Case Study: Whitefish

Working document

White fish is a general term for several fish species with dry and white flesh which are offered as fillets on the market and often used for processed seafood products like fishsticks or British fish and chips. Because of the use for a wide variety of dishes, several different fish species can be aggregated in this sector like demersal fish species (benthopelagic fish i.e. pollack, haddock, cod, hake, saithe, seabass; and benthic fish i.e. plaice, turbot, flounder, sole) and certain freshwater fish species (e.g.. pangasius). Within these cod, pollack, hake and pangasius are among the ten most consumed species in the EU countries in volume (EUMOFA 2014). Spain, France and Italy spent the most money for fish in 2012 (more than 9.6 Mio. €) (EUMOFA 2014). The self-sufficiency rate, which is the ratio of the EU production including fisheries and aquaculture and the total consumption (without non-food use) within this sector varied from 18% of benthic fish to more than 97% of flat fish in 2011 (EUMOFA 2014). Germany, Spain, the UK and the Netherlands are the countries that spent the most money on imported fish. In fishery production white fish is the second most important group after small pelagics in quantity and the most important in value. Cod, hake and plaice were among the 15 main species caught by the EU in 2011 (EC 2014) This include cod fisheries in the UK, in Denmark, Germany and Poland as well as in EFTA-countries Norway and Iceland; hake fisheries in Spain and France; and plaice fisheries in the Netherlands, in Denmark.

Main topic

All of the white fish species compete on the same market, which is one of the most important seafood markets in the EU. The product´s origin is quite different, both in terms of geographical origin[1] and of source of production like fisheries or aquaculture, so the cost structure is quite different. While nearly 100 % of cod, pollack and hake are provided from fisheries, pangasius and tilapia originate entirely from Non-EU-aquaculture (EUMOFA 2014).

To explore the potential of EU fisheries and aquaculture within the white fish market it is necessary to understand the market structure in important consumer countries first. Additionally knowledge

[1] The white fish sector is the most important import market both in quantity and in value, and it is the second most important export market between the EU and third countries (EC 2014).

about the consumer trends is needed to be successful in the future market.

Challenges

The European whitefish sector faces several challenges influencing the competitiveness of the sector. The main challenges are stated below:

I.   Mixed fisheries: The demersal fleets in Europe are mostly catching more than one species. This leads to problems of quota availability or sometimes high discard rates and, therefore, problems with the landing obligations. Given many of these stocks interact in the ecosystem, stock levels and quota varies differently.

II.   Landing obligation: As the whitefish fisheries are mostly a mixed fisheries. Bycatch rates can be quite high due to small mesh sizes and specific fishing areas (i.e. 12 mile fisheries for sole). In the North Sea, a transition of stocks between 2016 and 2018 subject to the landing obligation has been proposed. Stocks included in the transition are cod, haddock, whiting, saithe, plaice, sole, nephrops and hake. The produced unwanted catch (i.e. catch below minimum reference size) will increase production and labour costs and choke species could limit catches. The rationale behind this measure is to stimulate the fisheries sector to work towards innovations resulting in more selective fishing methods however there could be unforeseen implications on the supply of stocks under the landing obligation.

III.   Price variability within species: the prices within species fluctuate considerably. There are many causes for these fluctuations. Seasonality and concentration of landings, but also competition between flatfish species and whitefish species and other imported species on the same market play an important role.

IV.   Substitutability between species: as the whitefish segment includes a wide variety of species, substitution between species is common (e.g. in Germany plaice and sole was substituted with pangasius when plaice and sole catches decreased due to lower quotas). When fish sticks were introduced the producers used cod as the main species, however in the meantime alaska pollack (also pangasius is possible) has been used. To stay competitive companies may have to introduce innovations. There are potentially issues within substitutability about consumer choice (e.g. price, presentation) as well as mislabelling (e.g. confusing the consumer regarding what pangasius is and where it comes from).

V.   Demand of society: There is a growing demand of society for high quality, safe and more sustainably caught or cultured fish. Fishermen need to respond to these demands.

VI.   Competition with non-European aquaculture species: The European whitefish needs to compete with relatively cheap aquaculture importfish like pangasius and tilapia. This could be a problem during years with increasing production costs (like the high fuel prices in the last years)

Initiatives

Each EU member state tries to respond to the above mentioned challenges. Different initiatives are started in member states to face these challenges. Most of these receive financial support from member state governments and/or EU. Some of these initiatives are given below:

1.   Member States exchange quota to allow a better match between catch composition and quota availability (Challenge I and II)
2.   Different initiatives of whitefish certification (MSC label) led by member states POs took place (Challenges V).
3.   Market initiatives to increase the part of the fish for human consumption (Challenge IV).
4.   Increased initiatives to sell more fish on local and regional markets to increase first sale prices (Challenge III)
5.   Imports to maintain supply
6.   New products – but there are not many

7. Stable supply to prevent using cheap alternatives to become new alternatives (VI)
8.

Case study objectives

Main objective
The main objective of the CS is to analyse which potential the EU fisheries and aquaculture sectors (including processing, wholesalers and retailers) have to compete on the whitefish market? How can competitiveness be improved? What are potentials for innovations in the whitefish market? How whitefish production competes with imports?

Sub-objective
We will look at specific cases, which can be analysed within the whitefish sector. One example is a so-called 'boom and bust'-cycle. With the plaice fishery in the North Sea we want to analyse how a phase of low catches due to limitations in fishing, improvement of the stock with an increase of catches after a phase of relatively low landings led to very low prices. Was plaice substituted by pangasius?
A second case will be the changes in processing of fresh or frozen cod where due to the specific cutting of the fish larger parts of the fish can be utilized which increases the revenues for the companies.
Also, the mixed fisheries will be significantly impacted by the landing obligation. This will be investigated from the supply-side and whether this will impact demand satisfied (and available).

Links between CS and WPs

WP 1: As one of the largest sectors overall and the largest for human consumption [2] in Europe we can use this case study as good example to address several issues but for the models in WP 1 it will be an important part of the fishing sector anyway.

WP 2: What are the emerging consumer trends in some of the most important EU countries (i.e. Spain, France, Germany)? What are consumer perceptions concerning origin, social and environmental criteria, supply, marketing channel?
WP3: What are the determining costs for white fish production from fisheries and aquaculture? In our view the whitefish segment is also a very good example to compare substitution effects between fish produced from aquaculture and fisheries and for that we need information on the cost structure, environmental impacts etc.
WP 4: How does the value chain for white fish products work including pricing? Where do processors get their raw material from and what perceptions do they have (i.e. certification)
WP5: Innovation?
WP9: Stakeholder workshops: Partners will conduct stakeholder workshops where whitefish species will play a prominent role.

Expectations

Below you can find what can be expected from the CS partners to achieve above mentioned objectives.

Germany (Thuenen-Institute; BVFisch)
Netherlands (LEI Wageningen UR)

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[2] The catch of small pelagic is often only for the production of fish meal – which we have, however, also to analyse because of the feed for fish from aquaculture.

France (Ifremer)
UK (Fishor consulting)
Spain (Universidad de Cantabria)
Iceland (Haskoli Islands)

WP 1
A lot of the data, which will be used for the models, will be on whitefish species. Therefore, this segment will be analysed for e.g. possible changes due to external factors (like increasing population).

WP 2
As a large market segment whitefish species will be included in the Task 2.1 and 2.2.
In WP 2 the CS will be included through the online survey were the results of the general survey can give indications for focus groups on some of the whitefish production systems in some of the partner countries.

WP 3
The CS will deliver for WP 3 from all participating countries:
- Regulatory framework for the demersal fleets above 24 m (Task 3.1). If possible inclusion of information on further segments if they land a substantial part of the whitefish species.
- Description of the production system for demersal fleets above 24 m (Task 3.2)

WP 4

As a large market segment whitefish species will be included in the Task 4.1. Inputs for Task 4.2-4.4 will be decided later.

WP 5