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**Potential of coast environment as a
driving forces for regional development in
Poland**

Aim of the presentation

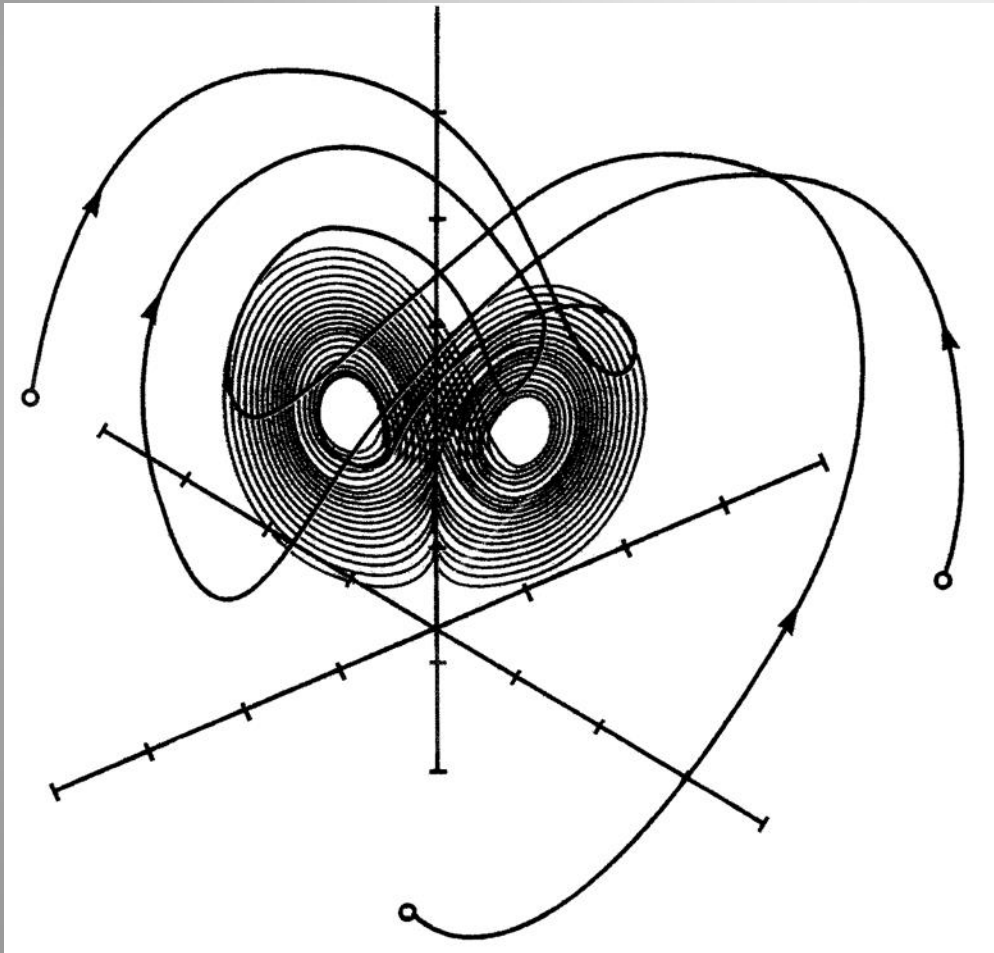
- To show the environmental and landscape potential of coastland as a driving forces for regional development.
- To point out the most important landscape elements of the Polish coast, which are created their richness and diversity.

Trajectories of development



Within the field of regions' development, the environment is becoming increasingly perceived as a factor capable of generating trajectories of development, which can become more compact, and start creating places of their concentration, so called attractors, having their extent, so called pool of attraction, deciding among others about the so-called viscosity of the place. One of the methods of environmental potential valuation, which can influence directions of regions' development, is the provision of ecosystem services.

Modeling of space



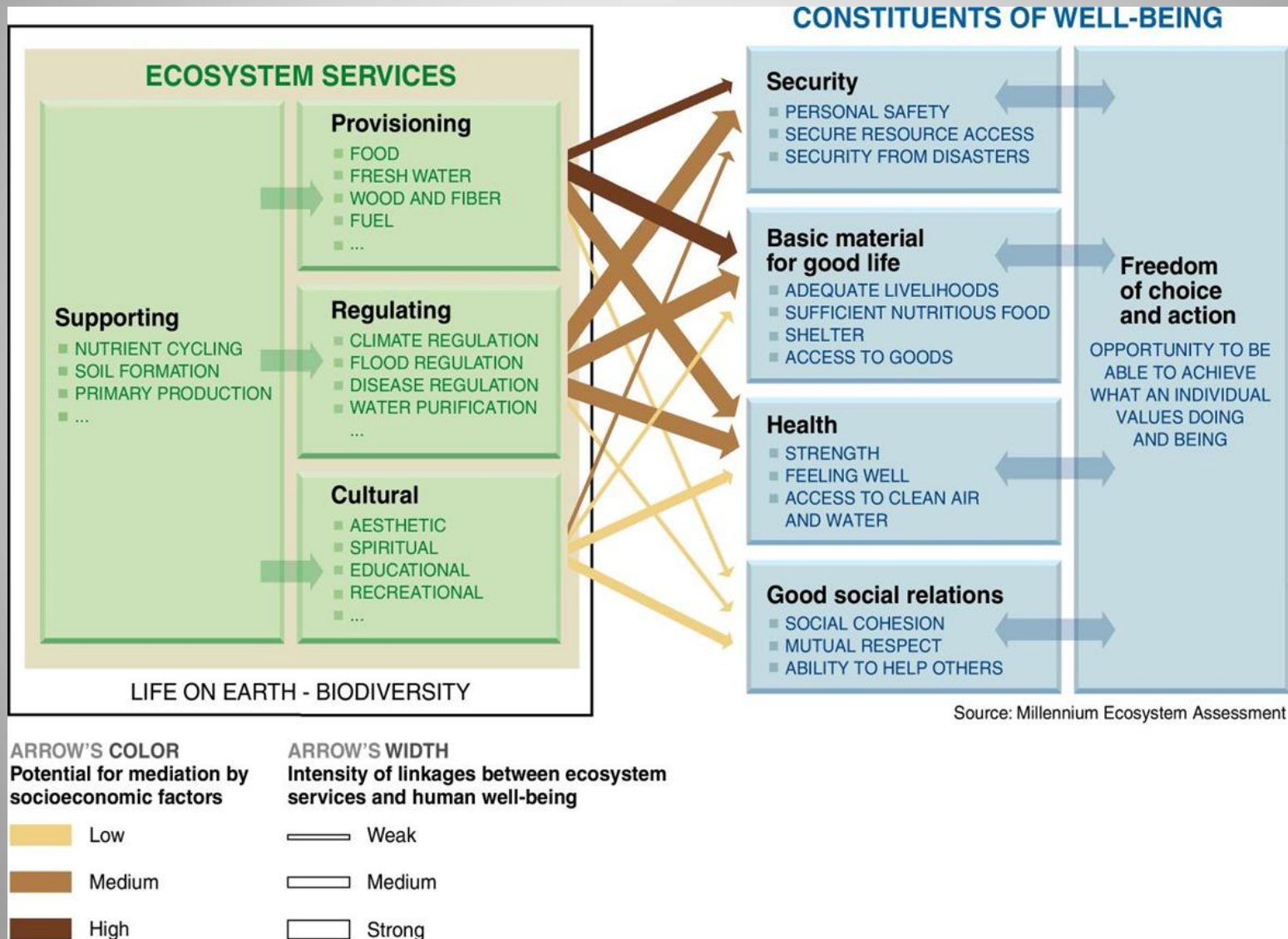
According to the general theory of systems L. von Bertalanffy (1928) attractor is an area or point in a space of states to which the system going, and around which the system remains at any time subject to large-scale evolution of chaotic systems

The theoretical basis for spatial modeling

- The theory of deterministic chaos,
- Finding attractors as an important direction of research in the creation of regional development,
- Equation of Lotka-Volterra (model of prey-predator)
- Nonlinear systems and the occurrence of coexisting attractors,
- Economic and socio-ecological models

Ecosystem Services

the benefits humans derive from ecosystems



Coast region services

- **Cultural – landscape aesthetic**
- **Provisioning - components of nature (enjoyed, consumed or used for human well-being)**

Polish coast



Polish Coast starts in Swinoujście (West) and ends in Krynica Morska (East). There are wild beaches and crowded beaches.

Polish coast



- the length of the maritime border – 440 km
- geographic length of the coast – 524 km
- long coastline – 775 km

Types of the coast

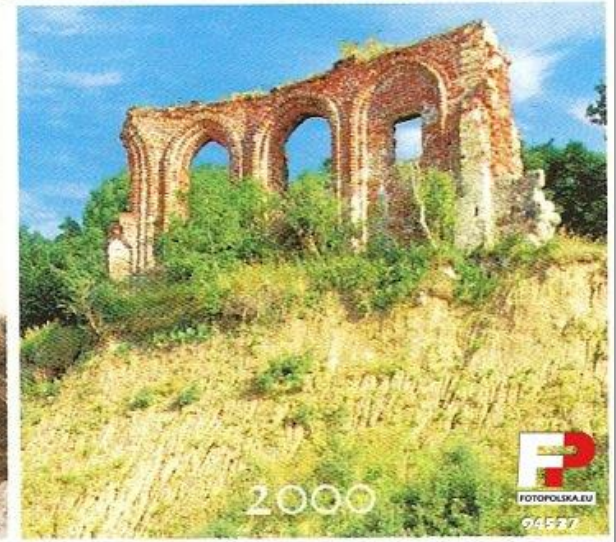
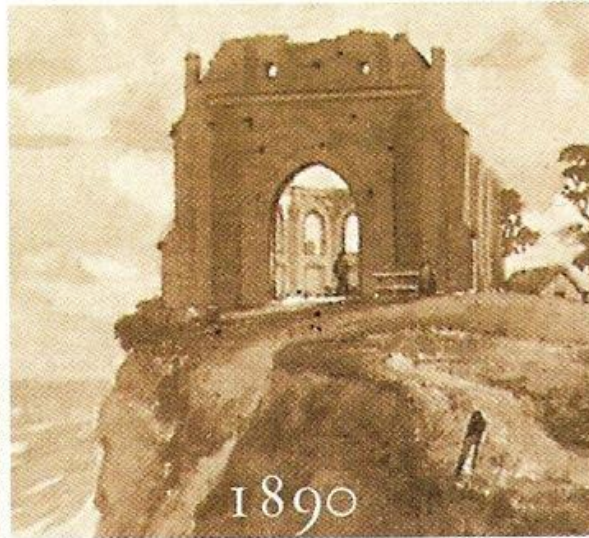


- Cliff type



- Accumulative type

Abrasion of the cliff



Current state



Sandy spits



The Vistula is an aeolian sand spit, or peninsular stretch of land, which separates Vistula Lagoon from Gdańsk Bay in the Baltic Sea. The Polish part contains a number of tourist resorts, incorporated administratively as the town of Krynica Morska.



Hel peninsula

Hel Peninsula is a 35 km long sand bar peninsula separating the Bay of Puck from the open Baltic Sea. The width of the peninsula varies from approximately 300 m near Jastarnia, through 100 m in the most narrow part to over 3 km at the tip.



Coastal lakes



Gardno (German: Garder See) is a lake in the Słowińskie Lakeland in Pomeranian Voivodship, Poland. It is the part of Słowiński National Park. Its area is 24.69 km². It is 6.8 km long and 4.7 km wide. Maximum depth is 2.6 m.

Environmental protection

Woliński National Park



Słowiński National Park



The middle part of the spit (between the Łebsko Lake and the sea, at the length of approx. 5 km and the width of 1 km) is occupied by the barchans and barchan-like dunes moving with the speed of 2 - 10 m/year, this is the area of contemporarily moving dunes. Western and north-western winds dominate in this area causing sand transportation and moving the dunes towards eastern and south-eastern direction; its result is entering the Łebsko Lake by some of the dunes.

Woliński National Park



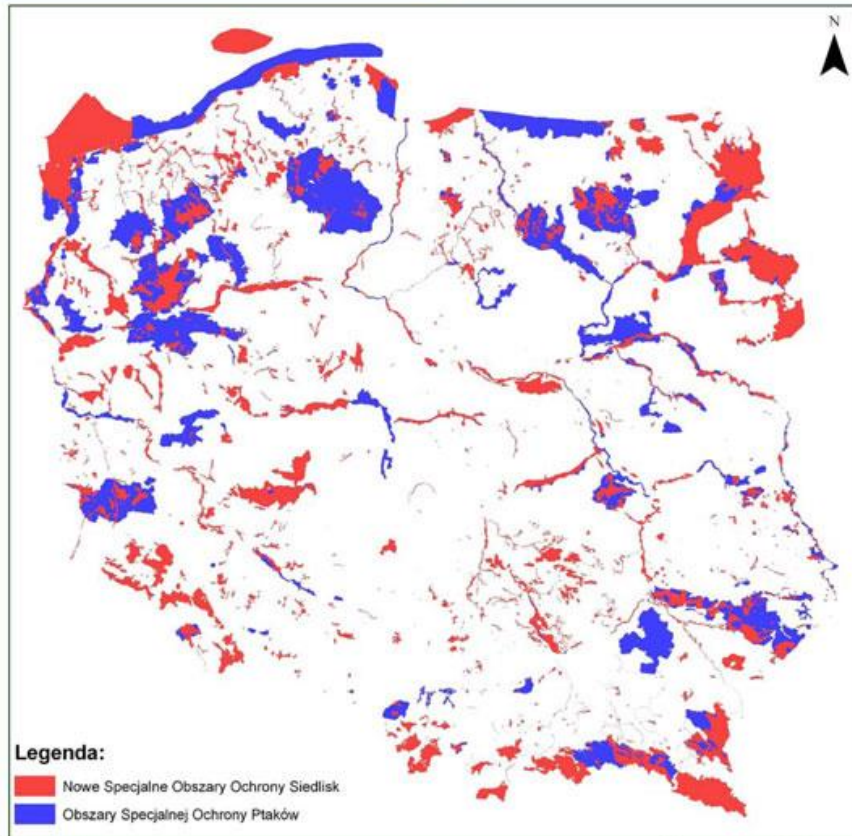
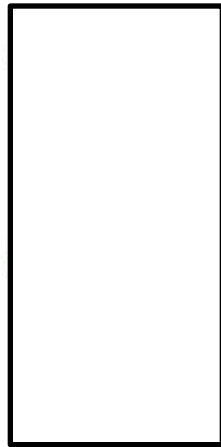
Cliff



Beech forest

Natura 2000

Aktualny stan sieci Natura 2000



Legenda:

- Nowe Specjalne Obszary Ochrony Siedlisk
- Obszary Specjalnej Ochrony Ptaków



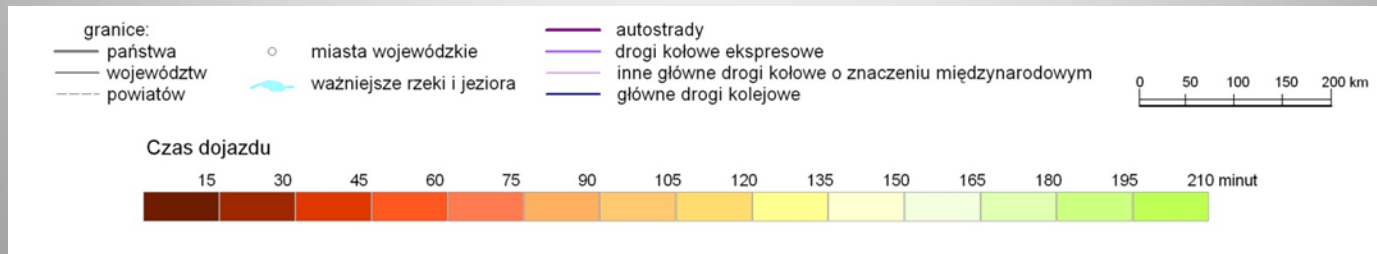
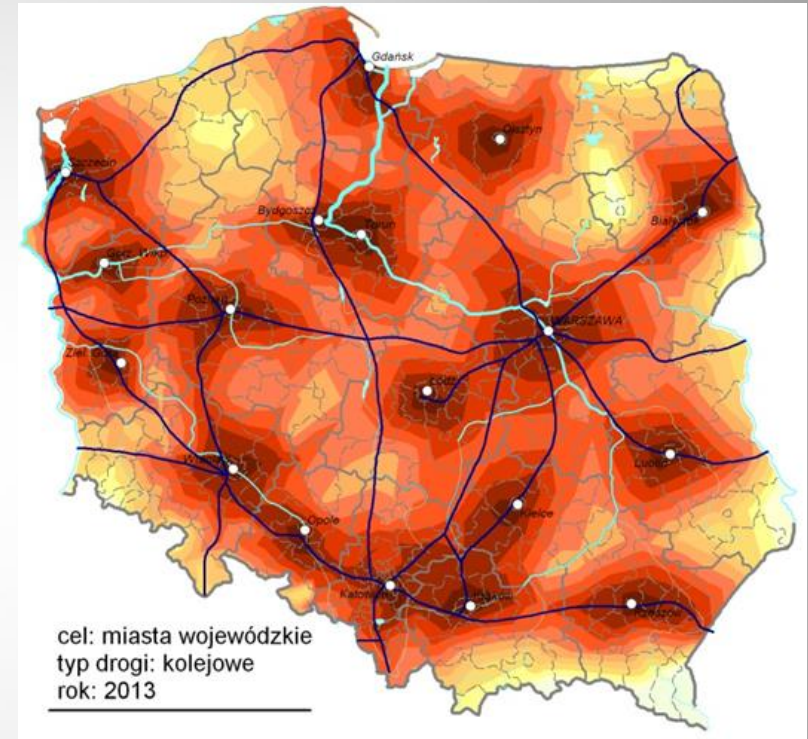
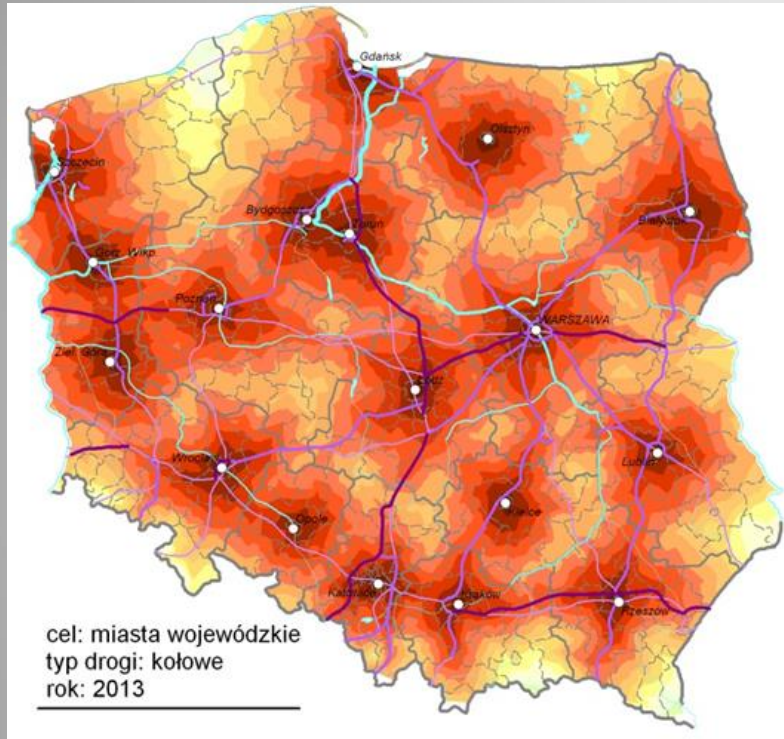
GENERALNA DYREKCJA OCHRONY ŚRODOWISKA

www.gdos.gov.pl

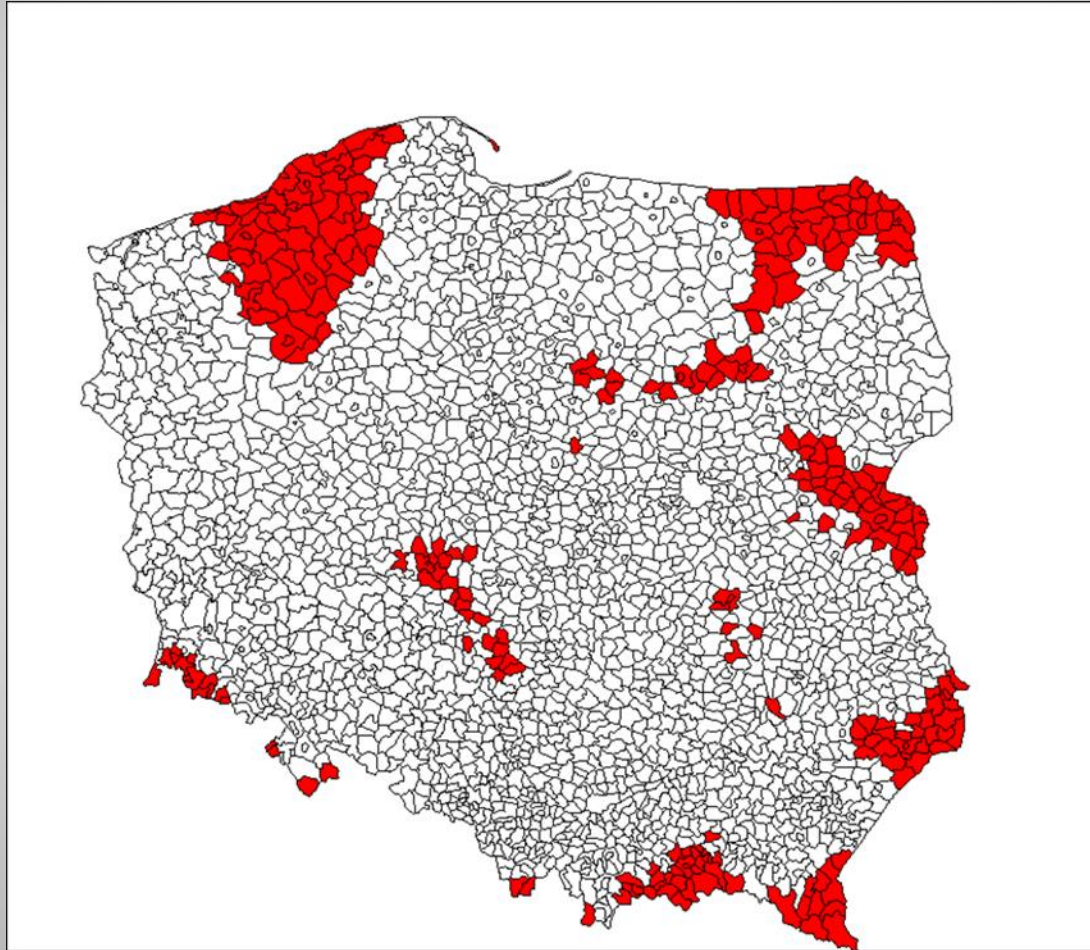
Warsztaty dla dziennikarzy
Warszawa, 19. 11. 2009 r.

849 - SCI - Site of Community Importance
145 - SPA - Special Protection Area

Transport accessibility to the regional centers by roads and railways in 2012

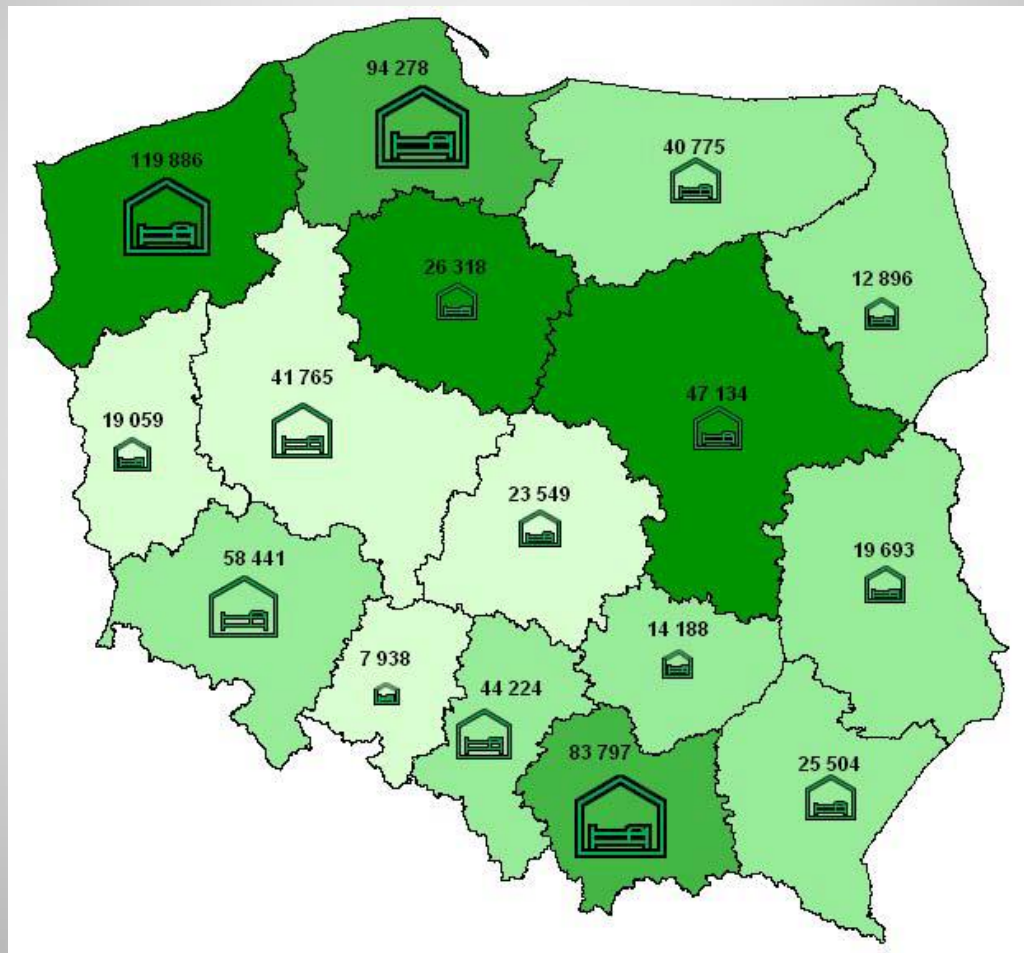


The areas with the lowest transport accessibility to the regional centers - (90 minutes)



(according: Komornicki 2012)

Bed places in tourist accommodation establishments as of July 31, 2013



Apartments and hotels



Landscape piers



Along the coast in many places they are built piers as objects for ease of observation of the coastal landscape



Cultural landscape

Historical aspect



Architecture



Conclusion

Coast regions are characterized by some significant factors which could be very important driving forces for regional development



Thank you very much
for your attention

