

## **Priority Area**

Capacity Building, Awareness and Capacity Extension: countries and stakeholders' engagement, training courses, online platforms, etc.

“Transdisciplinarity today is characterized by its focus on “*wicked problems*” that need *creative solutions*, its reliance on *stakeholder involvement*, and engaged, socially responsible science.”

Bernstein (2015)

### **1. Rationale/description**

#### **1.1 Why this is essential for advancing and improving spatial planning for aquaculture**

*Establishing and maintaining aquaculture in marine spatial plans (MSPs) requires the thoughtful integration of long term social-ecological processes that are well supported financially. National and regional institutions and their people are aligned sectorally with societal functions in primary production, conservation, business, etc. with few opportunities to learn in a transdisciplinary way and to share local experiences globally. Successful capacity building of individuals and organizations requires the development of skills - and the confidence to practice them - beyond solid training and experiences in GIS and the latest aquaculture, fisheries and marine science findings. Significant, structural investments in extension services are needed so that they can lead neutral, non-advocacy participatory processes that address community concerns that scope transboundary, nationally, and with First Nations. Participatory scenario planning requires that the participant table be set thoughtfully, that decisions be based upon best available and complete information, ensure and invest in active involvement, and that positive participant interactions and fair decision making are conducted. Directed actions can then make significant changes to governance, rural development, businesses, and financing. Involvement of outside national, regional, and international experts and partners with similar planning efforts and experiences is crucial for the success of local capacity development efforts and the collective goal of sustainable development.*

#### **1.2 What are the gaps and the bottlenecks that need to be addressed to facilitate the implementation of MSP in aquaculture?**

*The principal gaps are inadequate investments in MSP governance systems, extension services, and education. Significant, long-serving investments in intersectoral governance systems connected directly to well-educated, broadly informed, financially viable extension services are required. Extension professionals are informed not only by the latest applied marine science, aquaculture, and fisheries findings (such as Costello 2024 on MSP and fisheries), but also by findings of sectors representing participants in the MSP process. Accelerated investments in continuing education by leaders of major sectors participating in MSP processes are required.*

#### **1.3 What are the challenges at the regional or global level?**

*The major challenge is the lack of funding to place well experienced, educated and nationally-globally informed MSP professionals at the regional/municipal levels. There is far too much “recreating of the wheel”.*

#### **1.4 What are the opportunities at the regional or global level?**

*The principal opportunity is to create an evolving cadre over the long term of leadership professionals who not only maintain a global database of national/regional/local case studies but also can be part of MSP processes on the ground over a longer term - rather than being “parachute experts”.*

#### **1.5 Vision if successfully addressed. Consider what success might look like in different contexts and give a brief description of each.**

**Global** – *A well invested, experienced, transdisciplinary group of globally informed MSP “scholars/practitioners” who can engage locally.*

**National/Regional** - *A well invested, experienced, transdisciplinary group of globally/nationally/locally informed MSP extension professionals organized as a part of an extension service. If adequately financed, they can also engage globally as part of a learning community to bring back challenges/success stories nationally/locally.*

#### **References**

- Bernstein, J. (2015). Transdisciplinarity: A review of its origins, development, and current issues. *Journal of Research Practice* 11(1): R1.
- Costello, M. (2024). Evidence of economic benefits from marine protected areas. *Scientia Marina* 88(1) <https://doi.org/10.3989/scimar.05417.080>