QUICK TIPS

INTEGRATING ENVIRONMENT AND CLIMATE CHANGE IN THE SUSTAINABLE ENERGY SECTOR

The sustainable energy sector has the potential to contribute to several Sustainable Development Goals and targets, beyond providing access to energy for all: climate change mitigation and adaptation, curbing pollution, improving public health and addressing land degradation. To deliver these benefits, however, actions must be carefully planned, designed and implemented. This note provides quick practical tips for maximising opportunities for environmental sustainability and addressing environmental and climate-related risks in the sustainable energy sector.

Contribute to international environment and climate commitments

- Verify how the activities proposed contribute to the **Rio Conventions** related to climate change mitigation and adaptation, biodiversity, and combating desertification. You can get inspiration from the document *Guidance on activities in the energy sector that qualify for Rio markers.*
- Check if the energy sector is part of a partner country's Nationally Determined Contributions **(NDCs)** and prioritise interventions that will support its implementation.

Minimise adverse impacts on the environment and climate

- Promote **cleaner electricity production**, including through the use of renewable energy and measures such as switching to lower sulphur fuels or cleaner technologies.
- Integrate a **waste management** component, to adequately manage spent batteries (e.g. from solar photovoltaic (PV) systems) and other waste from renewable energy and energy efficiency projects. Obsolete equipment may contain highly polluting substances such as PCBs (polychlorinated biphenyls) in transformers and mercury in fluorescent light tubes.
- For solar systems, always account for the **water quantities needed** for cleaning of the photovoltaic panels.
- Ensure **biomass and biofuel projects** do not involve the conversion of natural forests or biodiverse ecosystems, and promote the **use of native species**. Also, ensure that the loss of soil nutrients is properly compensated for.
- Use *Strategic Environmental Assessment (SEA)*, *Environmental Impact Assessment (EIA)* and/or *Climate Risk Assessment (CRA)* to identify alternatives that minimise adverse impacts on the environment and on climate vulnerability.

Enhance environmental sustainability and low carbon development

- Systematically support the **transition to low carbon energy** production (renewable energy and energy efficiency).
- Promote the **reduction or elimination of fossil fuel subsidies**.
- **Reduce reliance on non-sustainable biomass** as an energy source to address indoor air pollution and land degradation. Instead, promote: clean cooking stoves, agroforestry (for biomass), domestic biogas systems, sustainable charcoal value chains and co-generation using bagasse (a by-product of sugar production).
- Apply the latest standards to assess the **sustainability of biomass** (Art. 29(2) to (7) and (10) of the EU Renewable Energy Directive 2018/2001/EU) and conduct **climate emissions studies** that account for all operations, including transport.
- Promote **waste-to-energy systems**, e.g. use of biogas from landfills, animal waste, and agro-industrial waste and wastewater treatment facilities as sources of energy.
- Promote **energy efficiency** from both demand and supply sides, e.g. fuel blending, cogeneration, retrofitting of production processes and buildings, building codes, eco-labelling of appliances. Ensure the use of certified devices, avoiding low-cost equipment being obsolete within a short period.
- Promote **technical and vocational training** in renewable energies and energy efficiency to satisfy a growing market for green jobs.

Promote resilience to ecosystem degradation and climate change

- **Climate-proof** infrastructure design, considering the effects of climate change during the lifespan of the project (e.g. water flows in case of hydropower schemes; impact of increased temperatures on the transport and distribution of electrical power; exposure of infrastructure to extreme weather events).
- For **hydropower and biomass projects**, promote sustainable land management of the watershed. Pollution and land degradation can accelerate siltation and eutrophication of reservoirs, and alter river flow patterns.
- Support **capacity building** for regulatory and planning authorities and operators, to deal with climate change impacts.
- Use SEA, EIA and/or CRA to identify opportunities to build climate resilience and address the impacts of environmental degradation on sector or project performance

Integrate environment and climate change in budget support to the energy sector

- Use **Strategic Environmental Assessment** to strengthen the environmental sustainability and climate resilience of the energy sector strategy and the EU support programme, including the selection of performance indicators.
- If there are significant environmental or climate-related risks or opportunities, ensure appropriate **performance indicators** are included.
- Include environmental and climate-related themes in the energy **policy dialogue**.
- Provide technical assistance to strengthen the partner **government's capacity** on environment and climate change.

Integrate environment and climate change in investments

- Ensure that **environmental safeguards** used by lead and intermediary financial institutions are up to EU standards.
- In the case of hydropower investments, ensure the project is aligned to a **river basin management plan**.
- Whenever possible, promote Strategic Environmental Assessment to ensure the project pipeline responds to an environmentally-sensitive energy sector strategy and is aligned to climate change objectives (e.g. **NDCs**).

Further information and support:

- Contact INTPA, MENA and ENEST Environment & Climate Change Mainstreaming Facility: INTPA-GREENING-FACILITY@ec.europa.eu | MENA-GREENING-FACILITY@ec.europa.eu | ENEST-GREENING-FACILITY@ec.europa.eu
- Guidelines "Integrating the environment and climate change into EU international cooperation and development".
- Guidance on activities in the energy sector that qualify for Rio markers.
- Energy Sector Note for integration of environment and climate change.
- Sustainable Energy Handbook

* All documents are available in capacity4dev.eu (public groups: Environment, Climate Change and Green Economy; and/or Energy)