GOAL: ACHIEVE HEALTHY, PRODUCTIVE, AND RESILIENT OCEANS

Target	Measurement/ Indicator
I. Target: Ensure that all fish stocks are being fished sustainably [by target date].	
A. *Maintain or restore* fish stocks to levels that can produce optimum sustainable yield ("OSY")[1]	Tonnage of fish landed in the absence or in excess of OSY as determined by science-based management plans.[2]
B. *Eliminate* illegal, unreported, and unregulated ("IUU") fishing	Amount (in USD) of IUU fishing.[2]
C. *Eliminate* fishing subsidies where they contribute to overcapacity, IUU, and destructive fishing	Amount (in USD) of subsidies that contribute to overcapacity, IUU, and destructive fishing.
II. Target: Ensure a healthy marine environment	
A. *Protect* vulnerable marine areas, including coral reefs	Percentage of vulnerable marine areas protected by MPA's within a state's marine territory.
B. *Adapt* to ocean acidification	Strategies to account for and adapt to the effects of ocean acidification.
C. *Eliminate* marine pollution	A composite of biological and chemical pollutants discharged. This indicator would first require standardized metrics comprised of key sources of marine pollution. States would then be encouraged to assess and mitigate the amount of marine pollution they generate.
D. *Eliminate* destructive fishing	Vulnerable or unregulated area (in sq. km) subjected to destructive fishing practices.[2]

1. OSY is the management threshold most consistent with the ecosystem approach. It is calculated by modifying MSY to account for relevant economic, social, or ecological factors. See Cochrane, K. and S.M. Garcia. (Eds). A Fishery Managers' Guidebook (2nd ed.), FAO and Wiley-Blackwell, 489 (2009).

2. At each level of state responsibility, to include coastal, port, flag, and chartering states, and states of nationality of the beneficial owners.

TOWARD AN OCEANS SDG
A Non-Paper Prepared by the Palau Mission

Proposed Goal: Achieve Healthy, Productive, and Resilient Oceans

Introduction – Healthy, productive, and resilient oceans are critical for the sustainable development of all members of the international community, particularly coastal and island countries. Ocean resources are essential to promoting food security, strengthening economies and maintaining cultures across the globe. Covering two-thirds of the world's surface, oceans are also integral to the planet's long-term vitality. We therefore reaffirm the need for an oceans-specific sustainable development goal ("SDG") in the post-2015 development framework.

An oceans SDG can and should be universal in scope, since no one state is capable of achieving ocean sustainability on its own and all will benefit from better ocean management everywhere. Through the SDG process, we can transform prior oceans-related sustainable development commitments into resonant, viable, and effective points of action.

Structure – The proposed oceans SDG is structured like a Millennium Development Goal ("MDG"). It includes: (i) a broad goal; (ii) targets essential for achieving that goal; and (iii) quantifiable indicators to measure progress against those targets.

Lessons learned from the MDGs suggest that targets and indicators should be based on the following criteria:

- Resonant: Short, easily understandable, and memorable.
- Universal: Applicable and beneficial to large, small, developing, and developed states alike.
- Quantifiable: Allow for visible progress to facilitate action.
- Strategic: Highlight priority issues, since not every issue of ocean health or governance can be addressed through the SDGs.
- Well-supported: Anchored in prior development texts to serve as a baseline for consensus building.

TARGETS AND INDICATORS:

The following proposed targets and indicators are intended to serve as a basis for discussion and an exchange of ideas at this early stage in the SDG process.

Though not incorporated into the targets or indicators, the Oceans SDG must also incorporate means of implementation to enhance the capacity of developing states, especially Small Island Developing States and Lest Developing States ("SIDS"), to meet their post-2015 development challenges.

DISCUSSION

Overall Considerations

A. Rationale:

1. Oceans are critical to all states. All states share an interconnected ocean environment subject to pressures indiscriminate of geography or development. An oceans SDG can transform challenges facing our global marine environment into focal points for action from which all will benefit.

2. Ocean health is inadequately addressed in the MDGs. The MDGs are rightly focused on poverty alleviation and improving the lives of individuals, but they fail to address sustainability, particularly with regard to the environment. MDG drafters have themselves acknowledged that the MDGs' environmental targets were "fairly mushy."[3] An oceans SDG can strengthen and consolidate MDG achievements by making healthy, productive, and resilient oceans an explicit part of the world's sustainable development agenda.

3. Oceans require focused attention. Oceans are unique in their cultural resonance and their capacity to deliver food, income, transportation, and other components of sustainable development. Their effective management is essential to achieving long-term sustainability. Because they form an integrated system, no one state is capable of achieving ocean sustainability on its own. The SDGs are the best chance to focus collective attention on this global concern.

B. General Ocean-related Texts:

Summary: Oceans are consistently recognized as integral component of the Earth's ecosystem and as contributing to sustainable development worldwide. Individual state and collective action is required in oceans management to ensure that current and future generations may benefit from their use.

- Rio+20 (2012): We recognize that oceans, seas and coastal areas form an **integrated and essential component of the Earth's ecosystem** and are critical to sustaining it. . . . We stress the **importance of the conservation and sustainable use** of the oceans and seas and of their resources for sustainable development. . . . We therefore commit to **protect, and restore, the health, productivity and resilience of oceans** and marine ecosystems, to maintain their biodiversity, enabling their conservation and sustainable use **for present and future generations**, and to effectively apply **an ecosystem approach and the precautionary approach** in the management, in accordance with international law, of activities having an impact on the marine environment, to deliver on all three dimensions of sustainable development. (The Future We Want, A/RES/66/288, 11 Sept. 2012 ("**Rio+20**"), para. 158)

- WSSD (2005): In pursuance of our commitment **to achieve sustainable development**, we further resolve . . . [t]o **improve cooperation and coordination** at all levels in order to address issues related to oceans and seas in an integrated manner and **promote integrated management and sustainable development of the oceans and seas** (World Summit on Sustainable Development, Outcome Document, A/RES/60/1, 24 Oct. 2005 ("**WSSD 2005**"), para. 56(l))

3. Brookings Institute Panel: What Should Sustainable Development Goals Look Like? Statement by Colin I. Bradford (former chief economist of USAID and head of research at the OECD), 2 May 2012.

- JPOI (2002): Oceans, seas, islands and coastal areas form an **integrated and essential component of the Earth's ecosystem** and are **critical for global food security** and for **sustaining economic prosperity** and the well-being of many national economies, particularly in developing countries. ([Johannesburg] World Summit on Sustainable Development, 26 Aug. – Sept. 2002, Plan of Implementation, A/CONF.199/20 ("**JPOI**"), para. 30)

- Agenda 21 (1992): The marine environment - including the oceans and all seas and adjacent coastal areas - forms an **integrated whole** that is an **essential component** of the global life-support system and a positive asset that presents **opportunities for sustainable development**. (United Nations Conference on Environment and Development, 3 – 14 June 1992, Report of the Conference, A/CONF.151/26/Rev.1 ("**Agenda 21**"), para. 17.1)

I.
PROPOSED TARGET: ENSURE THAT ALL FISH STOCKS ARE BEING FISHED SUSTAINABLY BY [TARGET DATE].

1. Rationale: Fisheries are a key indicator of ocean health and have a direct link to food security, poverty eradication, and economic development. By taking an ecosystem approach to fishery management that accounts for stock size and environmental stability, we can ensure sustainability of an important source of food and income, while improving ocean health in general.

2. Structure: States have previously made commitments to ensure fish stocks' sustainably. The proposed target incorporates sub-targets and indicators that address unsustainable fishing at its root economic and political causes. They are: (A) fishing at levels above Optimum Sustainable Yield; (B) illegal, unreported, and unregulated fishing; and (C) fishing subsidies that contribute to overfishing, IUU, or destructive fishing. Using these targets to eliminate unsustainable fishing would restore healthy fish stocks to levels that enhance food security, sustain long-term economic development and help to restore the health of the marine environment.

3. General fishery-related text

Summary: States confront a host of problems that undermine sustainable fisheries, including illegal, unreported and unregulated fishing, overfishing, and excess capacity.

- Agenda 21+5 (1997): [T]here is an **urgent need** for . . . [g]overnments to **prevent or eliminate overfishing and excess fishing capacity** through the adoption of **management measures and mechanisms** to **ensure the sustainable management and utilization of fishery resources** and to undertake programmes of work to achieve the reduction and elimination of wasteful fishing practices, wherever they may occur. (Progamme for Further Implementation of Agenda 21, A/RES/S/-19/2, 19 Sept. 2005 (**"Agenda 21+5"**) para. 36(e))

- Agenda 21 (1992): There are **problems** [**threatening fishing sustainability, including]** unregulated fishing, overcapitalization, excessive fleet size, vessel reflagging to escape controls, insufficiently selective gear, unreliable databases and lack of sufficient cooperation between States. **Action** by States whose nationals and vessels fish on the high seas, as well as cooperation at the bilateral, subregional, regional and global levels, **is essential particularly for highly migratory species and straddling stocks**. (Agenda 21, para. 17.45)

Proposed Sub-target A.
Maintain or restore fish stocks to levels that can produce optimum sustainable yield ("OSY")[4]

4. OSY is the management threshold most consistent with the ecosystem approach. It is calculated by modifying MSY to account for relevant economic, social, or ecological factors. See Cochrane, K. and S.M. Garcia. (Eds). A Fishery Managers' Guidebook (2nd ed.), FAO and Wiley-Blackwell, 489 (2009).

Proposed indicator: Tonnage of fish landed in the absence or in excess of OSY as determined by science-based management plans

1. Rationale: Past sustainable development agreements have used MSY as the standard for sustainable fisheries. However, the UN Food and Agriculture Organization ("FAO") has recognized that "[i]n the history of fisheries management, objectives have changed over time; from the MSY approach to maximum economic yield (MEY) to optimum sustainable yield (OSY)."[5] This is because OSY is a more holistic management threshold and is more consistent with the ecosystem approach. OSY is derived by modifying MSY to account for relevant economic, social, and/or ecological factors.

For example, forage fish, like herring or anchoveta, are a source of food for humans, but are also critical prey for potentially more valuable species like tuna or salmon. Declines in forage species produce corresponding declines upward in their food chain.[6] Fishing these species at OSY would incorporate their individual maximum sustainable yields, but also account for their value throughout the food chain and within the marine environment. This would better reflect the need to keep forage stocks stable over the long term.

Incorporating a commitment to OSY into an SDG will encourage evaluation of national, regional, and international quotas that can best determine whether fishing is proceeding sustainably. It will also help lead to greater transparency and increased attention, which will enhance international recognition of science-based fishing guidelines and promote political will to conform to them.

2. Fisheries Yield-Related Text

Summary: States have consistently reiterated their commitment in subsequent agreements, including through "intensif[ied] efforts" to reach a 2015 deadline. With respect to SIDS, they also committed to supporting capacity development to better manage fisheries.

- Rio +20 (2012): We commit to intensify our efforts to meet the 2015 target as agreed to in JPOI to maintain or restore stocks to levels that can produce maximum sustainable yield on an urgent basis. In this regard we further **commit to urgently take the measures necessary to maintain or restore all stocks** at least to levels that can produce the maximum sustainable yield, with the aim of achieving these goals in the shortest time feasible, as determined by their biological characteristics. To achieve this we commit to urgently develop and implement science based management plans, including by reducing or suspending fishing catch and effort commensurate with the status of the stock. We further commit to enhance action to manage bycatch, discards, and other adverse ecosystem impacts from fisheries including by eliminating destructive fishing practices. We also commit to enhance actions to protect vulnerable marine ecosystems from significant adverse impacts including through the effective use of impact assessments. Such actions, including those through competent organizations, should be undertaken consistent with international law, the applicable international instruments and relevant General Assembly resolutions and Food and Agriculture Organization (FAO) Guidelines. (Rio+20, para. 168)

- Mauritius Strategy (2002): [Further action is required to] **[a]nalyse and assess the status of fish stocks**. (International Meeting to Review the Implementation of the Programme of Action for the Sustainable

5 FAO Handbook, note 5 supra, at 61.

6 Pew Environment Group, Science Behind Forage Fish Management (available at http://cerc.labworks.org/2012/posters/Lenfest.pdf) (last visited March 8. 2013).

Development of Small Island Developing States, 10-14 Jan. 2005, Mauritius Strategy for further Implementation of the [Barbados POA], A/CONF.207/CRP.7 ("**Mauritius Strategy**"), para. 23(d)).

- JPOI (2002): [To achieve sustainable fisheries, action is required to] **maintain or restore stocks to levels that can produce the maximum sustainable yield** with the aim of achieving these goals for depleted stocks on an urgent basis and where possible **not later than 2015**. (JPOI, para. 31(a)).

- Barbados POA (1994): Develop and/or strengthen **national capabilities for the sustainable harvesting and processing** of fishery resources and provide **training and awareness programmes** for the managers (Government and local communities) of coastal and marine resources. ([Barbados] Global Conference on the Sustainable Development of Small Island Developing States, 25 Apr. – 6 May 1994, Report of the Global Conference, A/CONF.167/9, Annex II ("**Barbados POA**"), Part IV(A)(iii)).

- Agenda 21 (1992): [States commit themselves to] **[m]aintain or restore populations** of marine species at levels that can produce the **maximum sustainable yield** as qualified by relevant environmental and economic factors, taking into consideration relationships among species. (Agenda 21, 17.46(b))

Proposed Sub-target B
Eliminate illegal, unreported, and unregulated ("IUU") fishing

Proposed Indicator: Amount (in USD) of illegal, unreported, and unregulated fishing at each level of state responsibility.[7]

1. Rationale: IUU fishing is fishing crime estimated to cost between $10 billion and $23.5 billion annually, representing between 11 and 26 million tonnes.[8] It robs countries of their resources and undermines their sustainable development. IUU fishing also undercuts effective data collection. Incorporating IUU fishing into a development goal will encourage states to evaluate and address the IUU fishing conducted within their regulatory competence, be it as a port, flag, or otherwise responsible state.

2. IUU-Related Text:

Summary: Both Agenda 21 and Rio+20 recognize the importance of monitoring and controlling fishing at the flag, and later, at the port, and ownership levels to ensure compliance with regulations.

- Rio+20 (2012 : We acknowledge that illegal, unreported and unregulated fishing deprive many countries of a crucial natural resource and remain a **persistent threat to their sustainable development.** We **recommit to eliminate illegal, unreported and unregulated fishing** as advanced in the Johannesburg Plan of Implementation [which calls for implementation of the IPOA on IUU (see para. 31(d))], and to prevent and combat these practices . . . [through] measures by **coastal States, flag States, port States, chartering nations and the States of nationality** of the beneficial owners and others who support or engage in illegal, unreported and unregulated fishing. (Rio+20, para. 170)

- Agenda 21 (1992): States should take **effective action** consistent with international law t**o monitor and control fishing activities by vessels flying their flag**s on the high seas to ensure compliance with

7 To include coastal, port, flag, and chartering states, and states of nationality of the beneficial owners

8 Agnew DJ, Pearce J, Pramod G, Peatman T, Watson R, et al. (2009) Estimating the Worldwide Extent of Illegal Fishing. PLoS ONE 4(2): e4570.

applicable conservation and management rules, including full, detailed, accurate and timely **reporting** of catches and effort. (Agenda 21, para. 17.51)

Proposed Sub-target C
Eliminate fishing subsidies where they contribute to overcapacity, IUU, and destructive fishing

Proposed indicator: Amount (in USD) of subsidies that contribute to overcapacity, IUU, and destructive fishing.

1. Rationale: Despite broad support for the elimination of fishing subsidies, subsidies continue to encourage overfishing at a rate of $16 billion annually[9] and are single-handedly supporting the world's destructive bottom trawling fleet.[10] They require urgent attention. Overfishing and destructive fishing like bottom trawling will continue unless subsidies are addressed and artificial economic incentives are ended.

2. Subsidy-related Text:

Summary: Since 2002, there has been consensus on the need to eliminate harmful fishing subsidies, coupled with a recognition that the WTO is the appropriate instrument for disciplining violations. Recognizing the pressure on fishing resources, Rio+20 encouraged unilateral subsidy elimination without prejudice to the WTO process.

- Rio+20 (2012): We r**eaffirm our commitment** in the Johannesburg Plan of Implementation **to eliminate subsidies** that contribute to illegal, unreported and unregulated fishing and overcapacity . . . . we reiterate our commitment to **conclude multilateral disciplines** on fisheries subsidies . . . recognizing that **appropriate and effective special and differential treatment for developing and least developed countries** should be an integral part of World Trade Organization fisheries subsidies negotiation, taking into account the importance of the sector to development priorities, poverty reduction and livelihood and food security concerns. . . . **Given the state of fisheries resources,** and without prejudicing the Doha and Hong Kong ministerial mandates on fisheries subsidies or the need to conclude these negotiations, we e**ncourage States to eliminate subsidies that contribute to overcapacity and overfishing**, and to refrain from introducing new such subsidies or from extending or enhancing existing ones. (Rio +20, para 173)

- JPOI (2002): **Eliminate subsidies** that contribute to illegal, unreported and unregulated fishing and to over-capacity, while **completing the efforts undertaken at the World Trade Organization to clarify and improve its disciplines** on fisheries subsidies, taking into account the importance of this sector to developing countries. (JPOI, para. 32(f))

- Agenda 21+5 (1997): [T]here is an urgent need for . . . [g]overnments to **consider the positive and negative impact of subsidies** on the conservation and management of fisheries through national, regional and appropriate international organizations and, based on these analyses, to **consider appropriate action**. (Agenda 21+5, para. 36(f))

9 Ussif Rashid Sumaila & Daniel Pauly (eds.), Catching More Bait: A Bottom-up Re-estimation of Global Fishing Subsidies, Executive Summary, 14 Fisheries Centre Research Reports 6, 2 (2006).

10 Ussif Rashid Sumailaa, et. al., Subsidies to high seas bottom trawl fleets and the sustainability of deep-sea demersal fish stocks, 34 Marine Policy 3, May 2010, 495–497.

II.
PROPOSED TARGET: ENSURE A HEALTHY MARINE ENVIRONMENT

1. Rationale: In order to support long-term sustainability, it is critical to evaluate not only the resources taken out of oceans, but also the health of the marine environment itself. Any effort to effectively manage resources will amount to nothing if the global community is unable to maintain a supportive ocean environment.

2. Structure: States have made commitments to maintaining ocean health across a variety of issues. This target combines these various commitments into a single set of consolidated sub-targets, including: (A) marine pollution discharged; (B) adaptation to ocean acidification; (C) protected area covered by marine management; and (D) area subjected to destructive fishing practices.

Proposed Sub-target A
Protect vulnerable marine areas, including coral reefs

Proposed Indicator: Percentage of vulnerable marine areas protected by MPA's within a state's marine territory

1. Rational: An integrated network of marine protected areas is a critical component of ocean management. While the area covered by protections has increased in recent years, it falls short of the ambitious targets laid out in prior international development agreements.

2. MPA/Management area-related text:

Summary: Area-based marine management is well recognized and has become increasingly popular as an effective tool in protecting marine biodiversity across the globe. States have committed to providing financial and technical assistance, particularly to SIDS, to support these areas and biodiversity conservation generally.

- Rio+20 (2012): We reaffirm the **importance of area-based conservation measures**, **including marine protected areas**, consistent with international law and based on best available scientific information, as a tool for conservation of biological diversity and sustainable use of its components. (Rio+20, para. 177)

- JPOI (2002): Promotes **conservation and management** through action to:

    - **Maintain** the **productivity** and **biodiversity** of **important and vulnerable marine and coastal areas**, including in areas **within and beyond national jurisdiction**. (JPOI para. 32(a))

    - Develop and facilitate the use of **diverse approaches** and tools, **including the ecosystem approach, the elimination of destructive fishing practices, the establishment of marine protected areas** consistent with international law and based on scientific information, **including representative networks by 2012 and time/area closures** for the protection of nursery grounds and periods, proper coastal land use and watershed planning and the integration of marine and coastal areas management into key sectors (JPOI, para. 32(c));

- [Implement **international programmes of action** for the **protection of reefs and wetlands.**] (JPOI, para. 32(b) and 32(e))

- Barbados POA (1994)

  - **Coordinate information exchange, training and technical assistance** in support of national efforts **to establish and manage conservation areas and for species conservation**, including the identification and use of traditional knowledge and techniques for resource management that assist the conservation of biological resources and diversity. (Barbados POA, Part XI(B)(iv))

  - Provide improved access to **financial and technical resources for the conservation of biological diversity**, including funds for basic institutional and logistic support for the conservation and management of biological diversity, with priority to be accorded to terrestrial as well as coastal and marine biodiversity, such as coral reef ecosystems. (Barbados POA, Part IX(C)(i))

Proposed Sub-target B
Adapt to ocean acidification

Proposed indicator: Strategies to account for and adapt to the effects of ocean acidification

A. Rationale: Along with the many other threats posed by climate change, acidification stands to profoundly alter ocean ecology, with potentially dire consequences for all states. Coral reef systems, on which SIDS rely in particular for food, jobs, tourism, and cultural heritage, are particularly vulnerable. Failure to confront this problem could undermine any gains achieved through this goal and through the post-2015 framework more generally.

B. Ocean Acidification-related Text

Summary: Rio+20 recognized the threat that acidification poses to marine and coastal ecosystems and resources, the need to prevent it, and the need for enhanced capacity to adapt to it.

- Rio+20 (2012): We call for support to initiatives that address ocean acidification and the impacts of climate change on marine and coastal ecosystems and resources. In this regard, we reiterate the need to work collectively to prevent further ocean acidification, as well as to enhance the resilience of marine ecosystems and of the communities whose livelihoods depend on them, and to support marine scientific vulnerable ecosystems, including through enhanced international cooperation in this regard. (Rio+20 para. 165)

- Agenda 21 (1992): Transboundary air pollution has adverse health impacts on humans and other detrimental environmental impacts, such as tree and forest loss and the acidification of water bodies. (Agenda 21 para 9.25)

Proposed Sub-target C
Eliminate marine pollution

Proposed indicator: Composite of biological and chemical pollutants discharged

A. Rationale: Marine pollution is a widely recognized barrier to ocean health. This goal encourages states to undertake an assessment of the amount of marine pollution discharged under their jurisdiction or control. Further input from experts is required to identify the pollutants to be measured and to standardize metrics.

B. Marine Pollution-related Text

Summary: States have repeatedly committed to reducing marine pollution, primarily through implementation and extension of international protocols intended to address particular forms of marine pollution.

- Rio+20 (2012): We note with concern that the **health of oceans and marine biodiversity are negatively affected by marine pollution**, including marine debris, especially plastic, persistent organic pollutants, heavy metals and nitrogen-based compounds, from a number of marine and land-based sources, including shipping and land run-off. We commit to take **action to reduce the incidence and impacts** of such pollution on marine ecosystems, including through the effective implementation of relevant conventions. . . . We further commit to take action to, **by 2025**, based on collected scientific data, **achieve significant reductions** in marine debris to prevent harm to the coastal and marine environment. (Rio +20, para. 163)

- JPOI (2002)

    - Advance [**land-based pollution protocols.**] (JPOI, para. 33)

    - Make every effort to achieve **substantial progress . . . to protect the marine environment** by 2006. (JPOI, para. 33(d)).

    - Enhance maritime safety and protection of the marine environment from pollution by actions to [**implement IMO conventions** regarding marine pollution.] (JPOI, para. 34)

- Rio Decl. (1992): National authorities should endeavour to promote the **internalization of environmental costs** and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment. (United Nations Conference on Environment and Development, 3 – 14 June 1992, Rio Declaration ("**Rio Declaration**"), Principle 16).

- Agenda 21 (1992): States, in accordance with the provisions of the United Nations Convention on the Law of the Sea on protection and preservation of the marine environment, commit themselves, in accordance with their policies, priorities and resources, to **prevent, reduce and control degradation of the marine environment** so as to maintain and improve its life-support and productive capacities [including through **application of preventive, precautionary and anticipatory approaches, and ensuring prior assessments.**] (Agenda 21, para 17.22).
    - [Further addresses]:
        - [Strengthening and extending the **Montreal Guidelines** on land-based pollution] (Agenda 21, para. 17.25)
        - [Reducing or eliminating **sewage discharge and other sources** of land-based pollution that threaten the marine environment] (Agenda 21, para. 17.27-28)
        - [Addressing degradation of the marine environment from **shipping, dumping, platforms and ports** through existing and additional appropriate **regulatory measures**] (Agenda 21, para. 17.30)

Proposed Sub-target D
Eliminate destructive fishing

Proposed Indicator: Vulnerable or unregulated area (in sq. km) subjected to destructive fishing practices.

A. Rationale: Areas critical to marine sustainability, including reefs and the deep sea-bed, remain subject to destructive fishing practices. Once destroyed, these areas may never be recovered. Each country should be encouraged to assess and eliminate destructive practices carried out under their jurisdiction or control.

B. Destructive Fishing-related Text

Summary: Both Agenda 21 and Rio+20 include commitments to end destructive fishing practices.

- 2012: We further commit to enhance action to **manage by-catch, discards and other adverse ecosystem impacts** from fisheries, including by **eliminating destructive fishing practices**. (Rio+20, para. 173)

- 1992: States should **prohibit dynamiting, poisoning and other comparable** destructive fishing practices (Agenda 21, para. 17.53)

III.
MEANS OF IMPLEMENTATION FOR ENHANCED CAPACITY

A. Rationale: Meeting the goals outlined above will not be possible without committing additional resources towards on the ground implementation, particularly for SIDS, Least Developing Countries, and other developing countries. The international community must mobilize the necessary resources to develop a sustainable relationship with our oceans, and to assist states where a lack of resources are an obstacle to achieving sustainable development.

B. Structure: Capacity-building in the ocean sustainability context takes at least two key forms. First, there is the capacity of SIDS and other developing states to fully participate in their own resource endowment. Second, there is the related capacity of states for effective monitoring, control, and surveillance ("MCS") of their respective jurisdictions.

C. General Capacity-related text:

Summary: States have repeatedly recognized the special needs and vulnerabilities of SIDS, and have committed to cooperating to enhance their capacity.

- 2005: We recognize the **special needs and vulnerabilities** of small island developing States and **reaffirm our commitment to take urgent and concrete action** to address those needs and vulnerabilities through the full and effective implementation [of the various SIDS strategies] [and] to promote greater international cooperation and partnership for the implementation of the Mauritius Strategy through, inter alia, the mobilization of domestic and international resources, the promotion of international trade as an engine for development and increased international financial and technical cooperation. (WSSD para. 66)

- 2005: **Small island developing States are defined by their historic, cultural and economic links to the oceans and seas.** They continue to be **heavily dependent** on their marine resources, particularly for the sustainable livelihoods of coastal communities. The management of coastal and marine resources have become integrated into broader ocean management strategies since the entry into force of the United Nations Convention on the Law of the Sea. However, for those small island developing States which are States parties to the Convention implementation continues to be impeded by **financial constraints and a lack of capacity**. (Mauritius Strategy, para. 21)

- 2000: We also resolve to address **the special needs of small island developing States**, by **implementing the Barbados Programme** of Action and the outcome of the twenty-second special session of the General Assembly rapidly and in full. We urge the international community to ensure that, in the development of a vulnerability index, the special needs of small island developing States are taken into account. (United Nations Millennium Declaration, A/RES/55/2, 18 Sept. 2000 ("**Millennium Decl.**"), para. 17)

- 1994: The **efforts** of small island developing States to **conserve, protect and restore** their ecosystems **deserve international cooperation and partnership**. (([Barbados] Global Conference on the Sustainable Development of Small Island Developing States, 25 Apr. – 6 May 1994, Report of the Global Conference, A/CONF.167/9, Annex I ("**Barbados Decl.**") Part One, II)

A.
Financial and/ or technical assistance towards participatory capacity building

A. Rationale: SIDS and other developing states will be best positioned to promote the sustainability of marine resources if they can fully participate in their utilization.

B. Capacity-building text

Summary: States have committed to financial, scientific, and technical cooperation in fishery management, and to assist SIDS' development efforts in particular.

- 2012: Rio+20

    - We recognize the **importance of building the capacity** of developing countries **to be able to benefit from the conservation and sustainable use** of the oceans and seas and their resources, and in this regard we emphasize the need for **cooperation in marine scientific research** (Rio+20, para. 60)

    - We urge the identification and m**ainstreaming by 2014 of strategies** that further **assist developing countries**, in particular the least developed countries and small island developing States, **in developing their national capacity to conserve, sustainably manage and realize the benefits of sustainable fisheries**, including through improved market access for fish products from developing countries.

- 2005: Distant-water fishing nations are **encouraged to provide small island developing States** with **adequate technical and financial support** to enhance the effective and **sustainable management** of their fisheries resources. (Mauritius Strategy, para. 24)

- 2002: JPOI

    - [Action is required to] **[a]ssist developing countries** in coordinating policies and programmes at the regional and subregional levels aimed at the **conservation and sustainable management of fishery**

resources and implement integrated **coastal area management plans**, including through the promotion of sustainable coastal and small-scale fishing activities and, where appropriate, the development of related infrastructure. (JPOI para. 30(g))

- Strengthen **donor coordination and partnerships** between international financial institutions, bilateral agencies and other relevant stakeholders **to enable developing countries**, in particular the least developed countries and small island developing States and countries with economies in transition, **to develop** their national, regional and subregional **capacities for infrastructure and integrated management and the sustainable use of fisheries.** (JPOI para. 31(g))

- **Strengthen the capacity of developing countries** in the development of their national and regional programmes and mechanisms to mainstream the objectives of the Global Programme of Action and **to manage the risks and impacts of ocean pollution.** (JPOI para. 33(b))

- 1997: [T]here is an **urgent need** for . . . [g]overnments to take actions, individually and through their participation in competent global and regional forums, t**o improve the quality and quantity of scientific data as a basis for effective decisions** related to the protection of the marine environment . . . [G]reater international cooperation is required to **assist developing countries, in particular small island developing States, to operationalize data networks** and clearing houses for information-sharing on oceans. (Agenda 21+5, para. 36(g))

- 1994: Barbados POA

  - [SIDS] **institutional and administrative capacity** to implement the programme of action **must be strengthened** at all levels **by supportive partnerships and cooperation**, including technical assistance, the further development of legislation and mechanisms for information sharing. (Barbados Decl. Part One, V)

  - Through regional and subregional cooperation, [SIDS] and the international community **should encourage strong functional cooperation** in the promotion of sustainable development by sharing information and technology, strengthening institutions and **building capacity**. (Barbados Decl., Part Two, II)

  - Develop and/or strengthen **regional clearing-houses for coastal and marine environmental information** to facilitate the collection, synthesis and sharing of relevant information, knowledge and experience among small island developing States in a structured and systematic way. (Barbados POA, Part IV(B)(iii))

  - Develop programmes to **enhance negotiating and related skills for the management and exploitation** of coastal and marine resources, including the negotiation of fisheries agreements. (Barbados POA, Part IV(B)(iv))

  - Develop **mechanisms** for the **gathering and sharing of information and expertise, particularly interregionally** among small island developing States, including geographic information systems (GIS) techniques and facilities for the assessment of coastal and marine resources, including the regional nodes of the UNEP Global Resource Information Database. (Barbados POA, Part IV(C)(i))

- 1992: Agenda 21

  - 17.17: **Full cooperation** should be extended, upon request, to coastal States in their **capacity-building efforts** and, where appropriate, capacity-building should be included in bilateral and multilateral development cooperation. (Agenda 21, para. 17.17)

- [Cooperation for sustainable high seas fishing] should **address inadequacies in fishing practices**, as well as in **biological knowledge, fisheries statistics and improvement of systems for handling data**. (Agenda 21, para. 17.45)

- **Adequate** financial, scientific and technological **cooperation** should be provided to support action by [developing states] **to implement [high seas fishery management] objectives**. (Agenda 21, para. 17.48)

B.
Financial and/ or technical assistance towards monitoring, controlling and surveilling marine territory

A. Rationale: SIDS and other developing states may have small terrestrial areas, but they have substantial marine territories. Yet, SIDS rarely have the resources to secure them. Improving monitoring, control, and surveillance ("MCS") capacity is necessary to rationalize SIDS' use of marine resources and to participate in their resources equitably and sustainably.

B. MCS-related Text:

Summary: Effective MCS systems are consistently recognized as a component of fishery-related development and a target for international cooperation.

- 2012: [We recommit to **combating IUU** by, among other things,] cooperating with developing countries to **systematically identify needs and build capacity**, including support for **monitoring, control, surveillance, compliance and enforcement systems**. (Rio+20, para. 170)

- 2005: Mauritius Strategy

  - [Further action is required to] [**e]stablish effective monitoring, reporting and enforcement, and control of fishing vessels**, including by small island developing States as flag States, to further implement international plans of action **to prevent, deter and eliminate illegal, unreported and unregulated fishing and to manage fishing capacity**. (Mauritius Strategy, para. 23(a))

  - [Further action is required to] **[f]ully implement surveillance and monitoring systems.** (Mauritius Strategy, para. 23(c))

- 2002: Action is required to **[e]stablish effective monitoring, reporting and enforcement, and control of fishing vessels**, including by flag States, to further the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. (JPOI, para. 31(g)).

- 1992: Barbados POA

  - Design comprehensive **monitoring programmes for coastal and marine resources**, including wetlands, in order to determine shoreline and ecosystem **stability.** (Barbados POA, Part IV(A)(ii))

  - Develop and/or strengthen **regional capabilities** for the effective **surveillance and monitoring** of activities in the exclusive economic zones of small island developing States. (Barbados POA, Part IV(B)(v))

  - **Support** small island developing States in **establishing national and regional capabilities for the effective surveillance and monitoring** of activities within their exclusive economic zones, setting up

regional and other joint-venture fishing enterprises, **developing inventories of marine resources and regional approaches** to the sustainable management of their exclusive economic zones, and **strengthening regional marine research centres**. (Barbados POA, Part IV(C)(iv))

- 1992: Agenda 21

  - [States commit to] **[e]nsur[ing] effective monitoring and enforcement** with respect to fishing activities. (Agenda 21, para. 17.46(d))

  - States . . . should **cooperate to develop or upgrade systems and institutional structures** for monitoring, control and surveillance, **as well as the research capacity** for assessment of marine living resource populations. (Agenda 21, para. 17.67)

  - **Special support**, including cooperation among States, will be needed **to enhance the capacities of developing countries** in the areas of data and information, scientific and technological means, and human resource development in order to participate effectively. (Agenda 21, para. 17.68)