FISH QUOTA AUCTIONS IN THE RUSSIAN FAR EAST: A FAILED EXPERIMENT

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ABSTRACT

The auction system is rather rare in the world fisheries. During this three-year period, 2001-2003, fish quotas in the RFE and the North (Barents Sea) were auctioned off, with the by far largest volumes in the RFE. The main purpose of auctioning quotas for fish and marine invertebrates was to increase the share of resource rent diverted to the state budget, and to distribute quotas in a transparent and fair manner. Due to several reasons, most importantly the serious deterioration of the economic situation of fishing enterprises, the auction system was abandoned. The purpose of paper is to discuss the auction system as a tool of quota allocation and analyze its impacts on the fisheries sector. One of the root causes behind the failure of the auction system was the weakness of the enforcement system.

Keywords: Fisheries management, fishing right auctions, Russian Far East

A SHORT OVERVIEW OF THE RFE FISHERIES

During the Soviet period, up to two thirds of the annual Russian fish production came from the Russian Far East (RFE). Today that share is still the same (Table 1).

Table 1. Total fish and seafood catch in 1990, 1995-2002 in RF and RFE basin (10^3 t).

	1990	1995	1996	1997	1998	1999	2000	2001	2002
Russia, total	7879	3942	4137	4108	4084	4020	4011	3492	3080
Russian Far East	4628	2816	2964	2967	2959	2626	2322	2143	1737

Source: [2]

The fishing fleet of the RFE consists of around 1700 vessels and the industry employs about 160,000 people, working in 1500 companies. Despite the ageing equipment and lack of financing the RFE fishing industry continues to be one of the region's most important sources of employment and export earnings, accounting for 27% of regional GDP in Primorsky krai to 55% in Kamchatskaya oblast [2].

The RFE fisheries include all the seas off the Russian Pacific coast. Their shares of the total RFE catch volume is as follows: Sea of Okhotsk (50–60%), Bering Sea (20–25%), East Kamchatka and Kuril Island waters (15%), and Japan Sea (3%) [3].

In 1999, nine of the 15 Russian fishing enterprises with the largest catch volumes were located in the RFE, providing employment for a considerable part of the population, besides being the biggest taxpayers of their regions. The RFE territories responsible for most of the fishing activities and their approximate shares in total catching and processing in 2002 were as follows: Primorsky Krai 34%, Sakhalin Oblast 29%, Kamchatskaya Oblast 17%, and Khabarovsky Krai 10%. The said seas also border Chucotka and Koryak Autonomous Counties, which are responsible for the rest [3].

As the territory of the RFE fishery is vast, there are hundreds of landing places, ranging from small villages with only a single jetty to gigantic fishing ports such as Vladivostok, Nakhodka or Petropavlovsk-

Kamchatsky. Due to the re-orientation of the fishery towards export within the last ten years, Russian boats today prefer landing in Japan, Korea or China.

Foreign enterprises can fish in Russian waters for commercial quotas allocated under bilateral agreements on fishing in RF's EEZ and on its continental shelf, and for quotas purchased in auctions. Foreign vessels have to report via radio when they enter the Russian zone. When leaving, catches have to be reported too. Most of the foreign vessels originate from Japan and Korea, but some also from the USA, Poland, and elsewhere. The enforcement in the Russian EEZ is provided by the ships of Federal Border Service.

During 1993-2002, 60-80% of the catch volume in the RFE fisheries consisted of Alaska Pollock. Usually around 70% is exported, while 30% is sold in the domestic market. The other most important fish species are salmon, Pacific herring, Pacific cod, and halibut. In total, more than 30 species are commercially targeted. Also, invertebrates such as king crab, squid, molluscs and shrimp are of economic importance. Today the RFE fisheries are concentrated within Russia's EEZ only. The volumes of TAC in 1997-2003 are presented in Table 2.

Table 2. The TAC volumes in RFE fisheries in 1997-2003 (10^3 t).

	1997	1998	1999	2000	2001	2002	2003
Fish (excl. *Chondrostei*)	3900.5	3999.3	3745.2	3612.3	3305.6	2456.6	2615.3
Mammals	8.8	9.2	9.7	9.5	7.4	9.8	11.6
Crabs	69.8	71.6	87.9	82.6	76.9	77.5	86.3
Mollusks	352.2	473.1	555.3	399.2	373.8	434.7	438.4
Sea-urchin	20.0	19.8	16.2	19.3	14.6	16.3	18.3
Seaweed	57.5	60.9	123.2	117.3	141.3	150.5	193.3

Source: [3]

GENERAL ALLOCATION PRINCIPLES OF TAC AND QUOTAS IN THE RFE FISHERIES

The overall authority in the RFE fisheries is exercised by the State Fishery Committee (SFC) in Moscow. This body manages, monitors, and enforces regulations in the fisheries. The second administrative level in the RFE fisheries is the Far-Eastern Scientific-Industrial Council, which represents the RFE regions and recommends fishing quotas and regulations. The SFC has the final decisive power.

The quota allocation process has the following stages. By the middle of May every year, the SFC presents the TAC proposals for the next year to the Ministry of Natural Resources, where experts consider the suggestions and approve them if ecologically sound. By mid October, this proposal has to be approved by the Government of the RF. Then, by Government decision and with the consent with other state bodies, the TAC is distributed among four quota types presented below (during 2001 – 2003 there were five types, i.e. also quotas put up for auctions).

The distribution of commercial quotas is rather complicated. The TAC volumes are distributed among regions, where the Fishery Regional Councils consider the applications of fishing enterprises and decide the detailed allocation (amounts, species, and areas). The Councils' suggestions depend on certain criteria, which vary from region to region. The decisions of the Councils are then forwarded to the SFC where the proposals are considered and approved. In case of disagreements and problems the SFC has the final decisive voice. After approval the decision is published as an order. The SFC assigns quotas to the administrative bodies of 19 coastal territories of Russia. On a regional level, the territory's quota is distributed between users according to the rules adopted in each territory. Said rules vary between territories and are mostly decided by the governors.

QUOTA ALLOCATION BEFORE THE AUCTIONS

During the Soviet period the bulk of commercial fishing activities were managed through "Dalryba", a state-owned organization responsible for fishing throughout the Russian Far East. A smaller part of the catches (less than 20%) was taken through smaller fishing cooperatives. All quotas belonged to the state, which organized fishing, as all other economic activities. Hence there was no competition between different enterprises, and the fishing capacity was built up according to the central scheme. Analogous systems existed also in the other parts of Soviet fisheries, like in the north-western seas [4] or in the Baltic Sea [1].

After the fall of the Soviet system the elements of market economy emerged in Russian economic life. Today, more than 90% of all fishery firms are private or joint ventures with foreigners or the state, the rest still being state-owned. Many new fisheries enterprises have been established during the post-soviet period: in 1990 there were 306 enterprises, while in 2001 - no less than 1600 [5,6]. As the wages in economically independent firms depend on catches, strong competition between fishing firms appeared.

In general, before the introduction of auctions, all fishing quotas in the RFE were allocated according to the SFC Temporal Order of TAC of Marine Resources Allocation [7] in the three following ways:

1) Scientific quotas for research and monitoring programs. Research quotas, besides their research function, were meant to provide some economic support for the research institutions.

2) Commercial quotas allocated without prepayment. The resource fee was very small, fixed according to the Tax Code of RF and had to be paid after (and only if) the quota was used. Most of these quotas were allocated to the Russian coastal regions through regional Fishery Councils for distribution to harvesters and processors operating in the Russian territory. The remainder was allocated directly from Moscow under the decision of the RF Government.

3) Commercial quotas allocated to foreign enterprises under bilateral agreements on fishing in Russia's EEZ and on its continental shelf. These quotas formed the Russian exchange fund of fishing opportunities, which were traded against fishing opportunities in foreign waters.

The quota distribution between the above-mentioned groups for year 2000 is presented in Table 3.

Table 3. Quota distribution (Q, in 10^3 t) and its real utilization (U, in %) in 2000.
SCI – scientific; C Reg – commercial, decision of the regions; C RF gov – commercial, decision of the RF government; Int – intergovernmental agreements.

Objects	Type of Quota								Total	
	Sci		C Reg		C RF gov		Int			
	Q	U	Q	U	Q	U	Q	U	Q	U
Pollock	37	59	1529	76	138	61	166	73	1870	75
Herring	51	39	468	73	10	-	6	50	535	68
Sole	6	33	194	56	5	20	0,6	0	205	55
Fish, total	129	89	3067	82	372	35	247	57	3818	76
Crabs, total	5,2	73	38	84	21	81	-	-	64,2	82
Shrimps, total	2,9	28	12	175	3	20	-	-	17,9	125
Mollusks, total	18,9	9	21	433	108	1	33	6	181	54

Source: [10]

In 2000 more strict criteria for the commercial quota allocation by the local governments were set by the central government. According to these the quotas could be allocated only to firms which 1) do not have any tax debt to the state, 2) possess a fleet under the RF flag, and 3) deliver the fish to Russian processing firms or sell on RF's territory the fish they catch. Most of the regional quota was still distributed for negligible fee, which formed only very small part (0,01%) in the state income from fisheries [24].

Before the introduction of the auction system, all commercial quotas for Russian enterprises were distributed approximately according as follows:

- free commercial quotas to large fishing enterprises - 50%;
- free social quotas (for fishing villages) - 20%;
- free promotion quotas (to stimulate industry development and new fishing technologies) - 20%;
- quotas open to tender to Russian enterprises - 10%.

QUOTA FEES UNDER RUSSIAN MANAGEMENT

In 1994 Russia began selling quotas to foreign enterprises. In the first year, the Federal Fisheries Agency (NatsRybResursy) sold 300,000 tones of Pollock quota at a fixed price. Until 2000 usually 300 - 400 thousand tons were sold annually to foreign companies and joint ventures. The revenue was assigned to the fishery support funds.

Until 1999 the use of fish resources was free of charge for domestic users. A government order issued in late 1998 [8] stated that domestic users who want to have more quota could buy additional quotas from the National Fish Resources state company, which had the right to make contracts. In 2000, 229 contracts on quota utilization were concluded for a total sum of $185 mln, of which 36% were contracts with Russian users, 31% with foreign users on the basis of commercial contracts, 12% with foreign users on the basis of intergovernmental agreements, and 21% with foreign users on the basis of intergovernmental agreements under research projects (including salmon catch) [9].

So, according to Russian legislation, it is possible to charge user fees for commercial use of fish resources. This general principle is based on many legislative acts – at the present there exist 6 federal laws and 2 federal government decrees. Furthermore, in total there are over 100 legislative acts which somehow affect the quota allocation and utilization process.

Until 2000 Russian companies got their quotas from the second group presented in Section 4 (commercial quotas allocated without prepayment). In 2000, for the first time, they were allowed to purchase additional quotas from the third group (commercial quota allocated under bilateral agreements). These quotas, totaling 294.4 thousand tons, were sold for $126.4 mln [11], whereof domestic users accounted for 55%. In 2000 the quotas being sold were 12-14% of TAC, increasing to 22.7 % in 2001.

THE AUCTION SYSTEM

The reasons for establishment

After the fall of the Soviet system, problems with quota allocation to the coastal regions increased from year to year, because during the second half of the 90s the allowed quota was usually much smaller than the RFE fleet capacity [12].

The crab fishery is a typical example. In 1998 in the RFE basin the crab fleet was around 300 boats owned by 158 enterprises. According to scientific data (TINRO and VNIRO) 150-175 boats would have been enough to utilize the quota [6]. According to A.P. Moiseyev, then the First Deputy Chairman of the State Fishery Committee, the number of crab boats in 2001 had increased even more, to about 380 in RFE basin [13]. However, the crab quota was only 55000 t in 2001. Due to lack of resources, many smaller boats got fishing rights only for 10-50 tons of crab per boat before the auction system was started. Since this was too low to guarantee profitability and enforcement was difficult, illegal catches were an everyday reality. After the establishment of the auctions, however, lots not less than 50-100 tons were auctioned off. So, the purpose of the auctions was also to reduce the number of operating boats, i.e., to decrease the fishing capacity.

The pre-auctions quota allocation system was heavily criticized. Local governments insisted on increasing their regional quotas in order to provide jobs. The central government was also dissatisfied with the system, because handing out quotas for free or at a low fixed price gave rise to favoritism and bribes in the sector. Russian Economic Development and Trade Minister Gherman Gref told that"... it was an illusion that no fees were paid earlier [while allocating quotas without payment]. This payment was always collected, but it wasn't collected according to transparent rules... and it certainly did not go into transparent pockets - needless to say, not into the state budget." [14]

Finally, on December 27, 2000, the Russian Federal government declared the start of the auction system for fish quotas (Decree 1010). As it was stated by the government, the auction system was designed to be a market economy mechanism with the purpose of improving the allocation of quotas to the industry. Its objective was to provide a transparent access of enterprises to the fishing and to prevent corruption. Also, it was supposed to eliminate the demand and price uncertainties and reduce fish smuggling.

The design of the auctions

According to the auctions rules set by the Ministry of Economics, Development and Trade, a bidder had to submit ten days before an auction the following documents in both the Russian language and the language of the bidding company:

- a special bidding form;
- copy of the bidder's legal registration certificate;
- copy of certificate confirming the bidder's ownership of fishing vessels;
- copy of certificate confirming the bidder's right to sail under its country's flag;
- a bank receipt confirming a transfer of refundable 40% of starting price of the chosen lot to bid for, as stated in the application form the company fills in.

On those conditions, any company registered in Russia was allowed to participate in an auction of quotas. The auctions were divided into "closed" and "open" ones. According to the auctions design, foreign enterprises were allowed to participate only in open auctions and to bid for lots which were not sold to Russian users in closed auctions. Usually open auctions were held shortly after closed ones. The detailed results of auctions (winners, prices, etc.) usually were not made public.

For auctioning, catch quotas were divided into so-called "lots". The number and size of lots was decided by the auction committees. In 2001 and 2002, the auctioned part of the national quota was divided into lots of different size, according to the TAC of each sea zone. As an example, in Table 4 the quota division into lots in a closed auction on April 24-26, 2002 is presented (only in this particular auction both fish and crab quotas were auctioned). Unsold quotas from this auction were put on open auction held later. Lot sizes in tons of the respective species for all auctions held 2002-2003 were rather similar to the lots presented in Table 4. The auctions mostly covered trawl fisheries.

Table 4. The distribution of quotas into the lots for the auction held on April 24-26, 2002. Starting price (in 10^3 rubles) and change of price is presented. No – number of the lots auctioned. F/S – increase in

average price (%), if change is not indicated then the ratio of final and starting price remained close to 1 or quotas remained unsold. Sold – share of sold quota volume.

Species	Area	Lot size (tons)	No	Starting price	F/S (%)	Sold (%)
Pollock	West-Bering Sea	1000	191	3100	470	100
Sole	Karagin zone	100	60	220		43
	Petropavlovsk-Komandor zone	100	40	220		60
	West-Kamchatsk zone	100	50	220		100
	West Bering	100	60	220		18
	East Sakhalin	100	20	220		100
	Kamchatsk-Kuril zone	100	100	220		68
Crab	West Bering	100	10	7497	260	100
Paralithodes		75	2	5623		
platypus						100
Crab	West Kamchatsk	50	11	1928		100
Paralithodes	Karagin zone	100	2	4391		50
brevipes		90	1	3952		100
Crab	West Kamchatsk	100	4	4391	220	100
Chinoecetes		50	1	2196		100
opilio	West Bering sea	100	18	4391		56
		135	1	5928		100
Crab	Karagin zone	100	2	5236	160	100
Chinoecetes	West-Bering Sea	115	2	3665		100
bairdi		120	2	6021		100
Shrimp north-ern	Kamchatsk-Kuril zone	100	14	1170	270	7
	West-Bering Sea	100	24	1170		38
		50	1	585		100
Shrimp uglo-hvostaya	West Kamchatsk	100	9	210		100
	West-Bering Sea	100	20	210		10
		50	1	105		0
Shrimp-bear	West Kamchatsk	50	2	90		0
Cod	West Kamchatsk	100	20	590		40
	Karagin zone	100	60	590		100
	West-Bering Sea	100	80	590		100
Halibut	East Sakhalin	100	10	900	230	20
	West-Bering Sea	100	25	900		100
Makrurus	West-Bering Sea	50	100	50		3

Source: [21]

Lot sizes were set based on the available TAC and price of the species. However, one of the experts on the RF auction system, Mr. Konstantin Sonin, admitted that "There are numerous problems with … technical parameters of auctions. For example, auction results show that optimal lot sizes were often defined improperly…, to define them properly it's necessary to know the facilities of potential participants, i.e. the business information they do not want to disclose" [15].

The auctions were held in the form of open outcry with ascending prices. On every auction, a certain part of the TAC was exposed. The unsold lots were offered once again on the next auction. The quota bought through auctions was valid for the current year only, with the right to catch in a certain region and in a certain time period. The re-selling of quotas bought in an auction was forbidden. All auctions were held in Moscow.

The results of the auctions: share of sold quotas and incomes from the auctions

When the establishment of the auctions was under discussion, it was originally intended to auction up to 80% of the TAC. However, after hot debates, the final decision was to auction only about 20% of the TAC in 2001. In 2002, the State Fisheries Committee suggested to auction 692,900 tonnes of fish and seafood, which was 18.2% of the overall allowable catch. At the same time, the Ministry of Economic Development and Trade suggested 80%. The final quota allocation in 2001-2002 is presented in Table 5. Totally, 11 auctions were held in 2001 and 12 in 2002. The initial plan for 2003 was to auction even more, or 42 % of the TAC.

Table 5. The quota allocation in RFE basin (10^3 t) and its percentage of TAC (fish species only).

Year	Commercial quotas, bilateral fishing agreements	Research quotas	Commercial quotas without prepayment	Auctioned commercial quotas
2001	252 (6.3%)	125 (4.0%)	1603 (67.0%)	1020 (22,7%)
2002	112 (3.0%)	112 (3.0%)	2170 (58.0 %)	1242 (36.0%)

Source: [22]

During the first year of auctions (2001), quotas for 26 species were auctioned, 19 fish and 7 crab species. The first auction was closed. In 2001 the total number of exposed lots was 2230 (some of them were exposed more than once). Of that amount, 1714 lots were bought by Russian and 516 by foreign companies. In order to qualify the foreigners had to come from countries having bilateral fishing agreements with RF.

Interest of entrepreneurs in buying quotas varied a lot between the species. In 2001, 558 thousand tons remained unsold (53% of all auctioned quota) due to the lack of interest of both Russian and foreign firms. Some quotas of species of lower value were purchased only to have a legal base to enter the fishing zones where valuable species could be caught "as a by-catch". For example quotas of red king crab (*Paralithodes camschatica)* were purchased for the purpose of targeting also snow opilio crab (*Chionoecetes opilio)*. Such a scheme is confirmed by the fact that some boats having quotas for red crab were not even equipped to catch this species. This occurred also for mollusks. In Table 6 the distribution of auctioned RFE resources for Russian coastal areas and for foreigners is presented.

Table 6. The distribution of auctioned resources for RF coastal areas and foreign enterprises in 2001-2002.

	Sold quota (10^3t)		Price paid (mln rubles)	
	2001	2002	2001	2002
Total of users in RF coastal areas	225.7	690.1	4547.6	8867.6
Republic of Korea	175.6	4.5	611.1	26.6
Japan	44.0	4.0	203.4	20.3
China	2.5		17.2	
Ukraine	12.4		16.1	
Total of foreigners	234.5	8.5	847.8	46.9
Total	460.2	698.6	5395.4	8914.5

Source: [24]

One of the main aims of the establishment of the auctions was to increase income diverted to the National Budget. Data on all auctions held in Russia in 2001-2003 is presented in Table 7.

Table 7. Monetary performance of the auctions held in 2001-2003 in whole RF (until June, 2003).
Number of auctions hold in parenthesis after the year number.

Year and number of hold auctions	Auctioned lots	Sold lots	Total starting price, mln rubles, ($ mln)	Total selling price, mln rubles, ($ mln)
2001 (11)	7538	2233	4 026.4 (134)	5 906.0 (197)
2002 (12)	4898	3573	4 813.6 (160)	11 009.9 (367)
2003 until June (9)	7002	4100	4 825.2 (161)	16 295.6 (543)

Source: [21]

The auctioned quotas of the RFE basin by species, as well as the share of auctioned and successfully sold quotas in 2001-2003 are presented in Table 8.

Table 8. The TAC, share of auctioned TAC and sold quotas in 2001-2003. (Cr – crab species).

	2001			2002			2001/2002	2003 (until March 1)			2002/2003
	TAC	auctioned		TAC	auctioned			TAC	auctioned		
	10^3 t	% of TAC	sold %	10^3 t	% of TAC	sold %	in %	10^3 t	% of TAC	sold %	in %
Pollock from Okhotsk Sea	*	**	98	435.0	45	100	194	640.0	36		119
Pollock from other zones	*	**	100	494.6	35	100	87	503.6	64	99	184
Trubach			100	7.3	75	58	238	6.5	67	16	80
Herring from Karagin zone	***	****	100	88.5	95	100	841	44.0	93		49
Herring from other zones	***	****	28	273.3	34	53	464	260.6	42	22	117
Cr *Chionoecetes angulatus*								6.7	16		
Cr *Atelecyclidae*				0.4				0.6	29		
Cr *Paralithodes camtschatica*			93	13.8	89	96	81	11.1	80	11	72
Cr *Paralithodes brevipes*			100	1.7	43	85	225	1.0	50		65
Cr *Lithodes aequispina*			100	1.9	29	100	88	2.7	35		169
Cr *Paralithodes platypus*			100	5.0	87	100	125	5.7	70	41	93
Cr *Chinoecetes bairdi*			100	2.4	77	81	57	2.7	71	20	101
Cr *Chionoecetes tanneri*			100	14.7	93	100	115	14.7	82	49	88
Cr *Chionoecetes opilio*			100	13.7	90	90	97	15.4	83	11	104
Shrimps Northern			86	15.2	86	77	207	14.2	84	50	92
Sea Urchins				7.5				7.4	73		
Rasp		11	100	98.0	22	100	210	100.0	28	43	133
Halibut		45	100	28.4	62	92	239	26.0	60	62	89
Sole		3	90	160.6	50	48	2004	129.5	44	29	70
Cod		35	83	104.7	63	82	138	68.5	71	51	74
Total in auctions			47			66	112			38	126

* - Total TAC of Pollock (from Okhotsk Sea plus other zones) – 300,000
** - % of all auctioned Pollock - 21.4%
*** - Total TAC of Herring (from Karagin plus other zones) – 30,000
**** - % of all auctioned Herring of TAC - 7.3%

Source: [23]

The auctions in 2001-2003 provided more income for the federal budget than was expected when setting the starting prices. Considerable increase of revenues in 2002 was and still is a strong argument in the auctions' favor.

The impact of the auctions on the fisheries sector

The Russian fisheries sector has been highly unstable during the last years. The root cause for that lies in the deep and quick changes that have taken place in the RF economy after the Soviet period. So, it is not easy to evaluate the impact of the auctions system on the profitability of the sector, because the sector has been impacted also by the general changes in the country.

Year 2002 was not good for RF fishery in comparison to the previous year: the total catch decreased by 12% and the production of fish products by 7%. Besides, 98% of the net profit generated in the fisheries sector (total of fishing and fish processing) was made in the largest companies, which amount to only 10-11% of the total number of enterprises. The profit of those large enterprises diminished from 1984 mln Rubles ($66 mln) in 2000 down to 630 mln Rubles ($21 mln) in 2001. And finally, the total profit of the whole RF fisheries sector was 2.1 billion Rubles ($70 mln) in 2000, in 2001 there was a loss of 2.2 billion Rubles ($73 mln) [16].

Rising quota prices in auctions have obviously resulted in additional costs to fishing enterprises. Experts from the State Fisheries Committee argue that the large increase in the state profit from the 2002 auctions drained away a considerable part of the working capital of fishing enterprises, as well as resulted in an increase in debt. For example, the debt of the fishing industry increased by 30% from the end of 2000 to the beginning of 2002 when it reached Rubles 43 billion ($1433 mln), which is 2/3 of the annual value of production in the fisheries sector, compared to 49% in the previous year [16]. This indicates that fishing enterprises may have bid more to purchase quotas than their real profits would allow. As a result, the financial situation of the fishing firms has seriously deteriorated. The supply of fish and sea products to the domestic market diminished in 2002 by 13% in comparison to the previous year [17].

An important effect of the auctions in the RFE was also the large change in the share of federal and regional revenues from the fisheries sector. While in 1999 the share of fisheries taxes diverted to the federal budget was only 34%, in 2001 it was almost 96%. Obviously, such a drastic decline of revenues for the regional budget hit the local economy. According to the RF Ministry of Taxes and Fees, in 2001 tax debts increased 1.4 times in Kamchatsky oblast, and 2.9 times in Primorsky krai.

The debt of the fishing companies in 2001 was much higher than two years before; in Kamchatsky oblast the total debt of fishing enterprises increased 1.9 times and in Magadan oblast as much as 4.3 times [11], compared with the pre-auction level in 1999. This was most likely caused by the need to buy quotas. Furthermore, in most of the RFE regions the enterprises had to pay much more in 2002 than in 2001 in order to obtain quotas (Table 8), which must have resulted in additional debt. In some cases enterprises have been forced to sell their assets in order to buy quotas and stay in business (e.g. KamchatRybProm sold two new boats in order to pay Rubles 52 mln ($1, 7 mln) for 450 tons of crab quota).

Sometimes quotas were not properly set. For example, VostokTransService Company was not able to use its rasp quota because there was no rasp in the zone where it was supposed to be according to the set quotas. So, the State Fisheries Committee had to reassign another zone to the said company, which suffered losses of Rubles 770 ths ($26000) [11]. In January 2002, TURNIF Company bought 14 lots of 7560 tons of Pollack. This purchase automatically involved a purchase of 560 tons of herring as a by-catch (i.e. the company had to pay for both Pollock and herring while buying Pollock quota in a certain zone). However, there was no herring in the by-catch, and the enterprise suffered losses of Rubles 7940 ths ($265000). In summary, from 266.2 ths tons of quotas bought in the 2001 auctions by Russian firms, 77 ths tons were not caught for various reasons. As a result, firms suffered serious losses [11].

Effect on compliance

Due to the imbalance between the fleet capacity and the TAC volumes, the competition for export-oriented resources has been growing year by year in the RFE fisheries. Since the auction system was basically just an additional cost, the economic performance of fishing enterprises deteriorated even more. In order to stay in business, many enterprises faced a need to catch more than their quotas permitted. Since the control system was (and still is) not strong enough, the auctions became an additional incentive for poaching. Most of such illegal catches are landed abroad, e.g., in Japan. The annual loss due to illegal catches and non-taxable production after the establishment of the auction system is estimated to be $1.5 billion. By some calculations the ratio of legal and illegal catches of the most valuable species has increased from 1:2 to an almost unbelievable 1:5 after the establishment of auctions [17].

According to the State Fisheries Committee, app. 400 boats in the RFE in 2002 caught and exported all their fish illegally. Most of them bring fish (fished themselves or taken from other boats which catch over their quota) to Japan. According to the Japanese statistics, there are twice as many crabs landed in Japan from Russian boats as the RF official sources mention [2]. In 2002, in order to hinder illegal fishing, the Japanese government issued an order that Russian boats can land in Japanese ports only with the official permission of customs and coastal guards. However, the export of illegal catch to Japan is still extensive. The big volumes of landings of fish caught by Russians are registered in China, too [18].

As a result of catches being much higher than TAC, the stocks of many important species have declined. Based on such a development, the fish TAC in the RFE has been declining from year to year (Table 2). TAC of some valuable species have declined by more than one half (e.g. Pollock from 2270 ths tons to 930 ths tons during the period 1998-2002).

CANCELLATION OF THE AUCTION SYSTEM AND CONCLUSIONS

In July 2003 the media reported the RF Government's decision to cancel the auctions - as it was told, at least in their present form. Instead the quota allocation from 2004 onwards will be based on the catch record (average catches during the three last years) [19]. Still, the state will still get some income from quotas, as they will be subject to fishing fees. The details of the new system are not clear yet, however. Some proposals envisage that the users should pay 20% of fee as a prepayment, whereas the rest can be paid later, during the valid fishing period. The federal budget will receive 80% of the fee, while 20% will go to local budgets. Fishing kolkhozes and processing enterprises will most likely still receive around 15% and indigenous communities 2% of total TAC for free. The principles of quota allocation in Russian fisheries during coming years are not yet clear in detail, however.

The cancellation of the auction system was not a surprise. The system adversely affected the economic performance of the fisheries sector and seriously hit the fish stocks due to the increased poaching. More and more people in the administration realized that it was not fulfilling its aims. Also, there was strong and permanently increasing pressure from the industry.

One of the root causes behind the failure of the auction system was the weakness of the enforcement system. The auction system harmed the economic performance of the fishing enterprises due to the additional cost. This in turn resulted in growing incentives to increase the catches. Obviously, this was possible only through illegal fishing, while existing enforcement capacity and legal regulations were too weak to control fishing sector. Nevertheless, the debt of the fisheries sector increased despite increasing illegal catches. Furthermore, the auction system allowed new enterprises to enter the fishing sector. With a legal base to carry out some fishing activities (even using small quotas), such enterprises could actually fish much more than they were allowed. The existence of foreign markets nearby aggravated the situation and made the enforcement of the TAC much harder than it would be with a more difficult access to markets. Needless to say, increasing imbalance between TAC and catches resulted in deterioration of the stocks, which in turn, adversely affected the performance of the sector.

The auction system did not lead to a perceptible decrease in fishing capacity. The main reason probably was the possibility to pursue illegal fishing on the basis of small quotas. However, the technical situation of the fleet deteriorated, since there was not enough capital for routine repair and modernization.

The system of holding closed auctions before open ones was meant to guarantee domestic users access to resources. Still, some people believe that foreign enterprises financed maybe a half of the total quota purchase of RF enterprises at the 2003 closed auctions [17]. The result was not more fish for domestic users, but rather the creation of a large number of companies "waving the RF flag" but still serving the interest of foreigners. Moreover, since it is easier to take illegal catches when at least a part of the catches is exported, the domestic users who landed in RF only were disadvantaged by the auction system.

On the positive side, the auctions amounted to a more open system of quota allocation and more profit being diverted to the state budget from each ton of quota. Still, the deterioration of the financial situation of fishing enterprises impacted not only the industry itself, but also the larger public. The RFE is very dependent on the fisheries, and healthy economics of this sector is crucial for the whole region. Rising quota prices also meant increased dependence of Russian fisheries on foreign capital, which was identified as a negative effect [20]. So, it seems to be clear that the auction system did not stimulate business development in fisheries, but rather pushed the sector into the illegal economy. The experiment failed due to the unforeseen problems.

The poor performance of the fishing rights auctions discussed in the present paper reflects the suitability of the auctions to the RFE fisheries and not necessarily the adequacy of such a system in other settings. RFE fisheries, even if they produce high incomes and are one of the main taxpayers in the region, are not effectively regulated. It is possible and indeed quite likely that the performance of auctions in other fisheries with a stronger enforcement system for quotas and other regulations (and a better economic situation when the auctions are introduced) would be quite different.

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