

Small Fish and Food Security: Towards innovative integration of fish in African food systems to improve nutrition

The importance of small fish is neglected, misrepresented and undervalued in the global food discourse and in the Sustainable Development Goals

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ABSTRACT

Small fish from small-scale fisheries are the most eco-friendly and socially equitable food production system we have.

They sustain essential food security and supply vital nutrients for millions of people in developing countries.

Fish are the biggest source of harvestable protein we have. By fishing small fish lower in the aquatic food chain we can increase food production significantly.

However, small-scale fisheries are undervalued in the global food discourse and under increasing pressure from misguided reforms and maladapted regulations.



Photo by Modesta Medard

Important livelihood

Small-scale fisheries are crucial in Africa for feeding over 200 million people and for the income of numerous fishers', processors and traders.



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However, the importance of small-scale fisheries' contribution to the diets, nutrition and health, particularly for low income people and vulnerable groups, is undervalued and unreported.

Food and nutrition

The unique content of nutrients in fish plays a significant role in combating the triple burden of hunger, micronutrient deficiencies and non-communicable diseases.

However, fish are largely absent from the global food security discourse (HLPE 2014), and fish is strikingly missing from strategies for reduction of nutrient deficiency, precisely where it could potentially have the largest impact.

Governance for food security

Catching wild small fish species from both marine and freshwater fisheries are the most energy and cost-efficient human food production system and have the least environmental impacts in terms of greenhouse gases, water use, fertilizers, insecticides or herbicides compared to other human food production systems.

Small fish provide the bulk of fish supply for food security and nutrition in developing countries (Kolding et al. 2014). Their sustainable utilisation will be crucial for meeting the challenge of feeding an increasing population (Béné et al. 2015).

Restricting fishers access and regulating their traditional fishing practices is often seen as a prerequisite for achieving a sustainable utilisation of fish resources. However, many small-scale fisheries are characterized by self-governing mechanisms that have significant conservation value (Kolding et al. 2014).

Constraints and challenges

Western-inspired management models makes small-scale fishers subject to a negative image, particularly for using indiscriminate fishing methods to catch small fish (Kolding & van Zwieten 2011)

The sector is therefore vulnerable and under increasing pressure. The push for governance reforms, entailing gear-, mesh-size effort control, usually results in marginalization, increased conflicts and lower catches.

The ecosystem Approach

Recent findings challenge the mainstream fisheries narratives and suggest that small-scale fishers' exploitation pattern often might be closer to an ecosystem approach than conventional selective fisheries (Kolding et al. 2014).



Photo by Ragnhild Overå

SmallFishFood project

The LEAP-agri "SmallFishFood" project offers innovative thinking by focusing on how the utilization of small fish (often labelled as trashfish) can be transformed in a direction where fisheries governance, marketing mechanisms and health policies ensure that the value of these fish is recognised and that they are utilised sustainably for human consumption and good health.

We investigate sustainable intensification from two perspectives: How to maximize and preserve nutritional value, while minimizing the environmental impacts and maintain the ecosystem structure and functioning.

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