Strategic Environmental Assessment Report for Municipal Development Plan

Municipality of Partesh/Parteš

MUNICIPAL SPATIAL PLANNING SUPPORT PROGRAMME IN KOSOVO

MUNICIPALITY
OF PARTESH/PARTEŠ

Implemented by:
UN HABITAT
FOR A BETTER URBAN FUTURE

Financed by:
SWEDISH DEVELOPMENT COOPERATION
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I. INTRODUCTION

1.1. PURPOSE OF SEA

Strategic Environmental Assessment (SEA) is a "systematic process for evaluating the environmental consequences of a proposed policy, plan or programme initiatives in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision-making on par with economic and social considerations" (Sadler and Verheem, 1996). The ultimate goal of SEA is to provide for a high level of environmental protection and contribute to promote sustainability. SEA aims at improving the plan or programme, by suggesting new objectives or strategies, as well as revising proposed strategies and suggesting those that appear to be better in terms of enhancing environmental opportunities and minimising impacts and risks. Consequently, SEA needs to start early in the plan making process and be fully integrated into it (see Section 1.2).

In Kosovo SEA is regulated by Law no. 03/ 230, which determines the conditions, form and procedures for the application of SEA. According to this law, SEA must be undertaken for spatial and city planning, including municipal development plans. The Kosovo SEA law is consistent with the requirements of the European Union so-called "SEA Directive" (Directive 2001/42/EC), which identifies the following key elements of the SEA process:

- Preparing an Environmental Report informing on the likely significant effects of the draft plan or programme;
- Carrying out consultation on the draft plan or programme and the accompanying Environmental Report;
- Considering the results of consultation processes in decision- making
- Showing how the results of the environmental assessment have been taken into account in the final plan or programme.

1.2. THE SEA PROCESS FOR THE MDP OF PARTESH MUNICIPALITY

The process followed to carry out the SEA, and its interaction with the MDP process, is presented in Figure 1.1 The process was started in March 2013, after the Profile document of the municipality was drafted. Firstly, the legal and strategic context was analysed, by collating information related to relevant legislation documents, as well as policies and other strategic actions with implications for the MDP and the territory of the municipality of Partesh. Additionally, a preliminary inventory of available information (environmental reports, sectoral studies, GIS databases) was carried out.

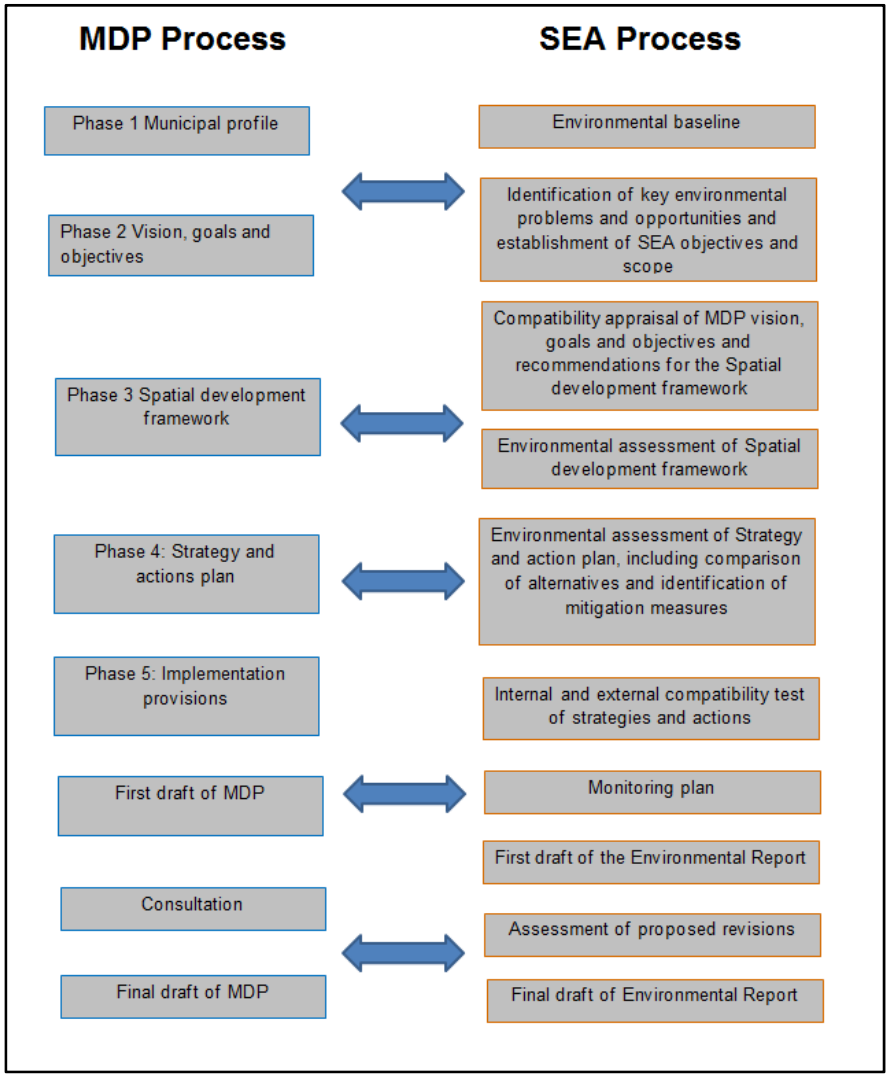
In April 2013 a meeting with the staff of the Municipality of Partesh was held to describe the purpose of SEA, to discuss the working methodology, and to collect preliminary opinions and views on the most significant environmental risks and opportunities that characterize the territory of Partesh. As to the latter, the main issues that emerged during the meeting included: road infrastructure development, agricultural land abandonment and fragmentation, illegal forest cutting, rivers and streams water quality, landscape/cultural heritage features, the need for cleaning up illegal inert and household waste dumping sites. The meeting served also the purpose of collecting additional baseline data and being informed about relevant data sources. Baseline data collection was completed also by performing fieldwork and holding meeting with staff of the Ministry for Environment and Spatial Planning. This allowed to produce a draft report of the environmental baseline that describes the current state of the environment and identifies the main critical issues, as well as the main opportunities. This was then revised and integrated by including the comments of the planning team. Subsequently, a draft list of SEA objectives was compiled and agreed upon with the planning team. During a second meeting with the staff of Partesh Municipality held in July 2013, the list of objectives was presented and discussed. The main points of discussions concerned the need to contain and prevent urban sprawl into agricultural areas and irregular housing

development, the problem related to the use of pesticides in agriculture (exacerbated by the fact that farmers are poorly trained on the proper application of fertilizers and pesticides), the importance of investing in environmental awareness initiatives, and the issue of forest fires. After this meeting, the list of SEA objectives was finalized in order to be used throughout the remaining stages of the SEA process.

By using the list of SEA objectives as a reference, a compatibility appraisal was carried out to test the consistency of the content of the Vision document. This produced a document highlighting the potential synergies and conflicts between MDP goals and SEA objectives, and providing suggestions on how to improve synergies and reduce conflicts. The document was shared with the planning team and used to finetune the final version of the MDP Vision document, as well as to inform the formulation of the spatial development framework.

Once the Spatial development framework and the Strategy and action plan were drafted, the SEA produced a preliminary assessment of its environmental implications and a list of recommendations, which were shared with the planning team.

Figure 1.2.1 Stages of the SEA process and interaction with the MDP



1.3. STRUCTURE OF THE ENVIRONMENTAL REPORT

This report is structured as follows. **Chapter 2** provides information on the legal and strategic framework, as well as on the available data. **Chapter 3** describes the environmental baseline and its likely evolution without implementation of the MDP. **Chapter 4** describes the key environmental problems and opportunities, and lists the SEA objectives that have been established for the MDP. **Chapter 5** provides a summary of the content of the MDP. **Chapter 6** contains the outcome of the compatibility appraisal of the MDP goals, as described in the MDP Vision document. **Chapter 7** contains the assessment of the environmental effects of the Spatial development framework and the Strategy and action plan of the MDP. **Chapter 8** reports on the outcome of the external compatibility appraisal of the MDP. **Chapter 9** describes the plan for monitoring the effects of the MDP. **Chapter 10** contains the non-technical summary of the environmental report.

Table 1.1 provides a summary of the requirements of the Kosovo's SEA law and signposts the relevant sections of the Environmental Report that meet these requirements.

Table 1.3.1 Required content of environmental report according to Law 03/L-230 and where it is covered in this report

Information to be provided in SEA reports (Annex 2, Law No. 03/L-230	**Where covered in this report**
1. An outline of the contents, main objectives of the plan and relationship with other relevant plans and programmes	Chapter 5 and Chapter 8
2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan	Chapter 3
3. The environmental characteristics of areas likely to be significantly affected	Chapter 3
4. Any existing environmental problems which are relevant to the plan, including, in particular, those relating to any areas of a particular environmental importance	Chapter 3 and Chapter 4
5. The environmental protection objectives, established at national, international or European Community level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation	Chapter 2, Chapter 6 and Chapter 7
6. The likely significant effects on the environment, on such issues as biodiversity, population, human health, flora, fauna, soil, water, air, climatic factors, material assets, cultural and natural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors	Chapter 6 and Chapter 7
7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan	Chapter 7
8. An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties - such as technical deficiencies or lack of knowhow - encountered in compiling the required information	Chapter 6 and Chapter 7
9. A description of the measures envisaged concerning monitoring	Chapter 9
10. A non-technical summary of the information provided under the above headings	Chapter 10

II. LEGAL AND STRATEGIC FRAMEWORK AND AVAILABLE INFORMATION

2.1. LEGAL FRAMEWORK

Table 2.1.1 provides an overview of the Kosovo legislations that set environmental protection objectives and policies that are potentially relevant for the MDP and the SEA.

Table 2.1.1 Relevant environmental laws and their purposes and scope

Law	Purpose and scope
Law on AGRICULTURAL LAND (No. 02/L-26)	Determines the use, protection, regulation and lease of agricultural land for the purpose of permanent preservation and protection of agricultural potential, based on the principles for a sustainable development.
LAW NO. 02/L-79 ON HYDRO-METEOROLOGICAL ACTIVITIES	This law considers are all the kind of element measurements and observation of the meteorological occurrences, hydrological, bio-meteorological, hydro-biological, elaboration and annunciation of the collected results of these measurements and observations, annunciation of regular and time by time information for weather, state of surface and underground waters, conduction and researching of the changes and occurrences of the atmosphere in hydrosphere with the importance for Kosovo economy, the study and assessment of their environmental impact.
LAW No. 02/L-102 ON NOISE PROTECTION	The purpose of this law is to avoid, prevent or reduce on prioritized bases, the harmful effects, including annoyance, due to exposure on noise. This law shall provide a basis for developing measures to reduce noise emitted by the major sources, in particular road and rail traffic aircraft, outdoor and industrial equipment, mobile machinery and for other sources of environmental noise pollution and annoyance.
LAW NO. 02/L-116 ON CHEMICAL	The purpose of this law is also to regulate sustainable administration of chemicals including measures for environmental protection and the exposure of man to the substance.
LAW No. 03/L-025 ON ENVIRONMENTAL PROTECTION	This law shall harmonize economical development and social welfare with basic principles for environmental protection according to the concept of sustainable development. The purpose of this law is to promote the establishment of healthy environment for population of Kosovo by bringing gradually the standards for environment of European Union.
Law No. 03/L-043 ON INTEGRATED PREVENTION POLLUTION CONTROL	The purpose of this Law is intervention prevention pollution control arising from industrial activities, in particular by preventing or reducing wastes and emissions to the air, water and land.
LAW No. 03/ L-104 ON PROTECTION FROM NON-IONIZED, IONIZED RADIATION AND NUCLEAR SECURITY	The purpose of this law is to: assure the compliance with international norms and conventions in the field of non-ionized, ionized radiation and nuclear security; ensure that the creation of such an healthy environment that withstand pollutions and expenditures concerning of Protection from Radiation and Nuclear security that is affordable and consistent with a sustainable economic development; establish the specific authority and obligations of the public authorities responsible for gradually introducing and enforcing such standards; set out the rights and obligations of persons and establishments affected by such activities or interest in promoting a healthy environment in Kosovo.

LAW NO. 03/L-119 ON BIOCIDE PRODUCTS	Main goal of this draft law is to determine and regulate conditions for placing in the market and utilization of active substance(s) used for production of biocide products in the territory of Republic of Kosovo and with this to protect human animal health and environment.
LAW No. 03/L-160 ON AIR PROTECTION FROM POLLUTION	The purpose of this Law is to regulate and guarantee the rights of citizens to live in a healthy and clean air environment, whilst protecting human health, fauna, flora and natural and cultural values of the environment
LAW No. 03/L-214 ON ENVIRONMENTAL IMPACT ASSESMENT	The aim of this Law is to prevent or mitigate adverse impacts of proposed public and private projects and thereby contribute to the safeguarding and improvement of the environment, the protection of human health, and the improvement of the quality of life.
LAW No.03/L–233 OF NATURE PROTECTION	This Law shall lay down a system for the general protection and conservation of nature (all biological and landscape diversity) and its values.
LAW No.04/L-060 ON WASTE	This law aims to: 1. elude and reduce as much as possible generation of waste; 2. reuse of used components from waste; 3. sustainable development through protection and preservation of human resources; 4. prevention of negative effects of the waste in environment and in human health; 5. final storage of waste in acceptable environmental manner
LAW NO. 04/L-120 ON PLANT PROTECTION	This Law regulates all activities related to: 1. protecting plants, plant products and other objects included in plant production; 2. identifying measures for the prevention of introduction and spread of harmful organisms in plants, plant products and other objects and for their eradication; 3. favouring the collection and exchange of information and data with other countries; 4. financing and compensating works undertaken on plant protection; 5. designating tasks and responsibilities of the subjects involved in the plant protection and in the application of this Law in Kosovo.
Law No.2004/24 KOSOVA WATER LAW	This Law regulates issues relating to the management, planning, protection and institutional responsibilities in regard to water and Water Resources.

2.2. STRATEGIC ACTIONS

Table 2.2.1 provides an overview of the strategic actions (policies, plans or programmes) that are potentially relevant for influencing the MDP. The consistency of the MDP with these actions (the so-called "external compatibility analysis") will be assessed in Chapter VIII.

Table 2.2.1 Relevant strategic actions and their purposes and scope

Strategic action	Purpose and scope
Kosovo Spatial Plan 2010-2020+	It promote common interests of the residents of Kosovo, for an accelerated economic development, with the aim of improving quality of life, but simultaneously protecting resources, natural and cultural heritage. The drafting of the Spatial Plan of Kosovo provides guidance for future spatial development at national level, municipal and urban scale.
Strategy and Action Plan for Biodiversity 2011 – 2020	It is a fundamental document for the protection of nature, which determines long-term objectives for conservation of biodiversity and landscape diversity, protected nature value, and also the manner of implementation in harmony with general economical, social, cultural development.
Environmental strategy for Kosovo	Developed by the Ministry of Environment and Spatial Planning, in accordance with the Law of Environment Protection. It represents the basis for the drafting of Kosovo Environmental Action Plan.
Kosovo Environmental Action Plan	It specifies in detail all the activities required for the realization of the Environmental Strategy. The Action Plan contains the operative program for achieving the Strategy's objectives
Local Environmental Action Plan (LEAP) 2012-2017, Partesh Municipality	It is a strategic document that contains strategies and priorities for achieving sustainable development, considering values and needs of communities and existing environmental problems.
Municipal Development Plan (2006- 2015) of the Municipality of Gjilan	Contains regulations on the utilization and development of space for the neighboring municipality of Gjilan
Municipal Development Plan 2010-2020 of the Municipality of Viti- Kllokot	Contains regulations on the utilization and development of space for the neighboring municipality of Viti-Kllokot

2.3. AVAILABLE INFORMATION

Table 2.3.1 provides an overview of the reports and other available sources of information that are relevant for the SEA and that represented the basis for the construction of the environmental baseline, complemented by field observations and interviews with key observers and stakeholders, as described in Section 1.2.

Table 2.3.1 Available information on relevant issues for the SEA

Report	Author/agency/source
The state of water in Kosovo, 2010	Ministry of Environment and Spatial Planning Kosovo Environmental Protection Agency
The State of Nature 2008-2009	Ministry of Environment and Spatial Planning Kosovo Environmental Protection Agency
The State of Waste in Kosovo 2008 Report	Ministry of Environment and Spatial Planning Kosovo Environmental Protection Agency
The state of environment in Kosovo, 2008-2010	Ministry of Environment and Spatial Planning Kosovo Environmental Protection Agency
State of the air report 2012	Ministry of Environment and Spatial Planning Kosovo Environmental Protection Agency
Kosovo Water Polluters Cadastre	Regional Environmental Center- Office in Kosovo Kosovo Environmental Protection Agency
Report on environmental hotspots in Kosovo, 2011	Kosovo Environmental Protection Agency
Water Security for Central Kosovo, 2012	Ministry of Environment and Spatial Planning
Kosovo Biodiversity Assessment, 2003	USAID/Kosovo
Kosovo Country Environmental Analysis. Cost Assessment of Environmental Degradation, Institutional Review, and Public Environmental Expenditure Review	World Bank
Demographic, Social and Reproductive Health Survey in Kosovo, November 2011.	Statistical Office of Kosovo (SOK) Ministry of Public Administration, Supported by UNFPA and UNICEF, Pristina,
Technical report: preliminary identification of Nature 2000 sites in Kosovo	n.a.
Kosovo greenhouse gas emissions 2008 - 2009	UNDP Kosovo
Kosovo and climate change. A Strategic Approach to the Copenhagen Climate Change Conference 2009.	https://wiki.rit.edu/download/attachments/68166747/Climate+Change+Report.pdf?version=1&modificationDate=1349820226330

GIS data were available from two different sources:

- EULUP - EU project "Further support to land use". European Commission Liason Office (www.eulup-ks.org). These data include maps of land cover, agricultural land suitability, groundwater sensitivity and pollution risk, soil erosion sensitivity and risk, flood risk areas, estimated biodiversity values.
- Municipal GIS database compiled by consultants hired by UN-habitat. This database includes all basic layers (such as land use, topography, roads, built-up areas, hydrography, administrative boundaries, cadastral boundaries, etc), as well as point features facilities, services and infrastructures (schools, health centres, public spaces, etc.)

III. ENVIRONMENTAL BASELINE

3.1. CLIMATE, TOPOGRAPHY AND LAND USE

The Municipality of Partesh is located in the eastern part of Kosovo, close to the border triangle with Serbia and Macedonia. It shares boundaries with the municipality of Gjilan to the North, East and West, and with the municipality of Viti to the South. The Municipality is constituted by three cadastral units: Partes/ Partesh (in the western part), Pajsane/ Pasjan (in the eastern part) and Donja Budriga/ Budrige e Poshtme (in the central part) (see Figure 3.1.1). In terms of land area Pasjane/ Pasjan unit is the largest, covering an area of 53.30% of total municipal land, followed by Partes/ Partesh (28.17%) and Donja Budriga/ Budrige e Poshtme (18.53%). The climate is moderate continental with long and hot summers, short and cold winters characterized by heavy snowfalls (about 23 annual snowing days on average). Fall and spring are rainy and hail events are frequent. The terrain is mainly flat and gently undulated, belonging to the valley of the Binaka Morava and Binces rivers. The western and eastern-most sectors of the municipalities are more hilly and the elevation reaches 577 m asl (Dunjiste Hill). (see elevation shading in Figure 3.1.1).

The predominant land use is agriculture, which covers most if the central part of the municipality, followed by forest, which is distributed mainly on the easternmost sector. The land use map is presented in Figure 3.1.2.

Figure 3.1.1 Location of the three main settlements superimposed to a Digital Elevation Model (Source: MDP document)

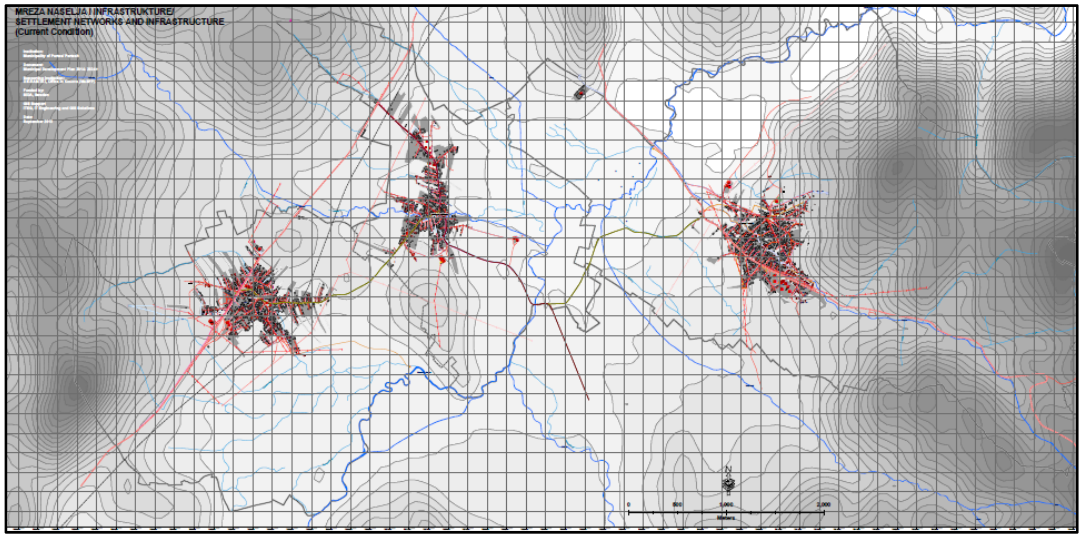
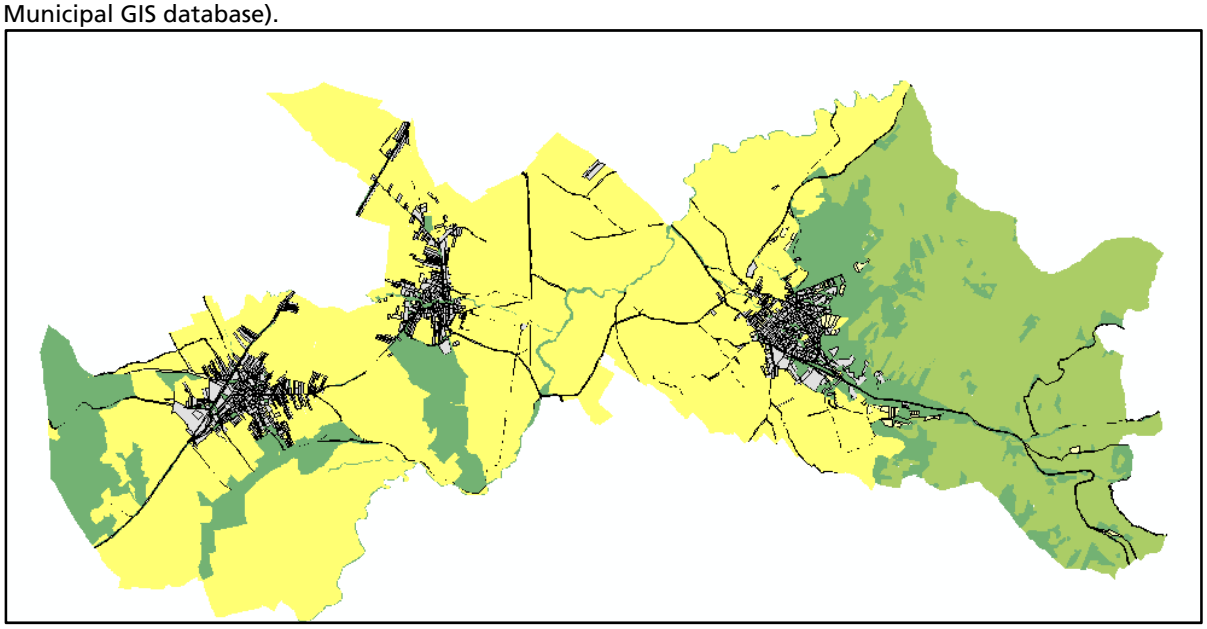


Figure 3.1.2 Map of the main land use types in the Municipality of Partesh. Key: olive green: forest; dark green: other green areas; yellow: agriculture, grey: settlements and infrastructures (Source: own elaboration based on the Municipal GIS database).



3.2. WATER RESOURCES

Kosovo is a region with limited water resources (estimated in 1600m^3/person[1]), and this factor poses a threat to its future social and economic development. Hence, the use and conservation of water resources represent critical issues and major environmental challenges. However, the municipality of Partesh is particularly rich in water resources, being crossed by a major river, the Binacka Morava River (whose watershed has a surface of 1564 km^2 , Figure 3.2.1), and its tributaries (Figure 3.2.2). The river has an annual water flow of 330 million m^3, and an average flow of 6.1 m^3/s ([2]). Its water is currently mainly used for irrigation purposes. All the three main cadastral units of the municipality are crossed by the Binacka Morava River. Along the Binacka Morava River there are three measuring station that belongs to the hydrometric network of Kosovo, which started its operation in 2003. The closest station to Partesh is located within the municipality of Viti and measures water level (h) and flow (Q). The average flow is 1.06 m^3/sec, with a maximum flow of 18.70 m^3/sec and a minimum flow of 0.05 m^3/sec ([2]).

[1] KOSOVO ENVIRONMENTAL ACTION PLAN 2006 – 2010

Figure 3.2.1 Rivers and basins of Kosovo. The Binacka Morava watershed is represented in dark green (Source: The state of water in Kosovo, 2010)

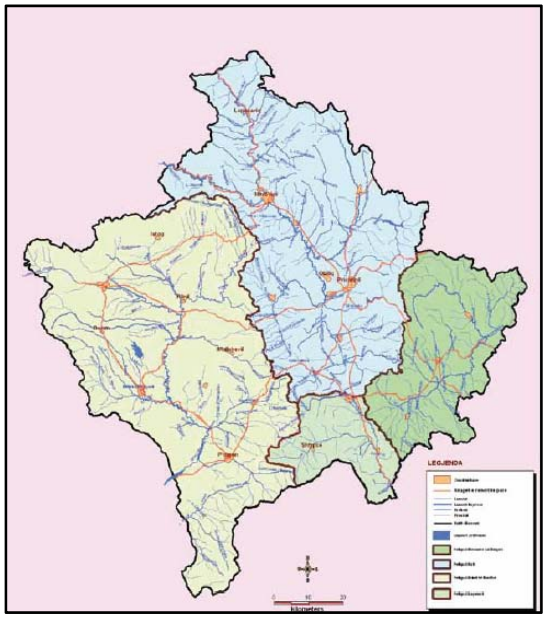
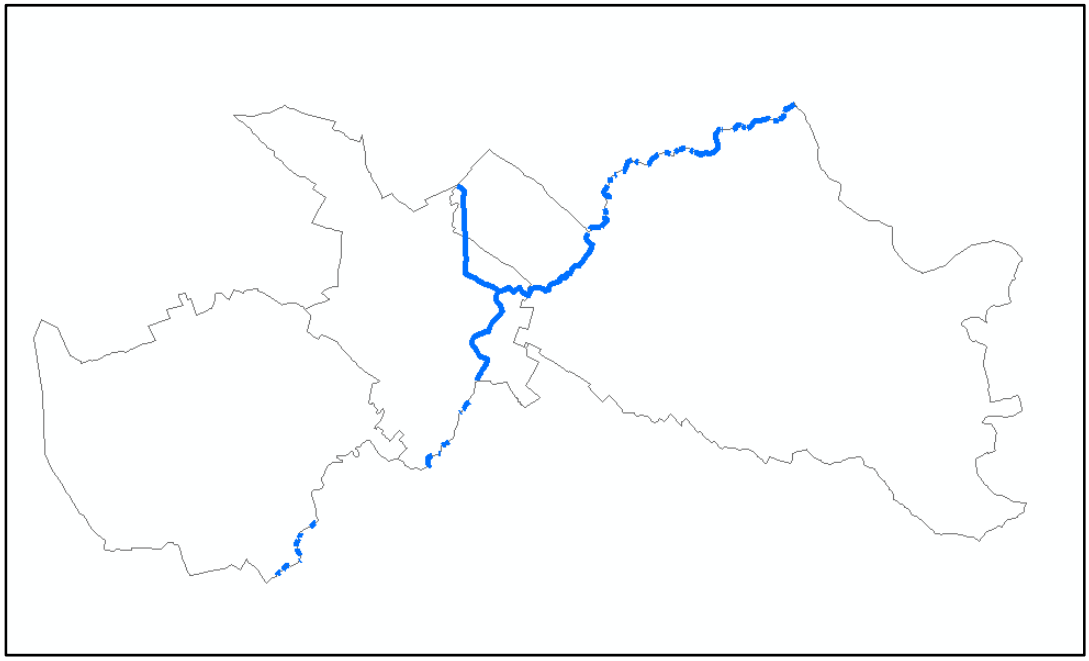


Figure 3.2.2 The river network within the Municipality of Partesh superimposed to the three cadastral units



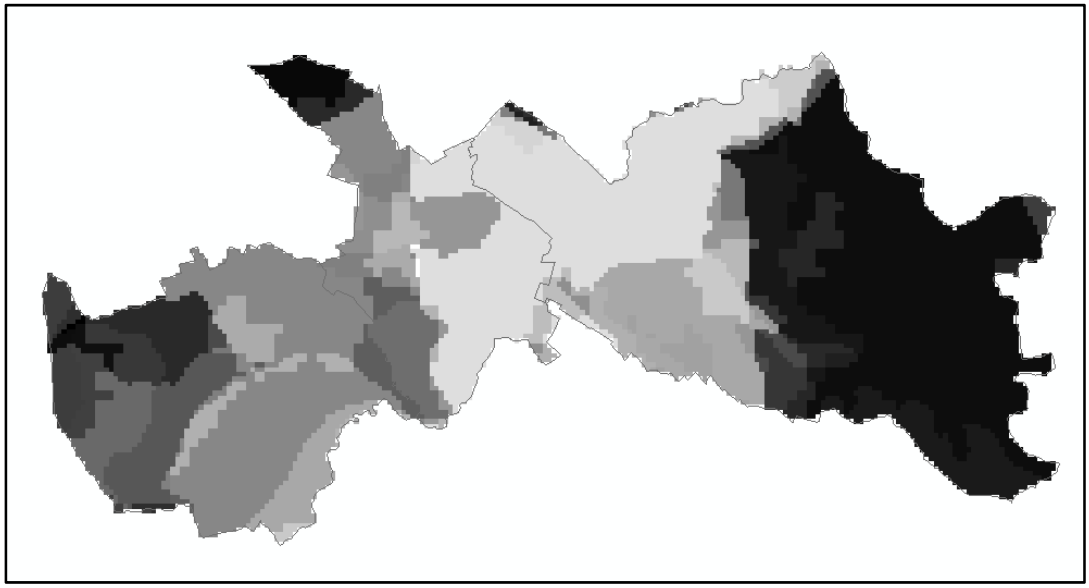
Water quality is an issue of concern in Kosovo due to the lack of wastewater treatment plants (as well as wastewater monitoring systems) for municipalities, as well as the industrial sector. Therefore, both surface and groundwater bodies are currently not protected from pollution. Monitoring data show that all rivers are considered polluted and have unacceptable levels of biological oxygen demand, as well as lack of dissolved oxygen. Pollution of drinking water arises more from bacteriological contamination than chemical contamination. Most of the bacteria are found in the water supply systems of

small cities and rural areas, where an estimated 74– 90 percent of wells and springs have wastewater and fecal contamination[2].

Within the municipality of Partesh, there are no water quality monitoring stations. However, the Binacka Morava River is monitored in Kllokot, Ugljare and on the border with Serbia in Domorovc. The results of the monitoring show a reduction of water quality at stations located downstream, after discharges of urban wastewater collectors[3]. The report warns that "surface water pollution levels are likely to be higher than monitored, because of gaps in the monitoring network for industrial wastewater effluents and surface water quality, particularly downstream of major industrial and mining complexes and discharges of untreated wastewater".

In the Partesh are there are no heavy industrial polluters: the Kosovo Water Polluters Cadastre[4] does not identify any economic operator with high potential for water pollution within the municipal boundaries. There is only one light industrial facility for the production of soft drinks in the territory of the municipality that is active, the wastewaters of which are discharged directly into Binacka Morava River, without any treatment, though an autonomous wastewater network (Source: MDP Profile Document). However, currently the septic tanks that collect wastewater from the municipal network are not equipped with the required treatment systems (see also Section 3.2.3). As a result, the river is experiencing increasing levels of pollution, with reported indicators of partial eutrophication in certain sectors (Source: MDP Profile Document). Figure3.2.3 shows a map of groundwater pollution risk, carried out during the EULUP project.

Figure 3.2.3 Ground water pollution risk. Key: the darker the hue, the lower the risk (Source: own elaboration based on EULUP database).



Access to piped water supply in Kosovo is limited, especially in rural areas. According to the Kosovo Country Environmental Analysis, 86% of households have piped water inside the building in urban areas, but only 45% in rural areas. Partesh has recently made efforts to develop a water system network to supply drinking water to all its inhabitants. This resulted in the construction of three separate water distribution networks providing water to the three settlements, which were made operational between 2008 and 2010 (details on the structure and functioning of the water supply network are provided in the MDP Profile Document). Currently, 93.40 % of households are supplied by these public

[2] Kosovo Country Environmental Analysis Cost Assessment of Environmental Degradation, Institutional Review, and Public Environmental Expenditure Review

[3] The state of water in Kosovo, 2010

[4] Kosovo Water Polluters Cadastre

water distribution networks, while the remaining ones are supplied by private wells. Water supply is not affected by seasonal changes, and no water shortages have been reported. However, concerns exist about the quality of the water supply by the network. Only in the case of Pasjane, the water from the tap is potable and it is monitored by the labs located in the water plant. In the other two settlements, tap water is currently not drinkable, even though the purification system for the settlement of Partesh is currently being tested and should be operational soon.

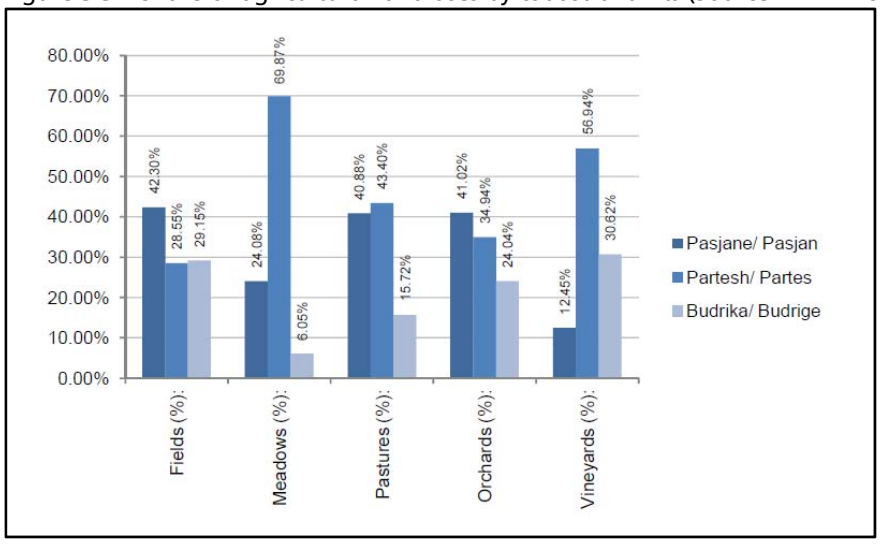
The concerns about drinking water quality are common to most rural areas of Kosovo, the Country Environmental Report[5] stating that "rural areas have about 200 water supply systems directly run by communities and villages, covering about 65 percent of the rural population, though few of these systems are hygienic". According to that report, in 2009 90% of backyard wells and local springs/ponds used as the primary source of potable water in rural areas tested high for nitrates and fecal contamination. However, the report concludes, quantifying health impacts is difficult due to a lack of data. One of the few available studies, reported that about 85% of diarrhea cases in Kosovo was attributable to inadequate quality and quantity of water supply, sanitation, and hygiene.

3.3. SOIL

Agriculture and horticulture are the main economic activities in Partesh. Almost hundred percent of the sector is informal and the number of the operators is unknown, but and it is estimated that the sector engages about 90% of the working force[6]. Hence, soil is a crucial natural resource, and about 2/3 of the land area is used for agriculture. Figure 3.3.1 provides an overview of the agricultural land uses.

The EULUP project[7] carried out a classification of agricultural land suitability, based on soil, terrain and climate information. The classification system used eight classes, where Class I corresponds to the best soil and Class VIII to the worst. The map in Figure 3.7 shows the distribution of land suitability classes in Partesh. The most fertile agricultural areas in Partesh include the Binacka Morava valley floor. About 4% of the land is classified in Classes I and about 74% in class I-IV, which are considered suitable for agricultural uses.

Figure 3.3.1 Share of agricultural land uses by cadastral units (Source: MDP Profile Document)

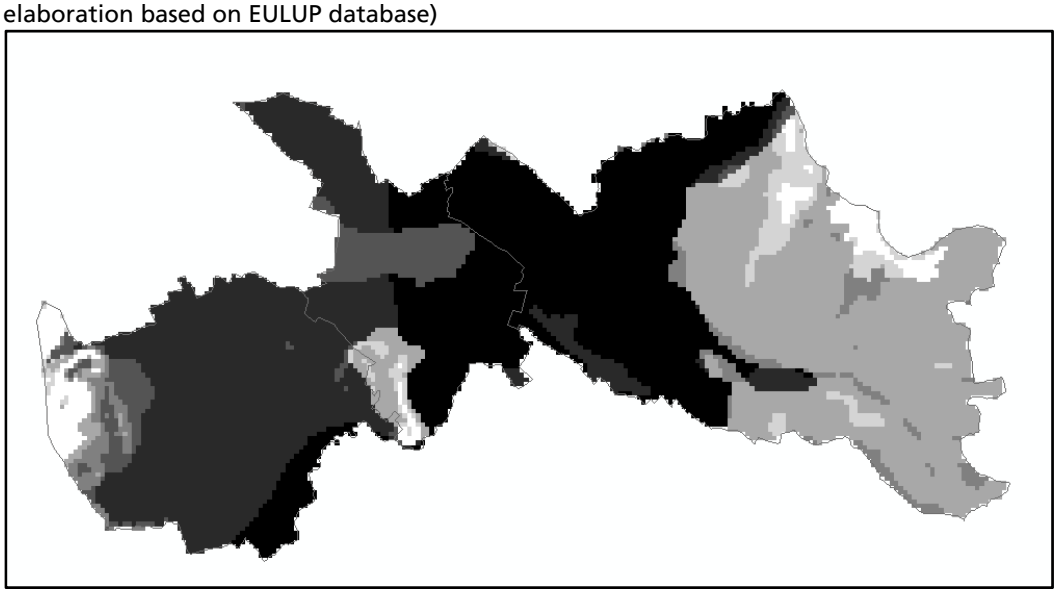


[5] Statistical Office of Kosovo (SOK) 2011. Demographic, Social and Reproductive Health Survey in Kosovo, November 2009. Ministry of Public Administration, Supported by UNFPA and UNICEF, Pristina, February

[6] Local Environmental Plan 2012-2017. Municipality of Partesh/Pasjane

[7] EULUP: EU project "Further support to land use". European Commission Liason Office. www.eulup-ks.org

Figure 3.3.2 Agricultural land suitability map. Key: the darker the hue, the higher the land suitability (Source: own elaboration based on EULUP database)



Soil erosion is present in Partesh, mainly in the hilly areas, where it is exacerbated by irregular forest cutting, small excavation activities and livestock grazing. Soil erosion is particularly severe in the hilly areas to the East of Pasjane settlement, where rill and gully erosion patterns are clearly visible (see Figure 3.3.3 and 3.3.4). The soil erosion risk map is presented in Figure 3.3.5.

Figure 3.3.3 Areas affected by severe erosions nearby Pasjane (Source: Google map)

Figure 3.3.4 Gully and rill erosion pattern in the hill nearby the settlement of Pasjane

Even though building construction in rural areas is phenomenon of limited proportions, it has mainly occurred in an irregular and unplanned way, leading to high land-take levels per building. The conservation of good quality agricultural soil and the preservation of the rural landscape is a growing concern, especially considering the construction of large commercial building alongside the main road corridors (see Figure 3.3.6).

Figure 3.3.5 Soil erosion map. Key: the darker the hue, the lower the risk of soil erosion (Source: own elaboration based on EULUP database)

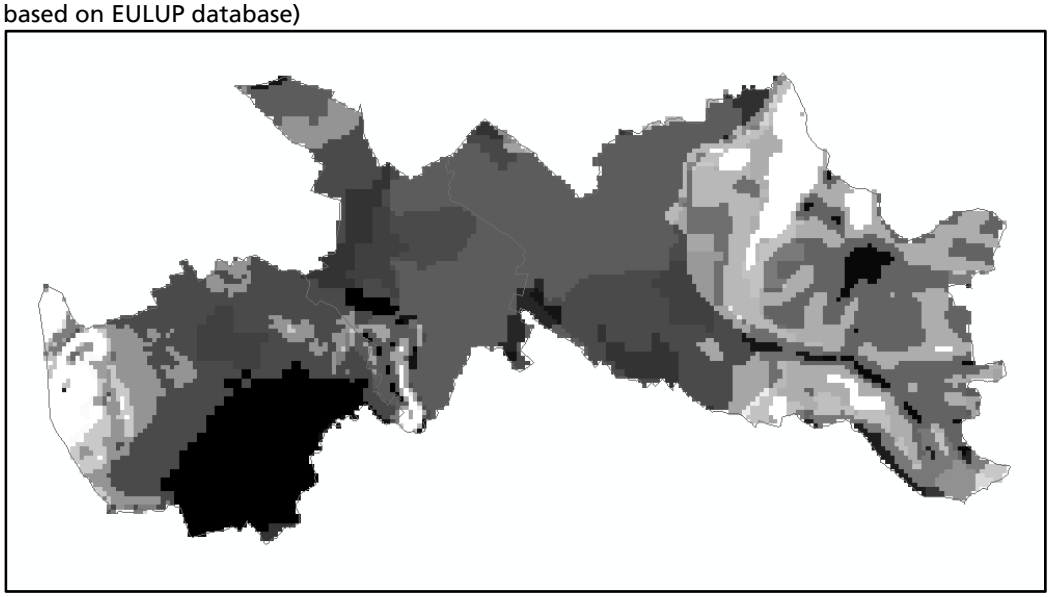


Figure 3.3.6 Unplanned building construction along the M25-3

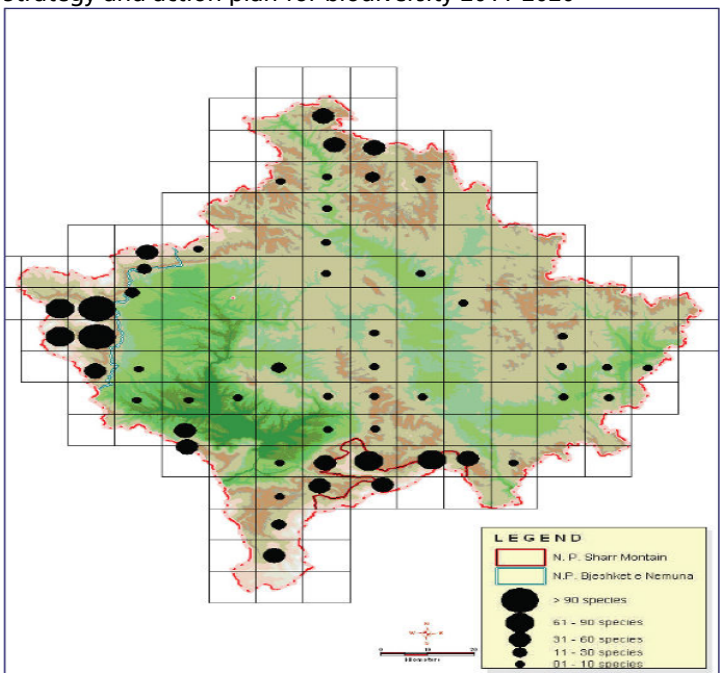
The territory of Partesh does not include any of the environmental hotspots identified by a recent survey[8], as those areas that are likely to concentrate soil (as well as other environmental media) contamination and human health problems, mainly due industrial activities. However, potential contamination of soil can occur in locations affected by illegal dumpsites or septic tanks overspills.

[8] Environmental hotspots in Kosovo (2011). KEPA

3.4. BIODIVERSITY AND FOREST

Biodiversity - Considering it relatively small size, Kosovo is characterized by high biodiversity. About 1,800 plant species have been surveyed, but it is assumed that the number might be as high as 2,500[9]. Kosovo is particularly rich of endemic species, with 13 identified plants that grow only in Kosovo and around 200 that are considered sub-endemic[10] (they are found only in the Balkan region). The Sharr Mountains and Bjeshkët e Nemuna ranges are the richest areas in terms of animal diversity. However, a comprehensive biodiversity inventorying has not been conducted as yet, and there is little information broken down at sub-country level. Figure 3.4.1 shows that the area that includes part of the municipality of Partesh is classified has having 11-30 endemic species of plants, even though there is no precise information on the actual distribution of such plant diversity. A map of the estimated biodiversity value was produced by the EULUP project, and it is presented in Figure 3.4.2 This map combines information on land cover, elevation, roads and building density, and flood risk areas to produce a ranking of importance sites for biodiversity. As it can be seen, there are areas within the municipality boundaries that are considered to have a very high value, particularly in the south-eastern sector.

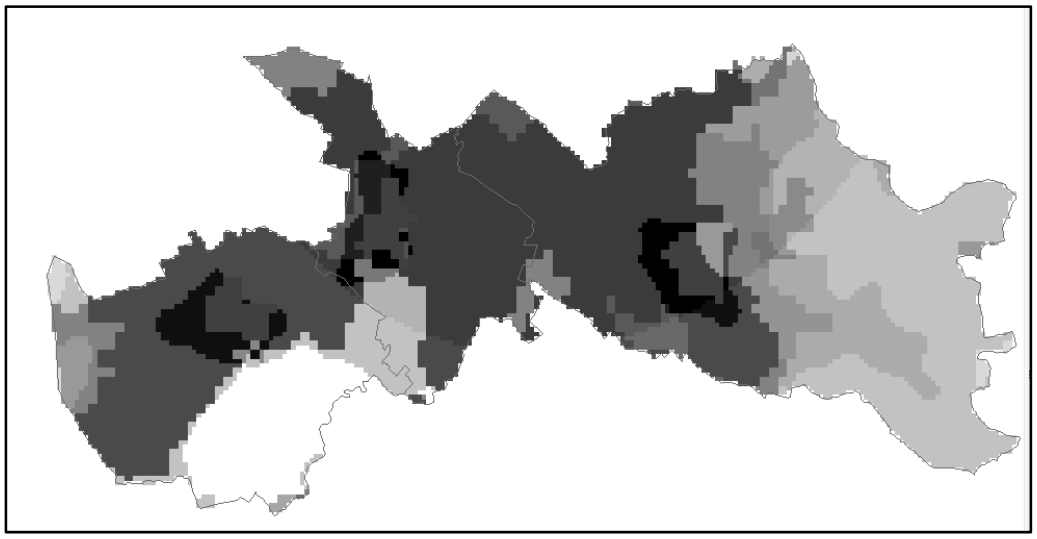
Figure 3.4.1 Map of localities of important endemic species (Source: KEPA State of nature report 2006-07. Quoted in: Strategy and action plan for biodiversity 2011-2020



[9] KOSOVO ENVIRONMENTAL ACTION PLAN 2006 – 2010

[10] Strategy and action plan for biodiversity 2011-2020

Figure 3.4.2 Map of the estimated biodiversity value. Key: The darker the hue, the lower the value. (source: own elaboration based on EULUP database).



According to the Profile document of the MDP, the faunal diversity in Partesh is represented by the following species:
- Taxonomic order Lagomorpha: hare (threatened by hunting)
- Taxonomic order Carnivora: gray wolf and fox, wildcats, badgers, otters
- Taxonomic order Artiodactyla (ungulates): wild boar and roe deer (threatened by hunting)
- Taxonomic order Rodentia: bank vole, common vole, edible dormouse, harvest mouse
- Taxonomic order Chiroptera: grey long-eared bat
- Taxonomic order Soricomorpha order: mole
- Taxonomic class Reptilia: turtles, lizards and snakes
- Taxonomic Amphibia class: frogs
- Taxonomic Aves class: crow, flicker, crane, owl.
- Taxonomic order Decapoda: crayfish (considered endangered)
- Taxonomic class Actinopterygii: European eel; Northern pike; common carp; common nase; chub; rudd; common bream; barbus barbus; belica; goldfish; Catfish.

Forest - Forests and shrubland cover about 26% of the territory of Partesh. The most common forest type is represented by broad-leaved woodlands (especially beech and oak trees). As in other parts of Kosovo, a considerable area of forest was destroyed during the war in 1999, and uncontrolled cutting has occurred since then, leading to disturbances of forest ecosystems and land degradation. It is estimated that in Kosovo around 40% of public forest land and 29% of private forest land are affected by uncontrolled activities or to illegal use[11]. Detailed figures are not available for Partesh, but field surveys and interviews with municipal staff confirmed that the problem is widespread (see Figures 3.8 and 3.9), and mainly caused by the need to collect firewood. Illegal tree cutting is operated also by people from outside the municipality, and has raised also concerns related to public safety, due to incidents occurred in the past that involved rival woodcutters.

[11] Strategy and action plan for biodiversity 2011-2020

3.5. WASTE AND WASTEWATER MANAGEMENT

There are not reliable data on solid waste generation, collection, treatment and disposal in Kosovo. In average, waste collection services are provided to 90% of the population in urban areas, but only to 10% in rural areas. In the Gjilan region the quantity of waste disposal per capita is the highest in Kosovo (142 kg/year), and around 44% of households are provided with waste collection services[12]. Based on the municipal data base and periodic measurements, the annual quantity of waste generated in the municipality ranges from ca 420 tons, up to 504 tons, or an annual average of 88.60 kg/ 106.30 kg per (permanent) resident (Source: MDP Profile Document). As to waste composition, the only figures available are for the whole Kosovo and are presented in Table 3.1[10]. According to the same report, the fraction of municipal waste are as follows: Organic 35.3%; Glass 21,0%; Wood 11,0 %; Plastic 9,4%; Textile 8,2%; Hazardous 1,2%.

Table 3.5.1 Waste production

Type of waste	Daily average (kg/capita)
Household	0.277
Commercial	0.250
Medical	0.0024
Ash and grime	0.907
Construction/demolition	0.200
Other: packaging, plastic, tires, electronic, etc	0.360
Total	2.05

Solid waste collection and transportation from the Municipality of Partesh to the regional landfill in Gjilan is managed by "Alpenbau", an independent commercial company, selected by the Agency for Environmental Protection. The waste collection system covers the whole municipality and some waste sorting dumpsters for plastic are present in some areas (Figure 3.5.1). Illegal waste dumping has dramatically dropped since the waste collection system was introduced in 2010. However, there are a few illegal dumping sites that have not been entirely cleaned-up yet, especially by the roads and at the margins of the urban areas.

Figure 3.5.1 Dumpster and separate bin for plastic collection in Donja Budriga settlement

[12] The State of Waste in Kosovo 2008 Report. KEPA

As to wastewater management, there are no wastewater treatment plants currently operational in Kosovo. Hence, sewage water discharge represents a critical source of water pollution, in terms of phosphorus and nitrogen, pathogenic bacteria and viruses and substances that consume dissolved oxygen. According to the Spatial plan for Kosovo, about 28% of the population is connected to the sewage system (25% in urban areas and 3% in rural areas). This figure, however, is different from the one included in the Country Environmental Analysis report, which suggests that 52% of the population has sewerage services. In Partesh, the sewerage system was constructed in 2008 and has a very high coverage: 95% of the households are connected, while the remaining 5% use private septic tanks. However, the most critical issue is the treatment of wastewater, which is virtually non-existing. Wastewaters are conveyed into three separate septic tanks (one for each settlement), only of which is provided with a physical filter. Hence, wastewater are released into the river system at best after primary treatment only (physical process), without any biological or chemical treatment.

3.6. AIR QUALITY AND NUISANCES

The existing air quality monitoring network in Kosovo is very modest and does not offer complete information about the state of the air. Both the number of stations and the number of measured parameters are very limited[13]. Only two stations in Prishtina and one mobile station are currently operating in Kosovo and pollutants inventories are not available yet. The first state if the air report was released in 2012 and contains data mainly referred to the period 2007-2011. This report concludes that, even though data are incomplete, the state of the air can be considered unsatisfactory, particularly with respect to the impacts caused by major polluters (power plants, lignite mines, industrial complexes, cement factories, etc).

Given this situation, it is impossible to provide meaningful information on the current state of the air in Partesh. In general terms, the main sources of air pollution in Partesh can be considered the following ones:

- Road traffic along the three main corridors that intersect the municipality (M25-3, M25-2 and R212), exacerbated by the fact that most vehicles have outdated emission reduction technologies[14]
- Dust caused by cars on the municipal road network, especially in summer time. This network is largely unpaved and the roads are in very poor conditions (Figure 3.6.1)
- Home heating systems, largely based on burning coal and fuelwood.

[13] State of the air report, 2012

[14] Kosovo and climate change. A Strategic Approach to the Copenhagen Climate Change Conference 2009. https://wiki.rit.edu/download/attachments/68166747/Climate+Change+Report.pdf?version=1&modificationDate=1349820226330

Figure 3.6.1 Poor road conditions are the main cause of dust in the dry season

As to noise, the main source is represented by road traffic, particularly intense during the day time, as a result of wide range of vehicle categories passing through the three major road corridors that cross all the three cadastral units of the municipality (M25-3, M25-2 and R212). Particularly critical (also for traffic safety issues) is the fact the presence of a regional road (R212) cutting through the settlement of Donja Budriga (see Figure 3.6.2).
Complains for odours have been reported, mainly caused by the poor maintenance of private septic tanks.

Figure 3.6.2 Regional road (R212) cutting through the settlement of Donja Budriga (Source: Google map)

3.7. LANDSCAPE AND CULTURAL HERITAGE

Partesh is characterized by a predominantly rural landscape, which is in general well-preserved and enriched by the river network and its vegetation strips (Figure 3.7.1). The gently undulated terrains with the mountain peaks in the backdrop provide for some spectacular views, which can be appreciated particularly from the hilltops (Figure 3.7.2). One critical element of the rural areas is their high fragmentation, caused by plot subdivisions through time, which lead to the construction of a dense and irregular network of access road. Land consolidation practices should be encouraged to improve production and rationalize ancillary infrastructures.

Figure 3.7.1 Rural landscapes of Partesh

Figure 3.7.2 The view from Glavicica hill

In terms of cultural heritage, there are two monuments listed in the "Heritage List for Temporary Protection", a document prepared by the Regional Center for Cultural Heritage. Both fall in the category "Architectural heritage- Monuments/Locations: the Church of Transfiguration, located in Pasjane by the M25-2 road, which is still use for ceremonies and religious practices. (RCCH), and the ruins of an early Christian church (dating from 4th- 6th century), located atop the Glavicica hill in Budrike (Figure 3.7.3). Additionally, in the municipality there is a thermal spring (in Gaber), which is regularly visited by the inhabitants of Partesh.

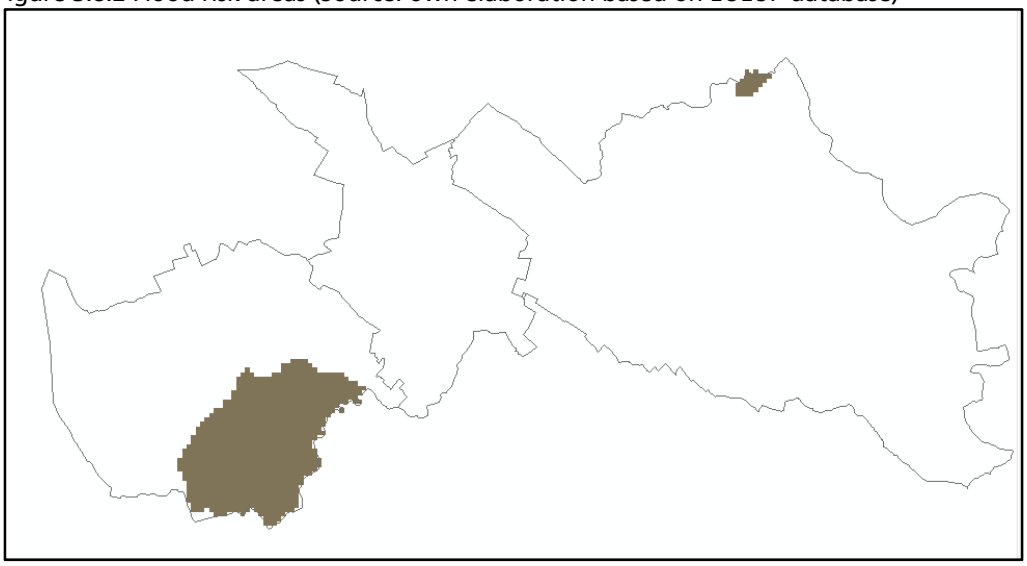
Figure 3.7.3 The ruins atop Glavicica hill

3.8. NATURAL AND MAN-INDUCED HAZARDS

Floods - Seasonal floods occur within the Binacka Morava River floodplain, affecting arable land, traffic and the settlements in the western part of the municipality (Pares/ Partesh, cadastral unit). Floods are exacerbated by the poor maintenance status of the river banks and cause some areas to be seasonally converted into wetlands (Figure 3.8.1). The only flood risk map available is the one generated by the EULUP project (Figure 3.8.2). This map gives a general idea of the flood-prone areas, but its spatial resolution does not allow to appreciate local phenomena.

Figure 3.8.1 Flooded areas

Figure 3.8.2 Flood risk areas (Source: own elaboration based on EULUP database)



Earthquakes - Kosovo is a seismic area, where catastrophic earthquakes can be expected. The Prizren, Peja, Ferizaj and Kopaonik areas were hit by earthquakes with magnitude between 6.0 and 6.4 Reiter degrees in the past. The territory of Partesh is classified in is classified as MMIS- IX, where the earthquakes cause general panic; considerable damage in specially designed structures; great damage in substantial buildings/partial collapse[17] (see Figure 3.8.3 left). Earthquakes with epicenters within of close to the territory of Partesh are frequent (see Figure 3.22, right). The last major earthquake occurred in the area (in the vicinity of Gjilan/ Gnjilane) on April 24, 2002 and a magnitude of 5.1 MMS[17].

Fires - Forest fires in the hilly areas are reported to occur frequently in the summer months, posing a threat to human safety and contributing to forest degradation.

Figure 3.8.3 Map of maximum earthquake intensities observed in the Kosovo region in the period 1900 – 2002 (left) and map of earthquake epicentres in the period 1900-2004. (Source: Spatial plan of Kosovo)

3.9. RESULT OF THE SURVEY ON ENVIRONMENTAL PROBLEMS AND PRIORITIES

During the drawing of the Local Environmental Action Plan 2012-2017, a survey was conducted by interviewing a sample of 2,000 people living in Partesh. The interviewees were asked, among other things, to express their perception on current environmental conditions, to identify the main environmental problems affecting the municipality, and to identify the main causes of environmental pollution. The results are briefly reported here, as part of the description of the environmental baseline.

95.2% of the people polled considered current environmental conditions as unsatisfactory, and only 3.6% as good (the remaining 1,2% do not know). The main environmental problems were considered to be (in order of mention frequency): drinking water quality (identified by 99.0% of the interviewees), water quality in rivers and canals (91.8%), wastewater (81.6%), road conditions (74.2%), and solid waste (27.8%). The main sources of pollution were considered: solid waste (96.6%), wastewater (94.4%), farming (94.0%), fuel for heating (5.0%), and traffic (2.6%).

3.10. LIKELY EVOLUTION OF THE CONTEXT

The SEA law requires to provide information on the relevant aspects of the current state of the environment and "the likely evolution thereof without implementation of the plan". The likely evolution, or "zero alterative" (do-nothing), is useful to set a reference against which to assess the performance of the MDP. The likely evolution has been described here with respect to the most important issues emerging from the environmental baseline and municipal profile document of the MDP: population dynamics, agricultural land fragmentation, building construction, forest cutting, urban quality of life, and water quality.

Population - The population will increase by around 10% over the next 10 years, as projected by the MDP (Profile document), especially in Pasjane. However, the migration of youth will also increase, assuming that the current trend in job provision will not change significantly over the next period. This seems a reasonable assumption, given the poor conditions of (particularly transportation) infrastructures.

Agricultural production and land fragmentation - Land abandonment will become more and more an important issue, due to the migration of youth and the progressive fragmentation of agricultural land, which is an inevitable process, unless reform or consolidation policies are introduced. This will cause a decrease in the overall agricultural production within the municipality, as well as a decrease in the net agricultural land available, due to the inefficiency in land use (e.g., the needs for more extensive roads and access networks).

Irregular building construction and sprawl - The construction of unregulated buildings (mainly for commercial/business purposes, see Figure 3.3.6) along main road axes will progressively saturate these areas, hampering the possibility of managing them in a more efficient way (e.g., optimizing the use of land) and for the benefit of the whole community. Irregular building construction in the agricultural land will increase (in order to meet the increasing population), leading to a decrease in fertile land, but also affecting landscape beauty and undermining the possibility to rationalize the provision of urban services and infrastructures. Additionally, irregular housing construction is bound to take place also in areas affected by flood risk.

Forest and land degradation - Illegal forest cutting, and associated land and erosion processes, will follow the same trend they have been following since the war, leading to further degradation of the forest landscape and hampering future restoration interventions.

Urban quality of life - Issues such as limited pedestrian mobility and dust will get worse, due to unregulated urban development and lack of investment in urban infrastructures (roads and sidewalks in particular)

Water quality - Increase in population, irregular housing and small commercial/industrial activities construction will cause an increase in the pollution of waterways, due to the lack of wastewater treatment facilities.

IV. KEY ENVIRONMENTAL ISSUES AND SEA OBJECTIVES

Considering the information collected and analyzed in the previous chapter, as well as in the Profile document of the MDP, and the outcomes of the meetings with the stakeholders (see Section 1.2), a list of key environmental opportunities and key environmental challenges was produced (Table 4.1). The elements identified in this list (and more in general the content of the baseline study) were used as a basis for developing the SEA objectives that are described next. The SEA objectives were identified by taking into account also the environmental and sustainable development objectives defined in relevant laws and strategic actions (see Chapter 2).The SEA objectives represent the main reference against which to assess the performances of the MDP in terms of its effects on the environment.

Tab IV-1 Key environmental problems and opportunities

Key problems
• The limited treatment of wastewater is posing a threat to water and soil quality, and human health. • The water supplied by the water infrastructure is currently drinkable only in one of the three settlements. • Illegal deforestation is causing widespread forest degradation and severe erosion problems in the hilly areas • Building in rural areas and alongside the road corridors is occurring in an unregulated way • Environmental awareness still lacks, and this contributes to exacerbate the problems above • Large tracts of the rural landscape are affected by periodical flooding within the cadastral zone of Partesh
Key opportunities
• The rural landscape is in general well-preserved and offer scenic views • Natural and cultural features mix to provide opportunity for recreation and landscape enjoyment (e.g., Glavicica hill) • There are large areas characterized by high-quality soil • The morphology of the terrain offers the opportunity for “soft mobility” solutions • The urban fabric is relatively compact and has developed in a polycentric fashion around the three settlements, making the provision of services and facilities easier and more cost-effective • Rural migration offers the opportunity to consolidate and rationalize the use and access to agricultural areas • The sewerage network has a high coverage, offering the opportunity for installing effective and relatively cheap water treatment systems

The SEA objectives have been grouped into six thematic areas: water, quality of life, soil, natural and cultural heritage, natural and man-induced hazards, energy and climate change. They are presented in Table 4.2 below, together with comments on the rationale that suggested their selection.

Tab IV-2 The SEA objectives grouped into thematic areas

Area	Objective	Comment
Water	O1: Improve wastewater treatment	More than 95% of the households are connected to the wastewater system, but there is very limited treatment before wastewater is discharged into the river system. Only one of the three septic tanks of the main settlements is currently equipped with a filter (that provides only physical removal of contaminants)
	O2: Improve the quality of water provided by the water supply system and reduce water consumption	Tap water is currently drinkable only in Pasjane, one of the three main settlements
Quality of life	O3: Reduce people's exposure to air pollution and nuisance (noise, dust, odours)	Dust is mainly casued by unpaved roads. Complains for odours are caused by poor maintenance of septic tanks by hh not connected to the wastewater system Noise is manily caused by the three main road corridors
	O4: Improve green areas and urban parks	Public places like squares and green areas currently lack
	O5: Improve pedestrian mobility and promote cycling	Pedestrian and cycling routes need to be designed, and sidewalks provided
Soil	O6: Mitigate irregular housing development and sprawl	Urban development and housing construction occur at limited rate, but housing patterns are irregular
	O7: Prevent soil erosion	Soil erosion is an issue especially in the hilly areas nearby the Pasjane settlement and it is caused by forest clearing and grazing
Nature and cultural heritage	O8: Restore and protect forests from degradation	Illegal forest cutting is widespread and uncontrolled
	O9: Protect and enhance cultural heritage sites	The ruins of the Christian church on the Budrike hill require restoration interventions

	O10: Clean-up illegal dumping sites	The whole municipality is currently covered by the waste collection system, but there are still few old illegal dumping sites
Natural and man-induced hazards	O11: Reduce vulnerability to floods and forest fires	Caused by damages in the river banks, affecting agricutlural land and propertiues
Energy and climate change	O12: Improving energy efficiency of buildings and reduce energy consumption O13: Reducing CO_2 emissions by promoting soft mobility and smart growth	New building should adopt better energy efficiency standards

V. SUMMARY OF THE MDP CONTENT

The MDP proposes a vision for Partesh as a "new municipality with rich cultural tradition that is socially advanced and ecologically conscious, with transformed economy and infrastructure that aspires for sustainable development". To achieve this vision, the Vision document of the MDP proposes six key themes (social development, economic development, transport and infrastructures, settlements and housing, environmental protection, local governance), each of which is composed of a number of goals and objectives. Goals are general statements that describe a desired future result, whereas objectives are statements that describe what the municipality aspires to achieve by a goal.

The Spatial development framework of the MDP associate to each of the themes a number of specific areas of intervention to achieve the relevant goals and objectives, as described below.

- Key theme 1 Social development:
  - Health facilities
  - Education facilities
  - Nursery and pre-school facilities
  - Cultural facilities and education centres
  - Sport and recreation facilities
  - Market facilities
  - Public spaces
  - Public safety
- Key theme 2 Economic development:
  - Agricultural clusters
  - Agricultural land reform
  - Agricultural zones
  - Economic zones (industrial, business)
  - Tourism
- Key theme 3 Transport and infrastructures:
  - Roads
  - Railway
  - Public transport
  - Water supply and distribution
  - Wastewater management
  - Waste management
  - Power supply and distribution
  - Telecommunications
- Key theme 4 Settlements and housing management
  - Residential zones and mixed residential zones
  - Density classes
  - Specialized housing programs
  - Settlements development indicators

- Key theme 5 Environmental protection

STILL MISSING IN THE MDP

- Key theme 6 Local governance

STILL MISSING IN THE MDP

For each area of intervention the Spatial development framework of the MDP details the facilities required (in terms of location, size, characteristics, etc) and/or provide regulations and guidelines. The Strategy and action plan, finally, provides a list of specific actions that will have to be undertaken in order to develop the facilities and implement the regulations proposed by the Spatial development framework. A key element of the MDP is represented by the three maps that represent the planned development of settlements and infrastructures (see Figure V.1), the planned land uses (see Figure V.2) and the planned environmental constraints and environmental protection regulations (see Figure 5.3). These three maps capture most of the provisions of the MDP and show their spatial distribution. Hence, they play a central role for the assessment of the environmental effect of the MDP, hence they have been used extensively during the SEA (see Chapter 7 and 8).

Fig V-1 Detail of the settlements, network and infrastructures map of the MDP. Planned settlement areas are represented in orange

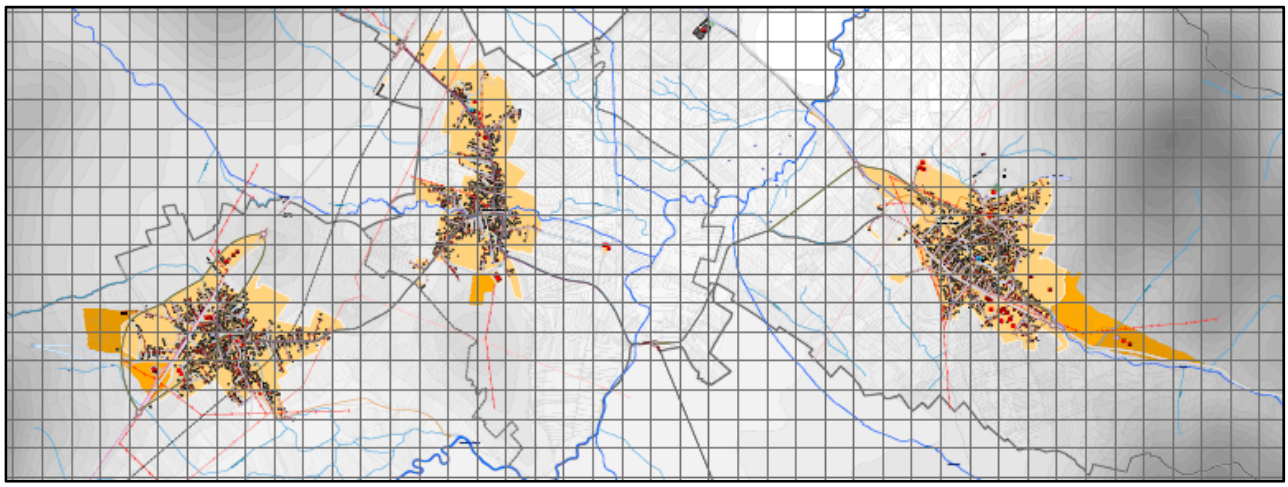


Fig V-2 The land use map of the MDP. Key: pale orange: planned residential areas; orange: planned commercial areas; dark orange: planned industrial areas. Shades of green represent agricultural land classes (Class 1: pale green, class 8: dark green)

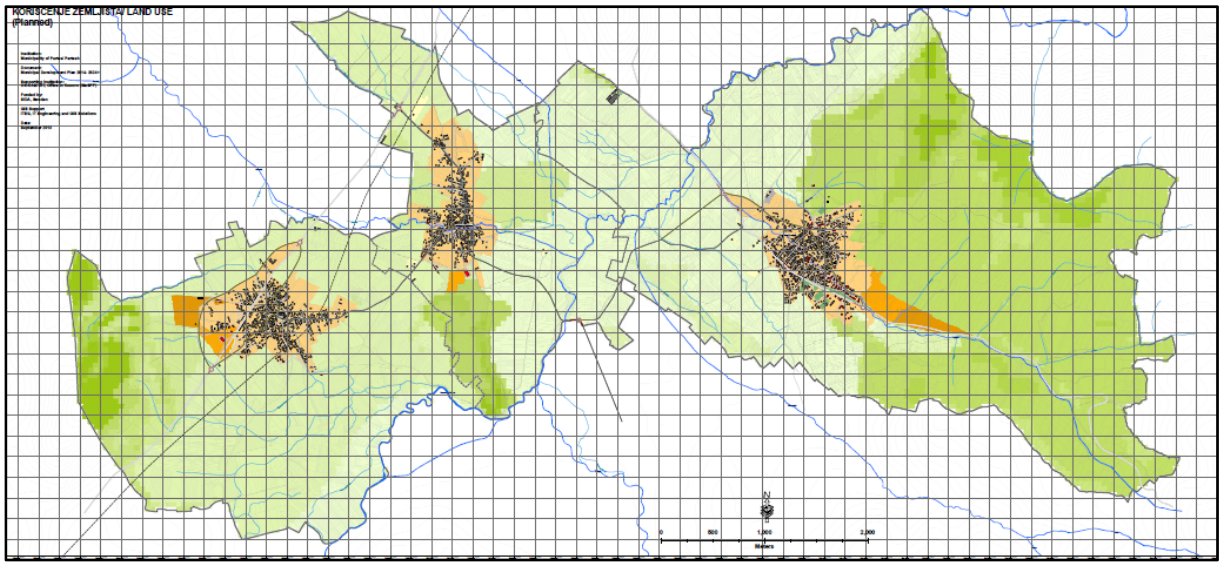
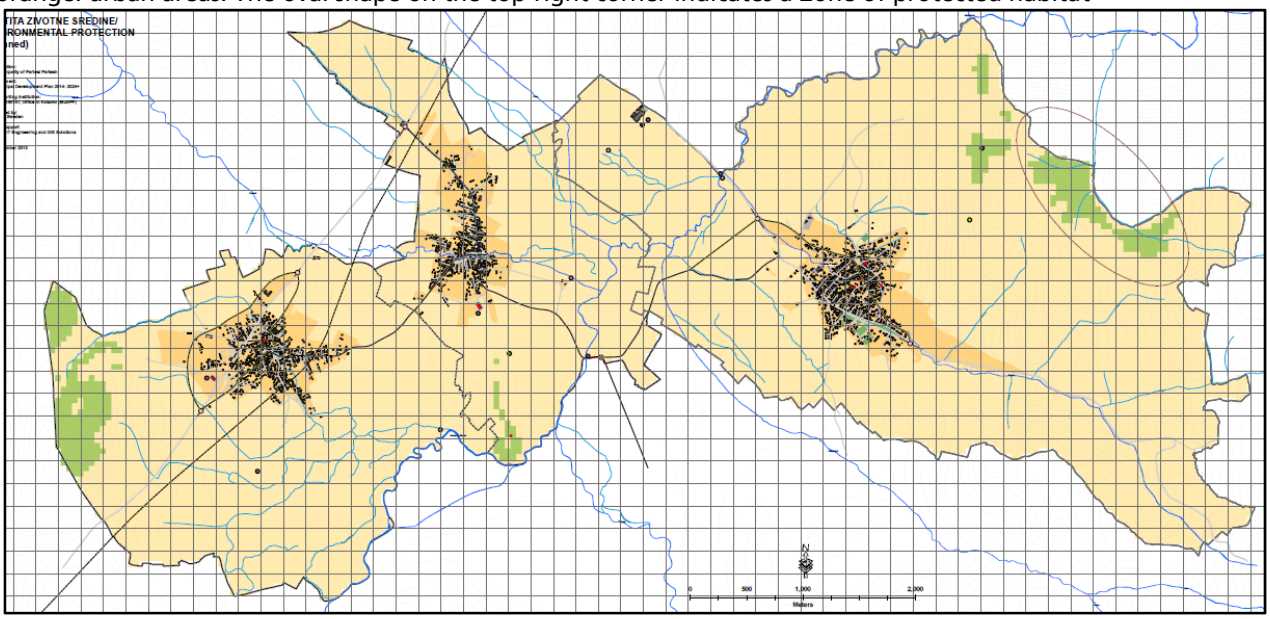


Fig V-3 The environmental protection map of the MDP. Key: pale orange: agricultural zone; green: forestry zone; dark orange: urban areas. The oval shape on the top-right corner indicates a Zone of protected habitat



VI. COMPATIBILITY APPRAISAL OF THE MUNICIPAL DEVELOPMENT PLAN'S GOALS

This analysis aims at performing the environmental assessment of the goals and objectives of the MDP, which are set out in the MDP's Vision document, in order to test their compatibility with the 13 SEA objectives identified and described in Chapter 4 (Table 4.2). According to the MDP's vision document, goals are general statements that describe a desired future result, whereas objectives are statements that describe what the municipality aspires to achieve by a goal. Goals and objectives are structured into six key themes: social development, economic development, transport and infrastructure, settlements and housing, environmental protection, and local governance.

The assessment is carried out by using a compatibility matrix (Figure 6.1), which plots the MDP themes on one axis and the SEA objectives on the other axis. Cells are filled in by answering the following question: "Are the objectives/goals listed in this theme - as they are described in the Vision document - potentially compatible/potentially in conflict with that objective?"

The overall purposes of the analysis were the following:

- Testing if all SEA objectives are being addressed by the MDP, i.e. if for each objective there is at least one potentially compatible MDP goal

- Highlighting potential incompatibilities and conflicts, and recommend ways to implement the MDP goals in a way to avoid such conflicts

- Highlighting potential synergies, and suggest ways to exploit them in the MDP

The results of the compatibility appraisal are reported in the Table 6.1 and described next, by focusing in particular on the potential synergies and conflicts and on recommendations to improve the MDP goals. The results of the compatibility analysis were provided to the planning team before Phase 3 of the MDP was started, so as to inform the development of the Spatial strategy and development framework. Particularly, all the recommendations formulated by the compatibility analysis were used to improve the environmental opportunities and reduce the environmental impacts and risks associated to the development of the Spatial strategy, and the subsequent Implementation strategy and actions.

Tab VI-1 Compatibility matrix to assess the MDP goals against the SEA objectives

SEA objectives	MDP Goals divided by theme					
	Social development	Economic development	Transport and infrastruct.	Settlements and housing	Environmental protection	Local governance
O1: Improve wastewater treatment	0	0	++	+	++	0
O2: Improve the quality of water and reduce water consumption	0	+/-	0	0	+	0
O3: Reduce people's exposure to air pollution and nuisance	0	0	+/-	0	0	0
O4: Improve green areas and urban parks	++	0	0	+	0	0
O5: Improve pedestrian mobility and cycling	0	0	++	+	++	0
O6: Prevent irregular housing development, sprawl and land loss	-	+/-	+/-	++/-	0	0
O7: Prevent soil erosion	0	+	0	0	++	0
O8: Restore and protect forests from degradation	0	0	0	0	+	+
O9: Protect and enhance cultural heritage sites	+	+	0	0	++	0
O10: Clean-up illegal dumping sites	0	0	+	0	++	0
O11: Reduce vulnerability to natural hazards (floods, fires)	+	0	0	0	++	0
O12: Improving energy efficiency of buildings	0	0	0	0	++	0
O13: Reducing CO2 emissions by promoting soft mobility and smart growth	0	-	-/+	+	+	0

Key

++ : Significantly compatible

+ : Compatible

0 : No effect

- : Minor potential conflict

-- : Significant potential conflict

+/- : Both conflict and compatible elements

6.1. KEY THEME 1 – SOCIAL DEVELOPMENT

Potential synergies

- Goals 1.3 and 1.6 (Integrate education systems and Ensure access to adequate cultural services) will contribute to increasing the environmental awareness among the citizens, which, though indirectly, should contribute to SEA objectives 8, 9, 10, 11.
- Goals 1.7-1.9 (related to sport and infrastructure facilities and public spaces) are to contribute to SEA objective 4, by improving the current stock of green areas and public spaces
- Goals 1.11 and 1.2 (Improve public safety and protection and rescue infrastructure capacities) will contribute to prevent and reduce the effects of wild fires, consistently with SEA objective 11

Potential conflicts and recommendations

- The construction and extension of infrastructures and facilities for sport, cultural activities and recreation, especially if poorly planned and located outside existing build-up areas, may be in conflict with SEA objective O6.
- It is recommended to make use, as far as possible, of existing facilities and areas already developed, for example by promoting restoration and renewal interventions. If new constructions/facilities are needed, the site selection process should pay particular attention also to minimizing the need for ancillary infrastructures (e.g., access roads)
-

6.2. KEY THEME 2 –ECONOMIC DEVELOPMENT

Potential synergies

- Developing the skills of local farmers (Goal 2.1) should lead to a proper and more professional use of chemicals and pesticides, which in turn will cause a reduced pollution load in the river system, contributing to SEA objective O2.
- By promoting land consolidation practices and the development of agricultural sub-sector clusters (Goal 2.3), agricultural soil will be used more efficiently and will be easier to introduce land preservation practices, which will

contribute to reduce soil loss, erosion and degradation (SEA objectives O7). For example, the number of access roads within the agricultural land will be reduced, sparing soil from direct loss or degradation (e.g., caused by soil compaction). A more rational and coordinated use of the agricultural land should also protect it by encroachment and haphazard building construction (SEA objective O6)

- The development of the tourism offer (Goal 2.5) can potentially lead to an increased attention directed towards the preservation and improvement of cultural heritage sites (SEA objective O9)

Potential conflicts and recommendations

- The provision of land area to support economic development and infrastructures (Goal 2.2), as well as to develop tourism accommodation capacities (Goal 2.5) can be potentially in conflict with the need to protect agricultural soil and prevent urban sprawl (SEA objective O6) and can also increase CO2 emissions (SEA objective O13), due to increased economic activity and traffic
- Land allocation strategies (e.g., zoning map) for such land uses should be carefully designed, by considering particularly the proximity to existing built-up areas, the availability of urban infrastructures (particularly the water supply and sewerage systems), the land class (soil fertility) and the flood risk. Additionally, areas for new development should be designed in a way to minimize the potential to induce further urban sprawl in the future (e.g., by preferring in-fill development, rather than linear development).
- The promotion of new economic activities, and the increase in tourism accommodation capacities (Goal 2.2 and 2.5 respectively) will increase the use of water, as well as the amount of waste and wastewater produced, potentially conflicting with SEA objective O2. Adequate treatment systems should be provided (or the capacity of the existing ones increased) to accommodate this need. The significance of these effects will be largely related to the type of economic activities, an issue that should be carefully addressed by the MDP.

6.3. KEY THEME 3 – TRANSPORT AND INFRASTRUCTURE

Potential synergies

- Goal 3.13 (related to the improvement of wastewater infrastructures) can significantly contribute to SEA objective O1, particularly if actions are directed not only at the expansion of the wastewater collection system, but also at the improvement of the existing facilities for water treatment
- The improvement in the road conditions (and particularly the paving interventions, see Goal 3.2) will contribute to reduce people's exposure to dust (SEA objective O3), currently caused by driving on dirt roads
- The improvement and maintenance of septic tanks (foreseen by Goal 3.13) will contribute to reduce the exposure to odours (SEA objective O3)
- As to noise and air pollution, the rationalisation of the road network to access the three settlements is to contribute to reduce people's exposure to noise (SEA objective O3), by diverting regional traffic outside residential areas.
- Goal 3.2 (Integrate, improve and maintain local road and street network) explicitly addresses the issue of pedestrian network and green areas, potentially contributing to SEA objective O5
- Goal 3.3, 3.7, 3.11, 3.14 and 3.16 all deal with the promotion of future growth in areas where adequate service and facilities exist. This is in line with SEA objective O6 and O13, because it should discourage irregular and

sprawling development pattern, prioritising development within or close to already built-up areas, hence reducing the need for can use

Potential conflicts and recommendations

- The extension of the road network within urban areas (Goal 3.1 and 3.2) may lead to an increase or to a decrease in the exposure of population to noise and air pollution (SEA objective O3), depending on the locations of new road interventions and on their effects on traffic patterns. These interventions should be carefully designed and harmonised with the location of existing and planned residential areas.
- The extension of the existing network will cause land-take and the increase in artificial surfaces, possibly at the expenses of valuable agricultural soil (in conflict with O6). Compensation measures should be adopted by the MDP in case land loss cannot be avoided.

6.4. KEY THEME 4 – SETTLEMENTS AND HOUSING MANAGEMENT

Potential synergies

- Goal 4.1 and 4.2 explicitly address SEA objective O6, being aimed at preventing irregular building construction, defining zoning regulations, and identifying development boundaries and constraints (e.g., along water bodies).
- This type of dense and regulated development is to promote also pedestrian mobility (SEA objective O5 and O13), by reducing the need to walk for long distances and improving the quality of the urban environment (see for example the provision of green areas along infrastructures foreseen by Goal 4.1)
- By increasing residential density and promote compact settlements, it shall become easier and most cost-effective to provide access to water and wastewater infrastructures, contributing – though indirectly – to SEA objectives O1.

Potential conflicts and recommendations

- Meeting the housing needs of the community (Goal 4.3 and 4.4) may require to expand existing built-up areas, potentially leading to soil loss (in conflict with SEA objective O6). The same recommendations expressed above apply also here: land allocation strategies should be carefully designed, by considering particularly the proximity to existing built-up areas, the availability of urban infrastructures, the land class and the flood risk. Additionally, areas for new development should be designed in a way to minimize the potential risk of future urban sprawl.

6.5. KEY THEME 5 – ENVIRONMENTAL PROTECTION

Potential synergies

- This theme is obviously significantly compatible with most SEA objectives. The following ones are addressed explicitly: O11 (by Goal 5.3: Prevent impacts caused by floods), O7 (by Goal 5.4 and 5.5, which aim at improve agricultural practices), O5 (by Goal 5.6, aimed at promoting soft mobility and green transport models),O1 (by Goal 5.7, aimed at improving the treatment of wastewater in the existing wastewater system), O 10 (by Goal 5.8, which foresees the cleaning-up of waste dumping sites), O12 (by Goal 5.9, which encourages the use of energy

efficiency standard in building construction), O13 (by Goal 5.6) and O9 (by Goal 5.13 and 5.14, which are concerned with the protection and promotion of the cultural heritage).

- Other SEA objectives are addressed, but less explicitly: O8 (by Goal 5.11 on the protection of biodiversity and habitats) and O2 (by Goal 5.4 and 5.5, which have potential positive effects on the quality of water)
- Additionally, Goal 5.1 (Increasing environmental awareness) should have indirect positive effects on a number of SEA objectives, and particularly on those related to waste and natural resource management.

6.6. KEY THEME 6 – LOCAL GOVERNANCE

Potential synergies

- This theme has in general limited interaction with the SEA objectives. However, Goal 6.3 (about regulations) could provide a contribution to O8 by developing and/or enforcing regulations concerning the use of forest and tree cutting.

VII. ASSESSMENT OF THE ENVIRONMENTAL EFFECTS OF THE MDP

The environmental effects of the MDP are here assessed by analyzing the content of the Spatial development framework and Strategy and action plan. Consideration of alternatives and mitigation measures are discussed where relevant. The results are reported broken down by key theme. Finally, the overall MDP's impacts against the SEA objectives are presented in a summary table (Section VI.7).

7.1. KEY THEME 1: SOCIAL DEVELOPMENT

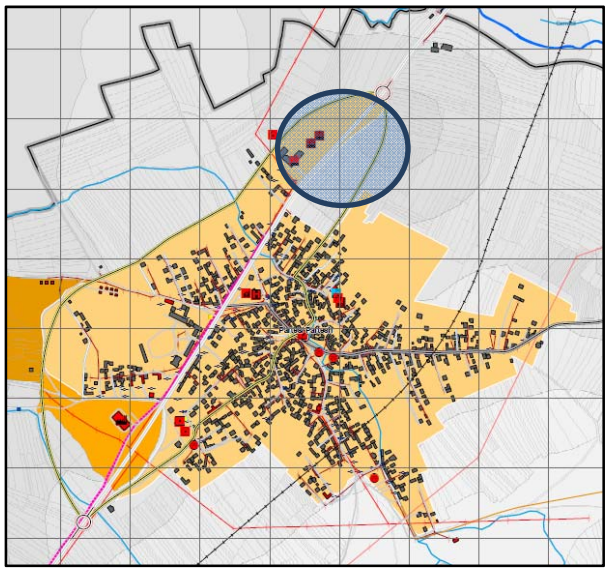
- Health facilities

New health facilities are planned within the boundary of the existing settlements, in areas offering well access radius and opportunities for eventual expansion of facilities/ infrastructure. The clustering of new facilities will minimise soil loss. As a mitigation of possible impacts, it is recommended to plan and implement an appropriate system for the collection of hazardous waste, as soon as these new facilities are made operational.

- Nursery, cultural and education facilities

Some of the new facilities (in particular secondary schools and the multifunctional cultural facility of Pasjane) will be located outside current settlements, but within the boundary of planned urban areas. This choice was motivated by the need of space for adequate facilities, including school yards, and of catering for possible future expansion. Alternative solutions (e.g., location of schools within existing settlements) proved not to be viable due to lack of space (see example for Partesh settlement in Figure VII.7.1). To mitigate potential impacts of having to travel outside existing settlements, the plan foresees the provision of adequate shuttle services.

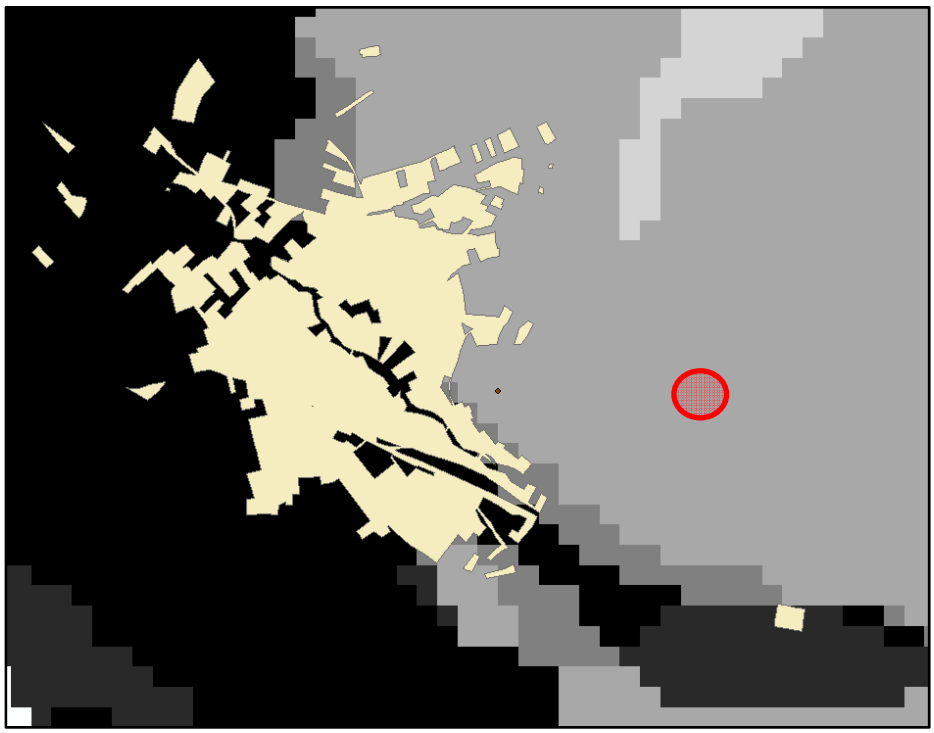
Figure 7.1.1 Sport and recreation facilities



The MDP provides for the improvement of existing sport and recreational facilities in order to make them more attractive for a wider range of users of different ages. Positive impacts on quality of life, as well as on the aesthetic quality of the

landscape are foreseen (e.g., the plan provides for regular landscaping interventions within the premises of the sport and recreation facilities). A new indoor multifunctional sport facility will be developed in Pasjane, in the proximity of the planned multifunctional cultural facility. The facility will have positive impacts in terms of recreation and quality of life. Its location will create synergies with the cultural facilities, enhancing the positive effects of both on social cohesion. Being a new development, it will cause land occupancy and soil loss. However, among all possible alternative sites, that specific location has been chosen in order not to affect highly valuable agricultural soil (the land suitability class in the area where the facilities will be constructed is "5", see Figure 7.1.2). To mitigate the land loss it is recommended to undertake a careful design of the ancillary infrastructures (e.g., parking lots, access roads) in order to minimize soil loss and interference with the landscape and maximize benefits for both facilities. As an additional mitigation measure, the plan's regulations set to 30% the minimum percentage of green areas within the plot areas of public facilities.

Figure 7.1.2 Location of the planned multifunctional cultural and sport facilities in Pasjane settlement (red circle) superimposed to the agricultural land suitability (the darker the hue, the higher the land suitability)



- Market facilities

A new pole for market facilities is planned to be located within an area of industrial development in the south-easternmost sector of the municipality, within Pasjane settlement. In this way, the green market will be relocated from its current position in the centre of Pasjane, and this will cause positive impacts in term of reduction of nuisances to local population (transit of vehicles, waste, smells). The new pole for market facilities will allow a more efficient management of potentially critical issues, such as traffic and waste. Adequate facilities and infrastructures are planned for this purpose.

- Public spaces

The plan introduces a significant improvement in the current endowment of, and accessibility to, public spaces. New public squares are planned in central locations of each of the three main settlements, causing positive impact on quality of life and social cohesion.

- Public safety

Police station and fire station facilities are planned in a location close to the main infrastructures, and this should contribute to reduce the exposure of the population to hazards, such as forest fires in particular. However, the responsibility of establishing police and fire station lies with central-level institutions.

7.2. KEY THEME 2: ECONOMIC DEVELOPMENT

- Agricultural clusters

The establishment of agricultural cluster associations, and especially the foreseen training and education activities, will have positive effects in terms of increasing environmental awareness and spreading best practices concerning particularly the use of fertilizers and pesticides. This will cause positive impacts on soil and water quality.

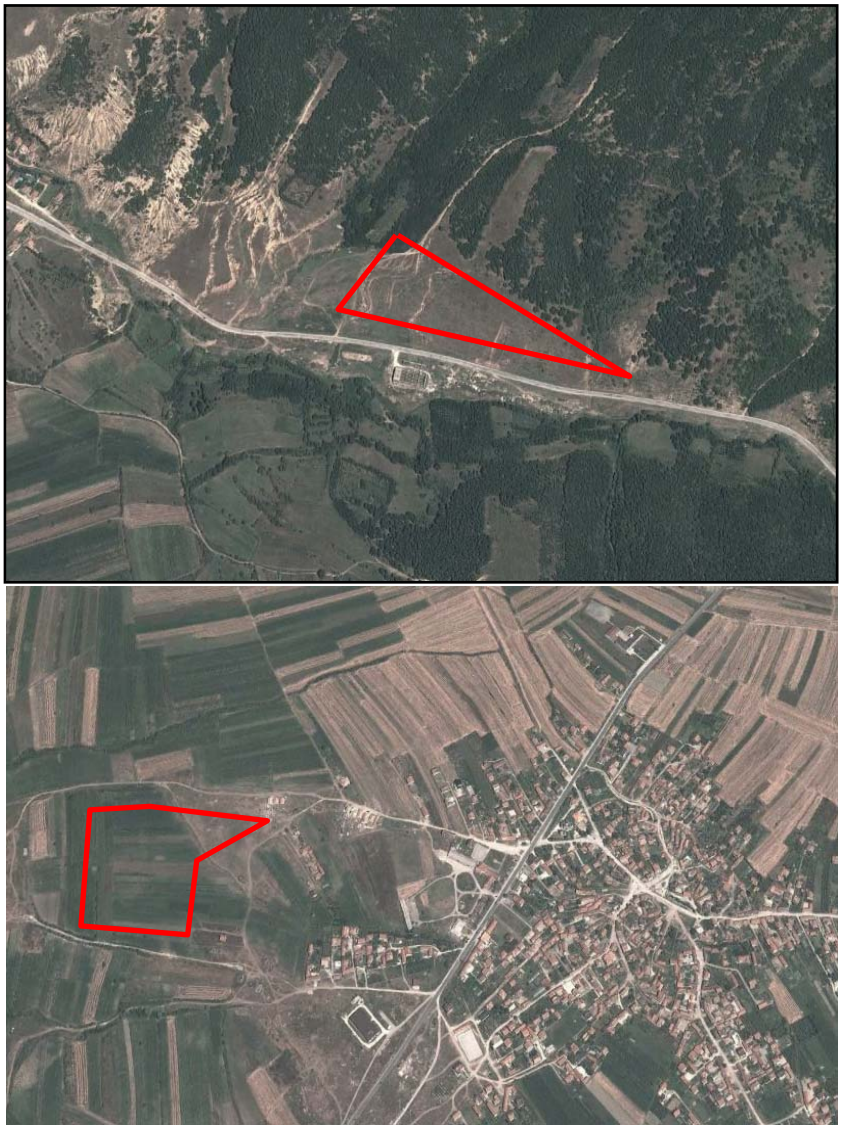
- Agricultural land reform and municipal agricultural zone

The land consolidation process and the establishment of a municipal agricultural zone will have positive effects in terms of rationalizing the use of agricultural land (e.g., by taking into better account soil properties and capability), minimizing land loss due to infrastructures and parcel subdivisions (e.g., access roads, boundaries), and increasing the efficiency of irrigation systems, leading to an increase in quality and quantity of agricultural production.

- Municipal Industrial Zones

These areas are designated for manufacturing, wholesale and office facilities development. There are two newly planned industrial zones (in Pasjane and Partesh) and three other zones that are already hosting manufacturing activities. The newly planned zones are located outside municipal settlements and along the main road axes (see Figure 7.2.1), in areas that are currently vacant and marginal. The location of the two areas is suitable in terms of distance from existing settlements and houses, which should minimize impacts such as noise. However, potential sources of impacts connected with future industrial activities (e.g., air, water and soil contamination; water and energy use) will have to be carefully considered when granting permissions. The decision of establishing two new industrial zones, rather than a number of smaller zones distributed in the territory, is positive from an environmental standpoint because it prevents further sprawl, soil loss and landscape degradation (which has been already occurring due to unregulated development of building along the main road corridors). The areas selected are marginal open areas, with, at least in the case of the one located in Pasjane, low agricultural suitability. However, it is recommended to adopt mitigation measures in both areas aimed at reducing the visibility of the sites (e.g., by planting trees and other greening interventions along the boundaries of the zones), and also reduce potential nuisances such as noise and dust. Obviously, in both areas adequate facilities for waste and wastewater collection and treatment should be constructed, as soon as the development starts.

Figure 7.2.1 Location of the newly planned industrial zones in Pasjane (above) and Partesh (below). Disclaimer: boundaries in these images are approximate only. The official boundaries are those contained in the Land use map (planned) of the MDP.



Business commercial zones

Three areas, one in each settlement, have been zoned for the development of business and commercial facilities. All three areas are located at the margin of existing settlements and along the main transportation corridors. The largest of these areas is in Pajsane, and acts as a buffer between the residential and the industrial zones (see Figure 7.2.2). The area is unattractive for agricultural use, due to poor capability and extensive land degradation processes (Figure 7.2.3). The development of the commercial zone could also serve the purpose of restoring the sites and halting degradation. However, interventions will need to be carefully planned in order not to induce further slope erosion and instability, particularly during the construction phases. As a mitigation measure, it is recommended to plan also for vegetation restoration ad slope stabilization interventions. The commercial zones in Budriga and Partesh (see Figure 7.6) are smaller and located in land that is currently vacant and not farmed, and does not present problems of degradation. However, the establishment of the commercial areas will cause a net loss of land that potentially has a good capability. Mitigation measures associated to the

development of the commercial zones could be directed at ensuring that future traffic paths are diverted from the main residential areas (see Key theme 3 Transport and infrastructures). Anther suggested mitigation measure, particularly for the Budriga zone, is the analysis of viewshed from Budriga hill to assess to what extent the new zone will interfere with landscape appreciation from that hill, and how to reduce such interference (e.g., by greening and tree planting or careful selection of building size and design). Also in this case, the decision of identifying few commercial zones, rather than a higher number of smaller zones distributed in the territory, is positive because it prevents further sprawl and landscape degradation.

Figure 7.2.2 Location of the planned commercial zone in Pasjane (orange), sandwiched between residential areas and the planned industrial zone (dark orange). Source: MDP Land use map (planned)

Figure 7.2.3 Aerial view (source: Google Earth) of the location of the planned commercial zone in Pasjane showing patterns of severe land degradation

Figure 7.2.4 Aerial view (source: Google Earth) of the location of the planned commercial zones in Budriga (left) and Partesh (right). For the actual boundaries of the two zones, it should be referred to the MDP Land Use map (planned)

Tourism

The MDP does not contain provisions for the development of tourism infrastructures or facilities, nor for other activities which could alter or increase tourist flows in the municipality. Hence no significant environmental impacts are expected from this sector.

7.3. Key theme 3: Transport and infrastructures

- Road infrastructures

The improvement in the road conditions foreseen by the MDP will decrease existing problems related to dust, especially in the dry seasons. The rationalization of the road network, and in particular the construction of the roundabouts and the diversion of the traffic that is currently crossing Budriga settlement into a new road corridor, will increase safety, encourage pedestrian mobility (especially within the settlement of Budriga) and reduce the exposure to noise and air pollution of inhabitants. Other foreseen interventions on existing roads (e.g., construction of adequate drainage network) will have a positive effect on the quality of the urban environment. However, the new road corridor will necessarily cause loss of agricultural soil and land fragmentation. Other potential negative impacts connected to the improvement of the road conditions is the increase in traffic, and subsequent air pollution and greenhouse gases emission. However, it is difficult to predict, at this stage, whether the improvement will actually cause an increased use of private cars or not.

- Public transport

Bus services are planned, consisting in inter-settlement lines, inter-regional lines and charter-national lines. The pedestrian network will also be developed, by constructing sidewalks along existing and newly planned streets, open public areas and social and economic facilities. This combination of interventions is bound to have positive environmental effects, by promoting soft mobility and decreasing the use of private car, leading to better air quality and reducing greenhouse gases emission.

- Water supply and distribution

Interventions in this area (i.e., completion of the water distribution network and provision of adequate water filtering and treatment facility) will have a positive effect on one of the main existing environmental problems: the quality of drinking water.

- Wastewater management

The development of the existing wastewater collection system will allow to increase the percentage of households and facilities covered by this service, reducing also problems related to odours. The development of full wastewater treatment process will contribute to the improvement of another critical issue: the pollution of the Morava river from untreated wastewater.

- Waste management

The MDP foresees to improve both the collection of waste and the sorting of waste (recycling). This has clearly positive environmental implications. However, special attention should be paid to waste management in the areas newly planned for commercial and industrial development, as well as in the new health facilities, due to the production of hazardous waste and waste that requires special treatment.

- Power supply and telecommunications

The development of these infrastructures should take into account national (Kosovo Law No. 03/L-104) and international standards concerning the protection from electromagnetic radiation. In particular, appropriate buzzer zones should be applied to protect inhabited areas and sensitive facilities (e.g,, schools).

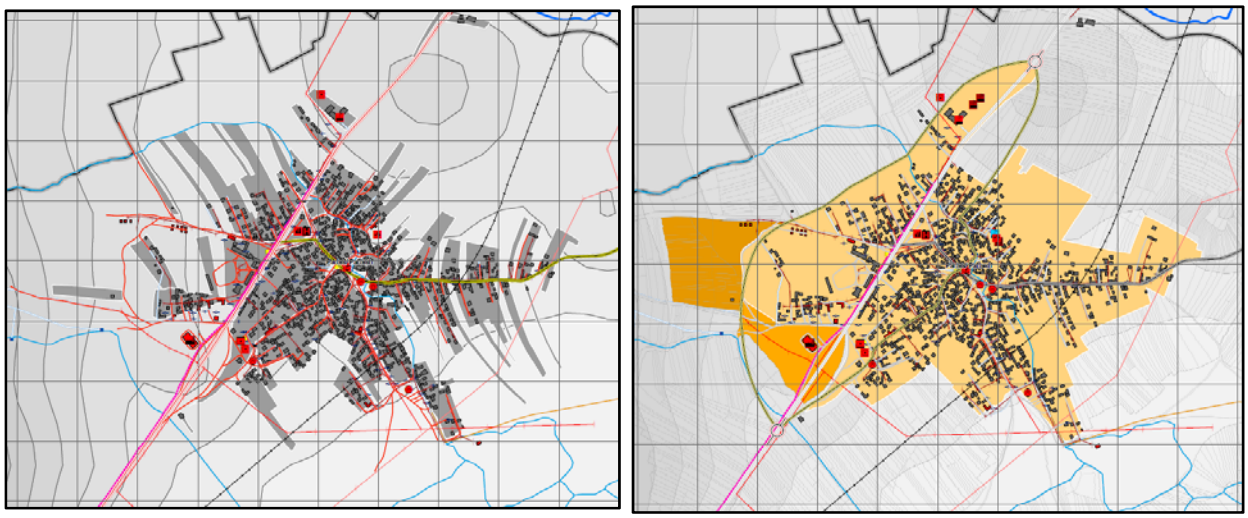
7.4. KEY THEME 4: SETTLEMENTS AND HOUSING MANAGEMENT

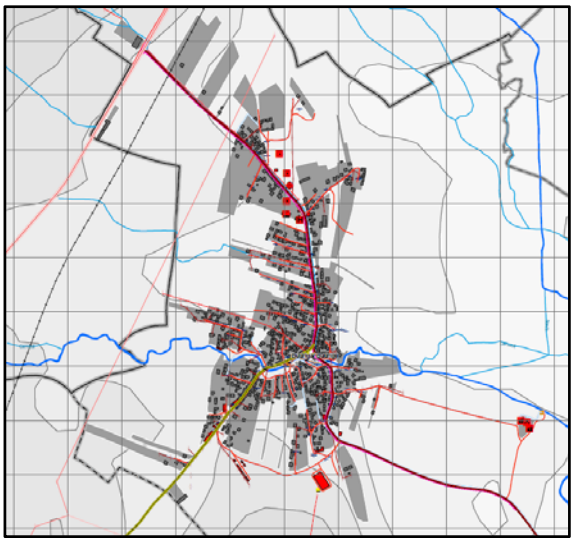
The MDP identifies zones designated mainly for residential housing by drawing a boundary around the three main settlements. The identification of these zones aims at preventing urban sprawl within the agricultural landscape, and at fostering "smart growth", i.e., a more compact development of future housing. This is visible by comparing current and planned pattern of settlements (see Figure 7.7).

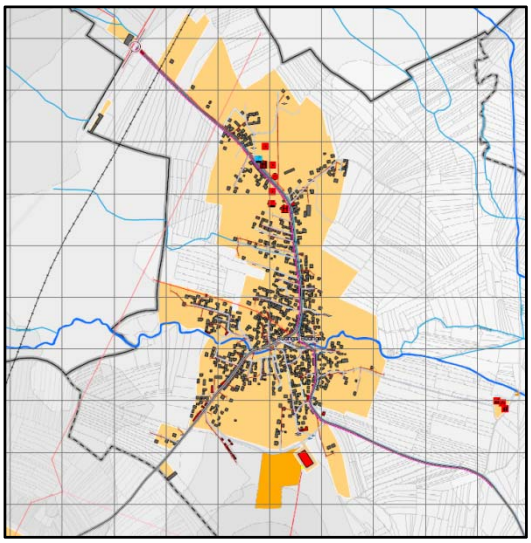
In addition to the expansion of residential areas, the MDP provides for rehabilitation and reconstruction of the existing housing fund, aimed at converting current single-family and homogeneous residential areas into medium-density and multifunctional ones. Land use mix will be encouraged, by promoting the development of small trades and services, sport, playground and cultural services within the residential fabric. Also this strategy is in line with the "smart growth" principles, and will hopefully have positive impacts in terms of promoting pedestrian mobility and improving the quality of life in the urban areas. It is recommended, particularly during the rehabilitation and reconstruction interventions, to set guidelines aimed at improving the energy efficiency standard of houses.

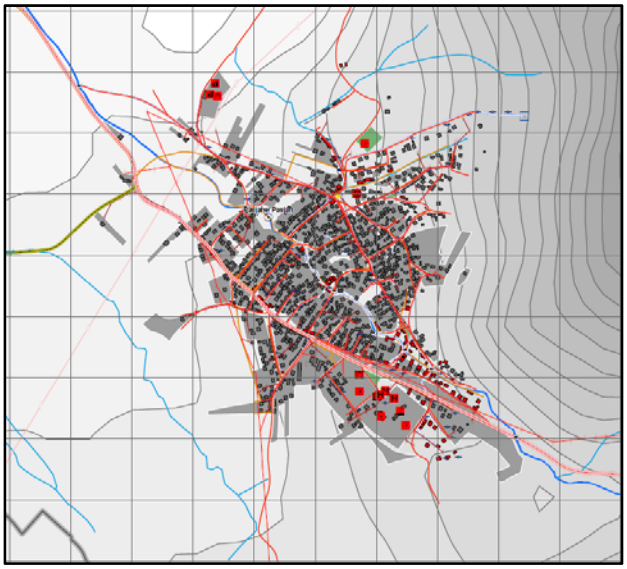
Although the MDP promotes a compact growth, hence limiting the negative impact on agricultural soil and landscape of future housing development, it still allows, in principle, for an area of a considerable size to be developed in the future. Permissions for new construction within planned settlement areas, should be granted only after having carefully considered the actual housing needs, also in the light of the most updated demographic trends. Priority should be given to in-fill development, as opposite to development further away from existing built-up areas and along roads (including local roads). Additional mitigation measures that should be adopted include modern energy efficiency standards for new constructions and high ratios between pervious and impervious surfaces within new lots.

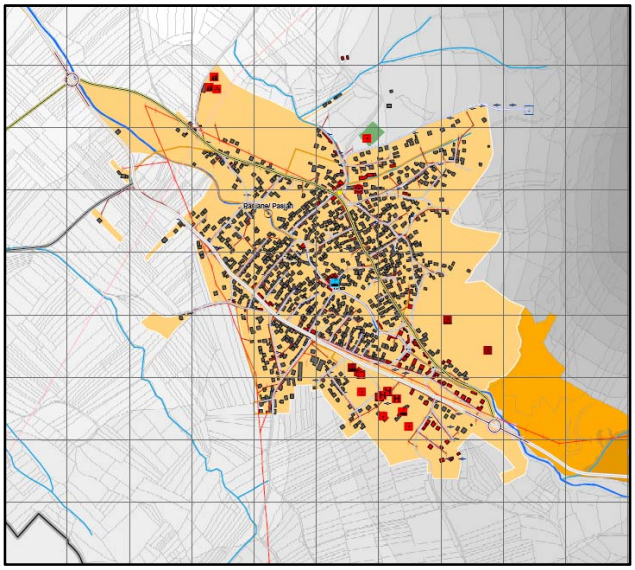
Figure 7.4.1 Comparison of current (left) and planned (right) settlement patterns in Partesh, (top), Budriga (middle) and Pasjane (bottom). Source: MDP Settlement networks and infrastructure map.











7.5. KEY THEME 5 ENVIRONMENTAL PROTECTION

still missing in the MDP

7.6. KEY THEME 6 LOCAL GOVERNANCE

still missing in the MDP

7.7. SUMMARY OF THE PERFORMANCE OF THE MDP AGAINST THE SEA OBJECTIVES

In order to provide an overview of the overall effects of the MDP, Table 7.7.1 describes the expected positive and negative impacts of all key themes with respect to the SEA objectives that have been identified in the early stages of the process.

Table 7.7.1 Performance of the MDP against the SEA objectives.

Area	Objective	Impact of the MDP
Water	O1: Improve wastewater treatment	**Positive impact** of planned wastewater treatment infrastructures (Key theme 3)
	O2: Improve the quality of water provided by the water supply system and reduce water consumption	**Positive impact** on water quality of planned water filtering and purification facilities (Key theme 3) **Negative impact** on water consumption caused by the foreseen development of industrial and commercial activities, as well as the increase in the residential housing stock (Key theme 2 and 4) **Positive impact** on water consumption thanks to better water management in agricultural cluster and through agricultural reform (Key theme 2)
Quality of life	O3: Reduce people's exposure to air pollution and nuisance (noise, dust, odours)	**Positive impact** on odours and noise caused by new location of market facilities (Key theme 1) **Positive impact** on dust thanks to road paving (Key theme 3) **Positive impact** on noise and air pollution thanks to traffic re-routing in order to avoid densely inhabited areas (Key theme 3) **Negative impact** on air pollution and noise from planned industrial and commercial development (Key theme 2)
	O4: Improve green areas and urban parks	**Positive impact** on the green areas and urban park endowment from new public spaces and squares (Key theme 1), as well as facilities (e.g., playgrounds) planned for new residential development areas (Key theme 4)
	O5: Improve pedestrian mobility and promote cycling	Direct **positive impact** caused by improvement of public transport facilities, which include sidewalks and pedestrian routes (Key theme 3) and indirect **positive impact** caused by the promotion of land-use mix in residential areas (Key theme 4), as well as by the improvement of road and traffic safety within the settlements (Key theme 3)
Soil	O6: Mitigate irregular housing development and sprawl	**Positive impact** of the identification of compact areas for future urban growth (Key theme 4). **Negative** impact in terms of net land loss due to planned development of industrial, commercial and residential areas (Key theme 2)
	O7: Prevent soil erosion	No significant effects
Nature and cultural	O8: Restore and protect forests from degradation	No significant effects

	O9: Protect and enhance cultural heritage sites	**Positive impact** due to the improvement of cultural and educational services (Key theme 1)
	O10: Clean-up illegal dumping sites	No significant effects
Natural and man-induced hazards	O11: Reduce vulnerability to floods and forest fires	**Positive impact** on forest fires vulnerability thanks to planned police and fire station facilities (Key theme 1) **Positive impact** of preventing future development in flood-risk areas (Key theme 4)
Energy and climate change	O12: Improving energy efficiency of buildings and reduce energy consumption O13: Reducing CO_2 emissions by promoting soft mobility and smart growth	**Positive impact** if better energy efficiency standards are enforced for new constructions (including public facilities) and urban rehabilitation interventions (Key theme 1 and 4) **Negative impact** on energy consumption caused by the planned industrial and commercial areas development (Key theme 2) **Positive impact** on greenhouse gases emissions thanks to the planned improvement in public services (Key theme 3) and smart-growth strategies in urban areas (Key them 4). **Negative impact** on greenhouse gases emissions caused by traffic induced by new commercial and industrial activities

VIII. EXTERNAL COMPATIBILITY APPRAISAL

The external compatibility appraisal aims at testing the consistency between the MDP and other relevant strategic actions at different tiers (e.g. national, regional, local) and for different sectors, whose content needs to be taken into account to exploit synergies and reduce inconsistencies. The overall purpose is to help harmonizing the MDP with existing policies, plans and programmes. Potentially relevant strategic actions have been identified in Chapter 2 (see Table 2.2), and are described next in terms of their compatibility with the MDP's content.

Tab VIII-1 External compatibility appraisal

Strategic action	Compatibility appraisal
Kosovo Spatial Plan 2010-2020+	Partesh falls in the "Yellow area" (The bridges of Kosovo) of the Kosovo Spatial Plan (KSP). For this area, the KSP propses the following vision: "A developed bridge linking Kosovo/ Kosova with the region, planned in functional and strong network among cities and villages, in the region and beyond, attractive environment to live and work, improved quality of life, with economic- trade and manufacturing activities; with developed infrastructure and information technology; and sufficient space for engagement of the private sector in plan implementation and investments; as a sum of all of the above, aiming at become competitive 'area' in domestic and foreign markets". To achieve this vision, the KSP proposes the following development goals: - Development of an attractive network of planned cities, with administration of public services in favor of the communities/ citizens, with improved quality of life, employment and social equity; - Support the Local Economic Development; - Development of effective inter-urban, sub-urban and regional links, through the development of infrastructure (road, rail, air, ICT). The MDP's goals are in line with these goals, which are addressed, respectively, by Key theme 1 and 4, Key theme 2, and Key theme 3. More specifically, the KSP foresees important projects that are relevant for Partesh and may create synergies with the MDP's goals, such as: - Construction of railway line (Ferizaj-Gjilan) - Construction of railway station in the Municipality of Partesh; - Construction of railway station in the neighboring Municipality of Gjilan. - Construction of the regional water supply network; - Construction of the regional landfill; - Extension and modernization of the medium-voltage power supply network; - Extension and modernization of the principal and regional road infrastructure.
Strategy and Action Plan for Biodiversity 2011 – 2020	The MDP is in line with the general principles of this strategy and does not include actions or objective that conflict with the achievements of the strategy's objectives

Environmental strategy for Kosovo and Kosovo Environmental Action Plan	The MDP is in line with the general principles of the Action Plan and contributes to the achievement of some of its objectives, particularly those related to the improvement of wastewater treatment water supply systems.
Local Environmental Action Plan (LEAP) 2012-2017, Partesh Municipality	The MDP contains objectives and actions that are in line with the four strategic priorities identified in the LEAP: a) Building waste water treatment plants (Key theme 3), b) Provision of necessary infrastructure to create conditions for investing in economic development (Key theme 2 and 3), c) Setting up and operationalization of public urban and interurban transport (Key theme 3), d) Inclusion of all settlements in public services and infrastructure (Key theme 3 and 4).
Municipal Development Plan (2006- 2015) of the Municipality of Gjilan	The following issues contained in the MDP of Gjilan are of interest for the Municipality of Partesh: - reconstruction of Morava e Binces River course; - protection and conservation of Morava e Binckes River; - protection and conservation of forests; - protection, conservation and utilization of agricultural land. The MDP of Partesh can create synergies with these issues, particularly by improving water quality of the Morava e Binces River and promoting agricultural land protection.
Municipal Development Plan 2010-2020 of the Municipality of Viti- Kllokot	The MDP does not contain regulations or provisions in contrast with those on the utilization and development of space for the neighboring municipality of Viti-Kllokot

IX. MONITORING PLAN

A monitoring plan (Table 9.1) is proposed to monitor the actual impacts of the MDP against the SEA objectives, and to suggest relevant indicators and time frames.

Tab IX-1 Proposed monitoring plan

Objective	Indicator	Proposed frequency
O1: Improve wastewater treatment	Number of settlements (and percentage of households) connected to sewerage systems with adequate treatment processes	12 months
O2: Improve the quality of water provided by the water supply system and reduce water consumption	Water consumption Drinking water quality	12 months 3 months
O3: Reduce people's exposure to air pollution and nuisance (noise, dust, odours)	Public complains about noise and odours Size of new housing developmnent within limited distance from main road axes	6 months 12 months
O4: Improve green areas and urban parks	Surface of new green areas Characteristics of new green areas (presence of facilities and level of maintenance)	12 months
O5: Improve pedestrian mobility and promote cycling	Lenght of new sidewalks	12 months
O6: Mitigate irregular housing development and sprawl	Percentage of new housing development occurring wihtin previously built-up area	12 months
O7: Prevent soil erosion	Percentage of land area with high and very high soil erosion risk	36 months
O8: Restore and protect forests from degradation	Land area covered by reforestation and forest restoration interventions	24 months

O9: Protect and enhance cultural heritage sites	Number of sites where protection/enhancement actions have been undertaken (improving access, cleaning-up, etc) Number of newly established cultural facilities	12 months
O10: Clean-up illegal dumping sites	Number of illegal waste dumping sites	12 months
O11: Reduce vulnerability to floods and forest fires	Number of forest fires Numbers of people and properties affected by flood events	12 months
O12: Improving energy efficiency of buildings and reduce energy consumption O13: Reducing CO_2 emissions by promoting soft mobility and smart growth	Number of new buildings adopting energy efficiency standards	12 months

X. NON-TECHNICAL SUMMARY

Strategic Environmental Assessment (SEA) aims at enhancing environmental opportunities and minimising impacts and risks associated with the implementation of the Municipal Development Plan (MDP). The ultimate goal of SEA is to provide for a high level of environmental protection and contribute to promote sustainability. In Kosovo SEA is regulated by Law no. 03/ 230, which determines the conditions, form and procedures for the application of SEA.

The SEA process for the MDP of Partesh started after the Profile document was drafted and continued in a parallel fashion to the planning process until the drafting of the MDP. The key stages of the SEA, and their key outcomes, were as follows:

- Identification of Kosovo legislations that set environmental protection objectives and policies that are potentially relevant for the MDP;
- Identification of strategic actions (policies, plans or programmes) at different decision tiers that are potentially relevant for influencing the MDP;
- Collation of available information and databases;
- Analysis of the environmental baseline, and its likely evolution without the plan
- Identification of key environmental problems:
    - The limited treatment of wastewater is posing a threat to water and soil quality, and human health.
    - The water supplied by the water infrastructure is currently drinkable only in one of the three settlements.
    - Illegal deforestation is causing widespread forest degradation and severe erosion problems in the hilly areas
    - Building in rural areas and alongside the road corridors is occurring in an unregulated way
    - Environmental awareness still lacks, and this contributes to exacerbate the problems above
    - Large tracts of the rural landscape are affected by periodical flooding within the cadastral zone of Partesh.
- Identification of key environmental opportunities:
    - The rural landscape is in general well-preserved and offer scenic views
    - Natural and cultural features mix to provide opportunity for recreation and landscape enjoyment (e.g., Glavicica hill)
    - There are large areas characterized by high-quality soil
    - The morphology of the terrain offers the opportunity for “soft mobility” solutions
    - The urban fabric is relatively compact and has developed in a polycentric fashion around the three settlements, making the provision of services and facilities easier and more cost-effective
    - Rural migration offers the opportunity to consolidate and rationalize the use and access to agricultural areas
    - The sewerage network has a high coverage, offering the opportunity for installing effective and relatively cheap water treatment systems.
- Proposal of SEA objectives. The following objectives were identified:
    - O1: Improve wastewater treatment
    - O2: Improve the quality of water provided by the water supply system and reduce water consumption
    - O3: Reduce people’s exposure to air pollution and nuisance (noise, dust, odours)

- O4: Improve green areas and urban parks
- O5: Improve pedestrian mobility and promote cycling
- O6: Mitigate irregular housing development and sprawl
- O7: Prevent soil erosion
- O8: Restore and protect forests from degradation
- O9: Protect and enhance cultural heritage sites
- O10: Clean-up illegal dumping sites
- O11: Reduce vulnerability to floods and forest fires
- O12: Improving energy efficiency of buildings and reduce energy consumption
- O13: Reducing CO2 emissions by promoting soft mobility and smart growth

- Compatibility appraisal of the Municipal Development Plan's goals. This analysis aimed at performing the environmental assessment of the goals and objectives of the MDP, which are set out in the MDP's Vision document, in order to test their compatibility with the 12 SEA objectives;
- Assessment of the environmental effects of the MDP. The environmental effects of the MDP are here assessed by analyzing the content of the Spatial development framework and Strategy and action plan. Consideration of alternatives and mitigation measures are discussed. The overall MDP's impacts against the SEA objectives can be summarized as follows:
  - Positive impact of planned wastewater treatment infrastructures (Key theme 3)
  - Positive impact on water quality of planned water filtering and purification facilities (Key theme 3)
  - Negative impact on water consumption caused by the foreseen development of industrial and commercial activities, as well as the increase in the residential housing stock (Key theme 2 and 4)
  - Positive impact on water consumption thanks to better water management in agricultural cluster and through agricultural reform (Key theme 2)
  - Positive impact on odours and noise caused by new location of market facilities (Key theme 1)
  - Positive impact on dust thanks to road paving (Key theme 3)
  - Positive impact on noise and air pollution thanks to traffic re-routing in order to avoid densely inhabited areas (Key theme 3)
  - Negative impact on air pollution and noise from planned industrial and commercial development (Key theme 2)
  - Positive impact on the green areas and urban park endowment from new public spaces and squares (Key theme 1), as well as facilities (e.g., playgrounds) planned for new residential development areas (Key theme 4)
  - Direct positive impact caused by improvement of public transport facilities, which include sidewalks and pedestrian routes (Key theme 3) and indirect positive impact caused by the promotion of land-use mix in residential areas (Key theme 4), as well as by the improvement of road and traffic safety within the settlements (Key theme 3)
  - Positive impact of the identification of compact areas for future urban growth (Key theme 4).
  - Negative impact in terms of net land loss due to planned development of industrial, commercial and residential areas (Key theme 2)
  - Positive impact due to the improvement of cultural and educational services (Key theme 1)
  - Positive impact on forest fires vulnerability thanks to planned police and fire station facilities (Key theme 1)

- Positive impact of preventing future development in flood-risk areas (Key theme 4)
- Positive impact if better energy efficiency standards are enforced for new constructions (including public facilities) and urban rehabilitation interventions (Key theme 1 and 4)
- Negative impact on energy consumption caused by the planned industrial and commercial areas development (Key theme 2)
- Positive impact on greenhouse gases emissions thanks to the planned improvement in public services (Key theme 3) and smart-growth strategies in urban areas (Key them 4).
- Negative impact on greenhouse gases emissions caused by traffic induced by new commercial and industrial activities.

- External compatibility appraisal. The compatibility with other strategic actions, such as in particular the Kosovo Spatial Plan, was tested in order to help harmonizing the MDP with existing policies, plans and programmes.
- Proposal of a monitoring plan. A plan was drafted to monitor the actual impacts of the MDP against the SEA objectives, by suggesting relevant indicators and time frames.