6. Capacity Development

Major Recommendations:

6.0 Provide technical and financial assistance to SIDS, developing countries, and economies in transition to build capacity in the form of knowledge, tools, and scientific and political expertise to implement mitigation and adaptation measures, develop adaptive management capacity, early warning systems, and disaster risk reduction, and to develop knowledge management mechanisms to share knowledge among all countries within and outside the UNFCCC frame-works.

6.1 Promote the further enhancement of marine policy centers in developing countries and SIDS to build capacity in management and policy related to oceans and climate

6.2 Strengthen the advancement of global marine observations, research, and related capacity development within the UNFCCC processes and beyond

6.3 Support the preparation of the IPCC report on Oceans—to integrate and update the assessment of AR5 using scientific findings on the central role of oceans and climate and likely scenarios and consequences

6.4 Sustained ocean observation should be included as part of national commitments, particularly within the framework of the UNFCCC and Agenda 2030/ SDG 14 (target 14.a), in response to the call to increase knowledge to manage marine ecosystems sustainably, and understand the impacts of climate change and ocean acidification

6.5 Enhance technical capacity development of vulnerable countries through the establishment of regional oceanographic centers to increase cooperation among States on ocean-climate research and multi-disciplinary observation (in accordance with SAMOA Pathway decision 58.f)

6.6 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels and the continued development of the Global Ocean Acidification Observing Network (SDG 14.3)

6.7 Expand public outreach and education efforts, following the Lima Declaration on Education and Awareness-raising (COP 20, 2014), to enhance individual capacity and public under-standing of the ocean's role in planetary survival and in global and national well-being, of the risks posed to SIDS and coastal communities by climate change, and to catalyze public support for mitigation and adaptation responses.

Current Status of the Issue

Capacity development is widely recognized within the ocean community as a crucial pillar of policy action. Multiple intergovernmental processes – the implementation of the Aichi Targets, the ongoing discussions on the development of an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, the 2030 Agenda and the SDG 14 on oceans and seas, and the UN Framework Convention on Climate Change—have all called for efforts from developed Member States, the UN System, and other stakeholders on the development of capacities of developing states and sub-national governments. Civil society has voiced similar calls. Among a host of other ocean-related platforms of civil society actors, the Global Ocean Forum has continuously called for investment in and activities around the development of participatory processes and capacities to enable national and local authorities to better manage their coastal and marine areas.

A changing climate has exacerbated the need for the development of ocean-based mitigation, adaptation and scientific monitoring capacities of developing states, in particular the most vulnerable SIDS and coastal Least Developed Countries. Capacity building for developing countries is essential to enable them to participate fully in, and to implement effectively their commitments under, the UNFCCC. Some institutional responses are emerging both within and outside of the UNFCCC and the climate

debate, but the implementation of political commitments remains diffuse and uneven across regions.

The UNFCCC adopted capacity-building frameworks for developing countries and countries with economies in transition in 2001 at COP 7[249] as well as the Nairobi Work Programme (NWP) in 2005 at COP 11, which was designed to "facilitate and catalyse the development and dissemination of information and knowledge that would inform and support adaptation policies and practices."[250] However, capacity development focused specifically on ocean issues and coastal adaptation has been limited to vulnerability assessment tools such as sea level fine resolution acoustic measuring equipment.

Beyond the UNFCCC, an array of capacity development initiatives related to ocean and climate have taken shape in various forms – at the individual, institutional and societal levels – and under multiple entities, including UN agencies and civil society. For example, the joint GEF-UNDP-IOC project on Adaptation to Climate Change on the Coasts of West Africa (ACCC) provided financial and technical assistance to Senegal, Mauritania, Cape Verde, Gambia and Guinea Bissau to develop coastal adaptation measures and to build their coastal adaptive capacity. From the NGO and the scientific communities, initiatives such as the Partnership for Observation of the Global Oceans (POGO)—a platform of 38 oceanographic institutes from 19 different countries—seek to bridge the capacity gap between developing and developed countries to create and implement an integrated global ocean observing strategy.

Despite the UNFCCC capacity-building frameworks, the NWP and POGO, it is increasingly clear that effective capacity development activities must be adapted to specific regional and local contexts. To that end, UNEP's PROVIA initiative moves the focus from capacity development delivery to investigating how different types of governance, collaborative frameworks and networks are effective at fostering partnerships and multi-stakeholder approaches in support of Vulnerabilities, Impacts and Adaptation (VIA). The Islands and Oceans Net (IO Net) was adopted at a side event at the Samoa SIDS summit in 2014, with the goal of creating and implementing joint policy recommendations for the better conservation and managements of islands and their surrounding ocean areas. A platform involving partners and multi-stakeholders both from islands and international society such as these can function as key regional information sharing and capacity building networks.

Finally, many intergovernmental and civil society-led assessments of capacity development needs have been undertaken across the years, from the GOF's regional assessments to the ongoing World Ocean Assessments and the Global Ocean Science Report. These global assessments could become key reference points for launching more concerted, context-specific action around capacity development for ocean and climate.

Current State of Play of the Issue within the UNFCCC

Articles 4.1, 4.3, 4.4, 4.5 and 4.7, in the context of Article 3, and Articles 5 and 6 of the Convention provide specific guidance on capacity-building on climate change. UNFCCC negotiations have traditionally recognized capacity development as a key element of the climate regime, and nearly every COP as well as each Kyoto Protocol Meeting (CMP) since COP 9 (2003) has featured specific decisions on "capacity-building".[251]

In 2001, the UNFCCC COP adopted two frameworks that address the capacity-building needs, conditions and priorities of developing countries and countries with economies in transition. These frameworks set out the scope of, and provided the basis for action, on capacity-building related to the implementation of the Convention, preparation for their participation in the Kyoto Protocol process, and in the case of developing countries, assist them in promoting sustainable development while meeting the objectives of the Convention. The frameworks also provided guidance on the financial and technical support to be addressed by the Global Environment Facility, bilateral and multilateral agencies, and other intergovernmental organizations and institutions.[252]

Through the SBI, the UNFCCC has already undertaken two comprehensive reviews of the implementation of the framework for capacity development in developing countries (begun in COP 10 and COP 17, respectively). A third comprehensive review is expected to be completed in time for COP 22. Reviews of the implementation of the capacity-

building framework in countries with economies in transition were carried out in 2004, 2007, and 2012. The goal of these comprehensive reviews is, broadly, to take stock of progress and assess effectiveness of the capacity development framework, examine gaps between decisions and implementation activities, identify lessons-learned and best practices, and review challenges in the implementation of priority areas. Among other review findings, Parties noted that the implementation of the framework for capacity-building under the Convention should be further improved at the systemic, institutional and individual levels.[253]

Significant capacity-building provisions were also made under the 2011 Cancun Agreements, which represented key steps to speed up the implementation of plans for sustainable greenhouse gas emissions reductions and help developing nations protect themselves from climate impacts.[254] The 2012 COP finalized the creation of the Durban Forum on Capacity Building, which was designed as a vehicle where representatives from Parties, UN organizations, intergovernmental and non-governmental organizations, research, academia and the private sector would share ideas, experiences, lessons learned and good practices on implementing capacity-building activities in developing countries.[255]

In the UNFCCC Report from Lima SBI 41, the Convention calls on Parties to promote and cooperate in systematic observation of the climate system, e.g. through support to existing international programmes and networks (Articles 4.1(g) and 5), referring to Global Observing System and the World Meteorological Organization as the major implementation agencies/organizations.

Advocating around and finding channels to participate in the frameworks review process and in the Durban Forum could be an effective way to highlight the need for greater focus on developing ocean-based capacities within the capacity development frameworks of UNFCCC. The priority areas of adaptation, research and systematic observations of both the capacity development framework and the Nairobi Work Programme offer useful entry points for integrating ocean into the more practical aspects of the climate regime.

Strategic Goals and Actions to Address the Issues

Action around ocean and climate capacity development should be framed along the following strategic goals:

1. Strengthen the overall visibility of ocean-based capacity development issues and solutions within the climate debate and in the official climate regime through UNFCCC processes;

2. Establish indicators within UNFCCC review processes to assess progress in capacity development for coastal and marine adaptation (i.e. integrated coastal area management), mitigation (i.e. management of carbon sinks), scientific research, and observing systems;

3. Integrate the ocean and climate perspective within the UNFCCC capacity development and technology transfer priorities under a consolidated framework of action (as illustrated by *IOC Criteria and Guidelines on the Transfer of Marine Technology*, which effectively covers both pure technology transfers and activities that would traditionally fall under capacity development, such as technical training and the sharing of knowledge).

One of the most important aspects of building the capacity of developing nations to address ocean and climate issues is the education of the public. Non-profit international organizations such as the World Ocean Network (WON) work to further this goal by engaging the public at the community level and helping them to identify the tools they need for sustainable use of the oceans. WON and other groups such as the Sea for Society Project emphasize the notion of a "Blue Society," which is aware of the importance of oceans in daily life and maintenance of a healthy planet.[256] Increased efforts from these and similar organizations can further the cause of building capacity by investing the general public of developing nations in the proper stewardship of oceans and coastal areas.

From a financing perspective, it is essential to advocate not only for a stronger recognition by the UNFCCC of oceans as a key element of the global climate mechanism, but also the inclusion of ocean-based solutions for a changing climate into the

priority areas for adaptation and mitigation financing, such as the Adaptation and the Green Climate Funds.

Opportunities and Pathways that may be Available within the UNFCCC to Advance the Issue in the Next Five Years

Ocean-based capacity development solutions for climate change are not high on the UNFCCC priority agenda compared to land-based approaches. Even as existing frameworks for capacity development within UNFCCC gain prominence and more financing, there is a risk that it will remain difficult to integrate ocean-based capacity development into processes such as the Nairobi Work Programme, the PCCB, and the UNFCCC capacity building frameworks. That said, the upcoming SBI Third Comprehensive Review of the implementation of the capacity development framework might offer a chance to highlight the positive role of ocean-based solutions to bridge some of the implementation gaps that exist, in particular in SIDS and coastal LDCs. The regular meetings and reports of the PCCB may also become important opportunities to advance the visibility of ocean issues.

The UNFCCC's SBSTA agenda item on "Sustained Observations and Research" provides for another way to address capacity development in the context of ocean and climate. Ocean observations and research, in particular through the Global Climate Observing System (GCOS) and its ocean component led by the Global Ocean Observing System (GOOS), have been linked to the COP negotiations for decades and remain alive and vigorous. An important argument can be put forward that capacity development initiatives should be focused on the technical and research capacities required to manage observing systems in developing countries.

In addition, it is possible to include ocean observations and research in the UNFCCC process via the Special IPCC Report on Oceans and the Cryosphere, to be published in 2019 (discussed in section 6. Ultimately, there is an opportunity to highlight the importance of ocean-based capacity development in the official process if champions can be found among the State Parties.

Opportunities and Pathways that may be Available Outside of the UNFCCC to Advance the Issue

Beyond the UNFCCC, the following intergovernmental processes have strong capacity development components: the implementation of the Aichi Targets, the Ad hoc Open-ended Informal Working Group on BBNJ, the SIDS Accelerated Modalities of Action (SAMOA) Pathway, and the implementation of the SDGs on climate (SDG13) and oceans (SDG14). Capacity development is fully incorporated through different platforms and financing mechanisms into each of these processes and they are natural home for ocean-based solutions around this issue.

For example, the SIDS Accelerated Modalities of Action (SAMOA) Pathway directly urges support for improving the adaptive capacity, addressing gaps to climate financing, and developing the technological capacity of SIDS through the establishment of oceanographic centers and the provision of technical assistance.[257] Also within UN-wide intergovernmental processes, the Sustainable Ocean Initiative emerged on the margins of COP10 of the UN Convention on Biodiversity, to provide a universal platform for partnerships and enhance capacity to achieve the marine and coastal Aichi Biodiversity Targets.

IOC-UNESCO has developed a wide host of activities around marine and coastal capacity development regarding international oceanographic data and information exchange, technical training, the development of sustained ocean and biodiversity monitoring and services, and integrated management of coastal zones. These activities assist and will continue to bolster Member States' abilities to achieve international commitments from the Aichi Targets to the SDGs. Capacity development priorities are also well built into UNEP, UNDP, FAO and other UN Agencies that carry-out ocean-related programmes.

Financing Considerations

Many ocean-based projects currently funded by the Global Environment Facility (GEF) already deploy specific capacity development components, but these components have limited scope. Financing full

capacity development projects is not a priority for the GEF.

That said, within the context of the UNFCCC, the GEF could become an important vehicle of financing for capacity development activities around ocean and climate. Its Strategic Plan prioritizes "capacity development for both public and private actors" as well as "identifying and addressing policy and operational gaps" in the implementation of the UNFCCC commitments and objectives.[258] Given the Fund's commitment to devote 25% of investments to SIDS, LDCs and African States, there are potential opportunities to tap into financing for supplying these countries' capacity development needs around ocean-based solutions to adaptation to a changing climate. As the parties to UNFCCC increase funding to 100 billion USD annually by 2020, it will be important to identify opportunities to utilize these funds for capacity development related to ocean issues.