



SolarPower
Europe

Solar, Biodiversity, Land Use: Best Practice Guidelines

SolarPower Europe

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State of play

1. **>45% RES** and **1TW solar** in 2030, **100% RES** and **5TW solar** by 2040
 - Need for the utility-scale solar deployment
2. **Biodiversity loss:**
 - **85%** of global wetland areas are lost and **1 million** animal species are endangered
 - In EU, **>80%** of continents habitats are under critical conditions
3. **80% of the EU land** is used for settlement, agriculture, forestry and infrastructure

Key solar facts

- **Solar takes up small land area** relative to the EU's surface area:
 - Supplying current EU power generation with solar energy would require only **0.26%** of the EU land
 - Whereas, agricultural land takes up – **38% of the total land area of the EU**
- **Versatile technology:**
 - **Innovative technologies** (e.g. building-integrated PV, agrivoltaics, floating PV, etc.) can bring **positive environmental benefits**, **minimise land competition concern** and contribute **to tackling climate change**
- **Solar PV projects** can **deliver positive impacts on biodiversity** and **improve soil health** in comparison to conventional or monocultural agricultural uses

Overview of the report

- **Overview of nature legislation at EU and national levels; and Member State examples**
- **Addressing the potential impacts on land use from solar PV projects and outlining key actions for suitable land identification**
- **Providing best practices:**
 - solar PV projects and initiatives that protect and enhance biodiversity;
 - and best practice guidelines on how to incorporate environmental considerations across solar PV phases



➤ **Artificial surfaces**



➤ **Water bodies**



➤ **Agricultural areas**



➤ **Forests**



➤ **Wetlands**



Toolbox: sustainable land use for solar PV projects

Example: artificial land

- Classification
- Potential benefits: biodiversity enhancement
- Assessment needed for some types of artificial land
 - **Port areas, car parks, areas nearby road and rail networks** – sealed land
 - Nearby ecological features to be assessed (forests, etc.)
 - **Degraded land** (construction sites, waste land)
 - Technical aspects such as grid availability
 - Artificial sites like **abandoned airports**, etc. –
 - Appropriate site assessment and project design needed

Key recommendations

- More **integrated spatial planning** is required at a local level. This can help to **identify suitable land** for **renewable energy** project development
- Member States **must publish guidelines** on how to conduct the **SEA** and **EIA** in relation to solar projects and the Commission should **ensure the circulation** of **SEA** and **EIA best practices** in relation to solar PV
- **A set of standardised methods** and data on **ecological features** of areas across Member States is needed
- **Appropriate training schemes** must be provided for regional and local authorities to **facilitate EIA** and **SEA implementation**, and ensure a sufficient **understanding of land use** and **its impacts**.
- Responsible authorities conducting EIA/SEAs should **create stakeholder engagement** and **facilitate discussions** amongst the relevant experts, NGOs and local communities



Integrating environmental considerations into solar PV projects



Thank you for your attention.

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