Artisanal fisheries through the lens of the Sustainable Development Goals

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Background

Artisanal fisheries are the lifeblood of coastal societies in the Global South, providing jobs and food for millions of people. Despite their importance at the interface of many Sustainable Development Goals (SDGs), these fisheries are still relatively unknown and are often marginalised by public policies that favour industrial fisheries. These fisheries are more difficult to manage and also more likely to develop in an unsustainable manner. The field of artisanal fisheries has been the subject of many studies in both the natural & fisheries sciences as well as social sciences. However, few studies have attempted to marry the two communities to pave the way for more holistic studies that promote the sustainability of these activities in wider socio-ecosystems.

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Further reading

FAO, 2015 – *Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication.*

Artisanal fisheries: a complex issue

For a long time, studying the sustainability of fisheries has been confined to assessments of exploited fish stocks, encouraging the extraction of fish resources below the permitted limits to ensure that fish stocks can recover. However, both in terms of ecosystems – under pressure from factors other than fishing, such as climate change or the destruction of important habitats – and socioeconomically, small-scale fisheries are part of complex socio-ecosystems, on which their sustainability depends. Truly sustainable fisheries management requires a better understanding of the complex relationships between the various components of the system, whether it be the health of the ecosystems, how they adapt to natural and anthropogenic pressures, the fishing activity itself and the investment needed to carry it out, the economy of the fisheries and the income it generates for the various stakeholders, or how the fisheries are used for personal consumption and the nutritional value they provide. For example, should fishing quotas in a given context simply be reduced to preserve stocks over the long term? Or, conversely, should they be increased to increase employment and ensure food security? Is it a good idea to subsidise the industry to encourage access to more remote fishing grounds? These seemingly simple questions reveal complex underlying mechanisms with multiple implications in which sustainability issues appear to be multi-criteria.

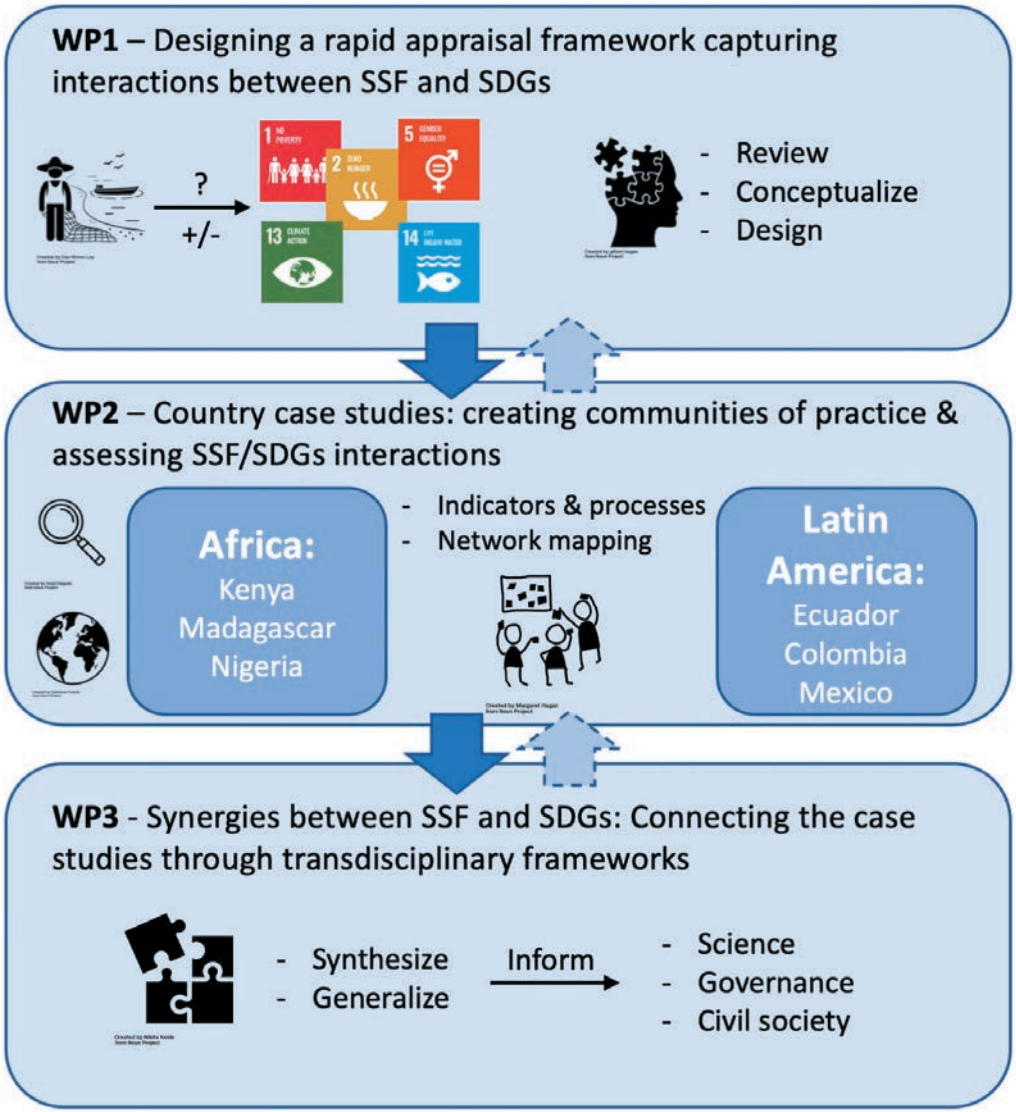
The angle of sustainability science

The approaches proposed by sustainability science seem particularly appropriate in this context. A general analysis of these socio-ecosystems can certainly provide a better understanding of the positive and negative interactions between the components involved in artisanal fisheries. These components can be mapped onto the SDGs and their indicators to ensure that specific actions aimed at supporting certain SDGs do not unnecessarily penalise other important SDGs.

Fish2Sustainability project

The Fish2Sustainability project (Pathways to Sustainability, Belmont Forum, 2021) focuses on Small-Scale Fisheries (SSF) and involves more than 30 researchers from 12 different countries. This highly interdisciplinary group includes experts from the social sciences (e.g. environmental economists, gender specialists, political scientists, geographers, sociologists), the natural sciences (e.g. marine ecologists, fisheries scientists and climate scientists) and the data sciences (e.g. geomatics and open data specialists). These experts include scientists, but also representatives of governments, the United Nations and non-governmental organisations (NGOs).

The group also collaborates with more than 15 partner organisations in the six countries studied, thereby reaching out to a variety communities involved in fisheries and their



Organisation of the Fish2Sustainability project.
SSF: Small-Scale Fisheries; SDG: Sustainable Development Goals.

governance. Together, these stakeholders are coordinating their actions across three main work packages (WPs): designing an approach (WP1), testing it with partners in three African and three Latin American countries (WP2), and building knowledge that can inform decisions (WP3).

KEY POINTS

Sustainability issues in artisanal fisheries raise very complex problems with multiple ramifications that extend well beyond issues of fishery resource sustainability alone. Lying at the crossroads between natural and social systems, these issues lend themselves well to sustainability science approaches, which study the causal relationships between components of complex socio-ecosystems. The Fish2Sustainability project aims to develop and test methods for formalising these relationships to provide a more meaningful analysis of a given study context and suggest ways to improve the sustainability of these fisheries and the socio-ecosystems that depend on them.

SUSTAINABILITY SCIENCE

UNDERSTAND, CO-CONSTRUCT, TRANSFORM

Collective thinking coordinated
by Olivier Dangles and Claire Fréour

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