International Centre for Black Sea Studies
Building a Sustainable Future for the Black Sea Area

"WEB-GIS Observatory Network for the Environmental and Sustainable Development of the Black Sea Area"

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Ms. Amaryllis Koufantoni, ICBSS Administrative Support

Athens, 21 December 2011

Current picture

- Lack of systematic gathering, validation and communication of comparable primary Data and Indicators, concerning Environment and Sustainable Development in the Black Sea area
- Fragmented implementation of programs and policies and lack of an integrated picture and focused knowledge on the basic data and figures regarding the Black Sea area
- Several databases with economic, social and environmental statistics (e.g. OECD, EEA, UN etc.), giving socio-economic and environmental data per country

<u>However:</u>

- It is an open question whether these data are comparable in terms of time and content
- There are no integrative data for the whole area and it is not possible to make statistical comparisons
- This information is not imported in statistical and spatial databases, meaning that it is not possible for users to make queries and comparisons and illustrate the results on a map.

ICBSS' expertise

- Experience of researchers and experts who have already worked on the establishment of Observatories (e.g. ESPON European Spatial Planning Observation Network and OSPE - Observatory of Spatial Planning and Environment project in Balkans and Adriatic area)

ICBSS Web-GIS Observatory

- Initiative for the establishment of an integrated mechanism in the form of a **WEB-GIS Observatory** which will gradually gather and process data related to sustainable development and environment
- Initially, a small number of data and indicators in national and regional level (NUTS 0 and NUTS 2) has been selected and validated from different sources (UN, OECD, World Bank, CIA, IMF, EEA etc.)

  Categories of data and indicators:
  - Geographic position
  - Environment and natural assets
  - Economic strength
  - Social integration
  - Accessibility
- Possible further development with the cooperation of the National Statistical Agencies of the Black Sea countries (NUTS 2 level)

Aims of Observatory

- The creation of a strategic tool that will provide information services, support policies and development programs for all interested actors of the Black Sea region
- The support of policy-makers who need to compare data and define similarities and/or differences among different countries and regions
- The provision of valuable information to NGOs and local development agencies regarding environmental and sustainable development dimensions
- The promotion of cooperation and networking among the Black Sea countries
- The higher placement of environmental concerns and priorities in the agenda of policy-makers in all sectoral policies
- The establishment of an institutionalised network for the future

Structure of the Observatory

- The Geographic Information System (G.I.S.)
- The Interactive Mapping Analysis
- The Statistical Analysis

G.I.S. application specifications

- A Relational Data Base for storing the data and indicators
- A geographical database for storing the spatial data (administrative boundaries, road network, cities, ports etc.)
- An internet map server for publishing the application to the internet

The Interactive Mapping Analysis features

- Creation of thematic map compositions based on selected data or indicators
- Common map tools (Pan, Zoom, Re-centre, Distance measurement etc.)
- Feature Identification tool
- Custom classification tool for selected data or indicators
- Export tool for printing or saving the map composition

The Statistical Analysis features

For each of the selected dataset, display:

- The actual data values for each geographical feature
- Metadata

  (time reference, data sources etc.)
- Monovariate statistics

  (min, max, sum, mean, std deviation etc.)
- Charts

ICBSS new Portal

www.icbss.org

Aims:

- exchange of valuable information and knowledge
- strengthening of cooperation in the wider Black Sea area

How to become a member:

- “Join the ICBSS Community”
- Fill in your basic information (e-mail, name, and password)
- Agree on terms of use, select “submit registration”, login to your email account and verify

Now you can:

a) create groups and upload articles or post comments
b) access discussion forums
c) interact with other scientists, researchers etc.
d) access the ICBSS secondary menu (under construction)

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Energy Cooperation and Environmental Protection in the wider Black Sea area

The International Centre for Black Sea Studies (ICBSS) & the Center for Strategic Studies under the President of the Republic of Azerbaijan (CSS)

kindly invite you to Round Table Discussion on

"Energy Cooperation and Environmental Protection in the wider Black Sea area"

Athens, Tuesday, 29 November 2011

Click here for the Invitation

Press Release and Draft Agenda are also available for download.

read more

2011-09-27

ICBSS Events 2011

Dr. Zefi Dimadama is going to participate at the **BSEC Forum on Facilitation on Road Transport and Trade,** held under the patronage of the Secretary General of BSEC Organization, H. E.

Featured projects

SEARCH

Sharing KnowledgE Assets: InteRegionally Cohesive NeigHborhoods

SEARCH is a project financed by the European Union under the Seventh Framework Programme for Research and Technological Development in the 'Socio-economic sciences and the humanities' area.

Also visit website:

SEARCH

HDF

The "**Green Cluster of Knowledge Institutions of Black Sea: A Roadmap on Renewable Energy Sources and Energy Efficiency for Research and Academic Institutions**" is a project coordinated by the ICBSS and funded by the BSEC – Hellenic Development Fund. The project was launched on 1st August 2011 and its duration will be 1 year.

You can also find attached an **introduction by Dr. Zefi**

http://icbss.org/index.php#

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Web GIS Observatory Network
For the Black Sea area

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User registration

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e-mail	*
First name	*
Last name	ICBSS *
Password	********** *
Repeat password	*
I have read the terms of use	*
I agree with the terms of use	*

Submit registration

Important notes

Once you register, you will not be able to change your e-mail

Partners

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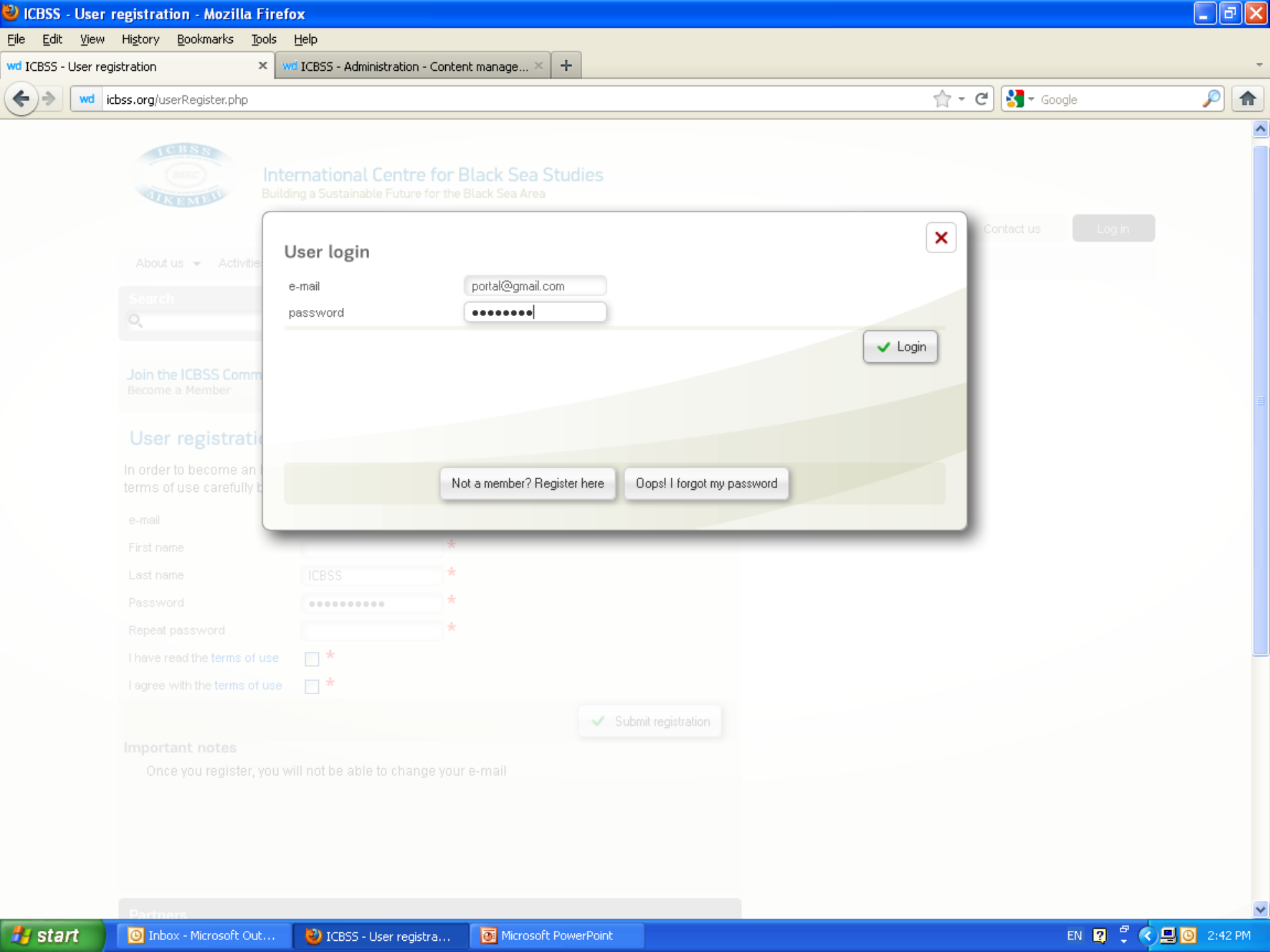
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Login
Not a member? Register here
Oops! I forgot my password
User registrati
In order to become an
terms of use carefully
e-mail
First name
Last name
ICBSS
Password
Repeat password
I have read the terms of use
I agree with the terms of use
Submit registration
Important notes
Once you register, you will not be able to change your e-mail
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User profile | ICBSS Greece

Country	Greece (Ελλάδα)
Member since	2011-10-24
Last login	2011-11-28

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About me

The International Centre for Black Sea Studies (ICBSS) was founded in 1998 as a non-profit organisation. It has since fulfilled a dual function: a) it is an independent research and training institution focusing on the wider Black Sea region, b)it is a related body of the Organisation of the Black Sea Economic Cooperation (BSEC) and serves as its acknowledged think-tank.

Contact information

icbss@icbss.org

Member of groups

- 2011 Summer School
- 4th International Black Sea Symposium
- HDF
- ICBSS Team

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Please note that icbss.org is still in beta (testing) version.
You may report any problems to the icbss team.

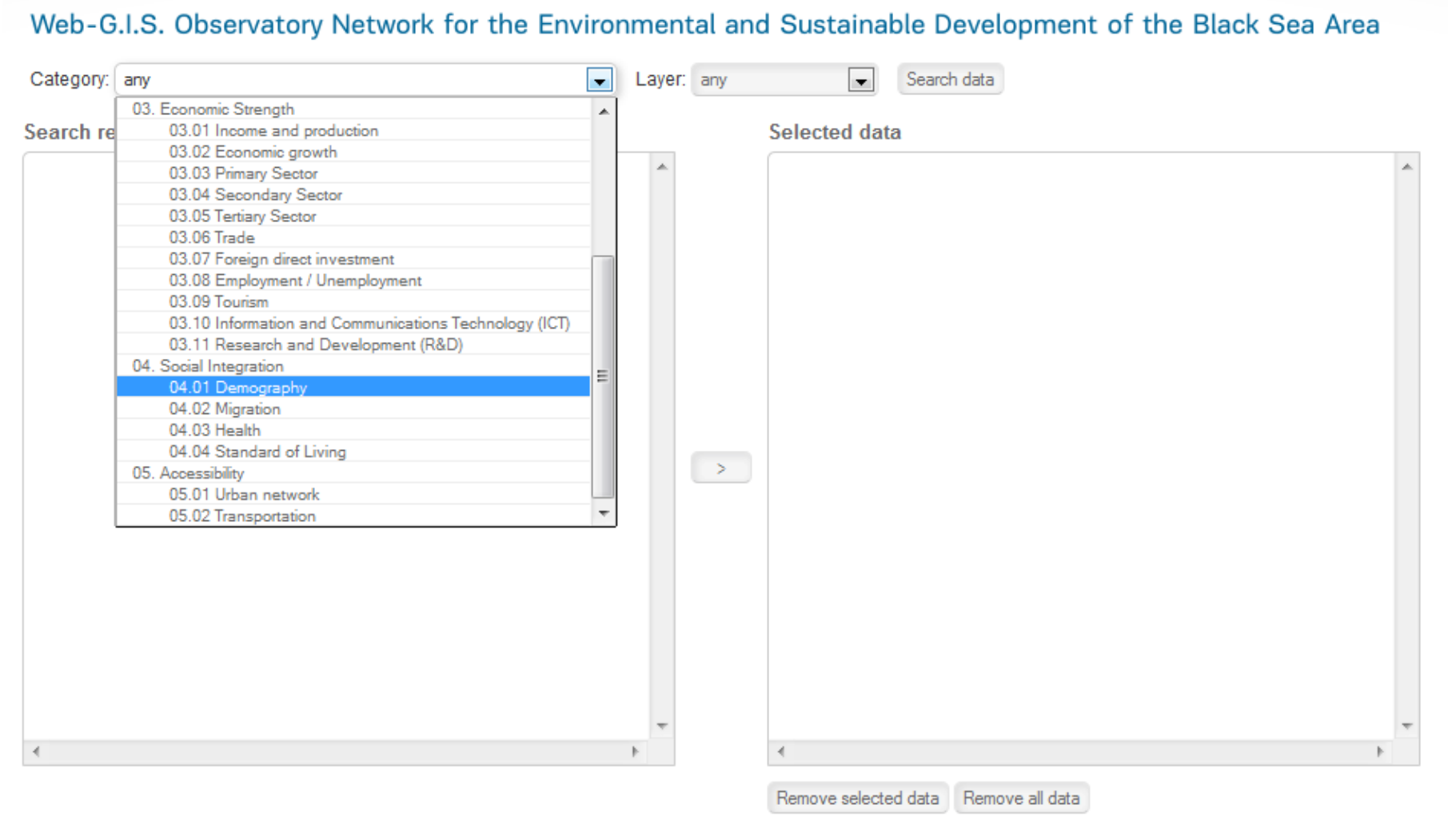
Application use overview

Step 1: Query the database for data and indicators.

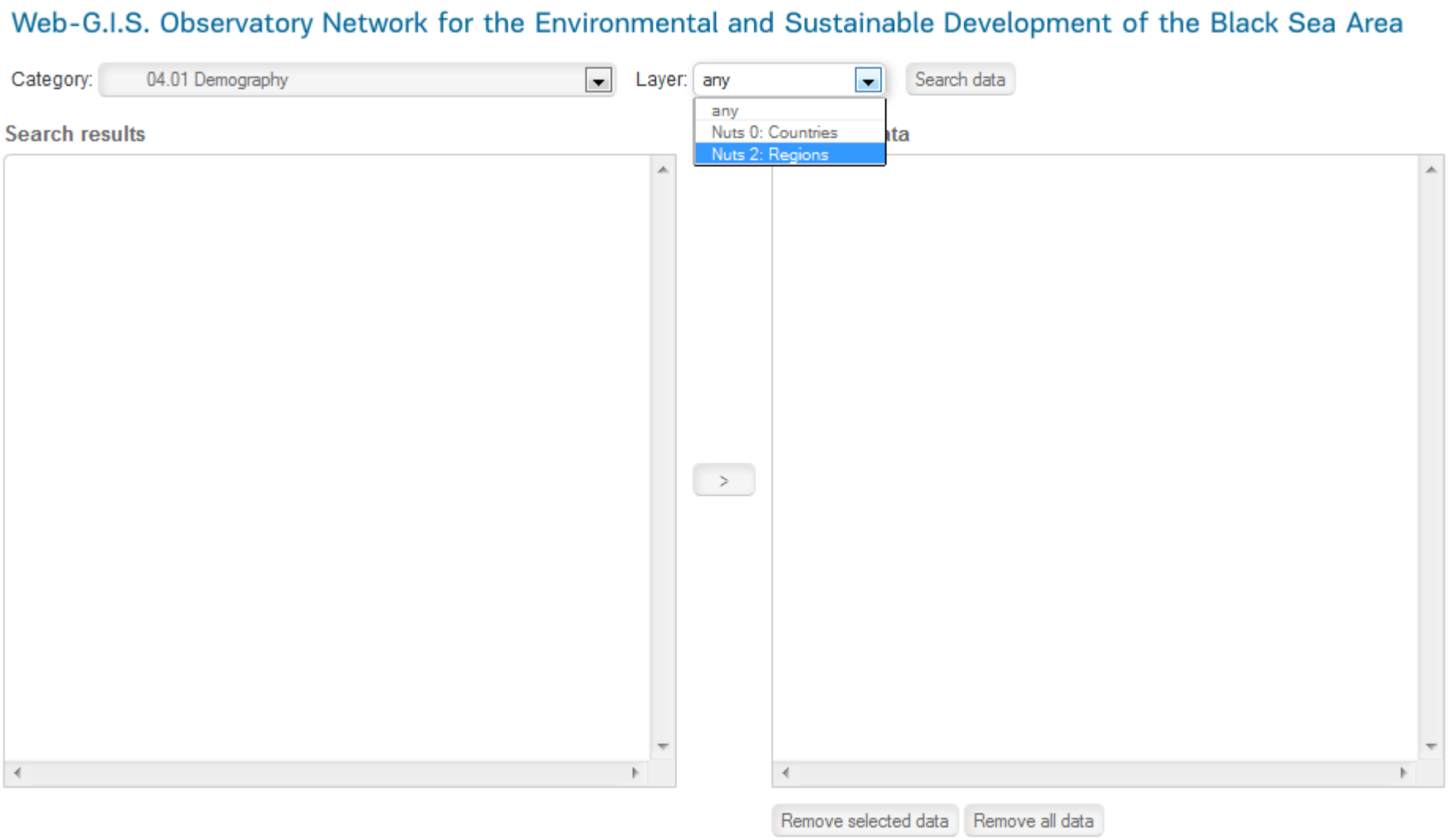
Step 2: Create a selection of the data and indicators.

Step 3: The application will display the data selection as a thematic map.

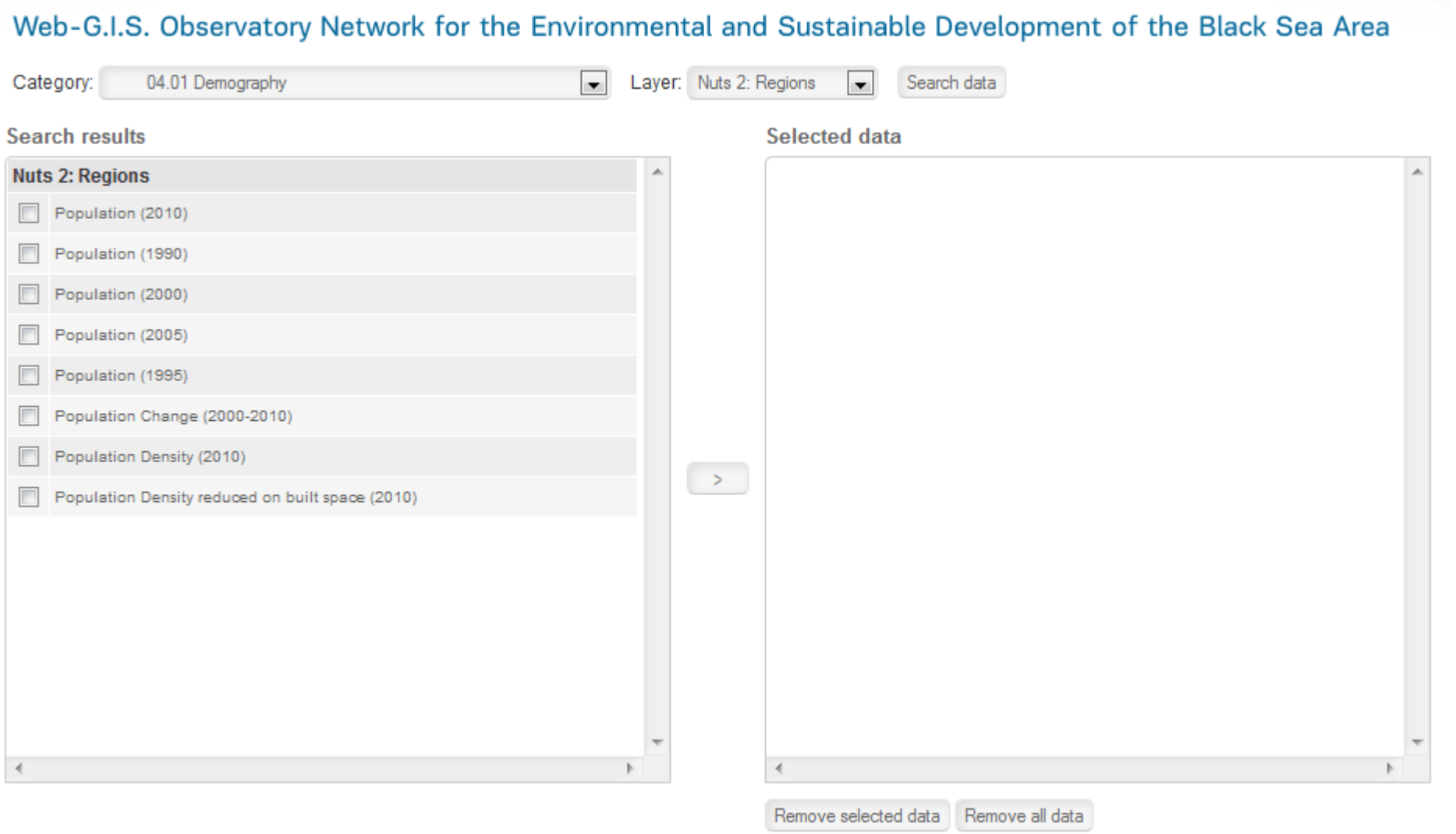
1: Select the data category (example: Demography)



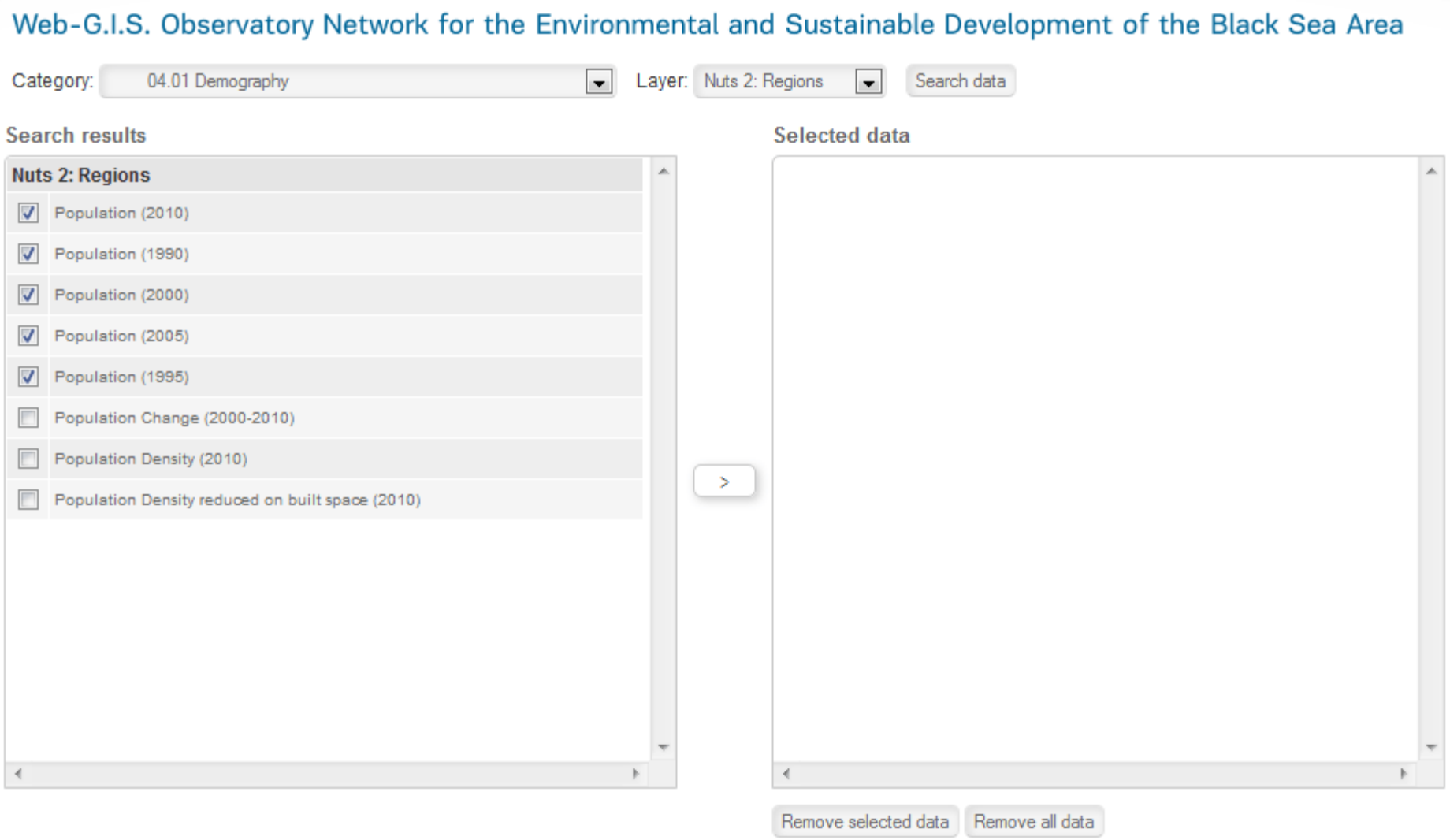
2: Select the geographical layer (example: Nuts 2)



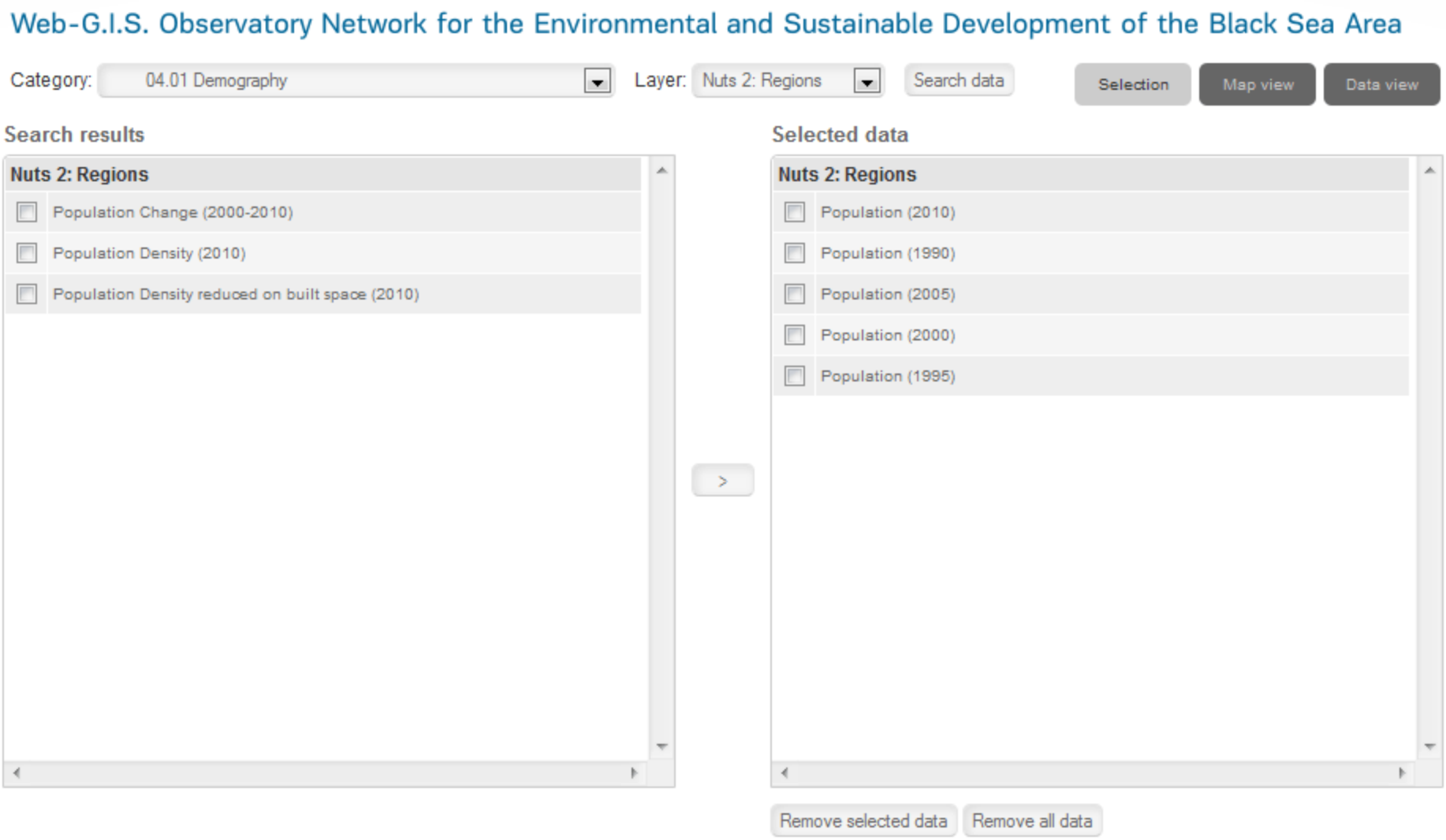
3: Perform a search and view search results



4: Locate and select desired data

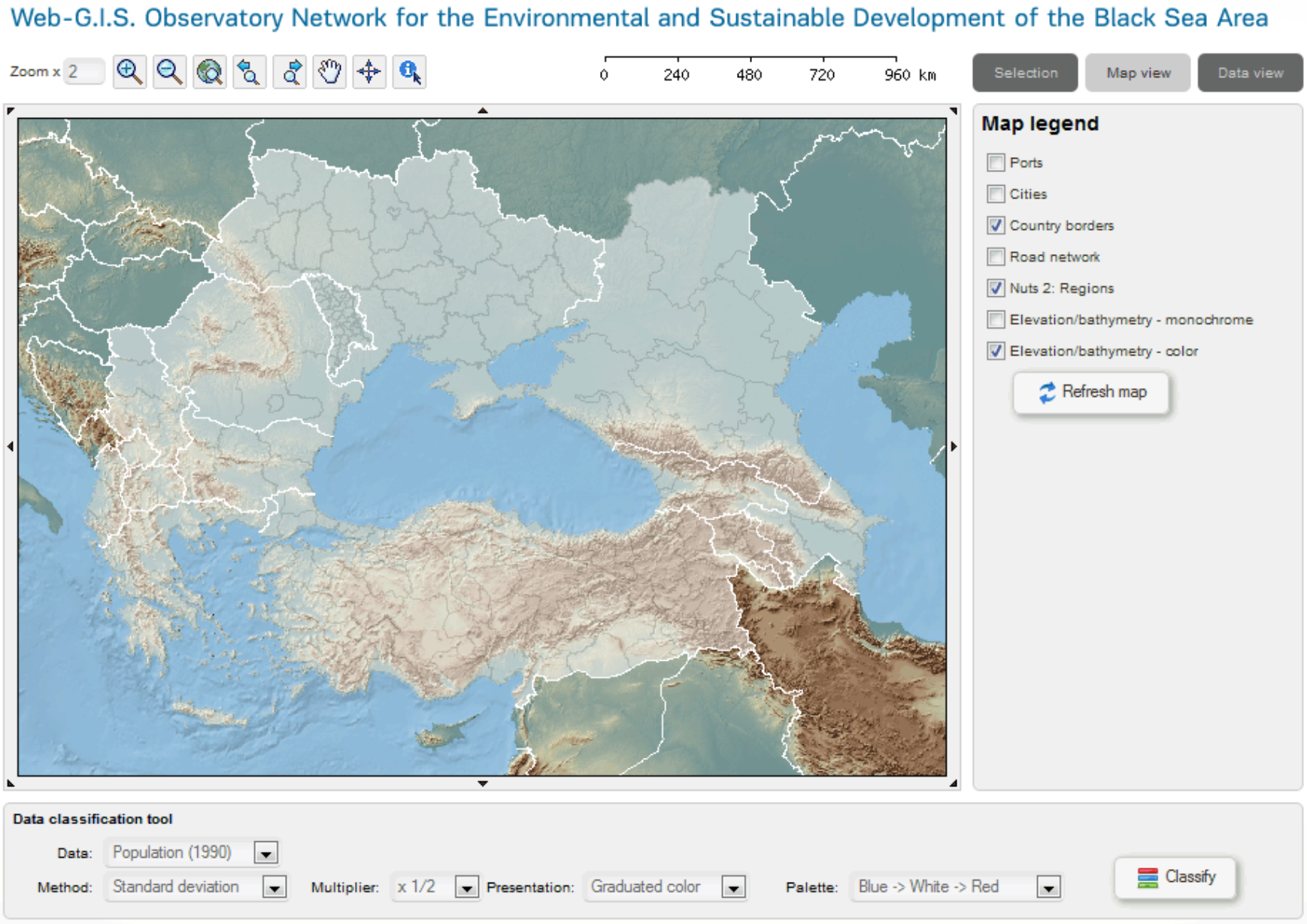


5: Create a selection of desired data



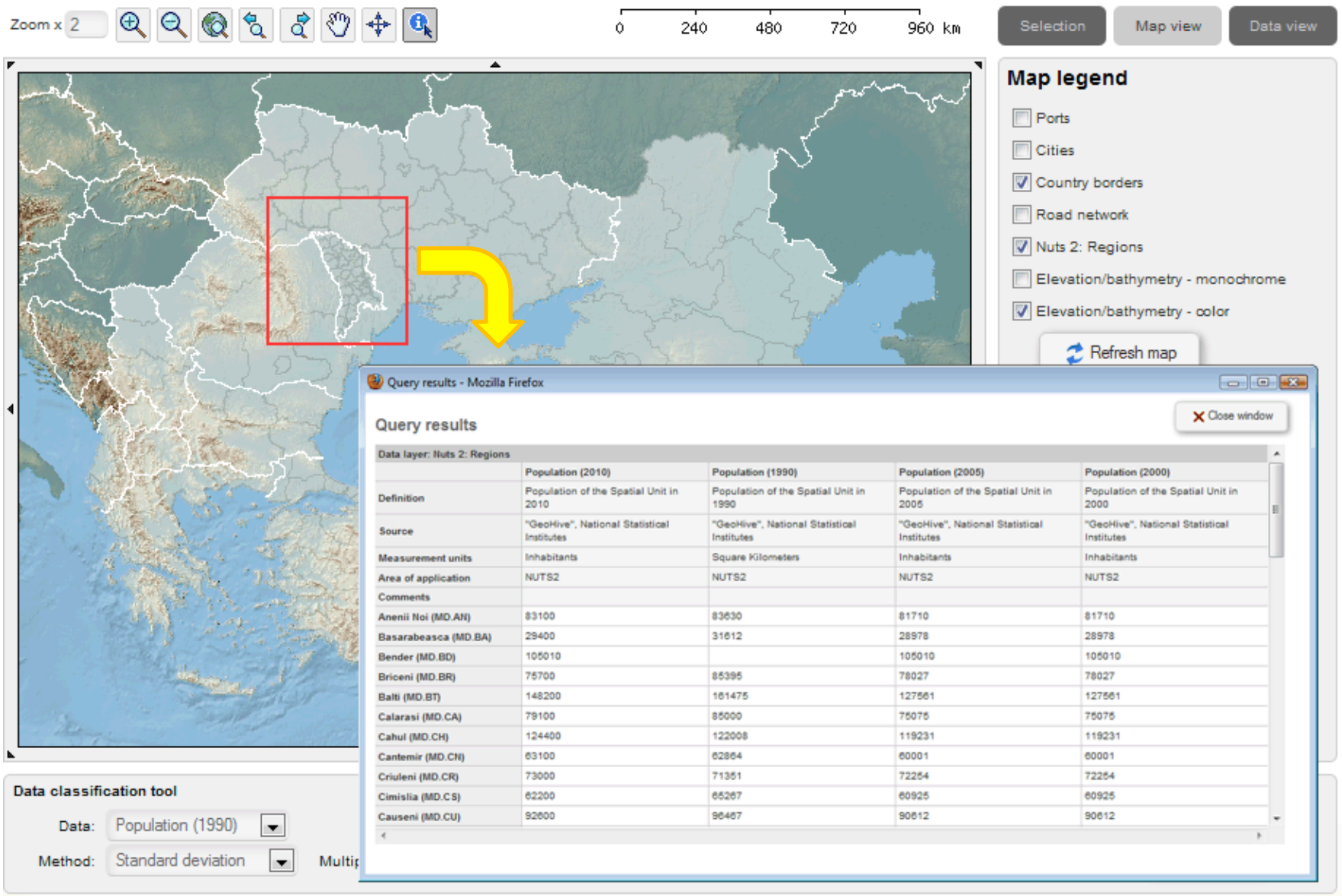
* You may repeat the search procedure and add more items to your selection

6: Select the “Map view”

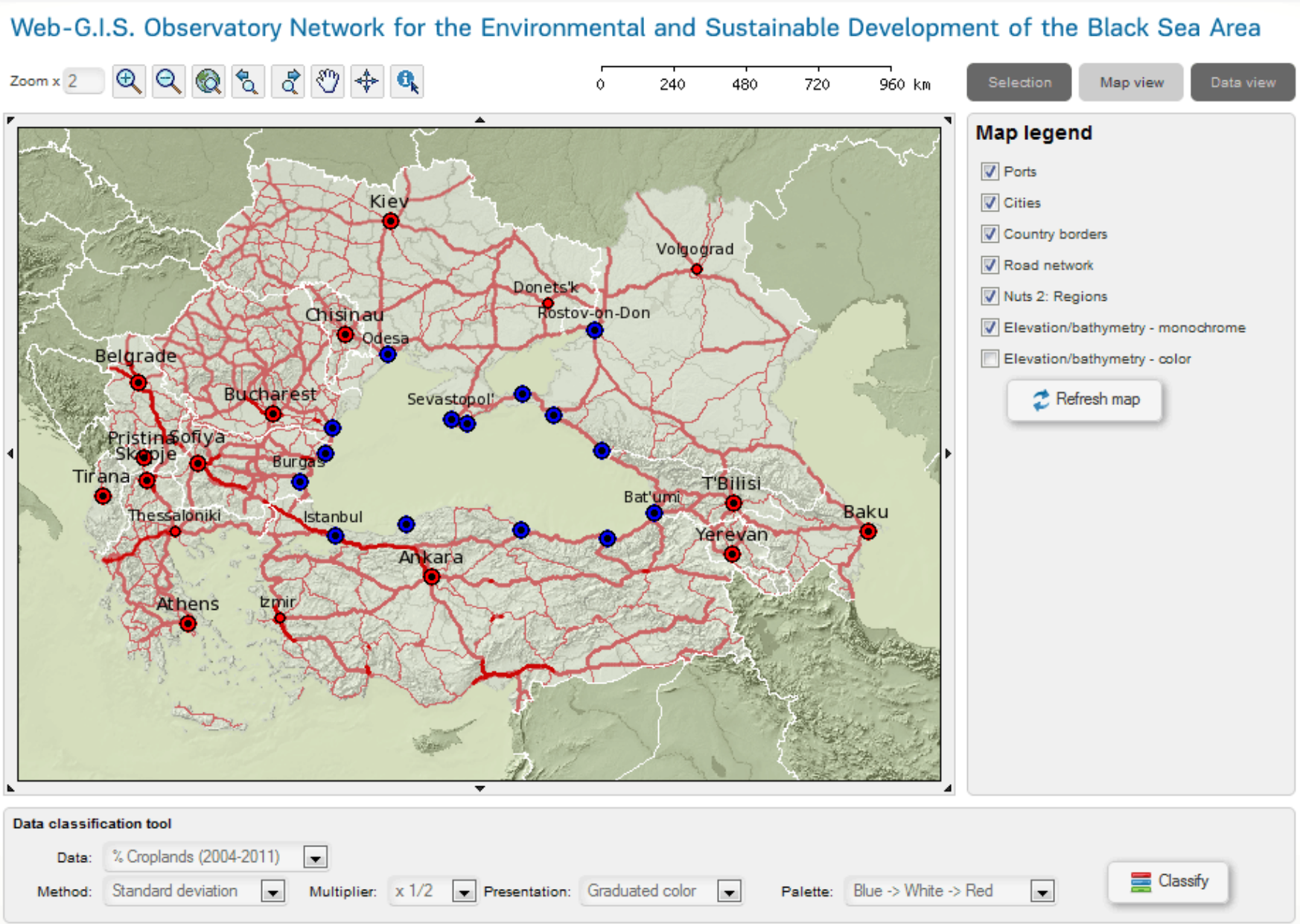


7: Map view: Identification tool

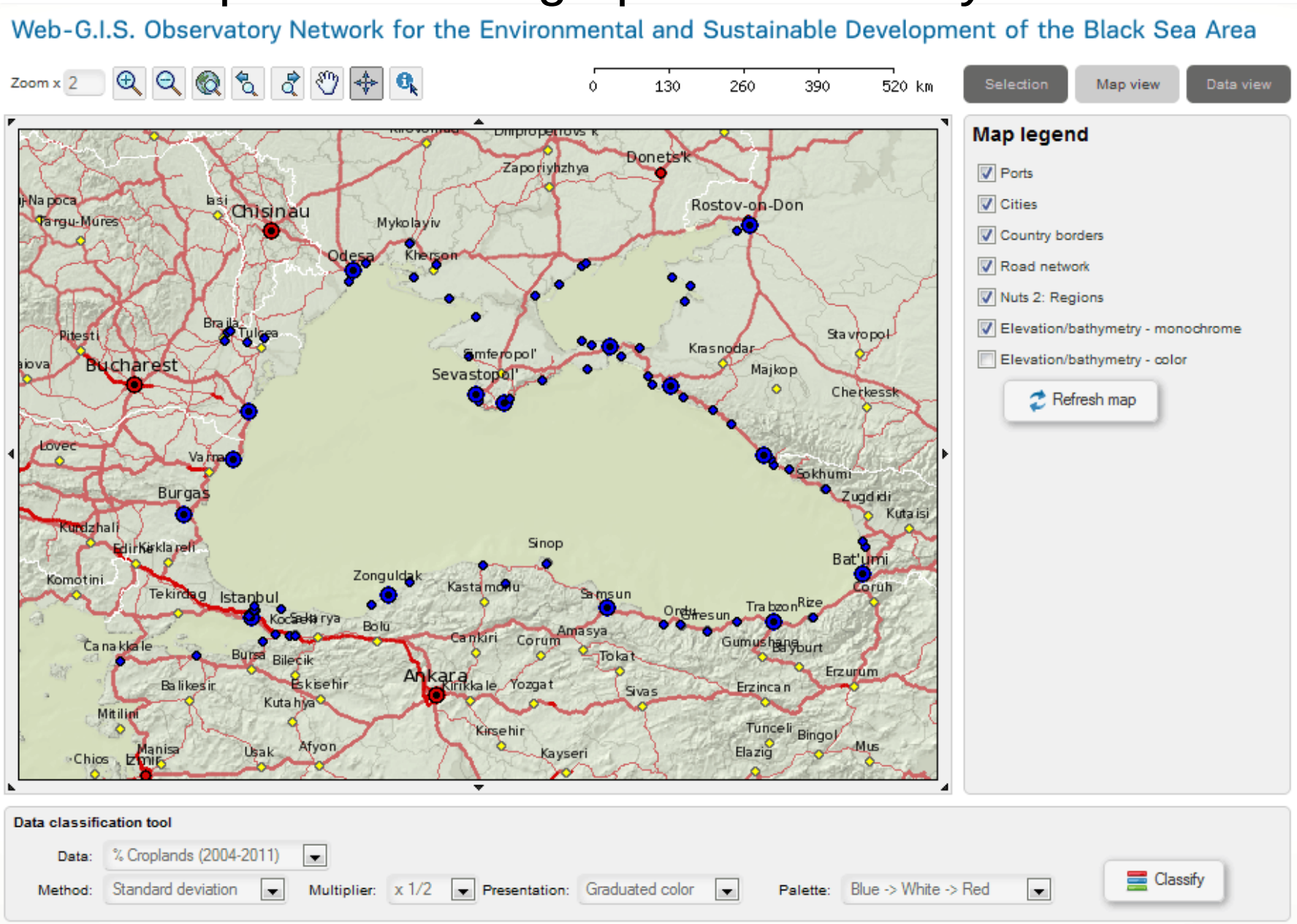
Web-G.I.S. Observatory Network for the Environmental and Sustainable Development of the Black Sea Area



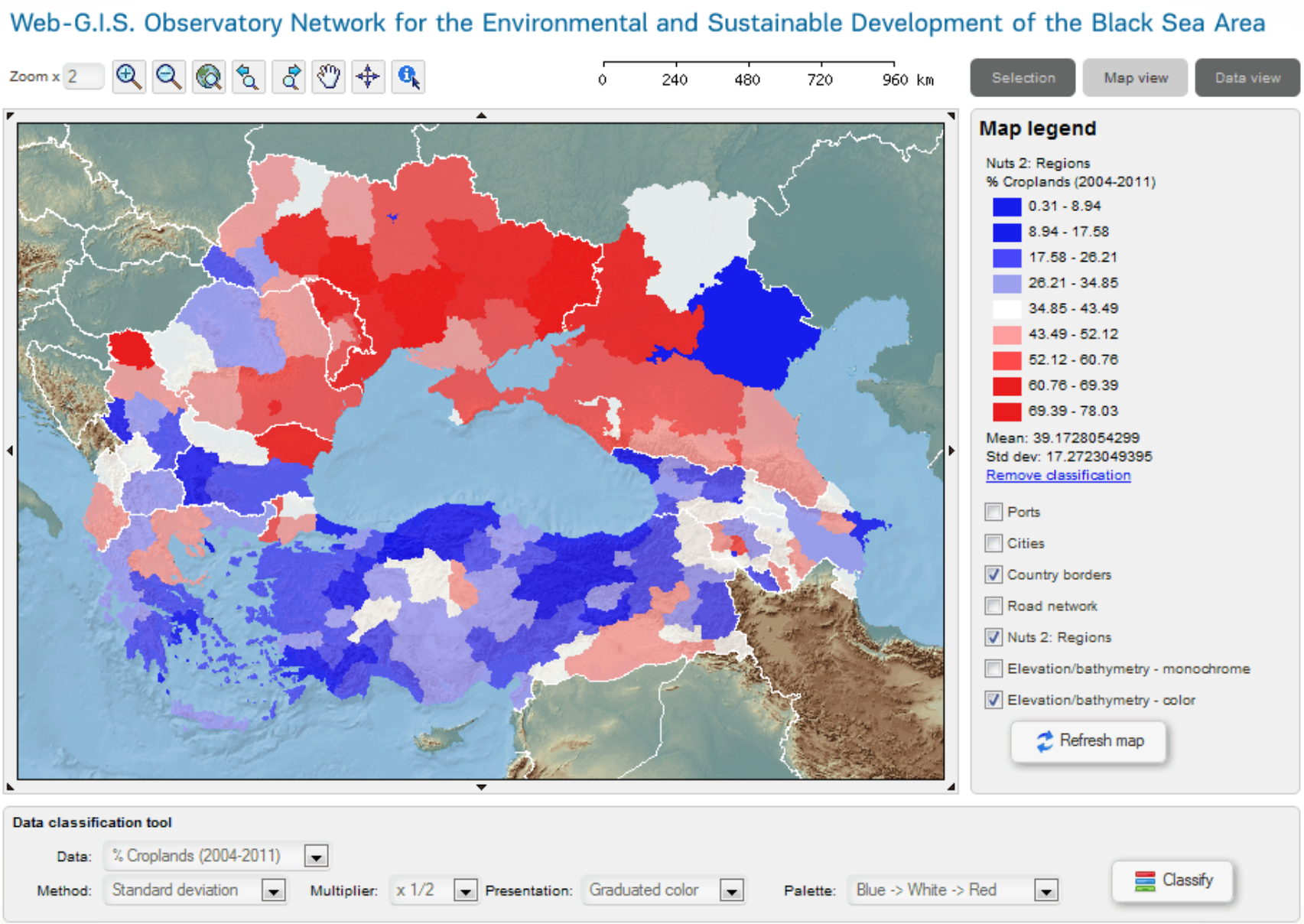
8a: Map view: Cartographical basis layers



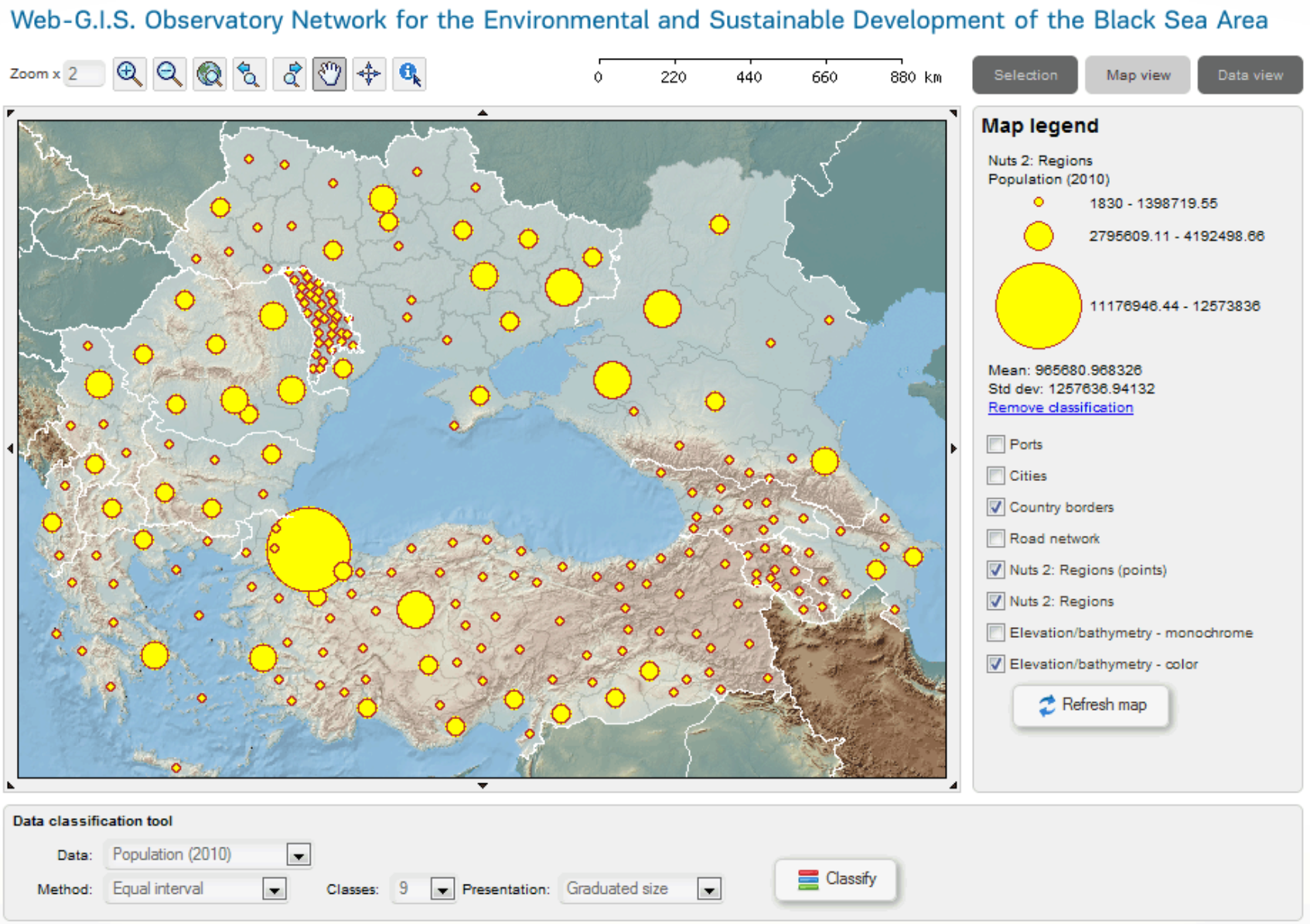
8b: Map view: Cartographical basis layers



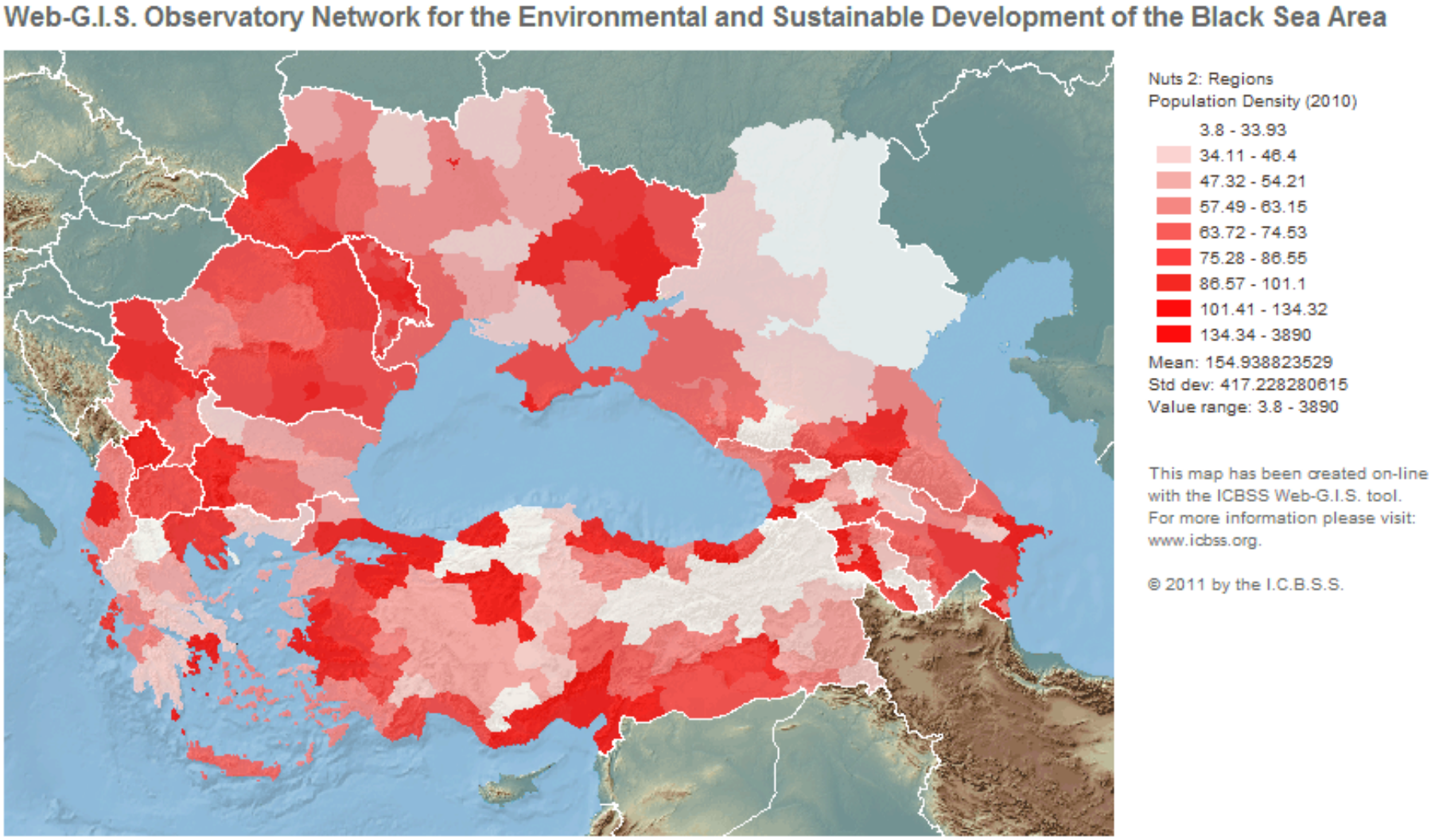
9: “Graduated colors” classification of selected data



10: “Proportional Symbols” map



11: Printer friendly map version



12: Select the “Data view”

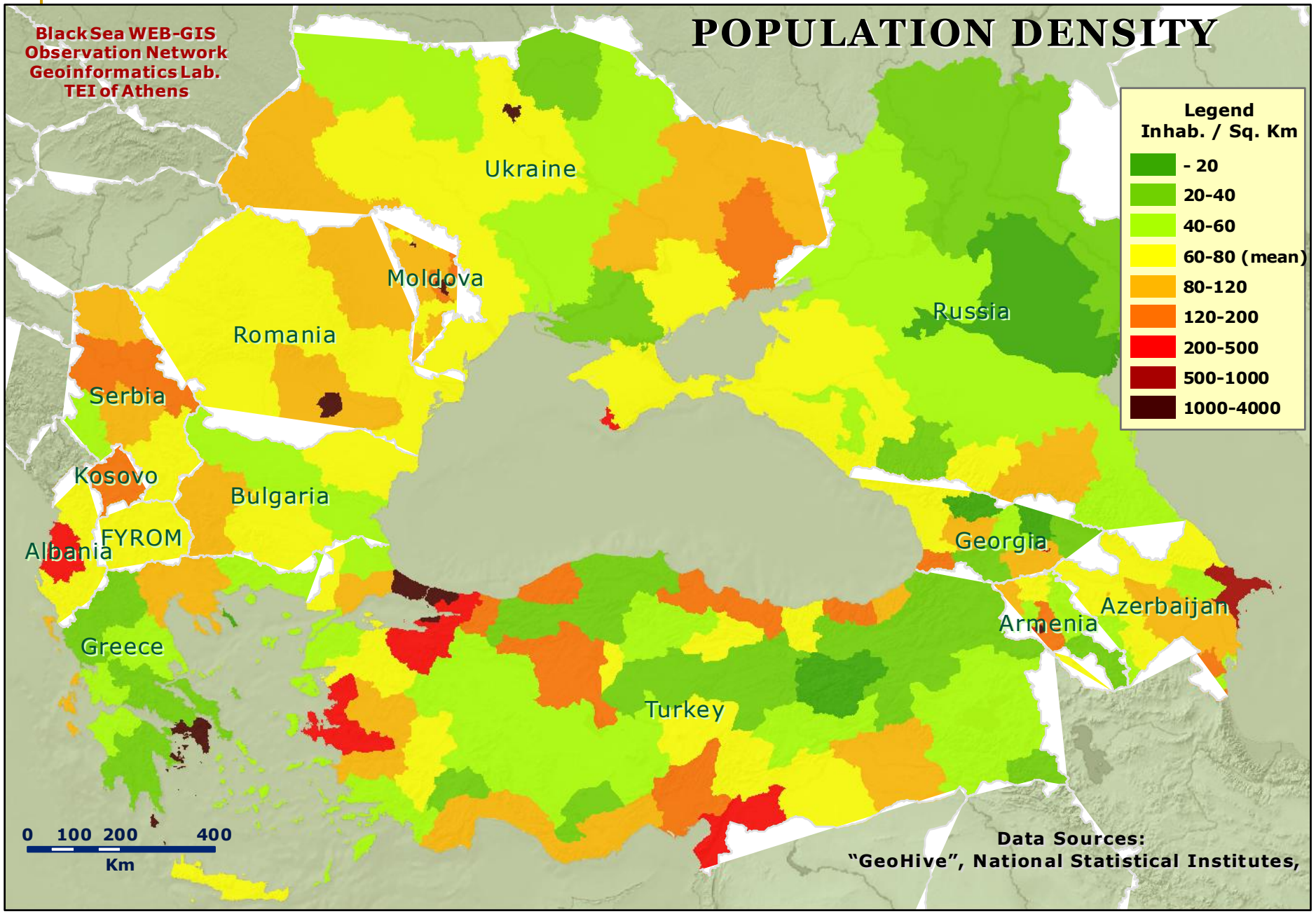
Data layer: Nuts 0: Countries						
	Population		Population		Population Change	
Definition	Population of the Spatial Unit in 2000		Population of the Spatial Unit in 2010		Percentage of Population Change between years 2000 and 2010	
Source	"GeoHive", National Statistical Institutes		"GeoHive", National Statistical Institutes		"GeoHive", National Statistical Institutes	
Measurement units	Inhabitants		Inhabitants		Percentage	
Area of application	NUTS0		NUTS0		NUTS0	
Comments						
Albania (ALB)	3087159		3194972		3.49	
Armenia (ARM)	3002594		3249500		8.22	
Azerbaijan (AZE)	7953438		8922300		12.18	
Bulgaria (BGR)	7932984		7351234		-7.33	
Georgia (GEO)	4371535		4436400		1.48	
Greece (GRC)	10964020		10787690		-1.61	
Moldova (MDA)	3938679		3563700		-9.52	
Romania (ROU)	21680974		21584365		-0.45	
Russia (RUS)	22907141		23353500		1.95	
Serbia (SRB)	7498001		7381579		-1.55	
Turkey (TUR)	67808719		70586256		4.1	
Ukraine (UKR)	48457102		45779932		-5.52	
Kosovo (KO-)	1956196		1956196		0	
FYROM (MKD)	2022547		2048619		1.29	
Features with data	14 of 14		14 of 14		14 of 14	
Minimum value	1956196 (KO-: Kosovo)		1956196 (KO-: Kosovo)		-9.52 (MDA: Moldova)	
Maximum value	67808719 (TUR: Turkey)		70586256 (TUR: Turkey)		12.18 (AZE: Azerbaijan)	
Sum	213581089		214196243		6.73	
Mean value	15255792.0714		15299731.6429		0.480714285714	
Standard deviation	18985468.8055		19231725.5228		5.53791794848	
Coefficient variation	1.24447611219		1.2569975717		11.5201859255	
Variance	360448025763000		369859266584000		30.6685352041	

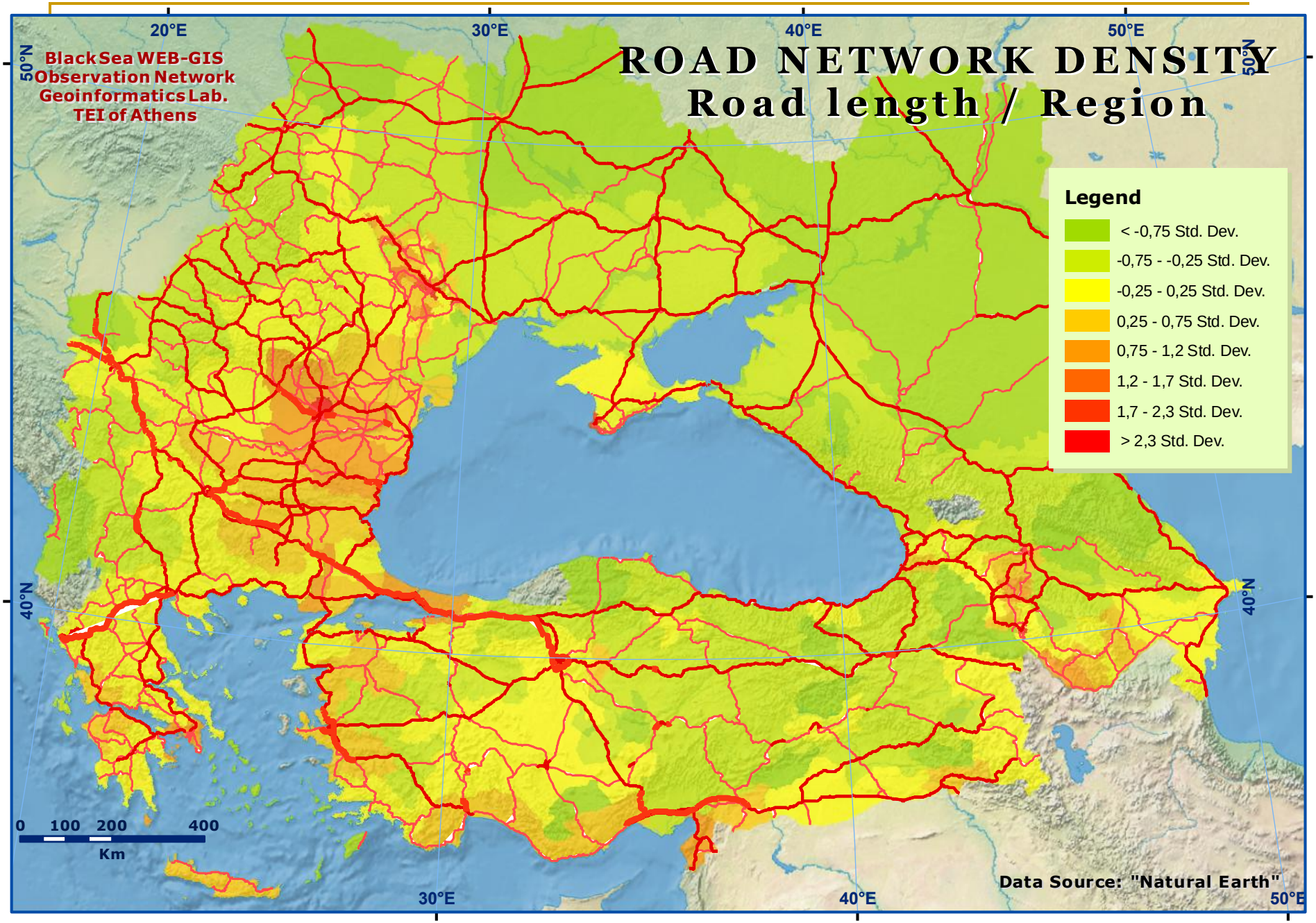
Visualization of the Geodatabase Content

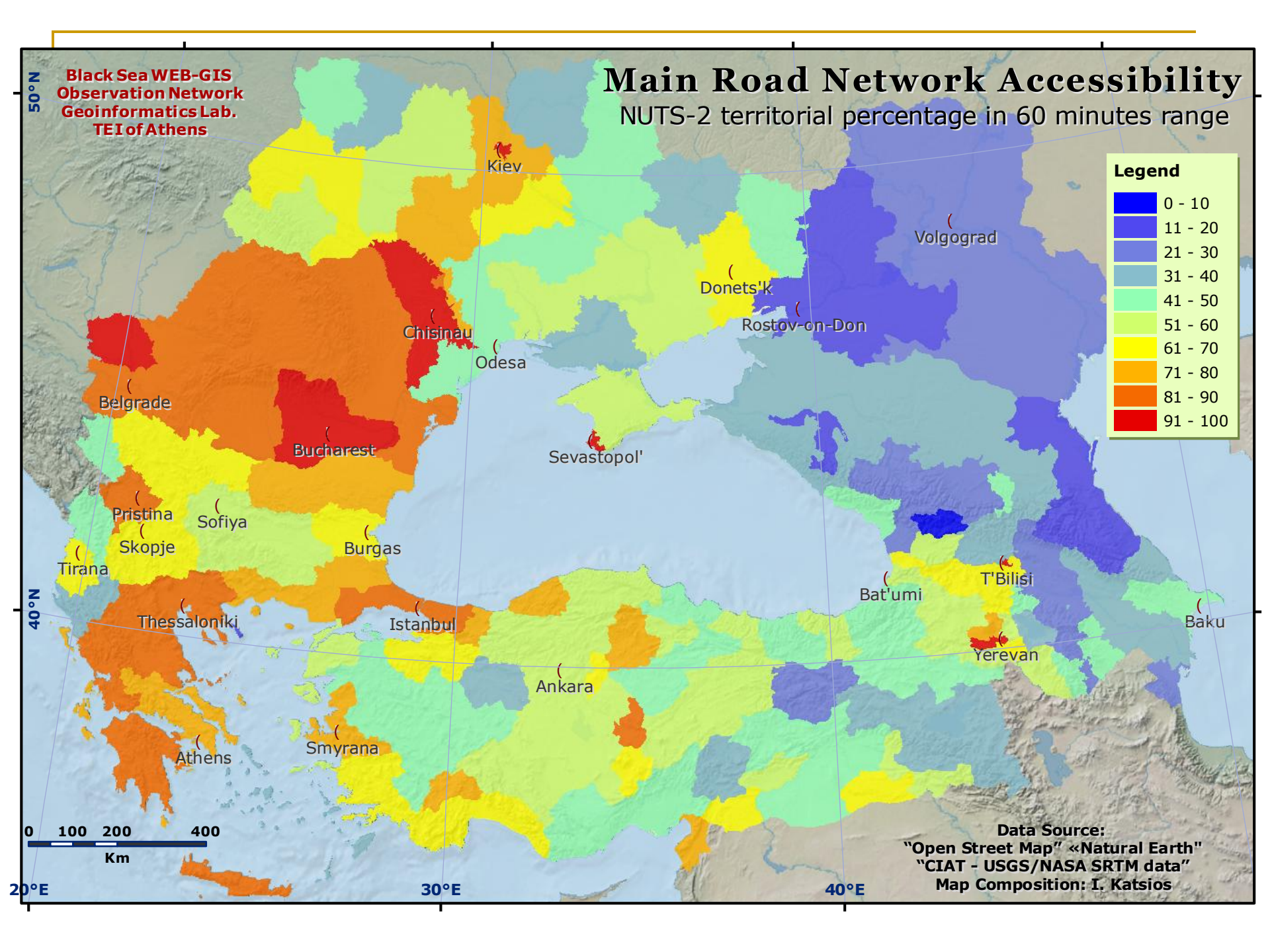
Thematic Map Library Samples

STUDY AREA COUNTRIES
Administrative Level: NUTS-0
Black Sea WEB-GIS
Observation Network
Geoinformatics Lab.
TEI of Athens
Ukraine
Moldova
Romania
Russia
Serbia
Kosovo
Bulgaria
FYROM
Albania
Georgia
Azerbaijan
Armenia
Greece
Turkey
50°N
45°N
40°N
20°E
25°E
30°E
35°E
40°E
45°E
0 100 200 400
Km
Data Source:
CADM 1.0 - 2009, "Natural Earth"

Black Sea WEB-GIS
Observation Network
Geoinformatics Lab.
TEI of Athens
Regions Administrative Level - NUTS-2
Ukraine
Moldova
Romania
Russia
Serbia
Kosovo
Bulgaria
FYROM
Albania
Georgia
Azerbaijan
Armenia
Greece
Turkey
50°N
45°N
40°N
20°E
25°E
30°E
35°E
40°E
45°E
0 100 200 400
Km
Data Source:
CADM 1.0 - 2009, "Natural Earth"


POPULATION DENSITY
Black Sea WEB-GIS
Observation Network
Geoinformatics Lab.
TEI of Athens
Legend
Inhab. / Sq. Km
- 20
20-40
40-60
60-80 (mean)
80-120
120-200
200-500
500-1000
1000-4000
Ukraine
Moldova
Romania
Russia
Serbia
Kosovo
Bulgaria
FYROM
Albania
Greece
Turkey
Georgia
Armenia
Azerbaijan
0 100 200 400
Km
Data Sources:
"GeoHive", National Statistical Institutes,


Black Sea WEB-GIS
Observation Network
Geoinformatics Lab.
TEI of Athens
ROAD NETWORK DENSITY
Road length / Region
Legend
< -0,75 Std. Dev.
-0,75 - -0,25 Std. Dev.
-0,25 - 0,25 Std. Dev.
0,25 - 0,75 Std. Dev.
0,75 - 1,2 Std. Dev.
1,2 - 1,7 Std. Dev.
1,7 - 2,3 Std. Dev.
> 2,3 Std. Dev.
20°E
30°E
40°E
50°E
50°N
40°N
0 100 200 400
Km
Data Source: "Natural Earth"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Observation Network
Geoinformatics Lab.
TEI of Athens
Main Road Network Accessibility
NUTS-2 territorial percentage in 60 minutes range
Legend
0 - 10
11 - 20
21 - 30
31 - 40
41 - 50
51 - 60
61 - 70
71 - 80
81 - 90
91 - 100
Kiev
Volgograd
Donets'k
Rostov-on-Don
Chisinau
Odesa
Belgrade
Bucharest
Sevastopol'
Pristina
Sofiya
Skopje
Burgas
Tirana
Thessaloniki
Istanbul
Bat'umi
T'Bilisi
Baku
Yerevan
Ankara
Smyrana
Athens
50°N
40°N
20°E
30°E
40°E
0 100 200 400
Km
Data Source:
"Open Street Map" «Natural Earth"
"CIAT - USGS/NASA SRTM data"
Map Composition: I. Katsios

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DEPARTMENT OF LAND SURVEYING ENGINEERING
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