**Annex E**

**Measures to prevent, mitigate and compensate as completely as possible any adverse environmental effects caused by Programme implementation**

In particular, in order to achieve the objectives proposed under *Priority 1*, SO2.2 – Promoting energy from renewable sources in accordance with Directive (EU) 2018/2021, including the sustainability criteria set out therein; SO2.4 – Promoting climate change adaptation, disaster risk prevention and resilience, considering the ecosystem-based approaches; SO2.7 – Strengthening the protection and conservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution, considering the ecosystem-based approaches, the following **measures to prevent and mitigate the adverse effect on the environment**:

**Air**

With regard to air protection, the general priority measures for air quality are as follows:

* fitting and maintaining green infrastructure in both urban and rural areas, with the protection and conservation of biodiversity especially in protected areas, natural capital and environmental indicator with high impact on air quality;
* environmental regulation of sources with significant impact;
* correlating the planning of several sectors (urbanism - energy strategy - mobility planning, etc.);
* energy efficiency and reduction of fuel consumption through thermal rehabilitation;
* implementation of BAT document recommendations at IPPC installations;
* identification of financing programs for the development of the county, communication and public involvement in the environmental decision;
* planning and setting objectives through the Local Environmental Action Plan;
* integration of environmental issues in local public administration decisions;
* providing support through consultancy for the implementation of energy efficiency projects;

**Water**

The global measures for the prevention and reduction of water pollution to be adopted under the projects to be developed through the Programme are as follows:

* In case of any sustained activity, it must be ensured that the state of underground waters or water courses does not deteriorate. To keep a good state of waters and water bodies, it is important to incorporate preventive measures in projects involving investments in constructions from the stage of design.
* Prohibition of the accidental dumping and storage of waste of any kind on the banks or in riverbeds;
* Covering with soil and vegetation of the surfaces occupied by landfills for municipal and industrial waste;
* Controlling the storage and disposal of solid waste, so that harmful substances do not infiltrate the groundwater;
* Prevention of water pollution with fertilisers or pesticides from agriculture, avoiding water eutrophication;
* Monitoring watercourses in terms of quality, quantity and potential sources of pollution, interventions for the retention of floats of anthropogenic origin;
* Construction of dams, raising dykes and ensuring efficient management to lower the risks of pollution by industrial operators through accidental spill prevention plans;
* Construction of special basins for the collection of waste and residues, in order to prevent their direct discharge into surface waters;
* Proper organization of drinking water and sewerage systems at local level;
* Construction of wastewater treatment plants or systems at settlement level;
* Destruction by disinfection of pathogens contained in the wastewater from some institutions (hospitals), slaughterhouses, meat industry units;
* Equipping with systems for the containment and collection of chemical/radioactive pollutants in the wastewater of industrial units, in order to retain and neutralise potentially toxic chemicals
* Adopting rapid response measures for cleaning pollutants from water in case of accidental pollution, and flood response.

In addition and in general, a coordinated cross-border cooperation must be prioritized to protect wetlands and the quality of ground waters, as well as interventions to reduce pollution and waste disposal in relation to the management of floodable areas and coastal areas.

**Biodiversity**

Regarding the measures to prevent, mitigate and compensate the impact on biodiversity in the programme area, the protected natural areas described in Chapter 2.4 will be adopted.

In accordance with the Programme, Priority 1 includes measures that can bring improvements to the conservation status of habitats and species in the Programme area in the 4 Romanian counties and in the 4 Hungarian counties.

The aims related to the protected natural areas and the Natura 2000 sites and the necessary actions to achieve the purposes are presented in the management and maintenance plans. In the case of the elements of the programme in which the protected areas /Natura 2000 can be affected directly or indirectly, environmental impact evaluations are needed and, if Natura 2000 sites are impacted, an estimate of the Natura 2000 impact will be prepared, taking also into account the provisions of the relevant national legislation. For this purpose, it must also be examined the possibility to observe the management/maintenance plans. At the touristic exploitation of the natural potential of the area, the stress capacity of areas of value from the perspective of nature conservation must be considered and efforts must be made to ensure a sustainable tourism and nature-oriented.

**Climate change**

For climate change issues, the recommendations and measures are mainly adaptation-related and are applicable to both Romania and Hungary. These recommendations and measures are in line with the agreed country programme documents and relate to:

* promoting effective prevention and quick-response systems in case of extreme weather phenomena;
* promoting natural water retention;
* minimising the risk caused by periods of excessive heat, by increasing the areas of green spaces;
* development of construction standards and solutions to improve the thermal insulation performance of buildings, in order to make energy consumption more efficient;
* implementation of modern solutions in the field of construction to promote renewable energy sources;
* promoting construction materials and solutions appropriate to the potential effects of climate change;
* expanding the application of technology and practices for the use of renewable energy sources to ensure the necessary utilities;
* promoting vocational training and public awareness programmes necessary for the implementation of the identified adaptation measures and vocational training programmes covering the resilience of buildings to the effects of climate change.

**Purpose and use of lands**

* In the case of supporting infrastructure interventions, it is essential to ensure the quantitative protection of arable lands and the use of decommissioned areas must be prioritized as much as possible.

**Built area**

* Aside from the fulfilment of the requirements regarding the urban landscape, it is recommended to make efforts to develop the urban landscape and to create an attractive urban landscape to exploit the potentials of development of local architectural values, for projects that require construction and establishment.