

POLICY BRIEF

Technology Transfer

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Background

The United Nations Convention on the Law of the Sea (UNCLOS) Part XIV provides for State cooperation with the view to promoting the development and transfer of marine science and technology. In addition, Article 202 refers to the provision of scientific and technical assistance to developing States for the protection and preservation of the marine environment. UNCLOS Part XIV and XIII refer to various forms of technology transfer including training, access to information, international scientific research cooperation and establishing national and regional marine science and technology centres. At the first Prepcom many countries stressed the need to “operationalise” the Technology Transfer provisions of UNCLOS in the development of a new legally binding instrument for the conservation and sustainable use of biodiversity in areas beyond national jurisdiction, under the UNCLOS (“Agreement”). Some states suggested adding further obligations whilst others recalled the voluntary nature of these rules.

Transfer of marine technology is not only a key aspect of capacity building in the proposed Agreement in itself. It is also crucial to successful implementation of all aspects of the Agreement that all nations possess the capacity, science and technologies required to deliver on the needs and requirements that the Agreement will set out.

Thus the relevant technologies include all aspects needed for effective area-based management measures, environmental impact assessments and marine genetic resources. Examples include: IT infrastructure; access to research infrastructure (e.g. AUVs and ROVs); technical equipment (e.g. mapping devices, molecular tools, observation tools); access to information and samples; open data; guidelines and methodologies; training opportunities and innovative marine technology finance mechanisms. Capacity development is crucial to ensure that technology transfer delivers lasting benefits that meet needs of States.

These tools will be crucial both to the effective working of the Agreement in the high seas and international sea-bed area, but will also assist countries to optimise efforts in their national waters and exclusive economic zones.



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Example: UNFCCC Technology Transfer Framework

The Technology Transfer Framework adopted by the UNFCCC established a framework for meaningful and effective actions. **Technology Needs Assessments (TNAs)** are a set of country-driven activities that identify and determine the mitigation and adaptation technology.

The **enabling environments** component of the framework focuses on government actions, such as fair trade policies, removal of technical, legal and administrative barriers to technology transfer, sound economic policy, regulatory frameworks and transparency, all of which create an environment conducive to private and public sector technology transfer.

The **technology information** component of the framework defines the means, including hardware, software and networking, to facilitate the flow of information between the different stakeholders to enhance the development and transfer of environmentally sound technologies.

The **capacity building** component of the framework is a process which seeks to build, develop, strengthen, enhance and improve existing scientific and technical skills, capabilities and institutions.

Mechanisms to operationalise technology transfer

Operationalising technology transfer will require identifying and enhancing existing marine science and technology transfer mechanisms (including those associated with the UNESCO-Intergovernmental Oceanographic Commission in addition to scientific networks) and learning from other models (e.g. the UNFCCC). New mechanisms will also be needed. Innovative Financing, International Cooperation, Endogenous Devel-

opment of Technologies and Collaborative Research and Development are key priority areas. New ocean sustainability finance tools can be an important part of the technology transfer framework, providing a “blue finance hub” as a knowledge, skills and project preparation centre, a virtual or real “Ocean Sustainability Bank”.

Acknowledgement

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