

Table S4. Summary of societal drivers identified from international bodies (n=24) as well as the target variables for sustained observations. Numbers indicate the percentage of the international bodies addressing each of them.

	%	
DRIVERS	Conventions	TARGET VARIABLES
Scientific knowledge and data access	75	Patterns of biodiversity (location of biodiversity hotspots and their relationship to the location of high levels of ecosystem services), primary productivity (photosynthetic activity), harmful algal blooms, zooplankton biomass, fish abundance (catch/captures), levels of bycatch, discards, and waste, population size and trends of threatened species, geographic range and habitat needs of threatened species, key life-history parameters of selected indicator species (leading to detect changes), changes in breeding and nursery areas, reproduction and survival (under eutrophication conditions), noise, species structure of highly productive sea areas
Sustainable use of biodiversity and resources	71	Condition of depleted fishing stocks, population size and trends of threatened species, geographic range and habitat needs of threatened species
Conservation of biodiversity and ecosystems	67	Trends in abundance, distribution and extinction risks of species, cover condition, representativeness, effectiveness of protected areas, trends in genetic diversity, trends in extent condition and vulnerability of ecosystems (for example to degradation by pollutants, bycatch, invasive species), biomes, habitats (e.g. coral reefs), control of harmful invasive species (e.g. in ballast waters), condition of migratory species and corridors, and areas critical for sensitive life stages (e.g. for Arctic species)
Improve management: use of integrated ecosystem approach	63	Assessments on biodiversity and ecosystem services
Development through sustainable economic growth	58	Fisheries, economic benefits, access to marine resources and markets
Capacity building	54	Taxonomy (biodiversity), technology, implementation of effective conservation and management of straddling and highly migratory fish stocks, develop research capacity, strengthen national data systems, strengthen statistical capacities, improve data accessibility, quality and synthesis
Threat prevention and impact mitigation	33	Integrated assessments, sustainability of long-term socioeconomic benefits, assessment of transportation corridors
Environmental quality and health	29	Oil pollution, chemical pollution, sewage, garbage and debris, air pollution, control of harmful antifouling systems, harmful algal blooms, nutrient enrichment and eutrophication, acidification, biotoxins, pathology, emerging diseases, health indices, sound (noise), marine renewable energy developments
Food security	25	Abundance and quality of fisheries stocks, control of harmful algal blooms