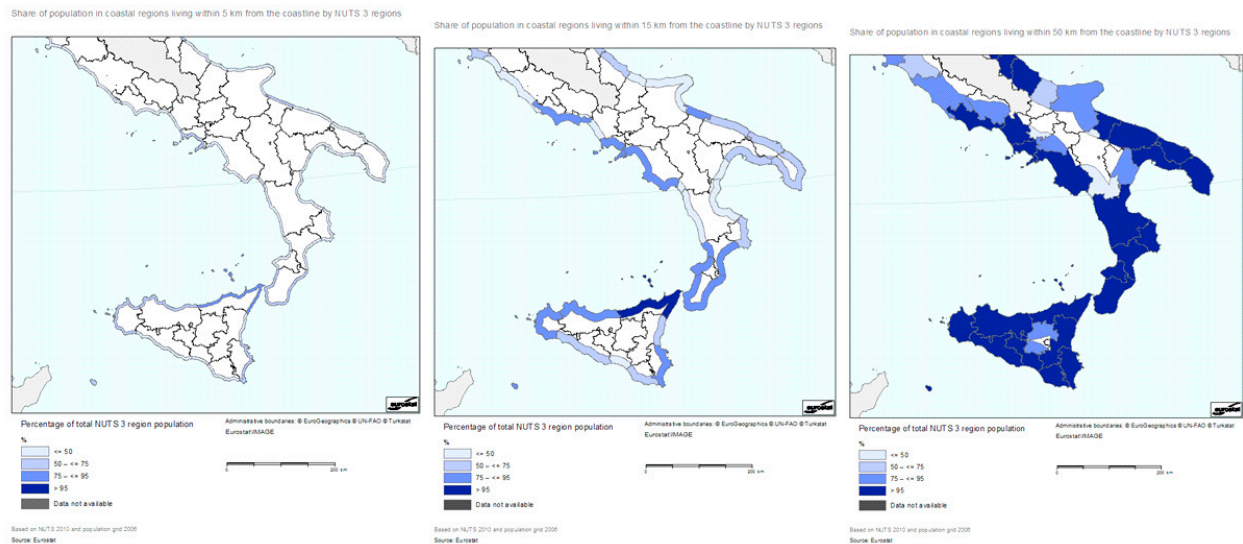


Supplementary Materials: Black Carbon and Other Air Pollutants in Italian Ports and Coastal Areas: Problems, Solutions and Implications for Policies

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1. Report Excerpt S1. World Health Organization report [1]

The World Health Organization (WHO) ‘estimates that around 7 million people die every year from exposure to fine particles in polluted air that penetrate deep into the lungs and cardiovascular system, causing diseases including stroke, heart disease, lung cancer, chronic obstructive pulmonary diseases and respiratory infections, including pneumonia. Ambient air pollution alone caused some 4.2 million deaths in 2016 WHO recognizes that air pollution is a critical risk factor for noncommunicable diseases (NCDs), causing an estimated one-quarter (24%) of all adult deaths from heart disease, 25% from stroke, 43% from chronic obstructive pulmonary disease and 29% from lung cancer....PM_{2.5} includes pollutants, such as sulfate, nitrates and black carbon, which pose the greatest risks to human health.’



^a Indicates differences in populations within 5 km, 15 km and 50 km of the coast.

Figure 1S. Map of Partial Map of Italy’s Coastal Population Concentrations [2].



Figure 2S. Map of Italy’s Population Density Patterns [S3].



Figure 3S. Map of Italy’s Core Network Ports and Other Major Ports^a [S4].

^a All 15 of the ‘Core Network Ports’ are represented, but not all of the ‘Other’ 18 ports in the system are represented.

Supplement References

1. World Health Organization (WHO) (2018), 9 out of 10 people worldwide breathe polluted air, but more countries are taking action. News release, Geneva, 2 May 2018. <https://www.who.int/news-room/detail/02-05-2018-9-out-of-10-people-worldwide-breathe-polluted-air-but-more-countries-are-taking-action>. Accessed 9 October 2020.
2. Eurostat (2020) Share of population living within coastal strips South Italy2.png. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Share_of_population_living_within_coastal_strips_South_Italy2.png. Accessed 16 September 2020
3. [to be completed]
4. [to be completed]