

The Ocean Dimension of the 2030 Agenda: Conservation and Sustainable Use of the Ocean, Seas, and Marine Resources for Sustainable Development

Martin Visbeck (GEOMAR Helmholtz Centre for Ocean Research Kiel),

Sebastian Unger (Institute for Advanced Sustainability Studies (IASS Potsdam)),

R. Andreas Kraemer (Centre for International Governance Innovation (CIGI)),

Jane Lubchenco (Oregon State University)

Alexander Müller (ThinkTank for Sustainability),

Barbara Neumann (Kiel University)

Julien Rochette (Institute for Sustainable Development and International Relations (IDDR)),

Stefanie Schmidt (Institute for Advanced Sustainability Studies (IASS Potsdam)),

Torsten Thiele (Institute for Advanced Sustainability Studies (IASS Potsdam))

May 4, 2017 | Last updated: December 10, 2020 *Tags: [SDGs and Development Cooperation](#)*

The Implementation of the 2030 Agenda for Sustainable Development will benefit from coordinated contributions from G20 countries. International cooperation is particularly important when addressing the sustainable use and protection of global commons such as the ocean (SDG14), especially on the high seas. At the same time SDG14 should be implemented with consideration of the interactions with other SDGs in order to promote coherent ocean policies as a basis for a thriving and sustainable ocean economy. G20 countries have the opportunity to lead global cooperation through both protection and restoration measures for coastal and marine ecosystems and a carefully approach to sustainable exploitation of marine resources. This T20 Policy Brief draws heavily on various recent policy and analysis papers on the ocean economy, the SDGs and the implementation of the 2030 Agenda for oceans, seas and marine space and resources and provides a synthesis for decision makers.

Challenge

The 2016 G20 Leaders' Summit endorsed the 'G20 Action Plan on the 2030 Agenda for Sustainable Development' [1, 2]. A main objective of the German G20 presidency is to 'make progress on realising the goals' of this Agenda not only in G20 countries themselves but also through their international cooperation with all nations including developing countries [3, 4]. Furthermore, the Action Plan states that countries will "integrate sustainable development in domestic policies and plans and international development efforts". **International organized (Earth) Science can provide foundational knowledge and implementing guidance for the 2030 Agenda** [5, 6]. A particular area

of concern for global sustainability and in need for more international cooperation is the ocean. The marine systems provide vital services to people and the planet. A decline in ocean health, productivity and resilience due to increasing human pressures by mostly land-based pollution, climate change induced warming and sea-level rise, ocean acidification and over-exploitation of marine resources is a major threat to achieving sufficient nutrition, livelihoods and economic growth for coastal communities, as well as to other ecosystem services such as recreation and coastal protection. Gaps in and a lack of coherence and effectiveness in global ocean governance are a root cause of the decline of ocean health and various maritime sectors, and governance reform guided by the principles of ecosystem-based management and sustainable development is a precondition for growth, innovation and employment in the ocean economy [7, 8, 9, 10]. The recommendations in this policy brief pursue three connected objectives:

1. *(i) to support the G20 in its ambition to reform and establish a more effective global Ocean governance process,*
2. *(ii) to take action and prepare a global and comprehensive thematic review of the ocean, and*
3. *(iii) to work with all nations to establish a global public registry of ocean commitments.*

Proposal

Proposal 1: To reform and establish a more effective global Ocean governance process

Become early implementers of sustainable development (2030 Agenda) in the marine context (SDG14).

The 2030 Agenda has encapsulated a number of sustainable development challenges in SDG14. SDG14 is dedicated to human's interactions with the ocean, seas and marine space and resources. It includes a range of targets in the conservation and sustainable use of the ocean, seas and marine space and resources including coastal zones, but also targets referring to capacity building and ocean governance. The status of the ocean and several of its resources and functions have been deteriorating over the last centuries. Ocean, seas and coastal zones are subject to pollution, overexploitation and climate change impacts such as rising sea temperatures, erosion, sea level rise, ocean acidification and deoxygenation. These pressures and stresses are projected to rise.

In particular, several coastal regimes are considered to be under noticeable stress compromising the services they provide. The benefits of a stand alone ocean goal are multiple [7]. However, the current ocean governance framework is fragmented and therefore needs to be strengthened [11]. In addition, ocean literacy and the scientific capacity is particularly poor in developing countries and enhanced capacity building and awareness raising are needed to support the implementation of SDG14 at all levels. Ocean and coastal monitoring frameworks need to be further developed, harmonised, and strengthened, since they provide the data for key indicators to assess progress in implementation of SDG14 in support of ocean protection and sustainable management of marine resources [12].

Evaluate and respect the interactions between SDG14 and the other dimensions of the 2030 Agenda to maximize policy coherence.

An efficient and comprehensive implementation of SDG14 will benefit from an in depth understanding of interactions between all sustainable development goals and their respective targets [13]. G20 members implementation strategies should recognize the findings of a recent ICSU study [14] and develop an in depth understanding of goal interactions. Some key interactions with other SDGs of the 2030 Agenda include and have been summarised in [14]:

SDG14-SDG1 Healthy, productive and resilient oceans and coasts are a critical enabler of poverty alleviation, environmentally sustainable economic growth, and human wellbeing, especially in coastal communities. But despite various co-benefits for building resilient communities, achieving SDG14 could limit access to the resources and ecosystem services necessary to alleviate poverty.

SDG14-SDG2 Oceans are essential for ensuring food security and meeting nutritional needs. However, establishing marine protected areas could limit access to vital marine resources, although fisheries and other natural resource uses generally benefit from sustainable practices and balanced conservation measures. Increased agricultural production could damage ocean health through nutrient run-off and related

pollution.

SDG14-SDG7 The ocean provides a space for renewable offshore energy, especially wind power; it also provides various forms of ocean energy, from wave and tidal power, to ocean currents and gradients in temperature or salinity. Ocean space and resources are thus vital to ensure access to affordable, reliable, sustainable and modern energy for all.

SDG14-SDG8 Sustainable growth of marine and maritime sectors supports employment and economic growth. But short-term resource exploitation may impact the productivity and resilience of oceans and coasts while trade-offs are possible where management and conservation measures limit economic growth.

SDG14-SDG10 A sustainable and equitable ocean economy is necessary for reducing inequality within and among countries. Ocean governance and management institutions must provide for a fair distribution of benefits and the reinvestment of a sufficient share of financial benefits in the restoration, protection and sustainable management of ocean space and resources and ocean-dependent communities. This is essential for access for small-scale fishers, which constitute the largest employment category in the ocean economy and are among the bottom 40% of the population by income, and this would benefit developing coastal and island populations, which are also part of the global bottom 40% by income.

SDG14-SDG11 Coasts are attractive for urban development, often due to opportunities for economic activities and the availability of natural resources, but coastal settlements are a major factor in increasing environmental pressures along the coast-sea-interface. Conflicts may occur where ocean and coastal conservation limit options for housing, infrastructure or transport upgrading, but achieving SDG14 also reinforces sustainable and resilient coastal settlements and urbanisation.

SDG14-SDG12 Achieving SDG14 and sustainable consumption and production go hand in hand, not only in ocean-based industries and coastal communities. Ending overfishing, sustainably managing marine and coastal ecosystems and reducing marine pollution supports the efficient use of natural resources and reduces food loss while sustainable consumption and production patterns will reduce marine pollution and support sustainable resource extraction practices.

SDG14-SDG13 Oceans and coastal ecosystems both affect, and are affected by climate change. Thus, achieving SDG14 and SDG13 is highly synergistic, such as through conservation of coastal ecosystems acting as blue carbon sinks. Careful management is needed to ensure that climate adaptation and coastal and marine protection measures do not conflict.

Call for ocean economy dialogues and strategies to ensure that investment and growth in ocean use become sustainable and reach their full potential.

Achieving SDG14 without compromising the achievement of ocean-related targets under other SDGs means much needed protection and restoration measures for coastal and marine ecosystems must be carefully balanced against the sustainable exploitation of marine resources to ensure 'blue/green growth' and the livelihoods and resilience of coastal communities. Integrated management and planning across geographical scales and administrative silos, particularly at the regional level, will enable coastal states to better safeguard, conserve, and sustainably use ocean resources within their jurisdiction and in areas beyond national jurisdiction. A more complete description of the proposed action is given by the policy brief of Kremer et al. [10].

Establish efficient regional partnerships for harmonization and joint implementation of a sustainable oceans agenda.

Ocean sustainability requires collective action across sectors and scales. In an effort to coordinate policy makers and measures, regional partnerships should be established in support of the 2030 Agenda and bring together States, regional and global organisations and mechanisms, and a broad spectrum of stakeholders, including non-governmental organisations, research centres, and private sector actors, and donors [15]. Concrete measures that could be implemented through partnerships include institutional capacity-building and the development of guidelines and regionally coordinated indicators and reporting processes for ocean sustainability. These should be

development of guidelines and regionally coordinated indicators and reporting processes for ocean sustainability. These should be underpinned by regional and ecosystem specific targets, priorities and strategies to address cross-cutting challenges such as land-based pollution. In many cases, the necessary instruments are readily available. The format of individual partnerships should be aligned with the needs and opportunities specific to regions. The options available include regular high level regional conferences, overarching regional dialogues, and annual meetings of regional and sectoral ocean management organisations [15].

Proposal 2: Mobilize resources to prepare a global and comprehensive thematic review for the Ocean

G20 nations should take to lead to facilitate a global thematic review of the oceans should be prepared with a view to maximising the efficiency and effectiveness of States' actions, and to assess trends and progress, and if needed, to adapt implementation [15, 16]. The recent IASS policy brief [15] recommends: The review should take into account the central and cross-cutting role of SDG14 and its links across the Sustainable Development Goals (see Proposal 1). The 2030 Agenda suggests that overarching "thematic reviews" be conducted to ensure that tradeoffs and synergies are taken into account. Such a holistic review for the ocean would assess the state of the marine environment and coupled economic and social systems, identify priority issues and impacts, evaluate current policies, and weigh options to achieve the Goal for the Oceans (SDG14). By offering insights into interlinkages with other SDGs and shedding light on global and regional trends, the review would also provide an evidential basis for the development of cross-cutting policy measures and propose action with a view to addressing drivers of ocean decline and advancing efforts to achieve other SDGs. The global thematic review for the oceans should apply a nested approach and should be based on regional ocean assessments of the kind already prepared through some regional seas organisations, as well as other available reports on the state of the marine environment and its resources, such as the FAO State of the World Fisheries and Aquaculture report [15].

Proposal 3: Establish a global registry of Ocean Commitments

The establishment of effective reporting procedures is crucial to achieving the 2030 Agenda for the oceans. G20 nations could support and actively engage in the establishment of a registry of commitments on action for ocean sustainability [15]. The recent IASS policy brief [15] specifically asks for: Documenting intended actions, the registry would facilitate the development of solutions and the coordination of action in the water and on the ground. Much like the Registry of National Determined Contributions (NDCs) established under the Paris Climate Agreement, the registry would provide a transparent basis for the systematic assessment of actions to implement SDG 14 and inform efforts to ensure the efficacy of activities. Activity reports submitted to the registry would provide a repository of lessons learned and innovative solutions, potentially leading to further cooperation or the development of new partnerships for sustainable development. The "list of voluntary commitments" to be adopted at the United Nations Ocean Conference, 5-9 June 2017 in New York and complementary efforts in the frameworks of the "Our Ocean" Conferences (the next one to be hosted by the EU, 5-6 October 2017 in Malta) should be taken as an initial starting point. The registry should be hosted by an appropriate UN body and be maintained and updated regularly to inform the further follow-up and review process of SDG 14 [10].

References

1. The content of this policy brief is the responsibility of the authors. We thank for helpful discussions with the members of the task force and specifically for comments by: Ram Upendra Das (Research and Information System for Developing Countries (RIS), India), Rainer Thiele (Institute of the World Economy (IfW), Germany), Manuel Montes (South Centre), Ali Mehdi (ICRIER, India), Nancy Alexander, Heinrich Boell Foundation, USA), Iliana Olivie (Research Institute El Cano, Spain), Mehmet Arda (EDAM, Turkey), Alejandra Kern (Universidad Nacional de San Martín / CARI, Argentina), Gala Diaz Langou (CIPPEC, Argentina), Céline Charveriat and Konar Mutafoglu (IEEP, Belgium).
2. The T20 Task Force on 2030 Agenda for Sustainable Development is co-chaired by Imme Scholz (DIE, Bonn, Germany), Chen Dongxiao (SIIS, Shanghai, China) and Jann Lay (GIGA, Hamburg, Germany). The T20 Task Force on the 2030 Agenda drafted policy

briefs on three systemic questions related to the implementation of the 2030 Agenda that underline its innovative features, and that are also in the focus of the G20 when driving forward implementation and specification of the Action Plan: The implementation of the 2030 Agenda in G20 countries, policy coherence and the role of international cooperation. Members of the Task Force are Tony Addison (UNU-WIDER, Finland), Elena Agüero (Club of Madrid, Spain), Nancy Alexander (Heinrich Boell Foundation, USA), Venkatachalam Anbumozhi (Economic Research Institute for ASEAN and East Asia / ERIA, Indonesia), Francisco Andrés (Real Instituto Elcano, Spain), Mehmet Arda (EDAM, Turkey), Nils aus dem Moore (Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Germany), Belay Begashaw (SDG Center Africa, Rwanda), Tom Bigg (IIED, United Kingdom), Colin Bradford (Brookings, USA), Clara Brandi (German Development Institute / DIE, Germany), Ingo Bräuer (Potsdam-Institut für Klimafolgenforschung (PIK), Germany), Celine Charveriat (IIEP, Belgium), Andre Coelho (FGV, Brazil), Aart De Geus (Bertelsmann Stiftung, Deutschland), Gala Diaz Langou (CIPPEC, Argentina), Carlos Dominguez (Instituto Mora, Mexico), Matthew Doherty (Sovereign Strategy, UK), Edna Martinez (UNDP Mexico, Mexico), Paulo Esteves (BRICS Policy Center, Brazil), Güven Sak (TEPAV, Turkey), Alejandra Kern (CARI, Argentina), KIM Heungchong (Korea Institute for International Economic (KIEP), Korea), Richard Klein (SEI, Sweden), Daniel Klingensfeld (Potsdam- Institut für Klimafolgenforschung (PIK), Germany), Adolf Kloke-Lesch (SDSN, Germany), Christian Kroll (Bertelsmann Stiftung, Germany), LI Yuefen (South Centre, Switzerland), Faith Mabera (Institute for Global Dialogue, South Africa), MAO Risheng (IWEF, China), Thomas Mättig (FES, Germany), Ali Mehdi (Indian Council for Research on International Economic Relations (ICRIER), India), Suguru Miyazaki (Kyoto University, Japan), Manuel Montes (South Centre, Philippines), Konar Mutafoglu (IIEP, Belgium), Philani Mthembu (Institute for Global Dialogue, South Africa), Shingirai Mutanga (Human Sciences Research, South Africa), Archana Negi (Jawaharlal Nehru University, India), Andrew Norton (IIED, United Kingdom), Iliana Oliivié (Real Instituto Elcano, Spain), Yulius Purwadi Hermawan (Catholic University Jakarta, Indonesia), Ortwin Renn (IASS, Germany), Sachin Chaturvedi (RIS, India), Jeffrey Sachs (SDSN, USA), Hubert Schillinger (FES, Germany), Guido Schmidt-Traub (SDSN, France), Ole Jacob Sending (NUPI, Norway), Aniket Shah (SDG Center Africa, Africa), Jose Siaba Serrate (CARI, Argentina), Elizabeth Stuart (ODI, United Kingdom), Ulf Sverdrup (Norwegian Institute for International Affairs / NUPI, Norway), Rainer Thiele (IfW, Germany), Ram Upendra (Research and Information System for Developing Countries, India), Rebecka Villanueva Ulfgard (Instituto Mora, Mexico), Martin Visbeck (Geomar, Germany), XU Qiyuan (IWEF, CASS, China), XUE Lan (Tsinghua University, China), YANG Qingqing (Renmin University of China (RDCY), China), YE Jiang (SIIS, China), YU Hongyuan (SIIS, China), ZHANG Haibing (SIIS, China), ZHOU Taidong (DRC, China), ZHU Jiejun (Fudan University, China), and Siphamandla Zondi (Institute for Global Dialogue, South Africa).

3. Shugart-Schmidt, K. L. P., Pike, E. P., Moffitt, R. A., Saccomanno, V. R., Magier, S. A., & Morgan, L. E. (2015). "Sea States G20 2014: How much of the seas are G20 nations really protecting?", *Ocean & Coastal Management*, 115, 25-30.

[DOI:](#)

4. Lubchenco, J. and K. Grorud-Colvert. Making Waves: The Science and Politics of Ocean Protection. *Science*: 350:382-383 plus Supplemental Materials.
5. Lubchenco, J., A.K. Barner, E.B. Cerny-Chipman, and J.N. Reimer. SDGs need the Earth Sciences. *2015 Nature Geosciences*: 8:741-745.
6. Schmalzbauer B., Visbeck M. (Eds.) 2016. The contribution of science in implementing the Sustainable Development Goals. German Committee Future Earth, Stuttgart/Kiel. ISBN 978-3-9813068-5-9
[PDF-Dokument](#)
7. Visbeck, M., Kronfeld-Goharani, U., Neumann, B., Rickels, W., Schmidt, J., van Doorn, E., Matz-Lück, N., Ott, K. and Quaas, M. (2014) Securing Blue Wealth: The Need for a Special Sustainable Development Goal for the Ocean and Coasts, *Marine Policy*, 48 . pp. 184-191. DOI 10.1016/j.marpol.2014.03.005.
8. Hoegh-Guldberg, O., Beal, D., Chaudhry, T., Elhaj, H., Abdullat, A., Etesy, P., & Smits, M. (2015). *Reviving the Oceans Economy: The Case for Action - 2015*. Gland, CH: World Wide Fund for Nature (WWF).
[Retrieved from](#)
9. Golden, J. S., Virdin, J., Nowacek, D., Halpin, P., Benneer, L., & Patil, P. G. (2017). "Making sure the blue economy is green." *Nature – Ecology & Evolution*, 1, Article 17.
[DOI: 10.1038/s41559-016-0017](#)
10. Kraemer, R. A., C. Rustomjee, B. Boteler, I. Krüger, G. Martinez, L. Pendleton, T. Pitta e Cunha, M. Herédia, R. Bakshi, R. Bhatia, A. Mathur, M. Visbeck, T. Thiele, D. Russi, P. ten Brink, M. Pantzar, A. Farmer, J. Rochette, S. Vaughan, A.-K. Hornidge, M. K. Orbach, J. Virdin and K. Teleki (2017). "Sustainable Ocean Economy, Innovation and Growth: A G20 Initiative for the 5th Largest Economy in the World." T20 Policy Brief, 15.
[Retrieved from: <https://www.g20.org/~/media/2017/09/20170914-t20-policy-brief-15.pdf>](#)

[Retrieved from G20 Insights website:](#)

11. From Decline to Recovery, A Rescue Package for the Global Ocean, The Global Ocean Commission, (2015)
[PDF](#)
 12. Lu, Y., Nakicenovic, N., Visbeck, M. and Stevance, A. S. (2015) Policy: Five priorities for the UN Sustainable Development Goals - Comment Nature, 520 (7548). pp. 432-433. DOI 10.1038/520432a.
 13. Nilsson, M., Griggs, D. und Visbeck, M. (2016) Policy: Map the interactions between Sustainable Development Goals Nature, 534 (7607). pp. 320-322. DOI 10.1038/534320a.
 14. Schmidt, S., Neumann, B., Waweru, Y., Durussel, C., Unger, S., Visbeck, M. (2017): Conserve and sustainably use the oceans, seas and marine resources for sustainable development: Key interactions with other goals. In: International Council for Science (ICSU), 2017. A guide to SDG interactions from science to implementation [Griggs, D.J., Nilsson M., Stevance, A., McCollum, D. (eds)] International Council for Science, Paris. DOI: 10.24948/2017.01
 15. Unger, S., Müller, A., Rochette, J., Schmidt, S., Shackeroff, J., Wright, G. (2017): Achieving the Sustainable Development Goal for the Oceans. IASS Policy Brief 1/2017.
[PDF](#)
 16. Müller, A., Töpfer, K., Lobos Alva, I., Weigelt, J. (2016): Piloting Global Thematic Reviews of the SDGs: The Case of Natural Resources. I
[ISD Guest Article.](#)
-

Existing Initiatives & Analysis

Existing Agreements (1)

The UN 2030 Agenda for Sustainable Development

[More Information](#)