

SCIENCE FOR THE ENVIRONMENT Conference, Aarhus, 5 & 6 October 2011

Special Session: The impacts of green energy policies on the transformational processes within the context of the contemporary rural landscape. A comparative analysis of three European national and regional scenarios (France, Italy and Spain)

The Spanish case studies:

- 1. Wind power landscape perception in the Autonomous Region of Andalusia - Alpujarra and Valle de Lecrín (Marina Frolova & Belén Pérez, University of Granada);**
- 2. Solar PV power plants and Andalusia's landscapes (Matías Mérida, Rafael Lobón & M^a Jesús Perles, University of Málaga)**
- 3. Wind energy planning in the Autonomous Region of Andalusia (M^a del Pilar Díaz Cuevas, University of Sevilla)**
- 4. Wind and solar PV power landscapes in the Autonomous Region of Castilla y León (Daniel Herrero, University of Valladolid)**

Spanish Network on Renewable Energies and Landscape (RESERP)
<http://reserp.jimdo.com>



1. The context of implementation

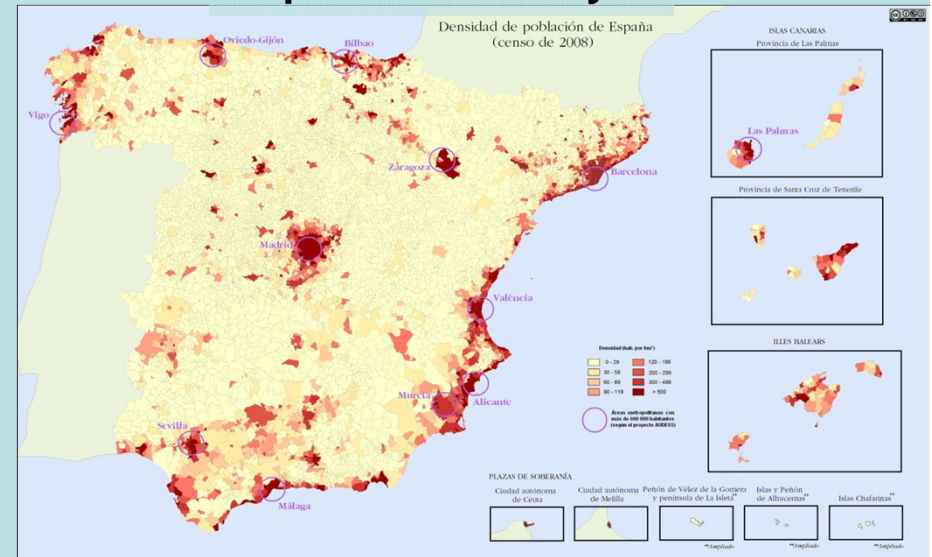
- Very successful implementation of renewable power.
- Installed capacity of wind power reached 19959 MW in 2010.
- Installed capacity of solar PV power augmented up to 4188 MW.

1.1. Geographical potential

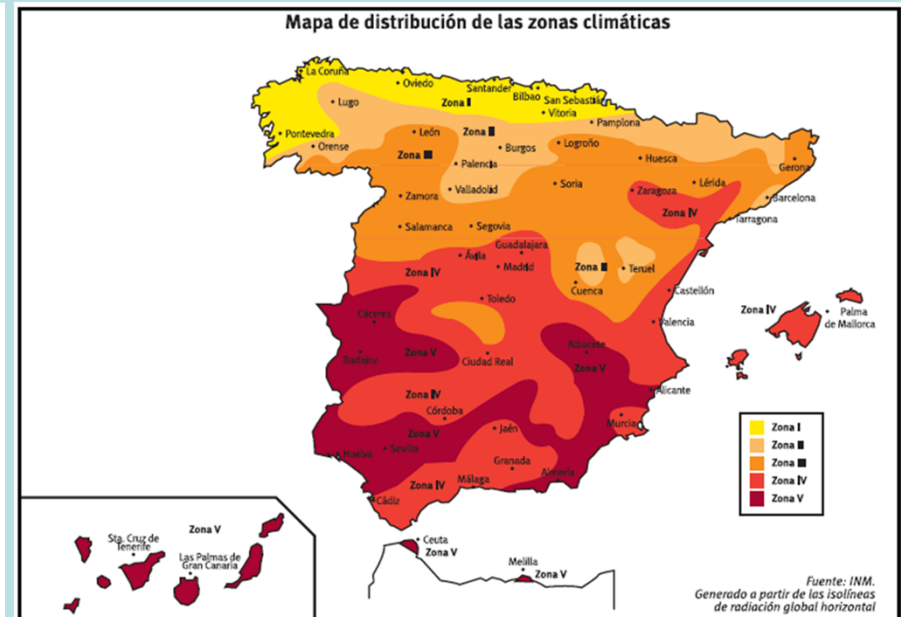
Wind resources



Population density



Solar resources



Fuente: INM. Generado a partir de las isonivelas de radiación global horizontal
 Instituto Nacional de Meteorología, IDAE

1. 2. Spain's planning regime and financial support system

- Spanish renewable power policy is based on quantitative targets and economic incentives (feed-in tariffs).
- The application of wind energy is governmental policy, but changing a zoning scheme is a regional political decision.
- Tendency to top-down, technocratic, hierarchical way of thinking.
- At local level wind power promoters should respect regional and local land-use plans.
- Limited role of local authorities in the decision-making processes on energy infrastructures.

1.3. Public participation

- Tendency towards a top-down, technocratic, hierarchical way of thinking about how the planning system has to be shaped.
- National policy has been keeping grass-roots initiatives at a distance in the formal decision-making process on Spanish renewable planning.
- Very limited role given to the opinion of local stakeholders and of nature protection organizations in the formal decision-making process

1.4. Landscape values and landscape policy

- Absence of specific legislation on landscape management and conservation of landscape policy in Spain up until the 2000's.
- Absence of powerful landscape protection organisations rooted in socio-cultural traditions.
- Lack of strong and effective opposition to wind developments even in the autonomous regions which have landscape protection laws.
- Landscapes impacts of wind power infrastructures are hardly taken into consideration in the Spain's energy policies.
- In spite of essential changes due to application of the European Landscape Convention (2000), which encouraged several autonomous regions to incorporate landscape as an important issue in land use regulation, they are still out of step with the development of renewable energy policies.

2. Study case nº 1. Wind power in the Autonomous Region of Andalusia - Alpujarra and Valle de Lecrín

2.1. Geographic and socio-economic data

Total Andalusia's installed wind power capacity of 3000 MW by 2011.

The Comarcas of Alpujarra and Lecrín Valley (Andalusia, Spain) consist of 38 municipalities with a population of 52 thousand inhabitants.

Traditional agrarian character.

Exceptional landscapes and natural, ethnological and cultural resources.



Study area



There are seven wind power plants in the study area, and a few other projects under development.

Typical landscape of Alpujarra locality

Material and method

- Field observation and in-depth interviews with the different stakeholders involved in the development of a wind power project (10) (farmers, experts, local city councils, local tourism promoters, representatives of the Natural and National Park of Sierra Nevada ...).
- The interview centred on five main issues: the relationship between the interviewee and the territory being studied, the perception of renewable energies, their attitudes towards the wind farms that had been installed, the relationship between wind power and other business activities in these areas and lastly, their attitudes towards the emerging wind power landscapes.



Preliminary conclusions

- We have not detected a clear opposition to the renewable energy systems installed so far in this area
- Although there are certain doubts about a possible excessive proliferation of such projects.
- The local people do not want their region to become identified with wind-power landscapes.