

# FACTS ABOUT FINFISH AQUACULTURE

DATA ABOUT  
THE SUSTAINABILITY  
OF EUROPEAN  
FISH FARMING

#WEARETHEFUTURE



The Federation of the European Aquaculture Producers (FEAP) is the united voice of the European aquaculture sector, being the federation of national aquaculture associations in Europe that represent professional fish farming.

With 24 members drawn from 23 countries across the European continent, FEAP supports and promotes the responsible development of aquaculture and provides common positions and opinions to express the sector's views.

### **FEAP's Mission**

- Ensure a proactive position in front of relevant authorities and interests.
- Provide accurate information and sound rationale to policy and decision-makers.
- Ensure a coordination role supporting its national member associations and the aquaculture profession.
- Communicate accurate and unbiased information on aquaculture processes and products to consumers.
- Guarantee valid, consensual and timely responses to critical issues.
- Develop the structure and operations required to represent the sector at European and global levels.

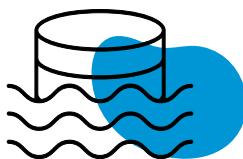
More information about FEAP is on [www.feap.info](http://www.feap.info)

The references for the presented data are available at:  
[feap.info/factsaboutfishfarming](http://feap.info/factsaboutfishfarming)

# FACTS ABOUT

# FISH FARMING PRODUCTION

Fish farming occurs in various environments, including the sea, inland areas, tanks, pens, and ponds, and involves the production of hundreds of different species. Below are some key statistics on the primary species cultivated globally, within the European Union, and by FEAP member countries in 2022.



Marine pen production



Land based freshwater and marine production



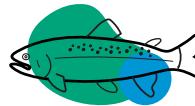
Atlantic salmon



European seabass



Gilthead seabream



Rainbow trout



Common carp



2,869,418



293,619



344,393



1,004,300



4,012,665



13,081

90,882

106,837

169,930

63,866

1,899,674

256,577

245,402

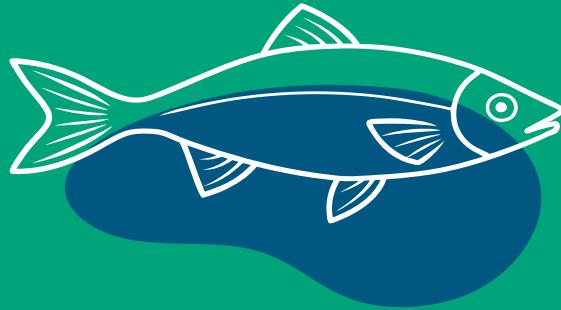
402,551

53,464

# FACTS ABOUT

# CONTRIBUTION OF FISH FARMING TO SDGs

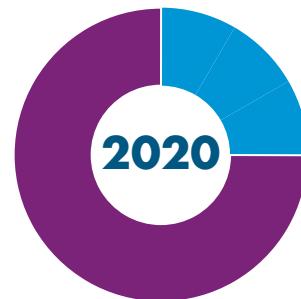
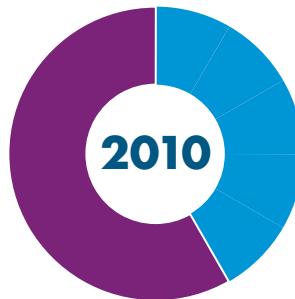
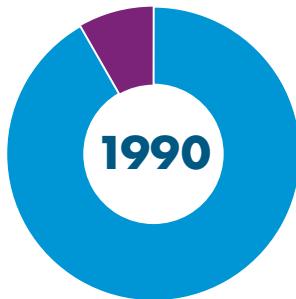
Fish farming plays a significant role in contributing to the United Nations Sustainable Development Goals (SDGs) by addressing issues related to food security, environmental sustainability, social well-being and economic development.



## FACTS ABOUT

# FISH FEED INGREDIENTS

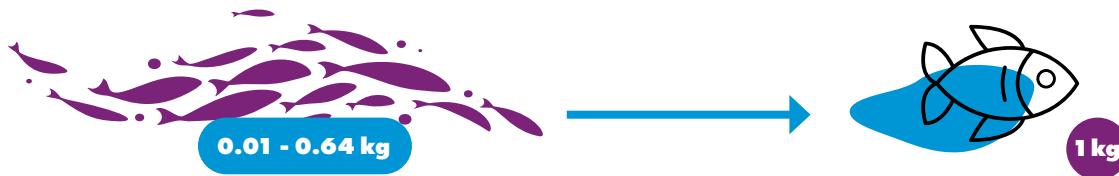
Fish feeds, like all animal feeds, are composed of a variety of ingredients designed to meet the specific nutritional needs of fish. In recent years, significant advancements have been made in fish feed formulation to optimize Feed Conversion Ratio (FCR) values and enhance environmentally sustainable, well-balanced ingredient sourcing.



● Percentage of fish meal and fish oil in salmonid feed

● Percentage of land based ingredients in salmonid feed

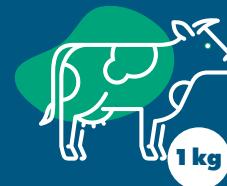
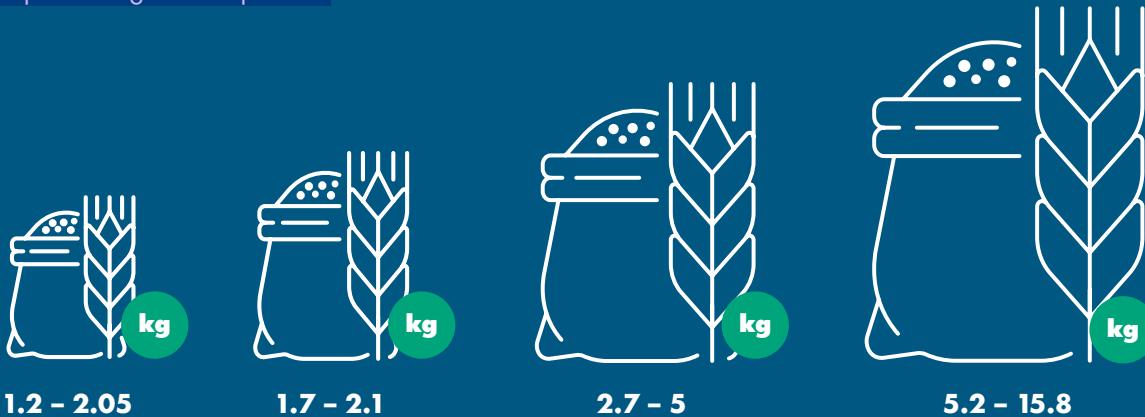
The proportion of fish meal and fish oil in fish feed has significantly decreased, while the use of by-products from fish processing has increased. Combined with other advancements in fish feed development, this has resulted in a substantial reduction in the amount of captured wild fish needed to produce one kilogram of farmed fish.



## FACTS ABOUT

# FEED CONVERSION RATIO IN FISH FARMING

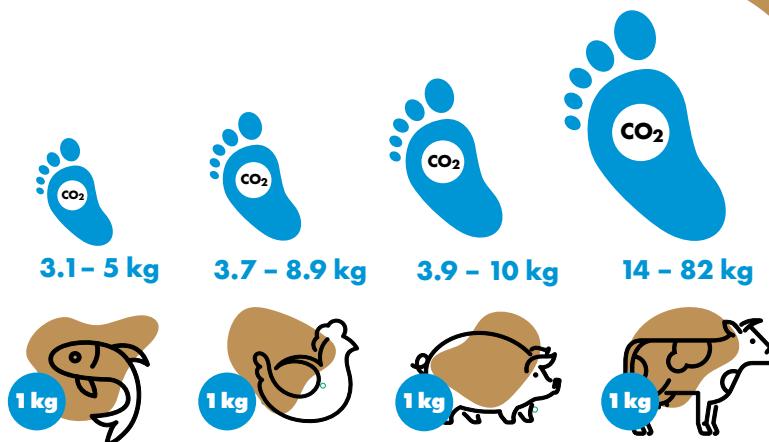
The number of kilograms of feed required to produce 1 kilogram of live animal is significantly lower in fish farming compared to other animal production sectors. This efficient Feed Conversion Ratio (FCR) makes fish farming one of the most sustainable methods of producing animal protein.



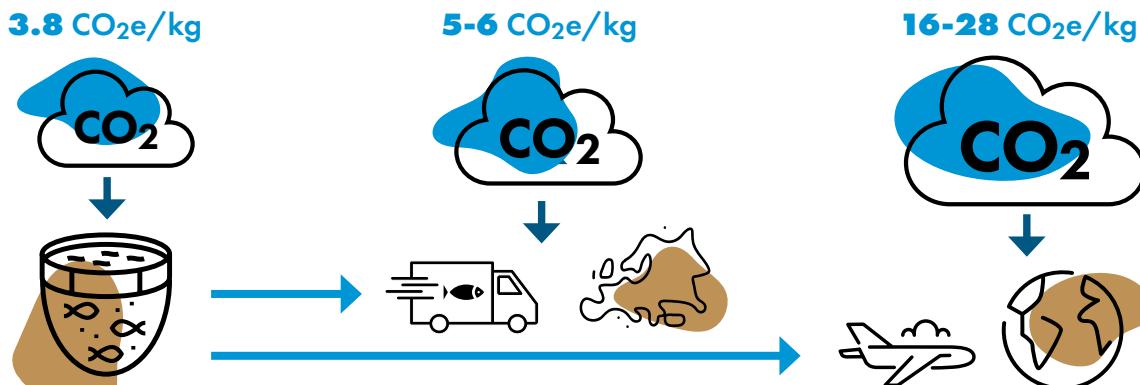
## FACTS ABOUT

# CARBON FOOTPRINT OF FISH FARMING

The carbon footprint of animal farming is assessed using Life Cycle Assessment (LCA) methods, which consider all greenhouse gas (GHG) emissions produced throughout each stage of the production process. These emissions, associated with producing 1 kilogram of farmgate product, are converted into kilograms of CO<sub>2</sub> equivalent (kg CO<sub>2</sub>e) for standardisation.



The carbon footprint of farmed fish products also depends to a large extent on where they are marketed. Land transport and air freight significantly increase the CO<sub>2</sub> emissions of fresh fish.



## FACTS ABOUT

# FRESHWATER USE OF FISH FARMING

The consumption of freshwater in both marine and freshwater fish farming is negligible. Freshwater use in fish farming is primarily linked to feed production. In freshwater fish farming, the majority of the water in which the fish are raised also provides crucial ecosystem services.



0.3 – 2.2 m<sup>3</sup>



2.2 – 6.2 m<sup>3</sup>



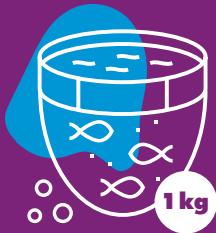
0,4 – 9 m<sup>3</sup>



1.7 – 17 m<sup>3</sup>



1.4 – 150 m<sup>3</sup>



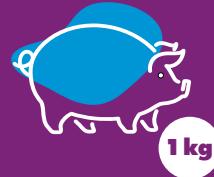
Marine fish



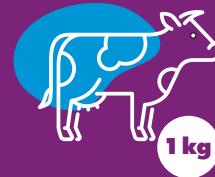
Freshwater fish



1 kg



1 kg

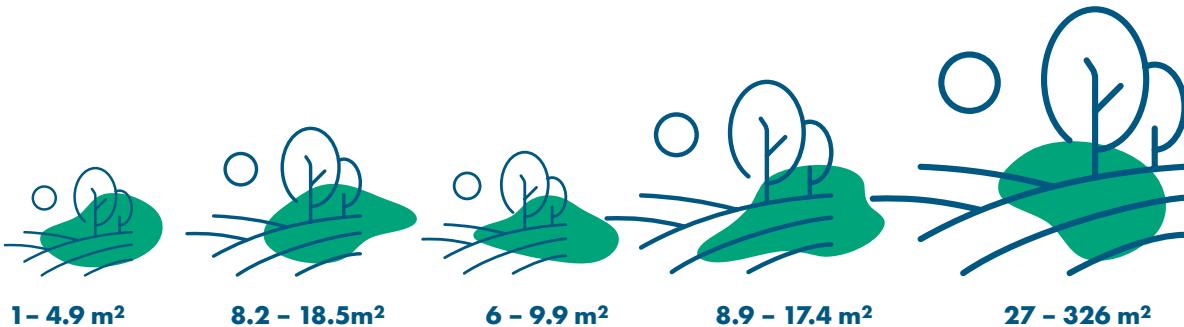


1 kg

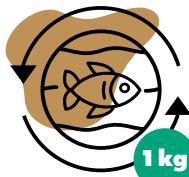
## FACTS ABOUT

# LAND USE OF FISH FARMING

The land use of intensive fish farming to produce 1 kg of fish is primarily linked to the cultivation of plants for feed production. In extensive fish farming, such as carp farming, the fish pond areas also serve as wetlands, which play a vital role in supporting biodiversity, regulating the water cycle, and providing numerous important ecosystem services.



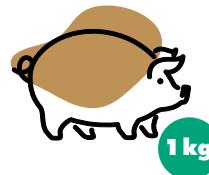
Intensive fish farm



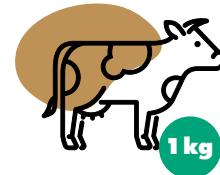
Extensive fish farm



1 kg



1 kg

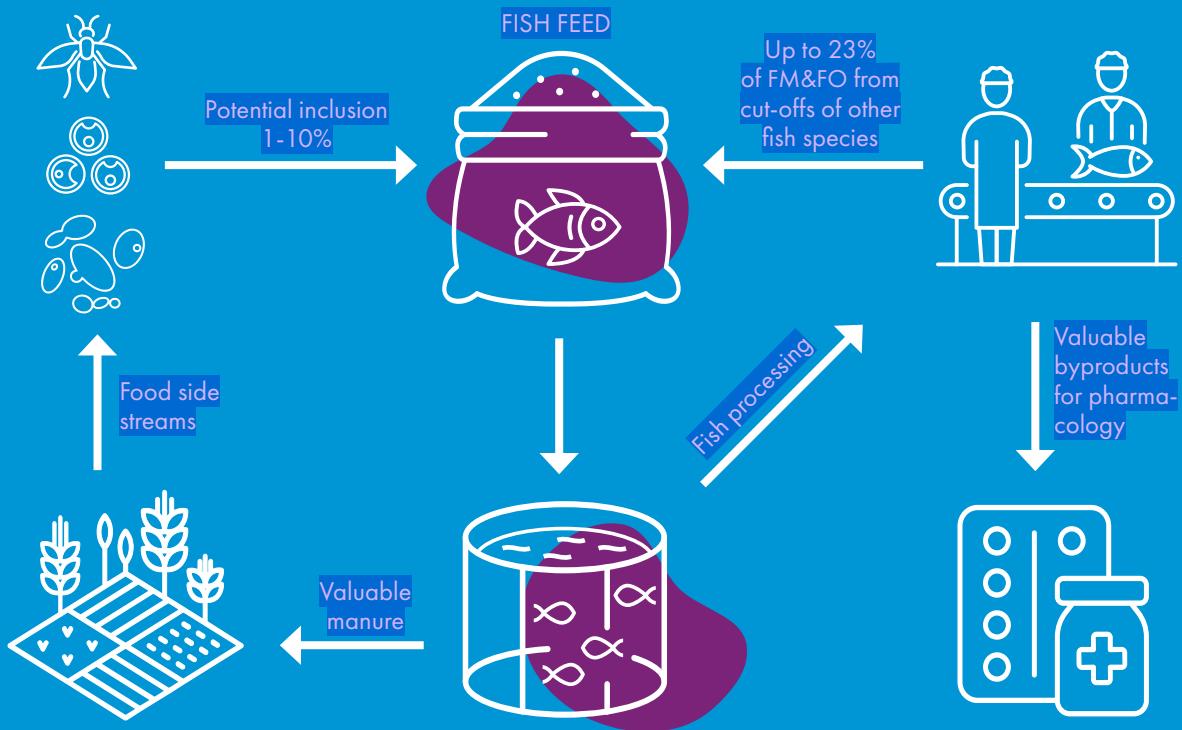


1 kg

## FACTS ABOUT

# CIRCULARITY IN FISH FARMING

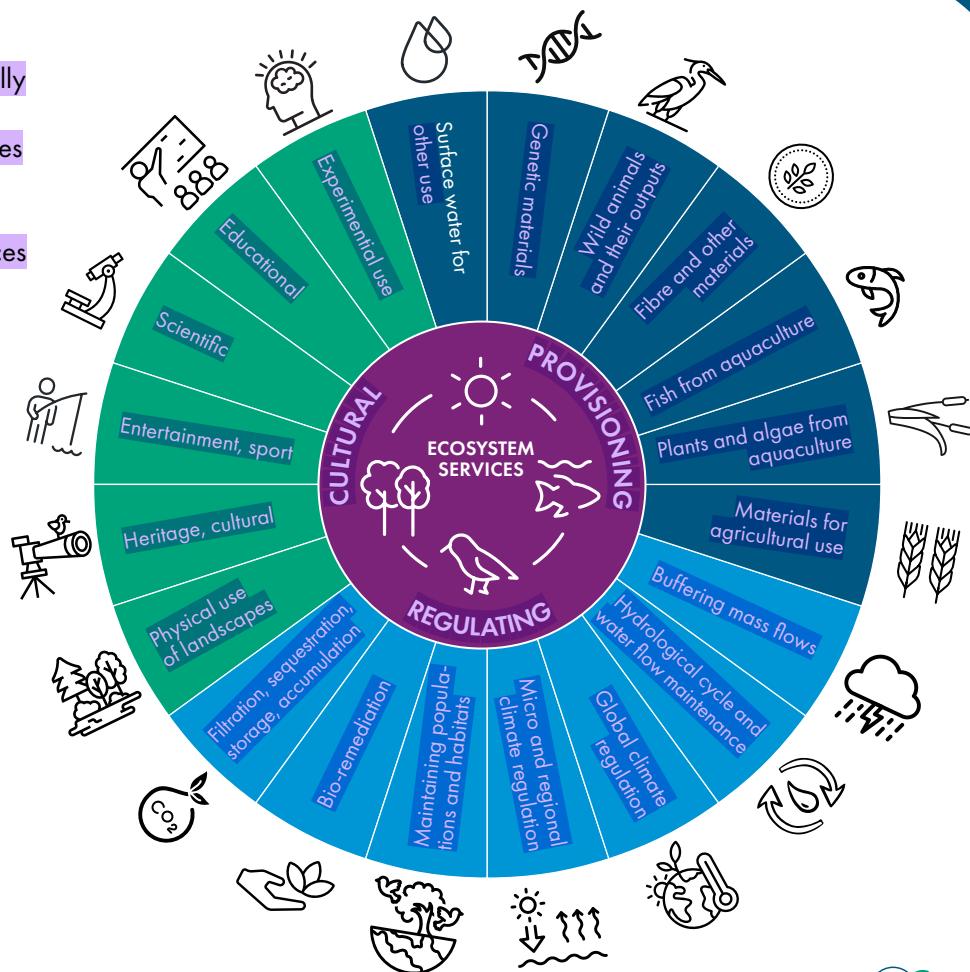
Fish farming has significant potential to generate valuable by-products for other industries and to recycle waste from other sectors. Several of these circular processes are already being widely implemented in fish farming, contributing to greater sustainability and resource efficiency.

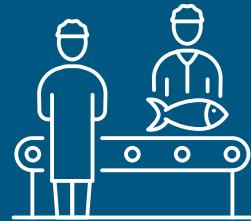
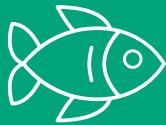


## FACTS ABOUT

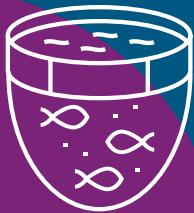
# ECOSYSTEM SERVICES OF FISH FARMING

Fish farming, especially extensive pond and lagoon farms, provides a variety of environmental benefits and ecosystem services that can improve the social acceptability of aquaculture and create value for local communities.



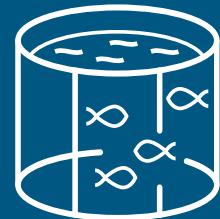


**FEDERATION OF  
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