Sustainable Agriculture

Editor: Christine Jakobsson
Compared with other regions in north-west Russia, the Kaliningrad region has more favourable conditions for agricultural production. The long vegetation period and mild winter favour grain and fodder crops and cultivation of vegetables. The abundance of rainfall in the lowland plains is the chief cause of drainage requirements. A wide range of economic factors such as the dense road network and numerous cities with rural area management centres give certain advantages. However, soil amelioration infrastructure (drainage systems etc.) requires considerable investments to update it, generating high capital requirements. Poor soils deprived of humus and minerals demand a huge amount of fertilisers. Meanwhile the quantity of organic fertilisers applied per hectare has decreased more than five-fold compared with 1980, and mineral fertilisers by 2.5-fold. Therefore crop yields in the region are much lower than in developed European countries.

The technical equipment in agriculture has halved. For example, in 1990 there were 9,800 tractors but at the beginning of 2001 only 3,300, and the number of combine harvesters has decreased from 1,500 to 710. During the 1990s, capital investment in agricultural all but ceased (chemicals, farm machines, land reclamation, maintenance, etc.).

Animal rearing, particularly of poultry and pigs, is capital-intensive because of the usage of mainly purchased, imported fodder, which gives rise to high production costs. In the sphere of animal breeding, the well-developed fish industry provides animal feed inputs, e.g. less valuable pieces of fish and waste from the canning industry are used as feedstuffs in fur farming. The lack of investment means that farmers are forced to apply outdated technologies.

According to the regulations set in the special economic zone, food items are duty-free. Such conditions mean that the local food industry faces tough competition from cheap imported goods, produced in a quite favourable environment through subsidies on export and manufacturing in the countries of origin. This is the chief cause of the rapid agricultural recession in the region compared with the rest of the country. The agrarian crisis has not been solved yet. Gross output in 2009 totalled only 62% of that in 1990 (in Russia 86%) (see Figure 59.1). Cattle breeding in the region, once successful, has fallen below the average standards.

Total agricultural land makes up 812,700 ha, but arable land 394,600 ha and planted area only 158,300 ha (2008). A total of 129,300 ha of the planted area is the property of the former collective and state farms, which
in 1990 underwent reorganisation into joint-stock companies of various types. A further 8,500 ha is farmland and 20,500 ha is private land.

The first farms were established in the region at the end of the 1980s. Nowadays about 5,600 farmers own land, but only about 400 of these practise commercial agriculture. Farmers manage 17% of agricultural land, which gives 5% of the gross production, the farming industry output is 48% and private rural sector (individual holdings) produces 47% (2009).

Grain, feed and industrial crops are grown by large collective farms and agricultural enterprises. Potatoes and vegetables are produced by farmers and private households. The farmers are less interested in animal breeding. Meat (beef and pork) and eggs are mainly produced by large enterprises rather than small, while the opposite is true for milk.

In the 1990s there was a sharp drop in basic agricultural production due to the low efficiency and the decrease in livestock and the cropped area. The cultivation of vegetables, rape and bread grain increased.

The highly profitable branch of breeding animals for furs is experiencing harsh times. Although the number of large breeding farms in Russia has decreased from 250 to 30, the six manufacturing plants in the region are continuing to operate, but the production quantity is less. Numbers of livestock, mainly mink, have fallen by a quarter in the country overall, but the Kaliningrad region produces about one-third of the fur on the Russian market and here the number of animals has been increasing since 2000, and now it exceeds 180,000 head.

In 1990 crop production peaked, mainly such export crops as rape. In 2009 the rape cultivation area was 27,000 ha. The cultivation of vegetables is exceeding the 1990 rate and the range is expanding.

Despite favourable weather conditions, available workforce and demand for food among people, the lack of agricultural production in the Kaliningrad region is apparent. The great majority of the products that could be manufactured in the region are imported. Some enterprises have now adjusted to the new market changes, although clear improvements in the field are not apparent yet. The agricultural complex has become the weak point in the regional economy. It requires additional government support.

A comprehensive successful rural policy aimed at the market must be developed. The steady growth in the agricultural sphere has to proceed into another stage of development, based on the introduction and support of the most recent business owners, up-to-date technologies, taking into the account basic principals of the environ-

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<tbody>
<tr>
<td>Milk</td>
<td>546.1</td>
<td>296.1</td>
<td>218.7</td>
<td>188.3</td>
<td>190.5</td>
<td>175.8</td>
<td>165.9</td>
<td>149.8</td>
<td>134.5</td>
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<td>Meat (slaughter weight)</td>
<td>67.4</td>
<td>32.8</td>
<td>23.2</td>
<td>28.3</td>
<td>29.4</td>
<td>27.8</td>
<td>28.5</td>
<td>27.8</td>
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<td>Eggs, (million)</td>
<td>333.6</td>
<td>264.9</td>
<td>201</td>
<td>206.3</td>
<td>185.7</td>
<td>257.0</td>
<td>179.9</td>
<td>189.2</td>
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<td>Grain (processed)</td>
<td>489.2</td>
<td>228.4</td>
<td>194.6</td>
<td>220.0</td>
<td>298.1</td>
<td>253.6</td>
<td>145.9</td>
<td>160.6</td>
<td>227.4</td>
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<td>Potatoes</td>
<td>204.2</td>
<td>124.9</td>
<td>224.3</td>
<td>153.6</td>
<td>97.2</td>
<td>84.6</td>
<td>86.1</td>
<td>65.3</td>
<td>120.1</td>
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<td>Vegetables</td>
<td>57.0</td>
<td>60.7</td>
<td>79.1</td>
<td>92.1</td>
<td>50.9</td>
<td>48.8</td>
<td>51.4</td>
<td>48.3</td>
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mental development. The government ought to maintain the infrastructure development of the farming industry:

- Establishing on a competitive basis repair shops, including a net of tractor repair centres, providing them with some tax benefits (such as exemption for a certain period of time from local taxes, cheap loans, different grants and awards).
- Maintaining the co-operative societies and other institutions manufacturing raw materials, finished commodities and other wholesalers and retail traders through giving preferential terms for the lease of the regional and public property of vertical integration.
- Setting up a chain of agricultural advice centres providing information in the field of farm production for the farmers; establishing public farms spreading the knowledge of the advanced experience, new technologies, foremost machinery, prices and so on.
- Training of personnel; further retraining, on an obligatory basis, for the experts in co-operative societies and the heads of the farms, with partial subsidisation from the regional and federal budget.
- Establishing infrastructure for selling agricultural products and food (agricultural exchanges, wholesale food market).

Funding is also essential for:

- Reclamation and amelioration of agricultural soils.
- Renewing machinery and introduction of new technologies in the sphere of crop farming and animal breeding within the programme of technical renovation of agriculture.
- Regeneration of seed farming and livestock breeding in the region.

**Conclusions**

Special attention must be paid to the social development of rural areas: the improvement of the rural infrastructure and standards of living.

For future success, the agrarian complex in the region must become a high-tech branch of the economy, based on the large vertically integrated commodity exchange economy, working in the market. The development of the agrarian complex would solve complicated social problems for the people living in the rural and suburban areas in the Kaliningrad region.
References


Chapter 56


Chapter 57


Chapter 58

The international project ‘Development of agricultural education in Northwest region of Russia with use of experience of Denmark’. Section. Operative administration of business: the curriculum on speciality ‘Farmer-manager’ developed for agricultural colleges of Northwest region of Russia based on the experience of Denmark. (‘An agricultural education Programme developed for the North-West Region of Russia focusing on operational farm management’.)

Chapter 59


Chapter 60


Vammala