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Item 7 (c) of the provisional agenda\*

**Parallel meetings for an in-depth review of progress made and peer learning on the sub-themes of the Regional Forum: parallel meeting on the sub-theme of life below water**

## **Background paper on conservation and sustainable use of the oceans, seas, and marine resources for sustainable development, in reference to Sustainable Development Goal 14**

### **Key messages**

The following key messages emerged from the integrated analysis of Sustainable Development Goal 14, set out in the 2030 Agenda for Sustainable Development, and the corresponding goals of Agenda 2063: The Africa We Want, of the African Union that are covered by this sub-theme.

1. All marine ecosystems are subjected to excessive stress primarily by the global climate, leading to increased ocean acidification and warming, the disturbance of oceans' currents and their ability to regulate the earth's climate, an increase in storms and floods and a decline in marine biodiversity and related services delivered to societies and economies. This stress will continue for several years unless a significant amount of atmospheric carbon dioxide is removed by safe geoengineering processes and the creation of extensive so-called "blue and green walls". It will be further exacerbated if those emissions increase and prevent Africa from building vibrant blue economies. The Economic Commission for Africa (ECA), the United Nations Environment Programme (UNEP), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Office of the Special Adviser on Africa (OSAA), the African Union and the African Development Bank are therefore called upon to join forces in supporting African Heads of State, as those championing these efforts, and lead negotiators in the following causes:

(a) Demanding at the twenty-seventh session of the Conference of the Parties to the United Nations Conference on Climate Change that the developed countries pay at least the annual amounts of \$100 billion that they freely pledged to the developing countries a decade ago, for the purpose of addressing climate impacts, including in coastal areas, and producing road maps and reports relating to future such payments at ensuing sessions of the Conference of the Parties;

(b) Increasing the share of the disbursed amounts that are allocated to the implementation of national plans on coastal adaptation and resilience, including the processes of acidification and eutrophication, and on the social

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and economic development of ocean-dependent communities, primarily in small island developing States and least developed countries.

2. Most African countries have demonstrated a strong commitment to strengthened conservation and the sustainable use of their marine resources and a transition towards sustainable blue economies, using the major multilateral legal frameworks in that area. What countries most lack for this purpose is the capacity to mobilize on fair and reasonable conditions the necessary sustainable finance and other intangible assets to translate those commitments into transformative actions and the capacity to make efficient use of such finance when available. ECA, together with the International Union for Conservation of Nature (IUCN), the African Union Council and the African Export-Import Bank (Afreximbank) and their development partners, is therefore called upon to support countries in mobilizing and efficiently using such innovative financing modalities as debt-for-natural swaps, green and blue bonds, and official development assistance (ODA), including through the ECA-led Liquidity Sustainability Facility, and to respond to the following and other pressing demands:

(a) To strengthen countries' institutional capacities to enforce the laws and regulations;

(b) To build a Great Blue Wall to facilitate the regional integration of, and coherence among, their coastal plans, including on such matters as the restoration and resilience of coastal biodiversity and ecosystems, blue carbon markets, ecotourism, fisheries, food processing, disaster risk management and others;

(c) To strengthen regional collaboration, including on the surveillance of illegal and criminal activities, such as the smuggling of wildlife, unsustainable use of resources, and others.

3. ECA and the African Union Commission are called upon to collaborate with private sector bodies, including Afreximbank, the African Development Bank and other development partners, to provide technical and policy guidance to African countries to build vibrant blue economies based on renewed and efficient government models, guided by the Sustainable Development Goals and other relevant policies and tools, such as maritime spatial planning and integrated coastal zone management, and to promote the following:

(a) Competitive and efficient markets aligned with the African Continental Free Trade Area rules that attract private and public investment, including venture capitalists and institutional investors, promote cross-border production-sharing, innovation, blue value chains, entrepreneurship among youth and women, including small-scale fishers, and other processes;

(b) Efficient allocation of revenues accruing from the use of marine resources, such as licence fees and blue carbon and other ecosystem service payments to ocean-dependent communities, including small-scale fishers.

4. All African governments, the African Union Commission and the African Union Development Agency, which is responsible for implementing the New Partnership for Africa's Development, are called upon to mobilize resources both internally and externally to increase gross domestic expenditure on research and development to at least the target of 1 per cent of gross domestic product (GDP) recommended by the African Union. They are also called upon to raise the share of that expenditure devoted to marine science and technology, with a view to ensuring use of the rich and untapped indigenous knowledge accumulated in Africa and the continent's cultural heritage built up over millennia, to complement modern science and technology; and to scale up nascent national and regional programmes and

networks addressing acidification research, such as the Ocean Acidification Africa (OA-Africa) regional network, launched in 2015.

## A. Introduction

1. The present background paper was prepared by ECA with contributions from FAO, the Office of the Special Adviser on Africa and the African Union Development Agency, which is responsible for implementing the New Partnership for Africa's Development.

2. The paper analyses progress made by African countries against Sustainable Development Goal 14 of the 2030 Agenda for Sustainable Development, namely "Conserve and sustainably use the oceans, seas and marine resources for sustainable development", also termed "Life below water". It identifies gaps and challenges experienced by countries and outlines some transformative actions needed by countries and development partners to accelerate progress towards Goal 14, which sets out 10 targets and 10 indicators.<sup>1</sup> The 10 targets are outlined below<sup>2</sup>:

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, from land-based activities, including marine debris and nutrient pollution

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems

14.3 Minimize and address the impacts of ocean acidification

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported, and unregulated fishing

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing

14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources

14.a Increase scientific knowledge, develop research capacity, and transfer marine technology

14.b Provide access for small-scale artisanal fishers to marine resources and markets

14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law

3. The goal of conserving and sustainably using the oceans, seas and marine resources is addressed under several aspirations of Agenda 2063, including the first, namely: "A prosperous Africa based on inclusive growth and sustainable development", and the second: "An integrated continent, politically united and based on the ideals of Pan-Africanism and the vision of African Renaissance".<sup>3</sup> The two agendas cover many issues in priority areas of national development plans and strategies, as outlined in table 1.

<sup>1</sup> The global indicator framework for the Sustainable Development Goals and the targets of the 2030 Agenda for Sustainable Development are set out in General Assembly resolution 71/313, adopted on 6 July 2017.

<sup>2</sup> For a full description of the targets, see [resolution 71/313](#).

<sup>3</sup> The seven aspirations of Agenda 2063 are available at: <https://au.int/agenda2063/aspirations>.

4. The table demonstrates linkages between the priority areas of national development plans, the targets of the Sustainable Development Goals, including those of Goal 14, and the aspirations, goals, priority areas and flagship projects of Agenda 2063. Progress made against Goal 14 may therefore have many synergistic effects, facilitating both the realization of several aspirations of Agenda 2063 and priority areas of national development plans. That progress can help Africa, whose countries include 6 small island developing States and 38 coastal States, to build a vibrant blue economy and improve inclusive growth, by promoting trade and unleashing the potential of the continent's maritime industry, worth some \$1 trillion<sup>4</sup> annually.

Table 1

**Selected priority areas of national development plans, including marine and ocean and blue economy strategies, corresponding targets of Sustainable Development Goals, and aspirations, goals and priority areas of Agenda 2063**

<i>Selected priority areas of national development plans, including marine and ocean and blue economy strategies</i>	<i>Examples of corresponding targets of the Sustainable Development Goals<sup>a</sup></i>	<i>Examples of corresponding aspirations, goals, priority areas of Agenda 2063</i>
Strengthening the enabling environment <sup>b</sup> (including legal and regulatory policy frameworks)	<p>1.b: Create sound policy frameworks ... to support accelerated investment in poverty eradication actions</p> <p>8.4: Improve progressively, through 2030, global resource efficiency in consumption and production</p> <p>12.a: Support developing countries to strengthen their scientific and technological capacity</p> <p>14.6: By 2020, ... eliminate subsidies that contribute to illegal, unreported, and unregulated fishing</p> <p>14.a: Increase scientific knowledge, develop research capacity, and transfer marine technology</p> <p>17.1: Strengthen domestic resource mobilization</p> <p>17.16: Enhance the Global Partnership for Sustainable Development</p>	<p>Aspiration 1: A prosperous Africa based on inclusive growth and sustainable development</p> <p>Goal 4: Transformed economies and jobs</p> <p>Priority areas: Sustainable and inclusive economic growth</p> <p>Goal 6: Blue/ocean economy for accelerated economic growth</p> <p>Goal 7: Environmentally sustainable climate and resilient economies and communities</p> <p>Priority areas: Sustainable consumption and production patterns; sustainable natural resource management and biodiversity conservation</p>
Greening business activities	<p>9.2: Promote inclusive and sustainable industrialization</p> <p>9.4: By 2030, upgrade infrastructure and retrofit industries</p> <p>12.1: Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns</p> <p>12.6: Encourage companies ... to adopt sustainable practices and to integrate sustainability information into their reporting cycle</p> <p>14.1: By 2025, prevent and significantly reduce marine pollution</p>	<p>Aspiration 1: A prosperous Africa based on inclusive growth and sustainable development</p> <p>Goal 4: Transformed economies and jobs</p> <p>Priority areas: Sustainable and inclusive economic growth; science, technology and innovation-driven manufacturing, industrialization and value addition; economic diversification and resilience</p> <p>Goal 7: Environmentally sustainable and climate resilient economies and communities</p> <p>Priority areas: Sustainable consumption and production patterns;</p>

<sup>4</sup> See the remarks by the Secretary-General at the Blue Economy event in Addis Ababa on 8 February 2020, available at [www.un.org/press/en/2020/sgsm19965.doc.htm](http://www.un.org/press/en/2020/sgsm19965.doc.htm).

		Sustainable natural resource management and biodiversity conservation
Strengthening knowledge sharing and cooperation	<p>12.a: Support developing countries to strengthen their scientific and technological capacity</p> <p>14.a: Increase scientific knowledge, develop research capacity and transfer marine technology</p> <p>17.6: Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation</p>	<p>Aspiration 1: A prosperous Africa based on inclusive growth and sustainable development</p> <p>Goal 2: Well educated citizens and skills revolution underpinned by science, technology and innovation</p> <p>Priority area: Education and science, technology and innovation skills-driven revolution</p> <p>Aspiration 7: An Africa as a strong, united, resilient and influential global player and partner</p> <p>Goal 19: Africa as a major partner in global affairs and peaceful coexistence</p> <p>Priority areas: Africa's place in global affairs; partnership</p> <p>Flagship project: An African virtual and e-university.</p>

a. For a full description of the targets, see resolution 71/313.

b. See the Seychelles Blue Economy: Strategic Policy Framework and Roadmap: Charting the Future (2018–2030).

## B. Interlinkages and synergies among the targets of Goal 14 and the targets of other Sustainable Development Goals

5. Goal 14 intersects to a varying extent with numerous other Sustainable Development Goals, owing to strong interdependencies between climate, life on land, oceans, and economic development pathways. Oceans play an essential role in those interactions. The oceans, for example, occupy more than 70 per cent of the Earth's surface and sustain more than 80 per cent of global value-added trade; they are therefore able to influence most economic sectors. Oceans produce more than 25 per cent of the world's oxygen, sink 25 per cent of global carbon dioxide emissions from fossil fuels and 90 per cent of the Earth's excess thermal energy, thus influencing most forms of life on land and below water. Progress made towards those goals will therefore facilitate the achievement of many targets of Goal 14. Increased investment in human interventions to curb atmospheric greenhouse-gas emissions from their sources and to boost the natural and other greenhouse-gas sinks – the process generally referred to as mitigation – will improve the health of the oceans, enabling them to recover and sustain some of their functions, including regulating global warming, moderating the effects of climate change and providing countless services to communities, such as those outlined above.

6. Biological and ecological adaptation, and increased coastal or blue carbon stocks, will help to reduce further emissions of greenhouse gases,<sup>5</sup> and enable water ecosystems to deliver more services, including those related to ecotourism, fisheries, coastal communities and water and power utilities. In that way, increased efforts to accelerate progress in climate mitigation and

<sup>5</sup> For further details, see Intergovernmental Panel on Climate Change, *Special Report on the Ocean and Cryosphere in a Changing Climate*, chapter 1, available at [www.ipcc.ch/site/assets/uploads/sites/3/2019/11/SROCC\\_SOD\\_Ch01\\_FINAL.pdf](http://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/SROCC_SOD_Ch01_FINAL.pdf).

adaptation (in line with Goal 13), including using nature-based solutions and natural climate solutions, will support national coastal conservation and adaptation plans and actions. This will boost progress towards target 14.5 (Conserve coastal marine areas) and help to sustain the livelihood of coastal communities in terms of access to food (target 2.1).

7. Progress against Goals 11, 12 and 15, aimed at reducing land-based waste, including agricultural waste and plastic debris, which accounts for more than 90 per cent of coastal eutrophication, will bolster national efforts to curb eutrophication (target 14.1) and ocean acidification (target 14.3), to promote the productivity of fisheries (target 2.3) and to support access to food (target 2.1). Progress against target 12.2, relating to the sustainable management and efficient use of natural resources, and target 12.3, on global food waste and food losses along production and supply chains (in particular in coastal areas), will contribute to progress against target 14.2 on the protection and restoration of marine and coastal ecosystems.

8. Scientific and technological field projects that support progress towards several targets of Goals 7, 9, 12 and 17 will also contribute to progress towards target 14.a on marine technology and research, thanks to their interconnected nature, encouraging cross-fertilization between them, including through knowledge spill-over. Those interconnections will also enable target 14.a to benefit from progress made towards target 17.6, on regional and international cooperation on access to science, technology and innovation, target 17.7, on the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries.

### C. Key trends and progress towards the attainment of the targets of Goal 14

9. The present section examines the targets of Goal 14, except for targets 14.2, 14.4, 14.5 and 14.6. Those targets were originally set for 2020 but were not attained by that date in most countries across the world, including in Africa.

10. The authors of *Sustainable Development Report 2021: The Decade of Action for the Sustainable Development Goals*<sup>6</sup> show variations in the overall progress made by the African region towards Goal 14. For many countries, progress has remained at a standstill; for several others it has decreased and for a few it has increased. In North Africa, for example, only Tunisia has achieved a moderate increase. The rate of progress has slowed to zero in Egypt and Morocco and decreased in Algeria and Libya. In sub-Saharan Africa, progress has stagnated in Angola, Benin, Cabo Verde, the Comoros, Côte d'Ivoire, the Democratic Republic of the Congo, Djibouti, Eritrea, the Gambia, Guinea-Bissau, Madagascar, Mauritania, Mauritius, Mozambique, Nigeria, Sierra Leone and South Africa. It has increased moderately in the Congo, Equatorial Guinea, Ghana, Guinea, Liberia, Namibia, Sao Tome and Principe, Senegal, Seychelles, Somalia, the Sudan and Togo and only in Kenya has it decreased.

11. Efforts to reach target 14.a, on scientific knowledge, research, and technology for ocean health, remain constrained mainly by insufficient public and private spending. Despite the huge gaps in data on gross domestic expenditure on research and development, expressed in percentage of GDP, that African countries devote to marine science and technologies, it is reasonable to infer that most African countries face enormous constraints in building the required capacities. The average such expenditure by sub-Saharan African countries remains in the range of 0.38–0.43 per cent of GDP. In North Africa

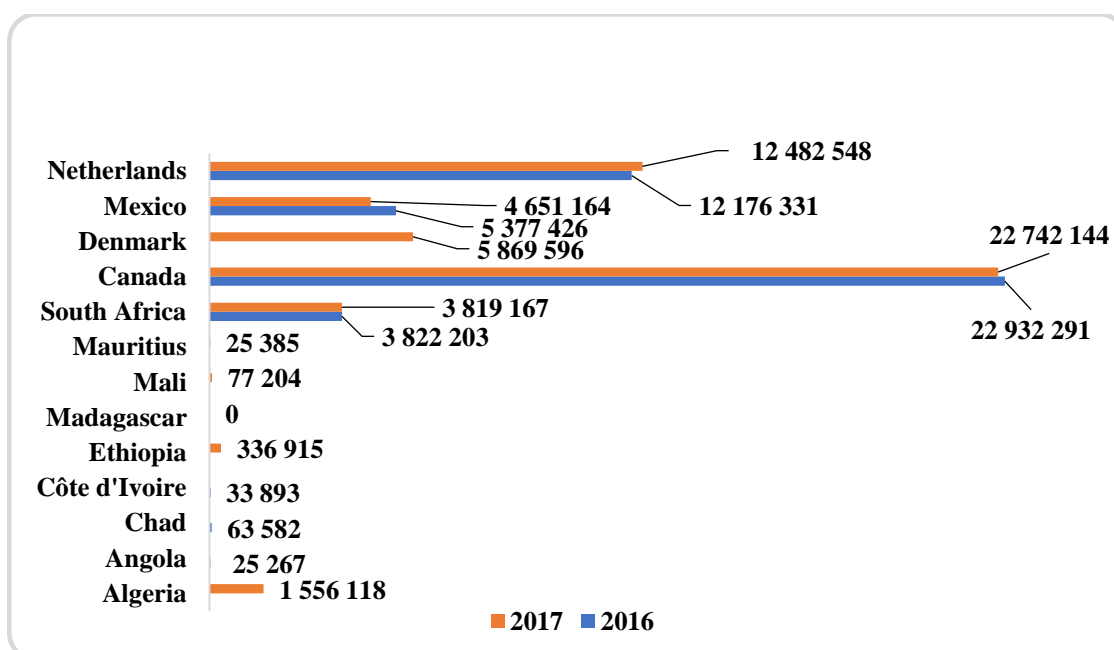
<sup>6</sup> Jeffrey Sachs and others, *Sustainable Development Report 2021: The Decade of Action for the Sustainable Development Goals* (Cambridge, Cambridge University Press, 2021). Available at <https://sdgindex.org/reports/sustainable-development-report-2021/>.

and the Middle East, it stands at about 0.66 per cent and both subregions still fall below the threshold of 1 per cent of GDP recommended by the African Union. Additional evidence for these constraints may be seen in figure I, outlining the gross domestic expenditure on research and development of African countries, with an international comparator expressed in United States dollars (purchasing power parity (PPP) at constant 2005 United States dollar prices). Apart from Algeria, Ethiopia and South Africa, the expenditure by African countries in this area is negligible. Significant investment will therefore be indispensable in the post-pandemic period to close such gaps and support the production and use of indigenous knowledge in addition to modern science, technologies, innovation and data.

Figure I

**Gross domestic expenditure on research and development in natural sciences and engineering by African countries, with international comparators**

(PPP in thousands of dollars at constant 2005 United States dollar prices)



Source: Authors' elaboration based on United Nations data (accessed on 5 December 2021).

12. Target 14.b, on support to small-scale fishers, including facilitation of access by such fishers to marine resources and markets, remains an area needing development, despite huge gaps in data. Based on available data on the degree of application of a legal or regulatory framework recognizing and protecting access to rights for small-scale fishers in 2020, a target tracked by indicator 12.b.1, only Côte d'Ivoire, Kenya and Morocco provided most protection. Eritrea and Madagascar provided moderate protection and Namibia provided the least protection.<sup>7</sup>

13. Where target 14.c is concerned, most African countries have demonstrated strong commitments to enhancing conservation and sustainable use of their marine oceanic resources to move towards inclusive and sustainable development pathways. To this end, they have signed or ratified such including by signing and/or ratifying the major legal and regulatory frameworks, such as the Vienna Convention for the Protection of the Ozone Layer, the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, the Rotterdam

<sup>7</sup> See further details on the SDG Tracker site, available at [sdg-tracker.org](https://sdg-tracker.org).



Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the United Nations Convention on the Law of the Sea, and the Convention on the Conservation of Migratory Species of Wild Animals, to which most African States are now party, except Botswana, the Comoros, Namibia, Sierra Leone and the Sudan, which still have the status of participating non-parties.<sup>8</sup>

14. Those commitments are further demonstrated by the signature or ratification by many countries of other various legislative frameworks that can further assist them in their efforts to achieve sustainable development. These include the 2050 Africa's Integrated Maritime Strategy and other subregional frameworks, such as the 1985 Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean; the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing; the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks; the Southern Indian Ocean Fisheries Agreement; the Convention on International Trade in Endangered Species of Wild Fauna and Flora; the Convention on the Protection of the Underwater Cultural Heritage; the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas and the International Convention for the Prevention of Pollution from Ships (MARPOL Convention). Although some efforts are pending by some countries to ratify the frameworks, what nearly all countries need the most now are the capacities to mobilize and use efficiently financial and other resources to translate those commitments into transformative actions.

15. Target 14.1, on marine pollution, primarily from land-based activities, including marine (plastic) debris and excessive nutrient enrichment (eutrophication), represents a growing concern in need of public attention. Plastic waste, including micro and nano-sized fibres which are picked up by marine species such as seabirds and fish, continue to increase across regions. In Africa, where average per capita consumption has been expected to rise over the next decades, the amount of mismanaged plastics (measured by plastic waste generated per day) are also expected to expand very significantly from 2010 to 2025, in Algeria, Angola, Côte d'Ivoire, Egypt, Guinea, Guinea-Bissau, Liberia, Madagascar, Morocco, Mozambique, Senegal, Sierra Leone, Somalia, South Africa, Tunisia and the United Republic of Tanzania. Smaller increases over the same period are expected in Cabo Verde, Cameroon, the Comoros, the Congo, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Libya, Mauritania, Mauritius, Namibia, Sao Tome, the Sudan and Togo.<sup>9</sup>

16. To address this challenge, countries have started introducing legislative or tax measures to ban or curb the use of plastics and the generation of plastic waste. Notable such legislative measures include the ban on all single-use plastic bags introduced by Côte d'Ivoire, Madagascar, Mauritania, Nigeria and other countries, and the ban on bags below a certain thickness imposed by Cameroon, Ghana, Ethiopia, Morocco, Mozambique, Senegal, South Africa and others. Some signs of progress notwithstanding, significant technical and financial support is needed to improve the enforcement of those laws and regulations and to scale up the existing plans and actions, using advanced infrastructure and methods to monitor the movement of plastic waste through

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<sup>8</sup> Available at [https://en.wikipedia.org/wiki/Convention\\_on\\_the\\_Conservation\\_of\\_Migratory\\_Species\\_of\\_Wild\\_Animals](https://en.wikipedia.org/wiki/Convention_on_the_Conservation_of_Migratory_Species_of_Wild_Animals).

<sup>9</sup> On this issue, see Jenna Jambeck and others, "Challenges and emerging solutions to the land-based plastic waste issue in Africa", *Marine Policy* vol. 96, October 2018, pp. 256–263, available at <https://doi.org/10.1016/j.marpol.2017.10.041>.



communities, capturing micro and nano-sized fibres and leveraging new technologies and business models covering the plastics value chain.

17. Eutrophication, the phenomenon resulting from excessive plant and algal growth, is growing globally. It is increasingly influenced by anthropogenic discharges of nitrogen and phosphorus from synthetic fertilizers into aquatic ecosystems. This is affecting the quality of drinking-water sources, fisheries and recreational water bodies.<sup>10</sup> Because the process is not monitored and evaluated to the extent required, only those countries with properly resourced programmes are likely to have a clear understanding of the related extents and impacts.<sup>11</sup> Using available data, figure II shows that eutrophication is quite significant in certain parts of Africa, including in the Gulf of Guinea and along the southern coast of South Africa. In other parts of the world, it is higher still, affecting some 78 per cent of United States coastal waters and 65 per cent of the Atlantic coastal waters of Europe.<sup>12</sup>

Figure II

#### Global distribution of eutrophic coastal marine ecosystem



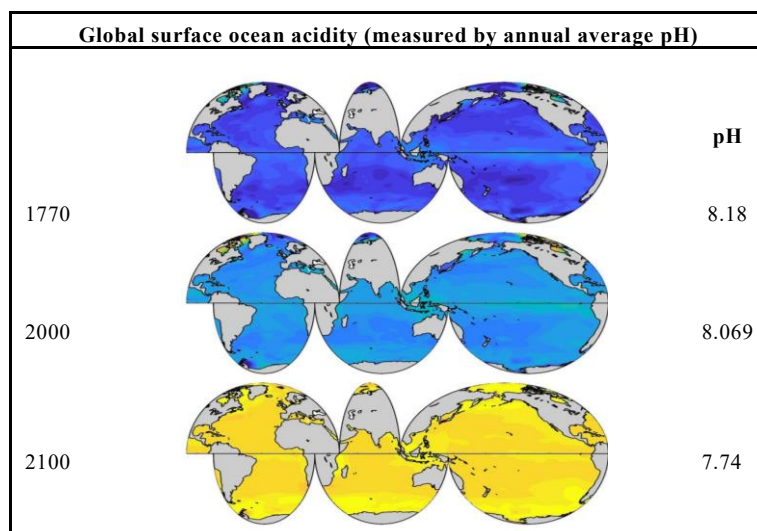
Source: Thomas Malone and Alice Newton. “The globalization of cultural eutrophication in the coastal ocean: causes and consequences”, *Frontiers in Marine Science*, vol. 7 (2020).

18. The process addressed by target 14.3, ocean acidification, is increasing fast as reflected by a constant decrease in global surface ocean pH since the pre-industrial revolution. In 1770, pH was 8.18 and, decreasing faster than it had naturally done historically, dropped to about 8.07 in 2000 and is expected to decline to the unsustainable level of 7.74 in 2100 (see the box below), if the anthropogenic carbon dioxide emissions from fossil fuel burning absorbed by the oceans are not contained.

<sup>10</sup> For more details, see [www.nature.com/scitable/knowledge/library/eutrophication-causes-consequences-and-controls-in-aquatic-102364466/](https://www.nature.com/scitable/knowledge/library/eutrophication-causes-consequences-and-controls-in-aquatic-102364466/).

<sup>11</sup> See Michael Chislock and others, “Eutrophication: causes, consequences, and controls in aquatic ecosystems”, *Nature Education Knowledge*, vol. 4, No. 10 (2013).

<sup>12</sup> Thomas Malone and Alice Newton. “The globalization of cultural eutrophication in the coastal ocean: causes and consequences”, *Frontiers in Marine Science*, vol. 7 (2020), available at <https://doi.org/10.3389/fmars.2020.00670>.



Source: Author's elaboration based on data from Li-Qing Jiang and others, "Surface ocean pH and buffer capacity: past, present and future", *Scientific Reports*, vol. 9, No. 18624 (2019), and the United States National Oceanic and Atmospheric Administration index, available at [www.ncei.noaa.gov/data/ocean/s/ncei/ocads/data/0206289/For\\_presentation/](http://www.ncei.noaa.gov/data/ocean/s/ncei/ocads/data/0206289/For_presentation/).

19. To respond to that decrease in pH, several African and international organizations have been strengthening their monitoring capacities and governance responses. The OA-Africa Regional Network, affiliated to the Global Ocean Acidification Observing Network (GOA-ON), was launched in 2015 as a regional hub for scientists in Africa working on ocean acidification to inform policy and adaptive strategies. The capacity of researchers working on ocean acidification is being strengthened and the impacts of ocean acidification are being documented through regional and local projects. Currently, 10 ocean acidification projects are under way, covering major ocean regions including the south-western Indian Ocean, the Benguela current system and the Gulf of Guinea, the area between the Canary Islands and Gibraltar, and the north-east Atlantic. Significant support is still needed, however, to scale up these initiatives and enable them to deliver the data and science needed to guide policy formulation.

20. Target 14.7 (the sustainable use of marine resources and their harnessing for socioeconomic benefits), remains an area needing more support and development in many small island developing States and coastal least developed countries. Progress must be accelerated by small island developing States towards implementation of the SIDS Accelerated Modalities of Action (SAMOA) Pathway and by least developed countries towards implementation of the Istanbul Programme of Action, with the provision of larger amounts of financial assistance for them to move forward in pursuit of their Sustainable Development Goals, including Goal 14.

21. Both the small island developing States and the least developed countries have suffered economically from the COVID-19 pandemic, compounding their financing for development challenges and compromising progress towards environmental sustainability targets. The formulation and implementation of national adaptation plans could support the sustainable use of marine resources. As at March 2021, according to the secretariat of the United Nations Framework Convention on Climate Change, 22 developing countries – including six in the least developed category – had completed preparations of their first national adaptation plans and had submitted them to the information hub for the process of formulating and implementing such plans, known as "NAP Central".

22. While all 46 least developed countries are undertaking the process of formulating and implementing national adaptation plans, cross-border collaboration in the sustainable use of marine resources remains limited. A few African small island developing States, such as Mauritius and Seychelles, are intensifying efforts to build back better from COVID-19 by harnessing the benefits of the blue and green economies. Together, the two countries have established the world's first joint management zone covering a commonly owned seabed, in an exemplary case of cross-border collaboration. The development of the blue economy stands high on the agenda of these two small island developing States. For its part, Cabo Verde is supporting the development of marine spatial planning as part of its undertaking to promote a sustainable blue economy.

#### **D. Gaps, constraints, and emerging issues**

23. The main gaps impeding progress towards Goal 14 are, first, the chronic lack of effective means of implementation – finance, technology, and capacity development; second, the lack of reliable data to measure and track progress, including clear methodologies, monitoring networks and data management systems; and third, poor governance, weak institutions, and the lack of institutional arrangements for the attainment of the related targets. The main constraints in this regard are posed, first, by the COVID-19 pandemic, which is limiting the required public funds; second, by unresolved climate impacts; and third, by population growth. The rapidly growing population of Africa is expected to double to 2.5 billion by 2050 and, if it leads to an increase in unsustainable consumption, will intensify pressure on land and marine ecosystems and further constrain progress towards the targets of Goal 14.

24. Climate change remains the major factor counteracting progress towards Goal 14, with rising ocean acidification, warming, circulation currents and frequent flooding. These processes are causing the retreat of beaches, the erosion and loss of habitats for corals, plankton, fish, reptiles, marine mammals, seabirds, saltmarshes, mangroves and seagrass meadows, and a decline in the primary production of fish, corals, and other organisms. These effects in turn are already causing the loss of cultural heritage, livelihoods and other valuable assets that support ecotourism and on which communities in many areas depend.

#### **E. Stepping up the pace and scale of implementation: opportunities for accelerated actions and transformative pathways**

25. To mitigate the constraints imposed by climate change processes on progress towards Goal 14 and the implementation of their blue economy plans, African countries urgently need significant amounts of resources. ECA, UNEP, FAO, UNESCO, the Office of the Special Adviser for Africa, the African Union, the African Union Development Agency and the African Development Bank can all play important roles in helping African countries, through the Heads of State, to mobilize such resources. For example, with the support of those organizations, African Heads of State can use the platform of the twenty-seventh session of the Conference of the Parties to the United Nations Framework Convention on Climate Change to demand that the developed countries provide at least the annual amount of \$100 billion that they freely pledged to the developing countries one decade previously, to address coastal and land-based climate impacts and produce road maps and reports on future payments at ensuing sessions of the Conference of the Parties. They can also help countries to increase the share of the disbursed amounts that are allocated

to the scaling up of national plans on coastal adaptation and resilience to such processes as acidification and eutrophication, and to the social and economic development of ocean-dependent communities, principally in small island developing States and least developed countries.

26. To give effect to those commitments by African governments to use multilateral legal and regulatory frameworks to transition to sustainable blue economies, significant amounts of resources will be needed from public and private sources. Working in collaboration with IUCN, the African Union Commission, Afreximbank and their development partners, ECA should support countries in mobilizing and making efficient use of such innovative financing modalities as debt-for-nature swaps, green and blue bonds and ODA, including through the ECA-led Liquidity Sustainability Facility, and should respond to the following and other pressing demands:

(a) To strengthen the institutional capacities of governments to enforce laws and regulations and efficiently to govern the use of marine resources;

(b) To build a Great Blue Wall to facilitate the regional integration of those coastal plans;

(c) To strengthen regional and international partnership, including in the surveillance of illegal and criminal activities;

(d) To open new opportunities for gender-sensitive and inclusive blue entrepreneurship, innovation, finance and value chains;

(e) To ensure the efficient allocation of revenues accruing from the use of marine resources, such as licence fees, to all communities, including to small-scale fishers;

(f) To foster competitive and efficient markets aligned with the African Continental Free Trade Area.

27. To accelerate the production of marine science, technology and data, to foster and make sound use of the continent's rich and untapped indigenous knowledge and cultural heritage built up over the millennia and to support development of the blue economy development, all African Heads of States should, with the support of their ministries of finance, put forward road maps for their plans to meet the target of allocating 1 per cent of GDP to research and development recommended by the African Union, increase the share of such expenditure allocated to marine science, technology, data and knowledge and promote regional collaboration in marine science and technology.