The Vistula Lagoon Region comprises the north-eastern communes of the Pomorskie Voivodship and north-western communes of the Warminsko Mazurskie Voivodship and western part of the Kalinigrad Oblast (map). It is worth to mention that the border between Poland and Kalinigrad Oblast is in fact the eastern EU border.

The total area of the Polish part of so delimited Region is about 1,534 km², inhabited by ca. 200 thousand residents (in 2005). The decreasing tendency could be observed between 2000 and 2005 (1%). The average density is ca 131 pers/km² (Strategia Rozwoju Obszaru Gmin Nadzalewowych do roku 2020).

The Vistula Lagoon Region is known of its valuable nature, water resources, healthy coastal microclimate, open landscape panoramic expositions, favourable yachting conditions and precious culture objects.

The Vistula Lagoon Region is located in the south-eastern part of the Baltic Sea, shared by two countries, spreading between the Vistula River mouth in Poland and Kaliningrad in Russia.
The Vistula Lagoon

The Lagoon itself has an elongated shape, going from south-west to north-east, with a length of 91 km. The average width of the Lagoon is about 9 km, at the widest point - 13 km. The surface area is 838 km², of which 473 km² belongs to Russia, and the remaining part to Poland (Lomniewski, 1958). The length of the coastline is of about 270 km, and the volume of water in the Lagoon is about 2.3 km³. The average depth of the Lagoon is 2.7 m, and the maximum natural depth is 5.2 m close to the Baltiysk Strait.

The Vistula Lagoon is separated from the Baltic Sea (the Gulf of Gdansk) by the Vistula Split - a sandy peninsula 55 km long. The Lagoon exchanges water with the sea through the Baltiysk Strait, which has a width of approximately 400 m, length of two kilometres and the average depth of 8.8 m (artificially deepened).

Baltiysk Strait continues up to the harbour of Kaliningrad as a fairway (navigation channel) crossing the Lagoon. The channel is twice deeper than the largest natural depth in the Lagoon. Despite its relative narrowness, it plays an important role as a way of salt transport from the Gulf to the Lagoon.

The currents and water level fluctuations in the Lagoon are determined by three factors: river discharges, wind action and sea level changes in the Baltic Sea. There are no tidal fluctuations inside the Vistula Lagoon.

With respect to salinity the Vistula Lagoon is found to be a transitional water area. The average salinity (1950 -1965) for the eastern part of the Lagoon (spring-autumn) is 2.5-4.3 PSU, for the central part 3.9-5.0 PSU, and for the southern part 1.0-3.4 PSU (Lazarenko, Majewski, 1975). This is a result of salt water inflows from the Baltic Sea that influence all aquatic areas of the
Lagoon, including the mouth of the Pregola River. At the Baltiysk Strait salinity may reach 7 PSU (Bochenski, Talaga, Olech, 1999).

Several rivers that flow into it replenish the Lagoon, the most important being the Pregola (Russia) and Pasleka, Elblag and Nogat (Poland). In the recent years the quality of the Lagoon water has radically improved. There are 38 species of fish, including freshwater, saltwater and fish living in both habitats. The most valued species are eels, pike perches and breams. A considerable number of herrings is caught as well. This body of water is a refuge for plentiful species of birds, a big number of which permanently dwell here. The Vistula Lagoon (along with its surroundings) is on the list of preserved areas of the NATURA 2000 Programme ([http://www.zalew.org.pl/album2.phtml](http://www.zalew.org.pl/album2.phtml)).

Nature protection

Polish territory around the Vistula Lagoon is characterised by outstanding landscapes and unique nature. The most important forms of protection are:

- **Landscape Park "Elblag Upland"** - joins the seaside landscape with numerous eminences crossed by ravines and canyons. Highest point Góra Milejewska (197 m above the sea level).
- **Nature reserve "Kadynski Las"** - created to protect 200-year old beech and oak forest. The oldest oak in Poland grows in Kadyny (one thousand year old)
- **Nature reserve "Buki Wysoczyzny Elblaskiej "** (Beeches of Elblag Upland) - created for protection of 100-year-old beech forest. Acreage: 94 ha.
- **Nature reserve "Zatoka Elblaska"** (Elblag Bay) - ornithological sanctuary for protecting of waterfowl.
- **Landscape Park Mierzeja Wislana (the Vistula Spit)** - numerous forests and dunes (the highest: Wielbladzi Grzbiet - Camel's Back- 49 m above the sea level), sandy beaches and springs of warm salt groundwater.
- **Cormorant nature reserve in Katy Rybackie** - created for protection of black cormorant and grey heron.
- **Nature reserve "Buki Mierzei Wislanej"** (Beeches of the Vistula Spit) - created to protect the natural habitat of 150-year-old beeches.
- **Nature reserve "Mewia Lacha"** - for protection of sea swallows and other species of birds.

Economic activities
The Vistula Lagoon Region is attractive in regard to its unique nature, but also its tourist and economic assets.

The Region's main and historically conditioned function is ports' activity. Numerous passenger, trade and fishing harbours are located at the shores of the Lagoon. In the Russian part Kaliningrad, Baltijsk, Swietlyj and Primorsk belong to the biggest. Polish part possesses 10 ports and 5 marinas including: sea port in Elblag and smaller ports and marinas in Piaski, Krynica Morska, Katy Rybackie, Tolkmicko, Nowa Pasleka. There are two border crossings in Elblag and Frombork.

There are several shipping routes connecting the above mentioned harbours. In Polish harbours and marinas around 121,1 thousand passengers are dismissed annually, in Elblag itself 14.3 - 21.2 thousand. Elblag harbour is equipped with 2.5 km of landing piers, 2 grain elevators, side tracks, shipyards and yacht marinas.

Cargo shipping is performed among the harbours on the Lagoon and through Pilawa straits to Denmark, Finland and ports in Gdansk and Szczecin. In 1997 641 thousand tonnes of cargo were transported to Elblag.

Another function historically conditioned in the area is fishery, presently very limited - in 2005 only 67 licences had been issued (140 fishermen) in Poland while in late 90. there were 250 of them active. In 1948 there were ca 1200 tonnes of fishes fished in the Region, in 2004-2005 - only ca 750 tonnes yearly. The main problem seems to be from one side the decrease in commercial fish population (and lack of effective stocking) and from the other - too big population of black cormorant feeding on local fish population.

High natural, cultural and landscape values enable the development of different forms of active tourism. There are several pedestrian, bicycle, water and horse routes in the Region. These are international routes around the whole Lagoon, historical routes devoted to the Copernicus life or Mennonites history. On the Vistula Split one may encounter magnificent sandy beaches.
from the side of the Baltic. Their overall length exceeds 75km (49 at the Polish side). It is the area marked by outstanding nature, clean water, amber, relaxing silence, unique microclimate and historical buildings. Additionally, the coast of Sambia (Russian side) houses the biggest deposits of amber world-wide.

The Lagoon offers very good conditions for water sports, there are several routes enabling the recreational communication between the Lagoon ports. In winter it also possible to see ice-boats. Many accommodation and recreation centres are situated around the Vistula Lagoon ranging from sanatoriums through hotels, accommodation centres and camping sites to boarding-houses.

**MENNONITES - an interesting past of the Region**

Since the 16th century Mennonites who were persecuted in Holland settled in Poland, mainly on the Zulawy and in the valley of the Vistula River. They improved the system of draining and canal building and they lead intensive agriculture. What is left from their times is arcade houses, churches, cemeteries with characteristic steles and windmills.

- cemeteries: Wikrowo, Wladyslawowo, Piaski, Stogi (near Malbork), Tropy Elblaskie
- churches: Jezioro, Elblag
- windmills: Wikrowo, Lecze, Lepno, Palczewo, Drewnica
- arcade houses and farms: Zulawki, Drewnica, Lubieszewo, Wikrowo, Tropy Elblaskie

**Region Perspectives**

The Vistula Lagoon Region is not only the area of interesting nature and economy but also appears to stand good chances for business and tourism. Mineral waters (in Krynica Morska and Frombork), well-developed terrain and industrial, agricultural and tourist objects create strong basis for further activation of region.

Over a past few years the Region has been undergoing a profound transformation. Communal, transport, environmental and social infrastructure has been built, extended or modernized. Higher education has been developed. The modernized border crossings would facilitate international exchange of goods and passenger flow. The Elblag seaport has already been enlarged and a marina has been built there, while ports in Katy Rybackie, Krynica Morska, Tolkmicko, Frombork and Nowa Pasleka are still being modernized. Thus the existing conditions for stationary recreation and active tourism are going to be improved and an economic development of the area stimulated.

Based on the information from:

http://www.zalew.org.pl/album2.phtml
http://mantraeast.ibwpan.gda.pl/vistulalagoon.php
http://visla.uwm.edu.pl/
http://www.balticlagoons.net/artwei/?page_id=64

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