Views Expressed by the United States Delegation Related to
Certain Key Issues Under Discussion at the
Second Session of the Preparatory Committee on the Development of an International Legally Binding Instrument under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity

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Marine Genetic Resources

Marine Genetic Resources: Common Heritage of Mankind

There is no legal gap in regard to marine genetic resources in areas beyond national jurisdiction. Rather, these resources fall under the high seas regime of international law as reflected in the Law of the Sea Convention (LOSC). Marine genetic resources (MGR) in areas beyond national jurisdiction are not covered by the provisions pertaining to the International Seabed Authority or the Area (Part XI), except as part of the marine environment that must be protected in connection with "activities in the Area" (which are defined as activities of exploration for and exploitation of the resources of the Area; in the context of the Area, "resources" are expressly defined to include only mineral resources).

We support application of the concept of the common heritage of mankind to mineral resources in the Area, as is clearly articulated in the Law of the Sea Convention. However, we do not support the application of this concept beyond that, and in particular, we oppose any application of the concept of "common heritage of mankind" to marine genetic resources in areas beyond national jurisdiction.

Marine Genetic Resources: Definitions

We recommend that we first consider definitions of genetic material and genetic resources that appear in other contexts, including the Convention on Biodiversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) as the basis for this discussion. These definitions can be a good starting point for developing a definition for marine genetic material or marine genetic resources that provides for some consistency across fora yet is also tailored to suit our needs. We note that marine genetic resources should be limited to material from living organisms containing functional genetic units of heredity. The definition should not include material such as enzymes or other proteins or information generated from MGR such as genetic sequence data.

We have reviewed definitions of genetic material and genetic resources used in other contexts, including the Convention on Biodiversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). We have relied on language from those definitions to arrive at definitions of marine genetic material (MGM) and MGR that are inclusive enough to accomplish the ends that we are seeking, and sufficiently tailored to steer clear of

unforeseen or unintended consequences. Specifically, this Prepcom may wish to consider the following definitions of MGM and MGR that include functional units of heredity (DNA) from a plant, animal, or microbe from the seabed beyond national jurisdiction, but not from the water column:

> "*Marine genetic material* means any material of plant, animal, or microbial origin containing functional units of heredity collected from the Area; it does not include material made from material, such as derivatives, or information describing material, such as genetic sequence data."
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> "*Marine genetic resources* means any marine genetic material of plant, animal, or microbial origin of actual or potential value collected from the Area."

Marine Genetic Resources: Fish

In our view, if marine genetic resources from a fish are used for their genetic properties, they should be treated as other MGR under any new instrument. There would be no reason to treat a gene from a fish differently than a gene from any other marine organism. If, however, fish are used as a commodity, then many would fall under existing regimes, including regional fisheries management organizations, and should not be addressed here.

Marine Genetic Resources: *In Situ*, *Ex Situ*, *In Silico*

It is essential to maintain a conceptual and definitional distinction between marine genetic resources themselves and information about those resources. Indeed, for purposes of clarity, we should refer to information taken from MGR by its proper name: genetic sequence data, or GSD, and not use the term *in silico*. GSD is information and its sharing can promote uses of GSD in research and development. If GSD is included, and a decision were made to attempt to trace the downloading and use of such information, how would that work? We struggle to envision a scenario that could be workable. How could we manage benefit-sharing (and promote compliance) if data, something that is freely and openly shared as part of research best-practices, were included in it?

It is best to limit the definition of MGR to *in situ* collection. Including *ex situ* samples and procedures in the definition of MGR would introduce a range of complex variables, such as how materials are collected, transported, and stored. These would dramatically complicate the operation of BBNJ benefit-sharing and move us farther away from achieving our objectives.

Marine Genetic Resources: Access

In the high seas regime under international law, no State nor any other entity has sovereign rights over MGR in areas beyond national jurisdiction. Anyone can freely access such MGR in accordance with international law. As we do not have to discuss issues of ownership of MGR, we are instead free to share ideas on how sharing benefits might allow us to best achieve our overarching conservation objectives, and how such benefit sharing arrangements might work.

Benefit sharing must be considered in the context of how any benefit sharing might allow us to achieve our conservation objectives. We do not want to advance any benefit sharing conditions that might create operational inefficiencies or otherwise obstruct beneficial research or development activities. In our view, especially given the difficulty for many to even access MGR, access to MGR in areas beyond national jurisdiction could itself be considered a benefit, and it is important for this group to discuss how we might be able to advance access as a benefit.

Marine Genetic Resources: Benefit Sharing

MGR in areas beyond national jurisdiction fall under the high seas regime of the law of the sea, and we do not want to see restrictions placed on those resources. If, however, a new instrument were to include a benefit-sharing regime, the benefits should focus on capacity building and conservation. At the last Prepcom session we heard compelling descriptions of the difficulties some scientists, particularly from developing countries, face in terms of having access to BBNJ. Increased access to BBNJ, in ways acceptable to States, could be an example of positive benefit sharing.

Marine Genetic Resources: Water Column

We do not support including MGR found in the water column in any benefit sharing arrangements. There is precedent in LOSC Article 77 for treating species on the seabed floor differently from species in the water column. We support a distinction being made for MGR from the Area and MGR in the water column.

Area-based Management Tools (ABMTs), including Marine Protected Areas

ABMTs, including Marine Protected Areas: General

The United States strongly supports the protection of the marine environment, both within and beyond national jurisdiction, and believes the conservation aspects we are discussing in this Prepcom are critical elements of any potential instrument. We are committed to an ecosystem-based approach to the management of the ocean, using the precautionary approach, and the best available science. This includes using tools such as marine protected areas and coastal and marine planning, which consider all uses of the environment towards the goal of conservation and sustainable use.

As science and experience with existing marine protected areas have demonstrated, when marine protected areas are science-based, designed, implemented, and managed effectively, and used in concert with other appropriate conservation tools, they can contribute greatly to enhancing ecosystem resilience, sustainable use of marine resources, and protecting marine ecosystems and biodiversity. To this end, States could consider establishing as part of the BBNJ implementing agreement a process to identify and designate areas to be protected, for example marine protected areas (MPAs).

MPAs are not exclusively “no take” zones, but rather they are spatial management tools that can allow for varying levels of ecosystem management, conservation, and sustainable use to achieve

specific management objectives based on the characteristics of specific areas. MPAs are most successful when they are supported by the best available science and involve relevant stakeholders in their development and implementation.

An MPA must have clear and specific objectives; defined, user-friendly and science-based boundaries; and a strong link between potential harms to the ecosystem and the management measures developed to address them. MPAs must also be consistent with customary international law as reflected in the Law of the Sea Convention, including but not limited to its sovereign immunity provision in Article 236. As new information becomes available or ecosystem conditions change, there must be flexibility to adapt and respond with new or revised management measure recommendations.

Whatever steps we take here must be based on the best available science, and one of our key tasks is to determine how we can obtain the information necessary to ensure science-based decision-making related to MPAs that is supportable by a wide variety of stakeholders. We must ensure that scientists associated with relevant management sectors, including shipping, fisheries, and mining activities, are fully and adequately engaged in this endeavor, as well as scientists that have expertise in the conservation and management of biodiversity.

ABMTs, including Marine Protected Areas: Scientific and Policy Process

A potential BBNJ implementing agreement could establish a two-step approach, including a scientific process and a policy process, that identifies areas for protection as well as conservation goals and objectives for those areas. The scientific process could identify the area to be protected based on the best available science, including consultation with scientists who have expertise in the conservation and management of biodiversity as well as scientists associated with relevant management sectors (e.g., shipping, fisheries, oil and gas, undersea cable operations, and mining).

We see great value in the progress that continues to be made worldwide in developing and applying scientific and technical criteria to identify marine areas and ecosystems that are ecologically and biologically significant, vulnerable or particularly sensitive. Any BBNJ implementing agreement scientific process should build upon this body of work, and use agreed-upon criteria to identify areas to be protected. We could look to the Convention on Biological Diversity's Ecologically or Biologically Significant Marine Areas and/or the scientific criteria used to identify them as a starting point for developing these criteria. The scientific process must inform the policy process, ensuring that there is adequate scientific basis for the policy process's designation of areas to be protected.

If an institutional mechanism is needed, we should consider one that will allow key decisions to be taken. Decisions might involve, for example, the location of sensitive and/or significant areas to be considered for protection, as well as identification of conservation goals for those areas.

In considering what sort of process might be established, we have looked to the precedent found in Article 36 of the UN Fish Stocks Agreement. Under Article 36, which involves establishment

of a Review Conference, the Secretary-General "shall invite to the conference all States Parties and those States and entities which are entitled to become parties" to the Agreement.

Applying the same logic to BBNJ, we could establish a process that is open to all parties and those States and entities that are entitled to become parties. The process could include a meeting among all such participants at regular intervals, for example every two years, or on an otherwise determined basis. Such an approach can ensure that all States and entities have the opportunity to be involved in decision-making related to designation of marine protected areas where they feel they have an interest. At such meetings the participants, based on advice that comes out of the scientific process, could approve the overall conservation objectives and designate areas for protection based on those objectives. They could then ask existing regional or sectoral bodies to take action within their mandates.

We recognize that the responsibility for managing fisheries activities on the high seas rests primarily with flag States and the relevant regional fisheries management organizations (RFMOs); likewise, shipping regulations and concerns rest primarily with the States and the IMO, while issues concerning the use and regulation of the seabed primarily reside with the States and the International Seabed Authority. We must ensure that we do not undermine or duplicate relevant instruments, frameworks, or bodies that already exist, including by allowing due time for such bodies to complete internal processes for addressing conservation objectives. These sector-specific bodies should develop and implement measures within their competency and mandates. We support the work of the existing regional and sectoral bodies and believe that we must endeavor to work through these organizations to successfully manage areas and activities within their mandates.

If no regional or sectoral body takes action recommended at a BBNJ meeting, for example because they do not have a mandate or competence to take protective action, the States and entities involved could establish a regional mechanism that would be open to all States and entities or could take actions "inter se" to address the issue on an inclusive and transparent basis, consistent with customary international law as reflected in the LOS Convention. We believe this entire process should be inclusive, allowing for "Observer" status for existing regional and sectoral bodies as well as other non-State actors, such as non-governmental organizations, scientific organizations, and the private sector.

Environmental Impact Assessments

The United States agrees with others that any potential new agreement should provide for environmental impact assessments, consistent with and providing greater detail than Article 206 of the Law of the Sea Convention. Impacts statements would provide information to the decision maker and a role for public participation for any planned activities under a State's jurisdiction or control that the State has reasonable grounds for believing may cause substantial pollution of or significant and harmful changes to the marine environment. In the system we have in mind, the process itself is triggered, as under Article 206 of the Law of the Sea Convention, by activities under a State's "jurisdiction or control."

In our view, this would mean that the process is triggered in cases where the State exercises effective control over a particular activity or the State exercises jurisdiction in the form of licensing or funding a particular activity. In the United States, this is framed as projects, plans, policies, and procedures. The basic idea is that the EIA process is triggered where the State interjects itself in a manner inviting public engagement and disclosure of likely environmental impacts of a proposed action that may have significant environmental impact. Outside of these areas, the State would identify the specific proposed actions that trigger the EIA process, and would then engage in the EIA process prior to licensing or funding those actions.

We would support having a tiered structure that is common to many domestic and international environmental impact assessment processes, including those used by the United States, the United Nations Environment Programme, the World Bank, and the Antarctic Treaty system. The tiers correspond to the level of anticipated environmental impact. At the first tier are those actions that normally do not have a significant effect on the marine environment. Categories of such actions may be identified by States ahead of time so that a State can simply confirm that the action is not likely to have a significant impact and does not involve extraordinary circumstances that would make environmental review necessary.

The higher tier would provide for an environmental impact assessment that is proportional to the significance of a proposed action's environmental impact, starting with those proposed actions that are likely to cause significant environmental effects. For proposed actions that are significant, the State prepares a concise "environmental analysis." Such an environmental analysis does what the name suggests: assesses the likely environmental effects of the proposed action and alternatives, which may include alternatives that may mitigate effects of the proposed action. If the analysis finds that there will be no significant environmental effects, then the government produces a written record of this finding.

If the State finds that there will be a significant environmental impact then the proposed action will be reviewed at a greater level of detail in an environmental impact statement. This document, again as the name suggests, describes the anticipated environmental impacts of the proposed action. These statements tend to be detailed documents that include consideration of alternate plans of action and a "no action" alternative; consideration of direct, indirect and cumulative impacts; and any measures to mitigate and monitor environmental impacts.
The purpose of the review is to bring information about anticipated environmental impacts to light, not necessarily to prevent a particular action based on those anticipated impacts. In other words, the EIA process is procedural and does not prejudge the State's decision. Towards this goal, the environmental review features active engagement with the public, including a "scoping" exercise that takes place before the review in order to identify areas that warrant analysis. As a point of principle we believe that the process should include public involvement at the national or sub-national level. Consistent with Article 205, and the general purpose of the EIA process, a report of the results of the EIA process would be published.

In our view, the EIA should be an obligation of States Parties to any potential new agreement, and the procedures would be carried out within and by or under the direction of States. They could be carried out by the States themselves, or under State supervision and subject to State

approval, but they would not be carried out by a BBNJ institution or process. Moreover, EIAs would not be subject to review internationally by any new BBNJ institution or process.

We believe that Strategic Impact Assessments for plans and programs can be useful tools in identifying broad areas of environmental concern along with ways to avoid or mitigate potential harmful effects of a particular policy involving systematic and connected decisions. Like others, we are interested in questions related to evaluating cumulative impacts, and this may be a tool in that regard.

In order to be effective, however, Strategic Impact Assessments should inform development and adoption of a specific policy or program that will be followed. With over 190 States potentially participating in activities beyond national jurisdiction, however, it may be hard to effectively reach agreement regarding a particular policy or program of action. Indeed, this challenge is only heightened by the fact that one of the key functions of a Strategic Impact Assessment is to identify environmentally desirable uses and limits on use of a particular resource in advance. It is perhaps for reasons like this that the Law of the Sea Convention clearly does not require Strategic Impact Assessments, but rather focuses, in Article 206, on specific "planned activities" under a State's "jurisdiction or control."

This broadly accepted approach to Environmental Impact Assessment of activities rather than plans and programs is reflected in other international instruments such as the Espoo Convention. Notably, however, when the Espoo Parties sought to incorporate a Strategic Impact Assessment approach they negotiated a new protocol to the Espoo Convention.

The United States would be interested to hear proposals for how a Strategic Impact Assessment approach could work in the area beyond national jurisdiction, with the recognition, however, that this goes beyond the current scope of the Law of the Sea Convention.

Capacity Building and Technology Transfer

Capacity Building and Technology Transfer: General

The United States strongly supports including provisions regarding capacity building in any potential new instrument on the conservation and sustainable use of BBNJ in accordance with the existing provisions of the LOSC on capacity building and marine technology. We underscore the importance of fostering marine science and further investments in research and development, as well as international scientific collaboration, to improve sharing of knowledge and capacities. The best-available scientific information should form the basis for management decisions and conservation policies, and any potential new agreement on BBNJ.

In our view, a potential new instrument must ensure that capacity building and technology transfer are voluntary, respect intellectual property rights and foster marine science, innovation, research and development.

We fully support the need for meaningful capacity building, as others have persuasively stated. As we consider the scope of this undertaking, we do think it is important to take into account that we are not starting from scratch. We need to consider what is being done now, and in that context consider how we might go farther. We should consider where we have education programs, science training that includes developing country scientists, including early career scientists, programs that exist in the RFMOs, etc.

When it comes to capacity building and technology transfer for marine research and science, we have been supporting work in this regard through the Intergovernmental Oceanographic Commission (IOC), for example, through the IOC Criteria and Guidelines on the Transfer of Marine Technology[1] and in the implementation of data repositories. Furthermore, at the IOC, there is an ongoing effort to understand the capacity needs of developing countries and tailor IOC's capacity-building work to those needs.

We are also supporting capacity building and technology transfer through the Group on Earth Observations Marine Biodiversity Observation Network (global MBON), where there is an ongoing effort to understand needs of member countries with regard to establishment of marine biodiversity monitoring activities, technology applications, and data management. This work is being led by the Group on Earth Observations (GEO) in partnership with IOC.

We have also been participating in the Global Environment Facility (GEF) Areas Beyond National Jurisdiction project, which is exploring ways to better manage fisheries in an ecosystem manner, specifically working with developing nations to enhance their fisheries management sectors.

All of this work builds upon significant capacity building efforts around the globe to support work to preserve and conserve biodiversity.

Delegations have called for more effective and efficient capacity building and technology transfer. We agree with that. There is much more we can be doing to coordinate efforts and increase developing countries' capacities. At the same time, we should not lose sight of work that is already occurring, especially developing countries' efforts to improve absorptive capacity to integrate transferred technologies.

Capacity Building

The United States believes it is important to consider how to integrate practical steps for capacity building into a potential new implementing agreement, keeping in mind that the instrument will exist for a long time, perhaps longer than some of the programs we are talking about. In terms of how capacity and technology needs are to be identified, we believe that provisions in the implementing agreement on capacity and technology transfer should be compatible with, and responsive to, local, national, and regional realities and needs.

Regarding what specific measures might be included in a potential new agreement, we again note the ongoing work of various international organizations, such as the IOC. The IOC has

[1] http://unesdoc.unesco.org/images/0013/001391/139193m.pdf

recently agreed to a Capacity Building Strategy, and has also launched a Capacity Building website that acts as a gateway to the many capacity building activities around the world, and is aimed at improved coordination and cooperation.

Regarding a capacity building clearinghouse, or data clearinghouse that we have heard some delegations reference, we are supportive of establishing mechanisms that are not unduly burdensome, and that will improve the efficiency and effectiveness of existing international mechanisms already in place. In this respect, we note efforts under the IOC's International Oceanographic Data and Information Exchange (IODE).

The IODE was established to enhance marine research, exploitation, and development, by facilitating the exchange of oceanographic data and information between participating IOC Member States, and by meeting the needs of users for data and information products.
A program under IODE, which we have heard about already during the Prepcom, is the Ocean Biogeographic Information System, or OBIS. OBIS serves as a global data sharing platform and clearinghouse for marine biodiversity (biogeographic and biometric) data in all ocean basins, including in areas beyond national jurisdiction (ABNJ). Any clearinghouse efforts under the IA should, we believe, begin with focusing on IODE and OBIS.

With respect to regional training centers, we note that Article 276 of part XIV of UNCLOS encourages the establishment of regional centers in order to stimulate and advance the conduct of marine scientific research, particularly by developing States, and to foster the transfer of marine technology. Again, we would point to ongoing efforts in this regard, such as the IODE's OceanTeacher Program, and the IOC's Regional Network of Training and Research Centres on Marine Science. IODE's OceanTeacher program was started in 2005 with an initial focus on oceanographic data and information management, and has gradually added courses on all IOC activities, such as operational oceanography, marine spatial planning, tsunami warning, taxonomy of harmful algal species, science and spatial data analysis. More than 1,000 graduate students and professionals from 120 countries have been trained so far.

IOC's Regional Network of Training and Research Centres on Marine Science aims to improve regional capability and capacity in marine science in a sustainable and systematic manner, through the establishment of IOC Regional Training and Research Centres in national oceanographic institutes or universities. The overall goal of this project is to help advance marine science capacity in Asia and the Pacific through the transfer of technology.

<u>Transfer of Marine Technology</u>

The United States is prepared to consider for inclusion in an implementing agreement provisions for the transfer of marine technology, provided such transfer is on a voluntary basis, based on mutually agreed terms and conditions, respects intellectual property rights, and fosters marine science, innovation, research and development.

We've already referenced the IOC Tech Transfer Guidelines as a guiding tool for building capacity in marine science and related activities, as have other delegations, and we note that the Guidelines recognize that marine technology includes more than physical infrastructure.

According to the IOC Guidelines, tech transfer includes both physical (infrastructure) as well as non-physical elements (data, knowledge), for example,

- *Information and data on marine sciences*
- *Manuals, guidelines, criteria, standards, reference materials*
- *Sampling and methodology equipment*
- *Observation facilities and equipment*
- *Equipment for in situ and laboratory observations, analysis and experimentation*
- *Computer and computer software, models and modeling techniques*
- *Expertise, knowledge, skills, know-how and analytical methods.*

We view this as a very useful guiding document upon which to build.

Regarding whether we should establish a funding mechanism for capacity building and technology transfer, we are open to discussions on this topic; however we believe that if any trust fund is to be established, it should be purely voluntary in nature.