



# On the Issue of the ILC in the South-Western Baltic Sea Region

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## Abstract

The Russian Federation has a unique landscape diversity that requires detailed study, rational use and protection. The solution of these problems is impossible both without research, and without educating and involving general public into discussions and decision-making at communal, municipal and regional levels. Unfortunately, there is no unanimity on topical issues of conservation and landscape management. All this hampers the adoption of well-balanced management decisions for the preservation, development and improvement of landscapes both at the level of government structures and at the municipal level. Given this the goal of the article is to attempt at providing a comprehensive analysis of the issue related not only to the solution of problems of landscape protection and rational nature management, but also to possible ways of organizing international landscape centers for conservation of natural, natural historical and cultural landscapes both at the national and at the regional level. The article focuses on the Kaliningrad region as an example which justifies a modular approach to solving such issues, on new technological grounds (MOOC, LMS, EdTech, GreenField). The basic principles of the work of international landscape centers are formulated: scientific, interdisciplinary, mass, open, communicative, institutional, participatory, resourceful.

## Keywords

Landscape · Environment · Landscape planning · Development objectives · GIS

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## Introduction: Some Prerequisites to ILCs

In the general EU strategy on the Russian Federation and the Russian strategy towards the EU (Moscow 2000), the Kaliningrad Region is a kind of European facade of Russia in the southeast of the Baltic Sea region and is viewed as a “pilot” Russian region in cooperation with EU in the XXI century in various fields: political, socio-economic, scientific, cultural, environmental (Dedkov and Fedorov 2006; Bundesamt für Naturschutz mit schwerpunkt landschaftsplanung 2006).

The area of the Kaliningrad region is slightly larger than 15 thousand square kilometers, the population is about 1 million people, so the population density is among the highest in the country. There are 62 people per one square kilometer, and in the coastal zone it is up to 200 people (Litvin et al. 1999).

Due to the high degree of development of lands that could be classified as natural landscapes, there are no more than 10% of such, about the same amount can be named poorly transformed landscapes. For example, in Russia this figure is more than twice as high. On 80% of the territory, natural ecosystems are destroyed or severely transformed through economic activities (Dedkov et al. 1999, 2004).

Despite this, the land is being seized for various development projects. It is more likely to happen where natural landscapes and ecosystems remain preserved, i.e., in the area of the unique Curonian and Baltic spits, along the coast of the Baltic Sea, the Curonian and Kaliningrad bays, the Vyshtynets Upland. Despite this, there is still something in the Kaliningrad region that requires protection. This is the Curonian and Baltic spit, marsh complexes (Pravdinsky, Gromovsky, Koziy, Bolshaya Mokhovoye), small rivers (Prokhladnaya, Vitushka, Kornevka, Krasnaya), lake complexes (Lake Vishtynetskoe), forests with predominance of coniferous and broad-leaved trees on unique brown forest soils (forest massifs Krasny, Pravdinsky, Ozersky, Gromovsky, Dalny, Zimovniki), a variety of biotopes with a number of rare and endangered species of plants and animals, transboundary territories (the Neman river delta, the Red Forest in the Vishtynetsky region yshenosti), coastal wetlands arrays and some others (Litvin et al. 1999; Dedkov 2004).

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## Key Issues for Environmental Protection in the Exclave Territory

The uniqueness of the geopolitical position of the Kaliningrad Oblast obliges us to comply not only with Russian environmental legislation, but also with international environmental treaties (Dedkov and Fedorov 2006).

Analysis of socio-economic development and environmental policy makes it possible to say that the existing territorial-planning schemes of nature management do not contribute to the creation of environmentally oriented economic activity, which leads to conflict situations between business entities and nature protection structures both within the Kaliningrad region and outside the exclave. In the end, this disrupts the environment-forming functions, destabilizes landscapes and

deteriorates the quality of the parameters of the natural environment. The total area of protected landscape is insufficient to maintain natural balance, biotopic and biological diversity (Ministry of Natural Resources and Ecology of the Kaliningrad Region 2017). The ongoing economic activity jeopardizes the functioning of the already established specially planned protected areas. Local residents are poorly informed and practically do not participate in decision-making on key issues of territorial planning and development.

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## Promising Solutions to Territorial Environmental Problems

These methodological deficiencies can be minimized and eliminated through the ILC which can be created in Russian federal universities and emphasize the use of landscape planning tools. In the European Landscape Convention, the term is defined as forward planning, which aims to improve, restore and form landscapes (Antipov and Drozdov 2002). Landscape planning in the EU countries is a tool for planning, conservation and care of the landscape, focused on preventive measures; its object is the entire territory where landscape is protected, taken care of and developed (Bundesamt für Naturschutz mit schwerpunkt landschaftsplanung 2006).

Landscape planning is a communicative process involving general public into the decision-making process, thereby strengthening the positions of civil society. Given a qualitatively new background, it is possible to develop a legal framework for environmentally oriented land use and environmental protection; get a large array of versatile knowledge about nature and natural processes in digital format using geo-information technologies (Bundesamt für Naturschutz mit schwerpunkt landschaftsplanung 2006).

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## Research Capacities and the Awareness Level

Implementing the project on establishing an ILC in the southeast of the Baltic Sea region, in the Kaliningrad Region, is supported by a wide range of information on the state of the natural environment and socio-economic development of the region (Litvin et al. 1999; Dedkov 2004; Dedkov and Grishanov 2010; Ministry of Natural Resources and Ecology of the Kaliningrad Region 2017).

Educational, research and practical institutions of the region employ a good number of highly qualified specialists (biologists, ecologists, geographers, lawyers) capable of solving the tasks of the center.

The mission of the ILC “Kantiana” lies in optimization of ways of co-evolution of man, nature and society as the prerequisite for sustainable development of the Russian exclave in the Baltic Sea region, through education, landscape management culture, education, science and humanitarization of natural scientific knowledge; implementation of the key ideas of academicians V. I. Vernadsky and

N. N. Moiseev about the role of mankind in the biosphere and the ways of their co-evolution.

There are some tasks to implement:

to accumulate full information on territorial (urban) and landscape planning as a methodology background to provide for advisory assistance with project documentation focused on reconciling economic, social and environmental issues, optimizing local green economy and population settlement patterns with a view of nature conservation;

to set up an educational platform in the region through institutes of higher professional education, additional vocational education, advanced training and retraining and develop cultural competencies among the general public;

to use the ILC's potential to strengthen the position of civil society through the establishment of partnership between the region's population, local authorities and business community to implement the sustainable development knowledge platform Rio + 20 "The future we want."

ILC basic principles bear interdisciplinary, mass character; openness; communication; participation; resource; they consider institutional and scientific development.

ILC will follow a module pattern.

### ***Module 1. Education for the exclave sustainable development***

- 1.1. Development of interdisciplinary network educational start-ups in "Landscape Planning", "Sustainable Development" for federal universities of the Russian Federation in some advanced technological platforms (MOOC, LMS, EdTech, GreenField) within the higher professional education;
- 1.2. Development of interdisciplinary educational start-ups in "Shape and texture in landscape architecture", "Natural and anthropogenic landscapes: urban and recreational", "Natural and anthropogenic landscapes: industrial and transport, geotechnical systems, geo-ecological background for landscape design", "Garden development and landscape design" for additional vocational education, advanced training and retraining of qualified personnel of regional companies, authorities and local communities through some advanced technological educational platforms (MOOC, LMS, EdTech, GreenField).

### ***Module 2. Landscape development optimization: creating environmental tourist attractions***

- 2.1. Natural and historical landscapes as objects of local lore tourism (setting up the tourist trust "Balga", "Vishtynets");
- 2.2. Analysis of old dendrology parks and roadside avenues condition with a view of using them in tourism;
- 2.3. Mounted bogs are the cores for the natural framework, the habitats of rare and endangered species of animals, plants and fungi of Central Europe;

- 2.4. Assessment of the key ornithological territories condition with a view to initiating an educational tourism;
- 2.5. Assessment of the coastal landscapes potential for the development of local tourism.
- 2.6. Wetlands and their role in maintaining a stable equilibrium of coastal-water landscapes.

### ***Module 3. History of land use and population settlement***

- 3.1. Analysis of land use and landscape treatment in the exclave in the 19th and first half of the 20th century so that the historical experience can be used in modern conditions;
- 3.2. Monitoring the use of the territories of municipal entities located on anthropogenic (polder) landscapes (Slavsky, Polessky, Guryevsky districts) in historical context to increase their competitiveness.

### ***Module 4. Landscape culture as a tool for developing civil society, raising their awareness, educating and growing a sense of responsibility among the population at large for preserving the natural and historical landscapes on the territory of the Russian exclave***

- 4.1. Mass media and the Internet as the instruments to make natural scientific knowledge more accessible;
- 4.2. Organization of public hearings at the stage of preparing and implementing economic projects at the regional and municipal levels;
- 4.3. Learning public opinion about the state of the environment in the exclave territory through public opinion polls;
- 4.4. Creating a street youth theater “Green planet” which brings together the regional government youth initiatives centers, the Kaliningrad City Hall, the student scientific society of the federal university, the center for environmental education and tourism of the Ministry of Education of the Kaliningrad region.

### ***Module 5. Legislative activity as the background for taking landscape development planning steps***

- 5.1. Initiating the work on by-laws to the Kaliningrad Regional Law “On the Red Book of Endangered Species of the Kaliningrad Region” (Adopted by the Kaliningrad Regional Duma of the fourth convocation on April 22, 2010, brought into force on May 4, 2010, No. 442, Kaliningrad) for the conservation of biological diversity, protection and reintroduction of rare and endangered species (subspecies, populations) of animals, plants and fungi, preservation and restoration of their habitats and growth in the territories of specific municipal entities of the Kaliningrad region, as well as for environmental education, training and promotion of environmental knowledge.

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**Module 6. Expert assessment and consultancy**

- 6.1. Promotion of the provisions of the Kaliningrad regional landscape program as the background for strategic planning of the territory development and the environmentally oriented use of the region's natural resources through a Resolution of the Governor of the Kaliningrad Region;
- 6.2. Improvement of the legislation on setting and managing specially protected nature conservation areas at the regional and municipal levels (including the preparation work on the Kaliningrad Regional Law "On assigning lands to specially protected natural areas of regional and municipal significance");
- 6.3. Further works on setting a regional network of specially protected natural areas (core natural areas) and their efficient exploitation;
- 6.4. Development and implementation of the regional program of environmentally-focused forest management (including restoration of forest communities on watersheds and river valleys);
- 6.5. Development of proposals for the rehabilitation and reclamation for the territories which sustained damage due to economic activities: amber and sand-gravel pits; cattle cemeteries, authorized and unauthorized landfills of solid domestic waste (SDW), beds and shores of the most polluted waterways;
- 6.6. Widespread propaganda of the advantages of cleaning domestic sewage at the communal level in treatment plants of the vegetative-marsh type;
- 6.7. Working out and implementing a soil protection program in the areas of surface and underground runoff formation;
- 6.8. Participation in the development and implementation of the regional program of environmental and local.

**Module 7. International cooperation** with the EU countries (Poland, Lithuania, Germany, Denmark, Sweden) for the conservation of the biotopic diversity of natural and natural—historical transboundary landscapes (the Vishtynets Upland, the Neman River Delta, the Curonian and Kaliningrad Gulfs, the Curonian and Baltic Spits). The ILC's legislative initiative will promote the adaptation and acceptance of a number of basic directives (the "Landscape Directive", the "Water Directive", the "Biodiversity Directive" etc.) adopted in the Council of Europe and the EU countries to the conditions of the Kaliningrad region and in the future to Russian conditions.

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**Conclusion**

1. ILC's partners are federal, regional and municipal authorities responsible for resolving issues in ecology and environmental protection.

2. ILC will be in demand with ministries and departments of the Government of the Kaliningrad region; Kaliningrad Regional Duma; Public Chamber of the Kaliningrad Region; municipalities of the Kaliningrad region.

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