



FISHERIES IN NORTHERN GREECE AN EXTENDED SUMMARY

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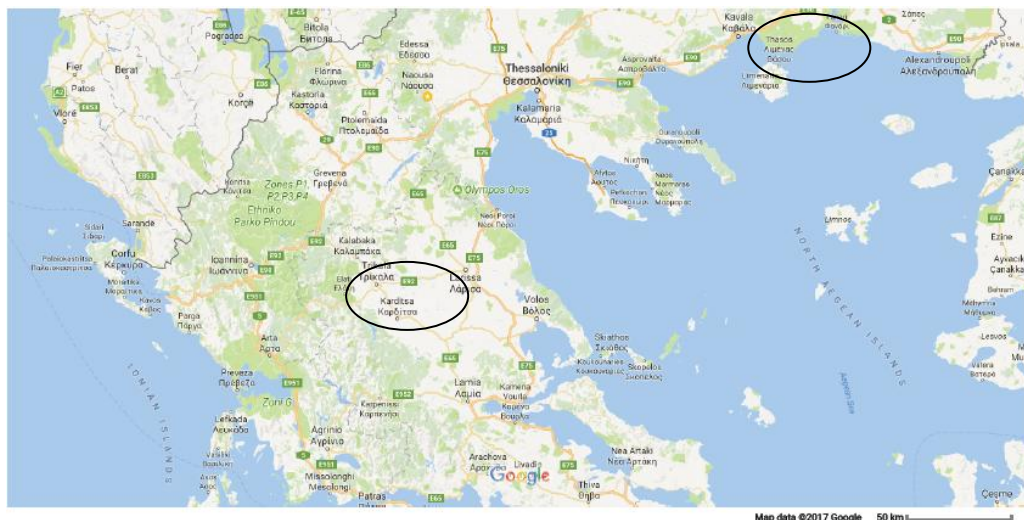
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1. Introduction

The purpose of this summary report is to briefly examine the conditions, institutional arrangements and the relevant policy measures that affect sustainability of fisheries in North Aegean Sea as well as small and medium sized milk producers and feta cheese makers in Thessaly. The analysis focused as far as the first case study is concerned mainly on purse seine and small scale fishers operating in Kavala and its neighboring ports. Whereas for the dairy case study the analysis focused on livestock farmers producing sheep milk for the production of Feta PDO cheese in Thessaly

Map 1. Case studies areas



1.1. Methodological issues

In the first stage a media analysis was conducted which examined national, regional and specialised media. The main aim has been to identify the key elements discussed in the media in relation to the sustainability, mainly economic/financial, of primary producers (farmers and fishermen) in Greece. Along with media analysis, a desk based analysis of policy and market conditions was conducted supplemented with expert interviews. Governmental, farmers' organisations, academic and NGO publications as well as policy and government documents from 2006 to 2016, have been scrutinised.

During the second stage of the research, focus groups, workshops and additional interviews have been conducted. In the case of fisheries two focus groups were held with fishers, one with purse seine fishers and one with coastal fishers. Furthermore, additional interviews with coastal fishers were taken in order to better capture their views. Focus groups and interviews were followed by an experts and stakeholders' workshop. In the case of dairy, interviews with local stakeholders and three focus group meetings were held. Two with sheep milk producers, one of which focused on young farmers' scheme participants of the Greek Rural Development Programme (RDP) and a third comprised of PDO cheese

(Feta) makers. The process concluded with a workshop comprised of local, regional and national key stakeholders and experts.

The third stage, the producer survey, was conducted only in the dairy case study area. Between December 2017 and March 2018, 152 interviews were conducted with sheep and goat farmers spread in 71 different villages. From the original sample 4 producers were eventually excluded because they didn't meet the criteria set by the survey for various reasons.

Case study A: Small pelagic fish in Northern Greece

Fisheries in Greece

Greece is the second European country and the first EU country in terms of the extension of its coastline (13,676 km) (<http://world.bymap.org/Coastlines.html>.) The Greek fishing fleet is comprised by a large number of vessels (15 385 vessels in 31.12.2015) with low gross tonnage and engine power (72,105.76 GT, and 434,475.13 KW), targeting at coastal fishing stocks (Annual Fleet Report, 2015). The fleet's main characteristic is its largest part (95.19%) consists of vessels with polyvalent passive gear in the coastal zone and its multispecies targeting. Only 245 vessels (1.59%) carry the purse seine gear targeting pelagic species, mainly anchovies and sardines, while 258 vessels (1.68%) carry bottom trawl doors (trawlers) targeting demersal species, mainly gray mullet, red mullet, hake and crustaceans.

Structural conditions

The contribution of fisheries to the national economy of the country is considered to be relatively low (<3.1% of GDP) but, on the other hand, the sea fishing sector offers full time all year employment. However, in 2012 the rate of employment in the fishing sector fell by 9.9% compared to 2010. Among the reasons for that decrease one could include the difficult working conditions on board (mainly in the small-scale coastal fishing), the limited capacity of the vessels and the increase in fuel prices, coupled with the financial crisis. Young people seem to be reluctant to get involved with fisheries, mainly because of the difficulties and the harshness of the conditions. At the same time undeclared work of immigrants has increased. Eventually the ones that remain in the profession seem to be older persons without any relevant training but their experience, leading to an inability to adapt to modern management of fisheries resources and inhibit increases in productivity.

Most of the businesses are family owned and run. It is the family, already in the business, that provides the necessary means to younger members of the family to start their own fishing business. All purse seine vessels are under co-ownership whether that is among the same family or not.

Purse seiners, although they are significant fuel consumers, seem to employ one of the most energy efficient fishing methods. But we also encounter the small scale coastal fleet, which is characterized by old, small sized vessels, with poorly maintained equipment. The result of this is low catches, very costly in terms of energy use (Damalas, D, 2015).

Environmental conditions

As far as the ecosystems are concerned, in the Northern part of the Aegean one can find some of the most biodiverse marine zones in the Mediterranean basin. Fishing in areas with either marine seagrass meadows or calcareous red algae reefs, is causing destruction of habitats of particular importance for the productivity of the seas. For Posidonia meadows (*Posidonia oceanica*) which suffer from destructive fishing practices, it may take more than 100 years to recover. Due to their closeness to urban settlements, coastal ecosystems are more susceptible to human activities than other marine habitats. There is, also, a considerable lack of



basic infrastructure e.g. fishing ports, fishing shelters, road infrastructure. Finally, there is an extensive coastline developed at a low intensity level.

Concerning the species, overfished stocks in the Greek seas are reported to exceed 65% and the fully exploited circa a 32%. For the small pelagic species such as sardines and anchovies, at the focus of the report, overfishing reaches 71%.

Stakeholders' and expert views differ, on the issues of the state of fishing resources. Most workshop participants, experts and stakeholders, agree with the estimation that most of the fish stocks are overexploited. Purse seine fishers, on the contrary, claim that there is no issue of overfishing in anchovies and sardines since they are abundant in the area. At the same time, inshore fishers are deeply concerned with the low, according to them, availability of fish. Which should be attributed to the damage made, according to them, by the abundant population dolphins, to purse seines and trawlers as well as to illegal fishing by recreational fishers.

Stakeholders' and experts agree that environmental problems seem to be aggravated by deficient control mechanisms. In particular understaffing of the multiple controlling authorities is considered to be main reason for the insufficient controls carried out at the sea and at the fish auction. Workshop participants consider that although inspections cannot be considered as enough, those performed, mainly target purse seines and trawlers and not inshore fisheries. They also mentioned that many fish channeled through the fish auction are undersized or of illegal origin since controls are not regular as they ought to be.

Another important issue, concerning the efficient environmental management of fishing stocks, has been mentioned by all participants and contacts. That of the Fisheries Data Collection Programme, performed at the national level. It is a multi – annual programme for the collection of primary biological, technical, environmental and socio-economic data. In order to fulfill its objectives, this programme should operate continuously. Alas, since the beginning of the programme in 2002 there were important time lapses and delays in the implementation, due to intermittent state funding. According to the workshop experts the fragmented implementation of the programme creates serious problems to scientists involved in the estimation of fish stocks. However, even if the program was operating uninterruptedly, formulating a clear idea on the actual state of the fish stock, would be a challenge because the information obtained is not adequate. Only trawlers and purse seines register their catches through the IT system, while none of inshore and recreational operators is registering their catches.

Markets and marketing

The supply chain

All purse seines and trawlers are obliged to deliver their catch in fish markets. Each fisher delivers its catch to one dealer, registered to operate in the fish market, with whom he has an informal, typically oral, agreement (25 fish dealers are registered in Kavala's fish market). There is a daily fish auction which is a transaction between

the registered dealer and the buyer (retailer), thus the dealer usually acts as an intermediary between the fisher and the final buyer (retailer).

Fishers are, essentially, price takers. In addition to that, payments are done at the end of the month for all the quantities sold. A current alarmingly frequent arrangement is that fishers are paid after the dealer gets paid by the final buyer. When the final buyer is a big retailer that means a considerably delayed payment (120-180 days). All transaction costs (e.g. the cost of the ice and of the plastic fish containers, fish auction fees etc.) besides the rent and the personnel costs, are borne by fishers.

Outlets

Fish are mainly sold in the internal market. According to the stakeholders the catches are not sufficient to be worth exporting. However, stakeholders claim that they detect an increase in exports during the period that the Turkish fleet stops fishing.

Coastal fishers consider that the large amounts of imported fish the main reason for their weak position in the value chain (prices fixed by dealers, delays in payments, lack of advance payments). They claim that fish imported to Greece from Turkey are not subject to custom duties while those exported to Turkey are. According to them most of the fish sold in the auction – up to 90%, besides sardines and anchovy- is imported.

Inshore fishers are also legally obliged to deliver their fish to the fish market; they actually use the fish market as a last resort outlet when their catch is too big to for marketing it directly to the local market. Otherwise, they sell most of their fish locally. Each fisher either has a clientele of restaurants and fish shops or individual customers buying directly from the vessel. Individual sales are the most preferred way, since they set the price, which is much higher than the dealer will give. Furthermore they are not obliged to issue invoices for individual sales hence they are not taxed for these.

Most of the processing units operating in the area, which used to receive large volumes of the production, have shut down or relocate to areas with lower labor cost while those few who remained in the area are very selective for the small quantities they now buying.

Sales in the fish auction dropped since the consumption of fresh fish has dropped. This decline is attributed by purse seine fishers to the economic crisis. Best prices come from retail sales, followed by wholesalers. Expensive fish seem to have a more stable price, despite the general trend for lower prices existing the last ten years. Lower price is offered when sardines and anchovies are destined to be frozen and the lowest price is offered by processing units.

There is a widespread impression that cooperation among fishers is very difficult due to mutual distrust. Even “small” inshore fishers seem not to be able to find common ground. Their ‘diametrically opposed views’ are vaguely attributed to the differences in the gear they use.

Albeit the above mentioned claim, for the impossibility of co-ordination among fishermen, workshop participants claimed that a price drop due to excessive supply, in 2015, alarmed fishers. Thus 18 purse seines from Kavala (the whole local purse seine fleet) agreed informally to perform a single landing per day of operation. With this arrangement, purse seine fishers hoped to keep prices higher and steadier since the fish delivered in the auction would be about 1/3 of the previous quantity. This arrangement was accepted and implemented by all local purse seines based, generated many reactions mainly because of the vessels, coming from other parts of the Aegean, operating in the specific area.

Access to finance has been another issue that has been commented on widely in the media, especially since the financial crisis looming since 2007-8, erupted during 2010. The common practice for fishers, especially for purse seines and trawlers, used to be to finance their businesses through their cooperation with the dealers i.e. intermediaries registered in the fish auction. In that arrangement, the dealers occasionally fulfill also the role of the money lenders through informal agreements with fishers. However currently, the frequency of such transactions has been reduced, due to shortages of cash liquidity on the dealers' side attributed by them to the ongoing crisis.

For much higher investments, such as for the construction of a new vessel, the capital required is normally pursued through a bank loan. But there are cases when the fisher and its household/family, do not have the requisite guarantees (collaterals, cash flow etc.) to attain the loan from the bank. In these cases fisher households resort to an old practice, partnerships with third parties. Capital investors are often related to fisheries e.g. technician or fishing equipment and machinery providers. The fisher's household contributes its knowledge and experience in the partnership.

It is quite indicative of the situation concerning access to financial resources that even for investments supported by EU or national funds, co-funding of the project is considered by inshore fishers as very difficult to cope with. Resorting to banks for the capital needed for co-funding faces a major obstacle: the inability to support a demand for loan with adequate guaranties, which is mainly the case for inshore fishers with vessels less than to 12 meters long. The rate of return to the investment that could be used in the form of collateral is not an option in these cases. Inshore fishers were not obliged, up to the recent past, to issue invoices during their transactions. They were taxed based on the vessels Gross Tonnage (GT) where each GT unit represents an income of 3,000 €. More than 40% of inshore vessels of the area have less than 1 GT, while the average size of the area's inshore vessels is 2.3 GTs'. Since most of the fish caught are sold locally without the obligation to issue any kind of receipt or invoice, the taxed business income is only that of the registered GTs. Presumably, not enough to support a demand for an investment loan.

A rather recent development is a Worldwide Fund for Nature (WWF) Fisheries Improvement Project for purse seiners in development in the area. It was initiated by WWF Greece in 2013, in collaboration with a retailer chain and a fisheries company, with the support of the local Fisheries research institute. The main objective of the global Fisheries Improvement Projects is to assist fleets in

improving their sustainability and create networks with retailers and consumers interested in sustainable production. In general such projects should attempt that the fleets involved reach the level of certification according to the principles of MSC (Marine Stewardship Council) and receive certification. (<http://www.wwf.gr/en/sustainable-economy/fisheries>).

Policy and regulatory conditions

An attempt to reduce the fishing effort is has been undertaken by the EU, through the permanent withdrawal of fishing permits (and vessels with the result of more than 5000 vessels destroyed). In addition to that, a vast modernization effort for the fishing fleet through EUs' structural policy took place. The majority of vessels have been modernised during the last two decades and, consequently, a large part of the traditional shipbuilding survived.

There are no legal limitations (e.g. quota) on the volume that can be landed. The management of fisheries resources in the Mediterranean in general is based mainly on either temporal and spatial, or technological or commercial restrictions (e.g. setting a minimum net mesh opening, fishing ban in specific areas or periods, minimum legal size of fish). According to the Greek legislation there are temporal restrictions for purse seiners and bottom trawlers in order to limit the fishing effort for stocks in danger. However, there is not any legally binding management framework in the international waters of the Mediterranean. An "open to all" regime, allows free access to international fishery resources. Hence, there is no legal instrument to stop any one from fishing all year round in international waters and the distance does not constitute an insurmountable obstacle for the fishers (Tsikliras A., 2016).

Workshop participants consider the fisheries policy in Greece as a broader legislative framework including the Common Fisheries Policy (CFP), the Mediterranean Regulation (1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea) and National legislation. But experts among the participants expressed doubts on whether this legislative framework has always been the product of scientific evidence and/or participatory procedures especially in policy making at the different levels. According to purse seine fishermen, the design of CFP was based on (and targeted to) the fisheries in the Northern countries of Europe. The fisheries councils and regional fisheries councils, although established under CFP, have never been activated in order to determine the fishing rules.

The procedure of designing specific management plan was used as an example. More specifically, the management plan for purse seines considered the entire stock of Mediterranean anchovies as one entity, calling for uniform management rules and practices. Workshop participants argued that flexibility in measures would allow space for temporal and spatial adaptations to local circumstances.

Regulatory framework

- *Landing obligation*

Under the landing obligation all catches have to be kept on board, landed and counted against existing quotas while small fish cannot be marketed for human





consumption purposes. In any case, there is derogation for Greece up to 2020, to gradually introduce landing obligations. Experts believe that purse seines' fisheries are not going to experience pressures or serious difficulties since they target very specific species such as anchovies and sardines; hence they expect very low discard rates. Resting importance to landing obligation, seem also to be prevailing among the inshore fishers contacted, although this measure should be, presumably, of their concern. This is attributed by workshop experts to the fact that most of inshore fisheries do not register their catches since they sell directly, without passing through the official fish market i.e. the fish auction house.

- *Spatial restrictions*

According to the Mediterranean Regulation (1697/2006), it is prohibited to use purse seines within 300 meters of the coast or at a shorter distance from the coast, where the isobath of 50 meters is met before the 300 meters. According to purse seine fishers it is not easy to fish further than 100 meters from the coast in the Aegean islands, due to the strong winds blowing in the Aegean Sea. Additionally they stated that even with a wind rated only 3 in the Beaufort scale (a gentle breeze of 12-19 km/h) it is impossible for them to operate. For inshore fisheries, there aren't any effective spatial restrictions, which is an issue of complain for purse seine fishers. On the other hand, recreational fishing is highly regulated (specific fishing gear, limited quantities and only for personal use) but inefficiently controlled. Thus inshore fishers in their turn perceive recreational fishers as informal competitors.

- *Seasonal-temporal arrangements*

It is forbidden for purse seines to operate during a 2 ½ months period during the winter, as well as two nights preceding and following full moon. These management plans favor the sardine stock, since the ban coincides with its breeding season. But, it is in fact useless for the anchovy, which reproduces during the summer when purse seines are allowed to operate. On the other hand coastal fisheries do not face any such restrictions.

Seasonal temporal arrangements hold only for the national waters which in the case of the Aegean Sea are limited to 6 miles from the coast. Resorting to fishing in international waters thus, emerged as a way for purse seines boats to work on the banned days. The local fishing community has agreed to an informal arrangement for the 2 days preceding and following full moon, respected by everyone. However, after its formalization as a state regulation, purse seines started fishing in the international waters on no-fishing days. The current situation in the North-northeastern Aegean Sea has been described by focus group members as a "de facto" co-exploitation mainly with the Turkish fleet.

Incentive based policy measures

National policy since the 1980's provided incentives in order to build new and larger purse seine vessels. During this and the next decade more than half of the Kavala fleet, including inshore vessels, has been modernized (improved and/or bigger vessels, gear etc.)

In the more recent programming periods (2000's and 2010's) modernisation investments seem to collide against the CFP objective to stabilize or reduce fishing efforts. Fishers, for example, argue that they cannot use the financial support of the CFP due to the restrictions on the horsepower of their engines. Another incentive, in the form of a fuel tax break, can only be partially available to fishers, since it depends on the registered horsepower, which is not always the actual.

A CFP measure for the permanent cessation of fishing activities was popular among inshore fisheries but not among trawlers or purse seines. According to the stakeholders the money offered was not enough to encourage fishers to take the, difficult for them, decision to dismantle a bigger vessel.

Proposals drawn by focus groups and the participatory workshop

Some of the key issues participants of the focus groups and workshop consider that would help ensure the future viability of the fishing sector include:

- Complete readjustment / review of the legislation, in accordance to scientific advice.
- Flexible management rules according to the needs of each fishing area.
- Improvement of control mechanisms for more frequent and efficient controls inside and outside the fish market.
- Fishers' education in sustainable fishing practices – rational management of the fish stock.
- Purse seine fleet certification project with dual purpose: improvement of fishing practices and improving fishermen's income.
- Engagement of fishermen in the decision making process.
- Collaboration between producers.

