

Integrated Information System for Agricultural Space in Poland

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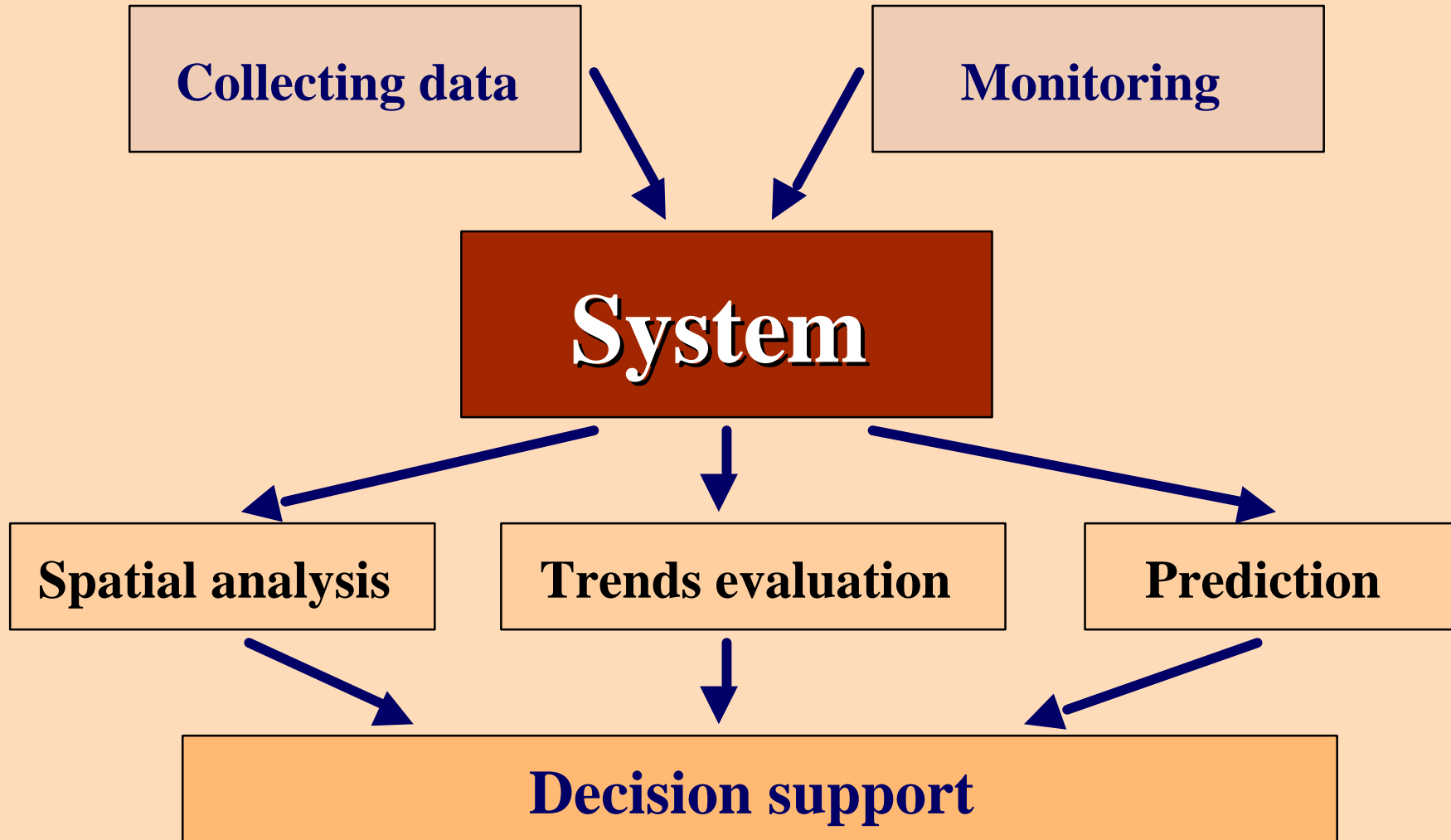
Partners:

- **Institute of Geodesy and Cartography in
Warsaw**
- **Geosystems-Poland Ltd.**

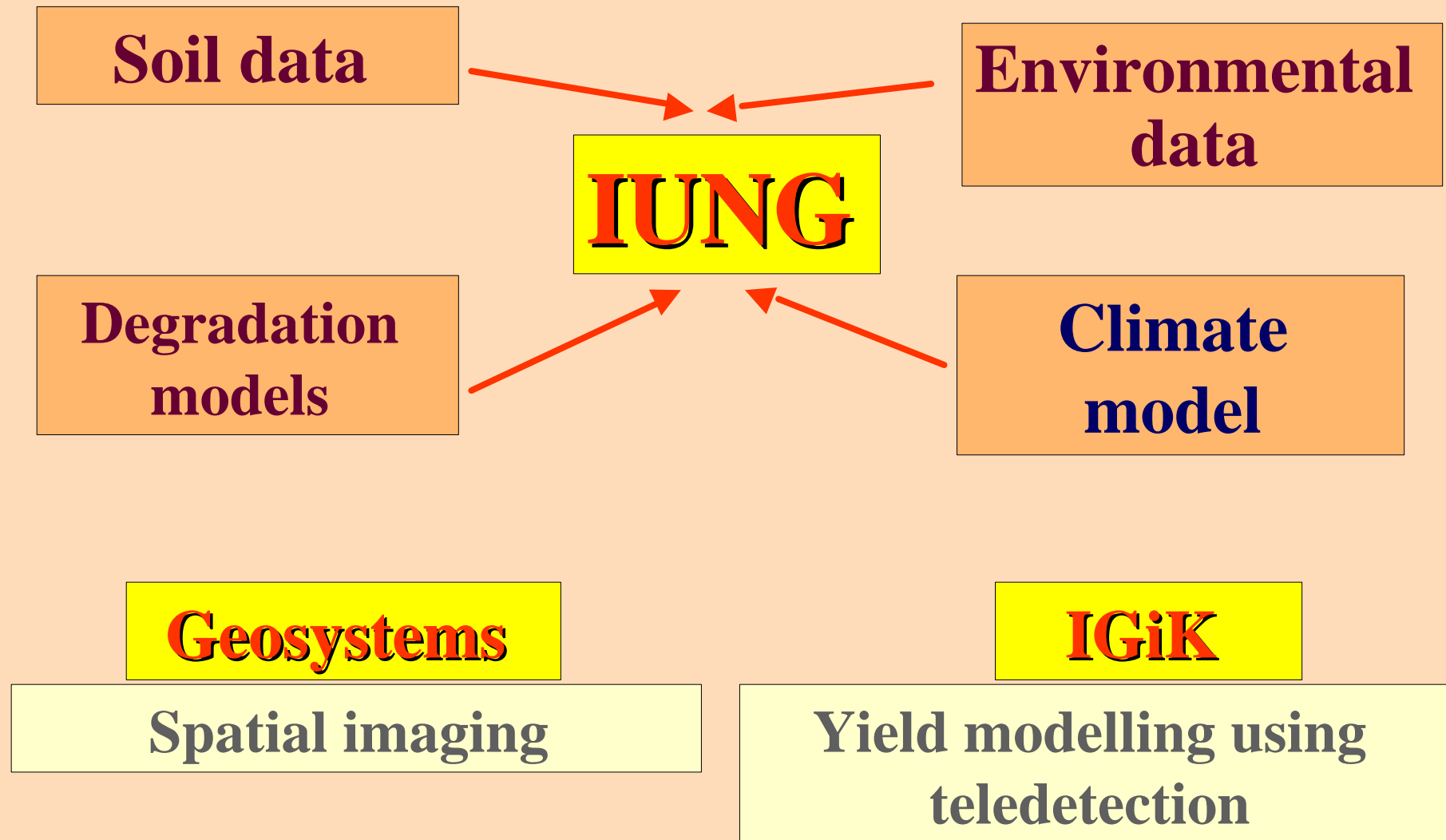
Project objectives

- **To develop bases and tools for information system with the ability to collect and process information characterising different aspects of agriculture including: land quality, environmental protection, crop monitoring, yield prediction, social and economic situation.**
- **To use quantitative spatial analysis as an alternative for traditional expert systems frequently based on qualitative indicators.**

Functions of ZSI RPP



Main Componets of ZSI RPP

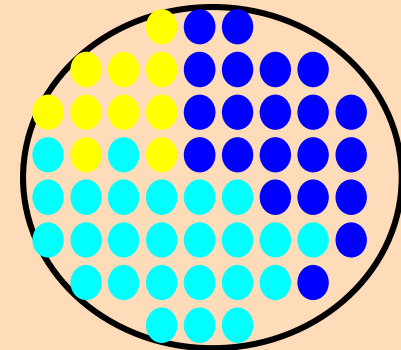
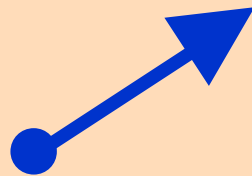


Climate characterisation

- ✍ **Temperature** monthly, daily, annualy for a given perio, derived data - probability of frost etc.
- ✍ **Precipitation:** monthly, daily, annualy for a given period
- ✍ **Radiation:** monthly averages, values for a given period
- ✍ **Phenological phases:** decision support for crop management: sowing harvesting etc.
- ✍ **Humidity:** daily for decisions in plant protection

Example application of Climate Data and Modelling

GIS

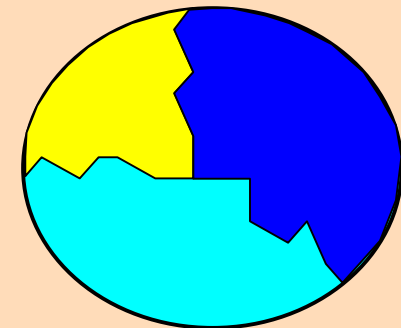
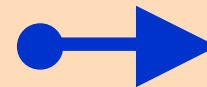
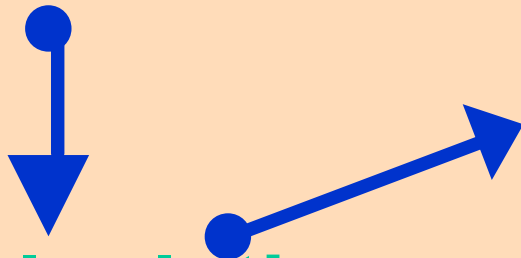


Point output layer

Probability of rippening

FAO 210	FAO 240	FAO 270
0.36	0.25	0.16
0.83	0.72	0.54

GIS



Polygon output layer

Calculation models

ZSI RPP Users

- ✍ **Initially:** governmental agencies, regional and local administration, private sector, research and education
- ✍ **In the future:** all parties involved in management and servicing development of rural areas, individual users

Further development

- ✍ **Wider implementation of the system**
- ✍ **Integrating the system with other systems being developed in Poland and Europe**
- ✍ **Building financial mechanism needed for system maintenance**

Soil properties

AgroGIS

Plik Edycja Widok Temat AgroGIS Grafiki Okno Pomoc

Wybierz obiekty przy użyciu grafiki

Scale 5,730,153 -183,458.34
367,442.73

Polska

✓ Gleby.shp

Określ parametry

Zaznacz kompleksy glebowe :

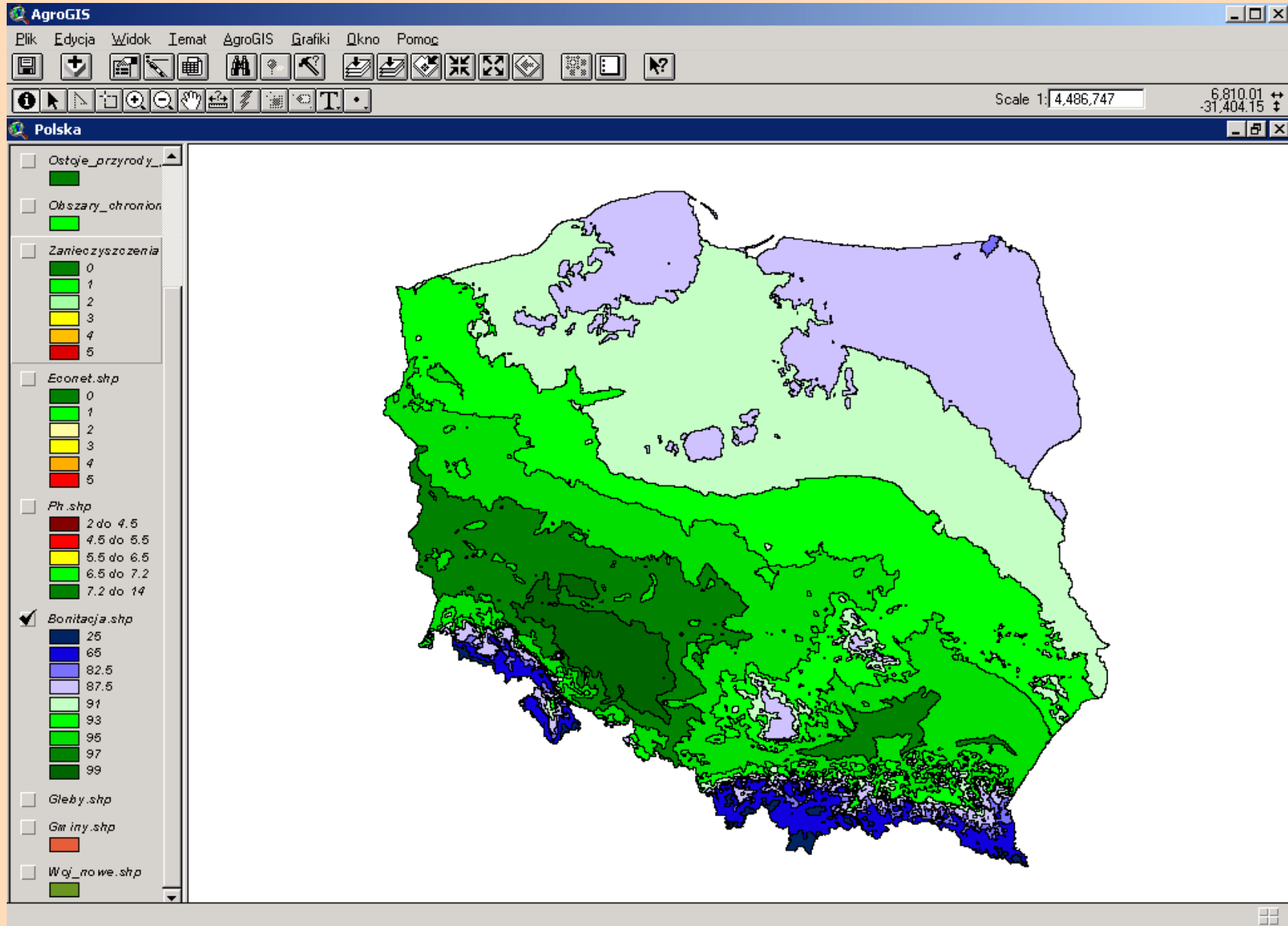
- 1 - pszenney bardzo dobry
- 2 - pszenney dobry
- 3 - pszenney wadliwy
- 4 - żytni bardzo dobry
- 5 - żytni dobry
- 6 - żytni słaby
- 7 - żytnio-lubinowy
- 8 - zbożowo pastewny mocny
- 9 - zbożowo pastewny słaby
- 10 - pszenney górski
- 11 - zbożowo - górski
- 12 - owsiano - ziemniaczany
- 13 - owsiano - pastewny
- 1z - użytki zielone bardzo dobre
- 2z - użytki zielone dobre
- 3z - użytki zielone słabe
- Ls - Lasy

OK Anuluj

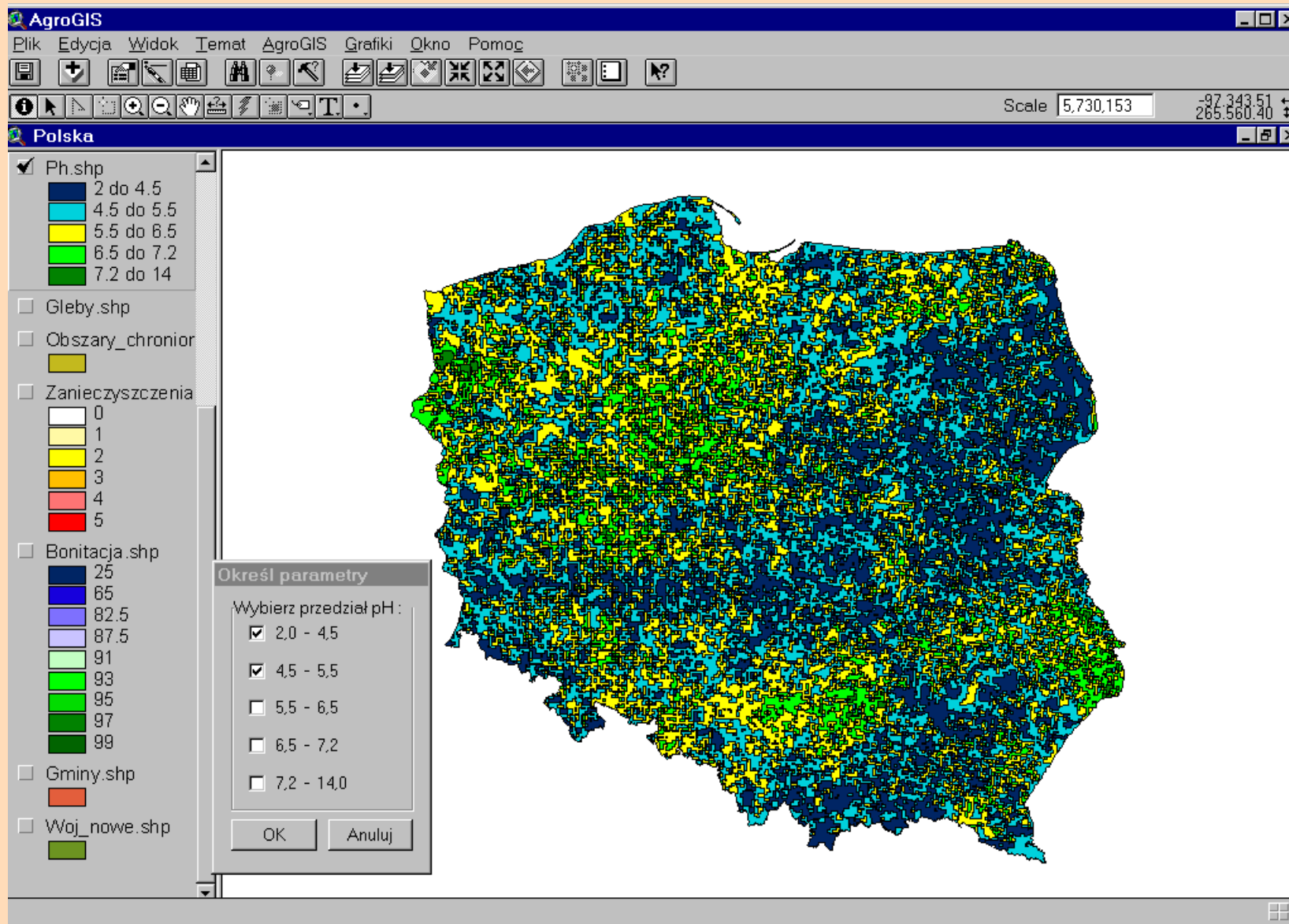
2
3
4

Wybiera obiekty w aktywnych tematach używając wybranych grafik

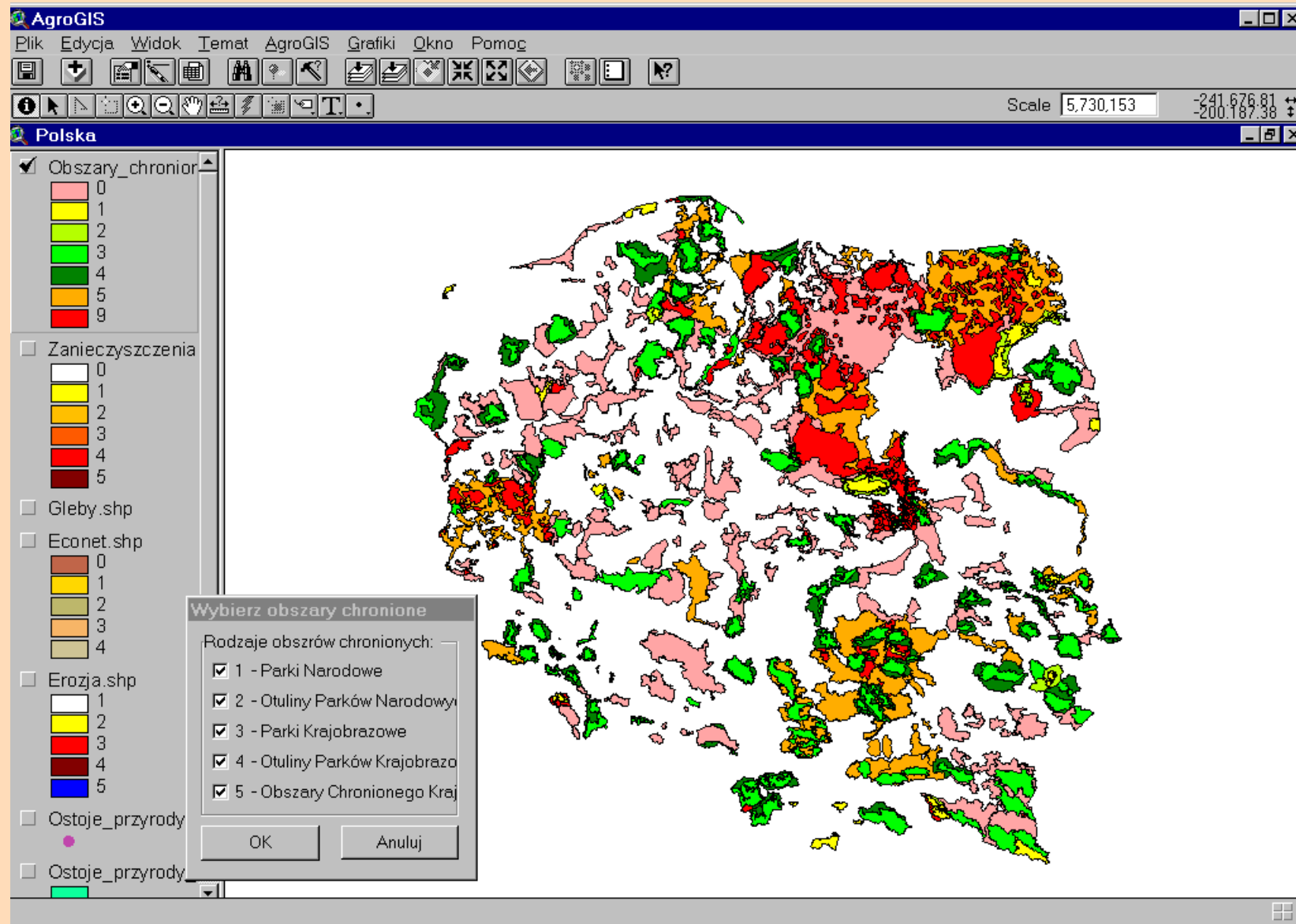
Agroclimate



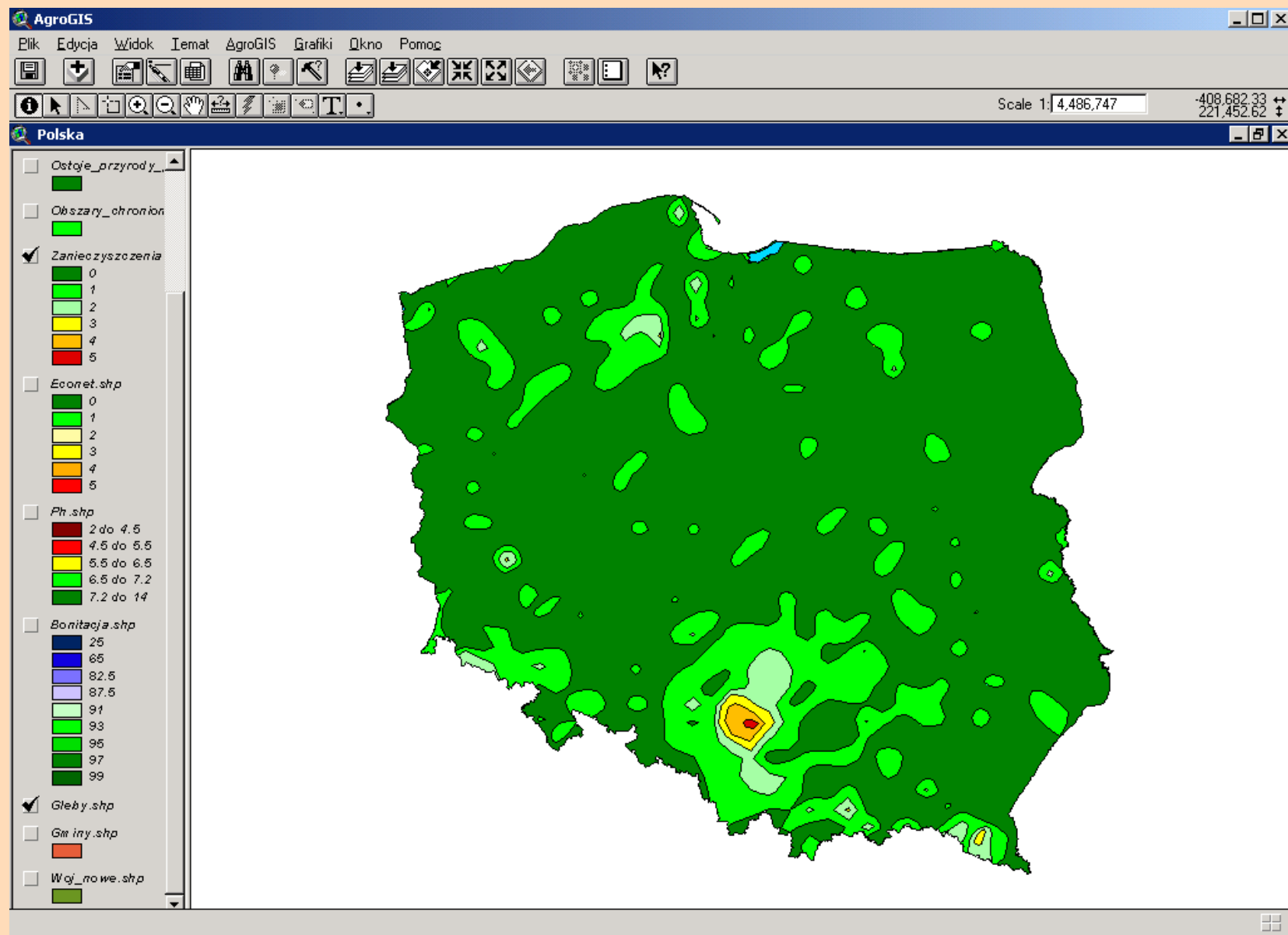
Properties of soils pH



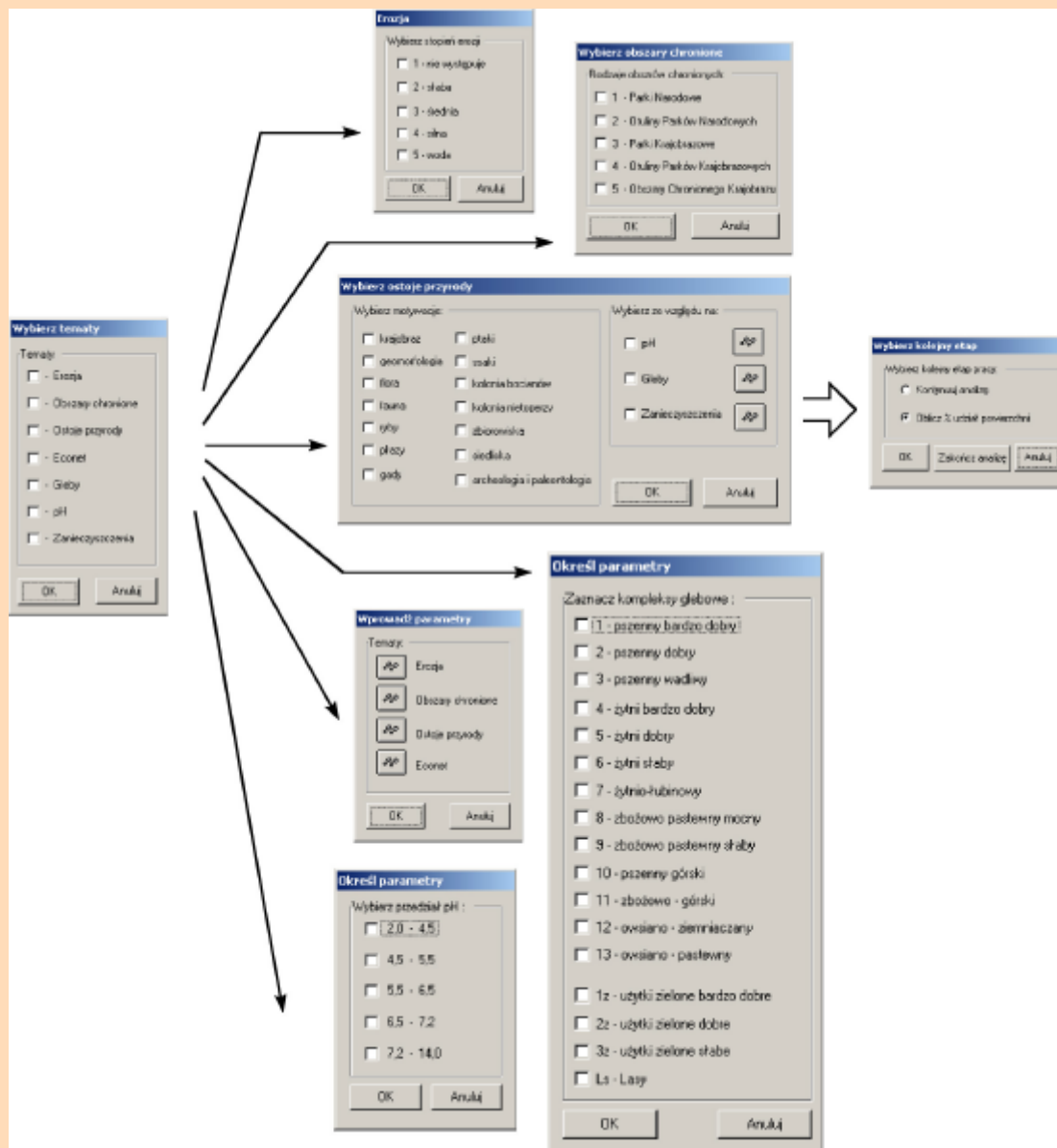
Landscape protection area



Heavy metal pollution



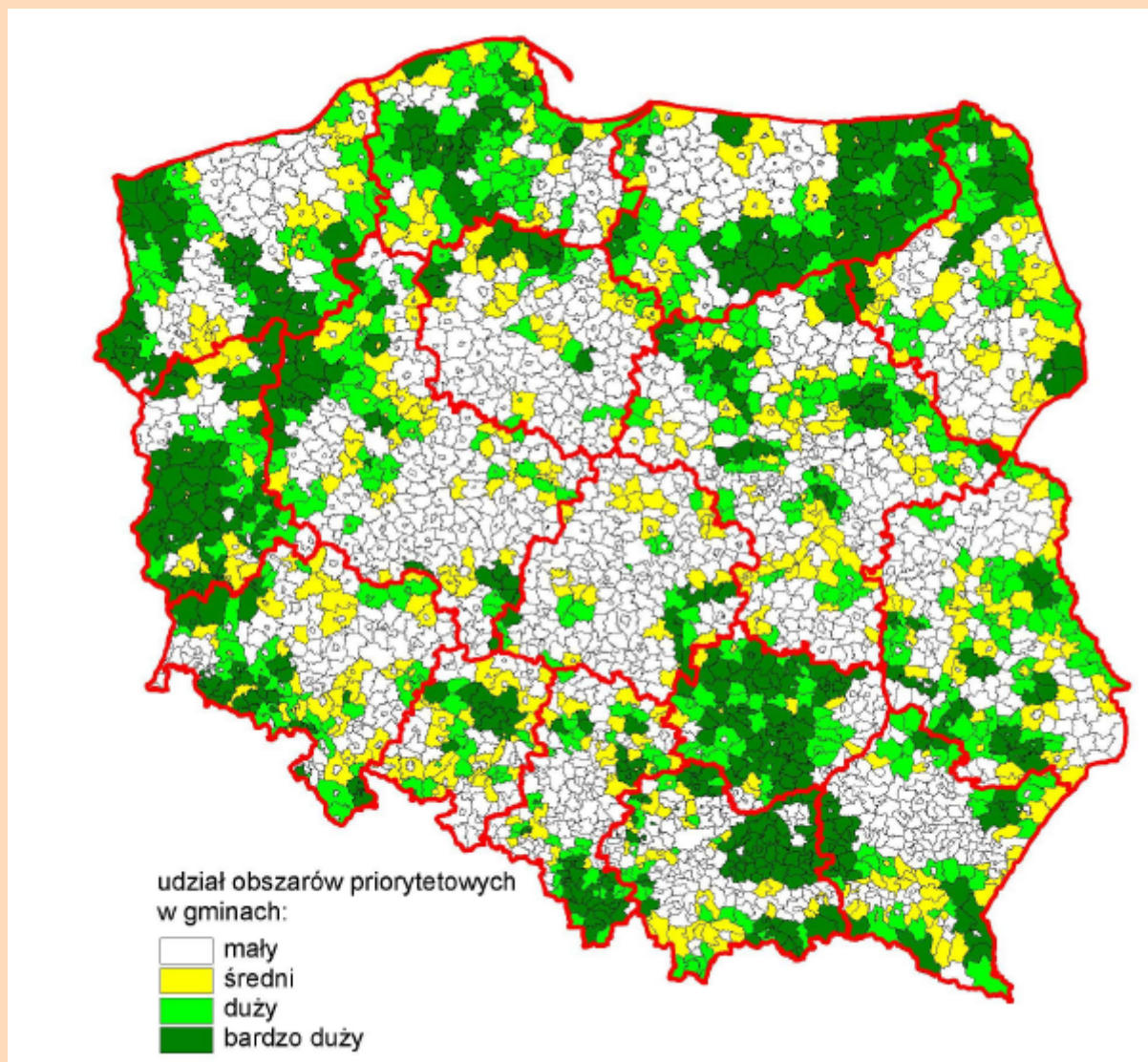
AgroGis structure of application – dialog windows



Example for delineation of priority areas for application of rural-environmental programs based on protected areas and natural habitats



Distribution of priority areas in communities for application of rural-environmental programs – percentage of agricultural land area



Distribution of priority areas for application of rural-environmental programs in regions – percentage of agricultural land area

