Renewables development in Europe

How do we enable it through integrated spatial planning in combination with ecosystem protection?

Melina Monjour

Associate Energy Systems – European Climate Foundation

22 October 2020

European Climate Foundation

Why integrated & strategic spatial planning is crucial for RES development in Europe?

Spatial planning in a nutshell

- Spatial planning is a dynamic and complex governance process with multiple interactions between different authorities and across policy sectors
- Each of these authorities has different planning scopes (national, regional/federal, local/municipal)
- Spatial-planning frameworks and instruments differ per Member State: there are different degrees of centralisation-decentralisation of competences and powers, various regulatory systems and responsabilities for energy. This may result in relatively long approval process with great uncertainty about the outcome
- Transnational coordination or planning is generally absent among MS (e.g national MSP are largely fragmented with little emphasis on sea-basin planning)
- The criteria for designating suitable areas for RES are numerous (resource potential, technical feasibility, topography, grid connectivity and other social, political and environmental constraints)

Why integrated and strategic ?

- It enables the creation of a strategic/holistic vision that focus on synergies and optimal coordination to ensure (1) coherence across sectors and scales and (2) to maximise RES, efficiency & interconnections opportunities for a certain area, while reducing costs and improving people's well-being

- It considers and attempt to reconcile different land functions, societal and environmental factors from the outset of the planning process, in contrast with traditional spatial planning

- It provides dynamic interactions by fostering collaborative, expert based, monitored approaches to avoid potential negative impacts

How do we deal with limited space & conflicting uses of space when planning the energy transition?

- **Overcoming the thinking that spatial planning is only an economic and infrastructure issue** > it is a wider societal issue that can bring benefits for society (employment, local development) and help achieve nature conservation objectives. This can also help in shifting people's perception on RES

- **Adopting a systematic collaborative planning approach**: Early community stakeholders' participation and consultation in the spatial-planning process is a key factor for ensuring legitimacy and public support for RES installations (improve participation techniques)

- **Increasing multi-level coordination** across governmental levels and sectoral departments to identify optimal locations for RES

- **Facilitating RES mapping and geo-data spatial interpretation** as meaningful decision support tools to maximise RES potential while avoiding impact on landscape and nature. These tools can also enhance public and experts' participation in spatial planning

- **Using up-to-date and harmonised ecological data** to ensure that effective mitigation and compensatory measures to prevent or reduce these impacts are formulated and implemented adequately

- **Integrate energy infrastructure to minimise widespread environmental intrusion** (e.g transmission lines in spatial corridors, integrated marine solar/wind farms, agriphotovoltaic)

- **Use land that has become obsolete** (brownfield, mining sites/contaminated land/ old industrial land or landfill) as a win-win solution to gain space

- **Build RES on less impactful land** where possible (e.g rooftop solar, floating solar in lakes and reservoirs, agriphotovoltaic)

How do we enable RES development with ecosystem protection?

- Any form of energy installation has environmental impacts > zero impact scenarios don't exist
- These impacts change according to the RES technology and the scale of deployment > general impacts usually range from birds' collision, displacement, habitat fragmentation, habitat loss and degradation etc. They will become more apparent in the next years
- RES and related infrastructure will need to be developed in ways that take full account of biodiversity concerns, as well as wider emission reduction goals: it will be important to **assess, minimise, and manage those impacts** (e.g expert-based tools such as new GIS technologies can be effective in integrating Natura 2000 issues in the spatial planning process)
- Important to consider **biodiversity from the oustet of planning** to be able to properly **mitigate negative impact** but also take positive steps to promote trade offs and **benefits for biodiversity**
- For offshore RES, favour an **eco-system based approach** that look at the entire sea basin and ecosystems at a whole > need to stenghten regional and transitional planning and cooperation
- A strategic approach to the assessment of cumulative effects of plans is fundamental to identifying "areas suitable for low-ecological-risk deployment" (e.g wildlife sensitivity maps)
- Prioritise degraded or intensively farmed land when bulding RES (e.g solar parks can improve biodiversity)