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| **CB007.2.31.141**  **Implement Smart Policies for Management, Monitoring and Environmental Prevention** | | |

**2022**

DOCUMENT ON POLICIES FOR MANAGEMENT, MONITORING AND ENVIRONMENTAL PROTECTION IN THE CROSS-BORDER ZONE OF KOSTINBROD AND TARGOVISHTE

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**CONTENTS**

|  |  |
| --- | --- |
| **INTRODUCTION** | **2** |
|  |  |
| **I. ESTABLISHMENT AND DEVELOPMENT** | **4** |
|  |  |
| **II. GENERAL PRINCIPLES** | **35** |
|  |  |
| **III. MAIN FRAMEWORK OF JOINT POLICIES** | **40** |
|  |  |
| **IV. JOINT MEASURES AND ACTIONS IN THE FIELD OF MANAGEMENT, MONITORING AND PREVENTION OF THE ENVIRONMENT IN THE CROSS-BORDER ZONE KOSTINBROD AND TARGOVISHTE** | **43** |
|  |  |
| **V. IDENTIFIED ACTION MEASURES AND METHODS FOR COOPERATION BETWEEN PEOPLE, INSTITUTIONS AND THE COMMUNITY AS A WHOLE TO DEAL WITH COMMON CHALLENGES IN** | **65** |

**INTRODUCTION**

This document has been developed within the project: CB007.2.31.141 "Implementation of Smart Policies for Management, Monitoring and Environmental Prevention", under Priority Axis: "Environment", Specific objective 3.1: "Joint risk management", under the Cross-border Cooperation Program INTERREG IPA-CBC "Bulgaria - Serbia" 2014-2020.

The main goal of the document is to outline a medium-term strategic framework with specific joint actions for management, monitoring and environmental protection of the municipalities of Kostinbrod and Targovishte. People want to live better materially, but at the same time in a cleaner nature and in a healthy environment. In their quest for a better quality of life, people are developing new technologies to produce new materials. Unfortunately, these new technologies often consume natural resources that cannot be renewed and become waste that pollutes the environment. Realizing this, in recent years humanity has begun to think about how to make waste a raw material again. The most valuable lesson on how to do this is given to us by nature itself - there is no waste in it, in it everything serves to feed another and to renew. From it we must learn how humanity in its activities to use natural resources - water, air, soil, minerals so that they are reused and reduce environmental pollution.

Through the priorities of the municipalities of Kostinbrod and Targovishte, they will promote joint action in the direction of protection of the components of the environment, organic farming, circular economy, the establishment of a joint action group and the implementation of good practices in sustainable development.

The document complies with the requirements set out in the strategy papers and EU legislation in the field of governance, monitoring and environmental protection, including the European Green Pact. The document outlines guidelines on the correlation of planning documents developed and implemented at local level with the general European context of the policy for balanced and sustainable development of the regions and local communities in the EU. In general, the strategic objectives of this policy are aimed at reducing economic, social and territorial imbalances and improving living standards. In addition to harmonizing objectives and priorities in the context of EU regional policy, the report aims to provide guidelines for achieving efficient use of local resources and sustainable environmental management. In the municipalities of Kostinbrod and Targovishte there is significant potential for improving environmental management, better use of resources, opening new markets and creating new jobs, while reducing the harmful effects on nature.

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| **I. ESTABLISHMENT AND DEVELOPMENT** |

***1. Ecological condition of Kostinbrod municipality***

Environmental protection is a key priority in local development policies in order to achieve a higher quality of life for residents and create favorable conditions for the development of tourism, organic farming, recreation and others. The development of the economy is based on the use of local resources, which creates the need for the implementation of measures and policies for the conservation and sustainable use of available resources. Environmental protection is related to the achievement of sustainable and balanced local development, consistent with economic, social and environmental aspects.

The territory of Kostinbrod municipality is characterized by good indicators in terms of environment. The geographical and economic conditions in the municipality are favorable for its preservation.

On the territory of the municipality there are no control points and a system for measuring the state of the components of the environment - air, soil, noise, etc., which does not give a complete and regular picture of the state of the environment.

The state of the environment in the municipality of Kostinbrod is a result of the urbanization of the territory, economic activities, use of its resources, development of agriculture and forestry, the degree of investment in infrastructure and wastewater treatment.

The analysis of the state of the environment is made on the basis of the Environmental Protection Program in Kostinbrod Municipality, reports on the state of the environment of RIEW Sofia and information from the municipality.

Kostinbrod Municipality falls within the scope of the Regional Inspectorate for Environment and Water - Sofia, which provides at the regional level the state policy for the protection and provision of a favorable and healthy environment in accordance with established standards and regulations.

***Atmospheric air quality***

In the municipality of Kostinbrod there are no permanent points for reporting the quality of the atmospheric air and the municipality does not fall into the area for assessment and management of air quality within the meaning of Article 30, paragraph 1, item 4.

On the territory of Kostinbrod municipality the main sources of air pollution are road transport, utilities, construction and use of solid fuels for heating during the winter season. Gasification in the municipality to some extent limits the emission of sulfur oxides into the atmosphere. From the operating industry there are companies for sanitary materials, printing industry, food and beverage companies, poultry and others, but their pollution is insignificant.

In the municipality of Kostinbrod the following enterprises are subject to control with regard to emissions into the atmosphere, according to the Approved plan for control activities of RIEW - Sofia and included in it Register of controlled sites in Sofia - city and Sofia. the following emissions are subject to emissions into the atmosphere:

"Sanitex Paper Products" Ltd. - organized emissions from the Exhaust Device (UE) to the burner for additional drying of paper on natural gas fuel and UE to the boiler type PKM on natural gas fuel. There are no registered exceedances of the established norms, according to the requirements of Ordinance № 1 for norms for permissible emissions (NTE) of harmful substances (pollutants) released into the atmosphere from sites and activities with fixed sources of emissions (SG, issue 64/2005). ) (Ordinance № 1);

* "Invest Corporation Group" Ltd. for the production of concrete and lime mortars - control over the distribution of unorganized emissions as a result of the company's activities;
* Olineza OOD - organized emissions from the UE to the boiler type PKGN 1.6 on natural gas fuel. There are no registered exceedances of the established norms, according to Ordinance № 1;
* Coca Cola Hellenic Bottling Company Bulgaria AD - organized emissions from the University of Economics to Steam Boiler № 1, the University of Economics to Steam Boiler №2 and the University of Economics to Steam Generator, fuel natural gas;
* ET "Rosen Deyanski - Deya" - Dairy enterprise - organized issues of 2 pcs. oil fuel boiler. "POPP" Ltd. - Production of switches and sockets - organized emissions from oil fuel boiler;
* “Jacobs Dow Egberts OPS BG” EOOD - organized shows from the University of Economics at the Coffee Bakery. There are no registered exceedances of the established norms, according to Ordinance № 1;
* Neoclassic” EOOD - organized emissions from “Syringe cabin” ventilation and wood waste boiler;
* "Multiprint" Ltd. - organized issues of 2 rolls of offset printing machines, fuel natural gas. There are no registered exceedances of the established norms, according to Ordinance № 1;
* "FBT" Ltd. - production of ice cream and ice cream products - organized issues of 2 pcs. boilers;
* Galus Trade Ltd. - organized emissions from a hot water boiler for heating an administrative building on diesel fuel;
* Enamelchim AD, Petarch village - organized emissions from Chemical Installation 1, Chemical Installation 2; Kostinbrod Eco AD - the company has issued a complex permit;
* Dzhiev AD - the company has issued a complex permit;
* New Oil AD, Kostinbrod - organized emissions from a sunflower husk boiler;
* Asphalt base "Kostinbrod" to Patstroy 92 AD - organized emissions from asphalt mixer D-645-2 on natural gas fuel;
* “Tamara 2009” Ltd. - the company has issued a complex permit;
* Partners AD - organized emissions from UE to boiler type PKGN 1.6 on natural gas fuel;
* Modular asphalt base at Trace Group Hold AD - organized emissions from the SIM-150 asphalt mixer on natural gas fuel.

With regard to road transport, the main sources of pollution are generated by lead aerosols due to the use of leaded petrol. Another cause of air pollution is the movement of obsolete cars on the roads. Three trans-European transport corridors - 4, 8 and 10 - pass through the territory of Kostinbrod municipality.

The main air pollutant during the winter season is heating with solid fuels containing sulfur (coal, naphtha, fuel oil), polluting the ground layer of air with sulfur dioxide, nitrogen oxides and soot.

The measurements of the air condition are performed with mobile automatic stations of the Executive Environment Agency (EEA), Sofia Regional Laboratory. The indicators measured with mobile stations are for fine dust particles up to 10 µm (PM10, Nitrogen dioxide (NO2), Sulfur dioxide (SO2), Ozone (O3), Carbon monoxide (CO). Excluding the indicator (PM10), all measured levels (concentrations) are below the established average hourly, daily average, short-term norms and assessment thresholds according to "Ordinance" 12 of 15.07.2010 on the norms for sulfur dioxide, nitrogen dioxide, fine dust particles, lead, benzene, carbon monoxide and ozone in the atmospheric air ”.

In the municipality of Kostinbrod the quality of the atmospheric air is good and the municipality does not fall as a hot ecological point.

**Water quality**

The water bodies on the territory of Kostinbrod municipality (surface and underground) are managed by the Basin Directorate - Danube Region, Pleven.

The hydrological network of Kostinbrod municipality includes the rivers Blato, Iskretska, Nishava and the dams Bezden, Bistritsa and Maslovo.

The main sources of water pollution in the municipality are industry, transport, utilities and livestock. One of the main problems in terms of the quality of water resources is the lack of a sewerage network in the settlements to capture wastewater, which leads to a violation of the ecological situation in the municipality.

Regarding the ecological condition of the rivers in the municipality, the Blato River with code BG11S400R012 has a bad ecological condition, as the components determining the condition are as follows: hydrobiological (biotic index - BI) - very bad; physical - chemistry - moderate (with deviations in the indicators ammonium nitrogen N-NH4, nitrite nitrogen - NO2, orthophosphates - P-PO4, manganese - MP, chemical oxygen demand - COD, biological oxygen demand for five days - BOD5); specific substances - good and hydromorphological condition - good.

The ecological condition of the water body of the Iskretska River BG11S300R018 is good, as the components determining the condition are as follows: hydrobiological (biotic index - BI) - good; physical - chemistry - good; specific substances - good and hydromorphological condition - good. The chemical status of the water body was assessed in good condition.

The ecological condition of the water body of the Nishava River BG1NV200R001 is good, as the components determining the condition are as follows: hydrobiological (biotic index - BI) - good; physical - chemistry - good; specific substances - good and hydromorphological condition - bad. The chemical status of the water body was assessed in good condition.

There are several groundwater bodies on the territory of Kostinbrod municipality:

ϖ Porous waters in the Neogene Quaternary - Nishava river with code BG1G00000NQ029;

ϖ Porous waters in Neogene Quaternary - Sofia Valley with code BG1G00000NQ030;

ϖ Porous waters in Neogene - Sofia valley with code BG1G000000N033;

ϖ Karst waters in the Godech massif with code BG1G00000TJ046.

The chemical and quantitative status of a groundwater body with code BG1G00000NQ029 is good.

The chemical and quantitative status of a groundwater body with code BG1G00000NQ030 are assessed as good.

The chemical status of a groundwater body with code BG1G000000N033 was assessed as poor in manganese due to point diffuse sources of pollution - land use, settlements without sewers, organic and biogenic waste, and industry. The quantitative condition is good.

The chemical and quantitative status of a groundwater body with code BG1G00000TJ046 have been assessed as good.

The main companies - water polluters in the municipality of Kostinbrod are:

* OLINEZA AD, PARTNERS-2001 AD, PARTNERS AD, KOSTINBROD - The production activity is carried out on a common site. The industrial wastewater is treated locally in a grease trap and precipitators, after which together the domestic - faecal wastewater is discharged into the municipal sewerage.
* SANITEX PAPER PRODUCTS Ltd. - wastewater after local treatment is discharged into the city sewer. As a result of ongoing control, the direct discharge of untreated wastewater in the Blato River has been suspended.
* INTERION AD - Workshop for production of chocolate products, Kostinbrod - A local treatment plant for technological wastewater has been built / from washing equipment and production facilities /. The site sewerage is discharged into the city sewerage network.
* “MULTIPRINT” Ltd. Kostinbrod - The constructed site sewerage is discharged into the city sewerage network. Industrial wastewater is not formed.
* MONDELEISE BULGARIA / MONDELEISE INTERNATIONAL AND CRAFT FOODS GROUP AD - Kostinbrod - The constructed site sewerage is discharged into the city sewerage network according to a contract with the operating "V and K" company. Production and wastewater are not formed.
* KENAR EOOD, Petarch village, Kostinbrod municipality - The wastewater after local treatment - grease trap, discharges into the Blato river.
* “ENAMILCHEM” AD, Petarch village, Kostinbrod municipality - The wastewater after local treatment - sludge-oil catcher, discharges into the Slivnishka river.
* Coca Cola Hellenic Bottling Company Bulgaria AD - Production Center, Kostinbrod - the company is a holder of a Permit for use of a water body for wastewater discharge into surface waters № 13120026 / 10.10.2008, amended by Decision № 1508 /13.12.2014 During the reporting period no deviations from IEE were found.
* "Dzhiev - K" AD, Kostinbrod - the company is the holder of a permit for the use of a water body for the discharge of wastewater into surface waters. During the reporting period, on the basis of performed emission control, deviations from the IEE were established, for which a sanction under Art. 69 of the EPA
* Dairy processing company "EBT" AD, Kostinbrod. The formed wastewater is taken to the WWTP for treatment, after which it is discharged into the Blato River, according to the Permit for use of a water body for discharge of wastewater into surface waters. The company has been subject to emission control, during which no deviations from the IEE have been established.
* „Opitsvet Milk AD, Opitsvet village, municipality Kostinbrod - milk processing enterprise - the formed wastewater is taken to the WWTP for treatment, after which 52 are discharged into the Blato River, according to the Discharge Permit. During the reporting period, on the basis of performed emission control, deviations from the IEE were established and the AUA was drawn up.

Emission control is being carried out at the already built wastewater treatment plant (WWTP) in Kostinbrod.

Wastewater treatment plants (WWTP) of Kostinbrod - the technological scheme of water treatment takes place in three stages - mechanical and biological treatment, water decontamination and sludge treatment. The system of biological treatment is through biopools operating in the mode "nitrification - denitrification", chemical removal of phosphorus and separation of sludge from purified water in a secondary precipitator.

During the control and own monitoring of the WWTP, according to the issued permits for use of the water body for wastewater discharge in the town of Kostinbrod, no exceedances of the set individual emission limits (IEE) were found, which shows effective treatment of wastewater entering surface water. objects, evident from the presented graphic data.

**Soil quality**

In the municipality of Kostinbrod there are no productions that pollute the soils with heavy metals / lead, copper, zinc, arsenic, cadmium, nickel, chromium / and oil products. Partial local contamination with oil products in the area of ​​gas stations is possible, but there are no data for this.

For Kostinbrod municipality in the village of Bogyovtsi, a soil monitoring point has been approved, which is included in the National Environmental Monitoring System.

The main sources of soil pollution in the municipality of Kostinbrod are:

ϖ gases from the combustion of coal and liquid fuels, which fall in the form of acid rain;

ϖ transport - pollution related to diesel and gasoline engines;

ϖ communal activities - disposal of waste, which in case of improper storage pollutes the soil and groundwater;

ϖ deforestation, leading to soil depletion, erosion and salinization;

ϖ production of nitrate agricultural products;

ϖ extraction of non-metallic minerals.

For Kostinbrod municipality (village of Bogyovtsi) a soil monitoring point has been approved, which is included as an integral part of the National Environmental Monitoring System, which is managed by the Executive Environment Agency (EEA). The test indicators are: pH; heavy metals and metalloids (copper, zinc, lead, cadmium and arsenic); organic carbon; total nitrogen and phosphorus. The results of the laboratory requirements from the sample taken from the soil monitoring point in the village of Bogyovtsi do not show exceedances of the MPC.

Regarding the contamination of soils with pesticides, as early as 1998 the municipality has taken measures, as all preparations are collected in bags with a total weight of about 12 tons and stored in a room with a total area of ​​50 square meters. continuous monitoring.

There are no swampy soils in the municipality, but there are soils that are subject to water erosion.

Soils are also subject to disturbance due to anthropogenic activity (mining, processing, etc.).

In the area of ​​the village of Bogyovtsi, studies have been conducted for the extraction of construction materials, and reserves have been discovered and proven.

Mining and processing activities are carried out in the "Lilacs" quarry in the lands of the villages of Tsarichina and Dragovishtitsa, as a result of the activity for extraction of dolomite limestone on the environment is associated with disturbance of the landscape and air.

Extraction and primary processing of limestone is carried out by the Gradets quarry in the village of Gradets. During the extraction and primary processing of limestone, industrial waste is formed - oversized rock mass, overburden, etc., which are deposited on certain sites. Open pit mining is also carried out in the Tselovidya quarry.

In conclusion, there are no contaminated soils with heavy metals and oil products on the territory of Kostinbrod municipality. There are no heavily eroded terrains. Preventive measures have been taken to prevent soil contamination with pesticides.

**Waste management**

The main sources of waste in the municipality are citizens, households, industrial enterprises, private companies, schools, construction, animal farms, restaurants, hospitals and others. The largest amount is household waste, which is obtained as a result of the vital activity of people in homes, state and municipal buildings. They are equated to waste from commercial sites, craft activities, enterprises, recreation and entertainment facilities, when they are not hazardous and at the same time their quantity or composition will not prevent their treatment together with household.

The procedures for the collection and removal of waste are carried out by the municipality, as all settlements in the municipality are included in the system for organized garbage collection and garbage disposal of the generated waste. The activities for garbage collection, garbage removal, transportation of household and biodegradable waste, ash from stoves, cleaning of public areas in the town of Kostinbrod are carried out by BKS - Hristo Nanev EOOD. Since 2014 Kostinbrod Municipality has a contract with BKS - Hristo Nanev EOOD with the subject of activity "Garbage collection and transportation of non-hazardous waste from the settlements of Kostinbrod Municipality to the Regional Landfill for Non-Hazardous Waste for the municipalities of Kostinbrod, Svoge, Slivnitsa, Bozhurishte, Gozhurishte, Gode “As well as cleaning and maintenance of territories for public use, maintenance of green areas in Kostinbrod municipality, separate collection and transportation of biodegradable waste (from green areas, parks, gardens, households) to composting installation in the municipality.

For the collection of household waste, the Municipality of Kostinbrod uses the following containers: Beaver container, Meva bucket, bins. Garbage trucks "Mercedes" are used for waste disposal - 2 pieces for containers 110 l, 240 l, 1100 l; Garbage trucks "MAN" - 2 pieces for containers 1100 l. and 4 m3; Container carrier "GAZ 53" - 1 piece for containers 4 m3, "STAER" dump truck - for removal of bulky waste.

Kostinbrod Municipality has a contract for separate waste collection with Ecobulpack AD since 2007, and the contract was replaced in 2017. The system introduced in the municipality includes servicing two types of containers: yellow for collecting paper, plastic and metal packaging and green - for glass packaging. They are located near the containers for household waste, which greatly facilitates the citizens in the separation of waste. The containers are serviced with different equipment, therefore it is impossible to mix the separately collected waste. On the territory of Kostinbrod municipality there are 56 yellow beaver containers and 54 green igloo containers. The containers are serviced according to a pre-approved schedule.

Ecobulpack AD ensures the collection and transportation of waste, after which the materials are sorted on a specialized separation plant and handed over for recycling.

In January 2019, the project "Design and construction of composting plants and pre-treatment plant for municipal waste on the territory of RSUO Kostinbrod" was launched under procedure BG16M1OP002-2.002 "Combined procedure for design and construction of composting plants and installations for pre-treatment of municipal waste ", under the Operational Program Environment 2014-2020

With regard to non-hazardous waste generated by production activities in the municipality of Kostinbrod, they are mixed with municipal waste and deposited in the regional system for waste disposal in the village of Bogyovtsi.

The waste from the construction activity is handed over for disposal to the Regional landfill for non-hazardous and inert materials in the village of Bogyovtsi.

There is a problem in the municipality with the disposal of garden and food waste from households mixed with household waste, as they are transported together with other waste to the Regional Landfill in the village of Bogyovtsi. This problem could be solved by providing containers for home composting. One of the main problems is the dumping of construction waste in unregulated places.

End-of-life motor vehicles ELVs, obsolete electronic and electrical equipment WEEE, unusable batteries and accumulators NUBA, bulky waste and hazardous waste are managed by concluding contracts between the municipality of Kostinbrod and licensed companies:

* “WEEE Recycling ”AD - organization for utilization of obsolete electrical and electronic equipment (WEEE);
* “AUTOMOBILE RECYCLING” AD - organization for utilization of obsolete motor vehicles (ELV);
* “ECOSTYLE” EOOD - carries out activities for acceptance and subsequent treatment of separately and gratuitously collected waste from households, incl. bulky waste and hazardous waste on a site provided by the company;
* NUBA RECYCLING AD - organization for utilization of unusable batteries and accumulators (NUBA).

After the construction of the new sewage treatment plant, the generation of sludge begins. Currently and according to the approved plan for their treatment, they are disposed of at the Regional Landfill.

On the territory of Kostinbrod municipality there are several enterprises for collection of secondary raw materials: "Waste Metal" Ltd. (Kostinbrod), "Scraprecycling" Ltd. (Kostinbrod), ET "Dair - Plamen Petrov" (Petarch), Phoenixelit AD (Kostinbrod), Steelimpex OOD (Kostinbrod).

The pesticides in the municipality of Kostinbrod are stored in a warehouse located in the Shiyakovtsi district

### Radiation situation

### To measure the radiation background on the territory of the municipality there is a post for observations. The same is in the duty room, and the measurement is carried out by the duty officer of the Municipal Security Council three times a day at 5:00 in the morning, at 12:00 at noon and at 18:00 in the evening. The data from the measurements are recorded in a special diary. The measurement of the radiation background is performed with an instrument PP-51M. Production, etc. activities, sources of radiation pollution on the territory of the municipality no.

***Noise***

In the municipality of Kostinbrod there are no measurements of noise levels. There are harmful effects and noise loads around the main road routes caused by car traffic (specific noise measurements have not been made). In urban areas, the main source of noise is vehicles. Some human activities in the field of services are also a source of noise and create discomfort for those living around the source. The residents of the main streets of the city are most exposed to the negative impact of noise. There is no evidence of a large exceedance of the maximum permissible noise levels for the urban environment.

The operators carry out their own monitoring of the noise levels in the environment, and so far from the presented reports with the results of the SBS, no exceedances have been registered above the limit values ​​set in Ordinance № 6 of 26 June 2006 on environmental noise indicators taking into account the degree of discomfort during the different parts of the day, the limit values ​​of noise indicators in the environment, the methods for estimating the values ​​of noise indicators and the harmful effects of noise on human health.

**Protected Areas**

On the territory of the municipality there are three protected areas under the Natura 2000 Directive, as follows:

Protected area "Dragoman" BG0000322 - declared by decision № 122 of 02.03.2007. of the Council of Ministers promulgated, SG, no. 21 of 09.03.2007, on the grounds of art. 10, para. 4 of the Biodiversity Act, which is a Habitat Protected Area;

### Protected area "Rayanovtsi" BG0002001 - declared by order № RD - 569 of 05.09.2008, pursuant to Art. 12, para. 6 in connection with Art. 6, para 1, items 3 and 4 of the Biological Diversity Act and item 1 of Decision № 122 of 02.03.2007. of the Council of Ministers (SG, issue 21 of 2007), which represents the Birds Protected AreaРискове от природни бедствия и аварии и необходимост от превенция на риска

Landslides are part of the natural risks in Kostinbrod municipality. They are geodynamic gravitational processes associated with the disruption of the stability of natural slopes, slopes and the prediction of earth masses at different depths. On the territory of the municipality of Kostinbrod, according to the data of "Geoprotection-Pleven" was registered 1 landslide as of 31.12.2019 in the town of Kostinbrod.

The territory of Kostinbrod municipality can be determined by the average degree of seismic activity.

***2.*** ***Ecological condition of Targovishte municipality***

Given the low level of economic development, the isolation of the region from high-frequency traffic and constant emigration of the local population, the quality of the environment, natural and material goods in the municipality is satisfactory. All water bodies in the municipality are considered clean. Air quality is well preserved, while soil quality is not greatly impaired.

## The main problems regarding the quality of the environment are related to unregulated discharge of municipal wastewater, the location of existing landfills and the existence of illegal landfills, erosive processes in river valleys, the likelihood of floods and endangerment of the area. sometimes.

## *Soil*

In Serbia, the quality of the soil, ie. the degree of soil degradation is influenced by numerous natural processes (erosion, landslides, surface runoff). However, soil quality is also significantly affected by anthropogenic phenomena and processes, the most significant of which include: soil pollution from chemicals (mineral fertilizers, pesticides) and organic fertilizers (solid and liquid fertilizers) used in agricultural production; industrial processes; mining operations; inappropriate waste disposal, existence of septic tanks that accept unsanitary waste (from farm households, livestock farms), soil pollution on roads due to problems with water runoff, changes in land use (illegal construction), etc. The soil is also polluted by inappropriate agricultural practices, including uncontrolled and inadequate use of fertilizers and pesticides, as well as the lack of quality control of water used for irrigation.

The sporadic presence of heavy metals in the soil is the result of untreated drainage water from landfills, as well as mining facilities and power plants. The soil is polluted in areas with intensive industrial activity, unsuitable sites for waste disposal, mining activities in the area and in places from various accidents.

In 2013, the degree of vulnerability of the soil to chemical pollution in urban areas was assessed at 140 points. A total of 219 samples in eight cities were analyzed. The tests were conducted in Belgrade, Pozharevac, Smederevo, Kragujevac, Krushevac, Novi Sad, Subotica and Novi Pazar.

The results of the analyzed samples were interpreted in accordance with the Regulation on a program for systematic monitoring of soil quality, assessment of the risk of soil degradation indicators and methodology for developing remediation programs (Official Journal of the RS Gazette, № 88/10). The results show that the soil contains excessive content of certain heavy metals (Cd, Cu, Ni, Pb, Zn, Cr, Co). From 2009 to 2013, soil tests were conducted in Belgrade, Kragujevac, Novi Sad, Subotica, Krusevac, Pozharevac, Smederevo, Uzice, Nis, Novi Pazar and Chazetina.

The programs for local soil testing are not continuous, which is evidenced by the different number of sites and samples during the observed period.

In the municipality of Targovishte the quality of the soils is not significantly endangered. Given that plant protection products (insecticides) decompose relatively quickly, agricultural land with arable crops is not greatly threatened by this type of pollution. Significant sources of soil pollution are unregulated landfills and dumps, ie. facilities built outside the construction zones of the settlements, on agricultural land.

## To a lesser extent, deposition of precipitates from the air and the frequency of traffic on public roads (due to deposition of lead particles emitted by motor vehicles and salinization of the soil as a consequence of the spraying of road maintenance salts during the winter season) . Septic tanks and absorption wells are significant sources of soil pollution in all settlements in the municipality.

***Atmospheric air quality and emission sources***

According to the official air quality assessment for 2013, Pchin County is defined as Category I (clean air or slightly polluted air (where the limit values ​​are not exceeded for any pollutant)). The main sources of air pollution are individual household fireplaces (the main energy source is wood in the autumn and winter months) and traffic on the state road II line Vranya-Targovishte-Bosilegrad.

## Other air pollutants (fuel supply stations, landfills for household and other waste, etc.) are scattered throughout the municipality and do not greatly affect the health of the population. Concentrations of pollutants in the atmosphere are below the permissible prescribed emission limit values ​​(GVI) and do not have a significant impact on the quality of the environment.

***Water and sources of pollution***

Populations that are not connected to the public sewerage system, but rather to separate sewerage systems (or other types of sewerage with a negligible effect in terms of water protection) are considered as part of the scattered sources of pollution. Quantitative determination of the impact of scattered pollution due to infiltration from the terrain, mainly from agricultural land, is done on the basis of targeted monitoring. As this type of monitoring is not yet used in Serbia, the assessment is based on a land cover database (CORINE 2006) and an expert assessment of the pressure (in kg / ha year) in terms of land use.

According to the level of development of the sewerage infrastructure, the Republic of Serbia is a moderately developed country, while in terms of wastewater treatment it is among the worst. The sewerage network covers about 55% of the population, while less than 10% is not covered by any degree of wastewater treatment. Only a few industrial plants use pre-treatment of technological wastewater before discharging it into sewerage networks or other facilities.

Pollution of surface and groundwater is a consequence of a number of factors due to: discharge of untreated domestic wastewater from settlements into natural water bodies without proper treatment (Pchinya River); underdeveloped sewerage infrastructure, ie improperly constructed septic tanks; landfills and dumps near rivers; disposal of packaging and other bulky waste in the immediate vicinity of riverbeds, uncontrolled use of agrochemicals in agricultural production; washing of polluted road surfaces during rains, etc.

All water bodies in the area of ​​the Municipality flow into unpolluted water bodies. The problem for accurate and reasonable assessment of water quality is the lack of measuring stations for the analysis of chemical and biological pollution, as well as the lack of constant data on groundwater quality. The water quality of the Pchinya River has not been tested so far (classified in I class by water quality). In the area of ​​the village of Donya Trnitsa, the waste is dumped at the central municipal landfill, near a river. During heavy rains, a stream of water from the hill takes waste to the river, which flows into the river Pchinya (600 m from the river Pchinya). The landfill is not fenced, there is no drainage system and wells for evacuation of waste gas and no coverage of the landfill with earth materials is registered.

***Groundwater***

Groundwater is an extremely important natural resource for Serbia, as it strongly influences the water supply of settlements and industry. In addition, they are used in agriculture, while thermal mineral springs are also used in medicine and tourism. The assessment of the quality of groundwater resources in the Republic of Serbia is made on the basis of available data from the competent ministries, the results of monitoring, technical documents and the results of individual documents and studies.

## Adequate assessment of water status, identification of changing trends and assessment of the effects of protection measures taken rely on systematic monitoring and updating of groundwater quality data. Groundwater quality in Serbia is quite uneven due to the different mineralogical and petrographic composition of aquifers, the formation of groundwater and aquifers, the age of the water, the different rate of water exchange, etc., and varies from exceptional quality (which does not require treatment) to water that requires very complex conditioning procedures before use in public water supply.

***Surface waters and their protection***

The assessment of the quality of surface waters is the basis for all planning documents, which determine the measures for achieving and maintaining the good condition of the water and allows to monitor the impact of human activity on its quality.

For decades, the only body in the Republic of Serbia responsible for the systematic study and measurement of surface water quality parameters has been the Republican Hydrometeorological Service of Serbia (RHMSS). Since 2011, the list of competent institutions for water quality monitoring has been expanded to include the Environmental Protection Agency, an administrative body of the Ministry and RHMSS.

Surface water quality in Serbia is systematically monitored at about 140 stations, covering 103 of the approximately 500 water bodies designated by law. In the period between 2004 and 2012, a reference period was adopted for this area, the list of monitored surface water quality parameters was changed (due to changes in legal provisions), as well as the list of some monitoring stations.

The assessment of the quality of surface waters is performed by identifying their average quality and identified long-term trends, primarily by parameters that show the pollution of surface waters caused by different groups of pollutants. Based on the available data, a classification was made for 103 water bodies, which are covered by the network of stations for monitoring the quality of surface waters.

Overall, the conclusion is that surface water quality is relatively good, given the fact that less than 10% of wastewater is subjected to adequate treatment. According to the type of reservoir, large rivers and artificial water bodies have been the subject of the most extensive and in-depth monitoring, while data are the smallest for small and medium watercourses (up to and above 500 m above sea level) and small watercourses outside the Pannonian Plain. can be assessed due to insufficiently relevant data.

The current monitoring system does not cover most of the reservoirs defined by regulations, while numerous qualitative parameters (indicators) for assessing the ecological status according to biological parameters have never been systematically monitored. For this reason, the state of the environment is assessed on the basis of partial data and pressure analysis, as well as expert assessments.

## *Condition of dams*

**Parvonek Dam on the Banska River**

Parvonek Reservoir is an excellent example of the fact that dams are needed to reliably supply water to large settlements in water-scarce areas in Serbia. The town of Vrane had a very unreliable water source, namely it used about 40 wells in alluvial zones in the riparian zone of South Moravia. South Moravia is a river with highly irregular water regimes. The average flow rate of Vranski Priboy water station is about 12.9 m3 / s, monthly low flow rate Q95% = 0.60, Q1% = 710m3 / s, which makes the ratio Q95%: Q1% = 1: 1200. Due to the low waters, wells were used during major crises, but the wells share the fate of the river from which they obtained their water, as a result of which their flow either decreases significantly or disappears altogether for long periods of low water. The only reliable water source is the Parvonek system. The dam is 88 meters high, with a 250-meter ridge. The normal water level is 618 m.a.s.l. and provides a volume of 20x106 m3. Although it is a dam with various purposes, its predominant purpose is to supply water to Vranya and the settlements at the foot of the town.The reservoir is one of the most important sources for the regional water supply system for the Upper South Moravia, but operates with corrected runoff and improved low flow regimes. The dam fits in very well with the surroundings and has absolutely no adverse effects on the environment. In fact, this has a positive impact: reliable water supply to Vranje and other settlements; flood protection; the ability to preserve ecosystems at critically low water levels, which coincide with periods of high temperatures, when all ecosystems are threatened due to the synergistic effect of low flow rates, high temperatures and low oxygen content in the water.

**Condition of the Pchinya River**

The Pcinja River is one of the largest left tributaries of the Vardar River, which drains into the northeastern part of the Republic of Macedonia and southeastern Serbia. According to the data from digital topographic maps, the length of the river is 135 km, the dividing length is 366 km and the catchment area is 2877.3 sq. Km. Of the total area, 2339.3 sq. Km (81%) are located in the Republic of Macedonia and 538 sq. Km (19%) belong to the Republic of Serbia. Due to the large drainage basin in the Republic of Macedonia (9.1% of the area), Pcinja is of great importance in many respects (water supply, irrigation, water balance). It is important that in the area of ​​the catchment area of ​​Pchinya live about 200,000 inhabitants, most of them in the municipality of Kumanovo (105,480), then Lipkovo (27,058), Staro Nagorichane (4,840) and part of Petrovets (8,255) in Macedonia, as well as Presevo (8,009), Bujanovac (10,864) and Targovishte (3,369) in Serbia, the Pcinja River (from the mouth of the Kriva Reka) is largely threatened by excessive deposition of eroded material, especially near the village of Shupli Kamen and south of the village of Pchinya. These deposits are also heavily polluted by wastewater from the Kumanovska River near the town of Kumanovo, posing a high threat to agricultural products and people in the region.

The Pchinya River consists of several tributaries on the western slope of Dukat Mountain, near the village of Radovnitsa, from where it flows west under the name Trypushnitsa. The river valley creates a micro-region with the center of Targovishte, where Tripushnitsa connects with Kozhedolska River and Lesnichka River from the south. Downstream of the formed watercourse passes into the river Pchinya. The surface of the river basin is A = 3140 km², of which 1247 km2 is on the territory of Serbia, and the remaining 1893 km2 are on the territory of Macedonia, where it flows into the river Vardar.

The upper part of the basin of the river Pchinya (the river basins of the Trypushnitsa, Kozhedolska and Lesnicna rivers) is characterized by mountainous areas, with a large slope, gorge-like valley and many rapids, ie. tributaries with torrential characteristics. The characteristics of the Pchinya River change downstream from Targovishte and it flows through a wide and shallow valley with small dips in the riverbed, which form numerous meanders. The Pcinja River, together with its tributaries, is an extreme current that carries large amounts of sediment. The riverbed does not dry up. During the summer it has a low water level, there is a stable and relatively even outflow.

Floods on the Pchinya River are often observed after heavy rains. The floods in 2010 are particularly important, as the Pchinya, Kozhedolska and Lesnichka rivers overflowed. 1/8 of the surroundings of Targovishte are particularly affected by this flood. The infrastructure is badly damaged and the riverbed is 1.5 m deeper. Banks and fortified embankments have been destroyed. The arable agricultural land in the valley is flooded. The erosion of the river banks leads to a change in the watercourse of Pchinya.

The Pcinja River has been known in the past for frequent torrential floods, so anti-erosion work was carried out to protect the river basin in the second half of the 20th century. Afforestation has been carried out, as well as reorientation of crops and plots for contour agriculture. Work has also been done to regulate the flow in order to protect the riverbed, but the work has consisted only of partial regulation of the rivers Tripushnitsa and Pchinya. Technical works on the tributaries have not been performed. - The river Pchinya was regulated to a length of 430 m to protect the populated part of Targovishte.

The regulation was carried out according to the "Main project for regulation of the lower Tripusnica river on the section passing through Targovishte", designed by the company for construction and electromechanical engineering projects "Hidroprojekat" from Belgrade in 1977. - Along the right bank was built of concrete protective quay wall. The riverbed overflows on the left bank, with a small riverbed 18 m wide and a large riverbed 24.5 m wide. The bottom of the regulation is made of rock in cement screed. At the beginning and end of the regulation there are incoming and outgoing structures with 8 layers along the regulated riverbed.

The slope of the riverbed is 1: 1. - The shepherd's flow was regulated in the village of Radovnitsa. The regulation was carried out according to the "Main project of anti-erosion works and measures in the bed and basin of the Shepherd's Stream", designed by the Erosion in Vladicin Khan in 1973. The works include a landfill with a useful height of 4 m, with absorption tank and stone with cement screed about 200 m long, 2 m wide at the bottom and a riverbed slope of 1: 1. The width at the top of the regulation is 4 m. After the floods in May 2010.

The Tripushnitsa River is regulated along its entire length until it flows into Pchinya. At the confluence of the rivers Tripushnitsa and Kozhedolska, the right side of the river is regulated. It is 600 m long, with a vertical quay wall to protect the floodplain. For many years we have been working hard to protect the forest cover in the whole area. Water protection activities include the construction of communal infrastructure and facilities for wastewater treatment, minimization of overflows and neutralization of the harmful effects of intensive erosion. Of particular importance is the protection of all surface and groundwater from pollution and unplanned landslides and the maintenance of local sources used. It is planned to implement active measures for protection against overflow and erosive processes, which include technical, biotechnical and biological works, mainly on 18% of the Pchinya basin. Currently, the riverbed is being cleaned of sediments and debris, while the banks are regulated. As a result, the frequency of floods and subsequent damage is significantly reduced.

**II. main principles**

EU environmental policy is based on the precautionary principle, the precautionary principle and the principle of source pollution, as well as the polluter pays principle. The precautionary principle is a risk management tool that can be applied when there is scientific uncertainty about an alleged risk to human health or the environment arising from a particular action or policy. For example, in case of doubt about the potentially dangerous effects of a product and if uncertainty persists after an objective scientific assessment, instructions may be given to discontinue the product or withdraw it from the market. This type of measure should be non-discriminatory and proportionate and should be reviewed in the light of additional scientific information.

The polluter pays principle is applied on the basis of the Environmental Liability Directive, which aims to prevent or eliminate damage to the environment in relation to protected species or natural habitats, waters and soils. For some professional activities, such as the transport of dangerous goods or activities involving discharges into water, operators must take preventive measures in the event of an imminent danger to the environment. If damage has already been done, they are obliged to take appropriate measures to repair it and pay the associated costs. The scope of the directive has been extended three times to include the management of mining waste, the management of geological storage sites and the safety of offshore oil and gas.

In addition, integrating environmental issues into other EU policy areas has become an important concept in European policy since it first emerged as a result of a 1998 European Council initiative in Cardiff.

In recent years, the integration of environmental policy has made significant progress, for example in the field of energy policy, as reflected in the parallel development of the EU climate and energy package or in the Roadmap to Competitiveness by 2050. low carbon economy.

In December 2019, the Commission launched the European Green Pact, which should help focus EU policies on making Europe the world's first climate-neutral continent.



**Implementing the partnership principle**

The principle of partnership is one of the main mechanisms for the functioning of the European Union. The main requirement for the implementation of this principle is the active participation of civil society in the process of development, selection, management and monitoring of projects and strategic documents for development. This principle implies the application of different approaches to dialogue and consultation at municipal and national level to ensure the joint participation of local and regional authorities, businesses and employers' associations, trade unions, NGOs and all stakeholders.

Effective planning and successful sustainable and integrated development are based on an open and transparent process with broad involvement of citizens and stakeholders at different stages. Planning is an effective tool for management and full development of the partnership between the municipalities of Kostinbrod and Targovishte, provided that there is an active exchange of ideas and coordinated actions between stakeholders during its development and implementation.

A series of thematic studies and analyzes were conducted, which provide an opportunity to take into account the diverse interests and considerations and to structure a balanced, realistic and reflecting local specifics document. Achieving public commitment to this document and recognizing the provisions of the plan are a good chance for its successful implementation.

During the document development phase, the development team is based on:

* + Implementation of an accessible and inclusive process, adequate to the goal;
  + Receiving up-to-date information on the whole spectrum of the document;
  + Ensuring equal access and representation of the various interested public groups;
  + Cooperation on the principle of equality and respect for civil and human rights;
  + Inclusion of proposals from the process of discussion of the document in the formation of its analytical and strategic part.

The involvement of stakeholders from both municipalities in the planning and programming process at the document development stage includes three main components: information, consultation and joint decision-making.

**III. MAIN FRAMEWORK OF JOINT POLICIES**

In formulating the main goal of the framework for joint policies management, monitoring and environmental protection in the cross-border area of ​​Kostinbrod, the Republic of Bulgaria and Targovishte, the Republic of Serbia, the advantages of both municipalities in regional and national aspect were taken into account. and society's attitudes about their future state in the medium term.

This document is one of the tools for protection and conservation of available natural resources, preservation of achievements where available, and improving the environmental situation in areas where necessary, in accordance with the areas of competence and capabilities of the municipalities of Kostinbrod and Targovishte .

The planning part of the document should be considered as a dynamic part, which can be supplemented and updated according to changes in the priorities of partner municipalities, national legislation and other elements of the environment that affect the ongoing processes in the cross-border area. The document is in line with the main objectives of environmental policy in the European Union and new policies in this area, formulated in the European Green Pact, as well as with the main strategic and planning documents at national level and related to environmental protection and conservation. .

The definition of the goals and priorities in the document is based on the conducted research and analysis of the environment, on the highlighted specific features and on the expectations and forecasts for the development of the municipalities of Kostinbrod and Targovishte.

In this regard, the main objectives of the joint policies for management, monitoring and protection of the environment on the territory of the cross-border area of ​​Kostinbrod, the Republic of Bulgaria and Targovishte, the Republic of Serbia is:

**Sustainable management, monitoring and protection of the environment on the territory of the cross-border area of ​​Kostinbrod, the Republic of Bulgaria and Targovishte, the Republic of Serbia to ensure a quality environment for living, working and investing with preserved nature and local potential.**

In order to achieve the main goal of the document, the following priorities and specific sub-goals have been formulated:

**IV. JOINT MEASURES AND ACTIONS IN THE FIELD OF MANAGEMENT, MONITORING AND PREVENTION OF THE ENVIRONMENT IN THE CROSS-BORDER ZONE KOSTINBROD AND TARGOVISHTE**

The Action Plan to this document for management, monitoring and prevention of the environment in the cross-border area of ​​Kostinbrod and Targovishte is part of the medium-term framework for the period 2022-2027 and provides for the implementation of specific and targeted measures on individual sub-objectives and priorities, respectively components of the environment, in order to comply with current norms, standards and European policies.

**ACTION PLAN**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **№** | **Measure** | **Implementation period** | **Responsible side** | **Source of funding** |
| **I.** | **Sub-objective 1: Promote joint action to combat climate change** | | | |
| **1.1.** | **Priority 1.1: Promoting energy efficiency** | | | |
| **1** | Promoting the energy efficiency of public, industrial and private buildings, such as: renovation, renovation of buildings, clean heating and cooling, integration of renewable energy | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs; private investment |
| **2** | Encouraging the construction of renewable energy systems | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs; private investment |
| **3** | Introduction of energy-saving street lighting | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Promoting zero- and low-emission mobility through the introduction of reduced vehicle taxes | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Introduction of municipal administrative practice for good and environmentally friendly design of buildings and infrastructure | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **1.2.** | **Приоритет 1.** **Priority 1.2: Adaptation to climate change** | | | |
| **1** | Development of appropriate irrigation systems for the needs of agriculture | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Improving local pest and disease control in agriculture | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Improving water management practices in the municipalities of Kostinbrod and Targovishte | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Development of a cross-border climate information and early warning system | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Purposeful collection of folk customs and traditional knowledge | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **6** | Promoting ecosystem thinking among citizens and volunteers | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **7** | Introduction of cultural ecosystem services for recreation and education | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **8** | Improving the quality and quantity of the green system in the municipalities of Kostinbrod and Targovishte | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **1.3.** | **Priority 1.3: Reduction of emissions and dust** | | | |
| **1** | Implementation of climate change sustainable design and construction | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Improving energy efficiency in buildings and industrial systems | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Adapting the public environment to climate change - improving the protection of the built environment from climate change, increasing the share of green areas, building smart outdoor ecosystems | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Prevention of forest fires | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Preparing the population to deal with meteorological events | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **II.** | **Sub-objective 2: Sustainable water management** | | | |
| **2.1.** | **Priority 2.1: Sustainable protection of water resources in the cross-border area of ​​Kostinbrod and Targovishte** | | | |
| **1** | Maximum use of natural water retention measures (green infrastructure) | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Improving the municipal water and sewerage infrastructure | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Development of a joint plan for river basin management on the territory of the municipalities of Kostinbrod and Targovishte | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Conducting annual joint campaigns for water saving by the population and business to stimulate water saving | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Training and informing farmers on the application of the rules of good agricultural practice | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2.2.** | **Priority 2.2: Prevention of floods and catastrophic events** | | | |
| **1** | Annual joint survey of the state of river corrections | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Continuous monitoring of construction near flooded areas | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Cleaning of river sections and ravines to ensure the passage of high waves | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Construction of engineering and technical facilities - security, drainage channels within the boundaries of settlements, incl. water pumping facilities | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Reconstruction or construction of drainage facilities - ditches, tanks, shafts, etc. | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **III.** | **Sub-objective 3: Conservation of transboundary biodiversity and sustainable agriculture** | | | |
| **3.1.** | **Priority 3.1: Conservation of biodiversity and ecosystems** | | | |
| **1** | Conservation of natural habitats and wild flora and fauna | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Restoration of degraded ecosystems and habitats and support for the restoration of endangered species | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Development of a specialized joint monitoring program according to the objects of observation and territorial peculiarities | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Development and implementation of a joint policy for the development of ecotourism in the municipalities of Kostinbrod and Targovishte | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Conducting an annual information campaign on the importance of biodiversity | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3.2.** | **Priority 3.2: Clean soils - moderate use of pesticides** | | | |
| **1** | Free soil testing of landowners to promote sustainable soil management | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Exchange of best practices for sustainable soil management | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Restoration of degraded soils in order to prevent desertification | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Restoration of contaminated terrain | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Introduction of new technologies and techniques in agriculture related to the improvement of soil functions and protection of soil fertility | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs, private investments |
| **3.3.** | **Priority 3.3: Ensuring food security in the face of climate change and biodiversity loss** | | | |
| **1** | Renewal of agricultural infrastructure | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Practical use of available urban space such as municipal land, roof gardens and public gardens | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Information provision for farmers on the creation of farms in the future | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Organizing the utilization of food scraps from households for people in need | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Conducting annual food waste campaigns | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3.4.** | **Priority 3.4: Promotion of organic farming** | | | |
| **1** | Creating an effective system of consultations on organic farming at the "municipal" level | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Establishment of a joint cross-border information hub for organic farming | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Organizing an annual "Organic Production Day" | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Organizing periodic farmers' markets to promote consumption | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Conducting an annual joint exhibition of organic products | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **IV.** | **Sub-objective 4: Promoting the circular economy** | | | |
| **4.1.** | **Sub-objective 4.1: Resource efficiency** | | | |
| **1** | Introduction of separate waste collection | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Encourage local businesses to separate waste collection by introducing tax breaks on garbage tax | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Conduct permanent local campaigns to promote separate waste collection and composting | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Organizing periodic collection by citizens of old white and black appliances, furniture, medicines, etc. | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Introduction of e-government in the municipalities of Kostinbrod and Targovishte | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4.2.** | **Sub-objective 4.2: Effective implementation of the circular economy in the cross-border area of ​​Kostinbrod and Targovishte** | | | |
| **1** | Encourage the application of the circular economy by local businesses through tax relief | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Installation of containers for old clothes and textiles in the municipalities of Kostinbrod and Targovishte | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Mediation of local authorities for the implementation of company environmental policies by local businesses | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Introduction of the initiative of smart settlements | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Organizing a joint forum on ecological innovations applicable in the cross-border area of ​​Kostinbrod and Targovishte | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **V.** | **Sub-objective 5: Participation of citizens in the cross-border area of ​​Kostinbrod and Targovishte in policies and actions for management, monitoring and environmental protection** | | | |
| **5.1.** | **Sub-objective 5.1: Establishment of a joint cross-border action group on governance, monitoring and environmental protection** | | | |
| **1** | Establishment of a joint cross-border action group on management, monitoring and environmental protection | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Material equipment of the joint cross-border action group on management, monitoring and environmental protection | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Annual trainings of the Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Annual thematic actions of the Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Exchange of experience and good practices with similar EU structures | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5.2.** | **Sub-objective 5.2: Joint actions on management, monitoring and environmental protection** | | | |
| **1** | Establishment of a joint portal for environmental monitoring in the cross-border area of ​​Kostinbrod and Targovishte | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **2** | Implementation and operation of an environmental management system | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **3** | Conducting an annual joint campaign "For a cleaner and healthier environment" | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **4** | Conducting a permanent campaign for separate waste collection | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |
| **5** | Conducting an annual "Books for Garbage" campaign | 2022 – 2027 г. | Kostinbrod Municipality and Targovishte Municipality | National Environmental Protection Funds; EU funds; international environmental donor programs |

**Indicators for document implementation:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **№** | **Indicator** | **Measure** | **Target value 2027** | **A source of information** |
| 1 | Number of implemented joint initiatives in the cross-border area of ​​Kostinbrod and Targovishte | number | 45 | Kostinbrod Municipality and Targovishte Municipality |
| 2 | Introduced measures to combat climate and adapt to climate change | number | 10 | Kostinbrod Municipality and Targovishte Municipality |
| 3 | Projects aimed at biodiversity conservation | number | 10 | Kostinbrod Municipality and Targovishte Municipality |
| 4 | Projects aimed at reducing the risk of natural disasters | number | 6 | Kostinbrod Municipality and Targovishte Municipality |
| 5 | Implemented projects in the field of organic farming and the circular economy | number | 10 | Kostinbrod Municipality and Targovishte Municipality |

**V. IDENTIFIED ACTION MEASURES AND METHODS FOR COOPERATION BETWEEN PEOPLE, INSTITUTIONS AND THE COMMUNITY AS A WHOLE TO DEAL WITH COMMON CHALLENGES IN**

**1. General characteristics of the Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection**

The idea of ​​the Joint Cross-Border Group for Action on Management, Monitoring and Protection of the Environment is to create and strengthen partnership capacity for management, monitoring and protection of the environment in the cross-border area of ​​Kostinbrod, Bulgaria and Targovishte, Serbia and Serbia. European experience and good practices in the field of environmental integration processes.

The following principles and norms should be observed in the work of the Joint Cross-Border Action Group:

* Replacing competition with cooperation and interaction;
* Sharing personal and organizational experience;
* Information sharing;
* Providing personal expertise in favor of common work;
* Tolerance to the individuality of the other and his level of competence;
* Conscientious fulfillment of the undertaken commitments and obligations;
* Activity and initiative in solving tasks;Обединяване на личните и организационните възможности с оглед постигане на значими цели.

The Joint Cross-Border Group for Action on Environmental Management, Monitoring and Protection is an informal, voluntary, self-governing structure, open to the participation of all persons interested in its development, economic entities and organizations to carry out activities for public benefit.

Its mission is to build a new ecological culture and improve the quality of the cross-border environment, leading to a higher standard of living, an effective standard and greater employment opportunities.Всички участници в Съвместната трансгранична група обединяват своите усилия за постигане на следните цели:

* Improving coordination between local authorities and territorial structures in order to create and strengthen partnership capacity for governance, monitoring and environmental protection in the context of the new European green policy.
* Creating conditions for establishing and upgrading partnerships.
* Active involvement of the target groups in the initiatives of the Joint Cross-Border Group, access to information and contacts they need for the implementation of joint ventures.
* Research on the territory of the municipalities of Kostinbrod and Targovishte and participation in the implementation of programs and projects at regional, national and international level.
* Promoting sustainable development, balanced resource use and environmental security of industries and branches, cross-border and industrial areas, urbanized, non-urbanized, border and protected areas.
* Consolidation of universities, manufacturing companies, cooperatives and other organizations and associations in the preparation of projects for business and sustainable development.
* The Joint Cross-Border Group to be a public mediator and training center in the field of ecology and sustainable development.
* Improving the information exchange between the participants in the Joint Cross-Border Group.Развитие и укрепване на Мрежата от организации, подкрепящи бизнеса.
* Increasing the capacity of local entrepreneurs and farmers to develop a circular economy.

The members of the Joint Cross-Border Group are equal and independent experts and organizations united by the idea of ​​achieving the objectives set out above. Each member should work towards the common goals on its own behalf, but at the expense of all members, while maintaining their independence.

The municipalities of Kostinbrod and Targovishte play a moderating and coordinating role, providing the Joint Cross-Border Group with its technical and methodological assistance and organizational capacity, without disrupting the horizontal structure of the group. The Joint Cross-Border Group should be established for an indefinite period.

**1. Activities of the Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection**

The Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection achieves its objectives through the following activities:

* Providing information to network members on EU, Bulgaria and Serbia policies for governance, monitoring and environmental protection, including in the context of the European Green Pact; European practices and experience in the field of environmental protection; information on forthcoming events, conferences, seminars concerning the representatives of the Joint Cross-Border Group. Providing access to a single database that will serve as a basis for cooperation and exchange of information between network members.
* Strengthening and expanding the group by identifying the appropriate mechanisms to facilitate the process of building effective and efficient partnerships between its individual participants. Her role as a mediator in maintaining constructive relations between individual institutions, organizations and representatives of local and national authorities is strongly emphasized.
* Independently or in cooperation with other organizations research on the territory of the municipalities of Kostinbrod, Targovishte and the cross-border region, development of analyzes and forecasts for sustainable development, promotion of environmental protection.
* Providing training seminars and expert assistance for capacity building of group members.
* Conducting advocacy campaigns on key issues related to environmental protection by initiating and mediating dialogue between representatives of various organizations and structures actively working for the development of the cross-border area and local authorities.
* Participation in actions, including joint ones, for the prevention of disasters, accidents and catastrophes of various kinds.
* Providing information and good practices for group members.
* Development and implementation of thematic projects
* Organizing joint campaigns, public events, trainings.
* Conducting conferences, workshops and meetings related to achieving the main objectives of the Joint Cross-Border Group.
* Development and proposal for approval of normative documents at local level, related to the main activities of the Joint Cross-Border Group.
* Providing independent expert assessments and participating in discussions of various issues related to the development of the territory, environmental protection, etc.
* Modern communication and information services, etc., incl. organizing press conferences through the media, collecting signatures, polls and other forms of creating active public opinion on all issues of sustainable development.

1. **Membership, rights and obligations of the members of the Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection**

Membership in the Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection is voluntary.

Members of the group can be individuals, institutions, businesses and organizations that accept its goals and are willing to work to achieve them.

Each member of the group has the right to:

* To participate in the work of the group and in the organized public events;
* To participate in the preparation and adoption of rules for the work of the group;
* To receive information about the activities of the group;
* To submit inquiries and proposals to the coordinating organization for the work of the group;
* To develop and implement joint initiatives with other members of the group;
* To have access to the developed databases;
* To participate in the trainings and workshops organized for the members of the group;
* To present adopted general opinions on behalf of the group;
* To unite with each other to achieve the goals of the group through all possible organizational and legal forms;
* To use the group as a concentrator of knowledge and good practices for management, monitoring and protection of the environment, sustainable development and dealing with disasters and crises.

1. **Code of Ethics**

The main values ​​and principles of the Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection are:

1. Members' rights are a core value for the group - the well-being and best interests of members take precedence over the interests of individual organizations and stakeholders.

2. Equal participation of group members in decision-making and policy-making affecting them.

3. Non-discrimination - respect, esteem and work with group members regardless of their ethnicity, race, beliefs, gender, beliefs, sexual orientation and other differences that may be grounds for discrimination.

4. Working in partnership - partnership is a leading tool that helps to define and share our priorities and mobilizes the capacity to achieve the goals of the group.

5. Openness and transparency in the decision-making process in the group and in all actions it takes.

The organizational principles of the group are related to:

* Openness of the group, which adopts new ideas and regularly updates its strategy, plans and actions in order to achieve effective results at local, national and international level in matters of governance, monitoring and environmental protection.
* Striving to apply good practices by encouraging the sharing of experience and knowledge between members and providing mutual assistance in order to be more effective in the work of the group.
* All members of the group are equal regardless of the size, financial capabilities and influence of the organization at the local, national and international levels.
* Problems and difficulties encountered in the group are discussed within the organization. The group does not take part in resolving inter-organizational issues between member organizations and / or other organizations, and at the request of the specific organizations involved in the dispute, may assist in providing space and a mediator for its resolution.
* Each organization has its own authorized representative at the group meetings, who can make decisions on behalf of the organization and engage his organization with the general activities of the group.
* Each organization is committed to promoting the activities of the Joint Cross-Border Group. The organization retains its identity and independence in the group, but when speaking on its behalf it seeks to express only the common achievements and messages of the group, or if it has to come up with one due to various circumstances, indicates the topics of agreement and disagreement in the group.
* Decisions in the group regarding positions, opinions, etc. are taken by consensus. In the presence of a different position of the organization - a member of the group, all available internal mechanisms for professional discussions are used so as to unify the common messages on the topic. In case this turns out to be impossible, the group does not come up with a position on the topic.
* Any organization may request and initiate an agreed opinion on behalf of the group. Deciding on an agreed opinion is discussed in the whole group and a deadline is set for the discussion. On the basis of the received opinions and comments the opinion is prepared, taking into account all presented nuances and comments, including the contradictory arguments of the organizations from the group. If there are too many conflicting opinions, further discussion between organizations with different opinions is encouraged. After the expiration of the set term, the principle of tacit consent shall apply. Each organization is free to express its organizational opinion, but respects and respects the agreement reached in the group on the specific issue with all the differences and arguments.
* Statements of suggestions, opinions and recommendations on the activities, management and effectiveness of the group, as well as critical remarks regarding the activities of the organization are especially encouraged. All this needs to be done in a proper way without compromising the dignity and diligence of individuals and member organizations.

**Coordination and communication**

Coordinating bodies of the Joint Cross-Border Action Group for Management, Monitoring and Environmental Protection are the municipalities of Kostinbrod and Targovishte.

The coordinating organizations occupy a central position in the communication process and are actively involved in the exchange of information between the members of the group.

All members provide voluntarily and in good faith the information necessary for the functioning of the group. Communication between group members is an ongoing process.

The frequency of communication between group members depends on the need to exchange information between them.

Decisions on the activities of the group are made by all members during general meetings. Decisions are taken by open voting and a simple majority of all members of the group.

**Ways and principles for establishing effective working relations between the members of the group**

The establishment of working relations between the members of the group is carried out by the following methods:

Networking;

Partnership;

Interinstitutional relations;

Multi-organizational relations.

Networking involves the exchange of information or support between group members. They consult with each other in order to improve each of them 'knowledge of a topic or service.

The Partnership describes the way in which organizations work together, sharing responsibilities for a case or project, sharing resources equally, each doing their part in the interest of a particular case, client, project, or in the interest of both organizations.

Inter-agency describes the process of cooperation and collaboration between two or more organizations, usually focused on a specific project.

Multi-agency relationships describe the response of several organizations to tackling a common problem. The organizations shall agree on an action plan or strategy and activities allocated for implementation by the various members.

The principles for establishing working relationships between the members of the group are:

* The Joint Cross-Border Group maintains a common database.
* High working standards are guaranteed by the strict selection criteria of the group members, as well as the conditions for access to a partnership agreement.
* Shared information is important. One of the main tasks is the constant collection and research of large data sets, specialized information from various global sources. The members of the group get access to the created base and analyzes, which quickly monetizes the provided opportunities, with an advantage over the competitors.
* Continuous growth - The Joint Group should be set up to grow steadily.
* Commitment to inadmissibility of prejudice and racism.

**Financing of the Group**

Funding for the Joint Cross-Border Action Group on Management, Monitoring and Environmental Protection may come from the following sources:

 The budgets of the municipalities of Kostinbrod and Targovishte;

 Membership of the partners in the group;

 Donations;

 Project financing.