

## North and prospects of the economy of Karelia

In the 20<sup>th</sup> century Karelian economy was growing at a fast pace. The country needed the resources possessed by its northern regions. Qualified manpower was invited to Karelia to master new territories and new technology. At first it was migrant Finns, and then the GULAG was established. After it had been closed, salary markups were offered as an incentive for workers and specialists to move to Karelia from other regions of the country. As a result, the population of Karelia tripled by the 1990s and its industrial production increased 70-fold. In addition to mining and extraction, the manufacturing sector was developing, primarily the production of forestry machinery and paper.

There have always been problems in the development of the northern economy, but it is only in the market economy settings that they started affecting the economic development. The heaviest decline in Karelia in the 1990s happened in manufacturing, and the rise in the 2000s had little effect on it. Mining and extraction cannot keep growing rapidly in the North. As a result, Karelian GRP is now 2/3 of the 1990 level, and the population shrank from 800 000 to 625 000 people.

The main distinctive feature of Karelia is its position at the national border. In 1992-1995, when Karelia was building up its contacts with Finland and the EU, exports from Karelia quadrupled and production decline almost stopped by 1995. Before the 2008-2009 crisis, over a half (in some years up to 70%) of the region's industrial produce was exported. Karelia exported around 20% of its produce to Finland, mainly rough timber and timber products. Up to 80% of the timber harvested in Karelia was exported to Finland until Russia introduced prohibitive duties. The crisis and export restrictions nearly halved exports to Finland, thus aggravating the decline in the Karelian economy. Roundwood export from Karelia in 2006 was five times that of 1990, and in 2015 already it was below the 1990 level. The export of goods in 2015 was only 50% of the 2011 level.

The development of the Karelian economy in the past decade has brought to light its strong dependence not only on the volatility of prices in the global market and the rouble exchange rate, but also on the politics in Russia and other countries. Normalization of the relationship between the Russian Federation and the European Union could give a new development impetus to the Karelian economy.

The three sectors most commonly developed in the North are extraction and processing of raw materials, services to the local population, manufacturing of products with low material-intensity and minor costs of delivery to the markets (usually goods and services based on intellectual property).

Analysis of the structure of EU national economies showed that its northern member states feature a higher innovative activity and ICT share. No such pattern is observed for Russian regions. Russian authorities do not share the opinion that universities in the North require more support and priority funding or that they and the associated scientific organizations are able to open new alleys for the development of the economy of northern towns and cities.

One can thus conclude that economic development in Karelia in the coming decades will continue to rely primarily on extraction and processing of raw materials, including environmentally harmful processes. Regional authorities count on further development of existing industries – timber processing and paper-making, stone mining and production of iron ore pellets, and possibly on new developments utilizing other natural resources.

The republic's economy has been increasingly gaining benefits from tourism. Traditional routes (Kizhi, Valaam and Solovki) are joined by new ones. This includes not only vacations in lakeside retreats or whitewater boating, but also innovative ideas. For instance, the Ruskeala Mining Park, based on the old marble quarry, was visited by over 300 000 tourists within a year.

Petrozavodsk University trains excellent software programmers, who have been among the winners of international collegiate programming contests, but no large firms serving the Russian

market have so far emerged. At present, Finland's 10% ICT employment level is unattainable for Karelia.

In Petrozavodsk there are some companies whose operations are based on the use of intellectual property, own or borrowed innovative ideas. They manufacture fire robots and specialized exercise machines; medical firms develop new treatment methods. They are, however, few and their contribution to GRP is less than 1%.

Ideas come from leaders, and there is a deficit of new leaders in Karelia. Since the early 2000s, the best school graduates have been leaving for St. Petersburg and Moscow universities, hardly ever returning. The republic's authorities do not yet find this situation alarming, unlike the authorities of many other regions. Those few ones who have returned brought in new ideas. For instance, the Neurolepsy company, founded by St. Petersburg State University and ITMO University alumni is designing devices for predicting epileptic seizures, competing in this sphere with French and Finnish companies.

If the authorities wake up to the challenges before them, a new sector based on intellectual capital will emerge and begin to develop rapidly in addition to the slowly developing traditional sectors.

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