

8th February 2013



## FISHERY DISCARDS AND BY-PRODUCTS: INCREASING RAW MATERIAL SUPPLY FOR FISHMEAL AND FISH OIL

**Andrew Mallison, director General of IFFO The Marine Ingredients Organisation, welcomed this week's vote in the European Parliament to ban discards of healthy fish. "The supply of fishmeal and fish oil is not meeting current demand," said Mallison, "and raw material that could be used to supply these needs is currently being dumped at sea or on land. There is also an environmental imperative to process by-products rather than dumping them," he continued. "IFFO and IFFO members are actively working to increase the amount of by-products (including by-catch and discards) recovered for fishmeal and fish oil production and is scoping a project to inform this work."**

**He went on to explain that good quality feed ingredients are needed for fish and animal feed if there is to be sufficient protein for a growing population. The growth in fish farming is generating an increased demand for responsibly sourced fishmeal and fish oil as feed ingredients. Additionally, the benefit of long chain Omega 3 from fish oil to human health is increasingly understood and recommended by health experts, generating further need for supply of fish oil.**

### **Background**

Fishmeal and fish oil are made either from whole fish, usually small bony species which do not have a market for human consumption, or as a by-product from some other process. The raw material is cooked and pressed to extract the oil, then dried to leave a high protein, shelf stable product – fishmeal. Fishmeal and fish oil form valuable ingredients for fish and land animal nutrition and, in the case of fish oil, products for direct human consumption e.g. Omega 3 capsules. The importance of fish farming to providing good quality food, often in developing world countries, is increasingly recognised, as are the benefits of long chain Omega 3 oils to human health.

The supply of raw materials needed to make fishmeal and fish oil is not keeping up with the increase in demand. More whole fish is going for direct human consumption, fishery management is becoming more cautious and permitted catches are being reduced. IFFO estimate that, although some 25-30% of the world's fishmeal now comes from by-products, this has only replaced the reduction in supply from whole fish and that total supply is capped at around 4.5m tonnes. In a recent FAO/OECD report the authors predicted that by 2021, 43% of global fishmeal production should come from by-products.

With the static supply and growing demand, prices for fishmeal and fish oil have increased in recent years and sources of raw material that were uneconomic may now be worth considering. Some of these sources are reviewed below:

### **Fishing by-catch and discards**

Non-commercial species can be caught accidentally when targeting other stocks. Undersized fish of a targeted species can also be captured but regulations may prevent them being landed. These are known as by-catch. Depending on the target species, they may be from 10% to over 80% of the catch and are often thrown back at sea, or discarded. Currently, regulations often prevent the landing of many species and force them to be discarded at sea. However, policy has been under review – in December 2012 the EU Fisheries Committee agreed to recommend a ban on discarding to be introduced between 2014 and 2017. The European Parliament vote means that Member States are now likely to agree to the reforms to stop wasteful discards.

IFFO believes that in all circumstances, it is better for by-catch to be reduced through selective fishing gear or planning the time and location of fishing. If fish are accidentally caught and have survived capture, where possible they should be returned to the sea alive. If their capture is unavoidable and the fish have not survived, they represent a source of valuable protein and oil that should not be wasted.

## Filleting by-products

The second major source of by-products is filleting or other processing of fish for human consumption. Heads, tails, bones, skin and other offal that is generated can be used and many industries now send by-products to fishmeal manufacture rather than to landfill or other waste disposal, reducing environmental impact. However, storage and transport systems must be in place – in the past it has often been uneconomic to transport raw materials long distances but with as prices being paid for fishmeal and fish oil have risen, new possibilities may be available.

## IFFO position

Mallison confirmed that IFFO is participating in the UK Seafish Industry Authorities Discard Action Group and IFFO members are involved in a project with the UK Centre for Environment, Fisheries and Aquaculture Science (CEFAS). The handling and economics of previously discarded fish are being studied to understand the implications of an EU discard ban when introduced.

IFFO is also promoting the utilisation of by-catch into fishmeal and fish oil where regulations permit. We recognise utilisation must be controlled to avoid any incentive towards deliberately fishing for discards.

Many IFFO members are already providing processing facilities for by-products from fish processing. However, IFFO believes further volumes could be available and is scoping a project to include the following areas:

- What is the estimate of fish by-products currently dumped at sea or into landfill and not entering fishmeal and fish oil production?
- Is there a cost effective means of stabilising by-products to prevent spoilage and reduce the time pressure on logistics?
- What are the constraints and solutions for increasing the amount of by-product entering fishmeal and fish oil production?
- How should the fishmeal industry communicate the need for raw materials?

IFFO expects the first phase of this project to be completed by April 2013 and Mallison commented, “ [ANDREW please could you add a quote - something about the industry and the future benefits to supply of the probable future policy change]”.