

FACTS ABOUT FINFISH AQUACULTURE

The Need for Finfish Aquaculture in Europe and Beyond

Why Fish Farming Production is Key to a Sustainable Blue Future?

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The global demand for seafood is growing, driven by rising populations and an increasing appreciation for the nutritional benefits of fish. In this situation, finfish aquaculture emerges as a cornerstone of sustainable food systems, where Europe and the EU play a pivotal role. But what does this industry look like today, and how does it contribute to global goals for sustainability and self-sufficiency?

Globally, finfish aquaculture is a growth story like no other. Between 2012 and 2022, the sector expanded at an impressive average annual rate of 3.82%, producing 61.6 million tonnes by 2022. This steady rise highlights its central role in feeding the world. In Europe, production has grown at a slightly lower but still robust pace of 3.33% annually, culminating in 3.4 million tonnes in 2022. (FAO, 2025)

While countries like Norway and Turkey dominate the European aquaculture market, the EU-27 countries—with their slower growth rate of 2.03% annually—produced 570,273 tonnes finfish in 2022. This represents a modest but vital contribution to the sector, as the EU works to increase its capacity to meet rising local demand (FAO, 2025).

The Federation of European Aquaculture Producers (FEAP) stands as a significant force, representing key contributors like Atlantic salmon, Rainbow trout, European seabass, and Gilthead seabream. Collectively, FEAP members produce a substantial portion of Europe's finfish aquaculture output, showcasing the sector's potential for further expansion (FEAP, 2023).

Despite the sector's growth, the EU-27 lags in self-sufficiency. Finfish aquaculture production meets only 30% of the EU's apparent consumption, which stood at 1.9 million tonnes in 2022. Local fish aquaculture production totalled just 564,782 tonnes, leaving a significant reliance on imports. This gap highlights an urgent need for investments to bolster aquaculture's capacity, improve efficiency, and enhance food security for the region (EUMOFA, 2024).

It is important to know, that finfish aquaculture doesn't just provide food; it's a powerful engine for sustainability, addressing multiple UN Sustainable Development Goals (SDGs). By producing high-quality protein at scale, aquaculture combats hunger and malnutrition, particularly in underserved regions (SDG2). Seafood's nutritional profile—rich in omega-3 fatty acids, vitamins, and minerals—supports better health outcomes worldwide (SDG3) (Troell et al., 2023).

Sustainability is also in the focus of the aquaculture sector. Better environmental performance (SDGs 6, 12, 13, 14, 15) is one of the main goals of the technology developments in the sector. From water conservation through recirculating aquaculture systems (RAS) to reducing pressure on wild fish stocks with innovative feeds, the sector prioritizes responsible production.

Technological advancements like aquaponics and circular bioeconomy practices enhance sustainability while paving the way for urban aquaculture systems (SDGs 7, 9, 11, 17).

Beyond the environment, aquaculture is also a driver of socio-economic progress. By creating jobs in coastal and rural areas, often for marginalized groups and women, the sector reduces poverty and fosters inclusivity. (SDGs 1, 5, 8, 10) (FAO, 2024).

Sustainable aquaculture is synonymous with innovation. Today, alternative feed ingredients—such as insect meal, microalgae, and single-cell proteins—are transforming how fish are fed, reducing

the industry's reliance on wild-caught fish. Circular practices, such as upcycling by-products, ensure that aquaculture remains resource-efficient and environmentally friendly.

Moreover, finfish farming's environmental footprint is significantly smaller than traditional livestock farming (Gephart et al., 2021). Producing one kilogram of fish requires far less land and water than beef or pork, and it generates lower greenhouse gas emissions. These efficiencies position finfish aquaculture as a critical solution in the fight against climate change.

European fish farming has enormous untapped potential. With strategic investments in innovation, improved management practices, and ecosystem-based approaches, the sector can bridge its self-sufficiency gap while supporting global sustainability goals.

From reducing hunger and advancing health to preserving our oceans and promoting social equity, finfish aquaculture is more than just an industry; it's a pathway to a sustainable blue future. Europe, with its wealth of expertise and resources, has an opportunity to lead this transformation. By doing so, it will not only secure its place as a global aquaculture powerhouse but also contribute meaningfully to a healthier planet for all.

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