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Review of the Fishery Sector / Обзор рыбохозяйственного сектора

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Food and Agriculture Organization
of the United Nations

European Bank
for Reconstruction and Development

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LIST OF ABBREVIATIONS AND DEFINITIONS

BATM (БАТМ)	Big Autonomous Trawler-Freezer. 100/120-metre long vessel, with main engine of about 7,000 horse-power (hp).
BMRT (БМРТ)	Big Freezing Fishing Trawler. Up to 100-metre long vessel, with main engine of 3,500–5,000 hp.
CIF	Cost Insurance Freight. Price including these costs.
EEZ	Exclusive Economic Zone
FTS	Russian Federal Customs Service
GUP (ГУП)	State Unitary Company. Company with 100% state ownership.
H&G	Headed and Gutted
OAO (ОАО)	Public Joint Stock Company. Shares are tradable. Changes of shareholders do not require a new registration of the statutes of the company.
OOO (ООО)	Limited Liability Company (Ltd)
ROSRYBKHOZ	State-cooperative Inland Fish Farming Corporation (Государственно-кооперативное объединение рыбного хозяйства)
Secondary frozen fillets	Frozen fillets made from defrosted frozen H&G or W/R fish. The product quality is lower compared to fresh frozen fillets. During each freezing process, ice crystals damage the fish flesh from inside. Multiple freezing causes more damage to fish or meat flesh.
SPS	Sanitary and Phytosanitary Measures
SRTM (СРТМ)	Medium Fishing Trawler-Freezer. 55-metre long vessel, with main engine of 1,000–1,200 hp.
STM (СТМ)	Seiner-Trawler Freezing. Fishing vessel, often called Atlantic-333, of East German origin.
Surimi	Frozen fish paste produced from different fishes for further processing into imitation crab meat and other imitation products.
TAC	Total Allowable Catch
TBT	Technical Barriers to Trade
UB (Условная банка)	Statistical or conventional can. Conventional measuring unit used for statistical purposes. 1 statistical can = 350 grammes.
VNIERKH (ВНИЭРХ)	The All-Russian Scientific and Project Institute for the Economy, Information and Management of Fisheries (Всероссийский научно-исследовательский и проектно- конструкторский институт экономики, информации и автоматизированных систем управления рыбного хозяйства).
VNIRO (ВНИРО)	The Russian Federal Research Institute of Fisheries and Oceanography (Всероссийский научно-исследовательский институт рыбного хозяйства и океанографии).
W/R	Whole Round
ZAO (ЗАО)	Joint Stock Company. Any change of shareholders requires a new registration of the statutes of the company.

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Another version of the report, including company-specific data, was produced for EBRD's internal use.

EXECUTIVE SUMMARY

Global Fish Production and Trade. Role of the Russian Federation.

World fish production, both from capture and aquaculture, is likely to increase in response to growing consumer demand and higher prices. As world capture fisheries have already reached their full production potential, aquaculture in China and the countries of South East Asia is expected to be the main source of additional fish production. In 2005, the Russian Federation ranked seventh for captured fish after China, Peru, the United States of America, Chile, Japan and Indonesia; 11th for exports of fish and seafood (with 4% of total world exports, worth nearly USD 2 billion); and 18th for imports (with 1.4% of total world imports). In the Russian Federation, aquaculture has not played any significant role so far. Most fish produced, traded and consumed in Russia is from capture fisheries.

Market Developments

The Russian market for fish and seafood products has become one of the most dynamic segments in the national agrifood sector. Nationwide, fish sales increased 12–15% between 2005 and 2006, while Moscow's fish and seafood market witnessed a remarkable 53% growth during the same period. The rapid development of modern retail outlets, as well as the increased purchasing power of the average urban Russian, has been an important driving force for the increased consumption of seafood, as it has improved the availability of products to consumers in large cities.

The consumption of fish and seafood has been on an upward trend. It increased from 15 kilograms per capita in 2004 to 17 kilograms in 2006 and it is expected to grow by 15–20% annually in the next three to five years, due to increasing demand for all fish and seafood product categories. For comparison, per capita consumption is 25 kilograms in Italy, 27 kilograms in the United States of America and 66 kilograms in Japan. It is expected that consumer preferences will continue to switch away from traditional fish products (frozen fillets, unprocessed herring, etc.) towards high-quality value-added fish products. `

Trade

The Russian Federation is a net fish exporter by a wide margin. However, Russia's positive trade surplus—which accounted for nearly USD 1 billion in 2002—has been decreasing, due to the evolution of local consumers' purchasing power and consumption patterns, which has called for imports of new types of products.

At present, it is estimated that the domestic processing sector imports 36% of its raw material. Many exporters have complained about the unfair application of sanitary measures in Russia. It is expected that the country's accession to the World Trade Organization (WTO) will discipline the application of sanitary measures and technical regulations and will facilitate the growth of fish and seafood imports for direct consumption and processing.

Russia's fish exports represent 4% of global fish exports (2005). For certain products and regional markets, its trading role is however much more significant. In 2005, 41% of world

exports of Alaska Polack (frozen product basis) were from Russia, 31% of Alaska Polack roe and 16% of Pacific Salmon. Most exported products undergo minimum processing.

In this context, the need to process more Russian fish in the Russian Federation has been widely discussed in the industry and by the government. However, for the moment, Russia's neighbours have a clear competitive edge. Sales prices and other conditions offered by Asian processors to Russian fishermen are far more attractive than those offered by Russian on-shore processors. Heavy regulations and poor handling infrastructures also encourage foreign landings of Russian fish. In the medium term, it is foreseen that current trade patterns will remain, with significant exports from Far East Russia to Asia, although there are regular rumours of export limitations. Investors interested in fish processing should carefully consider existing border and related sanitary procedures, as well as production and transportation costs in the Far Eastern part of Russia, which can put investment in Russia at a disadvantage compared to investment in neighbouring countries.

Policy and Regulatory Issues

The main policy intervention of the Russian government in the fishery sector is the establishment of annual Total Allowable Catches (TACs), a share of which is allocated to each fishery company based on its historical performance. The present shares were allocated in 2003 for a five-year term. The new round of quota allocation will take place in 2008. However, the terms and conditions of the quotas under the new system, in particular the possibility of going beyond a five-year term, are still debated by the industry and the Russian government. Although the Russian legislation allows for transfers of quotas between fishery companies, in practice specific implementation regulations—that would allow effective low-cost transfers of quotas from one company to another—are still lacking.

Despite recent statements from top Russian government officials against the presence of foreign investors in the primary fish harvesting sector, there is no legal barrier against the allocation of fishing quotas to foreign companies, as long as the latter are legally registered in the Russian Federation. Foreign and local private investors conduct business in the fishery industry through direct ownership, joint-ventures with local companies, leasing of vessels and/or final product sales agreements. There are no signs of restriction of foreign investment in the fish processing sector.

As stated above, the main regulatory problems limiting the development of the Russian fisheries sector are related to fish imports and border measures applicable to Russian fish headed for on-shore processing. Mariculture in the Far East region could be considered as a good investment; however, legislative clashes between Federal and local laws and regulations often prevent the allocation of seashore plots to potential investors.

General Assessment of Investment Prospects in the Russian Federation

The Russian fishery industry enjoys steady domestic and export market growth perspectives. There are investment opportunities in fish and seafood processing in the Far East Region for markets located in the European part of the Russian Federation. Well-targeted investments in new fishing vessels and in the modernisation of on-board processing capacities could also

be attractive, considering Russia's possible return to production zones outside of its Exclusive Economic Zone (EEZ)[1].

However, one of the major challenges for the industry is the depletion of biological resources in Russia's coastal zone and in the EEZ, where fish production has been most intense since the early 1990s. The further depletion of fish stocks in these two zones—due to poaching and unregulated fishing—is the main threat to investors. The possible discrimination of foreign investors, the hypothetical introduction of export limitations and, more generally, the unstable regulatory environment of the industry are considered as other important risks to investors.

Russian Capture Fisheries are Gradually Recovering. Aquaculture Remains Marginal

After reaching historically low levels in 2004 (2.95 million tonnes), marine capture fishing has been increasing. The 2006 production level of 3.3 million is, however, still far from the 8 million output achieved in the late 1980s. Russia's Far East is the country's main fishing basin, with annual catches reaching almost 2 million tonnes in 2006, *i.e.* nearly 60% of Russia's total production. Most of the fish is captured in the EEZ.

In contrast to what is happening in other countries in Europe and in Asia, Russia's aquaculture has not developed significantly, although fish farming is on the rise, in particular the production of rainbow trout and other relatively high-value species. In total, aquaculture supplies only an estimated 105 thousand tonnes (2005) to the market. North-western, central and southern regions have the lead in this sector, focussing on traditional freshwater aquaculture. The contribution of the Russian Far East is limited to mariculture and does not exceed 2% of Russia's aquaculture output.

The Fishing Fleet

The number of Russian fishing vessels has been rapidly decreasing in recent years. This trend reflects the diminution of available fish stocks in the EEZ and in coastal zones, sharply decreasing fish harvesting in international waters and the restructuring of the industry due to the transition of the economy from a command to a market-driven system. The existing fleet is rapidly ageing and will require significant investment both for coastal fisheries and EEZ and international waters fisheries. For long-term investment in vessels targeting the EEZ and international waters, special attention will have to be paid to the sustainable management of fish stocks.

The Fish Processing Industry

The output of the Russian fish processing industry has been increasing since 2005. Although the production of high value-added products remains insignificant, this rapidly growing sector already offers a vast choice of ready-to-eat fish and seafood products to Russian consumers and has good growth perspectives. In the Far East, interesting investment opportunities exist in the modernisation of on-board processing facilities, which currently account for nearly 80% of total processing capacity in this region. Overall, the Far East is home to 55% of Russia's fish processing capacity and can offer investment opportunities in the cold chain sector, production of fish preserves and canned fish.

[1] The EEZ is located 200 nautical miles offshore.

Identification of Potential Investment Partners

Primary fish production and processing of fish and seafood were the two major segments considered in this study for the identification of potential investment partners in the Russian Federation. Primorsky Kray, Kamchatsky Kray and Sakhalin are the most important regions in Russia's Far East for primary fish and seafood production. The search for potential partners was therefore geographically limited to these three regions. The criteria used for the selection of potential investors included: their current quota allocation, the estimated chances of screened companies of receiving quotas after 2008, their financial performance, their investment needs and their openness to work with an international bank, as well as possible integrity issues. The initial sample contained more than 40 fishery companies from the Russian Far East. The sample was later reduced to 20 companies. 11 companies were eventually considered for visits and interviews. In addition to fishery companies located in the Far East, fish and seafood processing companies based in the European part of the Russian Federation were also considered as possible investment partners in this study. Considering the sensitive nature of company-specific information, detailed company profiles and recommendations on potential investment partners were communicated directly to the EBRD and are not part of this report.

1. INTRODUCTION - GLOBAL FISH PRODUCTION, TRADE AND THE ROLE OF THE RUSSIAN FEDERATION

1.1. Global fish production

World fishery production will likely be around 150 million tonnes by 2010 as compared with an estimated 141.4 million tonne production in 2005. Approximately 30 million tonnes of forecasted production will likely be utilised for fish meal and oil for non-food use. Estimated quantities which will be available for human consumption range between 74 million tonnes and 114 million tonnes. Most of the increase in fish production is expected to come from aquaculture, which is growing rapidly. The contribution from capture fisheries will depend on some further development and also on the effectiveness of fishery management. Improved management of currently overfished stocks could provide an increase of between 5 and 10 million tonnes, whereas continued overfishing will lead to declining production[2].

1.1.1. Capture fish production

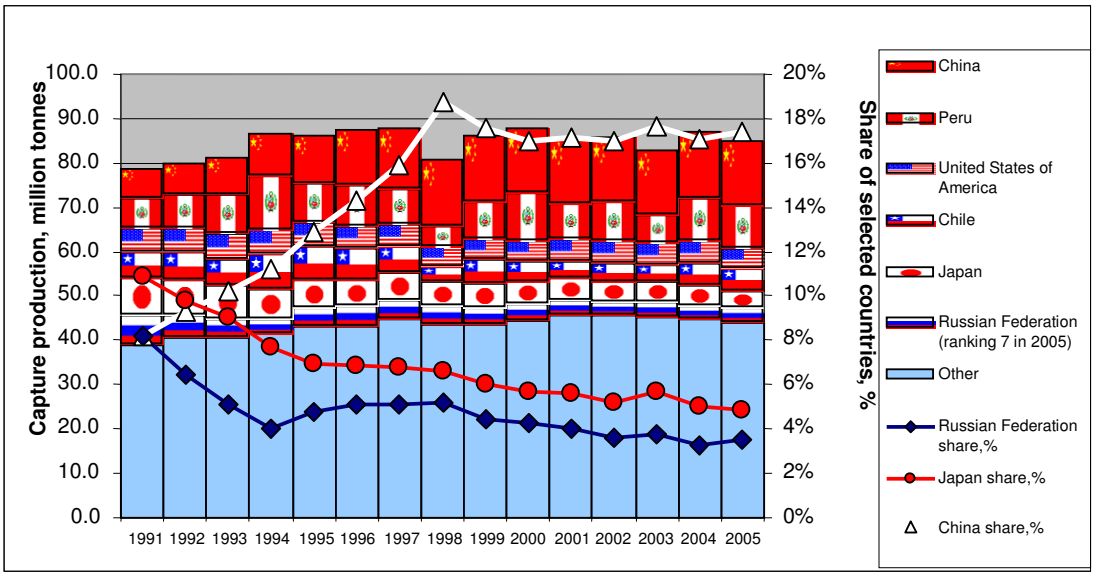
Capture fisheries and aquaculture supplied the world with about 142 million tonnes of fish in 2005. According to available data, an apparent per capita supply of fish reached 16.6kg (live weight equivalent) in 2004 and continues the upward trend. World production of capture fisheries and aquaculture continues to rise, driven by aquaculture production in China. Of total world production, aquaculture accounted for an important 43% share worldwide. Outside China, per capita supply has shown a modest growth rate of about 0.4 percent per year since 1992 (following a decline from 1987), as growth in supply from aquaculture more than offset the effects of static capture fishery production and a rising population.

Capture fish production in China increased from 6.5 million tonnes or 8% of total production in 1991 to 14.8 million tonnes, or 17% in 2005. Peru, Indonesia, Norway and other countries increased fish harvesting during the same period. Capture fish production in the Russian Federation, Japan and Chile decreased in 1991–2005 according to FAO's Fish Stat information (see figure 1). Fish harvesting by the Russian Federation decreased from 6.4 million tonnes in 1991 (8% of world total) to 3.0 million tonnes in 2005 (4%) while fish production in Japan decreased from 8.6 to 4.1 million tonnes or from 11% to 5% of world total during the same period. The Russian Federation ranked the seventh largest capture fish producer in 2005.

The overall maximum potential from wild capture fisheries from the oceans is believed to have been reached, and further benefits and the sustainability of fisheries can only be achieved through more cautious and effective fishery management, aimed at maintaining fully exploited fishery resources and recovering those that are overexploited or depleted.

[2] Projection of World Fishery Production in 2010: http://www.fao.org/fi/highligh/2010.asp

Figure 1. World Capture Fish Production: Top 5 Producers and Russian Federation

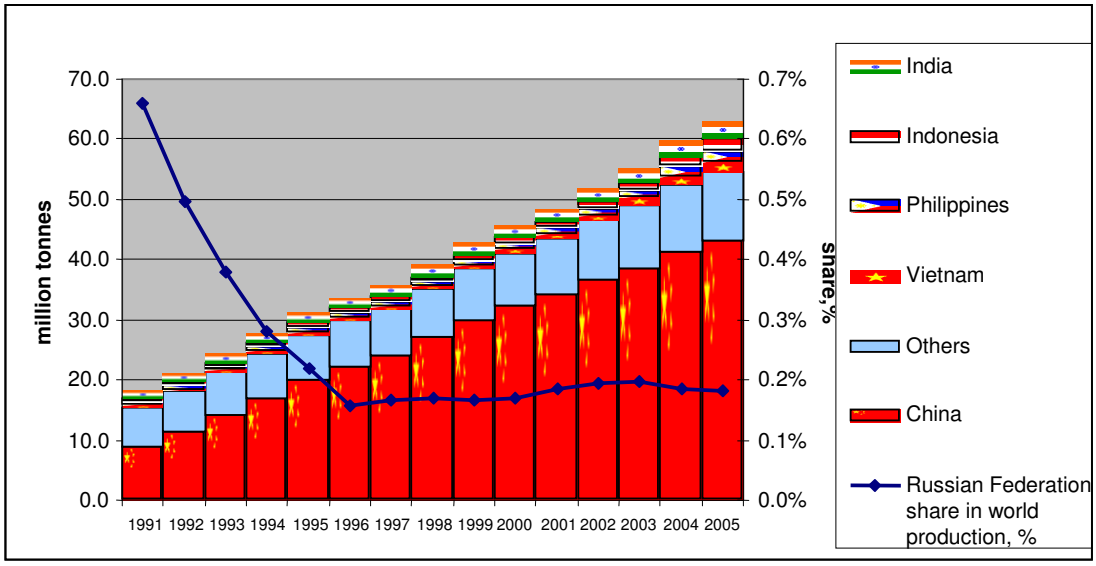


Source: Fish Stat, FAO

1.1.2. Aquaculture

Aquaculture is the fastest growing food sector which shows a stable 4–5% production increase every year (see figure 2). China overwhelmingly dominates global production, but all regions are showing growth and there is diversification to new species, particularly crustaceans and marine fish. Historically, the Russian Federation has not played as important a role in world aquaculture production as it has in the capture fisheries. The country ranked 27th in aquaculture production in 2005 according to FAO data.

Figure 2. World Aquaculture Production: Top 5 Producers and Russian Federation



Source: Fish Stat, FAO (aquaculture includes brackish water, aquaculture and mariculture)

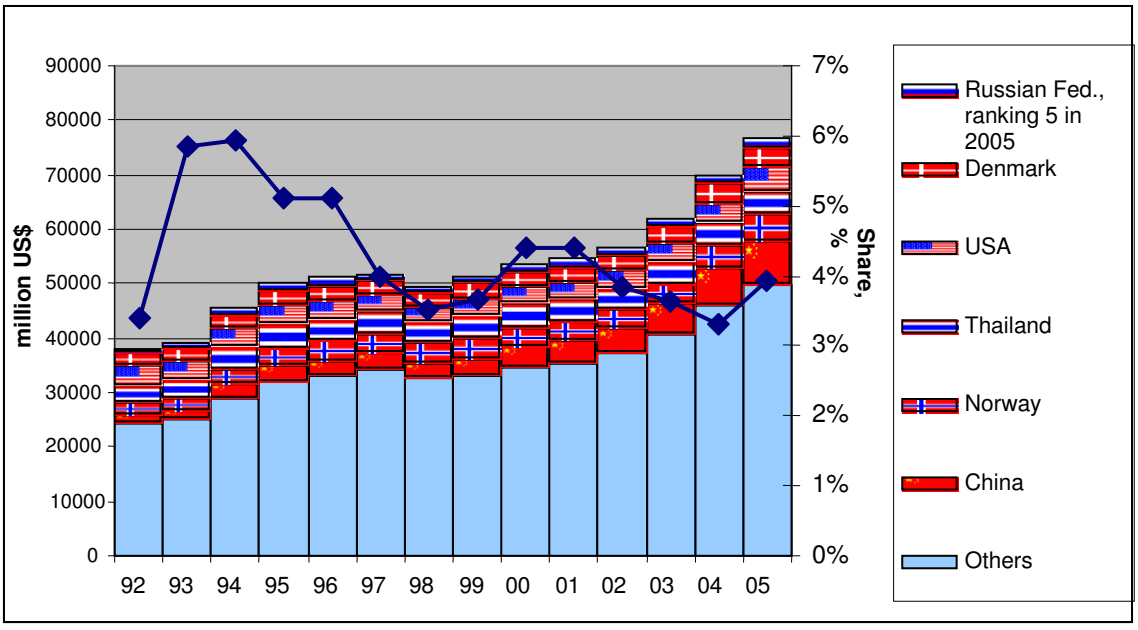
1.2. International trade

There has been a dramatic growth in international trade in fishery products which was worth USD 79 billion in 2005, up almost 30% in five years (see figure 3). An estimated 45% of the world catch is now traded internationally. Improvements in technology, transport and communication and sustained demand have all facilitated increased international fish trade.

In terms of quantity, exports were reported to peak at 31.2 million tonnes (product weigh equivalent) in 2005, with a growth of 18% since 2000. A large share of fish production enters international marketing channels, with about 38% (live weight equivalent) exported in 2004 in various food and feed product forms. The widespread use of refrigeration, and improved transportation and communications have facilitated a vast expansion of trade.

In 2004, 97 countries were net exporters (value of exports higher than value of imports) of fish and fishery products with Norway, Thailand, Vietnam, Chile, Canada, Iceland, China and Indonesia, reporting net export values of more than USD 1.5 billion each and with India, Taiwan Province of China, Denmark and Peru having net exports worth between USD 1 billion and USD 1.5 billion each. In 2002, China became the world's largest fish exporter, surpassing Norway .

Figure 3. World Fishery Trade: Top 5 Exporters and Russian Federation



Source: Fish Stat, FAO (the dark blue line represents Russia's share of world fishery trade in %).

After a gradual decline in 2001–2004, share of the Russian Federation in the international fishery trade increased in 2005 to an estimated 4% (see figure 3) making the country the 11th largest fish exporter. Having said that, this information should be treated with high caution considering significant underreporting of official export numbers which is explained further in this report. Despite the quality of export trade statistics, the Russian Federation plays critically important roles in certain product-specific and regional markets. For instance, the Russian Federation holds an estimated 41% of the Alaska Polack (frozen product), 31% of the Alaska Polack roe and 16% of the Pacific Salmon world-wide exports (based on reported FOB value of exports in 2005).

2. SHORT OVERVIEW OF FACTORS AFFECTING INVESTMENT ATTRACTIVENESS OF THE FISHERY INDUSTRY

Investment attractiveness of the Russian fishery industry can be described by the following main factors (provided in no particular order of priority):

- Domestic and export markets size and projected growth;
- Seasonality and cyclical influences;
- Technological considerations;
- Intensity of competition;
- Emerging opportunities and threats;
- Capital requirements;
- Industry profitability;
- Sustainability of fish stocks and environmental factors;
- Social, political and regulatory factors**.**

2.1. Market size and projected growth

Fish and seafood market size in the Russian Federation will likely enjoy stable growth in the foreseeable future, which will mirror both increasing disposable consumer incomes and shifting consumer preferences. It is expected that market growth in the future will be closely linked with the development of the modern retail chains. More information on market size and growth is provided in the Market Development section of this report.

2.2. Seasonality and cyclical influences

The fishery industry faces seasonality and cyclical influences that reflect the biological growth and reproduction cycles of fish, fish population, long-term water temperature and other environmental factors. The following fish harvesting seasons are typical in the Russian Far East (see table 1). These seasons determine fishermen's work cycles, working capital needs (purchases of fuel, lubricants, spare parts, vessel repair, crew hire, storage needs, trade financing, etc).

Table 1: Seasonality of Fish Harvesting in the Russian Far East

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pacific Salmon (*Nerka*)					x	x						
Pacific Salmon (*Keta,Gorbusha)*							x	x	x			
Salmon Roe								x	x			
Halibut (turbot)					x	x	x					
Alaska Pollack	x	x	x	x	x							x

Source: www.fishery.ru x = fish harvesting month

Capital investment needs (purchase of vessels, buying new processing equipment and other similar expenses) depend to a lesser extent on annual fish production cycles but should account for long-term industry development trends (availability of fish stocks, consumer preference changes, etc.) and policy decisions (terms and conditions of fishing quotas and licenses). For instance, long-term fluctuations in the Allaska Pollack spawning stock, including those caused by environmental factors, will likely affect investment decisions related to the fishing fleet targeting this particular species (see Figure 7 in the Environmental factors section below).

2.3. Technological considerations

Officially reported labor productivity in the fishery industry has decreased by 49% over last 13 years[3]. Apart from other factors, decreased labour productivity is a sign of a rapidly aging fleet and handling infrastructure that require some renewal in order to reduce operating costs. Most Russian fishing companies interviewed in the course of preparing the study intend to optimise and re-new their fishing fleet in the future. Technological consideration related to fleet renewal, fleet structure, deadweight dynamics for the main types of fishing vessels as well as the fish processing industry in the Russian Federation are covered in the appropriate sections of this report.

2.4. Intensity of competition

The competition within the fishery industry remains high in the Russian Federation. The rapid and nearly complete privatisation of the state-owned fishery companies in the early 1990s and relatively low interest of the main financial and industry groups of the Russian Federation in fish production and processing are the main factors which have facilitated high competition within the industry. Involvement of the federal and local governments through ownership is much lower in the fishery industry than in other sectors of the Russian economy. The 22 largest business groups of the Russian Federation (referred to as “large private investors” in table 2, below) have not shown any significant interest in entering the fishery industry after privatisation.

Table 2: Ownership Structure of Fishery Companies in the Russian Federation

Ownership	All regions			
	Employment		Sales	
	% of control	person	% of control	thousand rub.
Federal government	9.34%	3,373	10%	2,753,850
Regional government	3.45%	1,245	3.27%	900,587
Foreign	6.13%	2,213	5.81%	1,599,407
Large private*	0%	0	0%	0
Private	55.15%	19,919	56.07%	15,438,893

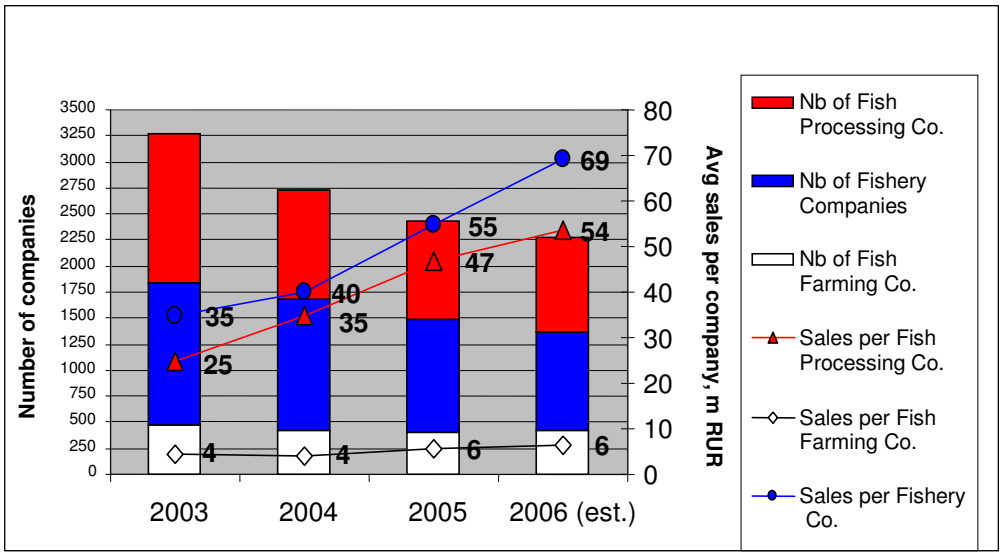
Source: World Bank, 2004 * 22 largest business groups

[3] S.V. Ilyasov *The role of the Fishery Industry*, The Journal of Law and Security, Issue 4 (13) December 2004 (In Russian) Ильясов С.В Значение рыбного хозяйства Журнал "Право и безопасность" Номер - 4 (13) Декабрь 2004г

Gradual consolidation has taken place in the industry over the past years. The number of fishery and fish processing companies has decreased while average sales revenues per company have increased. According to industry sources in Far East Russia, the largest producer in Primorye Krai (Nakhodka BAMR) merged with Roliz, the seventh largest fishery company. The third largest company (TURNIF) merged with the fifth largest producer (Intraros). Aquaresourses (9th largest) acquired control over bankrupted Dalmoreproduct (4th largest company) and Ogni Vostoka.

An average Russian fishery company was estimated to sell 69 million RUR worth of products in 2006 (USD 2.7 million) as compared with 35 million RUR in 2003. There have also been notable increases in the average size of fish processing and fish farming companies country-wide (see figure 4, below).

Figure 4. Consolidation in the Russian Fishery Industry



Source: Rosstat

2.5. Emerging opportunities and threats

The main opportunities exist in fish and seafood processing in the Far East region for the markets located in the European Part of the Russian Federation, and in exports. Other opportunities lie in the area of fishing vessel upgrade with new gear and processing equipment, and return of the Russian fishing fleet to the production zones outside of the Russian Exclusive Economic Zone (EEZ).

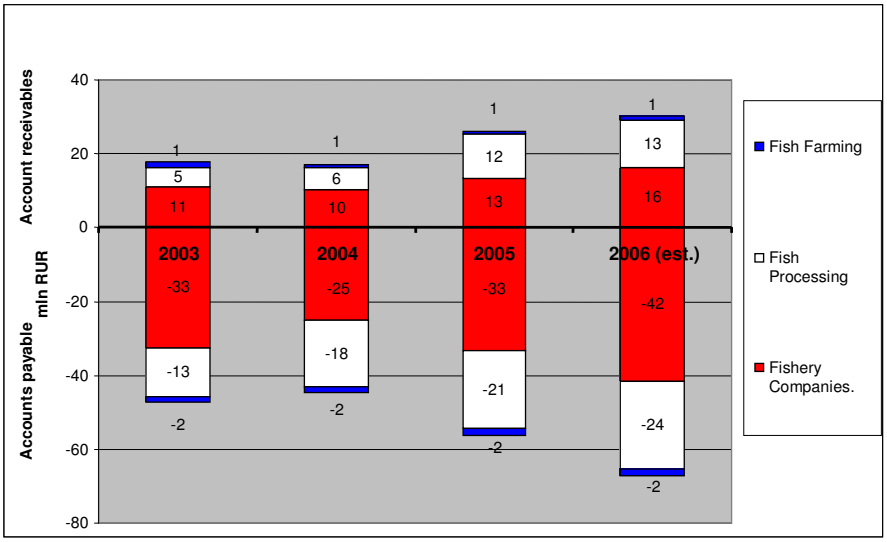
One of the major threats to the industry is depletion of biological resources in the coastal zone and in the Exclusive Economic Zone (EEZ) of the Russian Federation—the areas where most fish production has originated since the early 1990s—due to poaching and unregulated fishing. Possible government actions against foreign investors involved in fish harvesting and export controls in the industry are also possible. These issues are further discussed in the report.

2.6. Capital requirements

More than 70% of all fishing vessels in the Russian Federation are 23–25 years old and will require complete replacement within a ten-year period. The purchase of the new vessels is the most significant capital requirement for Russian fishermen. For instance, big fishing trawlers (100–120 metres long) cost USD 25–50 million; small- and medium-size vessels cost USD 5–15 million. These vessels have an average payback period of 20 years. Fleet renewal issues and related investment needs are discussed in more detail in a separate section.

Fish and fish processing companies have increased borrowing in the last three years. The indebtedness[4] of the fishery, fish processing and fish farming companies has increased faster than accounts receivable (see figure 5). This is largely explained by the fact that in 2003 fishing quotas were allocated for the five-year term for the first time. Quota allocation for a period of more than one year has reduced risks related to financing fishery companies. Strong consumer demand for processed products (supported by high import tariff protection from competition outside of FSU countries) has allowed fish processing companies to increase borrowing as compared with 2003. At the same time the average debt of a fish farming company has remained relatively small.

Figure 5. Indebtedness in the Russian Fishery Industry (negative values)
Increases Faster than Accounts Receivables (positive values) (in million RUR per company)



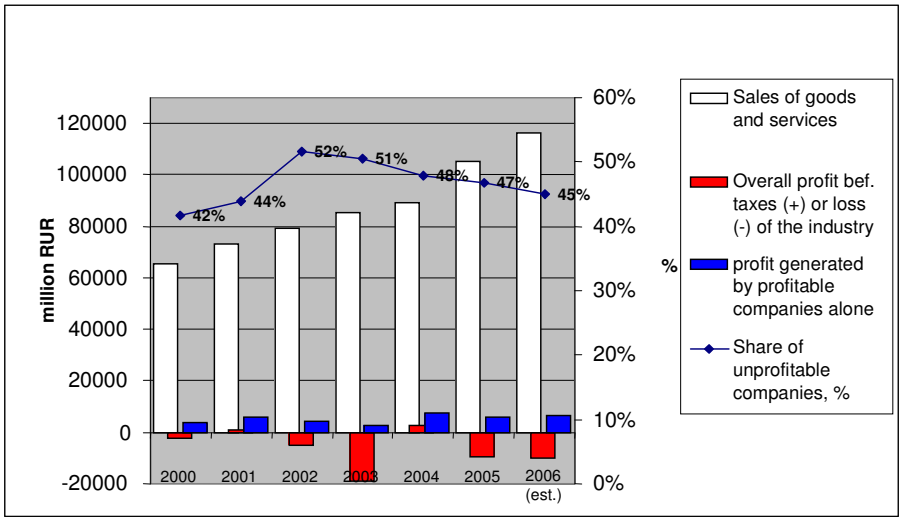
2.7. Industry profitability

It is difficult to make an objective assessment of fishery industry profitability in the Russian fishery industry due to widespread underreporting of sales and profits. According to available official Russian statistics, the share of unprofitable (i.e. loss-making) companies in the Russian Fishery Industry decreased from 52% in 2003 to an estimated 45% in 2006 (see figure 6, below).

[4] Indebtedness is defined here as a sum of all accounts payable, including debts to suppliers, personnel, tax authorities and credit institutions.

Despite notable improvements in fishery profitability in the last four years, the industry as a whole continues to lag behind other sectors of the economy which also rely on environmental factors. For instance, around 40% of all farms and 41% of food processing companies were unprofitable in 2006 as compared with 45% in fish production and 43% in fish processing respectively. According to available statistics, the industry achieved a net profit result only once in the last seven years (2004).

Figure 6. Main Financial Indicators of the Russian Fishery Industry



2.8. Social factors

The Russian Fishery Industry provides jobs for 138,000 people, or 0.2% of the nation's labor force (2006) and contributes an estimated 0.4% to the gross domestic product. It has been estimated that one job in the fishery industry in Russia creates 5–6 jobs in related industries (processing, trade, port infrastructure, ship building, etc). Therefore, the social importance of the industry is high. The fishery industry share in the regional GDP exceeds to 50% in some areas (Kamchatka). In Primorsky Kray (Vladivostok area) the share is about 30%. Some isolated and island territories completely depend on fisheries (Kuril Islands, Sakhalin region). For instance, in the town of Kurilsk 80% of the budget revenues are received from just one fishery company, "Gidrostroy".

It was typical for the industry to provide community infrastructure services, including hospitals, kindergartens and heating utilities in many locations in the Far East at the times of the Soviet Union. In some cases, the fishery companies continue providing important community services in the areas where local governments cannot perform these function. In most cases, these services are provided by the fishery companies on partial cost recovery basis.

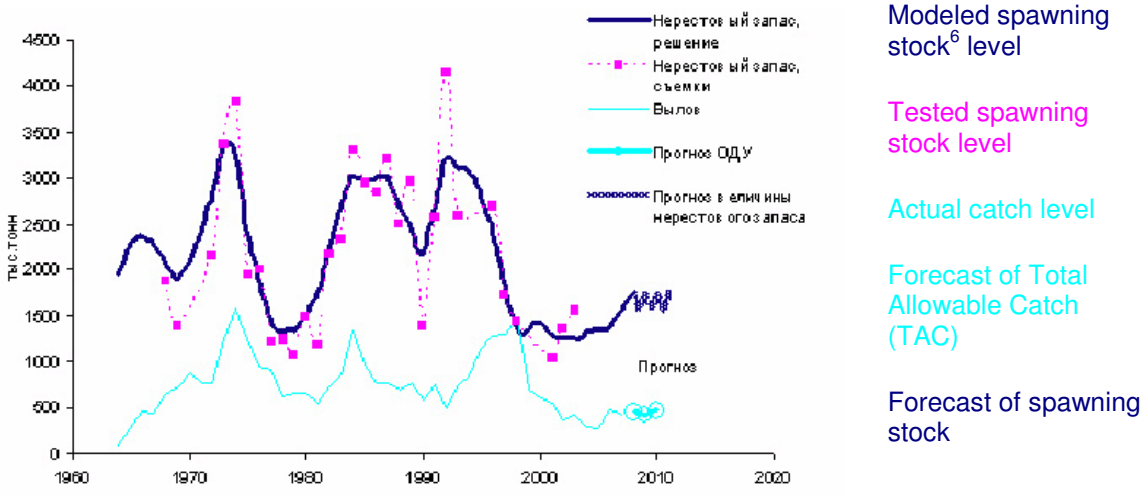
2.9. Environmental factors

The Russian Federation regulates fisheries through the establishment of the Total Allowable Catch (TAC) levels to protect fish stocks and the environment. Over recent years fish stock in the EEZ of the Russian Federation has been in decline due to a combination of factors: changes in

fishery business models (state companies were privatised), catching areas have moved from the international waters to the EEZ and, most importantly, development of poaching and unregulated fishing and trade. Some unofficial estimates suggest that economic losses from poaching reach USD 2.5–4 billion every year[5]. The issue of illegal trade is more carefully reviewed in the Illegal and Unreported Fisheries section of this report.

Fish stock conditions should be considered amongst the most important factors at the time of investment decisions in the fishery industry, with due attention paid to the development of responsible fisheries. Investors may simply not recover their investment if poaching and unregulated fishing continues. The outlooks of future fish stocks in the Russian Far East vary. Most likely, fishing stocks will continue deteriorating due to a weak enforcement of the existing TACs and thus create disincentives for long-term investment. Some Russian researchers, however, suggest that fish stocks in certain fish production zones might slightly increase for Alaska Pollack—the main fish species in the Far East—in the near future.

Figure 7. Retrospective Dynamics of Spawning Stock Biomass and Forecast of Spawning Stock Condition and Optimum Catch of Alaska Pollack in East Okhotsk Sea ('000 tonnes)



Adapted from "On the method of determining the estimate and optimal catch of population and age structure, O.I. Ilyin, published in Mathematical Modeling and Information Technologies in Studying World Ocean, Proceeding of TNRO, 2007, p. 15 *http://www.tinro.ru/vs2007/proceedings/all2007.pdf* (in Russian).

Positive examples of public-private partnership initiatives aimed towards establishment of responsible fisheries exist in the Far East region. The leading role in this process is played by fishery industry associations. The Alaska Pollack Association (www.pollack.ru) facilitates

[5] http://www.wwf.ru/about/what_we_do/seas/fish/bracon/
[6] Spawning stock – the part of a stock which is mature and breeding, the number or biomass of all fish beyond the age or size class in which 50% of the individuals are mature (http://www.fishbase.org/Glossary/Glossary.cfm)

certification of its members in line with responsible fishery practices of the Marine Stewardship Council (MSC, www.msc.org), an independent non-profit organisation that promotes responsible fishing practices. It is expected that each association member company will be individually certified within a two to three year period. Such a certification will definitely send a positive signal to potential investment partners concerned with environmental safeguards.

2.10. Political and regulatory factors

Political and regulatory factors closely relate to other factors of investment attractiveness. The Russian fishery Industry has drawn a lot of attention from policy makers, including the Russian President, in recent years. However, this attention has not yet translated into government policies that would assure industry development on a sustainable basis. This report contains a separate chapter on policy and regulatory issues in the sector.

Despite some progress in attracting investment—mostly to upgrade equipment—after introduction of 5-year quotas in 2003, existing uncertainty over quota allocation after 2008, its terms and conditions, create major and very serious constraint for investment in the industry. Time-consuming control, licensing, food safety and border inspection procedures are amongst the main policy constraints faced by fish producers and processors in Far East Russia. On average, border guards and other regulatory agencies can spend up to two days inspecting a fishing vessel on departure, arrival or in the fishing area, product testing and certification. These control procedures severally limit opportunities for delivering chilled products to the local markets and fish processors.

Mariculture in the Far East region could be considered as a supplement to traditional marine fisheries; however, legislative clashes between Federal and local laws and regulations often prevent allocation of seashore plots to potential investors.

3. FISHERY INDUSTRY AND MARKET

3.1. Fish harvesting

3.1.1. Key features, including RFE position

Fish harvesting bottomed out in the Russian Federation in 2004 when it reached the historic low level of less than 3 million tonnes. Since then fish harvesting has been increasing and in 2006 total production reached nearly 3.3 million tonnes. The upward trend continued in 2006 and 2007. Although approximately two thirds of the catches are taken in the Russian Exclusive Economic Zone (EEZ, i.e. within the 200 nautical miles border), there is an increased share of catches in foreign waters, governed by Regional Fisheries Management Organisations (RFMOs) or other countries' EEZ, which accounted for one fifth of the total catches in 2006.

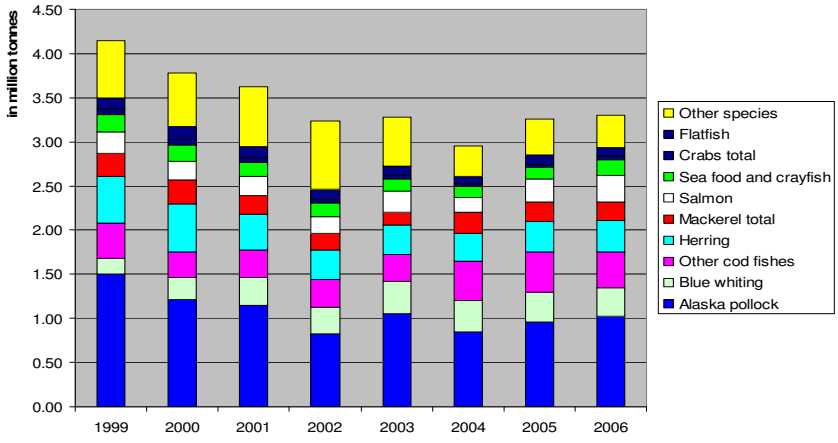
The Russian Far East is the dominant fishing basin with almost 60% of all catches, which produced nearly 2 million tonnes in 2006. The most important species in the Pacific fisheries are Alaska Pollock, herring and salmon.

3.1.2. Production developments

In 2006 total Russian fish production was roughly 3.3 million tonnes and showed a marginal 1% increase as compared to 2005. Preliminary 2007 data available from Rosstat suggest that capture fishery production in the first 6 months of 2007 was estimated at 1.5 million tonnes, which is 2% below the same period of 2006. Whereas catches of cod species (excluding Alaska Pollock and Blue whiting) dropped by 11%, catches of salmon species and various seafood (including crayfish) increased by 13% and 26% correspondingly.

The dynamics of catches from 1999 to 2006 by species are shown in figure 8, below, with more detailed production statistics provided in Annex 5.2.

Figure 8. Fish catches and seafood production in 1999–2005 (million tonnes)



Source: Rosstat

In 2006, fish originating from the Russian EEZ and inland waters accounted for 72% of all catches. The remaining 28% were sourced in EEZs of other countries and open ocean areas as compared with 26% in 2004 (see figure 9, below).

Figure 9. Structure of Catch by Fishing Zones in 2006

Source: VNIERKH

In contrast, the share of distant ocean fisheries in Soviet times accounted for up to 80% of all catches.

3.1.3. Structure of fish harvesting

The contribution of major fish production zones (basins) to total production has also slightly changed since 2003. Russia has five main fishing zones. The development of fish catches in the main fishing zones is shown in table 3, below.

Table 3: Fish Catches in the Main Fishing Zones of the Russian Federation

Fishing Zones	2003		2004		2005		2006		Chng, 06 from 03	
	'000 t	%	'000 t	%	'000 t	%	'000 t	%	'000 t	%
Far East Basin	1972	61%	1654	56%	1903	58%	1990	60%	18	1%
North Basin	730	22%	668	23%	750	23%	815	25%	85	12%
West Basin (Kaliningrad and St. Petersburg)	364	11%	362	12%	319	10%	298	9%	-66	-18%
South Region Basin	60	2%	46	2%	44	1%	51	2%	-9	-15%
Caspian Region Basin	66	2%	58	2%	63	2%	67	2%	1	2%
Other (including inland and fresh water)	62	2%	166	6%	179	6%	79	2%	16	26%
Catches total	**3253**	**100%**	**2954**	**100%**	**3258**	**100%**	**3299**	**100%**	**46**	**1%**

3.1.3.1. Far East Basin

The Far East Region is the most important fishing area of Russia with almost 60% of the national catch. This fact largely explains the geographical focus of this report. From 2005 to 2006 the catches in the region increased by 3% to nearly 2 million tonnes, almost exclusively in the Russian EEZ (97%). The increase was due to catches of Alaska Pollock growing by 13%, flatfish

by 29%, herring by 6% and Pacific salmon by 7%. Almost all fisheries in the Pacific Ocean take place in the Russian EEZ (97%).

Most of the catch in the Russian Far East was taken in the northwest part of the region in the Pacific Ocean. The main fish resources in the Russian EEZ are located in the Okhotsk Sea (51%), the western part of the Bering Sea (24%) and the East Kamchatka zone (7%). The catches of major fish species in the Russian Far East are shown in table 4

Table 4: Catches of Fish and Seafood in the Far East in 2000–2006 ('000 tonnes)

Species	Zone	2000	2001	2002	2003	2004	2005	2006
Alaska Pollock	Pacific Northwest	1215.1	1145.0	826.7	1055.9	849.6	961.7	1021.7
Pacific Herring	Pacific Northwest	361.2	278.5	203.4	190.8	194.4	205.4	222.3
Pacific Saury	Pacific Northwest	17.4	40.4	51.7	57.1	81.6	87.5	76.9
Pacific Ocean Perch	Pacific Northwest	1.0	0.8	1.1	0.9	0.9	1.2	1.2
Pacific Salmon, total of which		157.1	167.6	117.6	188.1	114.8	202.3	285.3
Pink Salmon	Pacific Northwest	132.9	149.4	100.7	176.9	91.3	159.5	202.5
Keta Salmon	Pacific Inland	36.5	32.1	36.6	27.6	24.8	28.8	52.4
Red Salmon	Pacific Inland	19.5	22.5	28.4	17.7	20.5	23.6	30.4
Pacific Cod	Pacific Northwest	68.4	59.8	60.6	51.6	63.3	55.7	49.1
Saffron Cod	Pacific Northwest	35.8	33.8	32.6	26.4	20.5	15.6	22.3
Flatfishes (Other)	Pacific Northwest	103.0	95.1	79.8	81.8	67.5	87.1	67.1
Halibut (Kamchatka Flounder)	Pacific Northwest	23.5	21.2	17.6	17.3	16.7	16.6	16.3
Okhotsk Atka Mackerel	Pacific Northwest	52.8	49.2	55.6	60.8	49.3	44.5	45.9
Various Squids	Pacific Northwest	69.8	44.2	72.5	58.0	68.7	75.1	83.1
Crabs, total. of which		58.1	51.2	42.9	42.1	34.3	33.2	41.9
King Crab	Pacific Northwest	28.6	16.3	10.9	8.4	3.3	5.4	14.8
Tanner Crab (Other)	Pacific Northwest	21.8	24.5	23.8	27.9	25.4	21.0	20.4
Blue King Crab	Pacific Northwest	5.2	4.5	4.6	3.5	2.4	4.0	4.5
Total		**2446.0**	**2254.7**	**1815.6**	**2114.3**	**1786.4**	**2075.8**	**1997.9**

Source: VNIRO

In January- to July 2007 Russian official statistics reported a 5% increase in fish production in the Far East as compared to the same period in 2006. Production of Alaska Pollock reached 1 million

tonnes in 2006 (+5%); it increased further by 9% in the first seven months of 2007 compared to the same period in 2006.

3.1.3.2. The other fishing areas

North Basin

Catches of fish and seafood in the Northern basin amounted to 815, 000 tonnes in 2006, increasing by 8% compared to 2005. The increase is owed to the growing catches in Russian EEZ. In particular, sardine catches increased by three times, mackerel by 12% and blue whiting by 8%. Atlantic herring catches remained stable, whereas horse mackerel catches decreased by 20%. The main fishing areas are the EEZ of Russia (including the Barents Sea) and other coastal states in the North-eastern Atlantic.

West Basin

In 2006, the catches of fishing companies of the West Basin amounted to 298 000 tonnes which is 7% less than in 2005. Over 80% of the catches are taken in the North-western Atlantic.

South and Caspian Basins

Fish production of the South basin (the Black and Azov Seas) and the Caspian Sea in 2006 decreased slightly compared to 2005 and amounted respectively to 51,000 and 67,000 thousand tonnes.

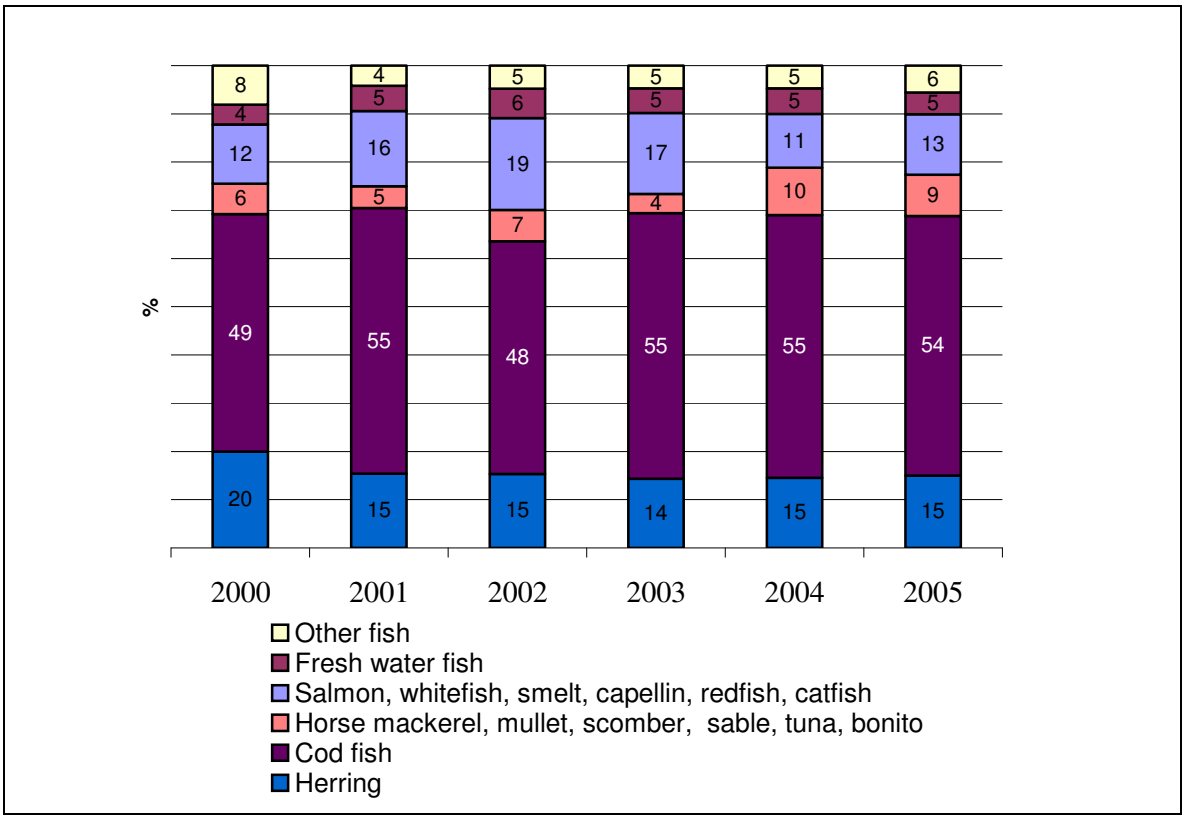
3.1.4. Fish production by species

The main species of the Russian wild catch consists of Alaska pollock (30% of total catch); blue whiting (11 %), herring (10%), Atlantic and Pacific cod (9%). Although salmon accounts for only 7% of total catch, this species is important to fishermen due to its high market value. Other important species include mackerel, capelin, Pacific saury, halibut, haddock and crabs (23%)[7].

Figure 10, below, gives a comparative idea of catches by major fish species. The share of codfish, which has the largest percentage in total structure, slightly decreased from 56% in 2004 to 54% in 2005. Since 2003 the share of herring has levelled out and was estimated at approximately 15%. In 2005 the ratio of salmon and other types increased to nearly 13% against 11% in 2004.

[7] USDA, FAS: GAIN report RS6051

Figure 10. Structure of fish production by type



Source: VNIRO

As is seen from the graph above, the share of cod in the total catch in 2005 accounted for 54%. The main species in this "cod fish category" were Alaska pollock (55%), blue whiting (19%), Atlantic cod (12%), navaga (8%), Pacific cod (3%) and haddock (3%).

3.1.5. Utilisation of fish resources

The VNIERKH research institute regularly calculates the utilisation of the Total Allowable Catch (TAC)[8]. According to VNIERKH, the overall TAC utilisation[9] in 2006 in all fisheries corresponds to nearly 53% of the TAC. Broken down by zones, the rate of TAC utilisation in the entire Russian EEZ was 65%, in foreign countries' EEZ 48%, in distant and open ocean zones 34% and in inland fisheries 27%. According to VNIERKH and the Federal Agency for Fisheries, these figures represent an improvement over past years, which is seen as a consequence of more efficient quota management procedures. In 2004, the Russian fleet started its catch later that usual due to the implementation of a new mechanism of quota allocation, while in 2005 fish harvesting continued as normal.

[8] TACs are allocated by the Russian government for the main commercially utilised resources in the Russian EEZ. In international waters or in the EEZs of foreign countries, the TACs are negotiated in the relevant regional fisheries management organisations (RFMOs) or bilaterally. TAC utilisation depends on both fish stock and market conditions that reflect demand, substitution of various fish species and substitution of fish by other products.

[9] The share of the TAC that is actually being used by the industry as compared to the available TAC

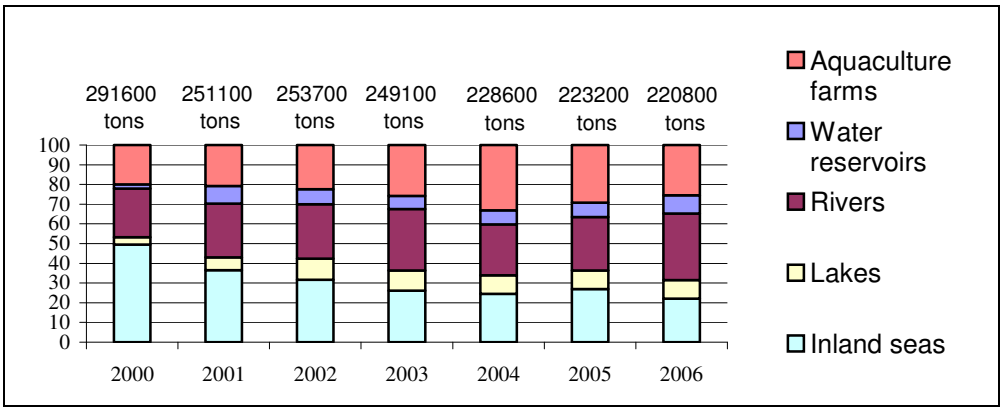
Most commercially valuable species tend to be fully exploited and some even overexploited such as Alaska pollock and Barents Sea cod. According to VNIERKH estimates, 25% of species are utilised at a rate higher than 50%. The apparent low average utilisation rate of TACs reflects the fact that many commercially less valuable and underexploited species count in the statistics, which include altogether 250 species under quota. It is estimated that the underutilised quotas amount to 600,000 tonnes.

Illegal and unreported fishing, "poaching", continues to be an issue and according to different estimates and statements illegal catches account for anything from 20% to 100% of officially recorded catches.

3.1.6. Fish and seafood production in inland waters

The main inland water species in the Russian Federation are whitefish, smelt, bream, pike and pikeperch. Inland fish production has been steadily declining since 2000. In 2006, inland fish harvesting was recorded at 220,800 tonnes, or 2% lower than in 2005. A continuous decline of capture fishery in inland waters could be attributed to overfishing or economic conditions. Figure 11 shows that the share of inland seas decreased from 50% to 27 % in the total structure of the inland capture fishery.

Figure 11. Fish Production in Inland Waters



Source: VNIERKH

According to VNIERKH, the decrease of catches in inland seas, in particular in the Azov, Black and Caspian seas, was due to the repetitive annual outbreak of a jellyfish (Ctenophora) population. A continuous decrease of sturgeon catches is attributed to large-scale poaching. Ecological factors, namely water pollution with oil, have a negative impact on capture fishery in the Caspian Sea. The fish stock of the Azov and Black sea basins is suffering from expansion of sea transportation and enlarging on-shore terminals for oil and chemical transhipments.

During 2000–2006 aquaculture played a more important role in inland fisheries, increasing its share from 20% of total inland production in 2000 to approximately 25% in 2006 (see figure 11).

3.2. Fish farming

3.2.1. Key features, including RFE position

A natural resource base in Russia[10] and existing technical knowledge provide good conditions for the development of Russian fish farming; however, legislative gaps and lack of financing are among the constraints on development of the fish farming sector. Although pond aquaculture with carp species dominates the sector (nearly 70% of the total farmed output), intensive aquaculture[11] focusing mostly on rainbow trout and other species is developing more rapidly. The main freshwater aquaculture regions in the Russian Federation are as follows: Northwest region (especially Karelia, Murmansk and St. Petersburg), Central region and South region (especially Krasnodar and Stavropol).

The contribution of the Russian Far East to fish farming is limited to 2% of production, mainly taking place as marine cultivation of shellfish and seaweed in the Primorye Krai. Primorye is considered as the leading region for marine aquaculture production. However legal and financial constraints have been reported by industry sources as obstacles to further development of the sector.

3.2.2. Production developments

After a period of decline in 1990–1997, aquaculture production has been on the rise since 1998. However, preliminary numbers on aquaculture production in 2006 suggest that it decreased by 8% as compared with the previous year, due to a reduction in traditional pond aquaculture. Freshwater carp is by far the main fish species produced by farmers. According to available information, carp production decreased by 12% in 2006 as compared with 2005. This decrease in pond aquaculture can be attributed to general problems which are faced by the sector: shortage of fish feed supplies which are mostly imported as well as switching consumer preferences and the substitution of higher valued fish in consumer diets. For instance, rainbow trout production increased from 7,600 tonnes in 2004 to an estimated 10,900 tonnes in 2006 in response to consumer demand.

The dynamics of fish farming production are shown in tables 5 and 6

Table 5: Fish Farming Production by Type of Operation in Russia ('000 tonnes)

	2000	2001	2002	2003	2004	2005	2006
Total Aquaculture	**73.5**	**89.5**	**101.0**	**108.0**	**109.1**	**114.0**	**105.0**
Of which							
Pond Aquaculture	50.0	67.6	64.6	75.1	76.1	80.8	72.0
Intensive Aquaculture	14.0	12.8	14.6	13.1	14.1	14.2	14.0
Inland Reservoir and Sea Aquaculture	9.5	9.1	21.8	19.8	18.9	19.0	19.0

[10] Russia has 20 million hectares of lakes, 4.5 million hectares water reservoirs, 1 million hectares of reservoirs of complex purposes, more than 150 thousand hectares of ponds, over 300 thousand hectares of cages and pools.

[11] Intensive aquaculture: all feed is fed by hand or machine, there is no significant natural feeding. Fish are generally held at high stoking densities between 10 and >100 kg/m³

Table 6: Fish Farming Production by Species in Russia ('000 metric tonnes)

	2000	2001	2002	2003	2004	2005	2006
Rainbow Trout (Salmonidae)	3.8	4.3	5.2	6.1	7.6	8.6	10.9
Whitefish (Coregonidae)	2.2	2.9	4.2	4.5	4.6	4.6	6.0
Carp species (Common. Silver, Grass)	65.5	80.5	89.5	95.2	94.5	98.3	86
Sturgeon (Acipenseridae)	2.0	1.8	2.1	2.2	2.4	2.5	2.1
Total	**73.5**	**89.5**	**101.0**	**108.0**	**109.1**	**114.0**	**105.0**

Source: Rosrybkhoz

3.2.3. Fish farming in the Far East

Fish farming in the Russian Far East is mainly concentrated on marine cultivation of molluscs and seaweeds, which account for approx. 2% of total aquaculture production in Russia. A description of fish farming in the Primorye Region is shown in the box below (Fish farming and constraints in the Primorye region).

3.2.4. Restocking of salmon

Restocking of Pacific salmon is a significant program in which the government plays the most important role. There are 46 ranching stations for Pacific salmon in the Russian Far East with an annual release of approx 600 million juveniles. Restocked salmon is considered to account for up to 20% of the total salmon catch, which ranges from approximately 170,000 to 230,000 tonnes annually.

3.2.5. Fish feed

Imports of high-quality fish feed—used both for trout farming and salmon hatcheries—serve as a good indicator of the development of the fish farming industry as domestic fish feed production is insignificant. According to official statistics illustrated in figure 12, below, fish feed imports doubled from 2002 to 2006.

Fish farming and constraints in the Primorye region

The marine aquaculture sector in the Primorye region consists of 36 farms which, according to regional authorities, operate 78 aquaculture areas of a total area of 10,000 hectares. The main farmed marine items include scallops, laminaria and mussels. According to regional statistical data the output of Primorye aquaculture farms was estimated at 1339.9 tons in 2006, of which laminaria production amounted to 818.1 tons, scallop production 479.4 tons and mussels 41.4 tons.

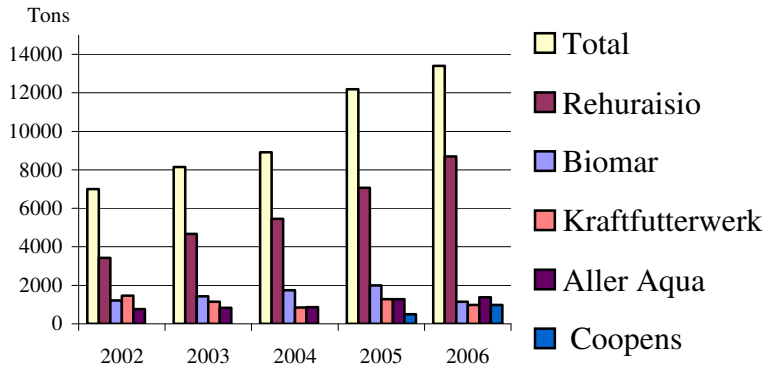
There are two freshwater aquaculture farms in the Primorye region, namely the Tinro-Centre based at the Primorsk water power station and the Centre of Compex Safety operating on the Kulikovskoe water reservoir. In 2006, freshwater farms produced 21.8 tons of farmed fish including 19.4 tons of sturgeon and 2400 tons of carp and silver carp.

According to local market specialist, the Primorsky region has significant unrealised potential for aquaculture operations. The total area of suitable water surface and land plots for aquaculture is estimated at 3758 sq km against approx 80 sq km used today.

The establishment of new aquaculture grounds and the expansion of existing farms are hampered by the lack of local legislation and high risks. The existing law regarding water plots does not give sufficient guarantees to companies for utilising them for a long period of time (please refer to the description of the Water Code in the chapter on Policy and Regulatory Developments). The investments in the infrastructure are high and the paying back time is quite long for the first harvest (3 years in the case of scallops and 5 years in the case of crab). There has so far been no support provided to fish farming from the government, even under the National Priority Projects (see footnote on next page for description). Russian banks are also very reluctant to grant credit for fish farming. Certain problems have also been reported by companies in Vladivostok caused by water polluted by sewage waste in the Peter The Great Bay.

The Chief of the Fishery Department of the Primorye region, Mr. Uleysky, has stated that the Programme for the Development of Aquaculture in the Primorye region, which is in the pipeline now, should contribute to solving the current issues of the sector and stimulate its performance.

Figure 12. Fish Feed Imports into the Russian Federation



Source: FTS

3.2.6. Outlook for the fish farming sector

Although aquaculture in Russia is regarded as having a strong development potential in terms of natural conditions and high technical know-how, its share of farmed fish production has been insignificant as compared with capture fisheries.

The vast territory and variety of water basins have good potential for fish farming development, of which trout and sturgeon farming are considered the best opportunities at the moment. Black caviar from fish farming is also seen as a promising business. Marine farming has shown some limited success results, and in the Russian Far East scallops and seaweed farming is a successful but limited sector.

The lack of necessary legislation on aquaculture has slowed down commercial activity and discouraged investors. Aquaculture was included in the National Priority Project[12] in 2007. In order to sustain the development of aquaculture in Russia the government adopted a number of decrees[13] which set the mechanism of subsidised interest rates to commercial fish farms for modernisation of fish farming facilities and purchase of pedigree stock. Fish farmers have been recognised in the same category as farmers which will qualify them for an increased level of government support.

The Russian government will likely support the following priority development areas in aquaculture: pasturable aquaculture; increasing the fish productivity of fish ponds; development of modern methods of fish rearing in urban conditions; cultivation of fish and other aquatic organisms in costal sea areas. It is anticipated that government support will facilitate the increase of aquaculture output to 510 thousand tonnes by 2015.

3.3. The fishing fleet

3.3.1. The Fleet – vessels, capacity, origin

At the beginning of 2006 the Russian fishing fleet consisted of 2,668 vessels with a total capacity of 2,312,000 kW[14] which is an overall decrease of 8% from the beginning of 2005. Compared to 2005, the fleet in 2006 has not changed significantly. Used fishing vessels enter the fleet, replacing older vessels. In 2006 more than 70% of operating vessels were more than 20 years old.

The structure of the fishing fleet by type of vessel is given in figure 13. At the beginning of 2006 the fish capture fleet consisted of 2,668 vessels including 2,256 capture fishing vessels, 30 factory vessels, 323 transport vessels and 59 auxiliary vessels.

[12] National Priority Projects (NPP) are state programmes targeted at solving the most crucial problems. NPP are an initiative under the Ministry of Agriculture mainly designed to support the agricultural sector adopted in 2005.
[13] See Annex 5 (Opening Remarks at a Meeting of the State Council Presidium on Effective Management of the Fishing Industry in Russia).
[14] Data from VNIRO referring to vessels with engine power over 55 kW

Figure 13. Structure of Fleet by Type of Vessel (beginning of 2006)

Source: VNIERKH

The term ”fishing vessels” describes a wide range of vessels. The main criterion for classification in this category is that the vessel should have mechanical fishing gear (trawl winches, line hauler, seine winches, or other) on board. The vessel could also have processing and freezing facilities on board. Coastal vessels in the northern areas either have refrigerators with a temperature of 0 - (-8) °C, ice machines, or nothing. Factory trawlers, factory long-liners, crabbers, shrimpers are some of the types of fishing vessels encountered in that category. The following classification is generally applied in the Russian Federation:

Factory vessels/mother ships (“floating factories”) are the vessels that do not have fishing mechanisms or equipment, and only receive raw fish from fishing vessels for further processing. As a rule these vessels are rather big, about 160–200 metres long.

Freezer vessels are transport vessels. They collect frozen fish in the fishing grounds from fishing vessels and mother ships for delivery to Russian and foreign ports. The distance from the Sea of Okhotsk to the Bering Sea is about 7 days of full-speed sailing. It makes more sense for fishing companies to charter freezer vessels for transportation of the product than miss half a month of the fishing season.

Other vessel categories comprise vessels like oil tankers, tugs, supply vessels, scientific and training vessels.

The average daily catches per vessel for different types of vessels are shown in table 7.

Table 7: Average Daily Catches per Vessel in the Beginning of 2006 (in tonnes)

Type of vessel	Russia in General	Major Basins		
		Far East Basin	North Basin	West Basin
RTMKS	91.5	85.7	99.6	69.8
RTMS	53.6	51.5	69.3	-
BMPT	53.1	58.6	41.9	47.9
RTM	22.1	22.4	-	-
TSM	15.5	24.3	13.5	12.8
Syam	5.3	5.2	5.0	7.0
SRTM	9.3	9.3	9.5	5.1
SRTR	7.2	1.3	8.9	-
STR	12.9	13.5	6.8	8.7

Source: VNIERKH

Catches of Alaska pollock in the Far East are made by the large- and middle-tonnage fleet. The average daily catches of large vessels in the North Okhotsk sea zone were estimated at 67.2 tonnes, in the Kamchatka Kuril zone at 53.2 tonnes and in West Kamchatka at 57.1 tonnes. Catches of middle-size vessels were estimated at 38.6, 22.0 and 22.9 tonnes respectively.

It should be noted that in the North Atlantic large-scale vessels like RTMKS and RTMS operate outside the Russian EEZ in international waters and in the Faroe Islands zone catching mainly blue whiting, which is reflected in the higher production in terms of daily catch. Moreover, the season for blue whiting is much longer and the catches are relatively stable compared to the season for Alaska pollock. The structure of the capture fleet and the deadweight is given in table 8

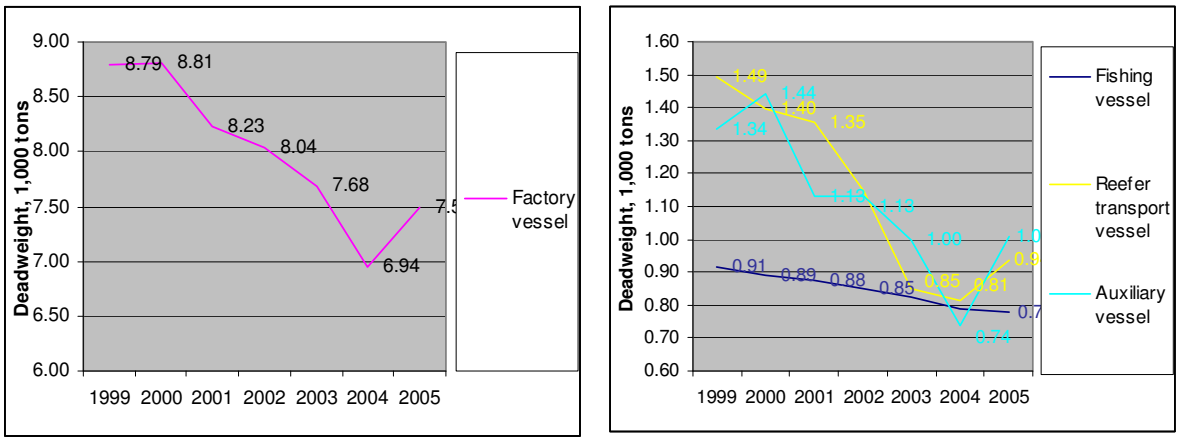
Table 8: Fishing Vessels of the Russian Federation: Number as of January 1 - Deadweight in 1,000 register tonnes.

	2000	2001	2002	2003	2004	2005	2006
Fishing Vessels	2529	2596	2607	2571	2533	2458	2256
Deadweight,	2313	2306	2285	2185	2092	1939	1762
Factory Vessels	61	57	56	54	41	35	30
Deadweight,	536	502	461	434	315	243	225
Reefer Transport Vessels	427	425	422	406	373	356	323
Deadweight,	638	593	571	466	317	289	303
Auxiliary Vessels	38	32	44	44	47	50	59
Deadweight,	50.8	46.1	49.8	49.8	46.9	36,9	59,6
Total No. of Vessels	**3055**	**3110**	**3129**	**3075**	**2994**	**2899**	**2668**
Total Deadweight	**3538**	**3447**	**3367**	**3135**	**2771**	**2509**	**2350**

Source: VNIRO

The average deadweight (DW) for all types of fishing vessels declined significantly from 1999 to 2004 as companies rationalised their fleets. However, it seems that the downward trend changed in 2004, except for fishing vessels (see figure 14).

Figure 14. Dynamics of Average Deadweight of Different Types of Fishing Vessels in the Russian Federation



Source: VNIRO

Indeed DW is not an essential factor for fishing vessels since the main task of the vessels is not to carry cargo but to fish. In this regard, the decline in average DW for fishing vessels reflects a continuous reduction in the number of old, large trawlers and multifunctional vessels. As for mother ships and freezer vessels—both categories that showed an increase in DW in 2004—DW provides more onboard storage and processing capacity. Auxiliary vessels (tugs, tankers and so on) also increased in number in 2004.

The dymamics of fishing fleet in provided in table 9 below. The reason for the increase in the number of crab fishing vessels is the opening in 2005 of a new industrial king crab fishery in the Barents Sea. Several additional crabbers were reportedly bought by Tunaycha fishing company in USA to operate in this zone.

Table 9: Dymamics of Fishing Fleet by Type of Gear

	2000	2001	2002	2003	2004	2005	2006
Fishing Vessels Total	**2529**	**2596**	**2607**	**2571**	**2533**	**2458**	**2256**
Of which by gear:							
Gillnets	12	10	12	13	17	17	17
Trawls	778	785	789	748	693	654	600
Trawl-pots Seiner	10	9	9	8	8	8	7
Crab Bottom Traps	41	42	43	44	47	52	50
Long Lines	51	54	56	57	49	49	50
Multifunctional	1511	1560	1541	1531	1554	1540	1420
Other	126	136	157	170	165	137	111

Source: VNIRO

3.3.2. Recent developments

In August 2006, the Russian government issued a decree[15] introducing exemption from customs duties and taxes for refrigerating and fishing vessels temporally imported into the RF under bare boat charter arrangements, i.e. vessels belonging to foreign owners and chartered by Russian operators for off-shore capture fishing.

The construction of new fishing vessels has long been a high priority for the Russian government. The recently established United Ship Engineering Corporation aims at merging the main ship building yards of the RF. However, most of the shipbuilding enterprises which should join the corporation have never been involved in the construction of fishery vessels. Two large fishery seiners have been built in Kaliningrad and Severodvinsk. The only new project for vessel construction accomplished in 2005 was the flagman vessel PS-450 project 70129.

3.3.3. Russian Far East: fleet renewal

Interviews with fishery company representatives in Promorye, Kamchatka and Sakhalin indicated that the main problem for most of the companies is the need to renew the fleet.

New vessels are still too expensive for the Russian fishermen. For instance the BATM and BMRT type vessels (100–120 metres long) cost USD 25–50 million. Small and medium size vessels cost from USD 5 million up to USD 15 million. The average payback period of a fishing vessel is 18–20 years, which requires a corresponding credit period. However, such a long credit period is extremely risky and requires contract insurance and other guarantees, especially in the light of uncertainties related to future quota allocations.

Investors should exercise due diligence with potential partners as there have been numerous reported cases of poor performing investment in the fleet. Reportedly, 14 trawlers built in Spain in the early 1990s, which worked under bare boat charter contracts for “Dalmoreproduct”, were arrested in 2000 by the owner (Rybcomflot) in accordance with a verdict of the London Court for alleged violation of contract. At about the same time several Norwegian-built trawlers (type “Sterkoder”) which belonged to ship-owners in Sakhalin were arrested in South Korea and sold through an auction to a New Zealand Company .

The modernisation of existing vessels in terms of safety and efficiency of investment could be an alternative to purchasing new vessels. The objectives of modernisation could be:

- Installation of new energy efficient engines due to soaring marine gas oil costs
- Installation of new fishing equipment & machinery (trawl winches, long-line equipment etc.)
- Modernisation of fish processing factories on board the vessel in order to produce frozen value-added products at sea
- Completing the construction of vessels initiated shortly before the break-up of the Soviet Union

There are at least 15 ready hulls of small and medium size fishing vessels waiting for engines and other equipment to be installed. These vessels (hulls) were unfinished around the break up of the Soviet Union in 1991. Some further work on these vessels was done in 1993–1994 and some vessels have already been equipped with engines. Completing the construction of these vessels

[15] Governmental Decree N 517 of August 24, 2006. Entered into force on September 26, 2006.

could be a cheaper option than building new vessels. There are also three unfinished large-scale trawlers in the Ukraine (Nikolaev). Their price after completion could approximate USD 20 million – half of the cost compared to newly built vessels of the same category.

3.4. The processing industry

3.4.1. Key features, including RFE position

The output of the Russian fish and seafood processing industry has been relatively stable since 2000, registering a slight increase from 2005. Value-added products form a limited but growing part of total production. Processing capacity is distributed between on-vessel and on-shore at 77% and 23% respectively. The Russian Far East is the most important region with 55% of all production capacity, of which 79% is on board vessels. The Russian Far East saw significant increases in freezing and canning capacity between 2000 and 2005.

3.4.2. Production developments

According to preliminary Rosstat estimates, fish and seafood processing decreased by 4% in 2006 from its 2005 level. In general, the statistics show a situation where the *total production* of seafood (excluding canned products) increased from approx. 2.6–2.7 million tonnes in the period 2000–2003 to 3 million tonnes in 2005–2006. Frozen fish has maintained the position of the most important product (in terms of volume), but the composition has changed with the output of value-added products and convenience food increasing over the period, namely smoked, dried, "culinary" products (which include convenience foods) and seafood products other than finfish. This increased production of value-added products results in a growing diversity of ready fish and seafood products available to Russian consumers.

Table 10 below, gives an overview of the output of fish products from 2000 to 2006 according to the type of processing. Canned production is given in number of conventional cans (350g), while the other products are in terms of 1,000 tonnes.

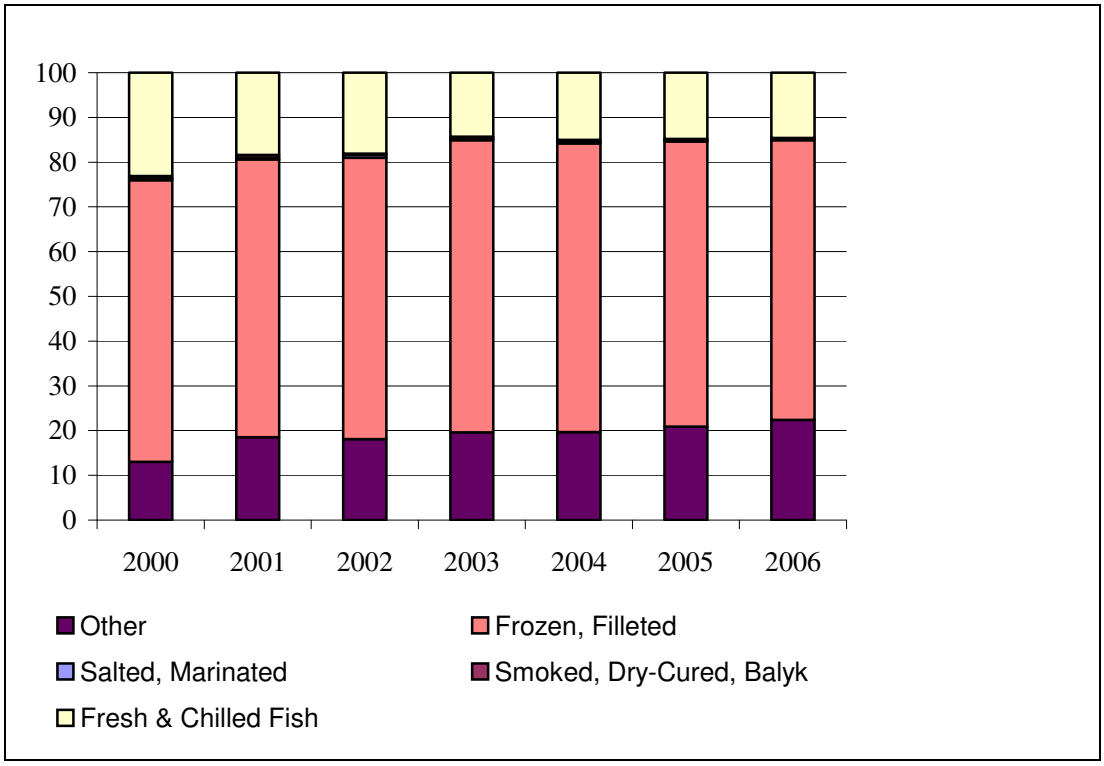
Table 10: Production of Fish and Seafood Products ('000 tonnes)

	2000	2001	2002	2003	2004	2005	2006	06/05, %
Live Fish (Excl. Herring)	349.6	343.9	287.1	260.0	254.0	299.1	284.0	-5.5%
Chilled Fish (Excl. Herring)	100.2	104.9	140.1	105.1	75.1	115.1	92.0	-20.1%
Frozen Fish (Excl. Herring)	1502.9	1675.2	1661.0	1700.9	1678.2	1812.3	1838.0	+1.4
Fillet Frozen (Excl. Herring)	117.9	92.7	49.4	67.7	67.8	55.5	66.2	+19.3
Salted Herring	32.1	33.4	34.4	41.8	41.9	30.9	26.9	-12.9%
Herring of All Types of Processing	411.2	407.1	372.9	374.8	321.0	448.1	413.0	-7.8%
Smoked Fish (Excl. Herring)	23.6	26.6	28.7	33.5	34.8	39.8	43.1	+8.3%
Fish Dried and Dry-cured	8.4	9.1	9.9	10.5	11.0	14.5	17.6	+21.4%
Spiced and Marinated Products	1.6	2.4	2.5	3.5	3.7	5.3	4.3	-18.9%
Culinary Products	8.2	11.6	16.8	37.7	47.7	71.2	41.6	-41.6%
Balyk Products (Cured, Smoked Sturgeon)	1.1	1.3	1.6	2.1	2.0	1.6	1.8	+12.5
Caviar	25.9	28.0	21.7	24.9	23.3	35.9	39.5	+10
Seafood Products Other Than Finfish	96.2	97.5	103.6	93.3	95.2	111.6	114.0	+2.2
Canned Fish and Preserves (Mill.Cans)	587.3	611.2	629.1	692.5	778.2	826.9	747	-9.7%

Source: Rosstat

The structure of the production of fish and seafood products (excl. canned) is shown in figure 15.

Figure 15. Structure of Production of Fish and Seafood Products



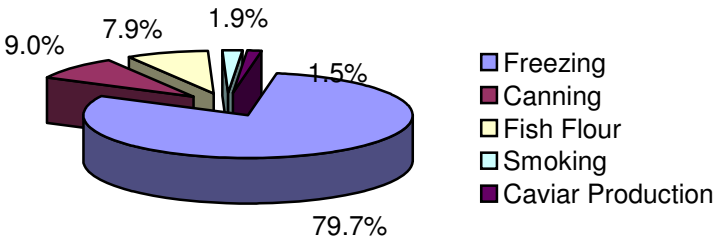
Source: VNIERKH

3.4.3. Production capacity, including freezing and cold storage

The capacity of fish and seafood production facilities in the Russian fishery sector was estimated at 4.6 million tonnes in 2006. According to VNIERKH estimates, in 2005 construction of new on-shore modern canning facilities increased the capacity of canned fish processing by 17% and a further increase of 2% was registered in 2006. However, in general significant underutilisation of the existing fish canning facilities will likely serve as an impediment to further investment in fish canning. According to VNIERKH, only 32% of canning capacity was utilised in 2005. These enterprises with low a utilisation rate of production facilities are usually large-scale companies built in Soviet times.

Freezing capacities of on-shore processing and handling companies more than doubled from 264,000 tonnes in 2000 to 563,200 tonnes in 2006. However, cold storage capacities on board vessels have been in decline while increasing on-shore from 74% in 2000 to 76% in 2004. Major investment in cold storage capacity was made in the Russian Far East region which now has cold storage space for 245,300 tonnes in Kamchatka, Magadan, Khabarovsk and Sakhalin. The other projects include new cold storage of a nominal capacity of 25,600 tonnes at Penguin JSC in Novokuznetsk and Ledovo in the Kaliningrad region.

Figure 16. Structure of Fish Processing Capacities in 2006 (%)



Source: VNIERKH

With a processing capacity of 2.4 million tonnes the Far East region accounts for about 55% of total Russian fish and seafood processing capacity. In 2006, on-board production capacities of the Far East fleet accounted for 80% of the region's production capacity.

The share of fish processing capacity of the North basin is estimated at 19%, of which the fleet constitutes 95%. The share of the West basin is 8%. In contrast with the Far East and North basins, more than a half of processing facilities in the other regions are located on-shore (62%).

3.4.4. Russian Far East perspectives

3.4.4.1. Local Production

Bearing in mind the big growth of the fish market in Moscow and other big Russian cities, the situation in the Far East gives the impression of a certain stagnation. There is a certain number of producers supplying local markets with canned, salted, dried, marinated, smoked and other types of processed fish and seafood products. However, there is no significant on-shore production of retail-type (value-added) products comparable to, for example, Ledovo or other producers supplying the Moscow and other markets in European Russia. NBAMR probably has one of the most modern fish processing facilities in Far East Russia. The factory processes squid and the quality of the IQF product is comparable to European company standards. The Gidrostroy company factories on the Kuril Islands are also technologically advanced. The factory of RK Lenin in Petopavlovsk-Kamchatsky is also quite modern but beyond canning production it is limited to a very simple level of processing (heading and gutting and then freezing of Alaska pollock or freezing of other species from coastal catches).

3.4.4.2. Fish Processing in the Russian Far East

The Russian Far East is the main region to be conditioned by the demand of raw materials from neighbouring countries. In contrast to its huge catch volume, the limited processing facilities of the region are unable to compete in terms of efficiency and labour costs with China. Therefore, Russia has become the biggest exporter of raw material, depending—as is the case in the Far East—on its buyers for the financing of its fishing activities and for determining the price of the raw material.

The issue of fish processing in the Russian Far East reaches beyond the problem of processing by Russian enterprises. For example, European on-shore processing factories have also faced stiff competition from processors in China. Producers at Chinese processing facilities purchase frozen fish in Europe (cod, saithe haddock, halibut) in significant quantities. After processing in China fish returns to the European market, while European processors lose raw material and are forced to cut down the volume of their production. Ultimately the basic raw fish for the Chinese enterprises is Russian headed and gutted Alaska pollock. As long as this source exists (about 700,000 tonnes per year), a huge range of Chinese processing enterprises which emerged in the middle of the '90s will continue competing successfully with the European enterprises for additional raw material.

Before the construction of new and modernisation of existing fish processing facilities, investors are advised to carefully study the final market for their product. Better access to raw material does not guarantee competitiveness of the final product. It is obvious that fish factories oriented towards producing so called "secondary frozen" products (for instance, initially frozen pollock which undergoes partial thawing before final filleting and re-freezing) will unlikely be able to compete with Chinese producers. On the other hand, factories working on fresh and chilled fish would definitely have an advantage. These factories will likely be able to position their "single frozen" products better in the quality-sensitive markets in Europe and receive a premium price. Such processing facilities could be built in Sakhalin, the Kuril Islands, Primorsky Kray (Vladivostok region) and Kamchatka. Although there is a lack of convenient ports on the Kamchatka peninsula, especially in the areas where coastal fisheries are concentrated (West and North-East).

Another opportunity for investment is improving on-board processing. In the United States more than 80% of Alaska pollock (with a TAC level similar to that in Russia) is processed on board the vessels into the final product (fillets, surimi, fishmeal). Sea frozen Alaska pollock is sold at a significant premium to on-shore secondary frozen product (the price per kilo of the final product reaches USD 4). Waste from the production on-board is processed into white fishmeal, which has a high protein content.

A brief overview of new processing projects going on in Russia is described in the box below.

Brief overview of new projects in the fish processing sector.

Russkoe More (Russian Sea) is planning large-scale investments in the construction of new processing and storage facilities in Noginsk in the Moscow region as well as launching farmed trout production in Karelia.

Presently, the company runs fish processing facilities in Noginsk and in 2006 the company's turnover was estimated at RUB 2.5 billion (nearly US$100 million). Launching additional production facilities with investments of RUB 390 million will enable the doubling of existing production. Additional investments in a storage and logistics centre are estimated at RUB 1–1.3 billion. Launching of new products, such as fish and seafood spreads; new types of caviar, convenience fish products, semi-finished products as well as surimi are in the pipeline. As far as the aquaculture project is concerned, the company took over the fish farming complex Segozerskoe of Karelia and is planning to increase farmed trout production up to 9,000 tons by 2009. The total investments in the Karelia region are estimated at RUB 800 million.

The Ledovo group of companies equipped their production facilities with a new line for the production of seafood delicacies. The equipment, which meets the highest food safety requirements, was supplied by Hermann WALDNER GmbH & Co. KG (Germany). Investments into the new project were estimated at US$2 million. The total production capacity of the company amounts to 10 million cans per year.

The Fregat Company of St. Petersburg is planning to launch new facilities for crab stick (surimi) production in Nizhny Novgorod in the middle of 2007. The investments in the green-field construction are estimated at US$1.2 million. New production facilities will be located in an area of 11.3 hectares with a monthly output of 1,000 tons of crab sticks. It is planned that raw materials will be supplied from the Far East region.

The new fish processing complex, Dora, with an annual capacity of 1,500 tons of fish products per year is being launched in Volgograd. This project is in line with a local programme aimed at efficiency improvement of the regional fishery sector. Following this programme a Fish Trade House was established by the main capture fishery and fish processing companies of the region.

The Diaf enterprise has started production at a new site in Barnaul. The company has an output of 5.8 tons of fish products per day and supplies the local distribution network and 170 wholesalers in the Altay region as well as other neighbouring areas. The assortment of fish products consists of more than 140 items including fillet, semi-finished products and minced fish.

Source: fishnet.ru

3.5. Trade

3.5.1. Key features, including RFE position

One of the characteristics of the Russian fisheries sector is that it directly exports an important share of its own catches, while importing considerable and increasing volumes of foreign raw materials for its domestic processing industry as well as seafood for direct consumption.

Demand for fish and seafood from the Russian processing industry and consumers will likely continue growing in the near future resulting in further growth in imports. For quite a few years Russian authorities have aimed at directing more of the Russian catches to the domestic processing industry and the domestic market. It is difficult to assess the likelihood of when, or if, the various proposals currently circulating will be adopted by the Russian authorities. Most

observers tend to believe that the current trade pattern with large volumes going directly from the Far East of Russia to Asia will continue at least for the next 5 years.

Exporters of seafood to Russia as well as Russian importers have to follow numerous complicated procedures and requirements. During the last few years, a system of mandatory approval by Russian food safety authorities has been put in place for companies wanting to export to Russia. These approval procedures are expected to continue on a country-by-country basis. Unfortunately, Russian accession to the WTO is taking longer than most trade analysts had expected. It is now anticipated that Russia will become a member of the WTO in the course of 2008. Until then it is unlikely that import procedures for fish and seafood production will be simplified.

For the seafood sector, WTO membership is seen as important to ensure more transparent and foreseeable trade conditions related to the Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary measures (SPS). While there is no reliable information as to the level of import tariffs that will be set after the country's WTO accession, industry leaders expect that fish products with higher value-added will face higher import tariffs. Imports of fish and raw materials for further processing, however, may even benefit from reduced tariffs.

3.5.2. Exports

According to Rosstat and FTS statistics, about half of the total Russian catch is exported. The Russian Far East is the region with the highest level of exports followed by the North-West region. Frozen fish is by far the most important export item. In 2006 it constituted close to 90% of the total Russian exports. Live and chilled fish export has dropped significantly year on year since 2002 and is now almost insignificant. Exports of fillets, however, are increasing sharply by about 42% from 2005 to 2006, even though they are still not back at the same level as in 2000 (see table 11).

Table 11: Seafood Product Exports from the Russian Federation ('000 tonnes)*

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Live and Chilled Fish	103.8	65.8	137.7	81.2	45.2	21.6	4.4
Frozen Fish	817.9	947.4	948.4	991.2	1,041.5	1,190.6	1,343.1
Fish Fillet	138.7	103.8	58.0	67.6	49.3	59.4	84.1
Salted, Smoked and Other Processed Fish	45.8	24.9	16.0	9.6	16.2	8.2	10.7
Crustacean Products	46.9	38.4	35.2	33.6	26.9	25.7	28.9
Mollusk Products	21.1	12.5	35.8	11.4	12.1	17.8	22.7
Canned Fish and Caviar	15.8	16.0	17.7	23.2	31.4	45.9	54.4
Canned Crustaceans	3.1	5.0	4.4	3.6	2.6	3.8	2.0
Total	**1,193.1**	**1,213.8**	**1,253.2**	**1,221.4**	**1,225.2**	**1,373.0**	**1,550.5**

Source: Rosstat and FTS

* The value of fish and seafood exports exported from the Russian Federation in 2003-2006 is provided in Annex 5.3

Russian exports to Asia have seen a significant increase since 2000 as shown in table12, below. Table 12 is based on estimated transhipments from the fishery zones (and thereby not on the total

export figures – see explanations in the next section). Today more than 60% of the Russian exports go to the Asian region, with Korea as the most important buyer (see table 12 below). The share of Korea as an importer of Russian fish in the Asian region increased from nearly 12% to 32% during 2000–2005. It can be explained that an important share of the Korean imports of Russian fish ends up in other markets like China and Japan. Europe buys about 13% of Russian fish followed by the USA.

Table 12: Exports from the RF by Destination (in %) – Transhipments from Fishery Zones Only

	2000	2001	2002	2003	2004	2005	2006
Europe, incl.	32.3	29.4	30.6	27.5	25.8	**23.4**	25.1
EU	18.7	17.1	17.5	12.1	11.5	13.3	16.8
Norway	12.4	11.3	11.7	6.8	6.8	6.6	6.3
Asia, incl.	35.4	49.5	52.8	55.9	57.1	61.4	61.3
China	1.5	3.4	7.9	3.8	11.1	11.0	15.8
Korean Republic	11.6	19.5	20.6	24.9	25.2	32.0	30.2
Japan	18.0	17.6	14.0	15.0	13.2	10.0	9.9
Africa	0.5	0.4	0.3	0.3	0.3	0.7	0.6
America, incl.	31.8	20.7	16.3	16.3	16.8	14.5	13.0
USA	28.5	16.0	11.6	11.6	11.1	9.5	7.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Rosstat

Official Russian Statistics report South Korea and China as the main importers of Russian fish. A share of the processed seafood from the Russian-origin raw material finds its way back to the booming Russian market. China, for instance, is the key supplier of fillets of Alaska pollock to Russia with close to 15,000 tonnes of exports in 2006.

3.5.3. Imports

As explained in the section on market developments, the Russian seafood market is growing at very high rates, increasing sales by 13–15% annually. A large share of the Russian demand is met through imports. In particular, the share of imported fish in the total per capita consumption of fish is 46%, so nearly every second kilogram of fish and seafood consumed by Russians is imported.

The quantity of officially registered fish and seafood imports into the Russian Federation more than doubled from 1990 to 2005 and reached nearly one million tonnes (see table 13 below). Apart from canned fish, the imports of all other product groups have increased tremendously. Frozen fish stands for almost two thirds of the total imports.

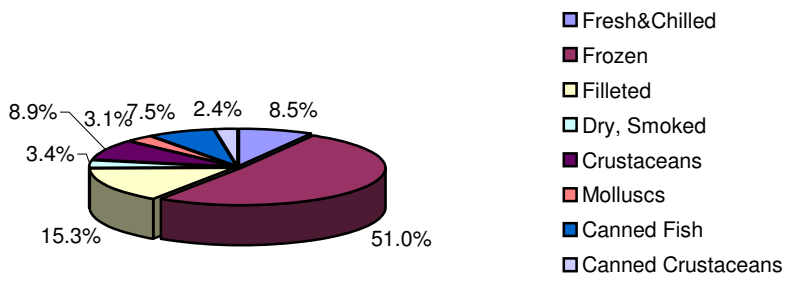
Table 13: Seafood Product Imports into the Russian Federation ('000 tonnes)

Product	1999	2000	2001	2002	2003	2004	2005	2006	Share, % of total
Fresh&Chilled Fish	9.3	6.3	8.8	13.3	22.8	35.3	50.0	30.3	3.5
Frozen Fish	264.2	304.1	391.4	414.2	464.7	584.9	656.8	563.2	65.6
Fish Fillets	21.2	10.6	18.2	34.6	55.4	62.2	79.8	98.5	11.5
Salted, Smoked and Other Processed Fish	7.8	8.3	12.2	14.0	12.8	13.0	21.3	21.4	2.5
Crustaceans	4.4	7.8	12.8	18.0	26.7	35.4	45.6	46.3	5.4
Molluscs	2.1	0.8	4.4	6.2	8.1	10.8	17.4	20.9	2.4
Canned Fish	115.1	119.1	138.4	94.2	86.0	82.6	97.3	69.9	8.1
Canned Crustaceans	0.4	0.9	1.5	2.1	5.4	8.2	10.9	7.9	0.9
Total	**424.5**	**457.9**	**587.7**	**596.6**	**711.9**	**832.4**	**979.1**	**858.4**	**100**

Source: FTS

However, 2006 trade statistics suggest that import quantity decreased by more than 12% as compared with the previous year. The value of imported fish and seafood products increased by 19% during the same period as a result of increased imports of higher-priced value-added fish products. With growing incomes, consumer preferences switch to more convenient higher-priced products like fish fillets and high-value seafood, in particular molluscs and crustaceans, which resulted in the growth of import value. According to available information, frozen fish and seafood are the main import items (see figure 17 below).

Figure 17. Fish and Seafood Imports in Terms of Value in 2006 (%)



Source: VNIERKH

Imports of fresh and chilled fish steadily increased during the period 2000–2005, reflecting growing consumer demand. However, in 2006 imports of fresh and chilled fish dropped by almost 40% due to restrictions imposed by the Russian veterinary authorities against fresh salmon from Norway. More information on trade measures is provided in section 5.4.3.

It is expected that demand for fresh and chilled seafood will continue increasing in the near future providing support for increased imports into the Russian Federation.

3.5.3.1. Imported species

An increasing variety of species find their way to the Russian market. However, the main imported species are still the traditional ones: herring, mackerel, hake, salmon and trout. Russia is the world's largest importer of herring; in 2006 this species accounted for 36% of all frozen fish imported to Russia in terms of volume.[16] An example of new species entering the Russian market is pangasius from Vietnam. In 2006 Vietnam exported 11% of its pangasius production to Russia, making Russia the fastest growing market for this product together with the EU.

3.5.3.2. Imports of fish by country of origin

Norway is by far the largest supplier of both frozen and chilled fish to the Russian market. In 2006 almost 40% of Russia's frozen fish imports came from Norway, followed by Mauritania[17] and Iceland with 8% import market share each .

The Russian trade ban on farmed fish from Norway, which was introduced on 1 January 2006, had an immediate effect on trade. Chilled fish imports from Norway decreased by 55% in 2006 compared to 2005 (refer to table 14). The decrease in chilled salmon from Norway was to some extent offset by increased imports of chilled fish from other countries. An increase in supplies of chilled fish from Iceland, Estonia, Poland and the Ukraine was registered by Russian official statistics.

Table 14: Chilled Fish Imports (HS Code 0302) into the RF by Top 7 Partner Countries

	2005			2006	
Country of Origin	**Value '000 USD**	**Weight, tonnes**	**Country of Origin**	**Value '000 USD**	**Weight, tonnes**
NORWAY	124,384.5	42,935.3	NORWAY	75,451.2	19,174.5
CYPRUS	1,939.8	457.3	FAROES	10,561.3	2,577.4
FRANCE	1,090.9	182.8	UNITED KINGDOM	6,237.9	1,680.1
DENMARK	774.0	293.7	ICELAND	5,522.6	1,553.9
ESTONIA	550.2	170.8	CYPRUS	3,200.2	738.1
POLAND	515.2	3,333.2	ESTONIA	3,139.5	779.0
FINLAND	438.3	2,074.7	FRANCE	1,442.2	223.2
OTHER	1,543.0	349.8	OTHER	4,194.3	3,435.0
TOTAL	**131,235.9**	**49,797.7**	**TOTAL**	**109,749.1**	**30,161.1**

Source: FTS

[16] From the presentation "Modern tendencies of seafood market development in Russia" by Timur Mitupov (Norge Fish) at the conference "Strategic Challenges on the Russian Seafood Market", June 2007, Moscow

[17] These are mostly imports from Russian vessels fishing in Mauritania EEZ.

However, with the new system of approval of Norwegian companies by the Russian veterinary authorities, which was put in place in April 2006, imports of salmon from Norway have started to pick up again. It is currently expected that 2007 imports will show a solid growth.

3.6. Trade policy and trade measures

3.6.1. WTO membership

The Russian Federation applied to join the General Agreement on Tariffs and Trade (GATT)—WTO predecessor—in June 1993. The Working Party (WP) on accession was established on 16 June 1993. Since then, 30 formal meetings of the WP have taken place. The latest revision of the draft Report of the WP (nearly the final step towards completing the accession before presentation to the WTO General Council or the Ministerial Conference) was circulated in October 2004. Currently, the Russian Federation continues bilateral market access negotiations on goods and services. There are four blocks of issues subject to negotiation: tariffs, agriculture, market access and after-accession legislation compliance.

Information on the future tariffs and bound rates will be applicable after accession and remain confidential as negotiations continue. The Ministry of Economic Development and Trade of the Russian Federation (MEDT) has stated that according to already completed agreements, the bound tariff rates for all products will not be lower than currently applied rates and that there will be no decrease in import duties in the first year following the country's accession[18]. According to available information, the current Most Favoured Nation (MFN) applied tariff for fish and fish products in the Russian Federation was 14.4% (2005, simple average)[19]. Only 0.9% of fish and fish products enjoy a duty-free entrance into the Russian Federation. Among all agricultural, fishery and food products, only animal and dairy products are subject to a higher level of tariff protection as compared with fish and fish products.

Agriculture is probably the sector which slows down the negotiation process the most. In 2003, Russia provided justifications for its Aggregate Measurement of Support (AMS) in agriculture at USD 9 billion per year, using 1993–1995 as the base period. Some members of the working group, however, insist that the 2001–2003 base period, which had a lower level of allowed support, should be used.

As for market access, the Russian Federation completed bilateral negotiations with the following trading partners as of 28 June 2007: the EU, USA, China, Republic of Korea, Taiwan, Thailand, Turkey, Chile, Singapore, Venezuela, New Zealand, Mexico, Norway, Ecuador, Egypt, Canada, Japan, India, Paraguay, Uruguay, Switzerland, Brazil, Australia, Panama, Dominican Republic and Honduras. Negotiations continue with Georgia, Saudi Arabia and other members of the WP.

Negotiations on the compliance with WTO Agreements after Russia's accession focus on the following major issues of non-compliance: customs legislation, import tariff quotas, sanitary and phytosanitary measures (SPS), technical barriers to trade (TBT), licensing and intellectual property rights protection.

[18] Current State of Negotiations Process to Join the WTO, MEDT Report 03.08.2007
[19] Russian Federation Country Tariff Profile (WTO)

It is currently expected that Russia will become a member during the course of 2008. For the seafood sector, as for all other sectors, WTO membership is seen as important for ensuring more transparent and foreseeable trade conditions, especially those related to the application of the TBTs and SPS. There are no reasons to believe that import tariffs on fish and seafood products will decrease significantly after Russia's accession to the WTO. Most likely, tariff levels will depend on the type of product and the degree of processing. Imported products with higher value-added will face higher import tariff rates as compared with raw and unprocessed fish and seafood products. The Russian fishery industry will also likely continue enjoying high tariff protection against import products.

It is also likely that many trading partners, including the EU, USA and others will aim at concluding preferential trade agreements with Russia soon after the country's entry into to the WTO. However, most likely these agreements will exclude sensitive fish and seafood products produced by the Russian fishery industry.

3.6.2. Trade measures – food safety

The cumbersome food safety and inspection system in Russia is believed to hurt domestic fish and seafood producers, processors and trade. The Federal Service for Veterinary and Phytosanitary Surveillance (Rosselkhoznadzor) is the leading food safety agency in charge of assuring fish and seafood safety and wholesomeness. Most recently, Rosselkhoznadzor started approving individual foreign companies exporting to Russia. So far, the system is in place for a few major exporting countries. This is expected to expand rapidly to include all exporting countries.

The safety of all food products produced, imported, and sold in the Russian Federation, including fish, is regulated by a set of sanitary epidemiological regulations entitled "Hygienic Requirements for the Safety and Nutrition of Foodstuffs" SanPin 2.3.2.1078-01 (or "SanPiN -01"). The existing requirements were developed by the Russian Ministry of Health and the Nutrition Institute of the Russian Academy of Medical Sciences and have been in force since 1 September 2002. The legal status of SanPiN-01 gives the Federal Service for Surveillance in the Sphere of Protection of Consumer Rights and Well-Being of People (Rospotrebnadzor) of the Ministry of Health and Social Development the right to withdraw from production or trade products that do not meet official requirements.

The SanPiN-01 applies to all private individuals and legal entities involved in production, import and distribution of foodstuffs, and contains food safety and nutritional requirements for all food products, including fish. Article 1.3 clearly establishes the maximum allowable levels for heavy metals, pesticides, radionuclides, microbiological safety of fresh water and marine fish, canned and processed fish, and seafood products. Other articles establish specific norms as to fish contamination with parasites and requirements for canned fish products. For product-specific information and requirements on food safety of fish products, please refer to the electronic version of the regulations indicated in the footnote[20]

3.6.3. Trade measures – the Norwegian case

Unpredictable trade or sanitary measures negatively affect the investment attractiveness of both the domestic processing industry and imports. Unpredictability of trade or sanitary measures is directly reflected in unstable imports and, as a result, in the deficit of raw material leading to

[20] http://www.ukrfood.com.ua/09/sanit/sanit.php

higher prices. Processing companies depend very much on stable and secure supplies of raw material (frozen or chilled fish), and, in this regard, even a several-day stop in supplies can spoil the company's financial results. Whereas some sanitary measures are objectively reasonable (for example, the case with Chinese chemical additives in 2002–2004), sometimes the mentioned restrictions appear to be of political nature or as a mechanism to influence the market. The exporting and processing companies tend to adjust to the new regulations accordingly, however, this usually happens over a period of some months (for instance, it took half a year for several Norwegian companies to get permission to export fresh salmon to Russia).

As of 1 January 2006, Rosselkhoznadzor banned imports of chilled farmed fish from Norway. It was claimed that according to tests of chilled salmon taken in early December 2005 the level of heavy metals was considerably above the approved Russian standards. The Norwegian authorities strongly objected to the credibility of these findings. Subsequently there were many speculations as to why this ban was introduced. The Russian side maintained the claim related to food safety concerns. Some analysts, however, related the ban to an attempt by the Norwegian Coast Guards to arrest a Russian trawler fishing in the Svalbard Archipelago in the Barents Sea. Others pointed to the impressive growth in the imports of chilled salmon and that these measures could be an attempt to get more control over the market.

After months of discussions, a system was established by the Russian authorities to inspect the Norwegian companies wanting to export chilled farmed fish to Russia. In September 2006, the system of mandatory inspections was extended to cover frozen farmed fish. As of today, approximately ten Norwegian companies have been approved for the exporting of farmed fish to Russia and a corresponding number of Russian companies approved as importers. It is also expected that the Russian authorities will extend the system of approval to all seafood imported from Norway.

3.6.4. Other examples of trade restricting measures in Russia – Iceland, Vietnam and Estonia

Mandatory company inspection requirements were also applied to Icelandic fishing companies exporting to the Russian Federation. Russian authorities inspected all interested Icelandic companies in January–March 2007. The process of inspections was smooth with all necessary permits received.

As for Vietnam, the Russian food safety authorities visited a number of seafood exporting facilities in 2007, although no formal inspection demands have yet been established. According to Intrafish, Russia and Vietnam reached a bilateral trade agreement in summer 2007. Reportedly, this agreement allows Vietnam to export more fish, fruit, spices, silk and shoes to Russia and contains certain provisions on technical and food safety rules.[21]

Estonia has had difficult trade relations with Russia since gaining independence in 1991. Most industry leaders characterise the Estonian-Russian problems to be of a political nature. Prior to its EU accession on 1 May 2004, Russia imposed double customs tariffs on Estonian seafood exports with the consequence that direct exports were stopped and diverted through other channels at higher costs. After accession to the EU, Estonian companies had to obtain approval from the Russian authorities in order to export to Russia. The Estonian exporters waited for approximately two years for the Russian inspectors to complete the audit. Estonian fish exporters to Russia

[21] Intrafish 9 July 2007

reported that trade problems re-occurred following political tensions between the two countries as a result of the removal of a memorial monument in Tallinn in spring 2007. Estonian exporters experience reluctance from Russian clients to trade with them. Fish transport has been slowed down heavily at border crossings where the lines of trucks waiting to cross the Russian border can easily reach three kilometres, which is very costly when transporting frozen fish. Estonian industry sources report that exports to Russia over the last 3 months have been decreasing considerably (September 2007).

3.6.5. Other trade control measures

Rosselkoznadzor implements rigid and often excessive control measures for import and re-export operations in the seafood sector by using various administrative tools. The agency reduced the number of border check-points authorised to clear imported chilled fish in late 2006 – one at the Finnish border, one in Kaliningrad and one at the Ukrainian border. The latter border inspection point also aims at controlling illegal seafood imports and transhipments from Ukraine. Trade regulations and requirements to direct more of the Russian catches to the domestic processing industry.

High officials from the State Fishery Agency have repeatedly warned Russian fishermen of possible new measures to increase the flow of fish deliveries for processing to the Russian shore. Currently, most fish is being exported directly from the fishing zone without any stopovers in the Russian ports for customs formalities. These proposed measures are often justified by the objectives to reduce poaching and undeclared sales. Uncertainty over Russia's future policy measures regarding fish exports creates insecurity for investors as it does not allow for the creation of reliable estimates of catches, production and marketing costs.

Industry experts believe that it would be difficult to introduce such measures because of a number of reasons such as existing economic realities, competition from Asian processors, heavy Russian bureaucracy and red tape, poor port and handling infrastructure and access to manpower. The likelihood of the introduction of export restrictive measures is difficult to assess despite various proposals voiced by the Russian authorities. Most observers believe that the current trade pattern with large fish export volumes directed to Asia will continue in the coming years.

A recent statement on these issues was made by the head of the Federal Agency for Fisheries at a fisheries conference in Vladivostok on 26 September 2007. Mr Andrey Krainy announced the preparation of the program "Russian fish to the Russian shore" which would include measures to reduce charges for sea and land transportation from the nation's producers in the Far East basin to other regions of the country including a reduction of railway charges by at least 50% by as early as 1 January 2008[22].

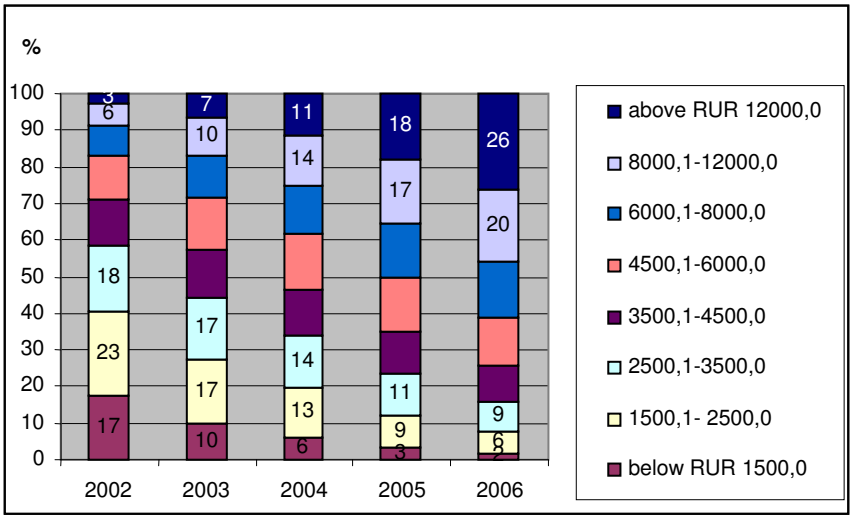
3.7. Market developments

3.7.1. Key features on the market

With increasing incomes across all consumer categories (refer to figure 18, below), consumption of fish and seafood production will continue increasing in the foreseeable future.

[22] www.fishnet.ru

Figure 18. Structure of Average Monthly Income



Source: Rosstat

The fish market in Russia passed the stages of dramatic consumption decline in the late '90s and the widespread uncertainty of the early 2000s. Over the past five years, the domestic market for fish and seafood products has become one of the most rapidly developing segments of the food distribution system. As market analysts indicate[23], the overall capacity of the Russian fish market was estimated at RUB 400 billion (over USD 15 billion) in 2006. Compared to 2005, in 2006 the market capacity of the Russian fish and seafood markets nationwide increased by 12–15%, while market growth in Moscow alone surged by 53%.

One of the most dynamic sectors of the Russian economy, the retail sector, continues to develop at unprecedented rates. In 2006, the country's retail trade turnover reached nearly USD 336 billion, showing a 13% growth compared to 2005. Retail sales increased by 14% in January–May 2007 in comparison to the same period the previous year and accounted for USD 151 billion[24].

Increasing consumer purchasing power and changing consumer preferences away from the traditional markets have allowed for a rapid growth of the retail trade sector and consumption of fish and seafood is showing a stable upward trend. According to Rosstat figures, per capita fish consumption increased from 15kg in 2004 to 17kg in 2006. Consumer preferences are clearly drifting towards high-quality fish products. International, Russian industry and market analysts predict fish consumption to grow by 15–20% annually.

3.7.2. The main trends in the retail sector

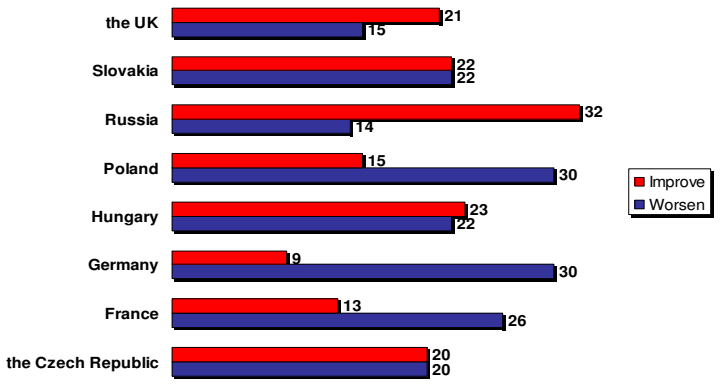
The major highlights of the Russian retail sector with a special emphasis on the fishery products are outlined below.

[23] "Another giant leap" by Timur Mitupov for Seafood International, May 2007
[24] Russian Federal State Statistics Service, www.gks.ru

- **Growing consumer optimism**

Over the last few years the Russian economy has experienced strong economic growth, accelerated by high oil prices, growing consumer spending, and external investments. The country is currently experiencing the best economic perspectives it has enjoyed for a long time, and this sentiment is shared by many Russian consumers. Research conducted by Cetelem[25] illustrates that the percentage of citizens who are enthusiastic about the overall situation in the upcoming 12 months is higher in Russia than in other European countries. As shown in figure 19, below, 32% of the respondents expressed the belief that their economic situation would improve, whereas only 14% believed that it would worsen. This positive thinking is more and more popular in Russia, and has a direct impact on the retail sector as more consumers are willing to save less and spend more.

Figure 19. Consumers' Opinion about their Financial Situation in the Upcoming 12 Months (%), (January 2006)



Source: Cetelem 2006

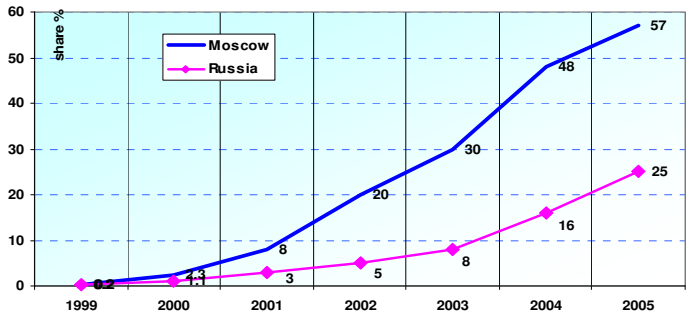
- **Perspective of regional expansion: not only "million-cities", but also smaller ones.**

The development of modern format retail stores started in the beginning of 2000 and has been growing continuously ever since (see figure 20). In Moscow the share of modern retail stores is now closer to the European standard – 65–80% of the overall retail formats. In Russia the share of modern retail outlets was estimated at 25% in 2006 and is forecast to reach 35% by 2010[26]. The global retail networks and Russian retailers actively expanded their activities to the Russian regions in 2004–2005.

25 www.cetelem.com

26 Presentation "What do modern Russian consumers choose: price, assortment, quality?" by S. Ravluk, June 2007, www.businessanalytika.ru

Figure 20. Share of Modern Retail Chains in the Retail Trade Sector



Source: RosBusiness Consulting, Kachalov and Colleagues Consulting, 2007

Since the capacity of the retail markets in Moscow and St.Petersburg is approaching saturation, many retailers have reacted by focusing on Russian cities with populations of over 1 million inhabitants, especially "oil-cities" in the north of Russia. Nizhny Novgorod, Ekaterinburg, Samara, Volgograd, Kazan, Ufa, Tyumen and other cities were among the first sites of expansion of both international and domestic retail chains. Before 2006 the strategies for the active development of big foreign and domestic retailers and smaller regional players were different. The first group of retailers represented by leading players such as Metro Cash&Carry, Auchan, 7th Continent, Perekrestok, Ramstore, Spar, Mosmart and others chose to concentrate on regional centres and the biggest Russian cities with populations of over one million inhabitants. In contrast, regional retail operators like Magnit, Pyaterochka, Kopeika, Diksi and others aggressively penetrated smaller cities with populations of over 200 thousand inhabitants in addition to the bigger cities. According to Russian Business Consulting Agency (RBC)[27], the leaders of the regional expansion in 2006 were "Magnit" (44 regions), "Paterson" (19 regions), "Perekrestok" (17 regions), "Pyaterochka" (17 regions), "Metro Cash&Carry" (14 regions), "Grossmart" (11 regions), "Diksi" (10 regions) and "Ramstore" (8 regions). The retail chains Magnit (1,500 stores) and Pyaterochka (751 stores) were the leaders by the number of outlets.

Since 2006 a number of international and domestic retailers have opened new stores in the cities with a population of 200–500 thousand people. These cities are believed to be the most promising for large, medium and small retail chains. The Federal State Statistics Service confirms the income growth trend in these cities. In 2006 the real monthly disposable income was USD 460 per capita on average in Russia, while in Moscow it was USD 1,300 per capita. In 2006 eight cities had real disposable income of over USD 800 per capita. Some analysts suggest that the real disposable income will exceed USD 800 per capita in 18 cities[28]. In addition to these 18 cities, there will be 10 cities where the real disposable income will be in the range of USD 700–800 per capita. Therefore, a significant growth potential for retail trade is evident in the Russian Federation. This rapid retail development provides good conditions for distribution of more chilled, frozen and value-added fish products in the regions, large opportunities for fish producers, and, along with increasing consumer incomes, it enables growing consumption of fish and seafood products in the country.

[27] www.rbc.ru

[28] "Global forecast for development of international retail chains" by Kachalov and Colleagues during the conference "Strategic Challenges on the Russian seafood market", June 2007, Moscow

- **Russian retail operators are strengthening their market share**

Although Russian retail chains accounted for more than 78% of sales, business efficiency of international retain chains operating in Russia was believed to be better (the growth in sales of foreign retailers in 2006 was 90% versus 50% for Russian retailers). Although the number of foreign retail chains is much lower compared to Russian companies, no new foreign retail players entered the market in 2006. As RBC analysts[29] noted, "at present global retail chains which plan to enter the Russian market will need higher expenses to get a considerable market share than in the past years. The reason is that the costs of "market entry" increased by more than 2.5 times in the last few years".

- **"Hypermarket" is the most popular retail format for development**

The main trend in 2006 was the impressive growth of hypermarkets: according to the report "Retail chains by FMCG (Fast Moving Consumer Goods) product sales in Russia" by RBC[30], there were about 40 hypermarkets in Russia in 2005, whereas in 2006 the number of hypermarkets was over 180. Currently hypermarkets are the most rapidly developing format in the country. Previously it was only the foreign retail chains that operated in this format because Russian retailers lacked experience and financial resources. However, in the last two years the situation has changed dramatically – now the leading positions are occupied by Russian retail players (at present nearly all domestic retail chains work in this format, except Magnit and Retail Group which are planning to open hypermarkets in the near future). The share of hypermarkets in the overall food retail format is forecast to increase by 5–7% annually.

Hypermarkets usually offer the best choice of fish and seafood in terms of different species, product variety and selection of brands. This is attributed to the large area of the stores (from 4,000 to 20,000 sq m), wide product assortment (from 30,000 to 50,000 items) and the best modern equipment, especially for storing fresh and chilled fish and seafood.

Another emerging retail format of premium-class supermarkets is represented by a new type of store: elite supermarkets or so called "gastronomic boutiques". Now there are four retail chains in Moscow which fit into this category: "Azbuka Vkusa", "Kalinka Stockmann", "7th Continent Five Stars" and "Globus Gourmet". These stores are oriented at high-medium and premium-class consumers and offer delicacies from all over the world.

Exotic fish species like swordfish or princess parrotfish, as well as traditional species like salmon and sturgeon from the best producers are offered in those stores. This category of shops can offer not only a product, but an experience and unique service. For instance, the new "Azbuka Vkusa" supermarket on Rublevo-Usenskoe highway invites consumers to an elegant grill-bar where specialists will explain how to prepare exotic fish at home, and if the consumer wishes, the fish will be prepared in the bar immediately. An "Oyster and Sushi bar" on the first floor of the mentioned supermarket surprises consumers with a fine selection of seafood delicacies.

[29] "Foreign retail companies are loosing market share" by RBC, July 2007, www.rbc.com

[30] "Hypermarket is the format of the future" by RBC, June 2007, www.rbc.ru

The development of this store format has been possible due to the growth of a very wealthy consumer group; however, this retail format is represented only in Moscow and in part in St. Petersburg and it is difficult to forecast its development in the future. According to the experts, stores in the mentioned format will undoubtedly be in demand in the big and rich Russian cities, but their development may not be so systematic compared to other "regular" retail chains.

3.7.3. Fish and seafood brands and developments

Retail networks in Moscow and St. Petersburg already offer consumers a variety of fish and seafood products equivalent to most stores in the European Union. The branded ready-to-eat fish and seafood segment has rapidly developed, while most minimum processed low-value-added products are still sold in the markets unbranded. The market for branded ready-to-eat seafood products (shrimp, crabs, scallops, squids, and mussels) has been growing by over 30% annually despite the fact that most of these products are still considered delicacies by the average Russian consumer.[31]

The Russian market for fish preserves[32] is actively developing. As well as the market for ready-to-eat seafood products, the market for fish preserves has been growing by 20–30% annually reaching 360,000 tonnes in 2006[33]. Half of this volume is represented by herring preserves. Currently, mostly Russian brands dominate the segment of processed and ready-to-eat fish products. 30% of Russian producers are located in the Central Federal district (European part of Russia), and the main market players are big companies like Russkoe More, ROK 1, Meridian, Ledovo, Delcy C, Bremor, Baltysky Bereg and others. Danish companies such as Nordic-Seafood, Agama, and Albatros have also established a wide presence in the Russian seafood market. According to research conducted by Norwegian TNS Gallup Media[34], the most popular and most consumed fish labels in Russia in the first quarter of 2007 were "Russkoe More", "Baltiysky Bereg" and "Santa Bremor". "Meridian" and "Raptika" are included in the top five popular labels. The reasons for the growing demand for fish preserves are the big assortment and wide price range. For example, Ledovo brands such as Salmon and Bon Appetit offer more than eighty different types of seafood products. The company is also actively developing private label products and is planning to use 35% of its overall production for this private label category.

It is not currently clear how the development of the retail sector and an accompanying growth of popularity of the private labels will affect market shares of the existing brands.

The first "private label" products appeared in Russia in 2001. They were inexpensive product categories with stable demand like milk, bread, eggs and meat products, whereas seafood products were considered as exotic. Ramstore was the first retail chain which introduced the "private label" concept to the Russian market, followed by Perekrestok, 7th Continent, Kopeika, Pyaterochka and other retail chains.

At present, all domestic retail chains in Russia offer products under their own "private label". For example, Perekrestok has 600 "private label" products produced by nearly 300 domestic and foreign companies. Various shrimps, seafood delicacies, fish fillet, ready-to-eat fish and seafood

[31] USDA/FAS Report "Seafood Import and Consumption Soars" http://www.fas.usda.gov/gainfiles/200606/146198013.pdf
[32] "Fish preserves" are called ready-to-eat fish products, for example fish in brine and salted, smoked or marinated fish packed in vacuum or plastic packages.
[33] "Russian market for fish preserves continues growing", www.fishnet.ru
[34] "Poll announcing Russia's most popular fish labels", August 2007, www.fishnet.ru

products are marketed under "Perekrestok private label" brand. Now the general tendency is that Russian retailers plan to operate with private label brands in high-price product segments like seafood, while European retailers try to keep minimum prices for the majority of their private label goods. Nearly all Russian retail chains announce their plans to increase the sales of private label products in the coming years by 10–40% of their turnover[35].

Although Russian consumers are not ready to buy domestic private label products in big volumes yet, the situation is changing. There are certain advantages to "private label" goods both for fish producers, retail chains and consumers.

Private label products allow retailers to decrease mark-up for goods by 15–20% because those products do not require high marketing expenses. Retail chains increase sales of fish and seafood products and strengthen consumer loyalty. For producers it guarantees steady sales growth of packed fish and seafood products. According to the leading seafood processing companies, it is efficient to use up to 40% of the processing capacity for production of private label brands. Consumers benefit from guaranteed quality, higher variety and competitive price. The main disadvantages for processing companies can be "price wars" from retail chains, weakened competitiveness of other produced brands, reduction of assortment line and creation of conditions for market influence.

3.7.4. Main fish consumption trends

- **High quality is the most important criterion for consumers**

Improvements in quality of life have changed Russian consumers' habits and this is increasingly reflected in the growing attention to comfort, extra services, premium-class goods and healthy food. Although the majority of Russian consumers continue to be price-sensitive, product quality is gaining more importance in their purchasing decisions. This tendency is particularly noticeable in the fish and seafood departments of the Russian retail sector. As several retail chains have noted, Russian consumers are willing to pay extra for high quality and attractive products. It is now considered prestigious to offer fresh seafood to consumers. In addition to premium-class stores, big retail chains, which offer high-quality goods for moderate prices, are now offering services and value in addition to simply offering the product at competitive prices as before. Live and chilled fish and seafood are regarded as "image products". Many retail chains choose to attract customers by providing them with improved variety of chilled fish and seafood. Oysters, blue mussels, octopus, squid, cuttlefish and warm-water prawns are some of the sought after varieties in the biggest retail chains, in addition to Norwegian salmon, rainbow trout, turbot, seabass, seabream and other traditional species.

This trend is mostly reflected in big international and domestic retail chains in Moscow and St.Petersburg. However, as soon as modern retail trade expands to cover smaller cities, the demand for fresh/chilled fish and "interesting seafood" will increase. For value-added fish and seafood products, high quality is also emphasised as the most important criteria when choosing products.

[35] Presentation "Success of private label brands in fishery industry" by Nadezda Kopytina at Second International Specialized Conference "Strategic Challenges on Russia's seafood market", Moscow, June 2007

- **Growing diversification of fish products**

The country's fish processing industry reversed the trend which reduced product choice to very basic and minimum-processed fish products in the late '90s and early 2000s. The industry now provides consumers with the improved selection of ready-to-eat fish products that is available in modern Russian retail outlets.

Herring, the most traditional Russian fish product, best illustrates the improvements in product choice. Prior to market transition, only salted unpacked whole herring was available to consumers. Now, an amazing choice of herring preserves exists in any big Russian city. Considering traditional consumer preferences, the variety of herring-based products in Russia is even more diverse than the assortment in many European supermarkets. For example, 32 different herring products were observed in a supermarket in Copenhagen, where tradition for eating herring is very old. In a local supermarket in Samara the number of different herring products amounts to over 40, while in a local hypermarket in the same city it reaches nearly 100. Many domestic producers have product lines which include from 9 to 20 variants of herring preserves with different sauces, including even exotic combinations like herring with aubergines. Smaller stores and traditional outlets have on average 10–15 different herring products.

Consumers have become used to the regular arrival of the new products, which forces domestic producers to generate new product lines and implement innovative production technologies. The increasing variety of fish species is also reflected in the fresh/chilled fish segment, often with stocks of 15–40 fish and seafood species in chilled/fresh fish departments, depending on the size of store.

- **"Ready-to-eat" seafood is the most dynamic market segment**

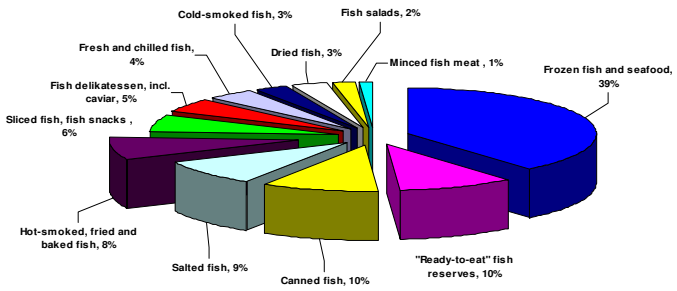
According to market analysts from the USDA Foreign Agricultural Service[36], the "ready-to-eat" market segment for seafood products is showing the most rapid rates of development. Sales of "ready-to-eat" shrimp, crab, scallop, squid, and mussels are growing on average by 30% annually. This category is followed by fresh and chilled fish and exotic seafood. It is difficult to estimate the annual growth of these categories in the country, but the biggest international retail chain ("Metro Cash&Carry") observed that their total sales of chilled exotic seafood increased by 24% in 2006 over the previous year, while the growth of total chilled fish sales was even higher. The salty fish snack market grows by 8–10% per year.

In terms of volume, frozen fish and seafood dominate retail sales. Monthly sales of fish products in a supermarket in Moscow (which belongs to a chain with over 100 stores all over the country) reveal the following structure (figure 21[37]). Frozen fish and seafood accounted for 39% of all fish and seafood sales by volume and were followed by fish and seafood preserves and canned fish. Salted fish sales are estimated at 9% and hot-smoked, fried and baked fish account for 8%. Fish salads and minced fish meat are considered to have the lowest weight in the volume of fish and seafood sales.

[36] "Russian Federation, Fishery Products. Market trends for fish snacks", USDA Foreign Agricultural Service, 2006

[37] From presentation "Modern tendencies of Russian fish and seafood market developments" by Timur Mitupov at the conference "Strategic Challenges on the Russian seafood market", June 2007, Moscow

Figure 21. Sales Volume of Various Categories of Fish and Seafood Products in a Domestic Supermarket in Moscow

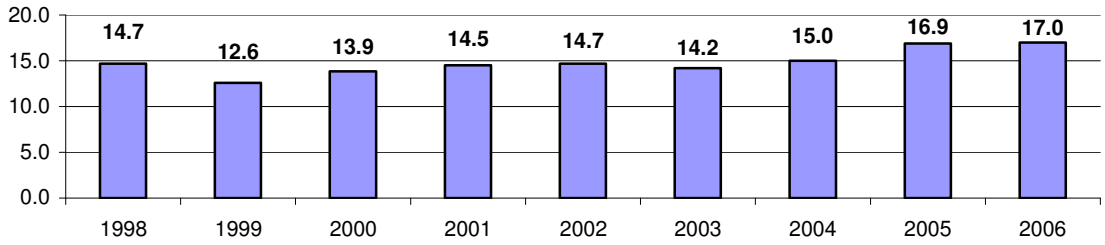


Source: Norge Fish

- **Average annual per capita consumption of fish and seafood products recovers, yet is still below late 1980s levels**

According to the Russian Federal State Statistics Service, annual per capita consumption of fish and seafood products has shown a stable growth since 2003. In 2006, it reached 17kg per capita – the highest level since the 1990s, and up from 14.2kg consumed in 2003. This increase is attributed to the following factors: general increase in consumers' purchasing power; improved variety of fish products available; and development of modern retail formats. However, annual per capita fish and seafood consumption remains below the 21.3kg recorded in the Russian Federation in 1989. The dynamics of the national per capita consumption of fish and seafood in 1998–2006 is provided in figure 22, below.

Figure 22. Annual per Capita Consumption of Fish and Seafood Products in Russia (in kg)



Source: Rosstat

Although other sources suggest that annual per capita consumption of fish products in Russia varies from 12 to 14kg, consumption figures provided by Rosstat are based on regular family budget monitoring and expenditures surveys. Therefore the Rosstat figures are believed to provide a more accurate statistic of fish and seafood consumption in the country.

The annual fish consumption in urban areas is higher that in rural areas (17.1kg per capita per year as compared with 16.7kg). Fresh/chilled and frozen fish is the main product consumed in this category. People who live in urban areas tend to consume more fresh and frozen fish while rural consumers eat more salted, smoked and dried fish due to traditional life style and preferences. The

consumption of canned and semi-finished fish products (that require slight cooking) is higher in the cities than in rural areas due to the convenience factor. A breakdown of fish and seafood products consumption in urban areas as compared with rural areas in 2003-2006 is provided in tbale 15 below,

Table 15: Per Capita Consumption of Main Fish Product Categories in Urban and Rural Areas (kg per year)

Products	All Types of Family Household				Urban Areas				Rural Areas			
	2003	**2004**	**2005**	**2006**	**2003**	**2004**	**2005**	**2006**	**2003**	**2004**	**2005**	**2006**
Fresh, Chilled and Frozen Fish	9.3	9.9	10.8	10.9	9.3	9.8	10.7	10.9	9.1	9.8	11.0	10.7
Salted, Smoked and Dried Fish and Other Seafood (incl.herring)	3.2	3.3	3.4	3.4	3.1	3.1	3.2	3.2	3.7	3.7	3.9	4.0
Canned Fish	1.0	1.1	1.6	1.7	1.1	1.2	1.8	1.8	0.8	0.8	1.3	1.3
Salmon and Sturgeon Caviar	0.0	0.0			0.1	0.1			0.0	0.0		
Semi-finished Fish Products	0.3	0.4	0.5	0.5	0.4	0.5	0.6	0.6	0.2	0.2	0.3	0.3
Total	**14.2**	**15.0**	**16.9**	**17.0**	**14.3**	**15.1**	**16.9**	**17.1**	**13.9**	**14.8**	**16.9**	**16.7**

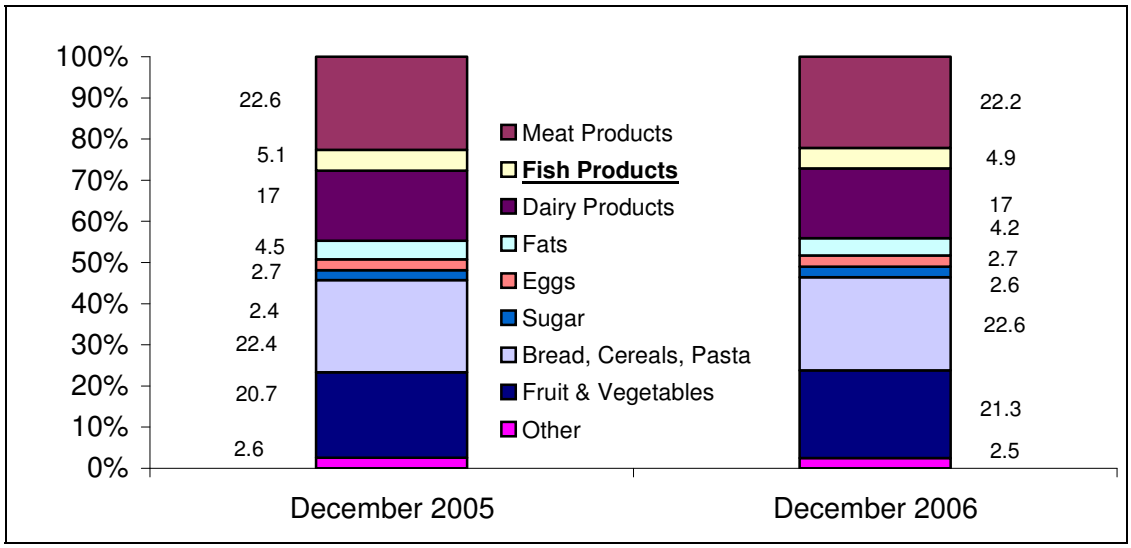
Source: Rosstat

Consumer income level largely determines the types of product and fish species consumed. Frozen fish species like cod, Alaska pollock and hake are most popular among population segments with very modest income levels (up to USD 400 per month). Consumers with an income range of USD 600–1,000 prefer herring, mackerel and pink salmon. As income reaches USD 1,200–1,600 per month, consumption shifts to salmon, rainbow trout, sturgeon species, various seafood and high-value fish and seafood products.

Russian consumers, especially from large metropolitan areas, aim at achieving a healthy diet. Fish is considered as an essential nutrition element in this regard. Many industry representatives confirm that growth in fish consumption is attributed primarily to the fact that fish is considered as a healthy, low-fat and nutritious product. In addition, analysts specialising on hotel restaurant and catering services also note that fish and seafood are gaining popularity. However, rapidly increasing demand for fish has been observed predominantly in Moscow, St. Petersburg and other big cities, where the share of middle- and high-income consumers is significant. For example, in Moscow fish and seafood consumption increased from 110,230 tonnes in 2005 to 167,900 tonnes in 2006.

Along with fish, red meat and poultry are often considered as popular alternative sources of affordable protein. The Russian Government assumes minimum required fish consumption at 14.7 kg per year for a working man and 12.7 kg per year for a working woman when calculating consumer basket cost with more emphasis given to bread, meat and dairy products. Therefore, the share of fish and fish products in the minimum consumer baskets remains small as compared with other food products (see figure 23 below).

Figure 23. Cost of Minimal Product Basket in the Russian Federation (% per capita per month)



Source: Rosstat

3.7.5. Russian Far East perspective

Being aware of its richness in fish resources, the visitor coming to the Russian Far East for the first time expects to see a developing on shore industry or at least big landings of frozen fish fillets, crabs, shrimps, squids and other seafood for the domestic market. But this is not really the case. In an important harbour city such as Vladivostok the shops display mainly "high seas" species like live crabs and scallops, boiled and frozen Northern shrimps and dried, salted or frozen fish (head-on or headed and gutted). But apart from salmon in the period of July–September, there will hardly be any other kind of fresh fish to be seen. It gives the impression that coastal fishery does not exist.

3.7.6. Conclusions

Steadily growing personal incomes, together with ongoing rouble appreciation will be likely to expand the retail market's size to reach USD 745 billion by 2011. Russia remains the most attractive retail market in Europe and the second most attractive retail market in the world after India (AT Kearney 2007)[38]. Taking into account the rapid annual GDP and retail growth indexes, Russia has every chance of becoming the biggest retail market in Europe, in particular for fish and seafood.

[38] "Growth opportunities for global retailers", AT Kearney 2007 Global Development Index

Russian consumers have not yet reached the point of "physical capacity saturation" in fish (when consumers cannot consume more of the same product). Fish and seafood availability in retail all over Russia and growing consumer incomes are the most essential factors, which will accelerate fish consumption. Once this capacity has been reached, the average consumer will switch to more value-added products. Based on forecasts from Russian analysts the minimum level of real income per capita should reach USD 1,200–1,400[39] by 2015 (the most pessimistic scenario) with 17% annual growth in fish consumption.

3.8. Policy and regulatory developments

3.8.1. Key policy instruments in the Russian fishery sector

After the adoption of a comprehensive fisheries legislation in 2004, the main management instruments in Russian fisheries are the determination of annual Total Allowable Catches (TACs) for most commercial fish stocks. The present quota shares were assigned to the fishery companies by a government resolution in 2003 for a fixed five year period. With the Fisheries Law adopted in 2004, however, the five year allocation period is set as a minimum and future quota assignments will likely be assigned for periods exceeding five years.

While the government debates the possibility of allocating quotas for the next term for periods exceeding five years, the lack of clear understanding of how and for how long the new quotas will be distributed starting 2008 leaves great uncertainties for investors.

Quota auctions, which were used as the main quota allocation instrument before 2003, are currently used to i) redistribute quotas that have been withdrawn from current users for not fulfilling conditions to hold them, or ii) to allocate quotas for species or catch areas that have not previously been under the quota management system.

The Fisheries Law has a framework provision introducing the principle that quota shares can be transferred between fishing operators. Regulations implementing quota transfers have only been partially put in place, and so far unregulated transfers are reportedly taking place through vessel charters and/or direct agreements between quota buyers and sellers.

The new quota management regime has assured a more stable and predictable business planning environment and has established the conditions that stimulate consolidation in the fishery industry. In the absence of quota transfer regulation it is difficult for new operators to enter the industry, because all quota shares have been distributed on historical principles.

All fishing enterprises have to pay an annual resource fee set by the tax legislation. A policy of differentiating fees is being applied.

There is no legislation preventing foreign companies from having fishing rights to Russian quotas as long as these companies are legally registered and resident in the Russian Federation. Foreign companies pay approximately RUB 900–950 million per year to the Russian Government in fees for using the country's aquatic resources. Other ways for foreign operators to participate in Russian fisheries are partnerships, joint-ventures, leasing of ships and transhipment operations in Russian waters outside the Russian custom zone.

[39] From presentation "Income in Russia: today and tomorrow" by "Kachalov and Colleagues", 2007

However, there has been mounting pressure in the Russian government against foreign companies operating in the Russian primary catch sector. Most recently President Putin stated that, "Most countries have traditionally kept their fisheries closed to foreigners. We should stop allocating quotas to foreign companies and give preference to Russian companies that develop their own processing activities."[40] The Chairman of the Russian State Fishery Agency has repeatedly stated that there is a clear need to restrict the influence of foreign capital in the Russian fishery industry[41]. While no action has been taken to limit foreign presence in the fishery industry yet, these statements give reason to believe that foreign investors might be put in a less favourable position.

3.8.2 Governing bodies

On 1 November 2007, the State Committee for Fisheries of the Russian Federation was established by Governmental Order no. 733, replacing the previous policy and executive authority of the Ministry of Agriculture and the Federal Agency for Fisheries (FAF). This new regulatory agency was reported to receive the regulatory function previously exercised by the Ministry of Agriculture (in the sphere of fisheries, onboard fish processing, research, conservation, reproduction and exploitation of aquatic biological resources) in 2004-2007[42] as well as the authority of the Federal Service for Veterinary and Phytosanitary Surveiliance Rosselkhoznadzor (in the sphere of control and surveillance of aquatic biological stocks and their environment). The State Committee for Fisheries is a direct subordinate to the government of the Russian Federation. The Committee inherited the Agency's power of rendering state services, managing state property in the sphere of the fishery industry, and other powers.[43]

Detailed information on the structure and responsibilities of the new State Committee were not available during the writing of this report. Most references to the FAF in this report are still valid as the newly created State Committee for Fisheries inherited FAF functions. Therefore, the description of the responsibilities of the Ministry of Agriculture and the FAF and their roles in the fishery management system have been left unchanged in this report, as they largerly reflect the provisions of the Federal Law No. 166-FZ on fisheries and conservation of aquatic biological resources, which is still in force.

The FAF main functions were as follows:

- Organising auctions for the sale of catch quota shares;
- Establishing a register of users of aquatic biological resources;
- Establishing a state cadastre of aquatic biological resources;
- Awarding contracts on allocation of quota shares in fishing areas;

[40] President Valdimir Putin Annual Address to the Federal Assembly on April 26, 2007 http://www.kremlin.ru/eng/speeches/2007/04/26/1209_type70029type82912_125670.shtml

[41] Russia Focuses on the Fishery Industry, Interview of Mr. Andrey Krainiy, Head of the Russian Fishery Agency, http://www.fish-agency.ru/?p=18

[42] The former Federal Agency for Fisheries (FAF) was created within the Ministry of Agriculture in 2004 when the Ministry took over the central policy and legislative functions previously held by the former State Committee of Fisheries

[43] "Russia's Government signed order defining powers of state Fisheries Committee", Russian Fish Report, November 2007, www.fishnet.ru

- Annual allocation of resource harvesting (catch) quotas for foreign states in accordance with international treaties for commercial fisheries as well as for research, fish farming, educational and other purposes;
- Annual allocation, resource harvesting (catch) quotas to applicants in exclusive economic areas of foreign states and in areas subject to international fishery treaties.

In May 2007, Andrey Krainiy, the former CEO of Kaliningrad fishery seaport, was appointed as Chairman of the Federal Agency for Fisheries and now holds the position of Chairman of the State Committee for Fisheries. The current structure of the the State Committee for Fisheries of the Russian Federation can be downloaded from the following location: http://www.fishcom.ru/download/shema.doc (in Russian only).

3.8.3. Fishery industry associations

There is a large number of industry associations in the Russian fisheries sector. Some of these are: the All-Russian Association of Fishery Companies, Entrepreneurs, and Exporters (VARPE); the State Cooperative Association of Fish Industry (Rosrybkhoz); the Union of Fishing Collective Farms of Russia (Rosrybkolkhozsoiuz); unions and associations based on basin and regional principle, among them the Union of Fishing Societies and Organisations of the Far East; Unions of Fish Industry of the North and the West; the Association of Fish Industry of the North-West; the Association of Sturgeon Fishing and Aquaculture Companies (the city of Astrakhan); the Association of Fishery Companies of Primorye; Associations of Fish Industry of Kamchatka, Sakhalin, Magadan, and Khabarovsk Kraj; the Association of Small and Medium-Sized Fishery Companies of Kamchatka; the Union of Fish Industry and Entrepreneurs of Kamchatka; the Union of Fish Industry of Karelia, the Fish Union of Kuban, etc.

3.8.4. Fisheries management policy

3.8.4.1. Background

During the 1990s the legal basis for regulating fisheries consisted of the following federal laws:

- "On Fauna" (1995)
- "On the Continental Shelf of the Russian Federation" (1995)
- "On the Exclusive Economic Zone of The Russian Federation" (1998)
- "On Internal Sea Waters, Territorial Sea and Contiguous Zone of the Russian Federation" (1998)

These laws regulated fisheries from the point of view of different policy frameworks and thus did not provide an overall consistent and comprehensive legal framework for the management of aquatic biological resources.

Biological resource fees were introduced as part of the tax legislation in the mid-90s, establishing a fee-based principle for the usage of natural resources, requiring commercial fishing operations to receive permits. Adjustments of the resource fees take place annually and are also used as part of a policy to encourage fishermen to increase fisheries in coastal areas or on underexploited fisheries. Certain traditional fisheries are exempted from the resource fees.

Annual fishing quotas remain the main policy instrument in fishery management. In the early 1990s, quotas were sold to fishermen at fixed prices. This system prevented equal access to fish resources by fishermen, as it did not envision any competition. The government switched later to quota distribution through auctions. The auction mechanism did allow some degree of competition among users, but often led to high prices resulting in a high level of debt for some fishing companies.

To prepare a new comprehensive law required the consolidation of a number of measures which had proven to be adequate, and revoking others which had become outdated – a process which took nearly 10 years. An important step in this process was the adoption of Resolution No. 704 of 20 November 2003, which established the current distribution of quota shares for a fixed term of five years (until 2008) based on historical catch information from individual users from 2000 to 2003.

Finally, on 20 December 2004 Federal law No. 166-FZ on Fisheries and Conservation of Aquatic Biological resources (hereinafter "the Fisheries Law"), was adopted. This law is an important landmark and is the new backbone of the current legislation of aquatic biological resources (hereinafter "resources").

The law introduced and consolidated significant fishery policy management instruments, particularly by confirming the system of quota allocation introduced by Resolution No. 704 of 20 November 2003, but with the significant change that future quota allocations would be set for a term of "not less than five years".

The law also introduced a framework provision for quota transfers to be implemented later by specific legislation.

3.8.4.2. Key aspects of the Fisheries Law[44]

The Fisheries Law is the main legislative document, which defines the basic terms and principles for management of aquatic biological resources in the Russian Federation. It defines ownership and access to resources, regulates quotas and catch-permits and the use of fishing areas. The instrument of auctions is set for the following purposes:

- For awarding contracts for the use of fishing areas;
- For redistribution of commercial quotas (in case of termination or non-compliance by the user);
- For new quotas for fisheries in new areas or for new species put under quota management.

The Fisheries Law regulates different types of fisheries divided into the following categories (art. 16):

1) Commercial fisheries including coastal fisheries;
2) Fisheries for scientific research and control purposes;
3) Fisheries for educational and cultural purposes;
4) Fisheries for the purposes of fish farming, reproduction and conservation of aquatic biological resources;

[44] An abstract of the law and an overview of implementing regulations is shown in the Annexes Section

5) artisanal and sport fisheries;

6) Fisheries for the purpose of maintaining the traditional way of life and pursuing the traditional economic activities of ethnic minorities in the North, Siberia and Far East of the Russian Federation.

Article 34 of the law defines the rights to conduct the types of fisheries defined above and article 39 authorises federal administrative bodies to grant fishing rights to users for commercial fisheries, fish farming, recreational/sports and artisanal fisheries as well as for traditional fisheries. There are provisions in the law that define fishing grounds reserved for scientific research and control purposes.

Furthermore, the law defines restrictions on fishing to ensure conservation of resources (Article 26) and contains provisions on compensation of damage caused (Article 53). The environmental protection requirements of the Fisheries Law are particularly important considering the tremendous damage to the environment and the fishery resources caused by water and irrigation projects implemented in Soviet times.

The ownership and the right to use fish resources rest at the federal level, with some exceptions allowed for the resources located in inland waters (ponds, water-filled quarries, reservoirs), which may be under federal, regional or local administrative ownership or under private ownership. Federal Law No. 199-FZ, adopted on 31 December 2005, amended the Water Code of the Russian Federation and introduced federal ownership of all water bodies. This has reportedly caused some criticism by local users, although fish farmers, according to officials, should not be affected as they have kept their right to use ponds and reservoirs at a nominal annual fee. At this stage of implementation local authorities are still allowed to have ownership over certain water bodies.

The law regulates access to fishing through the issuing of permits (art. 11), which set out the obligations concerning quota share, fishing gear, methods and timeframes. In addition to the permits, the use of fishing areas are subject to contracts with the users – with the exception of indigenous populations. Contracts are a new management element introduced by the Fisheries Law and the requirements for the contracts are set out in detail in articles 39 to 41 in the law. These include duration of use, payment procedures and environmental restrictions. Furthermore, the provisions define the tendering procedures for awarding contracts.

Unlike the Russian forestry legislation, the fisheries law does not provide leasing and concession of fishing area rights to users. Leasing of water bodies is under the competence of the water legislation bodies, and in the absence of such provisions in a separate federal law, there is currently no legal basis for leasing fishing areas.

The implementing regulations on aquatic biological resources include laws of the constituent entities of the Russian Federation, decrees of the President, resolutions of the government, regulatory acts of federal executive bodies, regulatory acts of executive bodies of constituent entities of the Russian Federation and regulatory acts issued by local governments.

3.8.4.3. Total allowable catches of fish stocks (TAC)

The Federal Agency for Fisheries allocates commercial quotas (except for Pacific salmon) and quotas for coastal fisheries to fishing operators in accordance with their individual historical share of the total quotas prior to 5 December each year. The decree on allocation of harvesting quotas

for commercial and coastal fisheries published by the FAF serves as the basis for issuing fishing permits by the Federal Service for Veterinary and Phytosanitary Inspection (Rosselkhoznadzor) under the Ministry of Agriculture.

Quotas are allocated to fishermen by calculating their individual percentage share of the total quota for a given species in a given area, and the size of the individual annual quota shares change in accordance with the annual determination of the Total Allowable Catches.

The annual process of preparing the proposals for setting the overall TAC and its distribution through quota shares to users is described schematically in the following table.

Table 16: Schematic Overview of TAC Determination and Quota Share Allocation (prior to September 2007)

JAN-APR	ANALYSIS OF PREVIOUS YEAR'S TAC UTILISATION Prepared by regional scientific bodies for the five fishing basins AtlantNIRO (Kaliningrad), PINRO (Murmansk), TINRO (Vladivostok), etc. and delivered to Federal Agency for Fisheries (FAF), Scientific Department
MAY-JUN	RESULTS OF TAC UTILISATION ANALYSIS Delivered by FAF to Ministry of Natural Resources, Department of Natural Resources inspection (Rosprirodnadzor) for approval
by 1 NOV	ORDER (Prikaz) on APPROVAL OF SCIENTIFIC PROPOSAL
NOV	Delivered by Rosprirodnadzor to Ministry of Agriculture (MoA) ORDER (Prikaz) on distribution of TAC by fishing basins and types of fisheries Delivered by MoA to FAF
Within 15 days of MoA order	FAF draws up the order on distribution of quota shares to users for commercial fisheries (coastal fisheries not included). The annual catch quotas for the commercial fisheries are set as the difference between the overall TACs and the sum of TACs for "coastal quotas", "scientific quotas", fisheries in Russian waters by foreign vessels according to international treaties and agreements, and other fisheries (educational, recreational, traditional). Furthermore FAF sets the distribution of the other types of fisheries based on requests from the competent local authorities and institutions (e.g. local government proposals for coastal fisheries as well as sports, recreational and traditional fisheries; scientific institutes for scientific quotas). The distribution of quotas to foreign vessels in Russian waters is based on the quota agreements reached in international and bilateral agreements.
5 DEC	Deadline for allocation by FAF of quota shares to all users under the different types of fisheries

The whole process of determining the TAC and the quota share allocations is said to involve 16 different Federal institutions altogether, with a distribution of responsibilities which some experts view as a weakness compared to the more coordinated procedures seen in other countries.

3.8.4.4. Future allocation of quota shares

Fishing quotas represent one of the main assets of the fishery companies and, therefore, significantly impact company market valuation and largely determine the level of risks for

investors. The present five-year quota allocation will expire in 2008. In accordance with the Fisheries Law, the new allocation of shares will be made on the basis of information about actual historical utilisation of quotas in the five year period preceding quota distribution. Although the next round of quota distribution will have to take place soon, the detailed procedures for calculating new allocations of shares have not yet been made public.

The main document containing the information on actual use of the quota shares is the "Form 1-R (fish)". This form is submitted monthly by the fishing companies to the Federal State Statistical Service, which is the basis for the state statistical reporting, which is normally submitted by May or June of the year following the reporting year. Therefore the possibility is currently being considered to extend the validity of existing contracts for one transitional year (2009) during which the Federal Agency for Fisheries could recalculate the shares for the next period. The length of the period of validity of the new quota shares has also yet not been decided. A number of amendments to the Fisheries Law have been proposed to extend this period from 15 up to 49 years, but the latest media reports suggest that new legislation from January 2009 will extend the validity of quota shares to 10 years.

Industry experts believe that the long-term quota shares contribute to a consolidation in the fishing industry with fewer and more efficient companies, and that such systems contribute significantly to the possibility of achieving profitable sustainable fisheries if the TACs are set at conservative levels. In 2004, Russian fishing companies received more predictable and stable conditions for business planning for a five-year term. This has resulted in increased investment and improvements in the fishing fleet in spite of the fact that the payback period for fishing vessels usually exceeds five years. One of the major consequences of the quota share system, however, is that new companies cannot entering fishing business freely.

3.8.4.5. Quota transfers

A substantial extension of quota allocation periods would require the establishment of a legalised system of quota transfer or a trading mechanism. The mechanism approved by the Russian Ministry of Agriculture—which is currently in place—only allows for quota shares to be traded at Quota Exchange Auctions[45]. It is not functioning for reasons attributed to the difficulty of splitting the quotas into smaller shares, bad management, and the fact that the Ministry of Finance retains a part of the auction proceeds. Meanwhile, quota trading has happened outside of the regulatory supervision of the fishery management authorities.

The Ministry of Agriculture is preparing a regulation to enter into force in 2008 which will restrict quota trading to operators owning fishing vessels in order to limit transfers to actual fishing companies. It is, however, anticipated that such a regulation will be difficult to enforce as it would be in contradiction with current civil law provisions.

The major players in the industry have been pushing for the adoption of implementing regulations allowing for an effective system of quota transfers as envisioned by the Fisheries Law. Furthermore an efficient quota trading mechanism would improve the ability of the Government to redistribute quota shares in order to ensure better quota utilisation.

[45] Order No. 170 of the Ministry of Agriculture validating the Regulation on the making of and registration of contracts for industrial fisheries quota transfer. - 13 June 2006

3.8.4.6. Coastal fishery quotas

Coastal fisheries take place in territorial waters within a 12 nautical mile limit and include by definition fisheries in internal waters and in the Black Sea, Azov Sea, Caspian Sea and Baltic Sea.

Coast fishery quota shares are allocated annually on the basis of proposals by the local governments, which take into account the use of the shares in previous years as well as scientific advice. Furthermore the policy regarding the allocation of coastal quotas is guided by the objective to support and develop socio-economic infrastructure in the coastal regions.

3.8.4.7. Simplification of quota management

Currently TACs are set for all 250 fish species. The administration of such a significant number of species under quota is considered burdensome by fishery management officials and the industry. Russian officials have advocated a policy restricting quota management to 12–15 species as in Norway and Japan. In the view of fishery management authorities, other management instruments such as fishing effort and technical regulations could ensure due responsible management for a large number of species.

3.8.4.8. Redistribution of quota shares

The Russian fishery sector is in the process of consolidation. A number of mergers and acquisitions have taken place in the industry. In this process, quota shares may be transferred by the FAF on the request of the companies.

The FAF has the authority to withdraw quota shares from fishing companies who fail to comply with a number of requirements such as:

- Causing damage to aquatic biological resources assessed as exceeding 1.8 million roubles (USD 72 000);
- Failure to accept inspection on board the vessel;
- Violation of provisions in international agreements;
- Refusal to provide accommodation for observers on board;
- Failure to utilise at least 50% of the quota share for two consecutive years.

The quota shares that are withdrawn are redistributed to other operators in open or restricted auctions. Fishing companies can also renounce their quota share, in which case, the quota will be redistributed by way of auctions.

3.8.4.9. Fleet management and quotas

Even though there has been a drastic reduction in the Russian distant water fleet over the last 10–15 years, the fleet's fishing capacity is currently considered to be at least twice as big as the available fish resources. The Fisheries Law therefore includes some provisions aimed at encouraging companies to reduce their fleet capacity.

Some fishing companies have chosen to decommission their own fleet and sell their quota through various lease and partnership agreements. The FAF views this practice negatively, and intends to make new rules ensuring that quotas are only allocated to companies which have their own fishing vessels.

3.8.5. Other management issues

3.8.5.1. Illegal and unreported fisheries

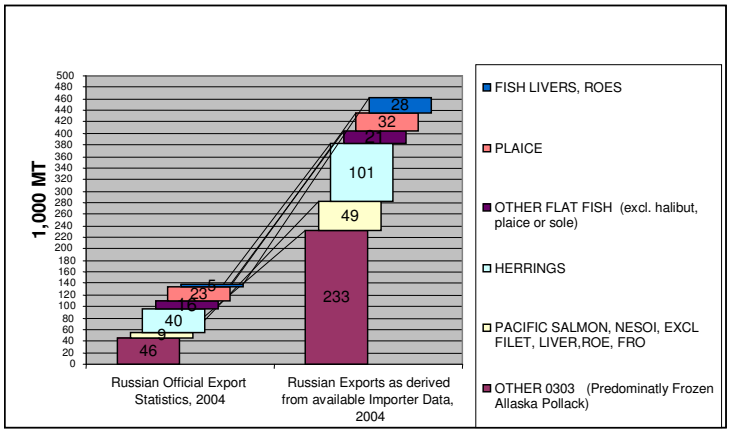
The fight against illegal fishing (poaching) and illegal landings of Russian vessels in foreign ports is at the forefront of the attention of Russian fishery officials and of President Putin. The core of the problem is that the customs territory of the Russian Federation covers land, inland waters and the territorial sea (within 12 nautical miles). Fish harvested in this zone must be reported to customs authorities. The fishermen produce approximately 60% of the national harvest in the EEZ of the Russian Federation, which is not subject to mandatory customs clearance. This allows some Russian companies to export fish harvested in the Russian EEZ to foreign ports without stopovers in Russian ports for customs clearance.

It is estimated that unreported exports of aquatic resources from the Russian EEZ amount to about USD 0.7 billion, which corresponds to approximately 0.8 million tonnes of aquatic resources. Analysis of available Russian export trade data and comparison with information reported by importers to the UN Trade Statistics Division for 2003 and 2004 (or importer derived information) showed that the underreporting of exports by Russian companies ranged from 37% (plaice in 2004) to 5.4 times (Pacific salmon, 2003) (see table 17 and figure 24).

Table 17: Estimates of Unreported Exports from the Russian FEZ and Parallel Fish Trade in 2003 and 2004 Fish (in tonnes)

HS Code	Selected Exported Products	Russian Official Export Statistics		Russian Federation Exports as derived from available Importer Data		Unreported (-) or Over-reported (+) Exports, %	
		2003	2004	2003	2004	2003	2004
030379	OTHER 0303 (Predominatly Frozen Alaska Pollock)	100,100	46,383	342,493	233,061	-242%	-402%
030319	PACIFIC SALMON, NESOI, EXCL FILET, LIVER,ROE, FROZEN	7,377	8,777	47,243	48,563	-540%	-453%
030350	HERRINGS	47,683	40,011	102,399	100,549	-115%	-151%
030339	OTHER FLAT FISH (excl. halibut, plaice or sole)	2,121	15,631	18,604	21,320	-777%	-36%
030332	PLAICE	27,963	23,132	27,771	31,741	1%	-37%
030380	FISH LIVERS, ROES	9,225	4,835	25,929	27,665	-181%	-472%
030331	HALIBT/GRNLD TURBOT	3,104	1,978	11,741	10,764	-278%	-444%

Figure 24. Estimate of Unreported Trade in Frozen Fish Exported from the Russian Federation in 2004



Source: Harmonized Tariff Schedule (HS 6 Digit, Sources: United Nations Statistical Office and GKT of the Russian Federation)

The same is true of high-value seafood exports. An analysis of export information from the Federal Customs Service (FTS) of the Russian Federation and information on Russian exports derived from available importers data for 2003 and 2004 indicates that approximately 100% of all crab exports were not reported to the Russian authorities. This problem has been particularly notable in trade flows from Far East Russia to China, Japan, South Korea, Thailand and other South East Asian countries (see table 18 below).

Table 18 Unreported Exports from the Russian FEZ and Parallel Trade in Prepared or Preserved Crab (in tonnes)

Importers	Russian Federation Official Export Statistics		Russian Federation Exports as Derived from Available Importer Data		Unreported (-) or Over -reported (+) Exports, %	
	2003	2004	2003	2004	2003	2004
Japan	316	273	655	429	-108%	-57%
Korea, Republic of	80	56	221	201	-175%	-260%
China (People's Republic of)	0	0	185	169		
France	0	0	50	155		
Belgium	73	158	141	78	-93%	51%
United States	3	7	0	55	100%	-718%
Germany	15	3	12	3	20%	10%
Belarus	0	0	1	1		
Spain	0	0	9	0		
Kazakhstan, Republic of	0	0	2	NA		
Latvia	0	1	2	NA		
Thailand	10	30	98	NA	-880%	NA
Others not listed above	173	49	NA	NA		
Total	**669**	**576**	**1376**	**1091**	**-106%**	**-89%**

NA = data not available (not reported) Data: Harmonized Tariff Schedule (HS 6 Digit)
Source: United Nations Statistical Office and GKT of the Russian Federation

Unreported exports are believed to have increased from 0.9 million tonnes in 2004 to 1.2 million tonnes in 2006, while the level of declared exports did not change significantly.

The Russian government has discussed the need to establish adequate control over fish and seafood exports for a number of years. The consensus that all fish products may only be exported through Russian seaports with customs clearance will likely be reached in the near future. In practice, this measure will result in increased fuel and crew costs on the way to and out of port. It will be possible to implement the measure with little or minimum cost if fishing vessels are not required to enter the port, to dock and to unload for inspection and customs formalities. Inspection in this case could be carried out at offshore customs clearance terminals or in specified points in the EEZ waters.

Continuing bilateral talks with major trading partners: the European Union, Norway, Japan, South Korea, China and North Korea to develop clear and binding export-documentation requirements and import clearance are seen as another possibility for reaching bilateral agreements to combat illegal fisheries and trade.

Fish industry associations and major companies have also expressed support to reduce illegal fishing. Positive examples of this development have been recorded in Murmansk and in the Far East, where the Pollock Association and the Association of Primorye Fish Industry Companies have committed themselves to declare the legality of their catches, and to support the authorities in combating illegal fishing.

3.8.5.2. Issues of integrity

The heavy regulatory pressure, which is often justified by the need to reduce poaching, makes business success in the Russian fishery sector dependent on a number of regulatory decisions, permits and licences issued at federal or local levels. The regulatory agencies have broad powers and are in a position to significantly affect company business. For instance, some fishery companies located in Far East Russia reported that a damage threshold of RUB 1.8–2 million (approximately USD 78,000–80,000) allows the regulators to recall all quotas—which are often worth hundreds of millions of dollars—with minimum rights for an appeal. Therefore, companies often seek protection amongst policy-makers and regulators which makes their business vulnerable.

As of today there have been no strong evidence of clear separation of politics and regulators from business in the fishery sector. For instance, the World Bank surveying ownership concentration in the Russian economy[46] (as of 2001) identified Mr. Oleg Kozhemyako as the owner of 75% of the Preobrazhenskaya Base of Trawl Fleet[47], the second largest fishery company in Primorye. Mr. Kozhemyako later became a senator of the Russian Federation. There has, however, been no public evidence as to whether his business has been sold. Some industry sources attribute ownership of NBAMR, the largest fishery company in Primorye, to Governor's Darkin family and Turnif Co to Vladivostok Mayor Nikolaev.
Although not exclusively linked to the issues of integrity, tax minimisation and underreporting of fish production and trade is widespread in the industry and makes companies vulnerable to prosecution by various government agencies.

[46] http://ns.worldbank.org.ru/cem/eng/about.htm
[47] http://ns.worldbank.org.ru/cem/eng/tree.asp?id=1256

3.8.5.3. Access to fishing rights by foreigners

The participation of foreign-owned companies in the primary fish production arena is often regarded as a threat against national security in Russia. Foreign participation in primary fishing is currently done through:

- Foreign ships fishing in the Russian EEZ under Russian flag (bareboat charter);
- Buying-up of fish products in fishing grounds for cash and transhipment in the open sea;
- Renting of Russian ships;
- Transfer of quotas and rights to operate Russian ships as debts repayment;
- Establishment of joint ventures to get preferential quotas, or buying quotas from Russian companies.

Current Russian legislation does not provide for any restrictions on fishery by foreign owned companies legally registered in Russia. On the other hand, President Putin stated in an address to the Federal Assembly of the Russian Federation that fishing quotas would no longer be issued to foreign companies. As a result, the Russian Ministry of Agriculture together with the Federal Agency for Fisheries and the Federal Service for Veterinary and Phytosanitary Inspection have undertaken to analysing the operations of Russian joint ventures in the fisheries industry. No concrete proposals in this context have been prepared so far.

3.8.6. Russian Far East aspects

The policy issues described above also apply to Russian Far East fisheries. Issues concerning landing of catches on Russian territory and access to coastal water resources in particular are being debated.

The widely debated requirement to have Russian catches landed in Russian ports is a sensitive issue for the region where the processing sector is disproportionately small compared to the volume of catches, of which a large part are exported directly to Korea, Japan and China (see section on trade). The most frequently mentioned measures invoked to ensure that catches are landed in Far East ports are of a protectionist nature, such as tax incentives and export restrictions[48].

Concerning the resources in coastal waters, the region possesses highly valuable fish stocks that are located close to the shores of the Kamchatka and Sakhalin regions. These regions, however, have poorly developed fish processing potential. In contrast, the Primorye region is believed to have less valuable fish resources in its waters but has a fairly developed fish processing industry. Therefore, the administration of Primorye Krai has been supportive of proposed measures to phase out the management of coastal fisheries by quotas, and replace them it with technical regulations aimed at restricting the sector to small and low-tonnage vessels.

[48] Mr. Andrey Krainy, Chairman of the State Fisheries Committee announced on 26 September 2007, the programme "Russian fish to the Russian shore"

4. IDENTIFICATION OF POTENTIAL INVESTMENT PARTNERS

The two main fish industry sectors were considered in searching for investment partners – primary fish production and fish and seafood processing in the Russian Federation. For primary fish and seafood production, the Pacific fisheries in the Russian Far East were chosen.

The highly competitive Chinese fish processing industry (mostly Alaska pollack filleting) makes Russian on-shore processing factories less attractive to investors than primary catch and exports. Therefore, most foreign private investors have focused now on the fishery companies rather than on fish processing in Russia. According to industry sources, foreign investors with shares in the Russian companies include:

- Hansung Enterprise Co, Ltd., Korea (LLC "Alitet", LLC "Ussury)
- Silla International, Korea (LLC "Ayan", "Ecarma")
- "Pacific Andes", Hong-Kong (Public JSC "Tralflot", Chukotka, Public JSC)
- "Nippon Suisan Kaisha, Ltd", Japan (Dalmoreproduct)

Information on Russian investors is very limited. The only known business acquisition dates back to 2002 when JSC 'Dalinvestgroup' bought "BAMR Nakhodka". However, BAMNR reportedly sold their shares to undisclosed structures in 2006.

4.1. Selection criteria

The criteria for choosing the companies for further consideration as potential investment partners were as follows:
1. Registration of primary business activity of the company in the categories of fish production or processing by the Russian statistics authorities;
2. Allocation of the TAC share (quota);
3. Annaul sales (revenues) ratings;
4. Declared profit before taxation;
5. Investment needs and openness.

4.1.1. Fishery companies classification

Most Russian fishery companies were privatised in the early to mid 1990s and have gone through some business transformations since then. For operational purposes we divided these companies into the following main categories:

A. Big privatised companies that have significant fleet, on-shore enterprises and shares of TAC, received under the principle of historical track record. Above all, many of them have inherited social functions (houses, schools, hospitals, etc.) which require the allocation of significant resources away from the core business activities.

B. Medium-sized companies which emerged in the beginning of the '90s. These companies bought shares of TAC at the quota auctions held in 2001–2003 and have become financially viable businesses. As a rule, these companies are efficient and have an adequate fleet structure.

C. Small size companies, which are mostly engaged in coastal fisheries. Although these companies often have alliances or belong to bigger companies, their fish catch and processing capabilities are rather limited.

D. Companies still owned by the state. This category is not significant and is limited mostly to the research fleet and companies owned by local governments.

Companies belonging to the C and D groups were not considered due to anticipated high credit risks and relatively small financing needs.

The All-Russian Classification of Types of Economic Activities (Russian abbreviation OKVED), which has been effective since 1 January 1 2003, has been used to identify the potential investment partners—namely the companies—which have declared their primary business activity under one of the following categories:

05.01.11 – Fish and biological resources catch in open seas and domestic waters by farmers.
05.01.12 – Fish and biological resources catch in open seas and domestic waters by non-farming business entities.
15.20 – Processing and canning of fish and seafood products.

4.1.2. Fish quotas

Russian fishery companies do not include quotas in the value of non-material assets on their balance sheets. However, the value of the quota often exceeds the entire value of company assets reflected on the books. For instance, the present value of the quotas allocated for Alaska pollock, herring, cod, halibut, saury, squid and crabs to Preobrazhenskaya Base of Trawl Fleet (PBTF), the second largest fishery company in Primorye, Far East Russia, is estimated at USD 4.5 billion. This amount is the value of the company's 2006 quotas discounted for the period of five years (the minimum envisioned by the current Russian Fishery Law) at current market prices. At the same time, the company reported the book value of its assets as of 31 December 2006 at approximately USD 51.5 million. More information on quota distribution is provided in Annex 5.5

4.1.3. Annual sales

The volume of sales determines each fishery company's market share and position and directly depends on the size of allocated quota. Quota utilisation may vary from year to year; therefore, we used company sales as an additional selection criterion and focused on the twenty largest companies in Far East Russia. For fish processing companies, this was the main selection indicator nationwide, in addition to annual profit before tax.

4.1.4. Profit

For various reasons such as business success and tax minimisation, companies choose different accounting strategies for reporting profits. The fishery and fish processing companies in Far East Russia equally report losses on their books. In a sample of 33 top fishery companies and 30 top fish processing companies selected for studying in Primorye, Kamchatka and Sakhalin, nine reported a net loss in 2005 in each category.

Reported profit before taxation is an integral indicator reflecting the success or failure of company management and the overall business attractiveness for potential investors. Reportedly, it is a customary practice for Russian fishery companies to minimise tax liabilities through sales via off-shore companies within their own business group. While this is a legal practice, companies using tax minimisation schemes are less respected corporate citizens and face higher risks of running into problems with regulatory agencies. Regardless of the reason for reporting a net loss, these companies were excluded from a sample for further analysis.

4.1.5. Investment needs and openness

A number of important fishery companies located in Primorye, Kamchatka and Sakhalin reported in the interviews that they have no investment plans or do not require any additional financing beyond that already available. Some companies have long-established relations with buyers in South-East Asia that provide them with low-interest long-term financing which is bound to the Tokyo Interbank Offered Rate (TIBOR) and not to the London Interbank Offered Rate (LIBOR).

Openness of the company in providing information on its owners and affiliated companies, answering questions on sales volumes and methods, willingness to release information and pass international audit were used to assess company openness for investment.

4.2. Companies selected for interviews

Out of the preliminary selected twenty companies, eleven companies were considered for visits and personal interviews (see table 19):

Table 19: List of Fishing Companies proposed for Further Analysis and Visits

VLADIVOSTOK	KAMCHATKA	SAKHALIN
Preobrazhensk Trawl Fleet Base	Fish cooperative named after Lenin	SakhalinRybakkolkhozSoyuz
BAMR Nakhodka	Kamchatimpex	Gidrostroy
Dalryba	Kamchatka	Tunaycha
Akvaresursy		
Vostok-1		

In addition to the detailed profiles of the interviewed companies involved in primary catch of fish and seafood, a list of companies specialised in fish and seafood processing in the European part of Russia was prepared (table 20).

Table 20: Processing Companies Proposed for Further Investigation

Company	Location
ROK 1	St.Petersburg
Vichunai Rus	Kaliningrad region, Sovetsk city
Russkoe More	Moscow region, Noginsk city
Morskaya Zvezda	Kaliningrad
Homyakovsky Hladkombinat	Tula
Magadanryba	Magadan
Ledovo	Kaliningrad region, Svetly

Considering the highly sensitive nature of company-specific information, detailed company profiles and recommendations were communicated directly to EBRD and are not a part of this report.

ANNEXES

ANNEX 1

Russian Federation: Macroeconomic Snapshot

Country Intelligence – Russia downloaded on 13 March 2007 Summary Macro-Economic Indicators	2001	2002	2003	2004	2005	2006	2007
Population ('000s)	144,819	143,954	143,097	142,411	141,713	141,052	
Households ('000s)	52,509	52,711	52,855	52949	53,003	53,013	
Inflation	21.46	15.79	13.66	10.88	12.68	5.65	
Real GDP (% change)	5.1	4.7	7.3	7.2	6.4	6.7	6
Nominal GDP (USD bil.)	306.6	345.1	431.7	588.9	762.8	985.9	1,225.1
Nominal GDP Per Capita (USD)	2110	2381	2,994	4104	5341	6932	8649
Consumer Price Index (% change)	21.6	15.8	13.7	10.9	12.7	9.7	7.9
Wholesale-Producer Price Index (% change)	19.2	11.4	15.2	22.6	18.2	12.4	8.9
Policy Interest Rate (%)	25	21	16	13	12	11	10
Short-term Interest Rate (%)	17.9	15.7	12.98	11.4	10.68	12.39	8.93
Broad Money Supply (LCU bil.)	2,138.2	2,860	3,962.1	5298.7	7,221.1	10,146.7	14,345.5
Fiscal Balance (% of GDP)	3	0.9	1.4	4.5	7.7	7.5	5.7
Unemployment Rate (%)	9	8.9	8.7	8.3	7.7	7	6.9
Current Account Balance (USD bil.)	33.9	29.1	35.4	58.6	83.2	105	100
Current Account Balance (% of GDP)	11.1	8.4	8.2	9.9	10.9	10.7	8.2
Trade Balance (USD bil.)	48.1	46.3	59.9	87.1	118.3	139.9	129.3
Trade Balance (% of GDP)	15.7	13.4	13.9	14.8	15.5	14.2	10.6
Exchange Rate (LCU/US$, end of period)	30.14	31.78	29.45	27.75	28.78	26.1	26.07
Exchange Rate (LCU/Euro, end of period)	26.56	33.33	37.2	37.79	33.95	35.24	37.02

Source: FAO/TCIE based on available information form Global Insight Inc. and Euromonitor International

ANNEX 2

Catches of Fish and Seafood in Russia in 1999–2006 (in '000 tonnes)

	1999	2000	2001	2002	2003	2004	2005	2006
Total Catch	**4141.2**	**3776.3**	**3620.5**	**3232.0**	**3281.4**	**2954**	**3258***	**3299.0***
Cod Fish total	2078.7	1757.1	1778.0	1445.3	1725.7	1645.6	1751.7	1757.4
Alaska Pollock	1500.5	1215.1	1145.0	826.7	1055.9	849.6	961.7	1021.7
Blue Whiting	182.6	241.9	315.6	298.4	360.2	346.8	332.2	329.4
Other Cod Fish	395.6	300.1	317.4	320.2	309.6	449.2	457.8	406.3
Atlantic Cod	215.6	171.0	188.9	188.2	186.2	205.0	203.7	207.5
Pacific Cod	101.9	68.4	59.8	60.6	51.6	63.2	55.7	49.1
Haddock	30.9	24.9	34.9	38.8	45.5	60.2	53.2	55.5
Navaga	47.0	35.8	33.8	33.6	27.1	120.8	145.2	23.2
Herring	529.8	535.4	402.8	331.6	333.5	317.6	345.5	353.4
Pacific Herring	359.2	361.2	278.5	203.4	190.8	194.4	205.4	222.3
Atlantic Herring	157.3	158.7	110.0	113.2	130.1	109.2	126.2	120.8
White-Sea Herring	0.5	0.4	0.5	0.8	0.8	0.8	0.8	0.5
Baltic Herring	12.8	15.1	14.7	14.2	13.3	13.2	13.1	9.8
Mackerel total	266.8	270.8	206.9	182.0	139.8	235.7	215.9	212.0
Horse Mackerel	55.6	50.5	28.2	1.7	5.6	0.2	-	-
Mackerels Other	71.2	70.9	56.2	41.4	12.6	70.9	87.6	68.0
Chub Mackerel	48.4	45.8	31.7	37.5	20.8	65.8	43.3	64.5
Atlantic Mackerel	51.3	50.8	41.6	45.8	40.0	49.5	40.5	33.6
Atka Mackerel	40.3	52.8	49.2	55.6	60.8	49.3	44.5	45.9
Capelin	32.6	94.9	181.6	250.9	96.0	1.8	2.4	2.2
Flatfish	127.4	143.6	125.3	113.7	112.1	84.2	103.7	99.2
Flatfishes Other	97.0	103.0	95.1	79.8	81.8	67.5	87.1	73.0
Halibut	10.7	23.5	21.2	17.6	17.3	16.7	16.6	26.2
Pacific Saury	4.8	17.4	40.4	51.7	57.1	81.6	87.5	76.9
Salmon	233.5	217.0	226.3	187.8	239.5	167.7	263.3	296.7
Pink Salmon	187.2	157.1	167.6	117.6	188.1	114.8	202.3	202.6
Keta Salmon	28.2	36.5	32.1	36.6	27.6	24.8	28.8	52.4
Red Salmon	14.9	19.5	22.5	28.4	17.7	20.5	23.6	30.4
Trout**	3.2	3.9	4.1	5.2	6.1	7.6	8.6	11.3
Sturgeon total**	2.5	2.7	2.7	2.6	2.6	2.6	2.7	2.2
Redfish	29.6	39.1	45.1	56.6	56.6	47.5	38.5	43.0
Pike Perch	3.6	3.9	4.2	6.0	5.7	4.2	4.0	4.4
Seafood and Crayfish	197.4	188.9	149.9	158.8	135.6	128.2	140.5	176.5
Crabs total	67.2	58.1	51.2	42.9	42.1	34.3	33.2	41.9
King Crab	37.1	28.6	16.3	10.9	8.4	3.3	5.4	14.8
Tanner Crab other	21.2	21.8	24.5	23.8	27.9	25.4	21.0	20.4
Blue King crab	5.5	5.2	4.5	4.6	3.5	2.4	4.0	4.5

* The total figure includes some species not listed in the table, e.g. shrimps and shellfish
**Production from aquaculture
Source: VNIRO

ANNEX 3

Russian Fish Exports*

		2003		2004		2005	
		MT	**million USD**	**MT**	**million USD**	**MT**	**million USD**
HS	Description						
	03 FISH AND SEAFOOD	284,070	399	219,960	325	287,247	457
0301	LIVE FISH	6	0	23	0	4	0
0302	FRESH FISH, NOT FILLET	2,611	5	2,985	5	3,756	5
0303	FROZEN FISH, NOT FILLETS	245,702	260	188,929	207	244,243	296
0304	FILLET, OTHER FISH MEAT	19,810	59	14,617	62	19,929	86
0305	FISH, DRIED, SALTED, ETC	4,650	13	5,207	17	5,690	18
0306	CRUSTACEANS	5,488	46	2,289	21	3,194	30
0307	OTHER SEAFOOD	5,803	16	5,911	14	10,433	22

Source: GKT / Customs Committee of Russia. This information should be treated with caution considering significant underreporting of exports (see Section on illegal and unreported fisheries).

ANNEX 4

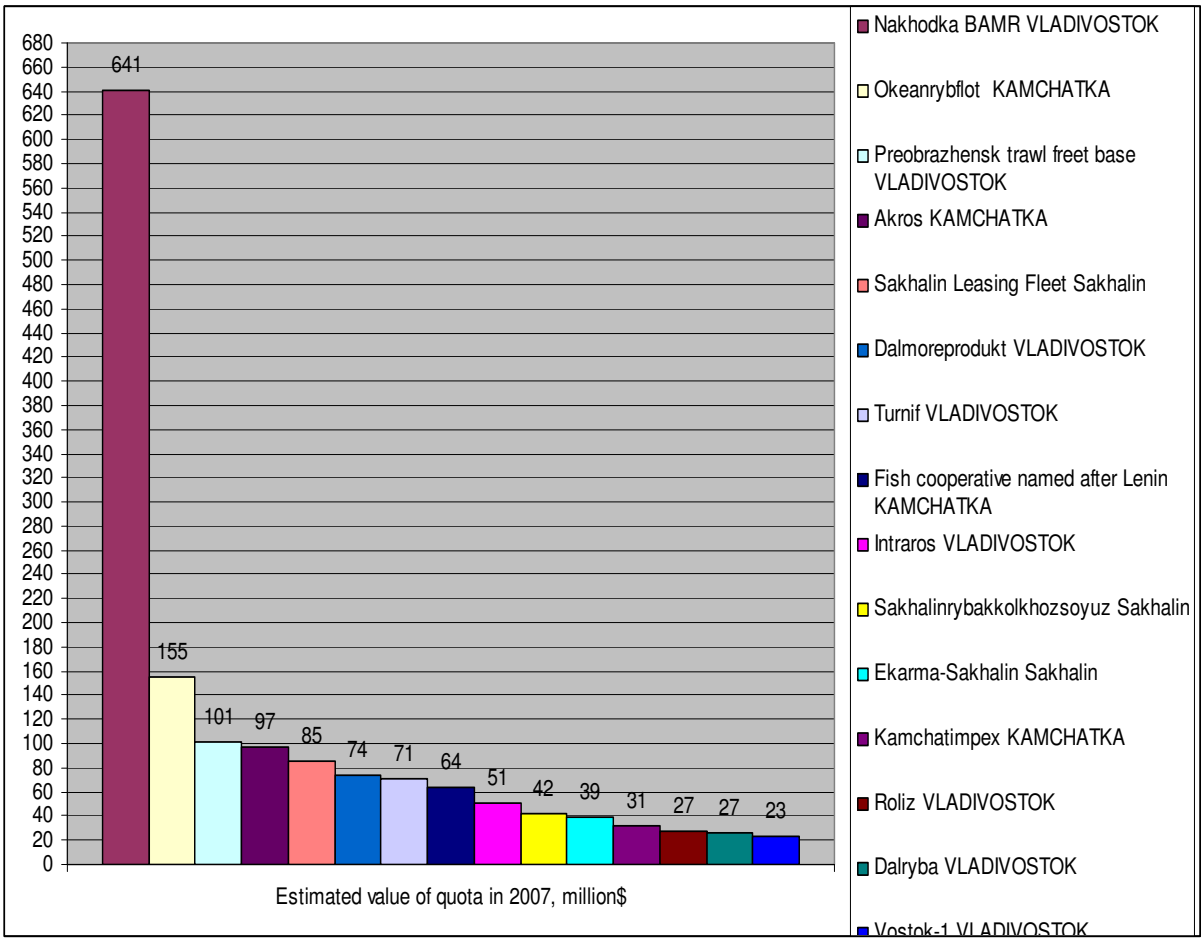
Fast Growing Russian Cities

	2006		**2007**		**2007**
	USD 800+/per capita per month		USD 800+/per capita per month		USD 700–800 per capita per month
1	Moscow	1	Moscow	1	Irkutsk
2	Salekhard	2	Salekhard	2	Kemerovo
3	Hanty-Mansysk	3	Hanty-Mansysk	3	Krasnoyarsk
4	Tumen	4	Tumen	4	Perm
5	Norilsk	5	Norilsk	5	Kaliningrad
6	Yuzhno-Sakhalinsk	6	Yuzhno-Sakhalinsk	6	Omsk
7	St. Petersburg	7	St. Petersburg	7	Yakutsk
8	Vladivostok	8	Vladivostok	8	Arkhangelsk
		9	Samara	9	Petropavlovsk-Kamchatski
		10	Ekaterinburg	10	Chelyabinsk
		11	Anadyr		
		12	Khabarovsk		
		13	Magadan		
		14	Murmansk		
		15	Syktyvkar		
		16	Ufa		
		17	Kazan		
		18	Tomsk		

Source: “Global Forecast for International Retail Chains in Russia”, Kachalov and Cie Consulting, June 2007, Moscow

ANNEX 5

Estimated Value of Fishing Quotas Allocated to the 15 Largest Companies in the Russian Far East in 2007 (in million USD)



Source: own calculations based on distribution of TAC share for all main species and average FOB prices in 2006.

Summary of Quota Value Allocation for the Largest Fishing Companies in the Russian Far East in 2007 (in million USD)

Rank	Company	Region	Estimated value of quota in 2007, million USD
1	Nakhodka BAMR	**Vladivostok**	641
2	Okeanrybflot	**Kamchatka**	155
3	Preobrazhensk trawl freet base	**Vladivostok**	101
4	Akros	**Kamchatka**	97
5	Sakhalin Leasing Fleet	**Sakhalin**	85
6	Dalmoreprodukt	**Vladivostok**	74
7	Turnif	**Vladivostok**	71
8	Fish cooperative named after Lenin	**Kamchatka**	64
9	Intraros	**Vladivostok**	51
10	Sakhalinrybakkolkhozsoyuz	**Sakhalin**	42
11	Ekarma-Sakhalin	**Sakhalin**	39
12	Kamchatimpex	**Kamchatka**	31
13	Roliz	**Vladivostok**	27
14	Dalryba	**Vladivostok**	27
15	Vostok-1	**Vladivostok**	23
16	Kamchtrybprom	**Kamchatka**	21
17	Pelagial	**Kamchatka**	16
18	Transflot	**Sakhalin**	14
19	Magellan	**Vladivostok**	9
20	Yuzhnorybflot	**Vladivostok**	8
21	Kamline	**Kamchatka**	7
22	Tunaycha	**Sakhalin**	5
23	Gidrostroy	**Sakhalin**	3
24	Kamchatka	**Kamchatka**	3
25	Kammag	**Kamchatka**	2
26	Akvaresursy / Akvaresurs-DV	**Vladivostok**	2

ANNEX 6

International Fishery Conventions and Abstracts from Legislation

Russia is signatory to a number of regional fishery bodies, some with management competencies and some with scientific or advisory functions.

a) Regional Fishery Organisations with Management Competence

Organisation	Comments
Agreement between the EU and Russia on fisheries and the conservation of the resources in the Baltic Sea (replacing International Baltic Sea Fisheries Commission) (IBSFC)	Until recently, fishery relations in the Baltic Sea were governed by IBSFC, also known as Gdansk convention, as well as by numbers of bilateral agreements signed by Russia with Baltic coastal states. After ten new East European countries joined EC in 2004 Estonia, Latvia, Lithuania and Poland stepped out of the Gdansk convention and left Russia as the only remaining member of the treaty, so the convention is no longer in force. The European Commission has developed a draft for a bilateral fisheries agreement between the EU and Russia replacing IBSFC. The new EC-Russia agreement will include conservation measures and stock management for common stocks, namely cod, sprat, herring and salmon.
North West Atlantic Fisheries Organisation (NAFO) www.nafo.int	NAFO provides stock management and conservation measures upon request by the Fisheries Commission for specific fish stocks (red fish, white hake, capelin, squid, shrimp, Greenland halibut, etc.) within the NAFO regulatory area or by coastal states which need information about stocks within their EEZs.
North East Atlantic Fisheries Commission (NEAFC) www.neafc.org	The NEAFC was formed with the objective to recommend measures to maintain the rational exploitation of fish stocks in the Atlantic and Artic Oceans. The regulatory measures (currently in force) affect the following species: blue whiting, red fish in the Norwegian Sea, mackerel, deep-sea species, red fish in the Irminger Sea, rockall haddock, herring, orange roughy and shark finning; areas: closed areas, protection of vulnerable deep-water habitats, deep-sea information; and gears: gill nets.
North Atlantic Salmon Conservation Organization (NASCO) www.nasco.int	The Objective of NASCO is to contribute through consultation and cooperation to the conservation, restoration, enhancement and rational management of salmon stocks in the fisheries areas of jurisdiction of coastal member states. At the moment, there are no regulatory measures for Atlantic salmon fisheries in Russia.
Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) www.ccamlr.org	The aim of the commission is to conserve the marine life (the convention specifically exclude whales and seals which are the subject of other conventions) of the southern ocean, without excluding harvesting carried out in a rational manner. The Commission strives to bind members to agree actions aimed at conserving the biota and environment to which the Convention applies, that is why there are no

	fishery quotas for members.
North Pacific Anadromous Fish Commission (NPAFC) www.npafc.org	Fishery of anadromous (chum, coho, pink, sockeye, chinook and cherry salmon and steelhead trout) species is prohibited in the NPAFC Convention Area (waters of the North Pacific Ocean and its adjacent seas, to the north of 33 degrees latitude north and beyond the 200-mile zones of the costal states).
International Commission for the Conservation of Atlantic Tunas www.iccat.int	ICCAT is responsible for the conservation of tunas and tuna-like species (about 30 species are of direct concern to ICCAT) in the Atlantic Ocean and adjacent seas.

b) Organisations with Scientific or Advisory Competence

ICES – International Council for the Exploration of the Sea (www.ices.dk)
PICES – The North Pacific Marine Science Organization (www.pices.int)
EIFAC – European Inland Fisheries Advisory Commission (www.fao.org/fi/body/eifac/eifac.asp) (Russia is an observer, but Russian scientists participate regularly in the work of the Commission).

The importance of these organisations for the policy making of the Russian fishery sector can be noticed, for example, in the role played by ICES in the setting of the Baltic Sea TACs for 2008. (http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1278&format=HTML&aged=0&language=EN&guiLanguage=en) or the fishing possibilities for Atlanto-scandian (Norwegian spring-spawning) herring for 2007 (http://ec.europa.eu/fisheries/press_corner/press_releases/com07_02_en.htm).

c) Bilateral Fishery Agreements between Russia and the Following Countries

Partner Country	Main Agreements	Comments
The Peoples Republic of China, the Republic of Korea and Poland	• Three inter-governmental agreements from 4 October 4 1988, 16 September 1991 and 5 July 1995.	These three countries carried out uncontrollable catch of Alaska pollock in the central part of the Sea of Okhotsk until 1995. For almost a five-year period (1991–1995) their fishermen caught about 2 million tonnes of Alaska pollock (estimated loss of USD 600 million). After 1995, the government of the Russian Federation adopted resolutions allowing fishing vessels from the Republic of Korea, Poland and China to fish in the exclusive economic zone of the Russian Federation (the Russian EEZ) in the Far East for the relevant fee.
	• Resolution of 16 November 1996 on phasing out foreign Alaska pollock fishing in the Russian EEZ in the Sea of Okhotsk with subsequent complete discontinuation from 2000.	Under this resolution, the State Fisheries Committee of Russia was entitled to issue Alaska pollock catch quotas for fishing vessels from the Republic of Korea, Poland and China for fishing in the Russian EEZ in the Sea of Okhotsk provided that the vessels of these countries do not resume Alaska pollock fishing in the central part of the Sea of Okhotsk. Full compliance was reached in 2001. The main objective of this resolution was to preserve and restore the stocks of Alaska pollock in the Sea of Okhotsk, which results in increased production of Russian fishermen, margins and investment attractiveness in the long term.
The Republic of Korea	• The inter governmental agreement from 6 May 6 1987 which replaced the agreement from 18 January 1974 and protocols from 28 July 1977 and 12 June 12 1978.	Russian and Korean partners keep in direct contact on issues such as plant-feeding fish farming, freshwater fish farming and sales of production, looking into possibilities to jointly engage in shrimp farming in North Korea, etc.
Japan	• The agreement between the government of the USSR and the government of Japan about cooperation in the field of fisheries on the coasts of both countries from 7 December 1984.	Under this agreement, Japan receives catch quotas on a reciprocal and for-fee basis.

	• The agreement between the government of the USSR and the government of Japan about cooperation in the field of fisheries from 12 May 12 1985.	Cooperation on conservation, reproduction and rational use of living resources in the north-western part of the Pacific Ocean.
	• The agreement between the government of the USSR and the government of Japan about some questions of capture of marine living resources from 21 February 1998.	Outlining the basic principles of bilateral cooperation for the purpose of capture of the marine living resources by Japanese fishing vessels near the Southern Kuril Islands.
	• The agreement between the government of the USSR and the government of Japan about seaweed harvesting by Japanese fishermen from 25 August 1981.	Under this agreement, Japanese fishermen pursue seaweed harvesting near Signalniy island for the relevant fee.
USA	• The agreement on consideration of the claims arising in connection with the damage of fishing fleet or gear, and about measures on prevention of trade conflicts from 21 February 1973.	Regarding the agreement between the USSR and the USA on demarcation of maritime boundaries in the Bering Sea from 1 June 1990, it has not yet been ratified. Although the agreement has not come into legal force, it has actually carried out in fisheries since 15 June 1990.
	• The agreement on cooperation in the field of fisheries from 31 May 1988.	
	• The agreement in the form of exchange of letters on interdiction of capture of salmon species by drift nets from 27 August 1992.	
	• The agreement on preservation of straddling fish stocks in the sea of Okhotsk from 13 June 1996.	

ANNEX 7

Fisheries Law: Implementing Legislation and Abstract

FAOLEX - Document metadata

LEX-FAOC051893. RUSSIAN FEDERATION: Federal Law No. 166-FZ on fisheries and conservation of aquatic biological resources.

Date of text: 20 December 2004.
Entry into force notes: The Federal Law enters into force from 3 January 2005.
Type of text: Legislation

Implemented by:
[LEX-FAOC052507] - Ministerial Decree No. 317 entitling federal executive bodies with some functions in the sphere of fisheries and conservation of aquatic biological resources. - 20 May 2005
[LEX-FAOC071851] - Order No. 56 of the Ministry of Agriculture regarding fisheries for the purpose of ensuring traditional rights and community management of the indigenous scanty population of the North, Siberia and Far East of the Russian Federation. - 22 February 2006
[LEX-FAOC071856] - Order No. 69 of the Ministry of Agriculture validating the Regulation on fisheries for research and control purposes. - 07 March 2006
[LEX-FAOC071858] - Ministerial Decree No. 768 regarding the distribution of the total allowable catch in accordance with quotas. - 15 December 2005
[LEX-FAOC071859] - Ministerial Decree No. 644 regarding the distribution of quotas for fish farming, stock enhancement, acclimatization, educational and training purposes. - 27 October 2005
[LEX-FAOC071861] - Ministerial Decree No. 583 regarding calculation and validation of the total allowable catch. - 26 September 2005
[LEX-FAOC071862] - Ministerial Decree No. 580 on validation of the list of aquatic biological resources subject to fisheries. - 22 September 2005
[LEX-FAOC071864] - Order No. 133 of the Ministry of Agriculture validating General Fisheries Regulation. - 28 July 2005
[LEX-FAOC071877] - Order No. 170 of the Ministry of Agriculture validating the Regulation on the making of and registration of contracts for industrial fisheries quota transfer. - 13 June 2006
[LEX-FAOC071893] - Order No. 289 validating minimum allowable catch for a single fishing vessel in the Barents Sea (Northern basin). - 14 September 2006
[LEX-FAOC071901] - Order No. 125 of the Ministry of Agriculture validating the Regulation on fisheries for the purpose of fish farming, stock enhancement and acclimatization. - 25 April 2006
[LEX-FAOC071913] - Order No. 4 of the Ministry of Agriculture validating the Regulation on acclimatization of aquatic biological resources. - 17 January 2007
[LEX-FAOC072357] - Ministerial Decree No. 367 implementing Article 54 of the Federal Law No. 166-FZ on fisheries and conservation of aquatic biological resources. - 31 May 2007

Amended by:
[LEX-FAOC068499] - Federal Law No. 73-FZ implementing Water Code. - 03 June 2006
[LEX-FAOC068566] - Federal Law No. 260-FZ amending Federal Law No. 166-FZ on fisheries and conservation of aquatic biological resources and Land Code (No.

136-FZ of 2001). - 29 December 2006
[LEX-FAOC068719] - Federal Law No. 199-FZ amending some legislative acts. - 31 December 2005
[LEX-FAOC072186] - Federal Law No. 57-FZ amending Federal Law of the Russian Federation on Wildlife (No. 52-FZ of 1995) and Federal Law No. 166-FZ on fisheries and conservation of aquatic biological resources. - 20 April 2007

Available web site: www.dalryba.vladivostok.ru
Full text available (Russian): rus51893.doc
Abstract:
This Federal Law consists of 7 Chapters subdivided into 53 articles. Chapter 1 (arts. 1-9) lays down general provisions. Chapter 2 (arts. 10-14) establishes the right to aquatic biological diversity. Chapter 3 (arts. 15-33) gives classification of the types of fisheries. Chapter 4 (arts. 34-41) regards fishing authorization, establishes the modalities of distribution of quotas through tenders and determines the modalities of the right of use of a fishing area in accordance with contract. Chapter 5 (arts. 42-43) regards state monitoring of aquatic biological diversity and state control in the sphere of fisheries and protection of aquatic biological diversity. Chapter 6 (arts. 44-50) regards conservation of aquatic biological diversity and its natural habitats. Chapter 7 (arts. 51-53) regards dispute settlement and establishes liability for the infringement of the legislation on fisheries and conservation of aquatic biological diversity. The Federal Law is applicable to internal sea, territorial sea, continental shelf and EEZ of the Russian Federation, fishing vessels flying the flag of the Russian Federation and navigating outside the boundaries of the Russian Federation and plots of land pertaining to the national territory used for fisheries and conservation of aquatic biological resources. The right of management of aquatic biological resources shall originate in accordance with the fishing authorization for catch (harvest) of aquatic biological resources, contract of use of a fishing area and other grounds envisaged by this Federal Law. Natural and legal persons are authorized to carry out the following types of fisheries: 1) industrial fisheries that include coastal fisheries; 2) fisheries for scientific research and exploration purposes; 3) fisheries for educational and cultural purposes; 4) fisheries for fish farming, stock enhancement and acclimatization purposes; 5) artisanal and sport fisheries; 6) traditional fisheries. Model fisheries regulations shall be validated for each fishing basin separately by the Federal Fisheries Institution. Total allowable catch shall be set annually by the Federal Fisheries Institution and following quotas shall be distributed annually thereby: 1) industrial quotas for marine fisheries (except for coastal fisheries) in the continental shelf and EEZ; 2) quotas for coastal fisheries in the internal sea, in the continental shelf and EEZ; 3) quotas for scientific research and exploration purposes; 4) quotas for educational and cultural purposes; 5) quotas for fish farming, stock enhancement and acclimatization purposes; 6) quotas for artisanal and sport fisheries; 7) quotas for traditional fisheries; 8) quotas for fishing areas covered by international agreements; 9) quotas for foreign fishing inside EEZ of the Russian Federation. Contracts for the use of fishing areas shall be allocated through tenders except for natural persons pertaining to the indigenous scanty population or the communities thereof for which is envisaged direct allocation. State monitoring of aquatic biological resources is a component of state environmental monitoring and shall be carried out by the Federal Fisheries Institution.

ANNEX 8

Opening Remarks of President Putin at a Meeting of the State Council Presidium on Effective Management of the Fishing Industry in Russia

President of Russia
Official Web Portal

31 August 2007
Astrakhan

PRESIDENT VLADIMIR PUTIN: Good day, dear colleagues!

Our meeting today is dedicated to the effective management of the fishing industry in Russia. I note that these questions have come up a number of times in recent years. It was here in Astrakhan that one of the first regional meetings devoted to the subject was held. And most recently, within the framework of the national project development of the Agro-Industrial Complex, the aquaculture situation was extensively analysed.

This year's Annual Address [to the Federal Assembly] set out new tasks linked to the development of the fishing industry with a view to obtaining the maximum benefit from it. This includes priority support for fish processing in Russia and the interdiction of illegal fishing and smuggling. This conservation of aquatic resources and their development will serve the interests of future generations.

Along with this, change in the industry has been slow. Its competitiveness is completely at odds with the very rich potential of domestic fish resources. There has been no significant, positive change in the amount caught or processed. As before, we still sell the raw material, and quite cheaply at that, and then overpay when we import seafood. And we know that there is a strong demand for fish from our Russian consumers, and that the market for these products in Russia has grown recently and continues to grow.

I think that we must once again analyse, meticulously and in depth, the reasons for this situation and, most importantly, outline effective measures to effect rapid changes in this situation. A State Council working group has prepared proposals that are now before us for discussion. First and foremost, I would like to suggest that we dwell on the principal systemic issues. The first is the procedure for determining the size of the catch and the quota. At present the size of the catch is set by law as 250 aquatic resources. However, there are only about 50 sites where a large number of fish are actually caught and processed. In effect, this means that today we are actually underfishing by more than a million and a half tonnes. Irregularities in the mechanism for increasing the share of the fish caught in coastal regions has made the situation that much more difficult. And you know that the economy in these regions traditionally relies on the fishing industry. Some settlements engage exclusively in this sort of production and therefore people depend on it. The current procedure imposes limits on the effective regulation of the fisheries, thereby encouraging illegal catches and corruption. As a result, the country's economy is deprived of its raw material base and its tax revenues.

One of the most critical issues is fishing in Russia's economic zone, beyond the limits of the 12-mile customs zone. Why do we have such an economic zone? We have announced that this

is our economic zone. If it isn't ours, whose is it? For whom was it created? We don't have any means of accounting for or controlling the amount of fish caught there or the export of fish resources. This export doesn't pass through customs control. We have no international agreements with the majority of the countries that consume these products. There are no legal mechanisms for monitoring from space the movement of these ships or the sphere of information exchange. Overall, fishing in Russia's maritime economic zone is the source of enormously profitable illegal activity. And the government cabinet must take immediate measures to restore order.

I also note that the battle against poaching is fought mainly by force. Of course we must expand these efforts. But the fight against crime must, at the same time, create the sort of economic conditions that will encourage fishing and the processing of biological resources in our country.

The poor condition of the fishing fleet and its ports is holding up the development of the fishing sector. Moreover, the fishing fleet continues to be updated by ageing foreign vessels, ageing in both the physical and moral sense. And finally, as before, there are still no economic incentives in place for servicing fishing boats in our Russian ports efficiently. As a result, fish continues to go to the markets of other countries.

All of this represents a vivid picture of conditions in our fishing industry with its emphasis on raw material. To turn it around we can undertake the important modernisation of our fishing ports and even the proactive construction of boats in domestic shipyards. Resolving these problems requires not only the support of the state but also the widespread involvement of private investors. Today I would like to consider in detail the means by which such investment can be encouraged, including the various forms of partnership between the state and the private sector. I am sure that there will be an interesting discussion about this.

It is no exaggeration to say that what is crucial for the industry today is the development of aquaculture. We know that in the last decade the size of the world's annual catch of biological resources has clearly stabilised at a level of about 95 million tonnes. Most experts believe that in the future fish will be cultivated on fish farms, as will other aquatic animals and plants. I also note that in a whole range of countries the growth rate in this sector is already 7–10% a year. We recently visited a factory called Bios. And there too specialists were talking about precisely this subject. In Russia we have paid almost no attention to aquaculture, and even now it is developing slowly and not keeping pace with present demands. We must not only recover what we have let slip through our fingers but also promote the most up to date means of cultivation and advanced technology. And to begin with we must strengthen the legal framework. The lack of legislation and regulation concerning aquaculture has seriously slowed business activity, discouraged investors in this sector and prevented the implementation of new forms of fishery management. I would ask participants to pause over this particular question. The Director of Bios, the enterprise we visited, has drawn attention to this. There has been a draft bill in the State Duma for a number of years. Why isn't the government promoting it? Is no one interested?

I have touched on only the most important issues concerning the recovery of the country's fishing industry. I hope that during the discussion we will consider other problems, including those related to science, technology, and the human resource potential of the industry.