WMO OMM



World Meteorological Organization Organisation météorologique mondiale Organización Meteorológica Mundial Всемирная метеорологическая организация المنظمة العالمية للأرصاد الجوية 世界气象组织

Secrétariat

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Наш исх.: 17354/2017/WDS/MMO

8 мая 2017 г.

Приложения: 2 (имеется только на английском языке)

Вопрос: Вклад ВМО в Конференцию ООН в поддержку реализации Цели в области устойчивого развития 14 (Нью-Йорк, 5–9 июня 2017 г.)

Предлагаемые меры: Поддержка морских приоритетов ВМО на Конференции через национальные делегации

Уважаемый господин/Уважаемая госпожа!

Посредством настоящего циркулярного письма я хотел бы информировать Вас о том, что Конференция высокого уровня Организации Объединенных Наций в поддержку осуществления Цели в области устойчивого развития 14 «Сохранение и рациональное использование океанов, морей и морских ресурсов в интересах устойчивого развития» будет созвана в штаб-квартире Организации Объединенных Наций в Нью-Йорке 5–9 июня 2017 г. по инициативе правительств Фиджи и Швеции (https://oceanconference.un.org/).

Конференция призвана стать важным событием для обсуждений, направленных на то, чтобы содействовать устойчивому развитию и обратить вспять спад в состоянии здоровья нашего океана, который поддерживает людей, планету и наше процветание. Она будет ориентирована на решения с полным международным участием в рассмотрении ключевых вопросов в следующих областях:

- загрязнение морской среды;
- морские и прибрежные экосистемы;
- закисление океана;
- рыболовство;
- МОСРГ;
- наука, исследования и наращивание потенциала;
- морское право.

Основные ожидаемые итоги Конференции будут заключаться в обеспечении рационального использования океанов, побережий и островов путем принятия:

 согласованного на межправительственном уровне на основе консенсуса заявления под названием «Призыв к действию»;

Постоянным представителям (или директорам метеорологических или гидрометеорологических служб) Членов ВМО

Копии: Постоянным представительствам при Отделении Организации Объединенных Наций в Женеве (для информации)

• ряда добровольных обязательств со стороны стран, ООН и международных организаций и гражданского общества.

Конференция предоставит прекрасную возможность сообществу ВМО продемонстрировать вклад национальных метеорологических и гидрологических служб и связанных с ними учреждений в поддержку устойчивого развития, синей экономики и безопасности людей на море и в прибрежных зонах, уязвимых для морских опасностей.

Я приму участие в этом важном мероприятии и буду работать с Членами ВМО и другими международными организациями над тем, чтобы предпринять совместные усилия, чтобы ответить на этот «Призыв к действию». Мы будем участвовать в различных параллельных мероприятиях и обсуждениях. В частности, это будет включать воздействие экстремальных погодных и климатических условий на море и на побережье, включая чувствительные районы, такие как полярные регионы, малые островные развивающиеся государства и страны с уязвимым прибрежным населением. Мы также будем использовать Конференцию в качестве хорошей возможности для продвижения передовой практики и опыта Членов в области заблаговременного предупреждения, включая обмен информацией, относящейся к Эль-Ниньо, в интересах социально-экономического развития Членов и снижения риска бедствий.

С этой целью Секретариат подготовил серию заявлений (прилагаются) в качестве вклада в «Призыв к действию» и концептуальных документов для информирования участников Конференции с уделением особого внимания морскому обслуживанию, наблюдениям и научным исследованиям.

Настоятельно призываю Вас связаться с делегацией вашей страны на Конференции и обеспечить отражение этих посланий и ваших приоритетов в заявлениях и выступлениях вашей страны.

Кроме того, на шестьдесят девятой сессии Исполнительного совета (10–17 мая) будет организовано параллельное мероприятие, с тем чтобы предоставить дополнительную информацию и возможность обсудить ваши приоритеты, которые Вы хотели бы, чтобы ВМО учитывала и продвигала.

Благодарю Вас за внимание и поддержку усилий ВМО в области морской деятельности.

С уважением,

(П. Таалас) Генеральный секретарь

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CONTRIBUTION BY THE WORLD METEOROLOGICAL ORGANIZATION TO THE CONCEPT PAPERS FOR THE PARTNERSHIP DIALOGUES OF THE OCEAN CONFERENCE 2017 TO IMPLEMENT SDG 14

Background: the ocean, the atmosphere and the role of the World Meteorological Organization

Covering some 70 per cent of the Earth's surface and storing over 90 per cent of the extra heat generated by humanity's carbon emissions, the ocean is a major driver of the world's weather and climate. The ocean is also a major driver of the global economy, carrying more than 90 per cent of world trade and sustaining the 40 per cent of humanity that lives within 100 km of the coast. Recognizing this, national weather agencies and researchers under the umbrella of the World Meteorological Organization (WMO) regularly monitor the ocean and model how it interacts with the atmosphere and cryosphere. These efforts support the delivery of disaster risk reduction and marine services for coastal management and safety at sea, particularly in areas with vulnerable coastal communities. They also improve our understanding of the physical processes that affect ecosystems and conservation efforts. Today, the growing impacts of climate change are making oceanic and atmospheric observations, research and services more critical than ever before, especially in regions particularly affected by climate change impacts, such as Small Island Developing States and the Arctic.

Key concepts recommended for insertion in paragraph (I) of the zero draft of 9 March 2017

Recognising both the key role of the oceans in our climate system as well as the detrimental effects of increased CO2 and other greenhouse gas levels in the atmosphere on oceanic systems – such as ocean warming, decline of sea ice, sea level rise, ocean acidification, increased storminess, high waves, coastal erosion and coral reef bleaching – and associated socioeconomic impacts, develop effective adaptation and mitigation measures and ensure the implementation of the relevant obligations and commitments.

Specific contributions to the concept papers for the partnership dialogues

1. Addressing marine pollution

Status and trends

The atmosphere is the most important pathway for natural and anthropogenic chemicals to enter the global environment. When nutrients that limit primary production in large areas of the ocean (namely nitrogen, iron, and phosphorous) enter sea water, they have a fertilizing effect that influences marine biological productivity and biogeochemistry as well as the carbon cycle. While anthropogenic reactive nitrogen entering the ocean via rivers is important in coastal areas, atmospheric deposition is the primary mechanism by which this land-based nitrogen reaches the open ocean. Although most of the

atmospheric nitrogen is inorganic (nitrate, ammonia), it is estimated that about 20-25% of the total that is deposited is organic nitrogen. Anthropogenic inputs of nitrogen also lead to an increase in overall ocean CO_2 uptake. The resulting reduction in climate change forcing is offset to a small extent by an increase in ocean emissions of N_2O (a powerful greenhouse gas). In the case of iron and phosphorous, much of what is input to the ocean originates from atmospheric mineral particles such as desert dust and volcanic ash.

Challenges and opportunities

In order to better characterize the magnitude of the atmospheric input of these substances into the ocean, the following actions are needed.

- Chemical pollutants and sand and dust originating from land-based sources need to be more comprehensively monitored and their interaction with the ocean and marine life more fully studied.
- Expanded observations of the atmospheric deposition of nutrients (including organic nitrogen and ammonia, organic and inorganic phosphorous) and aerosol composition and concentrations to coastal and open ocean sites in order to properly characterize the magnitude of continental outflow and input into the oceans as well as the biogeochemical cycling of these nutrients.
- Forecast models should be improved to complement observations and contribute to the understanding of the transport and deposition of mineral dust to the oceans

2. Managing, protecting, conserving and restoring marine and coastal ecosystems

Status and trends

The Arctic is the site of dramatic and unprecedented warming. This regional warming contributes to sea level rise, affects weather patterns around the world and threatens to trigger further changes in the global climate system. The rate of change is challenging the current scientific capacity to monitor and predict what is becoming a journey into uncharted territory. While global temperatures continue to rise, with 2016 confirmed as the warmest year on record (more than 1° C above pre-industrial levels), the Arctic as a whole is warming at least twice as fast as the world average, and in places even faster. The unprecedented warming and loss of sea ice are already affecting Arctic marine ecosystems, including fisheries.

Challenges and opportunities

Shipping activity has expanded, and regular journeys through the Arctic are a real possibility by the middle of the century. The expected increase in traffic and activity comes with its own share of risks. Ice-laden polar seas are challenging and dangerous to navigate, whilst any oil spills could be catastrophic. Ocean acidification (which is more pronounced in polar oceans) is also predicted to have a detrimental effect. The Arctic and Antarctic are the world's most poorly observed regions, even though they are sometimes on the doorstep of densely populated areas. Moreover our weather and climate models and forecasting systems are not designed to simulate the extraordinary environmental conditions prevailing at the poles.

Existing partnerships

- <u>Year of Polar Prediction</u>: The World Meteorological Organization, in partnership with global partners, has launched the Year of Polar Prediction (2017-2019) to bring scientists together from around the world to accelerate and coordinate international cooperation and research, enhance observations and boost collective knowledge. The science and technology improvements, developed under the Year of Polar Prediction umbrella, will be the foundation of the future observational network and predictive systems in Polar Regions. To address these challenges:
 - Coordinated and adequately funded observation networks are crucial, particularly in datasparse regions such as the polar oceans, to improve understanding and predictions of weather, climate and ocean conditions.
 - Weather and climate forecasting and warnings services based on marine meteorological data should be strengthened in polar regions to ensure the safety of ships and lives at sea and to optimize navigation routes including reducing environmental risks.

http://www.polarprediction.net/yopp/

https://oceanconference.un.org/commitments/?id=14082

• <u>Assessing the state of marine geoengineering</u>: a comprehensive assessment of the state of knowledge, science capacity and understanding of information gaps in marine geoengineering and identification of appropriate research to address these gaps (GESAMP WG 41, WMO, IMO, IOC/UNESCO, IPCC, WCRP and other relevant international, academic and science bodies).

3. Minimizing and addressing ocean acidification

Status and trends

The ocean currently absorbs one fourth of anthropogenic CO₂ emissions. Enhanced CO₂ uptake affects seawater acidity. The current rate of ocean acidification appears unprecedented at least over the last 300 million years, and projections show it will continue to accelerate at least until mid-century. Globally averaged surface CO₂ reached new highs in 2015 at 400.0±0.1 ppm. This value constitutes 144% of preindustrial (before 1750) levels. The increase of CO₂ from 2014 to 2015 was larger than that observed from 2013 to 2014 and of the average annual increase over the past 10 years. The El Niño event in 2015 contributed to the increased growth rate through complex two-way interactions between climate change and the carbon cycle.

The extra heat that oceans absorb due to increased atmospheric levels of greenhouse gases also directly affects ecosystems. Fisheries are starting to shift away from the equator and towards the poles, while many coral reefs are experiencing major bleaching events. Further damage to reefs and other life forms is caused by chemical pollutants and sand and dust that enter the ocean from the atmosphere.

Challenges and opportunities

The enormous amount of energy contained in the upper ocean creates the world's most powerful and destructive storms, known variously as cyclones, typhoons and hurricanes. Climate change is expected to influence the frequency and intensity of these events, and it is clearly undermining the resilience of natural barriers such as coral reefs, barrier islands, mangroves and wetlands. More storms and weaker defenses increase the vulnerability of coastal communities and assets to the impacts of marine weather.

- CO₂ observations from long-term stations, together with surface and interior ocean measurements from ships, need to be sustained and extended.
- Better information on trends in ocean heat content, measured both vertically from the surface to deep-sea waters and horizontally from the poles to the equator, is needed to inform policy-making on climate adaptation and resilience, fisheries, coastal management and related issues.

Existing partnerships

 <u>Integrated Greenhouse Gases Information System (IG3IS)</u>: an independent information system to help countries to improve the quality and confidence in national GHG emission inventories. This will be achieved by joining atmospheric observations and inverse modeling techniques – the "top-down" – with spatially and temporally explicit emission inventory data – the "bottom-up". The combination of these data sources will better inform emission reduction policies and measures.

http://www.wmo.int/pages/prog/arep/gaw/ghg/IG3IS-info.html

Possible areas for new partnerships

Building on existing efforts, the following new partnerships could be promoted.

- The United Nations system can assist States to strengthen the resilience of coastal communities that are vulnerable to tropical cyclones, associated storm surges and other extreme events and support their climate change adaptation strategies, including through multi-hazard impact-based forecast and warning services (WMO, IOC/UNESCO, UNISDR).
- The United Nations and its Specialized Agencies should enhance the assistance they provide to States for improving the observation, coastal bathymetric data, modelling and forecasting of extreme weather events and the development of multi-hazard early warning systems and risk management strategies (WMO, IOC/UNESCO, IMO, IHO, UNISDR).

5. Increasing economic benefits to SIDS and LDCs and providing access for small-scale artisanal fishers to marine resources and markets

Status and trends

Small island developing States are particularly vulnerable to climate impacts such as sea-level rise, droughts, floods, coastal surges, and typhoons (also known as hurricanes and cyclones). Climate impacts are also affecting marine ecosystems that provide natural defenses against marine hazards and marine living resources; this in turn affects important economic sectors such as tourism and fisheries. Partnerships that address in a more integrated way the resilience of small island developing States to climate change and integrated ecosystem management can facilitate addressing these challenges in contexts where technical resources may be limited due to isolation and small population bases.

Existing partnerships

• <u>Global Framework for Climate Services for SIDS (GFCS-SIDS)</u>: Small island developing States and their partners collaborate on investing in and developing stronger weather and climate services for reducing disaster risk, strengthening climate resilience and adaptation and supporting

sustainable development (WMO, WFP, FAO, UNDP, WHO, WB, UNESCO, IFRC, UNISDR, IUCN, ACS, CMO, CIMH, CDEMA, CCCCC and other partners).

https://sustainabledevelopment.un.org/partnership/?p=7339

 <u>International Network for Multi-Hazard Early Warning Systems (IN-MHEWS)</u>: Multi-hazard warning systems should be strengthened or introduced in Small Island Developing States to protect life and property from coastal hazards in the most efficient and effective manner possible (for example, coastal inundation forecasting and early warning and safety of fishing boats) (WMO, WHO, UNDP, IOC/UNESCO, UNESCAP, UNISDR, UNOOSA/UN-SPIDER, IFRC, ITU, GFZ, and GIZ).

http://www.wmo.int/pages/prog/drr/documents/IN-MHEWS/2016.06.07%20-%20IN-MHEWS%20Concept%20Paper clean.docx

Possible areas for new partnerships

Building on existing efforts, the following new partnerships could be promoted.

- <u>Strategic Information and Warnings to the UN System</u>: The United Nations Operations and Crisis Centre should be supported on crisis management and humanitarian issues related to marine and coastal natural disasters through the establishment of a common technical platform with the provision of impact-related products, information and their interpretation, particularly for vulnerable small island developing States (UNOCC, WMO, other UN partners).
- <u>Global Meteo-Alarm System</u>: Risk-informed warnings disseminated by competent national authorities for the most vulnerable places and populations with high exposure in extreme weather and climate conditions should be aggregated and scaled-up into a global alarm system covering ocean and continental areas for building resilience in the fields of maritime safety and sustainable coastal development (WMO, IOC/UNESCO, UNISDR).

6. Increasing scientific knowledge, and developing research capacity and transfer of marine technology

Status and trends

Because the ocean is a global common, strong international coordination is needed to ensure regular and sustained observation. Under the umbrella of intergovernmental organizations, global observing systems coordinate observations of the physical, chemical and biological parameters of the ocean through an integrated observing system of satellites, ships and moored and autonomous platforms. Technological advances in telecommunications, autonomous platforms and new sensors are revolutionizing our ability to systematically monitor the ocean and thus understand its role in weather and climate. In the past decade, profiling floats have enabled us to go below the surface and systematically monitor the upper layers of the ocean for the first time.

Challenges and opportunities

In the coming years, new technologies will enable us to systematically observe the deep ocean, including where the ocean is covered by ice. They will also improve our ability to monitor chemical and biological variables relevant to issues of ocean health, such as ocean acidification. The need for adapting to climate change in coastal regions and islands and for supporting climate-sensitive sectors

(fisheries, coastal cities and ports, tourism, etc.) will require the development of information products and services based on climate predictions and the exchange of climate-relevant coastal data, in particular on sea levels, waves and storm surges. WMO Regional Climate Centres and Regional Climate Outlook Forums use this growing knowledge to produce consensus seasonal climate forecasts.

- Vast stretches of the ocean are still understudied. More long-term, sustained observations are needed for gaining a better understanding of natural and human-induced changes in the marine environment.
- To expand the number of countries that can contribute to global ocean observations it is necessary to facilitate the transfer of manuals, guidelines, observation instruments, computer equipment and software, technical skills and scientific expertise to developing countries.
- The free and unrestricted exchange of oceanographic data, including climate data relevant for climate services, should be promoted and facilitated by internationally agreed policies and protocols.

Possible areas for new partnerships

Building on existing efforts, the following new partnership could be promoted.

• <u>El Niño/Southern Oscillation Information System</u>: improved monitoring of the ocean and atmosphere combined with an enhanced scientific understanding of the Earth system should be promoted to increasingly enable scientists to predict the El Niño/Southern Oscillation and other ocean oscillations – and thus the climate and weather.

9 Enhancing 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

Navigational warning services based on marine meteorological data play a critical role for the safety of ships and lives at sea and the optimization of navigation routes in implementation of legal instruments such as the International Convention on the Safety of Life at Sea 1974.

Possible areas for new partnerships

Building on existing efforts, the following new partnership could be promoted.

• <u>Fostering the collection and sharing of bathymetric data</u>: ensuring the bathymetric measurements are taken as a regular observation along with met ocean requirements to improve capacity for modelling and forecasting of both deep ocean and coastal zones (WMO, IHO, IMO, IOC/UNESCO).



THE PRESIDENT OF THE GENERAL ASSEMBLY

10 April 2017

Excellency,

In accordance with General Assembly resolution 70/303 on the modalities for the United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, I have the honour to enclose herewith, the letter of the co-facilitators of the preparatory process, H.E. Mr. Álvaro Mendonça e Moura, Permanent Representative of Portugal and H.E. Mr. Burhan Gafoor, Permanent Representative of Singapore, attaching the revised 'zero draft' of the Call for Action, following the first round of consultations held from 20 to 22 March 2017. The next round of consultations will be held on the 24, 25 and 27 April 2017 in the Trusteeship Council Chamber.

I encourage your positive and constructive engagement at the next round of consultations.

Please accept, Excellency, the assurances of my highest consideration.

ik

Peter Thomson

All Permanent Representatives and Permanent Observers to the United Nations New York





New York, 7 April 2017

Excellency,

We are pleased to write to you in our capacity as co-facilitators appointed by the President of the General Assembly to oversee the preparatory process and to conclude the intergovernmental consultations on a "Call for Action" for the United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

In our letter dated 9 March 2017, we enclosed a "zero draft" of the "Call for Action". This was the basis for our first round of consultations in March 2017. The consultations were very constructive and fruitful and we thank delegations for their active participation at the meeting.

Taking into consideration the views we heard during the meeting and bearing in mind the strong signal from delegations that the document should remain concise, focussed and action-oriented, we have prepared a revised draft "Call for Action", which is enclosed.

This revised draft will be discussed during the second round of consultations to be held on Monday, 24 April 2017, Tuesday, 25 April 2017 and Thursday, 27 April 2017 from 10:00am to 1:00pm and 3:00pm to 6:00pm. The venue will be the Trusteeship Council Chamber.

We look forward to delegations once again engaging actively and constructively.

Please accept, Excellency, the assurances of our highest consideration.

Aharo Mendora - Mon

Alvaro Mendonca Moura Ambassador and Permanent Representative of Portugal to the United Nations

Burhan Gafoor Ambassador and Permanent Representative of Singapore to the United Nations

OUR OCEAN, OUR FUTURE: CALL FOR ACTION

1. We, the Heads of State and Government and high-level representatives, meeting at the first United Nations Conference to Support the Implementation of Sustainable Development Goal 14 of the 2030 Agenda, with the full participation of civil society and other relevant stakeholders, affirm our strong commitment to conserve and sustainably use our oceans, seas and marine resources for sustainable development.

2. We are mobilised by a strong conviction that our ocean is critical to our shared future and common humanity in all its diversity. As responsible stakeholders, we are determined to act decisively and urgently, convinced that our collective action will make a meaningful difference to our people, to our planet, and to our prosperity.

3. We recognise that our ocean covers three quarters of our planet, connects our populations and markets, and forms an important part of our heritage and culture. It supplies half the oxygen we breathe, absorbs a third of the carbon dioxide we produce, and plays a vital role in the water cycle. It contributes to sustainable development and sustainable ocean-based economies, as well as to poverty eradication, food security and nutrition, and livelihoods.

4. We are particularly alarmed by the adverse impacts of climate change on the ocean, including the rise in ocean temperatures, ocean acidification, deoxygenation, and sea-level rise. We acknowledge the need to address the adverse impacts that impair the crucial role of the ocean as climate regulator, carbon sink, source of marine biodiversity, and as key provider of food and nutrition, ecosystem services, maritime trade and transportation, and as an engine for sustainable economic development and growth.

5. We are committed to halting and reversing the decline in the health and productivity of our ocean and to protecting and restoring its resilience. We recognise that the well-being of present and future generations is inextricably linked to the health and productivity of our ocean.

6. We reaffirm our commitment to achieve the targets of Goal 14 within the timelines. We also affirm our commitment to continue to take action beyond those dates, taking into account different national realities, capacities and levels of development and respecting national policies and priorities.

7. We underline the integrated and indivisible character of all Sustainable Development Goals under the 2030 Agenda, as well as the interlinkages and synergies between them.

8. We stress the need for an integrated, interdisciplinary and cross-sectoral approach as well as enhanced cooperation, coordination, and policy coherence, at all levels. We emphasise the critical importance of effective partnerships enabling collective action, to reverse the decline in the health of our ocean and its ecosystems, and to protect and restore their resilience and productivity. We reaffirm our commitment to the implementation of Goal 14 with the full participation of all relevant stakeholders.

9. We underline the need to integrate Goal 14 into national development plans and strategies, and to promote national ownership and leadership and success in the implementation of Goal 14 by involving all stakeholders, including local authorities and communities, indigenous peoples, women and youth, as well as business and industry.

10. We recognise the crucial role of women in the conservation and sustainable use of oceans, seas and marine resources for sustainable development.

11. We stress the importance of enhancing understanding of the health and role of our ocean, including through assessments on the state of the ocean, science and traditional knowledge, as well as the need to further increase marine scientific research to inform and support decision-making, and to promote knowledge hubs and networks to enhance the sharing of scientific data, and best practices.

12. We emphasise that our actions to implement Goal 14 should be in accordance with, reinforce and not duplicate or undermine, existing legal instruments, arrangements, processes, mechanisms, or entities. We affirm

the need to be consistent with international law, as reflected in the UN Convention on the Law of the Sea which provides the legal framework for all the activities in the oceans and seas.

13. We recognise that the conservation and sustainable use of the ocean and its resources require the necessary means of implementation in line with the 2030 Agenda, Addis Ababa Action Agenda and other relevant outcomes, including the enhanced capacity building and the transfer of knowledge and environmentally-sound marine technology to developing countries on mutually agreed terms.

14. We call on all stakeholders to work in concert to conserve and sustainably use the oceans, seas, and marine resources for sustainable development by taking, *inter alia*, the following actions on an urgent basis, including by building on existing institutions and partnerships:

(a) Approach the implementation of Goal 14 in an integrated and coordinated way and promote policies and actions that take into account the critical interlinkages among the targets of Goal 14, the potential synergies between Goal 14 and the other goals, particularly those with ocean-related targets, as well as other processes that support the implementation of Goal 14.

(b) Strengthen cooperation, policy coherence and coordination amongst institutions at all levels, including between and amongst international organisations, regional organisations, arrangements and programmes, as well as national and local authorities.

(c) Promote effective multi-stakeholder partnerships, including public-private partnerships, by enhancing engagement of governments with global and regional bodies and programmes, the scientific community, the private sector, donor community, non-governmental organisations, community groups, academic institutions, and other relevant actors.

(d) Develop comprehensive strategies to raise awareness of the natural and cultural significance of the ocean, as well as of its state and role, and of the need to further improve the knowledge of the ocean, including its importance for sustainable development and how it is impacted by anthropogenic activities.

(e) Support plans to foster ocean-related education, for example as part of education curricula, to promote ocean literacy and a culture of conservation, restoration and sustainable use of our ocean.

(f) Dedicate greater resources to marine scientific research, as well as the collection and sharing of data and knowledge, including traditional knowledge, in order to increase knowledge of the ocean, including to better understand the relationship between climate and the health and productivity of the ocean, and to promote decision-making based on the best available science, to encourage scientific and technological innovation, as well as to enhance the contribution of marine biodiversity to the development of developing countries in particular small island developing States and least developed countries.

(g) Accelerate actions to prevent and significantly reduce marine pollution of all kinds, including marine debris, nutrient pollution, untreated wastewater, solid waste discharges, hazardous substances, pollution from ships, abandoned, lost or otherwise discarded fishing gear, and plastics and microplastics.

(h) Develop sustainable consumption and production patterns, adopt the 3Rs – reduce, reuse and recycle – including through incentivising market-based solutions to reduce waste and its generation, improving mechanisms for environmentally-sound waste management, disposal and recycling, and developing alternatives such as reusable or recyclable products, or products biodegradable under natural conditions.

(i) Implement long-term strategies to reduce the use of plastics, particularly plastic bags, single use plastics and the use of primary microplastic particles in products, including by partnering with stakeholders at relevant levels to address their production and use.

(j) Strengthen the use of effective area-based management tools, including marine protected areas and other integrated, cross-sectoral approaches, consistent with international law and in accordance with national legislation, including marine spatial planning and integrated coastal zone management, based on best available science and the precautionary and ecosystem approaches, to enhance ocean resilience and better conserve and sustainably use marine biodiversity.

(k) Develop and implement effective adaptation and mitigation measures that contribute to increasing and supporting resilience to ocean acidification, sea-level rise, and to addressing the other harmful impacts of climate change on the ocean as well as coastal ecosystems such as mangroves, tidal marshes, seagrass, and coral reefs, and ensure the implementation of the relevant obligations and commitments.

(1) Enhance sustainable fisheries management through the implementation of science-based management measures, precautionary and ecosystem approaches, monitoring, control and enforcement, and strengthening cooperation and coordination including through, as appropriate, regional fisheries management organisations and arrangements.

(m) End destructive fishing practices and illegal, unreported and unregulated fishing, addressing their root causes and holding actors accountable by taking appropriate actions, so as to deprive them of benefits of such activities, and effectively implementing flag State obligations as well as our port State obligations.

(n) Accelerate further work and strengthen cooperation and coordination on the development of interoperational systems for catch documentation and traceability of fish products.

(o) Strengthen capacity building and technical assistance provided to small-scale artisanal fishers, to enable their access to marine resources and markets without increasing pressure on fisheries and improve the socio-economic situation of fishers and fish workers within the context of sustainable fisheries management.

(p) Act decisively to prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, including by completing the ongoing negotiations in the World Trade Organization on this issue without further delay, recognising that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of those negotiations.

(q) Support the promotion and strengthening of sustainable ocean-based economies, which inter alia build on sustainable fisheries, tourism, aquaculture, maritime transportation, renewable energies, marine biotechnology, as means to achieve the economic, social and environmental dimensions of sustainable development, in particular for small island developing States and least developed countries.

(r) Increase efforts to mobilise the means necessary for the development of sustainable ocean-related activities and the implementation of Goal 14, particularly in developing countries, in line with the 2030 Agenda, Addis Ababa Action Agenda and other relevant outcomes.

(s) Actively engage in discussions and the exchange of views, in the Preparatory Committee established by General Assembly Resolution 69/292, on the development of an international legally binding instrument under the Convention on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, so that the General Assembly can, before the end of its seventy-second session, decide on the convening and on the starting date of an intergovernmental conference.

(t) Commit to follow-up on the partnership dialogues and to implement the voluntary commitments we have made in the context of the Conference.

(u) Contribute to the follow-up and review process of the 2030 Agenda by submitting the results from the Conference as an input to the high-level political forum on sustainable development.

(v) Consider further ways and means to support the timely and effective implementation of Goal 14.

15. We call upon the UN Secretary-General to support the implementation of the actions pledged in this document, including by enhancing coordination and coherence among UN agencies and other relevant entities dealing with the issue of oceans, seas and marine resources.

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