

## **Post-Soviet transformations in Russian and Ukrainian Black Sea fisheries: socio-economic dynamics and property relations**

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*(Received 3 January 2007; final version received 18 December 2007)*

This article explores post-Soviet developments and contemporary social structure in Russian and Ukrainian fisheries in the Black Sea region. We analyze how the collapse of the Soviet Union brought changes in international relations, state policies, bureaucracy and economy, which resulted in overall structural change and decline in the fisheries. The article discusses the changed role for the fishery cooperatives and the emergence of new actors and new organizations in the fishery sector.

**Keywords:** post-communist transition; property relations; fishery sector; post-Soviet

### **Introduction**

Like most economic sectors in post-Soviet states, the Black Sea fisheries of Ukraine and Russia have seen dramatic changes and have experienced overall decline during the last 15 years. In this article we explore post-Soviet developments and contemporary social structure in Russian and Ukrainian fisheries in the Black Sea region. Most literature on the marine resources and fisheries of the Black Sea is from the natural sciences, concentrating mostly on ecological aspects of the sea and the challenges for resource management. We focus on socio-economic factors of fisheries in relation to changing state systems and the establishment of new political and economic frameworks.<sup>1</sup>

In particular, we examine ‘property relations’ in terms of the ways in which people establish rights to explore the living marine resources of the Black Sea. When discussing ownership, property is often thought of as something to which an owner holds certain rights. A fundamental insight in the anthropological theory of property is, however, that property is not first and foremost about things, but about relations between people. As an analytical starting-point, we see property as the distribution of *social entitlements*, and study it in a wider sense as fields of social organizations where economics, politics and law intersect (Hann 1998). The issue of ‘ownership’ is here understood as *rights* constituted and legitimated in a larger complex of social relations, cultural values, ecological/material potentials and constraints, legislation, and bureaucratic and economic practices. Rights are here defined as the *de facto* power exercised by individuals and groups relative to things (Humphrey 1998, 119). This implies that, rather than presenting a typology of enterprises and organizations of the Black Sea fisheries, these organizations are discussed in a wider context of relationships: as part of a larger dynamic extending beyond the local context of fishermen, vessels and their ‘owners’.

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In the first half of this article, we analyze how the collapse of the Soviet Union and changes in international relations, state policies and economy resulted in overall structural change in the fisheries. We explore how the introduction of market economy and the withdrawal of state support combined with a critical resource situation seriously weakened the Russian and Ukrainian Black Sea fishing fleet. We then discuss changes in state fishing bureaucracy and fishery management. Finally, the changes in property, rights and organizational structure in the fisheries are analyzed, with a particular focus on the changing role of the fishery cooperatives and the emergence of new actors and new organizations in the fishery sector. Our findings show how both new and old organizations are developing inventive strategies in order to survive and to adapt to swift changes in the market, marine ecology and State.

### Soviet modernization of fisheries

Prior to the revolution in 1917, fisheries in the Black Sea consisted of coastal fishing based on simple catching techniques. The socialist state brought modernization and industrialization to the Black Sea fisheries. It revolutionized fishing technology and transformed fisheries organization; fishing efficiency improved quickly and catch doubled with the introduction of seiners in 1931 (Davidenko and Eskin 1987). The 1950s brought the trawl. From a predominantly coastal fishing fleet, the Black Sea developed an ocean-going fleet, which, along with the Far East, Northern and Baltic fleets, constituted one of the largest oceanic fishing fleets in the world. Large factories were built along the Black Sea coast to handle the processing of oceanic and Black Sea catches. Fisheries were organized as either state corporations (ocean-going fleets based in the Black Sea) or as fishing cooperatives (fisheries within the Black Sea).

The Black Sea coastal fisheries were based on a distinction – maintained to this day – between two different catching techniques:

- Middle-size vessels (25–30 m) working out at sea with *active gear*, mainly purse seine and trawl;
- Coastal brigades, usually belonging to cooperatives, consisting of groups of fishermen with permanent bases along the Black Sea coast. They use small boats (4–5 m) and work with passive fishing gear, particularly *fishing weirs* ('*stavniki*').

The Soviet modernization of fisheries was followed by an effort to provide the fisheries with professionally trained fishers. In the 1980s there were about 10 different colleges and academies in the regions surrounding the Black Sea basin educating future sailors and fishermen. The state controlled access to work on board vessels through certification demands. Development of academic knowledge of marine ecosystems and their viability was also encouraged. This knowledge was used to set quotas and develop regulations, as well as to monitor effects of human intervention.

In the Soviet period, the coastal fisheries were organized mechanically into a larger system of production that functioned as a support system for the fishing cooperatives (*rybkolkhozes*): Fish was bought by state organized buyers; new vessels were constructed in shipyards located in various parts of the Soviet Union; credit that made possible new investment in equipment and vessels was supplied by the state; the state distributed products to state-controlled shops and markets;<sup>2</sup> and the cooperatives served as both employer and deliverer of state welfare. According to Kochin (1996), the formation of collective farms came as a state attempt to extract resources from the agricultural sector to finance industrialization. The intimate integration of fishery cooperatives into the larger Soviet economy may thus be seen not only as a way of supporting the

cooperatives, but as a way to gain control over production through planned redistribution of resource flows (Kochin 1996, 719).

Thus, in the Soviet system, property rights in fisheries were firmly embedded within the state structure: state support structures of research, credit, subsidies, price control, vessel construction, production, processing and distribution implied that most of the fishery sector was directly or indirectly under state control. Although the Soviet support system was not flawless, it ensured predictability.

### **Collapse of the Union, collapse in the fisheries**

The collapse of the Soviet state meant an almost immediate disruption of state support. Practically overnight, it became extremely difficult to fund maintenance and investment in technology and vessels. There was no private-sector banking system that could provide fresh capital. The channels of production and distribution became problematic and unpredictable. During the (re)consolidation of Russian and Ukrainian states in the mid-1990s, lack of a legal framework plus inoperative regulatory agencies and law enforcement led to essentially 'open access' fisheries in the Black Sea.

The breakdown of the Soviet system meant that the state was less able to monitor and manage marine resource exploitation. It is therefore difficult to obtain an overview of the sector through official statistics. The decrease in catches seen in official statistics may in fact reflect a decrease in official registration of catch, rather than a decrease in fishing; in effect, fish poaching is increasingly perceived as a large problem in Russian and Ukrainian fisheries. Between 1991 and 2002, the registered catch in Russia declined by 52.5%, from 6.93 million to 3.29 million tonnes. In the Russian exclusive economic zone (EEZ), including the Black Sea, the catch decreased by 58.5%. Among the distant-going fleet, production sank by 67% (Russian Federal Government 2003).

In the first half of the twentieth century, the total annual catch in the Black Sea reached 600,000 tonnes, of which 200–250,000 tons were caught by the USSR and 100–150,000 tonnes by Ukraine (Novikov and Serobaba 2001). Today, the annual total catch in the Black Sea by Ukrainian vessels amounts to only 35–40,000 tonnes. These numbers, even after accounting for unregistered catches, tell a great deal about the crisis in Ukrainian fisheries after the disintegration of the Soviet Union. The importance of fisheries in the Ukrainian national economy today is not great, judging by its total percentage of GDP. According to the UN Food and Agriculture Organization, the fishery sector represented only 0.005 % of GDP in 2001 (FAO United Nations 2003a). In the coastal regions, however, the fisheries continue to play a vital role in the economy. The fishery sector is among the most important sources of employment in the Autonomous Republic of Crimea. In 2000 the Total Annual Catch (TAC) allocated Crimea was 23,200 tonnes, which, incidentally, is the same as the TAC allocated Crimea in 1913, prior to the technological advances of the Soviet era (Boltachev, Zuev, and Gutsal 2001). These statistics indicate that fisheries are in deep trouble. Yet, as the Ukrainian state faces much of the same difficulty with control and registration as the Russians, any statistics have to be viewed in combination with other data to gain an overview of the conditions of Black Sea fisheries.

Ukrainian fisheries include coastal fisheries in the Sea of Azov and the Black Sea, and the long-distance fleet fishing in the oceans outside of the African coast and New Zealand. In 2001, the TAC in Ukraine was 381,000 tonnes. Of these, the oceanic fisheries accounted for about 70% of the total marine catch in Ukraine, while the rest comes from the Azov and the Black Seas (FAO United Nations 2003a). In 2000, about 20–25 fishing vessels operated in distant waters (FAO United Nations 2003a). However, despite high national ambitions, the oceanic fleet is shrinking. A summary report from the United Nations in 2003 (FAO United Nations 2003b)

listed 10 different Ukrainian organizations involved in oceanic distant water fisheries. All the companies, except for one,<sup>3</sup> were based in Crimea. Seven of these fishing organizations operated from Sevastopol, and two from Kerch. Since 2000, Ukrainian oceanic fisheries have declined significantly. In the summer of 2004 there were no companies operating in the oceanic fisheries in Kerch. In 2005, only five companies worked on the ocean from Sevastopol.<sup>4</sup>

The ocean-going fleet with bases in Black Sea ports declined rapidly after the collapse of the Soviet Union and was abandoned on the Russian shores of the Black Sea. These units were largely dependent on both logistical and political aid from the state in order to deliver their catch in the international waters in which they were operating far from home. This fleet was extremely resource-intensive, demanding large inputs of capital to attend to the costs of repair, equipment and fuel. These factors made it difficult for emerging private investors to take the place of the Soviet state. The sharp decline in delivery from the oceanic fleet threw the large fish factories along the Black Sea shores into crisis. This had effects far beyond the industry itself.

In the Soviet system of centrally planned economy, fish-processing factories had social responsibilities in addition to the work of production. For example, the large fish-processing factory *Rassvet*, in *Temriuk*, situated along the Russian shore of the Azov Sea, played a significant role in the development of the city. The fish factory was a nexus for distribution of state welfare to the workers. It had several kindergartens, a large cultural centre, apartments for the workers, and a seaside holiday pension for the workers' children, to mention only a few of its social institutions. The factory experienced a peak with the establishment of the Soviet oceanic fleet in the 1960s.

With the crisis in the fishing fleet, combined with the ecological crisis in the Black Sea and the Azov Sea, fish-processing factories, including *Rassvet*, faced huge problems, especially in securing deliveries of fish. The end of centrally determined prices, kept artificially low in the Soviet period, significantly increased production costs. As a result, fish-processing factories have become fragmented and vulnerable. A fish factory in *Yalta* has reported much the same development as *Rassvet*. It went from producing 120 different sorts of fish products in the late 1980s to only 15 varieties in 2004. They face challenges that include outdated production equipment, and are looking to invest in vessels to ensure a steady delivery of fish at steady prices.<sup>5</sup>

The fisheries in the Ukraine and Russia were to a large extent privatized from 1992, but the private sector has not been able to support maintenance or technological and infrastructural investments. In the transition period, many of the fishing boats were used for other purposes. Now there is a lack of vessels. The lack of fish carrier vessels with proper cold storage is especially precarious. The fishing fleet is characterized by technological stagnation and lack of maintenance. The Black Sea fishing fleet of Russia and Ukraine has been significantly reduced, from about 230 vessels in the 1980s to about 110 in 2004, most of which were built during the 1970s and 1980s. Competition from imported fish produce has made marketing difficult. Overall, there has been a significant decrease in the numbers of boats, catch, fishers, etc, as well as in the market itself; and the economic importance of the sector has therefore declined.

### **Other developments constraining fishing activities**

The adverse effect that changes in state policy had on fisheries were combined with, and reinforced by, other parallel developments. Construction of large anthropogenic structures, such as the gas pipeline across the ocean from *Novorossiysk* to Turkey and the dam across the *Kerch* strait, has restricted fishing activities. Some fishers claim that the construction work disturbs the migratory pattern of the fish. This has especially affected the coastal brigades that depend on

setting their fixed fishing weirs, placed on the basis of experience and knowledge of fish migrations.<sup>6</sup> Of even greater importance was the general economic recession during the late 1980s and 1990s, which resulted in less demand and lower prices.

These problems were further compounded by the resource crisis around 1990. During the 1980s, fish stocks in the north-western Black Sea were adversely affected by eutrophication caused by high nutrient loads carried by the major rivers emptying into the northern Black Sea. Fish stocks all over the Black Sea, especially anchovy, were even more dramatically influenced by the ecological changes brought by the establishment and rapid spread of the introduced species, comb jelly (*Mnemiopsis leidyi*), which both competes with small pelagics for food and feeds on fish eggs. Overall, catches in the Black Sea fell dramatically during the late 1980s and early 1990s.

The combined effect of resource crisis, and changed conditions for fisheries in the former Soviet states, has resulted in a dramatic shift in the relative importance of the fishing fleets of the various Black Sea countries. Turkey has emerged as the most important fishery nation in the Black Sea. Turkish fisheries were just as adversely affected by the resource crisis as the fisheries in the northern Black Sea, but for various reasons they were more resilient during the crisis years (see Knudsen 1997). There is now a relatively high level of tension among nations, especially related to Turkish vessels fishing in Ukrainian waters.

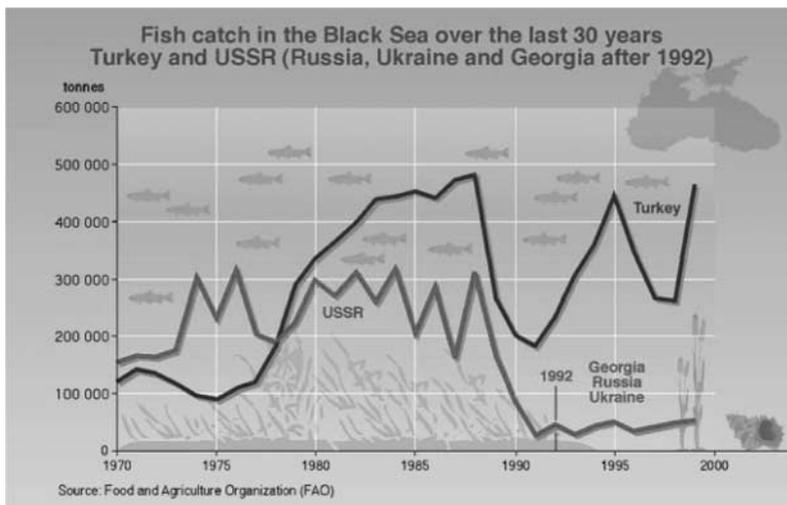


Figure 1. Fish catch in the Black Sea.

### International relations

International cooperation in the Black Sea region has been more successful in addressing the environmental challenges of the Black Sea than in the other areas. In 1992, the Bucharest Convention on environmental protection was signed by six coastal states, and in 1996 the Black Sea Strategic Action Plan was signed (see Mee 2002). The states have, however, thus far been unable to agree on a joint fishery convention, and cross-border fishing activities remain largely unregulated. The Commission on the Protection of the Black Sea against Pollution is working towards a protocol for fisheries under the Bucharest Convention, and the General Fisheries Council for the Mediterranean is considering the initiation of a Black Sea fishery management plan.

The Black Sea Economic Cooperation (BSEC) has taken some limited initiatives concerning maritime affairs. In the early 2000s, negotiations took place within the BSEC on whether a BSEC-wide agreement on a fisheries convention could be reached. Although extensive discussions took place, it was decided that BSEC should not conclude a fisheries agreement. However, BSEC takes part as an observer in continued negotiations about a fisheries convention under the auspices of the Black Sea Commission.<sup>7</sup> Furthermore, the ongoing dialogue between the EU and the BSEC concerning the EU Green Paper on maritime policy may result in the establishment of a permanent unit with overall responsibility for maritime matters within the BSEC (Celac 2006).

All Black Sea states have established EEZs stretching up to 200 nautical miles beyond their territorial waters, where they generally treat vessels of different nationalities as trespassers. After the dismantling of the Soviet Union, Turkey has taken a more dominant role. In Ukraine and Russia, it is a widely held notion among fishermen, bureaucrats and marine scientists alike, that Turkish fishermen have everything to lose in an international agreement, as they believe Turkey has been operating in an open-access regime with no or little control of their fishing activities. Turkish fishing boats have been shot at and taken under arrest in Georgia, Romania and, in particular, in Ukraine.

### Relations between former Soviet states

The new political situation and the establishment of the nation-states Georgia, Russia and Ukraine on the shores of the Black Sea have changed the structural framework for fisheries. Where the Soviet Union acted on behalf of all these territories and the Soviet fleet was operating and cooperating as one unit, the new nation-states are now defining and defending their interests for their respective national fishing fleets. The assertion of national borders is defining new rules for mobility of the fishermen. It implies toll barriers: agreements must be established formally for Russians to fish in Ukrainian waters, and vice versa. Toll barriers represent the greatest obstacle for fishing vessels, *de facto* discouraging movement across national borders at sea, since the payment of duties on catch takes a couple of days and involves large volumes of documentation.

Ukraine and Russia manage the Azov Sea and its marine resources together in a Russian-Ukrainian Committee established in 1993. The committee meets twice a year, elaborating the measures for the management of fisheries (FAO United Nations 2003a). Russia and Ukraine also have a specific agreement whereby the boats of the two nations are allowed to catch anchovy in each other's territories. This applies mostly to Ukrainian vessels, since the migratory route of anchovy goes south along Russian shores. Ukraine and Georgia jointly manage the stocks of small pelagic fish in their respective waters. This means that Ukrainian fishermen may catch anchovy off the Georgian coast, as they did in the former USSR from the beginning of the 1960s (FAO United Nations 2003a). Few Ukrainian vessels choose to take up this opportunity. Toll barriers and bureaucratic slow-downs make it difficult and unprofitable to follow anchovy into Georgian waters.

Russia and Georgia do not have a working agreement allowing Russian vessels into Georgian waters, as bilateral relations between the two countries are strained. In the conflict between Abkhazia and Georgia, through which Abkhazia seeks disengagement from Georgia, Russia has taken a positive stance towards the Abkhazian fight. In the unresolved situation, Russian vessels are invited to fish off the Abkhazian coast. Abkhazia, however, lacks landing and processing sites for fish, and their economic infrastructure is heavily impaired by war. Russian fishing activities rest, therefore, on access to transport vessels, which is currently lacking, or on the ability to establish alternative means for the transport of catch.

### Overview of changes in state policies – a new framework for fisheries

Transformations of the state-run apparatus, the introduction of private property and market, and the establishment of new nation-states dramatically altered conditions for Russian and Ukrainian fisheries. The following changes in state policies have significantly affected fisheries:

- (1) *New nations and territorial restriction.* The former fishing areas open to Russian and Ukrainian fishing vessels stretched from the fishing grounds outside of Batumi in Georgia to Vilkova at the western borders of Ukraine. Since the establishment of new nation-states and borders, fishing activity mainly takes place within the redefined national waters (12 miles) of the two countries.
- (2) *Discontinuation of state subsidies and administrative system.* The Soviet state channelled economic resources into the cooperatives, making possible larger investments in modern technology and vessels. Price control resulted in stable and predictable expenses. Today the cooperatives operate as independent economic enterprises, with little or no state support. The problems for the cooperatives are compounded by the *lack of flexible financial mechanisms*. Russian and Ukrainian banks provide loans at 20–30% interest rates, compared to 6–8% from foreign banks (Konstantinova 2001). In addition, neither Russian nor Ukrainian banks provide long-term loans (8–10 years). Under these circumstances, larger investments in the fishery sector are difficult.
- (3) *Discontinuation of price control.* In the Soviet period, fish was sold at stable prices – determined centrally in Moscow – and prices were uniform over the whole union. In this way the fishing organization were ensured reasonable and predictable pay for their products. Today, the price fluctuates with the market. Moreover, the states have opened up for the import of foreign fish products.
- (4) *Privatization of the distributional system.* The state purchasers of fish have been replaced by a market of independent agents serving short-term and unstable contracts. A common problem for the fishers is lack of buyers, which may result in reduced quality or even destruction of the catch.
- (5) *Increased taxes.* Together with the discontinuation of state support, this has created problems with regard to investments, processing and distribution.
- (6) *Difficult access to new vessels and new equipment.* The economic structure of the Soviet Union was based on a concentration of production branches in specific countries and regions. Shipyards were located mainly in the countries of Eastern Europe. Several of the shipyards that once operated along the Black Sea did not survive the economic transition. High toll barriers, however, prevent fishing enterprises from buying vessels abroad.
- (7) *The growth of tourism.* In Soviet times, travel and vacation were regulated by the state. Tourist trips (*putevka*) were distributed to citizens through their work places. With the introduction of a market economy and free movement for those with money, tourism has been developing rapidly. The fisheries on the Crimean and Russian Black Sea coast are experiencing increased competition from a rapidly expanding tourist industry. The sites along the shore where the fishing industry has its landing and processing sites have become attractive for these investors.
- (8) *Bureaucratic changes* have resulted in a transfer of fisheries oversight to lower levels of state administration and, until recently, in the lack of a comprehensive legal framework for fisheries. A combination of new borders, lack of new technology, high expenses and, especially, bureaucratic obstacles has led to a decrease in the geographic mobility (of boats, crew, landings) relative to fishing within the Soviet system. In Russia, for

instance, there are explicit rules stating that the officers on board the Russian vessels should be Russian citizens.

In the remainder of this article, we discuss in some detail how these changes in fisheries and fishery policy have manifested themselves on two different levels: (1) state fishery administration; and (2) organizational structure in the fisheries. The latter issue is broached through a survey of operations of fishery cooperatives and a look at the emergence of new actors and organizations on the fishery sector. Discussion of these issues will demonstrate the changing ways in which social entitlements to the marine resources are being established.

## Changes in fishery administration

### *Russia*

The fishing bureaucracy of Russia has undergone a period of disintegration since 1991. From having a separate Ministry of Fisheries in the USSR, the fishing sector has moved down the hierarchy of state bureaucracy. Responsibility for fisheries was first vested in a State Committee for Fisheries and then further degraded to a Fisheries Agency under the aegis of the Ministry of Agriculture (Hønneland 2004). Since 1991, the Russian fishing bureaucracy has earned a reputation for being particularly corrupt and inefficient. A concept document for the Russian fishery sector (Russian Federal Government 2003) lists the following inadequacies in Russian fisheries: lack of legal normative framework; a bureaucratic system surrounded by allegations of corruption and nepotism; and rampant poaching. Due to intense reform activities, the federal level seems to have lost its ability to control and coordinate fisheries policy and management. In just six years, there have been eight different leaders of the Committee for Fisheries; among these, people with no prior experience from the sector, including, for instance, a general of the former KGB (Zaidiner 2002).

Putin's ongoing reform of the Russian state administration implies the separation of bureaucratic functions along three different 'lines': (1) political; (2) executive; and (3) control functions. This separation has also been applied in fisheries administration. Thus, (1) a new Department of Fisheries, within the Ministry of Agriculture, is responsible for the establishment of general fisheries policy in the federation, as well as fisheries regulations (political function).<sup>8</sup> (2) The Fishery Agency, also within the Ministry of Agriculture, has retained the executive function and is responsible for services and contracts with the different agents within the sector (executive function).<sup>9</sup> (3) The Veterinary Service, along with the Federal Border Service, represents the different controlling agencies on land and at sea. Previously, the Fishing Inspection (*Glavrybvod*) had the main responsibility for the control of fisheries. In 2004 the central *Glavrybvod* unit was discontinued and its staff transferred to the Veterinary service. By 2005, the regional offices of the Fishing Inspection were also closed down.

The constant reform of fisheries bureaucracy and management is affecting fishery organizations in various ways. The reformation of the quota system serves well as an example of the unstable character of the fisheries' administrative framework. The basic principle for quota allocation in the former Soviet Union was based on catch capacity and previous performance (Hønneland 2004). Between 1995 and 2000, the quota allocation was additionally determined on the basis of the following principles: special rights of indigenous people; the interest of communities depending on fishery; contributions to research funding, supervision and reproduction of fish stocks; and compliance with fishing regulations (Hønneland 2004, 56). In December 2000, a new system for quota allocation was introduced. Annual quota auctions were set up, intended to increase transparency in the allocation of quotas. Three years later, however, the system was abolished because of the negative effect of the auctions: a sharp increase in seafood costs and a

nearly 50% yearly increase in trade liability of the national industry establishment.<sup>10</sup> From the fishing companies' point of view, the auction system clearly privileged the big and financially strong fishing enterprises over smaller actors.<sup>11</sup> Various practitioners within the fishing sector successfully protested against the system. The auction system was replaced by a new quota system from 1 January 2004.<sup>12</sup> The quotas now apply for five years at a time and are distributed in accordance with a so-called historical aspect; that is, the companies most aggressive in buying quotas at fishery auctions in the preceding three years benefit by being allocated the largest quotas.

Finally, continuous reforms of the bureaucracy and the quota system hindered federal fishing management. Russian fishermen have reported that, because the state apparatus was unable to determine and allocate quotas in time, the entire Russian fishing fleet, from Murmansk to Vladivostok and to the Black Sea, was brought to a halt and the vessels confined to dock in January 2004.

### *Ukraine*

The organization of the state bureaucracy for fisheries in Ukraine resembles its Russian counterpart. Like Russia, the State Department of Fisheries is placed within the Ministry of Agriculture. The Fisheries Inspection and the Scientific Institutes of Fisheries (like YugNIRO)<sup>13</sup> are subordinated to the State Department of Fisheries. The Department is divided into subdepartments: aquaculture; marine fisheries; oceanic fisheries; and freshwater fisheries. Among other things, it works on international agreements for purchasing fish-processing capacity abroad and for fishing in the other countries' EEZs. All management is centred in Kiev.<sup>14</sup>

In Ukraine, the strategic document for the fisheries is 'The concept for development of fisheries of Ukraine' adopted by the Ukrainian Parliament in 2000. This concept paper underlines the important role of fisheries in the national food industry and states the importance of developing favourable conditions for the fishing industry to produce high-quality fish products. In addition, the Ukrainian ambition for national fisheries is to be a participant in the international management and use of marine resources, as well as to ensure and enhance its position in the world oceans.

Similar to the Russian fisheries, the Ukrainians have experienced changes in the principle of quota allocation. In the early days of Ukrainian independence, quotas were allocated to individual enterprises (Shlyakov 2003). This arrangement did not prove effective; some fishing firms were not able to catch their share given the resource situation on certain fishing grounds. Others had to keep their crews and vessels in port because they had reached their limit too rapidly. The system prohibited the buying and selling of quotas. Some companies, however, found a way around that rule by renting vessels and crew with spare quotas. In 2002, the system of state license for commercial fisheries was established. Since 2002, a new system has been introduced for fishing species such as anchovy and sprat, modelled on an Olympic system: catch as much as you can until the TAC is reached. Only valuable and scarce species are regulated through individual quotas (ibid.). Crimean fishing companies complained that there was no transparency in the allocation of quotas, especially for valuable species. Many maintain that corruption is also a serious problem in Ukrainian fisheries management.

### **The post-Soviet role of fishing cooperatives**

Cooperatives have survived privatization reforms. Judging by a list of enterprises in Krasnodar Krai, Russia, they continue to exist, at least in name, in both the agricultural and fishery sectors. Yet, there have been significant changes. First, the number of cooperatives has decreased. In

Table 1. Overview of the number of vessels during Soviet times and in 2004.

Location	Number of mid-size seiners, 1980s	Number of mid-size seiners, 2004
Novorossisk	15 (2 for transport)	4 catch vessel
Kerch	22	6 catch vessels
Anapa	5 catch vessels 2 transport vessels	0
Gilinzik	12	0
Yalta	6	4
Temriuk	Not available <sup>17</sup>	0
Taman	3	0

Source: Fishing cooperatives interviewed during the project on Crimea and Krasnodar Krai.

Anapa, for instance, several fishing collectives operated in the Soviet period. Today, all of them have more or less<sup>15</sup> ceased to exist and the general level of fishing activity around this city is low.<sup>16</sup> According to the official overview of enterprises in Krasnodar Krai, a total of 11 fishing cooperatives are registered. These include both Black Sea fishing cooperatives and freshwater inland cooperatives (Federal Service of State Statistics 2004). In Crimea, about five cooperatives are operating: two in Kerch, one in Yalta, and two in Sevastopol.

The cooperative sector's struggle with the disappearance of the state support apparatus resulted in different responses, like renting out vessels for transport purposes or selling them off. Many of the cooperatives did not, however, survive the difficult transition period. In several of the cooperatives, operating today, chairmen from the Soviet period were still heading the company. The ability to adapt to a new economic situation, reorganize the work, and grasp the possibilities of the market, has proved difficult. Compared with the Soviet plan economy, the market economy demands a radically different way of thinking and acting. The fact that many chairmen of the cooperatives have managed to survive the transition has been a setback for the sector. Kaver (2001) notes that the cooperatives that have had a natural shift in leadership demonstrated a noticeably higher result than those with 'old' chairmen.

With market reform, the fishing sector was privatized, beginning in 1992. In this process the cooperatives kept their main assets of technological equipment and vessels, and this is the main economic reason why some of these organizations have managed to survive the transformation. Many cooperatives also bought the State-owned processing plants in the rush of privatization. For many cooperatives privatization meant that the enterprise was divided among the workers in the form of shares based on position in the hierarchy and time employed. A cooperative leader claimed that the change from Soviet times was not so much in organization, as in the external conditions under which they now operate. This is not entirely correct, as the members' rights to collective property have changed. The shareholders in the contemporary cooperatives are able to sell their shares, whereas the previous *kolkhozniks* could not take their 'share' along if for some reason they were to leave the cooperative.

On the other hand, the cooperatives' members still elect, or re-elect, their leaders every fourth or fifth year.<sup>18</sup> Bonuses are distributed every year that the enterprise makes a profit. Unfortunately, most of the organizations are not run profitably enough to ensure annual bonuses. The main catches for Black Sea fisheries in Russia and Ukraine are small pelagics such as anchovy and sprat, species with a low market price per kilo. Like the agricultural sector, the fishery sector is experiencing a 'scissors crisis', meaning that there is a disparity between the costs of the investment needed for production and the market price of the produce (see Wegren 2000, 249).

To work at the cooperative does not require membership, as it did in the Soviet period. Elsewhere (Knudsen 1997, 57) we have noted that a substantial number of the members in the cooperatives worked in administration. Formally, the cooperative belongs to the collective of workers. In many cases, however, the cooperatives are still *de facto* controlled by the chairmen of the collectives. The administration makes most of the strategic decisions in terms of when boats should go fishing, which equipment to buy and sell, and which people to employ. The captains decide where to fish and organization on board.

For some of the cooperatives, a worker could choose to become a member after 1991 by paying an entrance fee to buy a certain amount of shares. Other cooperatives did not demand money, but a potential member was required to work in the cooperative for a time, and work well, before becoming a member. Most of the fishermen working for a cooperative we interviewed were not members, and there appeared to be few economic and political incentives to encourage new workers to become a permanent part of the cooperative.

On the other hand, what separates the cooperatives from private enterprises is the attitude towards the workers (members or not). During the Soviet period the workers at the cooperative toiled there for many years, maybe even a lifetime. From the day a person started working, they secured a package of social rights that lasted beyond retirement. Social welfare was channelled through these organizations. The cooperatives still see it as a responsibility to care for their retired workers, help finance celebrations or funerals, and provide current and retired workers with fish and other products at reduced prices. They also take pride in taking social responsibility in the local communities, such as running the cultural centre and financing cultural workers. This way of thinking is still a part of the organizational culture of the cooperatives, despite transition to a market economy.

Why, then, do many of the fishermen choose not to become members? One possible answer may be the need for mobility in the labour market, to be able to move in and out of different jobs. If the private owner does not pay, then the cooperative – with lower salaries, but additional benefits – may be a good option for a time. But the need for flexibility is greater than the benefits offered in the cooperative.

In the Soviet era, the state monopolized access to the fishery through the organization of cooperatives and state corporations. In the cooperatives, membership embodied different sets of social entitlements, where fishing was only one of several rights. With the (re)introduction of a market economy in the 1990s, the social entitlements connected with fisheries came to be based on the material resources of the individual applicant. To be assigned the right to conduct commercial fishing requires access to a vessel and to catch technology. To maintain these rights, it is (at least in theory) essential to observe the rules and laws of commercial fishing. Yet, irrespective of formal structure and juridical definitions of property, cooperative membership continues to be one important way to establish social entitlements to the marine resources of the Black Sea. Cooperative membership may be established in various ways, but social acceptance within the ‘community’, willingness to work, and possession of relevant skills remain important. Within the cooperatives, the right to fish remains one among a range of entitlements. The right to fish is here a ‘community’ entitlement that is internally negotiated within a cooperative structure to a large extent controlled by the management.

### **New fishery actors and organizations**

While cooperatives remain, new ways to establish social entitlements have developed during the last 15 years. Changes in law, bureaucracy and economy have resulted in new kinds of private fishing firms and the establishment of new fishery organizations independent of the state.

Private fishery companies have been established by a range of new actors:

- (1) People with backgrounds in fishery cooperatives, most often captains;
- (2) People from other parts of the fishery sector, familiar with the activity and with established social networks in the sector;
- (3) People with no prior experience in fisheries, but possessing investment capital. During the last few years fish processing factories have increasingly become part of larger, vertically integrated corporations.

The history of one Ukrainian firm based in Kerch provides an interesting example of the development of new strategies. The firm was founded by a fish trader and a fisherman with experience in the oceanic fishing fleet. The fisherman established his firm in response to problems with delivery and realization of fish produce, like increased fish prices and uncertain delivery of fish due to unstable contracts with traders. Together, he and the trader created a firm that would control all the stages from catching, salting and freezing of the fish to delivery at markets in Kharkov and Kiev. The firm did extremely well, and in 2004 was appointed 'Fishing Firm of the Year' in Ukraine. One thing that made the firm highly competitive was their ability to offer better-quality products because of effective freezing technology on board the vessel. Most of the other vessels in the Kerch cooperatives depended on salting and freezing technology on land. Secondly, since they avoided the many exchanges among purchasers, they could afford to offer their fish at a lower price.

Another important feature of post-Soviet development in the fishing sector is the emergence of new professional and industrial fishery organizations. These are basically of two types: (1) those partially continued from the Soviet era, still embedded within the state; (2) new initiatives that are independent of the state. Krasnodarryba (Russia, Krasnodar) and Krymrybakkolkhozsoius (Ukraine, Crimea) are two organizations representing different enterprises and businessmen within the regional fishing sector in Krasnodar and on Crimea. They are continuations of associations that were established under different names by the Soviet government some 35 years ago. At that time they were part of the state apparatus, operating as joint organizations for fish-processing plants and fishery cooperatives. Today they are public organizations (*obshchestvennaya organizatsiya*), promoting the interests of their members within the state and the market. Krymrybakkolkhozsoius represented 19 different companies and organizations in Crimea in 2001 (Popov 2001). The association's main tasks included taking part in quota negotiation, legal consultation, and arranging contact between traders and fish-catching companies.

The degree of independence of these public organizations may be questioned. The link to state administration is still strong. For instance, the leader of Krasnodarryba at the time of our fieldwork was a man with experience from the fishing bureaucracy stretching far back into the Soviet days. He was not only the chairman of the public organization, but also headed the Fisheries Committee in the regional administration. Strong connections to the state administration seems also to be the case for the Ukrainian counterpart Krymrybakkolkhozsoius, which in August 2004 was involved in the Ukrainian negotiations with Russia concerning the distribution of goby quotas in the Azov Sea. These public organizations receive financing from the state and, in some cases, are even under the aegis of state agencies.

### ***The Sevastopol Association of Fishery Union***<sup>19</sup>

In 2002 an independent-interest organization for fishing firms was established in the Sevastopol region. This was the first non-governmental organization representing fishermen in Ukraine. In 2004 the organization included 11 companies, with around 50 vessels (ranging from 20 to 50 m). The organization formed as a response to growing frustration among private fishermen caused by the lack of coherent fisheries laws in Ukraine and to defend their rights within the state and

its bureaucracy. Inspired by French laws and regulations, the organization is lobbying in Kiev to develop a new law for fisheries.

Since 2002, similar organizations have been founded around the Azov and Black Sea basin. These have decided to join forces under an umbrella organization with the name YugoUkrainy, which was getting started in 2004. These organizations are potentially important in consolidating the sector and in bringing greater stability and predictability to fishing, fish processing and fish trade.

### **New and 'old' organizations in the Russian and Ukrainian Black Sea fisheries**

When the Russian and Ukrainian states gradually consolidated during the latter part of the 1990s, they re-emerged as sovereign managers of marine resources; control and regulations were again exercised and discipline enforced. Findings in this study indicate that the lines between analytical categories – such as 'fishing activities', 'market', 'science' and 'state apparatus' – are often blurred and ambiguous in practice. Fishing inspectors may be controllers and poachers at the same time. Marine and fishery research institutions are important actors, and have multiple and at times conflicting roles. Bureaucrats and scientific institutions may be agents in the private market as well as state employees, as illustrated by the following example. A ship owner, who runs a fishing business, also heads an interest organization for fishing firms, lobbies at a central political level, and conducts research on aquaculture. We have also pointed out that the lines between civil society and state are blurred. Many of the interest organizations in both Russia and Ukraine that supposedly promote the interests of their members relative to the state and the market actually build on previous Soviet organizations that were a part of the state apparatus.

Although new organizations and private firms have been established, there is a great deal of continuity from the Soviet era. The fishery cooperative, which we might have expected to disappear as an outdated Soviet institution, is of continued importance in both Russia and Ukraine. Some cooperatives have been transformed into stock-holding companies, adapting to the transition to a market economy; others have for various reasons kept the structure of collective property. For instance, one fishery cooperative made public the large number of pensioners with right to share in the cooperative. They feared that the pensioners would sell their shares, allowing an outside investor control of the majority of shares. Facing the current grim state of the fisheries the investor would then most likely split and sell units of the collective for the purpose of tourism.

The cooperatives are not 'prestigious' institutions to work in, neither for fishermen nor for managers, as they are often perceived as inefficient and as institutions of the past. Nevertheless, some values from the Soviet era seem to persist in the new market economy. Some new companies have also adopted several of the social responsibilities that were important in the cooperatives, like money gifts for the crew on birthdays, and food or drinks on special holidays.

### **Concluding remarks**

In Soviet times cooperative membership was the primary means of establishing social entitlements that would enable people to take part in the exploitation of the natural resources of the Black Sea. These cooperatives were embedded within a wider structure of distribution and welfare, and membership in the cooperatives not only gave people rights to fish, but in effect gave them a position in society. Cooperatives continue to be of some importance in establishing social entitlements relative to Black Sea fisheries, but the situation is now much more complex. While marine resources remain formally the property of the State, at least six different ways to

establish social entitlements to explore the fish resources of the Black Sea can be identified: cooperative membership; capital; skills; social networks; fishery research and fishery inspection; and poaching.

Compared to the Soviet state, the support role of the state apparatus has diminished while certain control and regulatory functions seem to have increased in importance. Bureaucratic demands are often viewed by fishermen not as means to protect the marine resources, but as ways to enrich the bureaucrats. The state apparatuses in both countries thus struggle for legitimacy in the management of their territorial waters. Private companies, cooperatives and fishery research all establish their rights to fishing within the formal, state-sanctioned system of TACs and quotas. But cooperation between these sectors is common, and social networking is an important strategy to ensure the viability of businesses that manoeuvre in this dynamic sector. Frequent changes in state policy and management create uncertainty. There is clearly greater need, as well as more space for flexibility than before. It is an amorphous situation, accentuated by the fact that poaching and illegal fishing are rampant. Yet, although the role of the state has clearly diminished, the state has reproduced structures, rules and procedures (e.g. stock assessment, TACs, quotas and inspection) that may facilitate accommodation with, for example, EU Common Fishery Policy. In this respect, Ukraine (and Russia) seems to be better prepared than Turkey (Knudsen, Brown, and Pelzalski 2007).

In Ukraine and Russia, being a fisherman has lost a measure of its status and prestige from Soviet days. There is, however, still demand for educated personnel aboard fishing vessels at sea, and the educational system continues to produce people with the necessary knowledge. The fishing profession can provide a higher monthly salary than many blue-collar professions on land, but it demands long working hours and frequent periods of absence from family and friends. Some still choose the profession, and some invest their money in the fishing sector. Despite the negative tendencies within the fishing sector, the Ukrainian and Russian Black Sea fisheries are showing small signs of revitalization. There is research activity within the field of aquaculture of shellfish and finfish. Fish-processing factories are actively adapting to the new market and developing new products. Furthermore, new fishing enterprises have emerged with inventive approaches to economic survival. New organizational structures have developed to represent the interests of fishers and other actors in the sector. If proper financial mechanisms are developed, both in the banking system and the tax system, combined with a temporary reduction of *custom rates* on imports of fishing vessels and equipment to Ukraine and Russia, this could solve much of the material and technological crisis in the fisheries.

However, these economic measures to increase efficiency will be pointless if the ecological basis for fisheries is not secured. There is still a pressing need for an international framework for fishery management in the Black Sea in order to protect the marine resources. If the ecological basis for fisheries can be properly secured, there are still skilled personnel there to make use of it. They contribute to keeping the Ukrainian and Russian Black Sea coastline from becoming solely regions for the tourist business, where people live with 'their backs to the sea'.

## Notes

1. An earlier version of this article was presented at the Biannual Scientific Conference on the Black Sea Ecosystem 2005 and Beyond, Istanbul, May 2006, and is based upon a 2006 report by the authors, 'Transforming Ukrainian and Russian Black Sea fisheries: Socio-economic change and property relations' (Bergen, University of Bergen). Literature studies and a seven-week survey in fishing communities along Ukraine's and Russia's Black Sea coast in 2004 constitute the data for this work. The material was collected by Hege Toje, mainly in the southern Russian borderland region of Krasnodar Krai, and on the coast of Crimea in Ukraine. In Russia the fieldwork was concentrated around the sea ports of Anapa, Novorossiysk, Gelendzhik, Taman and Temriuk, where most of the

- fishing organizations on the Russian coastline are found. In Crimea, fieldwork was carried through in Kerch, Sevastopol and Yalta. Altogether, 56 interviews were conducted.
2. This does not imply that the Soviet state exercised full control over the distribution of fish. Fishermen often sold a part of their catch 'on the side', or distributed it to family and friends. There also existed small-scale private buyers and sellers operating as a part of the shadow economy.
  3. *Antarktika*, based in Odessa.
  4. A.R. Boltachev, Fishing firms in Sevastopol, e-mail to Hege Toje, 24 November 2005.
  5. Interview with chairman of fish factory, Yalta, 4 August 2004.
  6. Interview with chairman of cooperative, Temriuk, 30 July 2004; interview with fisherman and brigadier, Temriuk, 30 July 2004.
  7. Concerning the issue of the involvement of the BSEC in the negotiation of a Black Sea fishery convention, the authors acknowledge the helpful input from one anonymous reviewer and from Ahmet Kideys, Director of the Black Sea Commission.
  8. [www.mcx.ru/index.html?he\\_id=364](http://www.mcx.ru/index.html?he_id=364).
  9. [www.mcx.ru/index.html?he\\_id=889](http://www.mcx.ru/index.html?he_id=889).
  10. <http://english.pravda.ru/economics/2001/12/26/24525.html>.
  11. See also Crab over money. *Kommersant*, 14 February 2005.
  12. The quotas are now allocated to fixed prices, which most of the practitioners we spoke to referred to as 'symbolic'.
  13. Yug NIRO is Southern Scientific Research Institute of Marine Fisheries and Oceanography, Kerch, Ukraine.
  14. A.R. Boltachev, personal communication, 10 February 2006.
  15. Two fishing brigades were all that was left of the cooperative, Druzhba.
  16. The Anapa Banks is now the only zone along the Russian Black Sea coastline where fishing is forbidden, a factor that may help to explain the low fishing activity in this city. The region surrounding Anapa has also been a major producer of wine, and has long been a popular place for tourism. While these two sectors have been developed, fishing activity has diminished.
  17. The chairman we interviewed had only been there for a few years, and was not familiar with the previous running of the cooperative.
  18. This does not necessarily mean democratic and fair elections; in our material, we have one example of an election being held under threat of violence.
  19. *Assosiatsiya rybokhozyaskikh obedineniya Sevastopolya*.

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### References

- Boltachev, A.R., G.V. Zuev, and D.K. Gutsal. 2001. K stoletiju otcheta S. A. Zernova po issledovaniju rybolovstva v Tavricheskoi gubernii, [To the 100 years jubilee of Zernov's report on fisheries in the Tavrichesk government]. *Ekologiya morya* 57: 19–24.
- Celac, S. 2006. The European Union and maritime issues in the Black Sea area. Policy Brief no. 3, December 2006. Athens: International Centre for Black Sea Studies.
- Davidenko, P., and B. Eskin. 1987. *Rabochii Okean [Working Ocean]*. Kiev: Mistetsvo.
- FAO United Nations. 2003a. Fishery country profile: Ukraine. Rome: Food and Agriculture Organization of the United Nations.
- . 2003b. Information on fisheries management in Ukraine. Rome: Food and Agriculture Organization of the United Nations.
- Federal Service of State Statistics. 2004. Spisok sel'skokhozyastvennykh organizatsii kraia, 1 ijunya 2004 [List over agricultural organizations in the krai, 1 June 2004]. Krasnodar, Russia: Krasnodar Krai Committee on State Statistics.
- Hann, C.M. 1998. *Property relations: Renewing the anthropological tradition*. Cambridge: Cambridge University Press.

- Humphrey, C. 1998. *Marx went away – but Karl stayed behind*. Ann Arbor: University of Michigan Press.
- Hønneland, G. 2004. *Russian fisheries management: The precautionary approach in theory and practice*. Leiden, The Netherlands: Martinus Nijhoff.
- Kaver, I.K. 2001. Rynochnye transformatsii rybnogo khozyastva Azovo- Chernomorskogo basseina [Market transformations in the fisheries of the Black Sea and Asov Sea]. *Rybnoe Khozyastvo Ukrainy* 6: 38–40.
- Knudsen, S. 1997. *A comparative study of fishing communities and public awareness in Turkey and Ukraine. Social assessment studies of the human communities of the Black Sea ecosystem*. Istanbul: The Black Sea Environmental Programme, Global Environmental Facility.
- Knudsen, S., J. Brown, and W. Pelzalski. 2007. Joining the EU: The impacts on fisheries. ELME project (FP6 505576). Report, Bergen, London, and Gdynia.
- Kochin, M.S. 1996. Decollectivization of agriculture and the planned economy. *American Journal of Political Science* 40: 717–39.
- Konstantinova, I. 2001. Russia (ISA): Overview of shipbuilding industry, US and Foreign Commercial Service and US Department of State. [http://www.bisnis.doc.gov/bisnis/bisdoc/011208shipbuild\\_ru.htm](http://www.bisnis.doc.gov/bisnis/bisdoc/011208shipbuild_ru.htm)
- Mee, L.D. 2002. Protecting the Black Sea environment: A challenge for cooperation and sustainable development in Europe. In *Europe's Black Sea dimension*, ed. T. Adams, M. Emerson, and M. Vahl, 81–135. Brussels: Centre for European Policy Studies.
- Novikov, N.P., and I.I. Serobaba. 2001. Strategiya ispol'zovaniya bioresursov chernogo morya na covremennom etape [The strategic use of bio-resources in the Black Sea in modern times]. *Rybnoe Khozyastvo Ukrainy* 5: 7–10.
- Popov, A.I. 2001. Krymskomy rybolovetskomu soiusu byt'! [Long live the Crimean Fishing Association!] *Rybnoe Khozyastvo Ukrainy* 6: 6.
- Russian Federal Government. 2003. Conception of the development of fisheries in the Russian Federation towards 2020. Moscow: Russian Federal Government, State Committee for Fisheries.
- Shlyakov, V. 2003. *Management of fisheries: National report of Ukraine. The workshop of responsible fisheries*. Sile, Turkey: Black Sea Environmental Program.
- Wegren, S.K. 2000. Socioeconomic transformation in Russia: Where is the rural elite? *Europe-Asia Studies* 52: 237–71.
- Zaidiner, J.I. 2002. Ekonomicheskie problemy rybnoi otrasli Possii i Azogo-Chernomorya na rybezhe 20 i 21 vekov [Economic problems in the fishery sector in the Black Sea and the Azov Sea on the border between the twentieth and twenty-first centuries]. In *Osnovnyie problemy rybnogo khozyaistva i okhrany rybokhozyaistvennykh vodoemov Azovo-Chernomorskogo baseina*, ed. S.P. Volovik, 450–72. Moscow: State Fisheries Committee of Russian Federation.