



THE ROLE OF AQUATIC FOODS IN SUSTAINABLE HEALTHY DIETS

Diverse aquatic foods – including animals, plants and microorganisms farmed in and harvested from water, as well as cell- and plant-based foods emerging from new food technologies – have an essential role in ensuring food and nutrition security, while providing equitable livelihood benefits to people around the world. Aquatic foods from our oceans and inland water bodies are rich sources of micronutrients: iron, zinc, calcium, iodine, vitamins A, B12, and D. They also provide essential fatty acids that are necessary for brain growth, cognitive development, health and well-being. Aquatic foods also offer opportunities for greater ecosystem sustainability, as producing aquatic foods has a lower environmental cost compared to producing most terrestrial animal-source foods. Moreover, as many rural poor are engaged in small-scale fishing and aquaculture activities, these aquatic foods, especially small fish, may be the most culturally acceptable, accessible and affordable animal-source food available. The cost of a healthy diet remains unaffordable to many, and food and nutrition insecurity has been further exacerbated by the COVID-19 pandemic, highlighting the fragility of the global food system. Aquatic foods hold the potential for a major contribution to global food system transformation, transitioning towards diets that are socially, economically and environmentally sustainable.



The [UN Nutrition discussion paper \(2021\)](#) presents evidence to inform and steer policy, investments and research to leverage on the vast potential of aquatic foods in delivering sustainable healthy diets and in meeting the Sustainable Development Goals (SDGs). In recognizing the role of aquatic foods in transforming food systems, this policy brief provides recommendations for policy makers and other stakeholders to ensure that aquatic foods become part of sustainable healthy diets and food systems.

WHO IS THIS POLICY BRIEF FOR?

1. **Stakeholders¹ in Health and Nutrition** that may be aware of public health and nutrition benefits of aquatic foods; however these foods are not always recognized in health and nutrition policies, programs and strategies, and stakeholders may not be aware of broader impacts on fisheries, aquaculture and aquatic food systems.
2. **Stakeholders in Fisheries and Aquaculture** that contribute to or mainstream health and nutrition in all policies and programmes and bring issues of equity to the forefront.
3. **Stakeholders in Food and Agriculture-related Ministries** that can increase the recognition of the interconnectedness of aquatic and terrestrial food systems, highlighting the need for stakeholders from a multitude of backgrounds to work together to find solutions for healthy diets from sustainable food systems.

¹ Including policymakers, government, investors, research institutions, aid organizations, private sector, community leaders and individuals.

RECOMMENDATIONS

1. Encourage diversified consumption of aquatic foods, including low-trophic aquatic foods

The diversification of consumption patterns should be encouraged through shifts in consumer behaviour and demand towards diverse, sustainable aquatic foods, and in particular, low-trophic aquatic foods. Low-trophic aquatic foods, such as pelagic small fish, bivalves, and seaweed, have a higher biomass and lower environmental impact, and are often more affordable and accessible. In addition, many low-trophic foods such as pelagic small fish can be consumed whole, including parts such as bones, eyes and viscera, which are rich in micronutrients that are key for brain and cognitive development.

Several pathways to diversified consumption have been identified, including the creation of an enabling environment to encourage development of affordable, convenient, shelf-stable and desirable food products. Innovations in the supply chain should also be driven towards developing aquatic food products that are safe, diverse and nutritional while reducing the waste and loss of aquatic foods.

The inclusion of diverse aquatic foods in national food-based dietary guidelines, including quantified consumption recommendations based on socio-cultural and demographic context, increases the potential of aquatic foods consumed in complementarity with other foods. There is also a need to include aquatic foods into national nutrition strategies and interventions in the first 1 000 days of life, school feeding programmes and social safety nets. Public procurement programmes must emphasise using aquatic foods and aquatic food products sourced from local producers.

2. Ensure equitable and sustainable supply and production of aquatic foods

Strategies for ensuring equitable and sustainable supply of aquatic foods, without putting more pressure on food systems, include measures to reduced food loss and waste, regulating safety of aquatic food and food products, and improving facilities along aquatic food supply chains. The development of food products with an extended shelf life can increase access to aquatic foods for communities further away from waterbodies.

There are various interventions in the production sphere, such diversifying the types of aquatic foods in aquaculture and capture fisheries; improving access to productive resources; mainstreaming nutrition-demand in production methods; and reducing the reliance on feed inputs that can be directly consumed by humans. To implement these interventions, governments can support and build the capacity of small-scale fishers, fish workers, and fish farmers – which are often more sustainable and contribute directly to food and nutrition security – by adopting and implementing key principles from the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication.

Governments can bring equity considerations to the forefront and mitigate social impacts of fisheries subsidies reforms by earmarking funds for nutrition-sensitive investments for social equity and gender equality for small-scale fisherfolk; and ensure that fisheries management policies protect dependent communities and safeguard physical, economic and institutional access to and availability of aquatic foods. In addition, governance aspects, both of special economic zones and deep sea areas, need to be improved in favour of protecting the livelihoods of small-scale fisherfolk as well as protecting of marine resources.

3. Democratize knowledge, data and technologies

Policies, investment and research should aim to co-create meaningful knowledge and usable innovations. They can do this by improving the quality of data collection of aquatic food systems and gather data beyond production - including processing, distribution and retail - to better understand and gain insights into consumer demand for aquatic foods. Evidence-based and data-driven policy recommendations should drive production interventions and supply chain systems that mirror consumers' needs and demands.

By directing investments towards building data on nutritional composition and contaminants of the broad range of aquatic foods that are locally consumed or culturally important, policy makers should also engage with the private sector to develop desirable products to promote the consumption of nutritious aquatic foods.

Diverse aquatic foods have an essential role in sustainable healthy diets for many people around the world, now and in the future.

Read the full UN Nutrition discussion paper on [The role of aquatic foods in sustainable healthy diets](#).

REFERENCES

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