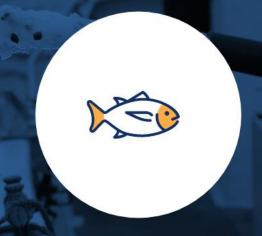
Use of trimmings from seafood production (resource depletion)



Last update: 2 June 2023

- Type of challenge: Environment.
- **Challenges**: Resources management (resource depletion, food-feed competition, reduction of protein deficit).
- Action: Reduces the environment footprint and contributes to circular bioeconomy by increasing the use of by-products from seafood processing (meal, oil, protein concentrate) in compound feed for aquaculture.
- Animal category: Fish, crustaceans.
- **Technique**: Incorporation in feed formulation of processed marine co-products from seafood production.
- Mode of implementation: Offals and trimmings from the processing for food production of any kind of wild and farmed fish can be processed into meal, oil and protein concentrate; approx. 50 % of the fish is used as food (figure differs between the species); the rest is non-edible and edible animal by-products, but a large proportion of this nowadays is disposed of as waste; in 2021, 327,000 tons of potential edible by-products was used in feed (all animals) in Norway, and this constituted 67% of the total volume of co-products usable as feed.
- **Requirements / limitations**: Seafood by-products are falling under the scope of the Animal-By-Products legislation; only category 3 material is eligible for feed use.
- **Economic consequences**: The distance between harbors & fish processing facilities and marine meal & oil producing units conditions the economic viability of the use of seafood by-products in feed; improvement in logistics of seafood by-products to facilitate their channeling to producers of fish oil, meal and hydrolysate is key.
- Other considerations: Make it obligatory for fish vessel to land all offals from harvested fish would be an effective measure to improve the rate of use of seafood byproducts for feed use.

References:

- Norwegian Seafood Research Fund, 2022, Restråstoffanalyser 2020-2022: Sluttrapport, https://www.fhf.no/prosjekter/prosjektbasen/901605/ (see Sluttrapport (English summary)).
- Other techniques: Use of nutrients from low trophic level resources such as zooplankton, insects, polychaetes, starfish, krill, etc.

Charter Ambitions: 2, 5