

POPULATION AND TOURISM DEVELOPMENT GROWTH IN BULGARIAN COASTAL ZONE: IMPACTS AND IMPLICATIONS

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INTRODUCTION

- Around 40 % of the world's population lives within 100 km of a coastline (WRI, 2000)
- 19 % of the EU total population lives within 10 km of a coastline (EEA, 2006)
- Tourism - largest and fastest-growing economic sectors in the world (UNWTO, 2012)
- Coastal tourism – the most significant among tourism sectors (European Parliament, 2008)

FOR THIS REASONS COASTAL AREAS ARE CROWDED AND BECOMING MORE SO EVERY DAY



THE INCREASING PRESSURE ON COASTAL ENVIRONMENT...

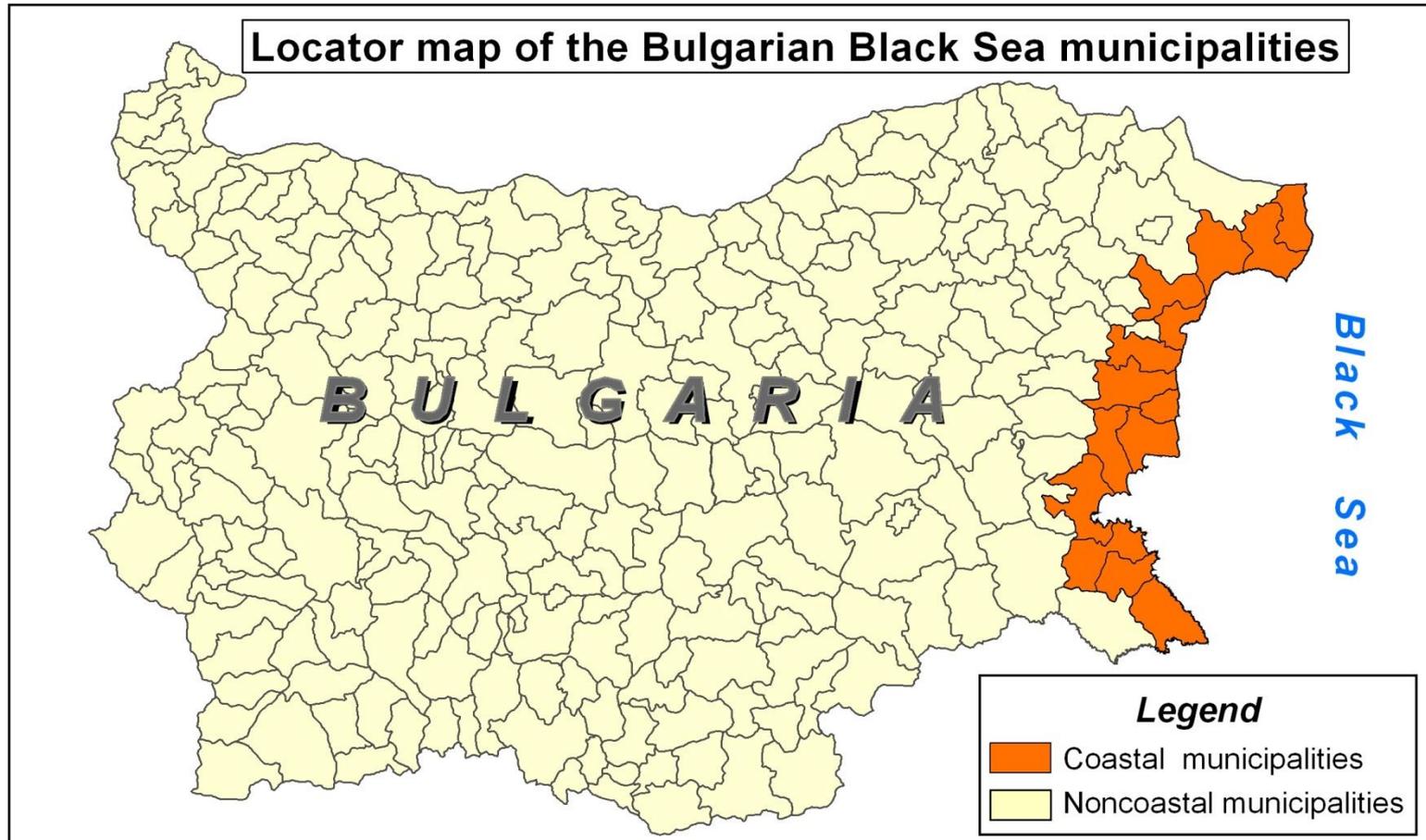


OBJECTIVES

- Investigate population trends for the period 1934-2011 and tourist dynamics for the period 1999-2011 in the coastal zone of Bulgaria with application of Geographic Information System (GIS).
- Investigate residential and tourist infrastructures over the last decade.

The research aims also to assess the evolution of population along the Bulgarian Black Sea coast as a common indicator for the human pressure on the coastal zone.

STUDY AREA

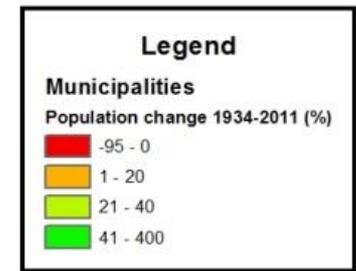
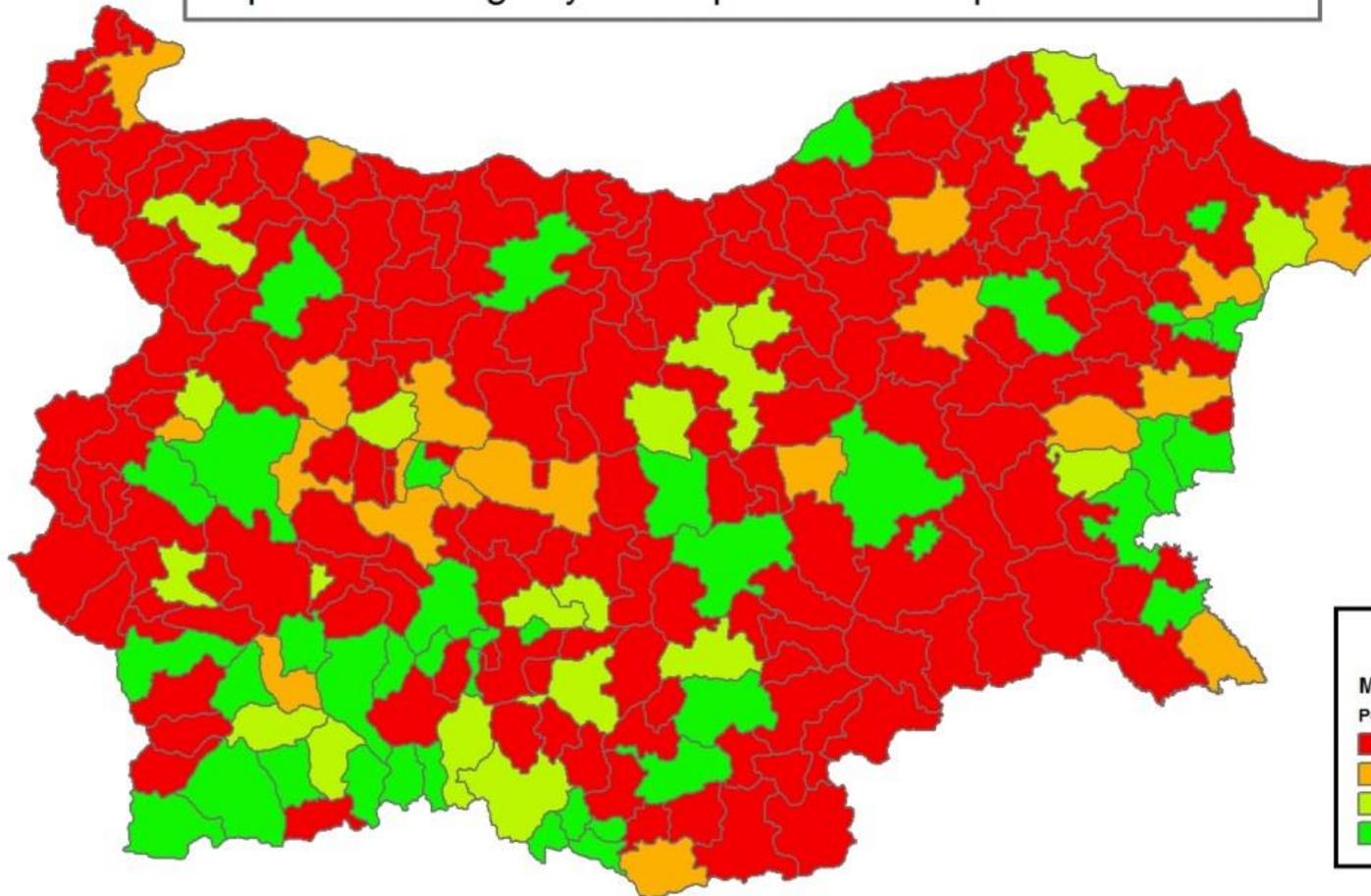


DATA USED

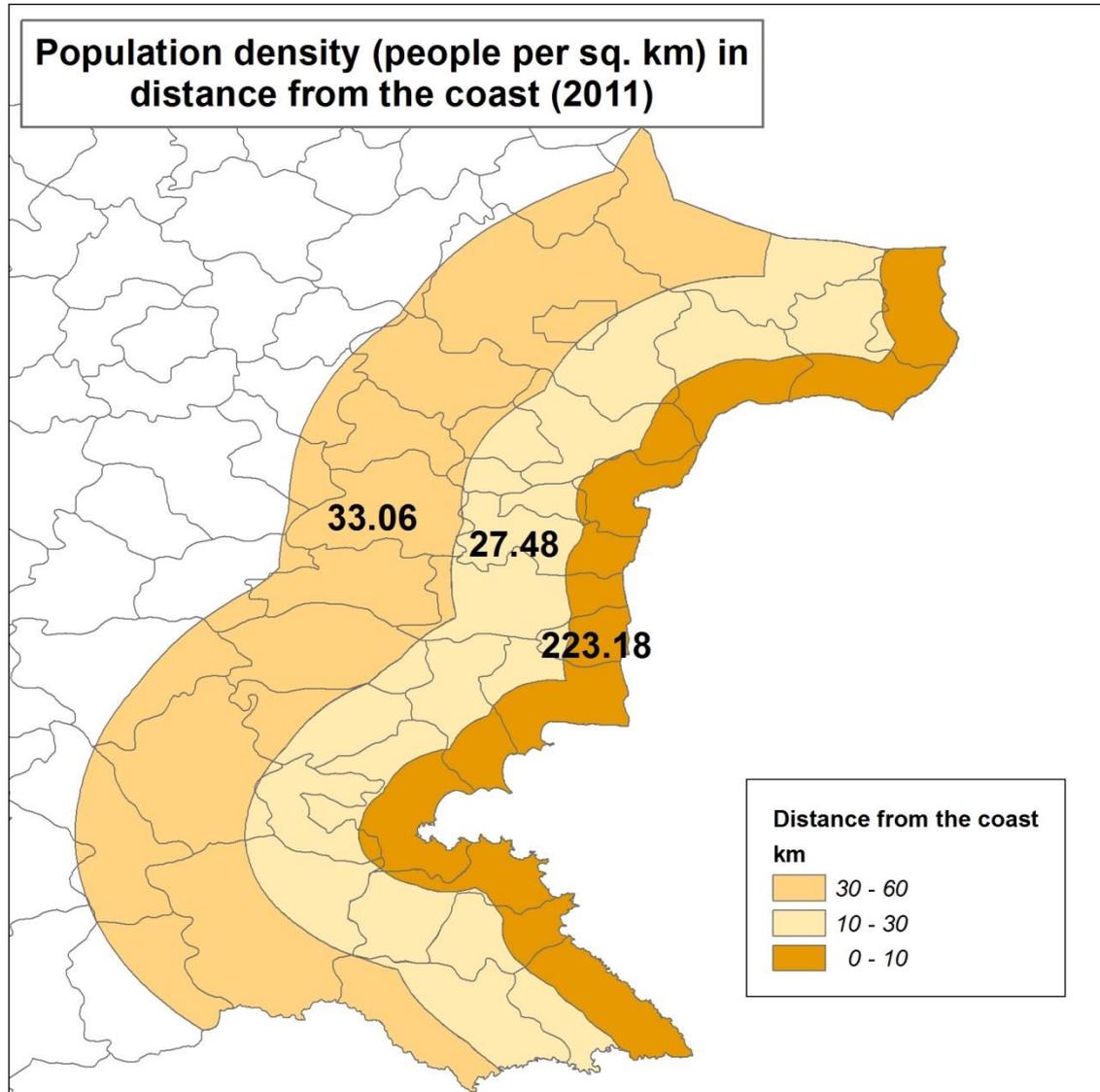
- The basic data for population in municipalities and settlements are obtained from the official Census data for the period 1934 - 2011.
- Tourist data are based on official statistics, supplied by Varna Territorial Statistical Bureau of the National Statistical Institute of Bulgaria (NSI), and contains the information for means of accommodation, number of tourist beds, number of nights spending and number of accommodated people for the period 1999-2011.
- Official data from NSI are used for newly residential buildings for the period 2004-2011.

RESULTS: POPULATION TRENDS

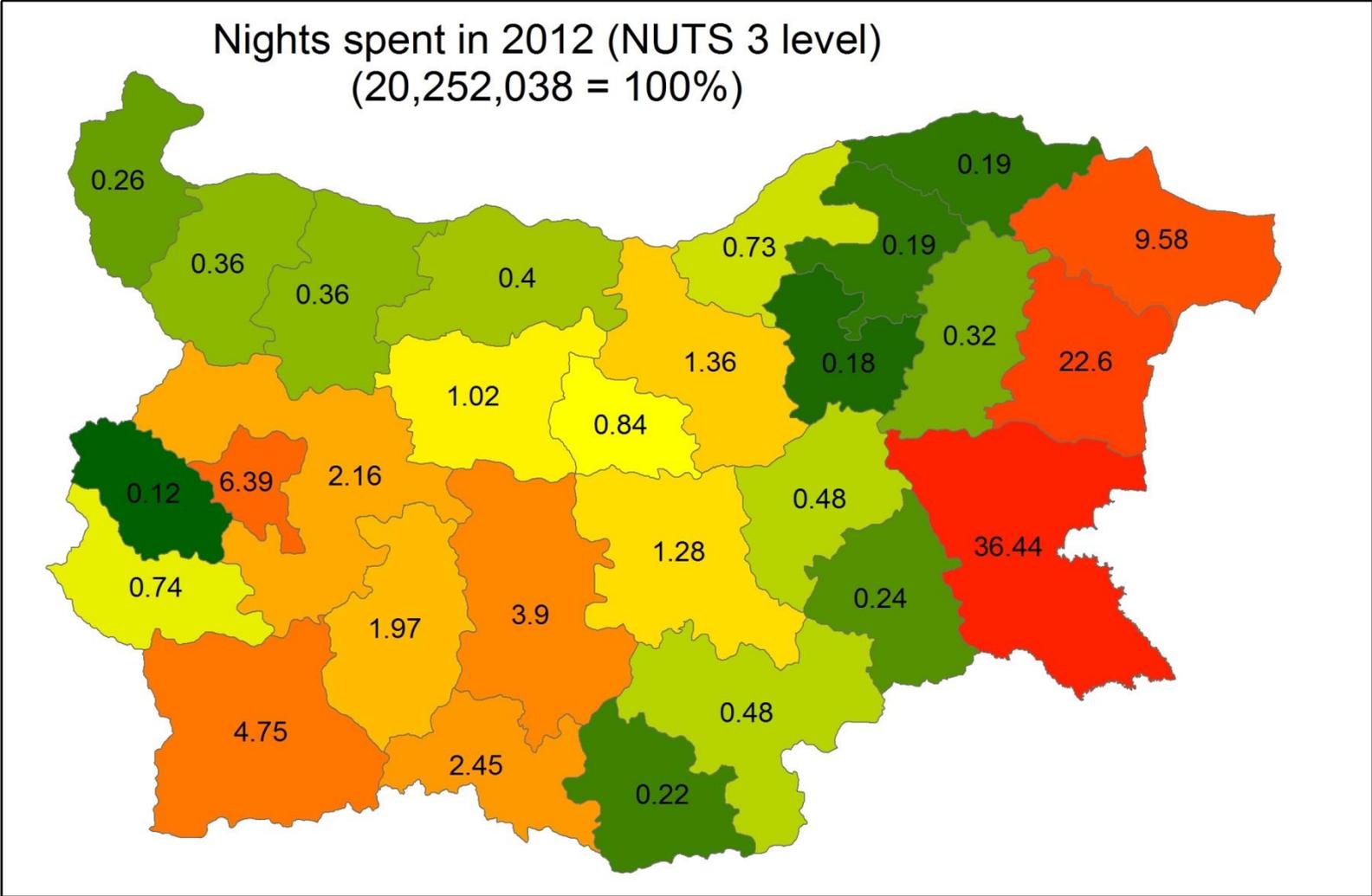
Population change by municipalities for the period 1934 - 2011



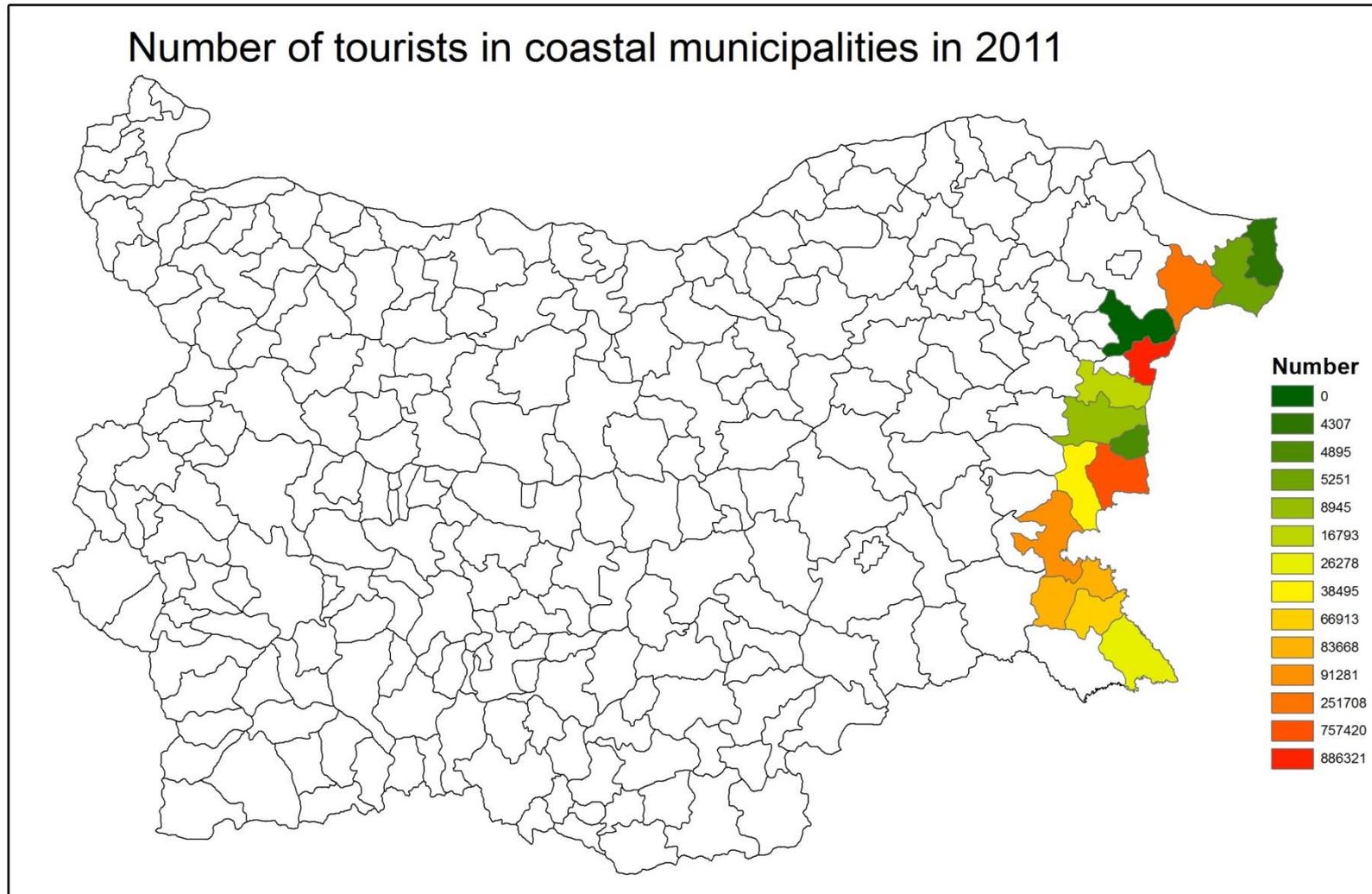
RESULTS: POPULATION DENSITY



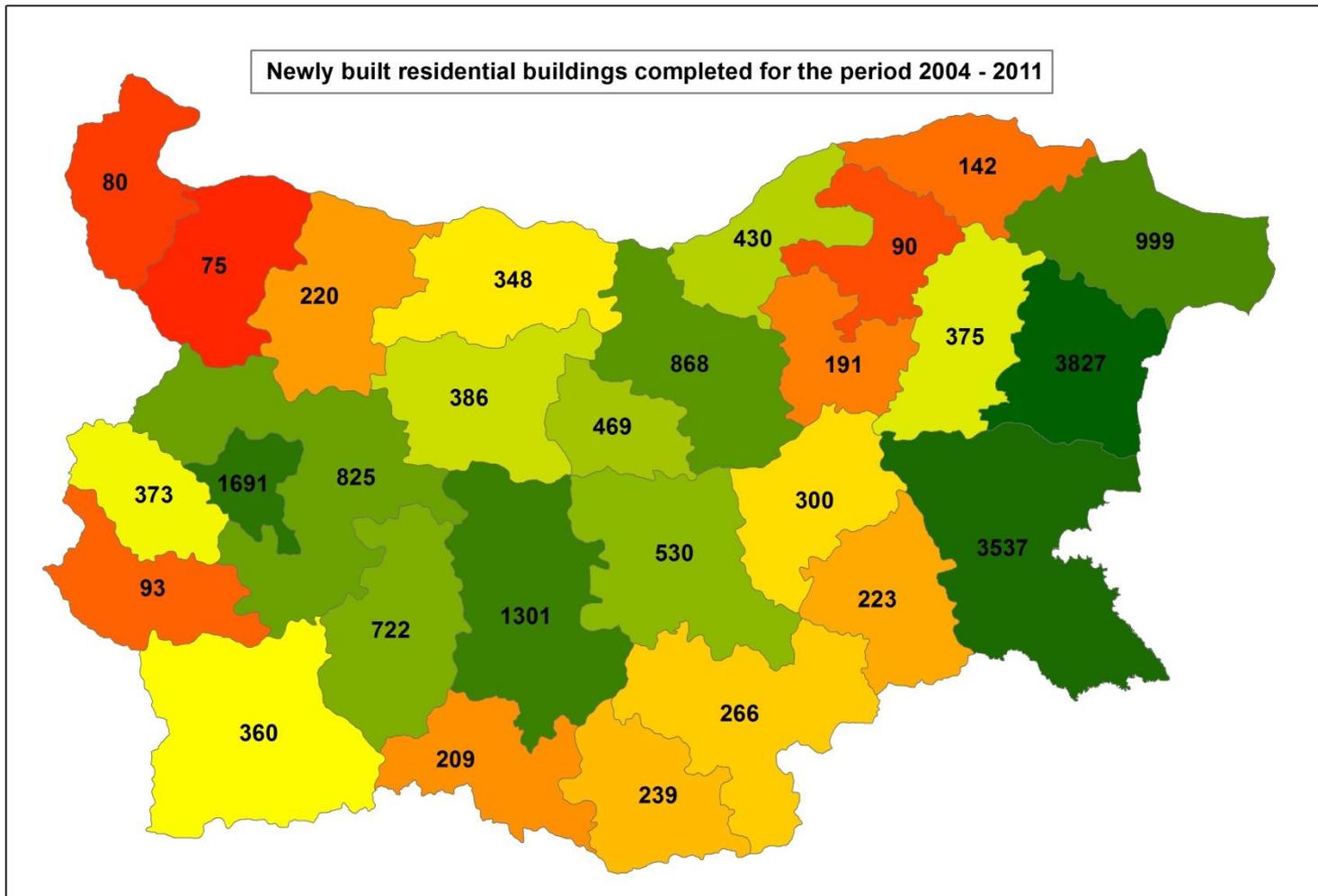
RESULTS: IMPACT OF TOURISM DEVELOPMENT - NUTS III LEVEL



RESULTS: IMPACT OF COASTAL TOURISM DEVELOPMENT



RESULTS: IMPACT OF COASTAL DEVELOPMENT



- **19 169** newly built residential buildings were completed
- **8 363** newly built residential buildings were completed in the three coastal regions, meaning over 43% of the newly buildings were situated in the coastal zone

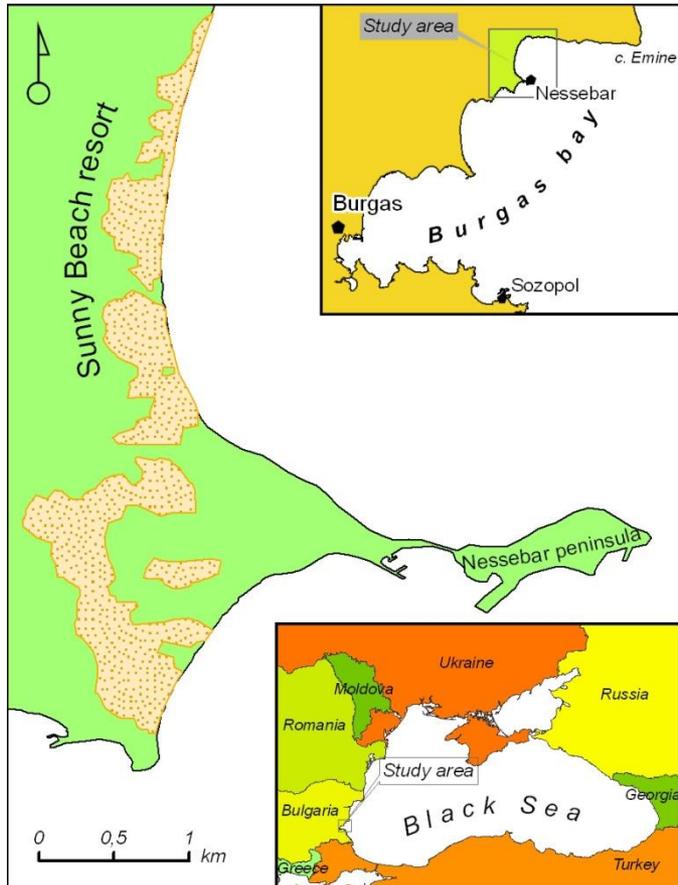
FACTS

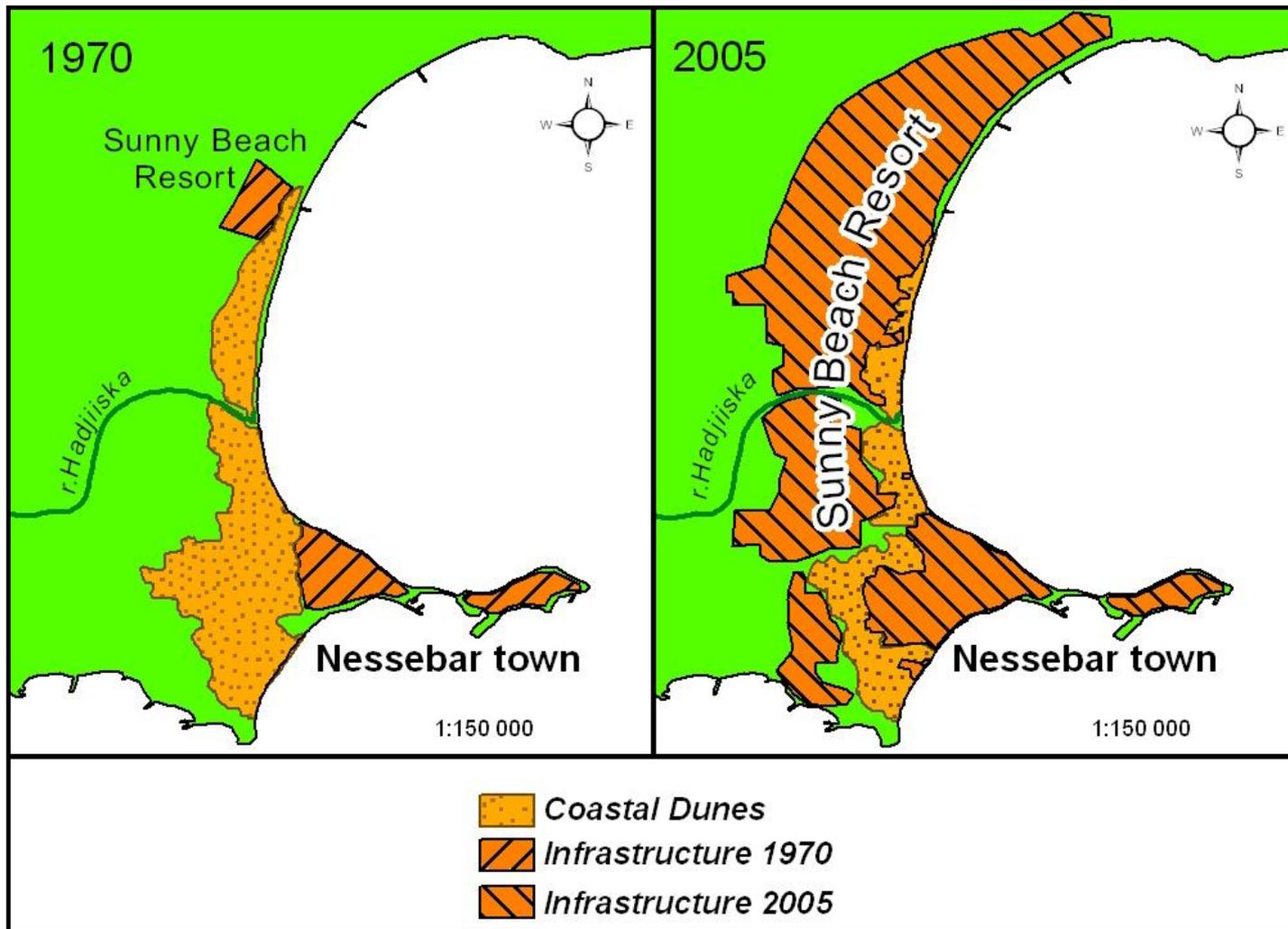
- In 2011, of the **7 364 570** people that lived in Bulgaria, more than **726 923** people lived in Black Sea coastal municipalities.
- Coastal municipalities contain **9.87%** of the nation's population, yet, only account for **5.2%** of Bulgaria land area.
- Coastal municipalities average **126** persons per square kilometer, compared with **63** persons per square kilometer population density of noncoastal municipalities.
- In 2011 the number of tourist spending in Bulgaria are **18 855 331**, as **13 156 483** (or near **70%**) are in coastal municipalities.
- Total coastal population increase in summer due to tourists with approximately **20%**, but at some municipalities more then **220%**.
- During 2004 – 2011 around **43%** of the new residential buildings in Bulgaria are built in the three coastal regions (Varna , Burgas and Dobrich).
- In 2011, in 14 coastal municipalities are situated **185 165** tourist beds, or about **65%** of all in Bulgaria
- During 1999 – 2011 number of tourist beds in coastal municipalities increased from **74 277** to **185 165** or with **147%**.

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Sunny Beach Resort – Nessebar Peninsula





- In the 1960-70s the sand dune area was **2.26 km²**
- In 2005 this area decreased to **1.25 km²**
- On the other hand, the area that has been subject to development has significantly grown: from **0.77 km²** in 1970 to **6.5 km²** in 2005

CONCLUDING REMARKS

- Existing facilities and infrastructures in some coastal municipalities could not be able to meet this increasing pressure and to reduce adequately human impacts on ecosystems and resources.
- Taking into account that coastal zone is limited land area, but very sensitive to several risks, the high population growth could be considered as one of the major hazard factors that reduces the persistence of the coastal zone.
- Both decision-makers and coastal developers are now faced with the challenge of finding a balance between benefiting from economic increase while mitigating the effects of expanded population pressure on coastal environment.

“Make optimal use of environmental resources that constitute a key element in coastal tourism development, maintaining essential ecological processes and helping to conserve natural heritage”

*Making Tourism More Sustainable - A Guide for Policy Makers,
UNEP and UNWTO, 2005, p.11-12*