Chapter 7: Environment, natural resources and related manufacturing

7.1 Environment
Ecological situation in the region remains rather difficult. The main problems include bad conditions of water basins and forestland. Pollution of soils by the household and industrial rubbish is heavy. Tendency to reduce the discharge of harmful substances into the air by industrial sources improve a bit the atmosphere. The international program of reducing water pollution in the basin of the Baltic Sea developed on basis of the Russian-Finnish agreement is partially fulfilled, as well as other ecological projects financed by the international community and by non-governmental ecological organisations. One of the programs is supported by the Danish Wild Nature Fund and provides research of land in the mouth of the Neman river.

Supported by the European Union, an Agreement on organisation of the International Ecological Centre on Administration and Technology - ECAT - Kaliningrad was signed between the Kaliningrad region and the cities of Bremerhafen (Germany) and Olborg (Danmark) in 1995. Russian and West-European partners have developed and realised more than 25 projects since foundation of the Centre. Among them there were the projects on air and water ecology, energy saving and recycling projects, water resources control and management projects in Kaliningrad, eco-tourism including organisation of youth summer camps.

Due to problems with water supply and sewage purification the Administration of the Kaliningrad region and the European Bank of Reconstruction and Development (EBRD) has prepared the project "Reconstruction of water supply system and environmental protection in Kaliningrad". The total value of the project is 56.7 million US dollars, its purpose is to improve of potable water and to stop sewage discharge into the Kaliningrad Bay and into the Baltic Sea. In July 2000 Credit Agreement, Project Agreement, Agreement on Support of the Project were signed with the European Bank on allocation of credit resources in the amount of 18 million US dollars. The Project got extra funding from the North Investment Bank -13 million US dollars, a grant of 16 million US dollars from the Government of Sweden, and a grant of 3 million US dollars from the Government of Denmark.

Mineral Resources
The world unique industrial amber deposit is located in the Kaliningrad region. Perspective geological oil resources are estimated as 275 million tons. Every year the region extracts about 825 thousand tons of oil and this amount gradually increases. There is no oil refining in the region, and crude oil is exported for sale. The peat deposits area is more than one thousand sq. km. The total reserves of peat are about 2.5 milliard cubic metres. Estimated coal reserves are 50 million tons, and reserves of high quality rock-salt are about 35 million tons. There are numerous depots of rock products used in construction industry (sands, clays, bank-run gravels). Highly mineralised waters and cure mud has been explored and are currently utilised. Three enterprises are bottling mineral water and fruit-drinks on the basis of the local mineral water.
A more detailed information on each type of resources is provided below.

7.2 Fuel and energy resources: oil, lignite, peat

- **Oil**
  Total land and sea oil resources by categories (A+B+Ci) amount to about 60 thousand tons. Recoverable resources - about 18 million tons. Up to this day, more than 25 oil deposits have been explored on land and in the sea, 19 of those currently produce an annual total of up to 700-750 thousand tons. The following oils are found: sweet, light as well as gum-containing crude. Some oil deposits in the western part of the oblast feature increased gas-oil ratio. Key oil producers are:
  - OOO LUKoil-Kaliningradmorneft (limited company)
  - OAO Kaliningradneft (open corporation)
  - ZAO Kaliningradskaya Geologodobyvayushaya Neftegazovaya Expeditsiya (close corporation Kaliningrad Geological and Mining Oil and Gas Expedition)

- **Lignite**
  The Grachevskoye lignite deposit with resources of about 30 million tons has been explored. The Mamonovo lignite outcrop has been surveyed, its estimated reserves amount to 40 million tons. According to estimate figures available, the expected ancient lignite reserves amount to 1.5-2.0 milliard tons.

- **Peat**
  Total estimated reserves are 2.5-3.0 milliard cubic metres (over 310 million tons). 2/3 of those reserves are concentrated on the territory of Polessk and Slavsk districts. Only 20 of 250 explored and appraised peat deposits are in production. The total peat production volume is 200 thousand cubic metres per year.

The main peat production companies are:
  - OAO Torfopredpriyatiye "Nesterovskoye" (open corporation)
  - OOO TORFO (limited company)
  - ZAO TorfPromExport (close corporation)
  - MUP SlavskTorf (municipal unitary enterprise)

7.3 Non-metallic mineral resources: amber, halite, sapropel, glauconite, zeolites

- **Amber**
  Total estimated reserves amount to 350 thousand tons. It makes more than 90 per cent of the world reserves in total. The largest deposits are Palmniken and Primorskoye. With the current production volumes their amber reserves would be sufficient for many decades. The annual production volume of those deposits is 440 tons of amber. The shore part of the Palmniken deposit shall be depleted within the next 2-3 years and production will be fully concentrated on the amber deposit Promorskoye. Coarse fractions demanded both in the region and beyond make only 10-12 per cent of the total volume of amber produced. At present, on the territory of the oblast amber is produced
by the GUP Kaliningradskiy Yantarny Kombinat (state-owned unitary enterprise Kaliningrad Amber Plant).

Kaliningrad is also called an "Amber Coast of Russia", because over 90% of world amber resources are deposited in the region. The Kaliningrad Amber Plant applies an open-cast mining method for producing amber and has a good potential not only for amber jewellery production but also for production of succinic acid, oil etc. Due to its inherent warmth amber is unique among all riches of the earth. An organic gem, amber is described in Ovid's Metamorphoses as "sunny tears of sisters who mourn for their brothers fallen in their quest for the lost sun". Since then, amber has been regarded with magic, even mystical reverence for its exquisite preservation in golden tomb of ancient elements. The Lithuanian name for amber is gintaras i.e. protector. Amber is the most ancient jewellery. Rough pieces of modestly decorated amber have been found in Stone Age excavations. Commonly referred to as tree sap, amber could be anything but sap. It is formed of tree resin. We shouldn't confuse sap, the substance, which flows through the trunk of the tree, providing the latter with nutrients, with resin, which flows beneath the bark and protects the tree when wounded. That tree resin has a peculiar piny smell. Amber is produced all over the world, however, only two amber-rich deposits have been found: on the Baltic coast of Eastern Europe and in the Dominican Republic. Other areas, where amber has been found include Czech Republic, Canada, Mexico, USA, Madagascar, Chile, China, Myanmar (Burma), Romania and Italy. Very often amber contains trapped insects and smaller plants. Leaves, pollen, organic debris, air bubbles and sun spangles (internal feathers caused by external pressure) are also regularly found embedded in amber. Amber could be transparent or translucent and its colour range includes light yellow, yellow, honey, yellow brown, brown (sometimes reddish or greenish), orange and almost colourless. Amber is occasionally heated to improve its appearance, deepen its colour or add the so called sun spangles. Sometimes, amber is dyed or surface-treated to add colour. Amber is a soft stone ranking 2-3 on the Mohs' scale. It should be cleaned with warm soapy water only and then rubbed dry. Brushes and other abrasives, mechanical cleaners, chemicals, heat and direct light should be avoided.

- **Halite**
The total estimated resources of the region amount to 1500 million tons. The Gur'yevsk halite land with its reserves of 1.4 milliard tons has been explored. As a result of technological research it has been found that the raw material could fit for production of table salt of Extra grade. Currently, there are no halite deposits under development.

- **Potassium and magnesium salts**
The estimated reserves are about 4.8 milliard tons. They are used as raw material for production of high-quality chlorine-free potash-magnesium fertilizers. The Nivensk outcrop is the best-surveyed deposit of potash-magnesium salts with its reserves of 2.9 milliard tons.

- **Sapropel**
Sapropels are silts used as fertilizers in agriculture and applied in balneology. By now, there have been found and explored 34 sapropel deposits with estimated reserves of 15.4 million tons including 11.1 million tons of conditioned sapropel with 60 per cent conditional humidity. Currently, there is no sapropel production available.
Glaucnite
It is a water-base aluminosilicate of potassium, sodium, ferrous or trivalent iron. It could be used in agriculture as a high-quality fertilizer and applied in industry as a pigment agent and technical silica gel. Glaucnite is a component of amber rock, the so called "blue earth" and could be recovered from it as by-product. No estimations of glauconite reserves has been undertaken, however, taking into account that glauconite content in some sediment layers is found in sufficient quantities, we could deal with estimated reserves of hundreds million tons.

Zeolites
It belongs to a new type of non-metallic resources. Zeolites are minerals of the group of aluminosilicates having a frame-type crystal lattice containing crystal water. Water is removed by heating and the mineral becomes porous. This serves as basis for their valuable cation-exchange characteristics. They find industrial application as highly effective water, wine, oil filters as well as other fluid and gas filters. The zeolite rocks with 30 per cent zeolite content have been found our region, but they haven't been fully explored.

7.4 Metallic resources: iron ores, non-ferrous and rare metals

Iron ores
A number of sedimentary iron ore outcrops with total estimated reserves of 2.5 milliard tons have been explored in the oblast. The ores have low content of iron -from 14 to 30 per cent, however, their fluxing nature increases their value.

Non-ferrous and rare metals
Manifestations of lead, zinc, copper, vanadium, cobalt, molybdenum, cadmium, strontium, silver, gold and platinum have been found in the region. The lead and zinc content varies from 0.5 to 2 per cent, the contents of other above mentioned metals is measured in hundredths and thousandths of one per cent.

Construction materials
There have been explored deposits of such widely used construction materials as clay, sand and gravel materials and construction sands. There is potential for discovery of poor-quality glass sand, deposits of carbonate resources for cement production.

Clay
10 deposits of clay with total commercial reserves of 25 million cubic metres have been explored in the region. Clays are applicable in production of common and cavity brick, expanded clay aggregate (keramzite) gravel, drainpipes, efficient expanded clay aggregates (keramzites), and tiles. At present, the joint-stock company Sirius operates on the territory of the oblast, producing 13.0 thousand cubic metres per year.

Sand and gravel
The total reserves of sand and gravel materials of industrial grades amount to 100-110 million cubic metres.16 deposits have been explored in the oblast. Administrative distribution of basic deposits covers 4 districts: Gvardeysk - 30 percent, Chernyakhovsk
- 20 per cent, Nesterov - 20 per cent, and Krasnoznamensk - 10 per cent. A number of deposits have been developed to 50-60 per cent and perspectives of new deposits of sand and gravel materials to be found in the oblast are rather limited.

- Sand applied in construction
Up to date, 11 sand deposits with overall reserves of 35 million cubic metres of sand of industrial fractions have been registered in the oblast. The deposits included sand blocks of sand and gravel materials, and screened sand is used in construction. Main mining organizations:
  - OAO Kaliningradskiy kar'yer (Kaliningrad Open-Pit, open corporation)
  - ZAO Graviyno-Sortirovchny Zavod (Gravel Sorting Plant, close corporation)
  - Chernyakhovskoye Kar'yeroupravleniye (Chernyakhovsk Open-Pit Administration)

7.5 Underground waters: sweet, mineral, thermal and industrial waters

- Sweet water
The estimated resources of sweet underground waters on the territory of the oblast amount to 1900 thousand cubic metres per day. The total ground water reserves approved for supplying the city are about 550 thousand cubic metres per day and the total daily water consumption is 270-280 thousand cubic metres. Up to date, more than 500 water consumers have been registered on the territory of the oblast.

- Mineral waters
Mineral water of different mineralization rate and with various specific components is available throughout the territory of the oblast. Potable table waters are produced in Svetlogorsk, Zelenogradsk, Kaliningrad, Gusev, Sovetsk. Healing mineral bromine waters are extracted in Svetlogorsk for the use in the sanatorium "Yantarny Bereg".

- Thermal waters
It has been found out that within reach of oil fields the temperature of the thermal waters below water-oil contact is from 60 to 96 degrees Celsius. These waters could be used for heating of office and living buildings.

- Industrial waters
Industrial waters are highly mineralized underground waters (brines) containing useful elements in such amounts that they become important for the industry. Aquifers of industrial water containing bromine, iodine, boron, and lithium have been found on the territory of the oblast. The original evaluation of forecast resources of industrial waters in 70th showed no cost-efficiency of recovery of useful elements, however, new data available showed that those estimates had been understated and should be examined anew.

- Surface waters
Average annual water resources of the surface water reservoirs in the oblast contain 23.01 cubic km per year, of those 2.71 cubic km per year - formed locally and 20.30 cubic km per year - inflowing from neighbouring territories.
TIMBER

The total forestry area of the Kaliningrad oblast is 386.5 ha. The total usable resources of mature and overmature forest amount to 3.7 million cubic metres, of those coniferous species - 0.81 million cubic metres, hard-wooded - 0.50 million cubic metres, soft-wooded - 2.3 million cubic metres. The estimated principle harvest cutting (approved annual volumes of wood cutting) established by the North-Western Forest Management Enterprise for a period from 1993 till 2002 amounts to 178.8 thousand cubic metres, of those: coniferous species - 35.6 thousand cubic metres, hard-wooded - 18.5 thousand cubic metres, soft-wooded - 124.7 thousand cubic metres.

7.6 ENERGY COMPLEX

Supply of Kaliningrad Region with fuel and energy resources is almost totally provided at expenses of deliveries from Russian Federation (100% of gas, oil and coal).

Average annual energy consumption in the Region is about 3 billion kWh (year 2000).

Local generating resources can supply production of up to 20% of consumed energy. JSC “Yantar-energo” (subsidiary company of “Unified Energy Systems of Russia” supplies energy to the consumers in the area). Heat station – 1 (city of Kaliningrad), Hydroelectric power station – 2 (town of Svetly), Heating station – 5 (town of Gusev) with the total installed capacity of 132 MW are the members of the joint stock company. There is a number of small electric power stations (with the summary installed capacity of 1.7 MW), wind-electric power station with the installed capacity of 1.5 MW.

Supply of electricity to the Kaliningrad Region is guaranteed from the Lithuanian territory by the three high-voltage lines of 330 kW. Total length of the regional electric lines is 12.43 thousand km.

Natural gas is supplied to the area by the gas pipeline Vilnius – Kaliningrad to Kaliningrad, towns of Svetlogorsk, Pioneers and to Krasnogvardeisk, Zelenogradsk and Gurievsk districts and guarantees gas consumption in the volume of 0.5 billion cubic m (year of 2000). Total length of the gas pipelines and vents is 235 km.

Liquefied gas is supplied to the Region; in 2000 supplies constituted 25 thousand tons.

The largest enterprise in the Region Lukoil-Kaliningradmorneft Ltd. Recovers annually 700 thousand tons of oil and it is exported as crude oil.

Among major prospects for development of the fuel and energy complex of the region are:

- construction of a proper energy-generating source – Kaliningradskaya Heat station – 2 with installed electric capacity of 900 MW, and the thermal capacity of 680 Gcal/h;
- construction of the second line of gas main with the increase of natural gas supply to 2.6 billion cubic m annually and further development of gasification of towns and districts of the oblast;
- construction of underground gas storage with active capacity to 1 billion cubic m of natural gas;
- modernization of active electric and thermal stations;
- construction of small hydroelectric power stations and other objects of alternative power engineering (including wind-electric stations);
- wide use of alternative energy sources (peat, raw waste lumber, etc.).

7.7 Machine building and metal processing industry

The machine building and metal processing were the branches with the highest positive growth dynamics in the Kaliningrad region. Last year the volume of their production reached 166.5% compared to 1999, and the value in 2000 constituted 2.73 milliard roubles. The enterprises of these branches worked in shipbuilding and repairing of ships, dump cars, cranes, loaders, road-building machines, paper producing equipment, electric welding machines and lighting equipment, including devices and equipment for fishing industry, spare parts for trucks and tractors, cosmic and bank equipment, assembling of cars. The largest share of production was exported. Metal products and completing items to these enterprises were imported from other regions.

During the last years a number of new productions were developed in that branches. For instance, the joint production of cars and jeeps was organised in co-operation of "Autotor" with the German concern BMW. TV sets were assembled in co-operation with the Lithuanian partners. In Ozersk sparkling plugs for motor engines were produced together with Czech partners.

After the severe crisis in the beginning of 90's there was a step-up in the defence complex that formed the basis of the machine-building branch in the region. "Kwartz", "Karat", Construction Bureau "Fakel" were the basic. For January of 2001 the list of production included special technological equipment for plasma spraying, units and blocks to the means of communication, low-power engines for satellite systems, plants for thermoplastic tare, plants for food vacuum packing, medical equipment and many others. In accordance with the Federal Conversion Program the enterprises made new products in 19 different spheres. In some types of the products the enterprises of the defence complex were in fact the monopolists in the Russian market.

7.8 Construction

Active construction and realignment were carried out from the first days of the region foundation. It assisted to the development of the construction complex. In 2000 construction enterprises of different types of property carried out the work for the total amount of 1 497 milliard roubles similar 130.4% to the level in 1998. That was 10.08% of the total amount of gross regional product in 2000. And in case the products of local construction materials enterprises were enclosed (181 million roubles - 1.6 times more than in 1999) that value grew up to 11.3% of the GRP.

In the year 2000 there were 750 working enterprises registered in the construction branch of the Kaliningrad region. They included 635 building and specialised
constructing organisations, 43 construction industry enterprises, 31 organisations of building owners, 39 project survey organisations, and more than 1000 entrepreneurs working in the sphere of construction. Nearly 28 thousand people worked in the construction branch.

The volume of work on building contracts completed in 2000 constituted 1496.6 million roubles or 125% to 1999.

Housing resources of the region are 17.6 million sq. m of floor area, including 13.6 million sq. m (77%) in urban area and 4.0 million sq. m (23%) in rural area. 18.3 sq.m of floor area per person was an average ratio on 1st January 2000.

91% of housing resources are having running water, 85% - sewerage, 75% - central heating, 70% - bathrooms, 94% - gas, 64% - hot water.

The structure of housing resources by the forms of property has fundamentally changed, a new layer of owners has formed. In result of privatisation a share of private housing resources in 2000 was more than 58% compared to 14% in 1990, and a share of state and municipal housing resources reduced from 85% to 41%.

In 2000 164.9 thousand sq. m of dwelling floor area was constructed at the expense of different types of funding and put into operation.

In order to improve housing conditions of the population programme measures on construction of dwelling with attraction of the different funding sources were elaborated for the coming ten years:

Federal budget funds – within the frame of realisation of the state policy on provision dwelling to some categories of residents under state liabilities;

Regional and municipal budget funds – to provide dwelling to poor residents and the employees of the budget sphere;

Off-budget funding sources – development of housing lending, granting to residents of long-term credits on property by banks for acquisition of flats and individual houses, organisation of non-budget housing construction funds, obtaining of funds from population and private companies and organisations.

7.9 Agriculture

Cattle breeding predominates in the structure of the agriculture, especially stock farming for meat and milk. Poultry keeping, pig breeding as well as fir farming and horse breeding are developing. In the year 2000 cattle livestock equalled 149 thousand head, pigs – 68 thousand head. Farming mainly provides cattle breeding with feed, and trading network with fruit and vegetables.

Land resources of the Kaliningrad Region can be described by the following figures:
Land, total – 1512.5 thousand hectares,
Including agricultural land – 816 thousand hectares;
With the total of meliorated land – 1050.3 thousand hectares,
Including agricultural land - 730.3 thousand hectares.

Reclamation network has adjusted receiving waters, channels of conducting and regulating nets (open drainage net), collector-draining net (closed drainage net), hydraulic engineering facilities in the open drainage net, hydraulic engineering facilities in the closed drainage net, waterproof dams, stationary electric pump stations.

Around 400 thousand hectares of agricultural lands are in the property of the land owners (shares) united into economic partnerships, societies, industrial co-operatives and nearly 90 thousand hectares are property of farmers.

The main achievement of the regional agrarian complex was the fact it was not detrimental any more for the last 2 years. More than 80 joint stock companies, 86 limited partnerships, 5 collective and state farms, and 4 754 agrarian farms worked in the branch. In 2000 the agrarian complex profit was more than 107 million roubles, it is 40 million roubles higher than the previous year. During that period farms began to work profitably in 10 districts out of 13 in the region.

In 2000 agricultural production of all enterprises (agricultural enterprises, private and state farms) constituted 3.84 milliard roubles that was 103.5% compared to 1999 including crop production - 2.08 milliard roubles (131.9%), livestock output-1.76 milliard roubles (86.5%). In 2000 average yielding capacity of crops reached 2.5 tons/hectare, and 350 to 450 tons/hectares of potatoes. The potatoes grown in the region was sufficient to glut the local market and to sell part of it to other regions. That influenced the local potatoes price and it was one of the cheapest in Russia. The share of the Kaliningrad region was about 0.5% in the total amount of agricultural production in Russia.

Additional details on the production of the main items of plant growing and cattle breeding in the year 2000 are provided below.

Grain 194,6 thousand tons
Rape 13,6 thousand tons
Potatoes 224,3 thousand tons
Vegetables 77,5 thousand tons
Meat (live weight) 17,4 thousand tons
Milk 115,5 thousand tons
Eggs 95,5 million ps.

7.10 Food-processing industry

In the structure of production food industry occupied the leading place in the region. In 2000 the volume of goods produced by the enterprises of that branch was evaluated as 4.35 milliard roubles (126.7% of the 1999 volume). The most appreciable was the growth of sausage production up to 4.14 thousand tons (172.9% in comparison to 1999),
margarine up to 5.7 thousand tons (178.6%), cheese up to 496 tons (134.2%), butter up to 1.37 thousand tons (119.4%), vodka and alcohol production up to 2.47 million decalitres (112.7%). The results of 2000 showed that food industry maintained the population of the region on many basic types of production. Butter, cheese and curds, sausages, meat dainties, tinned meat and macaronis were among them.

The effectiveness of the regional food production was proved by the substantial incoming foreign investments. For example, 17 million dollars in total were directed to the modernisation of beer and soft drinks production. More than 20 million US dollars were invested into the cannery meat production, poultry complex, bottling lines for cognac and juice, and the champagne production complex.

Food-processing enterprises of the Kaliningrad Region can be described in figures as shown in the table below:

<table>
<thead>
<tr>
<th>Companies</th>
<th>Number</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy enterprises:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milk products</td>
<td>10</td>
<td>More than 100 thousands tons a year</td>
</tr>
<tr>
<td>Butter</td>
<td></td>
<td>More than 100 thousands tons a year</td>
</tr>
<tr>
<td>cheese</td>
<td></td>
<td>2 thousands tons a year</td>
</tr>
<tr>
<td>Meat processing enterprises:</td>
<td></td>
<td>More than 100</td>
</tr>
<tr>
<td>factories and departments producing meat and 1st category by-products, sausages, tinned meat, semi-prepared meat, edible fats including big meat processing plants</td>
<td>7</td>
<td>more than 10 thousands tons a year</td>
</tr>
<tr>
<td>sauces</td>
<td></td>
<td>More than 11 thousands tons a year</td>
</tr>
<tr>
<td>Tinned meat</td>
<td></td>
<td>More than 35 millions tins a year</td>
</tr>
<tr>
<td>Flour-grinding factories</td>
<td>4</td>
<td>250 thousands tons</td>
</tr>
<tr>
<td>Mills</td>
<td>14</td>
<td>2-3 tons a shift</td>
</tr>
<tr>
<td>Mixed fodder</td>
<td>5</td>
<td>350 thousands tons</td>
</tr>
<tr>
<td>Bread baking plants:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>big enterprises</td>
<td>17</td>
<td>More than 60 thousands tons a year</td>
</tr>
<tr>
<td>small bakeries</td>
<td></td>
<td>More than 100</td>
</tr>
<tr>
<td>Battery farms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farms for egg production</td>
<td>2</td>
<td>More than 200 millions pairs a year</td>
</tr>
</tbody>
</table>
### Table:

<table>
<thead>
<tr>
<th>Industry</th>
<th>Numbers</th>
<th>Production Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle breeding</td>
<td>1</td>
<td>10-15 thousands tons of live weight a year</td>
</tr>
<tr>
<td>Confectionery</td>
<td>4</td>
<td>More than 5 thousands tons a year</td>
</tr>
<tr>
<td>Pasta factory</td>
<td>1</td>
<td>More than 10 thousands tons a year</td>
</tr>
<tr>
<td>Tinned fruit and vegetable factories</td>
<td>1</td>
<td>Up to 7 millions tins a year</td>
</tr>
<tr>
<td>Margarine factories</td>
<td>1</td>
<td>Up to 20 thousands tons a year</td>
</tr>
<tr>
<td>Yeast factories</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Alcohol industry (factories)</td>
<td>7</td>
<td>More than 3 millions decilitres a year</td>
</tr>
<tr>
<td>Breweries</td>
<td>2</td>
<td>More than 2 millions decilitres a year</td>
</tr>
</tbody>
</table>

**7.11 Fishing**

Fishing industrial complex of the Region comprises:

- fishing fleet
- fish processing complex
- modern auxiliary infrastructure: ship repairing and shipbuilding enterprises, enterprises for production of fishing machinery, tare, and packing materials, fishing gear
- port facilities
- branch science
- system of training and re-training of fishing industry personnel.

Survived through the deep crises at the beginning of 90's fishing industrial complex of the region is gradually gaining strength. It is based on four main components:

- Ocean fishing (65-70% of the total amount of food production) - fishing and processing of fish in the zones of the foreign states, in the open areas of the World ocean;
- Fish processing enterprises oriented on 80% to the processing of ocean fish and 20% at the processing of the fish from the Baltic Sea and gulfs (15-20% of the total volume of food production);
- Fishing in the Baltic sea (10-15% of the total volume of the food production);
- Fishing in the bays and inland waters (5-7% of the total amount of the food production).

Loss of the traditional fishing areas, physical ageing of the fleet, high prices on fuel forced local ship-owners to work in the "close" Northeast Atlantic, in the Russian areas of the Baltic Sea and in the bays. A number of companies and private businessmen started to chose fishing as their business. General situation in the fishing industry stabilised but the main problem still remained - the problem to attract investment into the development of the fish-processing complex and in construction of the new fleet. Organisation of the corporate interaction, communication and information exchange
system was one of the countermeasures to the crises: The enterprises determined the order of unloading fish in the ports of the region and it allowed to control the quantity and the quality of the caught fish. The approach to distribution of fishing quotas among the enterprises of the region changed due to the high concentration of vessels in rather small areas of the Northern Atlantic (Kaliningrad vessels and North basin vessels). For example, the cod quotas in the Barents Sea were distributed taking into account obligations on getting anchovy and the Baltic herring quotas in the Baltic. As a result the utilisation of quotas in the Baltic Sea was 78.7% in 2000 (it was 45% for comparison in 1996, 53.1% in 1997, 57.8% in 1998, 69.7% in 1999). As a result the fishing complex increased fish catching to 300 thousand tons a year, and the production of tinned fish increased three times from 45.5 to 150 million tins for the last four years.

In 2000 fishing enterprises caught in the Northeast Atlantic fishing ground: 71.7 thousand tons of herring, 55 thousand tons of blue whiting, 13 thousand tons of mackerel.

Exclusive economic zone of Russia in the Baltic sea is one of the fishing grounds adjacent to the coast area of the Kaliningrad Region and Kaliningrad and Curonian bays.

The main types of products are: frozen fish, chilled fish, dry fish, hot and cold smoke fish, wide assortment of tinned fish.

Fish processing enterprises of the Region produced in the Region in 2000 124 million of tinned fish, and in the 1st half of 2001 – 57.2 million.

7.12 Wood processing and production of furniture

In the year 2000 the production of this branch constituted 1.72 milliard roubles and that was 174.7% to the 1999 production volume. Forestry, wood processing and cellulose and paper industry were 4th Among all the branches of the region. Four cellulose and paper factories and one paper factory represented it. Recently the enterprises were partially re-equipped and could sharply increase the production volumes. Last year Kaliningrad region produced 105 thousand tons of cellulose-146.2% to the level of 1999, 51.8 tons of paper it was 3.7 times more than the previous year and 13.5 thousand tons of carton it was 3.4-times more than in 1999. Besides enterprises of the region produced nutrient yeast, technical alcohol, consumer goods (wallpaper, copybooks, notebooks, napkins, etc.).

In the years 1998 - 2000 production of furniture dynamically developed in the region. Over 20 small and medium enterprises were organised and they offered compatible production that was really demanded in other regions of Russia as well. The value of the furniture produced in the Kaliningrad region was estimated as more than 187 million roubles. A big variety of kitchen, living room and bedroom furniture was in the range of the produced goods, the office furniture was manufactured too. About 62% of the production were exported first of all to Moscow, St.-Petersburg and other cities of the CIS.
7.13 Tourist recreation complex

Kaliningrad Region is the only resort of Russia on the Baltic Sea and now it represents interests of the Russian tourism in the Baltics.

Baltic seaside has a number of favourable factors (maritime climate, healing mineral waters, peat curative mud, sand beaches) to provide prophylactics and treatment of different illnesses and active recreation and entertainment.

Towns of Svetlogorsk, Otradnoe and Zelenogradsk are recognised resorts of federal status, and the National Part “Curonian (Kurshskaya) Spit” is in the UNESKO register of nature inheritance.

Tourist potential of the Kaliningrad Region is unique. Sea, two freshwater bays, rivers, lakes, sandy dunes, variety and richness of flora and fauna, beauty of landscapes attract people on vacations all year round. Tourists are accommodated in different places: in modern hotels, sanatoriums, boarding houses, holiday homes and recreation departments, country houses and guest houses, children’s health camps.

A recognised tourist centre at the seaside Svetlogorsk (former Raushen) is known as a resort since 1913. It is called “Little Switzerland”.

The town welcomes up to 500 thousand people each season. Recreation and entertainment industry offers discos, fitness rooms and game rooms, tennis courts, swimming pools, sports recreation complexes, saunas, tourist paths in the most picturesque places. The guests are offered hang-gliders, catamarans, hydro-jets, water “bananas”, horse riding and bicycles.

You can enjoy bird’s eye view of the sea if you get by the elevator to the observation platform. Restaurants and bars, dozens of private shops welcome the guests up to the early morning. There are concerts of light and classical music. In summer festival “Meetings on the Baltic” is held, holidays of opening the resort season are very popular, the organ hall is working all the year round.

More democratic resort on the Baltic is Zelenogradsk (former Kranz) that preserved its charm of the town on a plain with wide sandy beaches. The resort is known from 1816 and is developing now as a balneal (mineral waters are used for treatment). Closeness of the National Park “Curonian spit” makes this corner of the Kaliningrad seaside popular.

Curonian spit created by wind and sea is a narrow strip of land where salty sea and the freshwater bay are neighbouring. In its widest part the spit is 3.8 km and in the narrowest is 400 m and it is 98 km long. Half of the spit belongs to Russia, the other part – to Lithuania.

There are several nature landscape area from southern taiga to the thicket of mountain taiga, from damp alder forest to a small sandy desert. You can stay in guest houses, private houses and tourist centres in the villages Lesnoye, Rybachje and Morskoye.
The potential of the Kaliningrad region is evaluated as very promising for the tourism development. All together the historical and geographical crossroad of Europe, assimilation of the national cultures, excellent climate attracts tourists. The tourism is accounted as business that could stimulate the construction industry, transport, communication, trade and service development. The Law "On the Tourism Activity in Kaliningrad Region" was adopted in 1998 and the Appendix to the Law was adopted in 2000. The tourist companies and agents providing services in the country pay no regional and territorial roads taxes according to the Law. The enterprises and businessmen investing in the country tourism development pay property tax at 50% discount for the period of 5 years. At present there are 64 farmsteads working in the sphere of the country tourism.

The regional tourism as an industrial branch includes about 120 travel agencies, 346 units of the tourist infrastructure (accommodation, restaurants, transport and entertainment) and 21 thousand Kaliningrad employees are working in that sphere. In Kaliningrad there are 5 high schools and 3 colleges for the specialists involved in the tourism.

The streams of the tourists passing through the region have its peculiarities. In the season of 2000 the number of Kaliningrad citizens going abroad decreased on the financial reasons and due to the implementation of the visa regime in some of the countries. For instance, the citizens of the region could not afford to go to Czech that was so popular before. On the other hand, Kaliningrad Region was becoming more popular among not only Russians but also CIS and foreign people. The number of tourists from Siberia, Central Russia, Northwestern region, Moscow increased. In 2000 the tourists from Belorus took services of the Kaliningrad tourist companies 4 times more often then in 1998. The number of tourists from Lithuania and Poland rose too. For the years 1998 – 2000 more than 800 thousand tourists visited the region. During these years 1.64 US dollars were invested into construction, culture, restaurant and resort enterprises for the development of the regional tourism infrastructure.