocean, and Government must provide a framework that encourages consumer action to address plastic pollution and reduce plastic leakage into the marine environment. Governments and industry can furnish a means for consumers to separate waste at home to increase recycling rates, while offering alternative upstream circular business solutions to lessen and eliminate single-use plastics in daily lives.

Some ESCAP member countries have already implemented the necessary policies, strategies, or action plans. Many require additional resources, including knowledge and information, to strengthen their institutions and implement these policies and strategies, including the improvement of waste management systems. Industrial capacity could also be strengthened in terms of technology and knowledge about the concept of designing out waste as well as through financial support for investment in circular plastic solutions.

Organizations such as SEAFDEC promote and provide capacity building for national officers to develop an ecosystem-based approach to fisheries management. National plans could focus on enhancing the resilience of fisheries communities in anticipating and adapting to changes in the environments of inland and coastal waters, including those caused by climate change and the pandemic, which could adversely affect communities in their fisheries and aquaculture.
operations. Furthermore, all relevant stakeholders must be engaged in the process of planning and policy formulation for the management of natural resources, conservation, and rehabilitation of habitats. Gender analysis training and support will be beneficial for local organizations, government institutions, and project implementers.

**Priority 3: Increase financing for sustainable practices.** Investment in fisheries and governmental support must observe compliance with international agreements and incorporate provisions to deter IUU fishing. Furthermore, solid financing opportunities and access to credit for women in fisheries, especially in small-scale fisheries, can support gender equality in the industry. Future investments must demand sustainable, eco-friendly tourism that recognizes and values a healthy ocean environment, avoiding behaviour that leads to human-induced problems such as beach litter and ecosystem disruptions. The shipping industry must also prioritize and foster investments in greener shipping, with sustainable port operations that prevent all forms of pollution, embracing new technological developments that can enable zero-emission maritime connectivity. Since 2018, the Sustainable Blue Economy Finance Principles have offered crucial guidance for sustainable investments in the blue economy geared toward investors, banks, and insurers.27

**Priority 4: Enforce international treaties and regulations.** Additional efforts can enhance human capacity to implement international treaties such as of the Port State Measures to prevent unauthorized fishing, to eliminate illegal fishing practices, and to undertake monitoring, control, and surveillance, in order to develop and promote responsible fishing practices. There are opportunities to strengthen knowledge and skills related to the use of electronic monitoring, artificial intelligence, innovative technologies, and information sharing.

Considerable efforts have been made by the ASEAN member States to improve governance in fisheries with the objective of attaining sustainability. This goal, however, has not yet been completely achieved because of many factors, such as the continued practice of IUU fishing activities by large numbers of vessels and fishers, weak law enforcement, and poverty in fishing communities. Monitoring, control and surveillance are key to effective fisheries management, and the involvement of small-scale fishers in planning and implementing relevant activities must also be enhanced in order to address concerns about continued IUU fishing practices not only by commercial operations but also by small-scale fishers.

**Priority 5: Promote regional cooperation to strengthen ocean governance.** Regional and transboundary cooperation efforts and mechanisms are necessary for the management of natural resources, conservation, and rehabilitation of oceanic habitats and to ensure the livelihoods of ocean-dependent communities. The Asia-Pacific region has seen positive signs of cooperation for ocean sustainability, such as the adoption of ESCAP Resolution 76/1 on “Strengthening cooperation to promote the conservation and sustainable use of the oceans, seas and marine resources for sustainable development in Asia and the Pacific.” Sub-regional efforts include, for example, the ASEAN Framework of Action on Marine Debris, the subsequent Regional Action Plan for Combating Marine Debris in the ASEAN Member States (2021–2025), and the
ASEAN Leadership Declaration on the Blue Economy, adopted at the ASEAN Leaders’ Meeting on 26 October 2021. Continued commitment to and implementation of ocean governance mechanisms such as these is necessary.

The United Nations Decade of Ocean Science for Sustainable Development (2021–2030) provides an opportunity to accelerate actions in Asia and the Pacific for the timely delivery of SDG 14. ESCAP, in collaboration with partner United Nations agencies, has promptly contributed by developing a Regional Decade Program to support the regional implementation of the Ocean Decade. With this program, all Asia-Pacific stakeholders will be able to participate in and benefit from activities that contribute to the protection of the ocean and accelerate the delivery of SDG 14. In addition, the active engagement of Member States in the finalization Post-2020 Global Biodiversity Framework which will be adopted at the 15th Conference of Parties to the Convention on Biodiversity this year, as well as its effective implementation by countries in the region, will help scale up efforts towards SDG 14. The United Nations Decade on Ecosystem Restoration 2021–2030 also furnishes a framework and an opportunity for scaling up efforts to prevent, halt, and reverse the degradation of ecosystems, including marine and coastal ecosystems.
The official indicator framework proposes 10 indicators for SDG 14.

<table>
<thead>
<tr>
<th>Target</th>
<th>Indicator</th>
<th>Latest data available</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.</td>
<td>14.1.1 Index of coastal eutrophication and density of floating plastic debris</td>
<td>2020</td>
<td>(1) Beach litter per square kilometer (Nummer)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2020</td>
<td>(2) Frequency of Chlorophyll-a moderate/high concentration (Percentage)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>There were no extreme concentrations reported in Asia-Pacific countries.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2019</td>
<td>(3) Chlorophyll-a deviations, remote sensing (Percentage)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2019</td>
<td>(4) Ocean health index (Scores) (Proxy)</td>
</tr>
<tr>
<td>14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.</td>
<td>14.2.1 The proportion of national exclusive economic zones managed using ecosystem-based approaches</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

| 14.3.1 | Average marine acidity (pH) measured at an agreed-upon suite of representative sampling stations | N/A | N/A |

14.4 By 2020, effectively regulate harvesting and end overfishing, IUU fishing, and destructive fishing practices, and implement science-based management plans in order to restore fish stocks in the shortest time feasible at least to levels that can produce the maximum sustainable yield as determined by their biological characteristics.

| 14.4.1 | The proportion of fish stocks within biologically sustainable levels | N/A | N/A |

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.

| 14.5.1 | Coverage of protected areas in relation to marine areas | 2019 | (1) Proportion of marine key biodiversity areas covered by protected area status (Percentage) |

| 2018 (only this year available) | Protected areas in relation to marine area (EEZ) (% of territorial water) |
| 2018 (only this year available) | Protected marine area (EEZ) (Km²) |
14.6 By 2020, prohibit certain forms of fisheries subsidies that contribute to overcapacity and overfishing; eliminate subsidies that contribute to IUU fishing; and refrain from introducing similar new subsidies, recognizing that appropriate and effective special and differential treatment for developing and LDCs should be an integral part of the World Trade Organization fisheries subsidies negotiation.

14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat IUU fishing

<table>
<thead>
<tr>
<th>Year</th>
<th>Implementation of international instruments to combat illegal, unreported and unregulated fishing (Level of implementation from 1=lowest to 5=highest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td></td>
</tr>
</tbody>
</table>

14.7 By 2030, increase the economic benefits to SIDS and LDCs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture, and tourism.

14.7.1 Sustainable fisheries as a percentage of the gross domestic product in SIDS, LCDs, and all countries

<table>
<thead>
<tr>
<th>Year</th>
<th>Sustainable fisheries as a proportion of GDP (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td></td>
</tr>
</tbody>
</table>

14.a Increase scientific knowledge, develop research capacity, and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and enhance the contribution of marine biodiversity to developing countries, in particular SIDS and LDCs.

14.a.1 The proportion of total research budget allocated to research in the field of marine technology

<table>
<thead>
<tr>
<th>Year</th>
<th>National ocean science expenditure as share of total R&amp;D funding (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td></td>
</tr>
</tbody>
</table>

In Asia-Pacific, only six countries reported data.
<table>
<thead>
<tr>
<th><strong>14.b</strong> Provide access for small-scale artisanal fishers to marine resources and markets.</th>
<th><strong>14.b.1</strong> Progress by countries in the degree of application of a legal, regulatory, policy, and institutional framework which recognizes and protects the access rights of small-scale fisheries.</th>
<th><strong>2020</strong></th>
<th>Application of a legal framework for the protection of access rights for small-scale fisheries (Level of implementation from 1=lowest to 5=highest)</th>
</tr>
</thead>
</table>
| **14.c** Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of “The Future We Want.” | **14.c.1** The number of countries making progress through legal, policy and institutional frameworks in ratifying, accepting, and implementing, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources. | **2021** | (1) Implementation of UNCLOS and its two implementing agreements (Percentage)  
(2) Ratification of and accession to UNCLOS and its two implementing agreements (Percentage)  
In Asia-Pacific, only 10 countries reported data. |

2. Ibid.


ENDNOTES


20. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Regional Assessment Report on Biodiversity and Ecosystem Services for Asia and the Pacific (Bonn, Germany, 2018).


ENDNOTES


27. See https://www.unepfi.org/blue-finance/the-principles/.

Acknowledgements

The profile for SDG 14 was developed by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Katinka Weinberger and Manuel Castillo coordinated the content selection and review. This document includes inputs from the United Nations Environment Programme (UNEP) (Jonathan Gilman); United Nations Office for Project Services (UNOPS) (Simonetta Siligato); United Nations Industrial Development Organization (UNIDO) (Sooksiri Chamsuk); United Nations Development Programme (UNDP) (Jacob Hagberg); Southeast Asian Fisheries Development Center (SEAFDEC) (Pattaratjit Kaewnuratchadason); United Nations Office of the High Commissioner for Human Rights UN OHCHR (Romchat Wachiraratattanakornkul); and the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) (Sara Duerto Valero).

Photo credits: Aldino Hartan Putra, Francesco Ungaro, Laura Rivera, Mohmed Nazeeh, Naja Bertoit Jensen/Unsplash