

Briefing Note # 5

Ocean20: Effective Ocean Communication and Connectivity

Key Recommendations:

1. Promote the social and educational role of ocean governance and marine science by positioning the ocean as a physical, economic, social, political, and aesthetic connector that unites people during this time of change.
2. Provide opportunities for all citizens to learn about the ocean across formal and informal channels. Formal education in schools and broader informal communication efforts must include direct linkages between inland and the ocean, as water connects us all.
3. Support the growth of marine and coastal educators networks and encourage the inclusion of educators, the media, aquariums and museums, scientists, science communicators, indigenous leaders, communities, conservation agencies, NGOs, artists and others.
4. Empower communities to actively participate in ocean conservation, recognising traditional knowledge, respecting local leadership and hearing community voices. Strengthen society-ocean connections and enable real participation in decision-making and problem-solving, with true accountability and capacity.
5. Develop and resource national Ocean Literacy Strategy and Implementation Plans, co-designed with diverse stakeholders to ensure alignment with national priorities, social relevance, and broad-based ownership.
6. Promote inclusive communication of ocean knowledge and resources across all age groups, ensuring accessibility for people with visual, auditory, cognitive, or other challenges that limit engagement with conventional materials.
7. Develop and enhance Blue education capacity in terms of teaching staff.
8. Foster equitable collaboration among Indigenous, scientific, and civil knowledge systems to build a knowledge democracy that advances inclusive ocean literacy and addresses research and power inequities.
9. Provide access to ocean benefits and opportunities in the Blue Economy for underrepresented communities.

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Ocean literacy is the understanding of human influence on the ocean and the ocean's influence on humans. However, it goes beyond just knowing facts: it's about developing the knowledge, skills, and values needed to make informed and responsible decisions about the ocean and its resources. Being *ocean literate* means:

- Recognising how much humans depend on the ocean for food, oxygen, climate regulation, trade, recreation and more.
- Understanding how human actions (like pollution, overfishing, or carbon emissions) affect the ocean.
- Feeling empowered to protect and use the ocean sustainably.
- Being able to re-imagine our relationship with the ocean and its future fostering action through behavioral change.

Much has been done in recent years to promote ocean literacy at all levels of society, from primary and secondary school activities, through tertiary education, public awareness campaigns and societal benefit workshops. Within South Africa, as an example, the subject of Marine Science was introduced at the Grade 10, 11 and 12 levels to strengthen knowledge of the ocean and its dynamics at a secondary school level to promote further studies in this field, but also to equip learners with a greater understanding of this massive resource. Yet more needs to be done to develop awareness at all levels of society, particularly the role the ocean plays in our daily lives for communities residing at the coast, but also inland who may not feel connected to the ocean.

The Blue Schools program is an international initiative that promotes ocean literacy and sustainability by integrating ocean-related topics into the curriculum of schools. In South Africa it is hosted by the South African Environmental Observation Network (SAEON), a business unit of the National Research Foundation, funded by the Department of Science, Technology and Innovation (DSTI). The Blue Schools over the past three years have provided opportunities for both coastal and inland learners, educators and communities to connect with the ocean and understand how they influence the ocean and how the ocean influences them. By linking rivers, oceans, weather, and cultural narratives, the programme demonstrates how traditional knowledge and science can be integrated to strengthen public understanding of ocean–land–climate connections. Globally, research shows that there is limited access to ocean science and a lack of understanding about the ocean. Therefore, there has been a concerted effort to include ocean literacy in classrooms. Many of the beneficiaries of the Blue Schools program in South Africa were not aware of ocean literacy before joining the Blue Schools program. We therefore call for inclusive partnerships and cross-generational collaboration through the Blue Schools and other ocean literacy programs to address complex socio-ecological issues facing the ocean.

During South Africa's implementation of Ocean20, community-based ocean literacy programs were implemented with inland communities and a diverse range of stakeholders. The ocean literacy programme was inclusive as it integrated different knowledge systems, values and actions that are relevant to inland communities. This program illustrated that there is a need to include inland communities' voices in knowledge creation, mobilization and action. We recommend that inland communities be included in ocean narratives, Blue economic opportunities and decision-making processes.

The current global situation calls for a rethinking of humanity's relationship with water, from local ecosystems to the interconnected global ocean. The ocean is a fundamental resource that connects all people and can play a central role in citizenship education and identity formation from early childhood through adulthood. Educational programs are crucial to this process. When designed with a long-term vision, they foster ecological awareness, ensure access to information for all, and enable participation in global debates as a democratic right. Through participatory dialogue and perspectives from art, philosophy, and philology, these programs deepen understanding of the ocean's significance.

Educational programs should be based on the idea of the ocean as a connector and key ally in addressing the climate crisis. Protecting the ocean requires universal access to scientific knowledge, educational materials and artistic content. This involves recognizing diverse needs and creating multiple levels of communication and facilitation to remove physical, sensory, cultural, linguistic, and cognitive barriers. Applying these inclusive principles establishes lasting educational processes, accessible information systems, and environments that benefit everyone and strengthen society's relationship with the ocean.

Enhancement and development of Blue Education Programs

Blue Education programs play a critical role in fostering sustainable behaviors and mindsets toward our oceans, particularly among younger generations. Drawing on a multidisciplinary, inclusive, and participatory approach, these programs integrate scientific knowledge, cultural heritage, and artistic practices to engage diverse audiences worldwide. Art, in particular, plays a vital role in ocean literacy by transforming scientific knowledge into emotional, cultural, and imaginative experiences that inspire care and action. While science explains ocean processes, art humanizes them, bridging the gap between information and empathy. By connecting natural and social sciences with Indigenous and Local Knowledge, art creates inclusive spaces for dialogue and understanding. It helps address a core barrier to sustainability: the lack of emotional connection and imagination needed to envision regenerative futures. Through creative expression, people can experience the ocean as a living, interconnected system that sustains both human and non-human life. In this way, art acts as a bridge between knowledge and behavior change—translating complexity into meaning, and meaning into motivation. Integrating art into ocean literacy initiatives strengthens communication, deepens engagement, and fosters a shared sense of responsibility toward a sustainable ocean future.

The objective of such blue education programs is to develop resilient communities equipped with the skills and awareness necessary to contribute actively to ocean sustainability, while promoting lifelong

learning and social inclusion. The following strategies outline practical steps to operationalize Blue Education through inclusive, interdisciplinary, and action-oriented learning.

- **Structured and Phased Learning:**

- Implement a stepwise approach that begins with teacher training, followed by student engagement, practical workshops, and the creation of educational resources.
- Include digital meetings, seasonal schools (summer or winter), and hands-on workshops to ensure continuity and depth of learning.

- **Engagement with Scientific Expertise:**

- Collaborate with marine science researchers across regions to provide students with context-specific knowledge about their local marine environment.
- Ensure at least three interactive sessions where students can directly engage with scientific concepts and research practices.
- Provide access to resources, such as the use of scientific equipment and laboratories, to enable individuals from disadvantaged socio-economic environments to foster a deeper understanding of ocean systems

- **Integration of Arts and Creative Practices:**

- Use art as a lens to explore environmental themes, allowing students to produce their own creative outputs.
- Offer video lessons and practical toolkits adapted to different educational levels to support hands-on learning.

- **Inclusive and Accessible Resources:**

- Develop toolkits and educational materials that are inclusive, catering to diverse audiences including persons with disabilities, neurodivergent students, migrant or multicultural students, and learners experiencing educational poverty.
- Translate resources into the local language that is relevant to the community to enhance engagement and foster trust
- Ensure accessibility through multiple formats such as easy-to-read texts, augmentative and alternative communication, sign language videos, and verbal descriptions.
- Translate materials into multiple languages to support global reach.

- **Peer-to-Peer and Intergenerational Learning:**

- Promote collaboration between students from Fine Arts schools and younger learners through open calls and co-created workshops.
- Encourage mentorship and knowledge exchange across age groups to strengthen community bonds and learning outcomes.

- Mentorship programs in ocean literacy will bridge the gap between knowledge and action by providing opportunities for socio-economically disadvantaged students to receive guidance on topics that they are interested in

- **Digital Platforms and Dissemination:**

- Utilise digital tools, such as interactive maps or online exhibitions, to showcase student work and foster international exchange.
- Ensure that the outputs of workshops and learning activities are widely shared to maximize impact.
- Gaming is a powerful tool in ocean literacy. It enables beneficiaries to interact with the ocean to explore, experiment and solve problems in the virtual environment, especially for those beneficiaries who cannot access the ocean.

- **Principles for Effective Education:**

- Emphasize multidisciplinary, connecting cultural heritage with contemporary environmental knowledge.
- Apply intersectional, inclusive, and participatory methods that empower all learners.
- Anchor programs in research-based insights on behavioral change toward sustainability.
- Focus on developing key competences for lifelong learning, ensuring that students acquire skills that can drive societal transformation.

- **Contribution to Global Ocean Sustainability Goals:**

- Align educational activities with the Decade of Ocean Science for Sustainable Development by generating knowledge that can inform policies and support sustainable practices.
- Foster a mindset shift toward more sustainable patterns, contributing to the growth of a globally connected “blue community.”

Inclusive communication promotes the social and educational role of marine science, especially in this time of significant change, by positioning the ocean as a physical, social, and political connector that includes everyone. This involves developing facilitators, campaigns, and digital resources focused on marine science and blue education.