Climate change constitutes a key challenge to sustainable fishery management

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Sustainable fishing is a growing concern worldwide. But how easily can fisheries achieve sustainability? A survey conducted as part of the EU-funded EcoScope project sought to discover what EU fishery

stakeholders thought were the main difficulties in sustainably managing European fisheries in the years to come.

Identifying the key difficulties

The comprehensive survey aimed to form a clear picture of the main needs of fishery stakeholders and the challenges and potential obstacles they face. According to 72.2 % of the survey respondents, the effects of climate change are a key difficulty in the future sustainable management of EU fisheries.

The next most important challenges were thought to be by-catch (fish and other marine creatures trapped by fishing nets when fishing for a different species), at 50 %, and protected areas and fisheries restricted areas, also at 50 %. Additionally, an estimated 44.4 % of respondents believed biodiversity indicators to be of vital importance. This was followed by trade-offs between different uses of marine and coastal areas and species distribution, each at 38.9 %.

Following in importance were species interaction (33.3 %), fishing quotas (33.3 %), the conservation status of protected species (27.8 %) and marine spatial planning (27.8 %). Fisheries sustainability indicators came in last at 22.2 %. "The data provided from this survey will be evaluated and implemented by EcoScope, to fine-tune the accuracy of their marine policy scenarios, and spatial planning simulations amongst many other complex models and techniques," stated Associate Professor Athanassios Tsikliras of EcoScope project coordinator Aristotle University of Thessaloniki, Greece, in a news item posted on the project website.

"EcoScope Project is well-positioned to address many of the key concerns and needs reported in this survey," continued Assoc. Prof. Tsikliras. "The insights obtained are highly valuable for the development

of the EcoScope e-tools and the project will continue to engage with stakeholders to ensure the final tools address stakeholders' needs."

The EcoScope toolbox

The project is developing a series of user-friendly e-tools that can function as a decision support system for stakeholders aiming to implement an ecosystem-based approach to fisheries management. As described on the project website, the toolbox will use an interdisciplinary scoring system that combines oceanographic, climatic, environmental, habitat, biological, community, fisheries and economic indicators.

"The scoring system will be based on a set of metrics that will measure the success of a specific variable with respect to a sustainable target. For example, one (fisheries) metric could be the percentage of stocks sustainably exploited or the conservation status of vulnerable species within a case study (ecosystem, area or country), and the sustainability target will be 100%. A metric will score 100 if its maximum sustainable gains are achieved and the ecosystem's ability to deliver those gains in the future is not compromised … Lower scores will indicate that more gains could be achieved or that current methods are unsustainable and future gains are compromised."

The EcoScope (Ecocentric management for sustainable fisheries and healthy marine ecosystems) survey was designed by project partner European Marine Board, Belgium. The 4-year project ends in August 2025.

More information: EcoScope project website: ecoscopium.eu/

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