

M a k i n g   B e t t e r   C i t i e s   T o g e t h e r



# HANI I ELEZIT MUNICIPAL DEVELOPMENT PLAN STRATEGIC ENVIRONMENTAL ASSESSMENT

JANUARY 2011

**HANI I ELEZIT MUNICIPAL DEVELOPMENT PLAN PROPOSAL  
STRATEGIC ENVIRONMENTAL ASSESSMENT**

JANUARY 2011

UN-Habitat Consultant: Catarina Teles Ferreira Camarinhas

*This report is the result of an independent consultancy assignment conducted for UN-Habitat Kosovo and does not necessarily express the views and opinions of UN-Habitat or Hani i Elezit Municipality.*

## TABLE OF CONTENTS

<b>NON-TECHNICAL SUMMARY</b>	<b>4</b>
<b>PART I – ENVIRONMENTAL AND PLANNING CONTEXT</b>	<b>11</b>
1. INTRODUCTION	12
2. LEGAL FRAMEWORK	12
3. THEORETICAL FRAMEWORK	13
4. PROPOSED METHODOLOGY	14
5. CONTENTS AND MAIN OBJECTIVES OF HANI I ELEZIT MDP	16
6. DEFINITION OF CRITICAL FACTORS FOR THE DECISION-MAKING PROCESS	18
6.1. Strategic reference table	18
6.2. Environmental issues	21
<b>PART II – ENVIRONMENTAL ASSESSMENT</b>	<b>24</b>
7. STATE OF THE ENVIRONMENT	25
7.1. Air Quality	25
7.2. Biodiversity	26
7.3. Climatic Factors	28
7.4. Cultural heritage	28
7.5. Waste management	29
7.6. Soil	29
7.7. Water	31
7.8. Social Factors	31
7.8.1. Demographics and human health	31
7.8.2. Noise	32
7.8.3. Housing	33
7.8.4. Accessibility	33
7.8.5. Social Deprivation	34
7.8.6. Recreation, Sport and Leisure	34
7.8.7. Education Sector	34
7.8.8. Economic Activity	36
8. DATA GAPS/LIMITATIONS	36
9. SIGNIFICANT EFFECTS ASSESSMENT	37
9.1. Air Quality	39
9.2. Biodiversity	39
9.3. Water quality	39
9.4. Soils	39
9.5. Climate change	39
9.6. Natural resources	40
9.7. Heritage	40
9.8. Health	40
9.9. Social inclusion and equity	40
9.10. Housing	41
9.11. Social deprivation	41
10. MITIGATION AND ENHANCEMENT	41
11. UNCERTAINTIES AND RISKS	45
12. MONITORING	46
13. PUBLIC PARTICIPATION AND NEXT STEPS	48
14. GLOSSARY	49
15. REFERENCES	51

## Non-Technical Summary

The Law on Strategic Environmental Assessment (Law n.03/L - 230 of 2010), states that strategic environmental assessments must be carried out on Local Development Plans. As a “desktop study intending to double check the treatment of environmental issues at the strategic and the project level” (Bergerhoff 2010), SEAs aim to help make planning more sustainable.

Hani i Elezit’s Municipal Development Plan presents a core strategy for future development and further actions to be implemented, and must be submitted to strategic environmental assessment. The Municipal Development Plan is a first stage to provide a long-term vision for development in Hani i Elezit. This report provides information on the Strategic Environmental Assessment and Municipal Development Plan process to date; specifically the establishment of the baseline for the assessment, the problems and opportunities in Hani i Elezit, the evaluation of critical impacts resulting from the proposal and the proposal of measures to reduce the effect of potential negative effects.

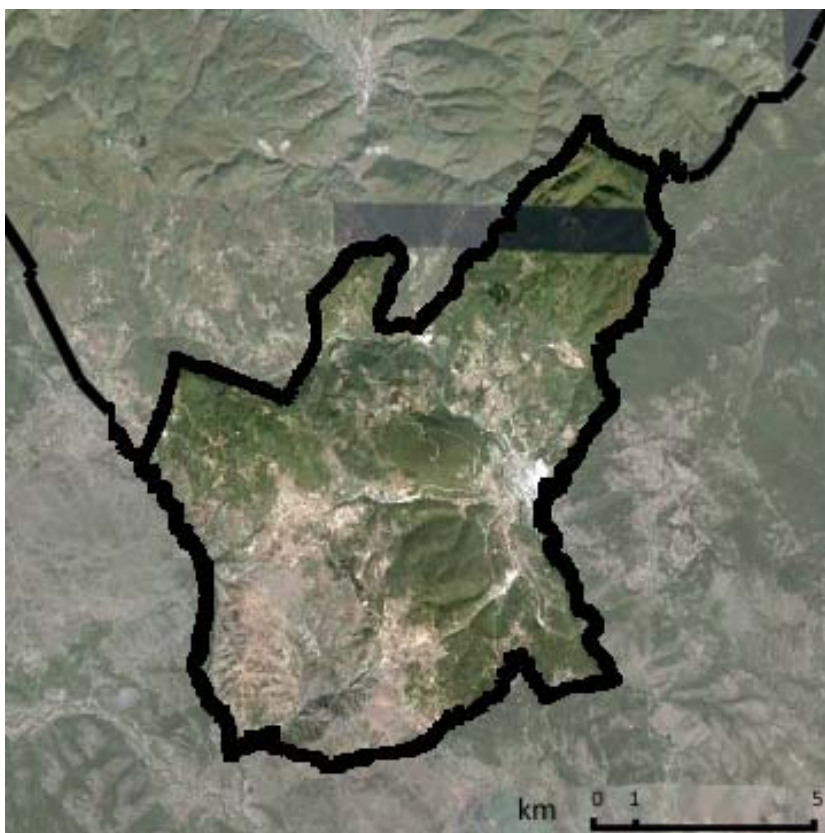
The main sustainability issues that are considered to be relevant in Hani i Elezit are illustrated in the table below.

**Table 1: Main environmental issues**

FACTORS	ISSUES
<b>Air quality</b>	<ul style="list-style-type: none"> <li>- Existing cement plant pollution;</li> <li>- More industrial development could lead to more pollution;</li> <li>- More development in Gorance could lead to more traffic and worse air pollution;</li> <li>- Public transport is poor.</li> </ul>
<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>- Illegal deforestation;</li> <li>- Increase in mining activities, industrial, and urban development may further endanger the natural environment.</li> </ul>
<b>Climatic factors</b>	<ul style="list-style-type: none"> <li>- High level of GHG;</li> <li>- Livestock generates high level of GHG.</li> </ul>
<b>Heritage</b>	<ul style="list-style-type: none"> <li>- Neglected vernacular heritage at risk;</li> <li>- Concern that new development and housing improvements might further endanger existing heritage.</li> </ul>
<b>Waste management</b>	<ul style="list-style-type: none"> <li>- The Municipality is not fully covered by public waste collection;</li> <li>- Illegal dumpsites.</li> </ul>
<b>Soil</b>	<ul style="list-style-type: none"> <li>- Uncontrolled disposal of solid waste;</li> <li>- Existence of toxic cancerous remains from the asbestos cement industry;</li> <li>- Cattle-rearing is a major source of land and water degradation.</li> </ul>
<b>Water</b>	<ul style="list-style-type: none"> <li>- Shortfall in potable water supply;</li> <li>- Water pollution;</li> <li>- Programmed urban, agricultural and industrial development will increase demand for water.</li> </ul>
<b>Social and economic factors</b>	<ul style="list-style-type: none"> <li>- Lack of quality of public services, namely sports and recreation, education and health facilities;</li> <li>- High unemployment rate;</li> <li>- Need to improve overall housing quality;</li> <li>- Proposed housing growth in Gorance would require transport and other investment;</li> <li>- Risk of depopulation;</li> <li>- New highway will increase noise pollution.</li> </ul>

The objectives for Hani i Elezit's Municipal Development Plan will be used to assess the environmental, social and economic implications of the proposals and are listed below.

- Promoting compact development, with higher density in construction land and improved social services in the main urban zones;
- To identify a strategy for efficiently and effectively utilizing potential natural and social resources;
- To support balanced development of urban and rural areas;
- To identify the role of main zones for socio and economic development;
- To identify priorities for project implementation;
- To define potential locations and resources for Municipal Development;
- Protecting natural and cultural heritage for tourism and economic development;
- To guide the preparation of Urban and Regulatory Plans;
- To facilitate the use and protection of industrial, business, housing and services uses and natural and cultural heritage;
- To identify potential projects for cross border cooperation.



**Image 1: Hani i Elezit Municipality, location**  
Source: Google Earth, 2011

The review of the main relevant plans, programs and environmental protection objectives shows that there is coherence between plans and programs from international to local scales and between different sectors, giving evidence to persistent themes. The following plans and programs were reviewed, amongst other urban policies: Agenda 21 (Principles for Sustainable Development), European Biodiversity Strategy, European Spatial Development Perspective, Kosovo Law on Spatial Planning, Kosovo Law on environmental protection, Kosovo Law on integrated prevention pollution control and Kosovo Spatial Plan.

In the Strategic Environmental Assessment report we have considered to evaluate the possible impact of the proposed actions on critical environmental issues. This may help to evaluate the predicted effects of the plan and its programmed actions, and assist in the refinement of the plan by introducing potential implementation alternatives and considering mitigation measures for any negative impacts identified.

The assessment has focused on the following environmental issues: air quality, biodiversity, water quality, soils, climate change (namely CO<sub>2</sub> and other GHG emissions), natural resources, heritage, health, social inclusion and equity, housing and social deprivation. The evaluation showed strong existing links and complementarities between the MDP goals and the Strategic Environmental Assessment objectives (environmental issues) considered. The evaluation also determined possible conflicts between the proposed actions in the MDP, which may rise from industrial, urban, rural and touristic new activities.

The cumulative effects of new industrial activities and new conditions for Freight Transport are predicted to have a significant negative impact on Air Quality. The promotion of a new urban subcentre in Gorance may increase, in the long term, car dependency and also result in secondary negative impacts in air quality. However, the planned reforestation (with the control of illegal wood cutting) and the creation of a green-belt to protect the cement industry, along with the establishment of an air monitoring system, will help to balance and control these negative impacts. The improvement of physical infrastructures, namely through the asphaltting of several roads in the municipality, will also improve the conditions for car travel, resulting in a possible secondary long term effect of sprawl pattern. The predicted transport plan, including new bus station, and the encouragement of new modes of transport including pathways and bike lines will have a positive impact on air quality. If introduced with cost-efficiency at an early stage of the implementation, this transport system may control the unintended car dependency and sprawl pattern.

A synthesis of the significant effects resulting from the proposed MDP is presented in Table 2.

**Table 2: Synthesis of Significant Effects Assessment**

IMPACTS		
<b>AIR QUALITY</b>	<b>+ to ++</b>	<b>Negative impacts on air quality may result from new industrial activities if current patterns are maintained and from the introduction of new conditions for Freight Transport. The promotion of a secondary urban centre in Gorance and the improvement of road infrastructures may generate an increased demand for car travel. However, the MDP aims at ensuring Environmental protection Law enforcement which will minimise the impact of industrial activity. Cumulative positive effects will result from planned reforestation, protection of forest areas, control of illegal deforestation, creation of a green-belt to protect the cement industry, Transport plan and the adoption of an Air monitoring system which will allow to ensure that the environmental directives are being respected.</b>
<b>BIODIVERSITY</b>	<b>++</b>	<b>Unknown effects in biodiversity may result from the introduction of farming, livestock, poultry and honeybees. However, it is expected that these effects will be insignificant due to land zoning and small extension of the proposed actions. Positive impacts will result from the protection of forest areas, reforestation, improvement of Lepenc riverbed and Dimca streambed, decontamination actions and from the enforcement of environmental protection law measures.</b>
<b>WATER</b>	<b>++</b>	<b>Negative effects may result from new industrial development if current</b>

<b>QUALITY</b>		patterns are maintained. The MDP aims at ensuring Environmental protection Law enforcement which will minimise the impact of industrial activity. Significant Positive impacts will result from the Enforcement of environmental protection laws, Decontamination of Lepenc river from asbestos, Decontamination of Lepenc riverbeds and Dimca streambed, Land zoning and from the creation of water and sewage networks and sewage plant.
<b>SOIL</b>	- to ++	Agriculture development and livestock will have a negative impact on the environment. Significant positive impacts will result from Environment regeneration, the establishment of a Public company for waste management, the enforcement of environmental protection laws, decontamination of Lepenc riverbeds and Dimca streambed, Land zoning, creation of water and sewage networks and the creation of a sewage plant.
<b>CLIMATE CHANGE</b>	- to ++	Negative impacts may result from new industrial and rural activities if current patterns are maintained, from the promotion of a secondary urban centre in Gorance and the improvement of road infrastructures which may generate an increased demand for car travel. Significant positive results effects will result from Planned reforestation, Protection of forest areas, Control of illegal deforestation, Environmental protection Law enforcement, Creation of green-belts to protect urban environment from the cement industry and highway, Transport plan and the adoption of an Air monitoring system.
<b>NATURAL RESOURCES</b>	- to ++	Cumulative impacts may result from the introduction of new industrial, rural and urban development, namely in an increased demand for water. Significant positive impacts in terms of natural resources will derive from Planned reforestation, Protection of forest areas, Control of illegal deforestation, Decontamination of Lepenc riverbeds and Dimca streambed, Creation of water and sewage networks, Creation of sewage plant, Environmental protection Law enforcement, Land zoning and the establishment of an Air monitoring system and a Public company for waste management.
<b>HERITAGE</b>	+ to ++	Negative impacts on heritage may result from Tourism and new urban development in Gorance, due to the lack of a heritage inventory and protection measures. Significant positive impacts will result from the adoption on a Conservation Plan and Heritage inventory.
<b>HEALTH</b>	++	Negative impacts on health may result from new industrial activities if current trends are maintained. However, the MDP aims at implementing measures to assure the enforcement Environmental protection Law. Significant positive impacts will result from the Improvement in health facilities, sports facilities, Planned reforestation, Protection of forest areas, Control of illegal deforestation, Decontamination of Lepenc riverbeds and Dimca streambed, Creation of water and sewage networks, Creation of sewage plant, Creation of green-belts, Land zoning, Transport plan and from the establishment of an Air monitoring system and a Public company for waste management.
<b>SOCIAL INCLUSION AND EQUITY</b>	+	Social impacts in terms of inclusion and equity may result from new urban development in Gorance subcentre if it is not preceded by the proposed creation and improvement of educational, social, health and cultural services and facilities and the development of an integrated public transport system.
<b>HOUSING</b>	++	Significant positive impacts will result from the creation of water and sewage networks, and improvements in electricity network and Social housing.
<b>SOCIAL</b>	++	Significant positive impacts will result from the creation of job

**DEPRIVATION**

**opportunities in the industrial, agricultural and tourism sectors, creation and improvement of educational, social, health and cultural services and facilities, improvement in public space, public transport system. Synergetic positive impacts may also result from Transboundary cooperation.**

Evaluation criteria:

- ++ Option actively encouraged in its current form as it would resolve an existing issue and/or maximise opportunities.
- + Option would have a neutral or uncertain effect
- Option would have a negative impact
- Option to discourage

The MDP already proposes several mitigation actions to reduce the negative effects or enhance the positive effects of human development on the environment. Table 3 synthesises the main mitigation and enhancement measures which are predicted or should be introduced in the Municipal Development Plan. Measures proposed by the Strategic Environmental Assessment are outlined in colour.

Another important aspect is to detail the means by which the environmental performance of the plan can be assessed, proposing a monitoring system for the plan’s implementation. It is suggested to adopt the Global City Indicators Facility (GCIF), which is a system of indicators to monitorise city performance, developed by the University of Toronto with the support of UN-Habitat. The GCIF is organised in 22 themes that measure a range of City services and Quality of life factors. City services themes are Education, Energy, Recreation, Fire Emergency, Response, Governance, Health, Social Services, Solid Waste, Transportation, Urban Planning, Waste Water, Water. Quality of life themes are: Civic Engagement, Culture, Economy, Environment, Shelter, Social Equity, Subjective Well-Being, Technology and Innovation. These indicators were selected in order to be “Generally available, current, and able to be reported annually; Readily comparable across cities; Relevant for public policy decision making; Linked to established goals (eg. MDGs, master plans, infrastructure, investment planning); Cost effective to collect; Meaningful to cities across the globe, regardless of geography, culture, affluence, size, or political structure; Flexible for refinement and expansion over time; Understandable and not overly complex; and Clear as to what a change in the indicator implies.”.

Finally, Strategic Environmental Assessment regulations require that consultation bodies, the public and any other relevant stakeholders be invited to express their opinions on the Strategic Environmental Assessment Report to help ensure all significant environmental issues have been identified. As such, a questionnaire has been prepared, according to international standards and practice.

**Table 3: Mitigation measures**

MEASURES TO REVERSE NEGATIVE IMPACTS	
<b>AIR QUALITY</b>	<p><b>Environmental impact assessment enforced for industrial activities.</b></p> <p><b>Reforestation.</b></p> <p><b>Buffer green-belts along highway and industrial settlements.</b></p> <p><b>Adoption of technologies to use and generation of renewable energy, and promote higher energy efficiency.</b></p> <p><b>Low emission vehicles in public transport.</b></p> <p><b>Develop forest management guidelines.</b></p> <p><b>Prioritize implementation in order to promote public transport system in advance of new development.</b></p>
<b>BIODIVERSITY</b>	<p><b>Reforestation.</b></p> <p><b>Regenerative agriculture (with carbon sequestration).</b></p> <p><b>Identification of biodiversity sites.</b></p> <p><b>Develop forest management guidelines.</b></p>



	<b>Monitoring system for fauna and flora.</b>
<b>WATER QUALITY</b>	<b>EIA enforcement for new industrial activities.</b> <b>Promotion of innovative partnerships in related scientific fields and with the industrial sector.</b>
<b>SOIL</b>	<b>Sustainable organic agriculture.</b> <b>Promotion of innovative partnerships in related scientific fields.</b>
<b>CLIMATE CHANGE</b>	<b>EIA enforcement for new industrial activities.</b> <b>Buffer green-belts along highway and industrial settlements.</b> <b>Reforestation.</b> <b>Transport plan.</b> <b>Air monitoring system.</b> <b>Green technologies, use and generation of renewable energy, higher energy efficiency.</b> <b>Regenerative agriculture (which allows for carbon sequestration).</b> <b>Low emission vehicles in public transport.</b> <b>Develop forest management guidelines.</b> <b>Innovative partnerships in related scientific fields and with the industrial sector.</b>
<b>NATURAL RESOURCES</b>	<b>EIA enforcement for new industrial activities (with promotion of CCS).</b> <b>Environment protection and regeneration measures.</b> <b>Transport plan.</b> <b>Air monitoring system.</b> <b>Green technologies, use and generation of renewable energy, higher energy efficiency.</b> <b>Promote regenerative agriculture (carbon sequestration).</b> <b>Low emission vehicles in public transport.</b> <b>Promotion of innovative partnerships in related scientific fields and with the industrial sector.</b>
<b>HERITAGE</b>	<b>Conservation Plan.</b> <b>Heritage inventory.</b> <b>Prioritize strategic actions, ensuring that the Conservation Plan and heritage inventory are finalised ahead of programmed urban and touristic development.</b> <b>Promotion of innovative partnerships in related scientific fields.</b>
<b>HEALTH</b>	<b>EIA enforcement for new industrial activities.</b> <b>Buffer green-belts along highway and industrial settlements.</b> <b>Environment protection and regeneration measures.</b> <b>Transport plan.</b> <b>Air monitoring system.</b> <b>Promotion of innovative partnerships in related scientific fields and with the industrial sector.</b>
<b>SOCIAL INCLUSION AND EQUITY</b>	<b>Prioritize strategic actions, taking measures to ensure that public development precedes private investment in housing and that funding opportunities for these actions are found at an early stage of the process.</b>

### Main findings

The urban model proposed by the draft Municipal Development Plan for Hani i Elezit is the result of a process which is taking place since 2008, involving the State and local authorities with support from UN-Habitat's Municipal Spatial Planning Programme in Kosovo, funded by the Swedish International Development Cooperation Agency. During this process, Kosovo's Law on Strategic Environmental Assessment was published (in October 2010), giving rise to test the opportunity of evaluating the sustainability of planning options taken at the local level. Several options had already been assessed throughout the planning process, in public discussion meetings and workshops and supporting the decision of adopting the solution presented in the Municipal Development Plan for Hani i Elezit. Sustainability

assessments were conducted throughout the planning process and before State adoption of Strategic Environmental Assessment.

The Strategic Environmental Assessment conducted for Hani i Elezit's Municipal Development Plan shows that there are different level of environmental impacts posed to the following environmental issues:

- Soils, with agriculture development and livestock posing a potential negative impact on the environment to which mitigation measures have been suggested;
- Climate change (namely CO<sub>2</sub> and other GHG emissions resulting from increased industrial, urban development, improvement in road infrastructures and introduction of livestock),
- Natural resources, with possible impacts from the introduction of new industrial, rural and urban development, namely in an increased demand for water.

On the other hand, there are significant positive effects resulting from the full implementation of Hani i Elezit's Municipal Development Plan, in all environmental sectors, resulting mainly from the protection and regeneration of forest areas, namely through reforestation, improvement of Lepenc riverbed and Dimca streambed, decontamination actions, creation of sewage and waste management systems, from the enforcement of environmental protection law measures and from the adoption of an Air monitoring system. Significant positive impacts in Heritage are expected to result from the Conservation Plan and Heritage inventory. At the social level, the proposed actions in the field of cross-border cooperation and job creation in different sectors, pose important opportunities for the Municipality.

Transboundary impacts of the plan are most positive, since the measures envisaged to protect and regenerate the natural environment will have significant positive impacts in boundary territories, namely in air and water quality from decontamination and creation of a sewage plant and enforcement of Environmental protection Laws. There are no predicted negative impacts on neighbouring communities; all new industrial activity being preceded by Environmental Impact Assessment that enforces environmental protection and requiring an Environmental consent issued by the Ministry of Environment and Spatial Planning.

It is, therefore, a very positive balance of impacts, favourable to the adoption of the Plan, inserted within Kosovo's Spatial Plan and integrating the measures proposed to minimise negative impacts.

We believe this to be an important step for Hani i Elezit's balanced development, considering the objectives and current situation of the municipality, aiming at the protection and enhancement of natural and cultural heritage and biodiversity, while providing opportunities for social development.

In the implementation of the Plan, it will be relevant to channel funds and empower the local authority, building measures to reduce future disaster impact on forestry, ensuring resources are also channelled towards services that advance human development, ensuring that the existing and predicted industrial activities respect the environmental recommendations and take part in the sustainable development of the community. Important steps to assure the full implementation of the plan and avoid unintended collateral effects are the capacity to build synergetic partnerships with transversal sectors and transboundary communities and to further develop the prioritisation of the actions foreseen in the Municipal Development Plan.

## **PART I – ENVIRONMENTAL AND PLANNING CONTEXT**

## 1. Introduction

This document constitutes the report of the Strategic Environmental Assessment (hereinafter: SEA), the evaluation of Critical environmental factors that support the decision-making process of the Municipal Development Plan for Hani i Elezit Municipality. The main objective of a SEA is to promote sustainable development through the detailed consideration of sustainability issues integrated in the preparation and adoption of plans. The aim is to introduce sustainable thinking through all stages of development planning, considering that the “efficiency of urbanism should precede the costs of alternate technologies” (Calthorpe 2010: 15), focusing at protecting critical aspects of the environment whilst at the same time reducing overall resource demands.

UN-Habitat is supporting the municipality of Hani i Elezit in the development of municipal planning activities and has appointed an independent consultant to assist in the delivery of the SEA for Hani i Elezit’s Development Plan. The terms of reference of the SEA include the following deliverables: Proposal of a methodology for conducting an Impact assessment in the context of Kosovo; presentation of preliminary findings and draft version of the Report (*Sustainability Appraisal and Scoping Report*, presented in December 2010); Final version of the Report including all inputs from the UN officers Municipal Spatial Planning Support Program (MuSPP) team and other sources. The current SEA for Hani i Elezit’s Municipal Development Plan was conducted during the months of December 2010 and January 2011 and integrated within the MDP team in Hani i Elezit municipality.

## 2. Legal framework

The Strategic Environmental Assessment (SEA) Directive is an important step in European environmental law. European Directives n<sup>o</sup> 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, known as the Strategic Environmental Assessment or SEA Directive, and 2003/35/EC, concerning public participation in certain plans and programs related do the environment, have introduced strategic environmental assessment to plans and programs in the sectors of agriculture, forestry, fisheries, energy, industry including mining, transport, regional development, waste management, water management, telecommunications, tourism, town and country planning or land use, and which set the framework for future development, where municipal planning is clearly defined.

According to point n.<sup>o</sup> 2 of article 3, chapter II, of Kosovo’s Law No. 03/L –230 on Strategic Environmental Assessment (October 2010), “drafting of SEA report is obligatory for plans and programs from spatial planning and city planning field, on land use, agriculture, forestry, fisheries, hunting, energy, industry, mines, traffic, waste management, water management, telecommunication, tourism, which give a frame for future development projects, which undergoes environmental impact assessment according to the Environmental Impact Assessment Law”.

Law 03/L–230 on Strategic Environmental Assessment determines the conditions, form and procedures for the assessment of the impacts on the environment of certain plans and programmes through integration of environmental protection principles in the preparation, approval and realization of plans and programmes, with the aim of promoting sustainable development.

Kosovo’s Law on Strategic Environmental Assessment, states that SEA should report the following aspects:

1. an outline of the contents, main objectives of a plan or programme and relationship with other relevant plans and programmes;
2. the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;
3. the environmental characteristics of areas likely to be significantly affected;

4. any existing environmental problems which are relevant to the plan or programme, including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;
5. the environmental protection objectives, established at national, international or European Community level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;
6. the likely significant effects on the environment (including secondary effects, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative and, where relevant, transboundary effects), 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;
7. the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;
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;
9. a description of the measures envisaged concerning monitoring in accordance with Article [...];
10. a non-technical summary of the information provided under the above headings.

The Strategic Environmental Assessment of Hani i Elezit's MDP is conducted within this legal framework.

### 3. Theoretical framework

The SEA is an assessment instrument for evaluation of impacts of strategic nature (Partidário 2007), aiming at:

1. Ensuring a strategic vision and broad perspective in terms of environmental aspects, within a sustainable development approach;
2. Ensuring integration of aspects related to environment in the decision-making process, while the options for future development are in discussion;
3. Provide assistance in the identification, selection and justification of options in face of environment challenges and development aims;
4. Detecting problems and opportunities, and presenting suggestions for management and strategic monitoring programs;
5. Ensuring transparency and participation in the strategic development, involving all relevant stakeholders;
6. Producing contexts for development that might be more adequate to future development proposals.

While different methodological approaches for Strategic Environmental Assessment allow for different possibilities of influencing strategic decision, the International Association for Impact Assessment (IAIA 2002) states that the SEA process should present the following performance criteria:

- Be Integrative (ensuring an appropriate environmental assessment of all strategic decisions relevant for the achievement of sustainable development; addressing the interrelationships of biophysical, social and economic aspects and considering policies in relevant sectors and transboundary regions);
- Be sustainability-led, facilitating the identification of development options and alternative proposals that are more sustainable.
- Be focused, providing sufficient, reliable and usable information for development planning and decision making, concentrating on key issues of sustainable development, adapted to the circumstances of the decision making process and be cost- and time-effective.;
- Be accountable (by being the responsibility of the leading agencies for the strategic decision to be taken, being carried out with professionalism, rigor, fairness, impartiality and balance, being subject to independent checks and verification, documenting and justifying how sustainability issues were addressed in decision making).
- Be participative, informing and involving interested and affected public and government bodies throughout the decision making process, addressing their inputs and concerns in documentation and decision making, providing clear, easily-understood information requirements and ensuring sufficient access to all relevant information.
- Be iterative, insuring availability of the assessment results early enough to influence the decision making process and inspire future planning, providing sufficient information on the actual impacts of implementing a strategic decision, to evaluate whether this decision should be amended and to provide a basis for future decisions.

In a spatial planning process, strategic decisions will be undertaken with time. If SEA aims at influencing strategic decision, it must also be a continuous process, promoted within the planning process, integrating environmental aspects and sustainability issues during the design of strategic options for future development.

#### **4. Proposed methodology**

In this assessment we follow the methodology proposed by UN-Habitat's Municipal Spatial Planning Support Programme in Kosovo (Bergerhoff 2010). For the elaboration of the SEA for Hani i Elezit Municipal Development Plan proposal, we have also considered the European Commission's *Implementation of Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment* (EC 2003), *A Practical Guide to the Strategic Environmental Assessment Directive*, (ODPM 2005) and *Guia de boas práticas para a Avaliação Ambiental Estratégica* (Agência Portuguesa do Ambiente 2007).

According to the Regional Environmental Center for Central and Eastern Europe, the methods for identifying environmental impacts may comprise checklists, matrices, network analysis, overlays and geographical information systems (GIS), expert systems and/or professional judgement. The criteria for choosing an EIA method should be based on the type and size of the proposal, the types of alternatives being considered, the nature and extent of likely impacts, the availability of impact identification methods, the experience of the EIA team and the resources available (cost, information, time, personnel) (REC 2003).

The approach used for the development of this report followed the international and European recommendations, including the consideration of the necessary stages to perform the evaluation:

*Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope of the report.*

The definition of the context and objectives of evaluation seeks the strategic profile with special attention to its dimension, strengths and strategic objectives. The review of critical factors to structure strategic assessment was a result of the context and scale in which the SEA was conducted, in regard to the integration of the following elements (baseline and scope):

1. the environmental protection objectives, established at international, European Community or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation;
2. relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme and the environmental characteristics of areas likely to be significantly affected;
3. existing environmental problems which are relevant to the plan including, in particular, those relating to areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.

The review of national and international directives related to the environment and sustainable development was considered with regard to strategic proposals of Hani i Elezit MDP. This cross study has allowed for the selection of a set of environmental and sustainability topics. These topics were further analysed, in order to set criteria, sustainability and indicators for the SEA. The first step of the sustainability appraisal process is hence to look at other relevant plans, policies and programmes, collect baseline information and identify sustainability issues within Hani i Elezit . This information is then used to develop sustainability objectives and a framework for assessing the plan against.

#### *Stage B: Developing and refining alternatives and assessing effects*

After presentation of the first baseline information available and decision on the scope of the report (level of detailing and expected factors to be assessed), the MDP's objectives and programmed actions were analysed. At this stage, the MDP was tested to identify potential synergies or inconsistencies between its objectives against the SEA objectives. The MDP was analysed in order to refine strategic actions and predict the possible effects of the plan and the significant environmental effects. It is an important stage, where mitigating options are considered. Kosovo's Law on Strategic Environmental Assessment provides a list of relevant criteria for determining the likely significance of planning effects on the environment (in its Annex 1).

It was decided, along with UN-Habitat officers and after consideration of the first scoping report, that the MDP should be subject to a simple evaluation process, without considering the 'No plan' option but rather focusing on the existing plan options and the possible effects of those options (e.g. more developments in a particular area), considering different levels of implementation (partial or total). This is intended to help the decision-making process evaluate the possible consequences of implementing or only partially implementing the plan and also give options to possible negative impacts of implementation.

It is important to note that the three proposed scenarios in Hani i Elezit's Municipal development Plan had already been evaluated by the MDP team together with relevant stakeholders and the population, in joint workshops and meetings. Therefore, we may only evaluate the possible impact of the proposed actions on critical environmental issues. This may help to evaluate the predicted effects of the plan and its programmed actions, and assist in the refinement of the plan by introducing potential implementation alternatives and considering mitigation measures for any negative impacts identified. Another important aspect at this stage is to detail the means by which the environmental performance of the plan can be assessed, proposing a monitoring system for the plan's implementation.

The evaluation procedures derive from established practice, putting emphasis on mitigation and enhancement measures. Kosovo's Law on SEA also requires the analysis of effects to include "short, medium and long-term, permanent and temporary effects". Effects may vary over different timescales, and although causing an impact in the short term, may contribute in the long term for example in reductions in air pollution or greenhouse gases. For the purpose of this report the SEA has examined three timescales: a) short term effects (1-5 years); medium term effects (5-10 years) and long term effects (next 10+ years). These have been chosen to fit the timeframe for the proposed actions in the Plan (2010-2025, with expected revisions in 5 year terms).

### *Stage C: Preparing the Environmental Report*

The following step is to present the predicted environmental effects of the plan or programme, in the form of a report which includes alternatives, and is suitable for public consultation and use by decision-makers.

### *Stage D: Consultation and decision-making*

Kosovo's Law on Strategic Environmental Assessment requires the information in the Environmental Report and the responses to consultation to be taken into account during the preparation of the plan or programme and before the final decision is taken to adopt it (article 14). Responsible Authorities must produce a summary of how they have taken these findings into account, and how environmental considerations have been integrated into the plan or programme, with enough information to make clear any changes made or alternatives rejected.

The Law states:

#### *"Article 14*

##### *Adoption of the plan or programme*

*The responsible authority shall take in account the SEA report, the results of consultation including any transboundary consultation, during the preparation of the plan or programme and before its adoption.*

#### *Article 15*

##### *Information on the decision*

- 1. Once a plan or programme for which a strategic environmental assessment has been carried out has been adopted, the responsible authority shall inform the consultation authorities, the public, the persons who were consulted for the purposes of Article 9 sub-paragraph 2.2 of this Article and the Minister of the fact that the plan or programme has been adopted, the date of its adoption, the address, which may include a website where a copy of it and its accompanying SEA report,*
- 2. The Minister shall inform the country with which consultations in relation to the plan or programme have taken place of the matters referred to in paragraph 1 of this Article.*
- 3. The particulars referred to in paragraph 1 of this Article, are:*
  - 3.1. how environmental considerations have been integrated into the plan or programme;*
  - 3.2. how are integrated the environmental issues in plan or programme;*
  - 3.3. how the opinions of the consultation authorities, the public including the public consultees, and any views expressed as a result of transboundary consultations have been taken into account;*
  - 3.4. the reasons for choosing the plan or programme from a review of the reasonable alternatives;*
- and*
- 3.5. the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme."*

## **5. Contents and main objectives of Hani i Elezit MDP**

The proposal for Hani i Elezit Municipal Development Plan is in its concluding phase. The MDP proposal was presented to the public on December 17, 2010. The plan will be subject to public discussion and to other government agencies for review and comment for a period of at least 60 days, in accordance with Kosovo's Law on Spatial Planning.

The SEA was initiated before public presentation of Hani i Elezit's MDP in a phase when it is possible to gain from shared strategic decision. The methodological framework is, therefore, focused on the concept, overall strategy, acting on the process and integrated in the preparation of the MDP.

Hani i Elezit Municipal Development Plan is being conducted by the Municipality of Hani i Elezit, in collaboration with UN-HABITAT's "Municipal Spatial Planning Support Program" (MuSPP). MuSPP was launched in 2005 with financial support of the Swedish Government. In accordance with Article 13 of the



Law on Spatial Planning, each municipality is responsible for preparing a Municipal Development Plan covering its entire territory. This plan is a multi-sector plan, determining the goals for economic, social and spatial development and is established for a minimum period of five years. In the case of Hani i Elezit, the plan aims at establishing the development for 2010-2025.

The MDP is integrated within the broader Spatial Plan for Kosovo (draft, 2010). The primary objectives of the MDP presented here are based on the MDP (draft, 2010). The vision statement for Hani i Elezit is: “gate municipality, bridge between states Kosovo and Macedonia with a link between two borders Bllace-Glloboqice with developed administration services; advanced development from Industrial prosperities, trade, transport, agriculture, industrial cultural and transit tourism; balanced development with a greater attention to the environment protection; developed technical and social infrastructure and healthy life for all”.

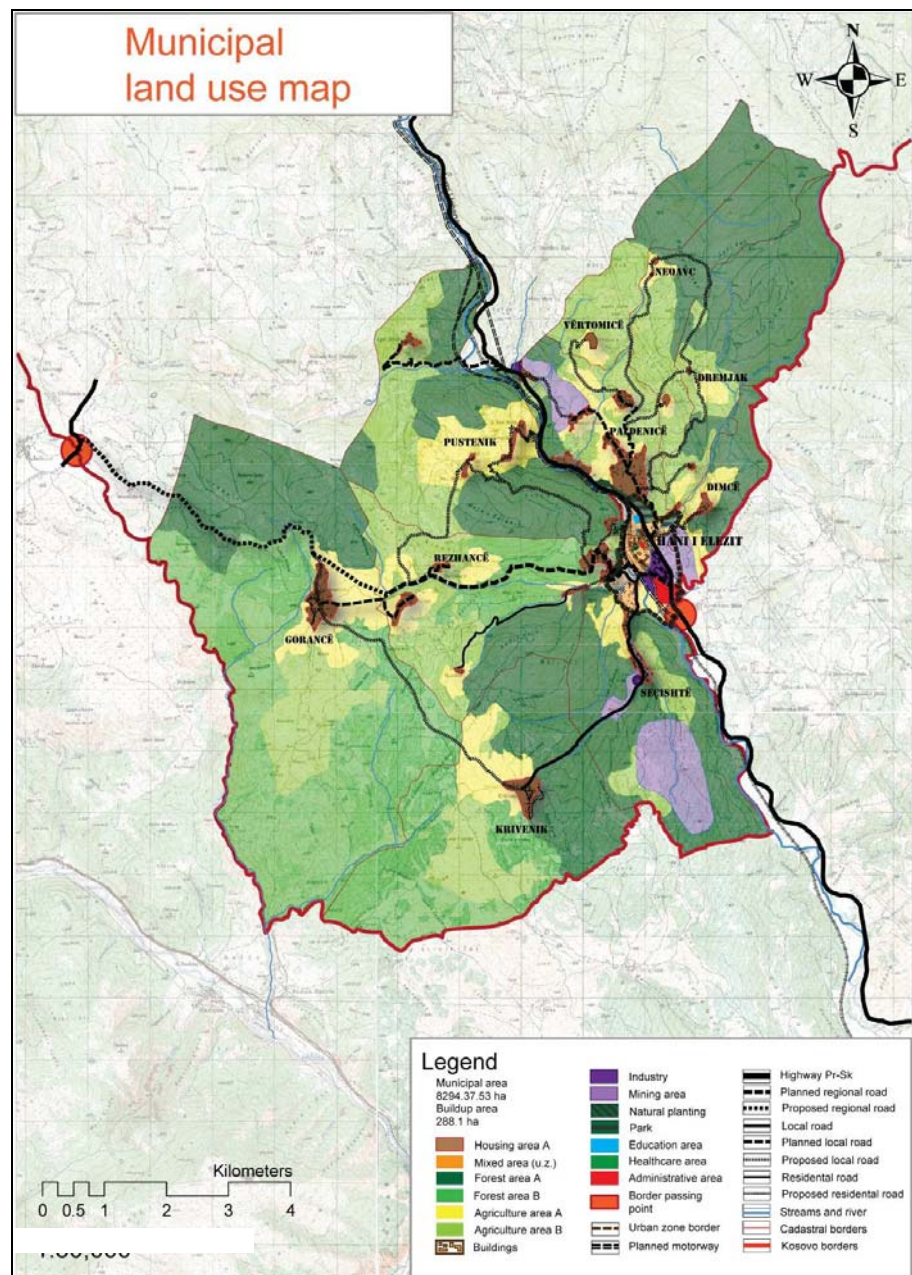


Image 2: Hani i Elezit MDP proposal, Municipal Land use map, 2010

The urban model defined aims at promoting a balanced, sustainable development, in all sectors of the municipality, putting an emphasis on the following aims:

- Promoting compact development, with higher density in construction land and improved social services in the main urban zones;
- Defining potential locations and resources for Municipal Development;
- Protecting natural and cultural heritage;
- Identifying potential projects for cross border cooperation.

Specific goals:

- Support economic development, including industrial activities, rural development, and the promotion of rural tourism;
- The creation of an urban structure that allows for an integrated and more sustainable management of physical infrastructure, mobility and transport systems;
- Improve social services with access for all citizens, promoting social cohesion and structuring the existent main urban areas;
- Environmental protection and disaster reduction and mitigation, promoting urban regeneration, reforestation, biodiversity and definition of ecological networks;
- Improved housing and quality of life for all citizens, ensuring housing for vulnerable groups through social assistance, promoting compact densification of urban areas, rational use of public spaces and avoiding negative impacts on nature areas;
- Enhance inter-municipal and cross-border potential.

These main objectives of Hani i Elezit Municipal Development Plan are further specified in the MDP proposal, chapter 2.

## **6. Definition of critical factors for decision-making process**

### **6.1. Strategic reference table**

As previously stated, the review of critical factors to structure strategic assessment will establish the baseline and decide on the scope of the SEA. The Strategic reference table (SRT) in the SEA identifies macro-orientations of national, european and international policy, and long term objectives established in terms of environment and sustainability.

The MDP/UDP are fundamental planning tools for the implementation of strategies defined at the regional, state and international levels and should, therefore, articulate with plans from diverse sectors (Table 4). We will now present the main objectives of the plans and programs mentioned above. From these objectives we can understand the development which is being promoted on a broader scale.

Table 4: Main development Plans and Programs

PLANS, PROGRAMS, POLICIES	
AGENDA 21	Principles For Sustainable Development
EU EBS	European Biodiversity Strategy
EU ESDP	European Spatial Development Perspective
LAW ON SPATIAL PLANNING	Kosovo Law n. 2003/14 and amendment Law n. 03/L-106 of 2008
LAW ON ENVIRONMENTAL PROTECTION	Kosovo Law n. 03/L-025 of 2009
LAW ON INTEGRATED PREVENTION POLLUTION CONTROL	Kosovo Law n. 03/L-043 of 2009
KOSOVO SPATIAL PLAN	Draft version of 2010

Table 5 documents the link established between the MDP and other relevant plans, programs and environmental protection objectives. The table shows coherence between plans and programs from international to local scales and between different sectors, giving evidence to persistent themes.

Table 5: Reference table

PLANS, PROGRAMS, POLICIES	MAIN OBJECTIVES AND GOALS applicable to municipal development	HANI I ELEZIT MDP APPROACH
AGENDA 21	<ul style="list-style-type: none"> <li>- Promoting sustainable development through trade liberalization;</li> <li>- Making trade and environment mutually supportive.</li> </ul>	<ul style="list-style-type: none"> <li>- Promote transparency in administration and decision-making;</li> <li>- Provide opportunities for small-scale enterprises, both farm and non-farm, and for the indigenous population and local communities: support loans for manufacturing (agrobusinesses) and light industrial businesses;</li> <li>allocate competitively priced, easily serviceable and developable land for industrial purposes, including opportunities for brown field redevelopment; support for the establishing of new farms; creation of a brand of local products.</li> <li>- Encourage the private sector and foster entrepreneurship by improving institutional support for enterprise creation and market entry, namely commercial development.</li> </ul>
EU EBS	<ul style="list-style-type: none"> <li>- Conservation and sustainable use of biological diversity;</li> <li>- Sharing the benefits arising out of genetic resources;</li> <li>- Research, identification, monitoring and exchange of information;</li> <li>- Education, training and awareness.</li> </ul>	<ul style="list-style-type: none"> <li>- Promoting the sustainable use and conservation of biodiversity.</li> </ul>
EU ESDP	<ul style="list-style-type: none"> <li>- Economic and social cohesion;</li> <li>- Conservation and management of natural resources and the cultural heritage.</li> </ul>	<ul style="list-style-type: none"> <li>- Enhance the quality in the education, social, cultural, health care sectors and sports activities;</li> <li>- Promoting opportunities for local</li> </ul>

		<ul style="list-style-type: none"> <li>employment;</li> <li>- Increasing opportunities for affordable and social housing;</li> <li>- Creating and improving the water supply, sewage network and waste management system;</li> <li>- Protecting the environment and biodiversity;</li> <li>- Decontaminating and redeveloping contaminated areas;</li> <li>- Reduction of risks and management of negative impacts in the environment, including reforestation on high erosion areas;</li> <li>- Protection of cultural heritage.</li> </ul>
<b>LAW ON SPATIAL PLANNING</b>	<ul style="list-style-type: none"> <li>- Protect natural resources and advocate sustainable development;</li> <li>- Promote an inclusive and participatory process of formulating development strategies and physical plans, which includes stakeholders and communities without discrimination, men as well as women;</li> <li>- Promote full transparency in the planning and decision-making process;</li> <li>- Promote equitable economic and social opportunities;</li> <li>- Promote improved quality of life and well balanced settlement pattern.</li> </ul>	<ul style="list-style-type: none"> <li>- Promoting the sustainable use and conservation of biodiversity;</li> <li>- Promoting transparency in administration and decision-making;</li> <li>- Improving social services and health care for all citizens;</li> <li>- Increasing opportunities for affordable and social housing;</li> <li>- Creating and improving the water supply, sewage network and waste management system.</li> </ul>
<b>LAW ON ENVIRONMENTAL PROTECTION</b>	<ul style="list-style-type: none"> <li>- To promote the rational use of natural resources and limitation of pollution discharge on the environment, prevention of damage, rehabilitation and improvement of defective environment;</li> <li>- To promote improvement of environmental conditions in correlation with life quality and protection of human health;</li> <li>- Saving and maintenance of natural resources, those renewable and un renewable as well as its sustainable management;</li> <li>- Stimulation and public participation on activities related to environmental protection;</li> <li>- To ensure that development on Kosovo is sustainable in order to protect and save the soil, air, water, living sources in Kosovo in favour of the coming generations;</li> </ul>	<ul style="list-style-type: none"> <li>- Creating and improving the water supply, sewage network and waste management system;</li> <li>- Protecting the environment and biodiversity;</li> <li>- Decontaminating and redeveloping contaminated areas;</li> <li>- Reduction of risks and management of negative impacts in the environment, including reforestation on high erosion areas;</li> <li>- Promoting the sustainable use and conservation of biodiversity;</li> <li>- Enhanced inter-municipal and cross-border cooperation related to urbanization, environment and forest management.</li> </ul>

	- To promote regional and international measures for saving, protecting and improving environmental quality.	
LAW ON INTEGRATED PREVENTION POLLUTION CONTROL	Prevention and pollution control arising from industrial activities, in particular by preventing or reducing wastes and emissions to the air, water and land.	- Reduction of negative impact of industry by the means of ensuring that polluters will respect the law; - Creation of a green belt along the cement factory.
KOSOVO SPATIAL PLAN	- Development of an attractive network of planned cities, with the governance of public services in favour of the citizen, with increased quality of life of citizens, employment and social equality; - Support for ZHEK LED - the use of competitive priorities; - Development of efficient inter-urban links with other areas, and wider to regional areas, through development of infrastructure (road, rail, air, ICT). - Development of commercial services, agro-industrial, the tourist, the intensification of policies for environmental protection and recovery.	- The key function of the main centre and sub centre is a complement to other settlements; - Improved social services with access for all citizens; - Improved quality of life and housing for all citizens; - Enhanced inter-municipal and cross-border cooperation; - Increase industrial capacities, develop agriculture, promote rural tourism; - Conservation and protection and restoration of natural environment and biodiversity.

## 6.2. Environmental issues

The review of plans and programmes affecting the municipality, and the structuring of environmental baseline data, informed the identification of a series of environmental issues that are central to the MDP. These are illustrated in Table 6. Such issues, problems and opportunities have been confirmed through:

- Discussions with UN-Habitat officers;
- Review of the baseline data; and,
- Tensions with other plans, programmes and sustainability objectives.

Table 6: Issues and opportunities in Hani i Elezit.

FACTORS	ISSUES	HOW ISSUES ARE ADRESSED IN THE MDP PROPOSAL
Air quality	- Existing cement plant does not follow environmental recommendations; - More industrial development could lead to more pollution; - More development in Gorance could lead to more traffic and worse air pollution; - Public transport is poor.	- Establish air monitoring system; - Ensure that polluters will respect the law; - Reforestation; - Creation of green belt around the cement factory; - Provide more sustainable modes of travel; - Improve cycle and pedestrian facilities; - Aim to meet more needs locally and thereby reducing the need to travel.  <b>Opportunities to explore:</b> - Develop partnerships with existing and potentially interested industrial enterprises, and with research/academic institutions to develop strategies and

Biodiversity	<ul style="list-style-type: none"> <li>- Illegal deforestation;</li> <li>- Increase in mining activities, industrial, and urban development may further endanger the natural environment.</li> </ul>	<p>activities in the field of environment/technology.                  - Promote low emission vehicles (e.g. hybrids, LPG, CNG).</p> <p>- Reforestation.</p> <p><b>Opportunities to explore:</b></p> <ul style="list-style-type: none"> <li>- Develop partnerships with existing and potentially interested industrial enterprises, and with research/academic institutions to develop strategies and activities in the field of environment/technology;</li> <li>- Creation of a Centre for environmental interpretation to identify biodiversity sites, establish a monitoring system for fauna and flora and develop environmental education activities.</li> </ul>
Climatic factors	<ul style="list-style-type: none"> <li>- Adaptation strategies are likely to be necessary;</li> <li>- High level of GHG;</li> <li>- Livestock generates high level of GHG.</li> </ul>	<ul style="list-style-type: none"> <li>- Reforestation;</li> <li>- Reduce the need to travel through integrated land use planning (urban compactness, coordination of planning and construction of transportation facilities, namely highway and enhancement of local/regional transportation facilities);</li> <li>- Create cycling and pedestrian structures.</li> </ul> <p><b>Opportunities to explore:</b></p> <ul style="list-style-type: none"> <li>- Promote the use and generation of renewable energy (e.g. for new developments);</li> <li>- Promote higher energy efficiency.</li> </ul>
Heritage	<ul style="list-style-type: none"> <li>- Neglected vernacular heritage at risk;</li> <li>- Concern that new development and housing improvements might further endanger existing heritage.</li> </ul>	<ul style="list-style-type: none"> <li>- Sustain cultural and rural tourism;</li> <li>- Identification and registration of vernacular architecture;</li> <li>- Draft conservation plan for cultural and industrial heritage protection;</li> <li>- Support conservation of traditional houses in rural areas;</li> <li>- Promote publications related to local heritage.</li> </ul> <p><b>Opportunities to explore:</b></p> <ul style="list-style-type: none"> <li>- Integrate existing cultural “routes” and establish transboundary partnerships to promote culture/tourism itineraries;</li> <li>- Establish partnerships with scientific/academic institutions in the field of heritage conservation (eg ICOMOS, architects or archaeologists’ associations).</li> </ul>
Waste management	<ul style="list-style-type: none"> <li>- The Municipality is not fully covered by public waste collection;</li> <li>- Liquid industrial waste is currently being discharged directly to the river;</li> <li>- Illegal dumpsites.</li> </ul>	<ul style="list-style-type: none"> <li>- Establish a waste management system;</li> <li>- Establish a public company for waste management campaigns;</li> <li>- Promote waste reduction programmes through recycling;</li> <li>- Support NGOs for organising awareness raising campaigns for recycling;</li> <li>- Bring waste containers in all settlements and neighbourhoods;</li> <li>- Determine locations for industrial and construction waste.</li> </ul> <p><b>Opportunities to explore:</b></p> <ul style="list-style-type: none"> <li>- Promote composting;</li> </ul>

Soil	<ul style="list-style-type: none"> <li>- Uncontrolled disposal of solid waste;</li> <li>- Existence of toxic cancerous remains from the asbestos cement industry;</li> <li>- Cattle-rearing is a major source of land and water degradation;</li> <li>- No specific data on soil is available.</li> </ul>	<p>- Further develop the public company's activities to include generation of economic activities related to reuse and recycling.</p> <ul style="list-style-type: none"> <li>- Assess the areas which are considered to be contaminated;</li> <li>- Decontamination of identified areas (asbestos);</li> <li>- Decontamination of degraded areas along the riverside.</li> </ul> <p><b>Opportunities to explore:</b></p> <ul style="list-style-type: none"> <li>- Draft a regeneration project for the riverside, combining decontamination, flood risk reduction, creation of cycling, walking path, leisure and environmental education activities.</li> </ul>
Water	<ul style="list-style-type: none"> <li>- Shortfall in potable water supply;</li> <li>- Water pollution;</li> <li>- Programmed urban, agricultural and industrial development will increase demand for water;</li> <li>- No specific data on water is available.</li> </ul>	<ul style="list-style-type: none"> <li>- Provide drinking water for all settlements (build water supply network).</li> </ul> <p><b>Opportunities to explore:</b></p> <ul style="list-style-type: none"> <li>- Develop monitoring system to evaluate chemical and biological quality of water;</li> <li>- MDP refers to the need to further evaluate water sources although no specific implementation measures are indicated.</li> </ul>
Social and economic factors	<ul style="list-style-type: none"> <li>- Need to improve the quality of public services, namely sports and recreation, education and health facilities;</li> <li>- High unemployment rate;</li> <li>- Need to improve housing quality;</li> <li>- Need to create social housing;</li> <li>- Proposed housing growth in Gorance would require transport and other investment;</li> <li>- Risk of depopulation;</li> <li>- New highway will increase noise pollution;</li> <li>- No data available on health issues (namely maternal health and infant mortality).</li> </ul>	<ul style="list-style-type: none"> <li>- Improve public services;</li> <li>- Increase professional capacity development for health and education staff;</li> <li>- Provide technical services needed to improve life standards;</li> <li>- Rural development as an opportunity for job creation;</li> <li>- Training youth for new job markets.</li> </ul> <p><b>Opportunities to explore:</b></p> <ul style="list-style-type: none"> <li>- Promote higher density housing without compromising design or quality of life (namely through urban infill);</li> <li>- Consider adoption of bio-agriculture;</li> <li>- Consider adoption of green building technologies, namely traditional architecture and adoption of good design to promote quality built environment;</li> <li>- Evaluate and monitorise health issues;</li> <li>- Develop student/teacher programs (vocational, assisting students, etc.);</li> <li>- Constitute a working group with ministerial services to evaluate the impact of the highway in the town development and a cost-benefit analysis considering the option of improvement of the existing highway and railway.</li> </ul>

## **PART II – ENVIRONMENTAL ASSESSMENT**



## 7. State of the environment

### 7.1. Air Quality

#### *Relationship with other Plans and Programmes*

EU Directive 1996/62/EC on Ambient Air Quality sets the framework for dealing with local air pollution by introducing new air quality standards for previously unregulated pollutants. In Directive 2008/50/EC, the European Commission has set limits for PM10 in the air (See Table 7). In addition, at the national level, the Kosovo Law n. 03/L-043 on integrated prevention pollution control defines a number of air quality objectives for several pollutants.

	PM10 limit value
<b>Yearly average</b>	<b>40 µg/m<sup>3</sup></b>
<b>Daily average (24-hour)</b>	<b>50 µg/m<sup>3</sup></b>
allowed number of exceedences per year	35

**Table 7: Limit values for fine particulate matter (PM10)**

#### *Baseline Information*

The monitoring of air quality is important in ensuring that levels of identified pollutants remain below national standards and targets to protect human health and eco systems. Kosovo's Law defines a list of the main polluting substances which must be taken into account for fixing emission limit values:

- Nitrogen oxides (NOX);
- Nitrogen dioxide (NO2);
- Sulphur dioxide (SO2);
- volatile organic compounds;
- metals and their compounds;
- dust;
- asbestos (suspended particulates, fibres);
- chlorine and its compounds;
- fluorine and its compounds;
- arsenic and its compounds;
- cyanides;
- substances and preparations which have been proved to possess carcinogenic or mutagenic properties or properties which may affect reproduction via the air;
- polychlorinated dibenzodioxins and polychlorinated dibenzofurans.

**Table 8: Air pollutant levels (source: Hani i Elezit MDP proposal, 2010)**

POLLUTERS	UNIT	2003	2004	2005	2006	2007	2008	PERMITTED VALUES
<b>Dust</b>	<b>MG/Nm3</b>	<b>250</b>	<b>108</b>	<b>120</b>	<b>100</b>	<b>60</b>	<b>78</b>	<b>50</b>
<b>NOx</b>	<b>MG/Nm3</b>	<b>470</b>	<b>420</b>	<b>350</b>	<b>350</b>	<b>182</b>	<b>235</b>	<b>800</b>
<b>SO2</b>	<b>MG/Nm3</b>	<b>820</b>	<b>548</b>	<b>590</b>	<b>580</b>	<b>564</b>	<b>608</b>	<b>400</b>

The data collected in the MDP (2003-2007) is shown on Table 8 but is incomplete and needs further monitoring. There are also no data predictions available. This information is currently being collected by a consultancy assignment. The data shows a rise in all pollutant levels from 2007 to 2008, with dust and Sulphur dioxide above limit values permitted by Kosovo standards. Further monitoring will assess other pollutant substances, as mentioned by Kosovo's Law on integrated prevention pollution control.

## 7.2. Biodiversity

### *Relationship with other Plans and Programmes*

There are several international agreements dealing with the important issue of biodiversity. The Ramsar, Bonn and Bern Conventions aim to protect wetlands, migratory species, wildlife and natural habitats respectively, whereas the World Summit on Sustainable Development, the more recent Convention on Biological Diversity, and the Millennium Development Goals stress the wider importance of biodiversity and its conservation.

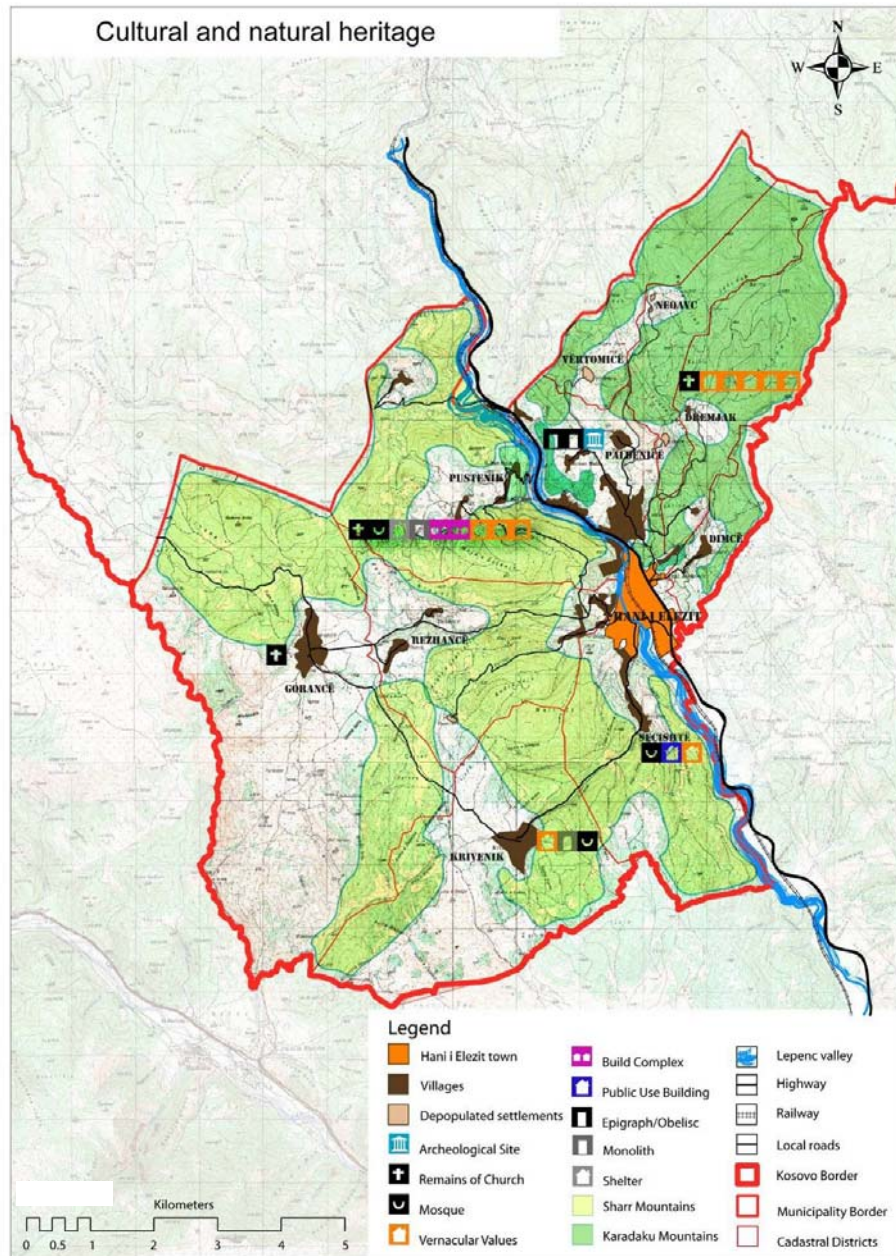
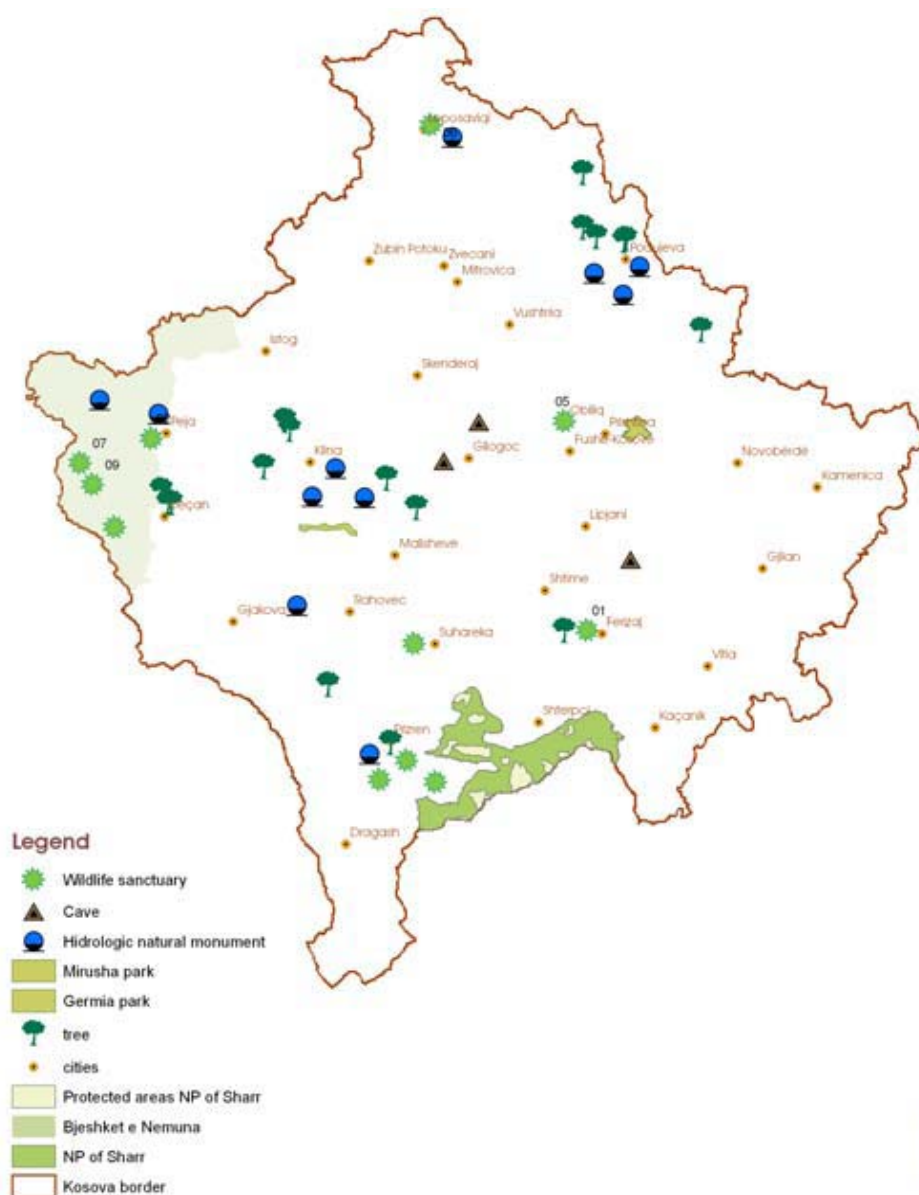


Image 3: Natural Areas (source: Hani i Elezit MDP proposal, 2010)



**Image 4: Natural areas and monuments under protection in Kosovo (source: Kosovo Spatial Plan, draft 2010)**

On the European level, the Birds and Habitats Directive and the EU Biodiversity Strategy make more specific provisions which should further be adapted into national legislation. Kosovo’s Law on environmental protection states that “Protected natural values shall be used and advanced in the manner that enables their permanent preservation and advancement in accordance with the law on nature protection” and that “the activities which threaten environmental capacity, natural balance, biodiversity, hydrographic, geomorphologic, geological, cultural and landscape values or which in any way degrade the quality and properties of the natural good shall not be allowed”. It states the responsibility of the Ministry of Environment to ensure the monitoring of environment is performed through systematic measurements, investigation and evaluation of state indicators, and measurements of Environment Pollution, which includes the measurement of natural factors, respectively changes of the state and characteristics of Environment, including here transboundary monitoring such as; air, water, soil, forests, biodiversity, flora and fauna, climatic elements, ozone layer, ionizing non ionizing radiation, noise, waste, early warning of the accidents, and evaluation of the scale of Environment Pollution, as well as obligation and responsibilities, which are taken from international agreements. National Park “Sharr Mountain” does not include protected natural areas within Hani i Elezit municipality (see Image 4). Kosovo’s Spatial Plan determines that the Municipalities, in close cooperation with the Ministry of Environment and Spatial Planning (MESP), should develop a regulatory plan for certain areas in order to protect landscape values.

#### *Baseline Information*

Hani i Elezit municipality is rich in natural resources and integrates landscape areas which are currently not protected, namely Sharr and Karaduku Mountains, the Lepenc Valley and the rural areas (see Image 3). Natural areas are bio-geographic zones which reflect the geological foundation, hydrological system, wildlife, the natural systems and processes within the area. The natural areas provide the context in which the MDP can look to secure, strengthen and enhance the biodiversity and natural features which characterise Hani i Elezit. The MDP profile identifies the risk of deforestation. The municipal Land use map proposed, defines these areas in order to protect and integrate ecological networks throughout the municipality and neighbouring landscapes. However, biodiversity sites are not identified (sites that could be designated for their biodiversity value). The MDP reports a number of species which could potentially be used for monitoring: wild rabbits, moles, wild pigeons and forest birds, insects and reptiles like lizards, snakes, salamanders, turtles, frogs, etc.. There is no study or monitoring of these species. The municipality of Hani i Elezit itself has a total area of woodland of 3878 ha covering 47% of the total municipality territory. This is well above the woodland coverage in continental Europe of 30%.

### **7.3. Climatic Factors**

#### *Relationship with other Plans and Programmes*

The UN Framework Convention on Climate Change and the Kyoto Protocol provide the international orientations for tackling climate change. Also, the UN Millennium Declaration and Millennium Development Goals, and the EU Sixth Environment Action Programme stress its importance whereas the EU Bio Fuels Directive and the EU Directive to promote Electricity from Renewable Energy set out specific measures to mitigate climate change. The Climate Change issue needs measures to be taken at all levels of administration, setting proposals on measures to reduce carbon emissions.

#### *Baseline Information*

Climate change is a central issue, at the core of the sustainability and environmental debate. Climate change is partially caused by the production of greenhouse gases, which heat the Earth and cause temperatures to rise. The burning of fossil fuels is a major contributor to greenhouse gas production. Climate change has a direct impact on urban areas, with possible consequences in risk of sea level rise, increased risk of flooding, storms, drought, etc.. Hani i Elezit's MDP presents the proposals of promoting urban compactness through land use regulations, and also presents the objectives of encouraging the use of non-motorised modes of transportation, cycling and pedestrian structures, promoting alternatives to private vehicle, promoting the coordination of planning and construction of transportation facilities, namely highway and enhancement of regional transportation facilities. There is no data on carbon emissions in commercial and domestic use, road transport, or Land use change. There is also no data on energy consumption and it is not possible to assess carbon emissions per capita for Hani i Elezit.

### **7.4. Cultural Heritage**

#### *Relationship with other Plans and Programmes*

The European Spatial Development Perspective aims for balanced and sustainable future development and includes the conservation of cultural heritage as one of its fundamental goals. Kosovo's Cultural Heritage Law and the Law on Special Protected Areas do not include specific measures to be implemented by the municipality. Kosovo's Spatial Plan recognizes the high risk of continuous degradation of urban complexes, architecture, environment and monuments of cities' heritage and specific areas, and the lack of data regarding cultural heritage, placing protection and preservation of cultural heritage as key objectives of the principle of sustainable development. In this context it proposes the development of an Inventory (data base) of buildings and sites throughout Kosovo. The Plan also points a number of measures to be taken in the fields of education, information, inter-institutional cooperation and the need to design regulatory plans for heritage areas and plans for conservation and management of cultural heritage sites. Kosovo's Plan also refers cultural tourism as a potential factor for the country's development.

#### *Baseline Information*

Hani i Elezit's cultural heritage is very rich in terms of vernacular architecture and traditional settlements and very vulnerable due to the inexistence of heritage inventories and protection measures. The MDP includes the objective of protection of its cultural values in the Rural development goal, associated to the promotion of rural tourism. The inventory of traditional architecture and study of traditional villages would be a starting point to implement this measure. However, the data is currently not collected and no partnerships have been established to ensure the study and protection of cultural heritage. The MDP has assessed a list of cultural values subject to valorisation and the need for field experts to be engaged in data collection. Databases available from the Centre for Cultural Heritage and the Ministry of Culture, Youth and Sports, regarding vernacular heritage, religious heritage, archaeological sites and building complexes (including industrial archaeology) are insufficient.

### **7.5. Waste management**

#### *Relationship with other Plans and Programmes*

The World Summit in Johannesburg (2002) and the EU Environment Action Programme highlighted the need of greater resource efficiency, waste reduction and the promotion of renewable energy to implement sustainable development. European legislation is set to deal with these issues; namely through the Landfill Directive, aiming at reducing the amount of waste sent to landfill and the Waste Framework Directive, which highlights the importance of the waste hierarchy and sets the framework for national waste management licensing. Kosovo's Spatial Plan establishes that waste must gather, accumulate and separate what can be recycled, transported to the landfill and be stored there; waste can only be stored in legal regional landfills; Municipalities in close cooperation with MESP should eliminate illegal dumpsites; and that Municipalities with public regional companies for waste management should organize recycling.

#### *Baseline Information*

The protection and enhancement of the environment must be integrated in measures to reduce waste disposal and structure the inexistent waste management system of Hani i Elezit's municipality. The MDP sets the objectives of establishing a waste management system and promoting waste reduction programmes through recycling. The data available on commercial and residential solid waste collection shows that an average 100 m<sup>3</sup>/month is collected from and it is estimated that a further 70 m<sup>3</sup>/month are currently not being collected. Waste disposal will result in the discharge of pollutants into soil and ground water (e.g. at disposal sites), producing CO<sub>2</sub>, methane and toxic gases, and leading to emissions of dioxins, hydrochloric acids and mercury (e.g. during waste incineration). As far as quantity is concerned, the most important sources of waste generally occur from industry, mining, agriculture and households.

### **7.6. Soil**

#### *Relationship with other Plans and Programmes*

Development impacts on soil are integrated on other environmental issues, such as climate change, loss of biodiversity and desertification. On the European level the EU Environment Action Programme highlights soil protection as one of main priorities for the future. Kosovo's Law on Environmental Protection aims to ensure that development on Kosovo is sustainable in order to protect and save the soil, air, water, living sources in favour of the coming generations. It also states that the Kosovo Environmental Action Plan shall be issued for (amongst other purposes) the protection of the soil. It is a responsibility of the Ministry of Environment to ensure the monitoring of environment is performed through systematic measurements, investigation and evaluation of state indicators, and measurements of Environment Pollution, which includes data on soil. Kosovo's Law on integrated prevention pollution control also refers to Soil protection when requiring a permit to allow the installation of activities such as industry or waste management.

#### *Baseline Information*

Hani i Elezit's soils are mainly classified as shallow brown soil on compact schist or limestone and rendzina on serpentinite (see Image 5). The MDP also identifies the major natural reserves. The MDP identifies the most important dangers caused by uncontrolled disposal of solid waste and the toxic cancerous remains

from the asbestos cement productions. Information regarding land contamination was not available for this study.

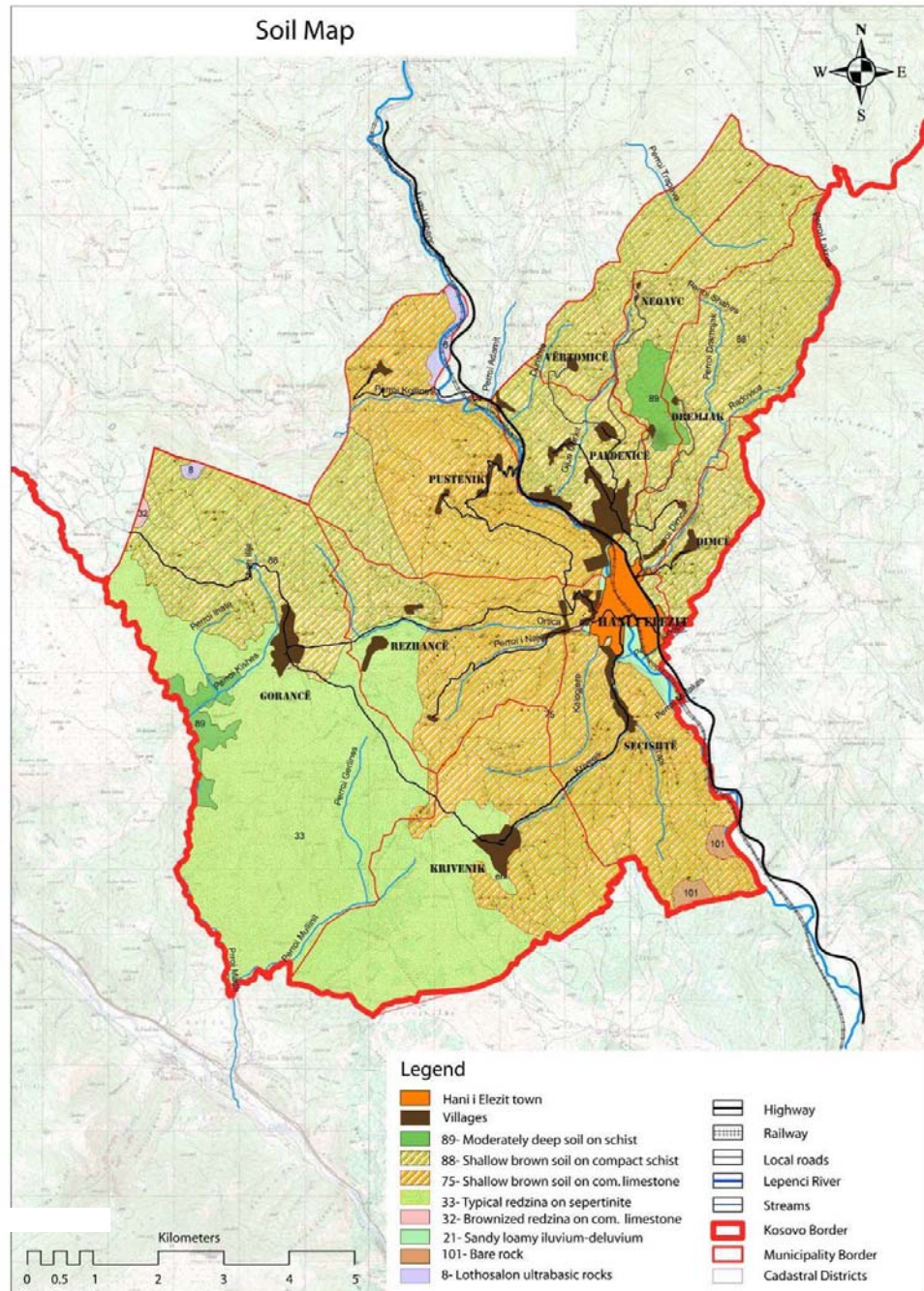


Image 5: Soil classification (source: Hani i Elezit MDP proposal, 2010)

Table 9: Natural reserves (Source: Hani i Elezit MDP proposal, 2010)

NO.	NAME	LOCATION	RESERVES (TON)	REMARK
1	Merzele	Hani i Elezit	134,382.60	Verified
2	Merzele	Paldenicë	259,850.30	Verified
3	Argyle	Paldenicë	263,924.60	Verified
4	Limestone	Seçishtë		Unverified
5	Limestone	Rezhancë		Unverified
6	Decorative stone	Dremjak		Unverified
7	Marble and limestone	Kashan		Unverified
8	Chrome	Rezhancë, Gurane and Kryenik		Unverified
9	Iron	Laç		Unverified
10	Mineral water (gas)	Hani i Elezit		Unverified

## 7.7. Water

### *Relationship with other Plans and Programmes*

At the international level, MDG highlight the need to confront climate change, conserving biodiversity and protecting water resources. In Europe, the Water Framework Directive requires Member States to achieve ‘good ecological status’ of inland water bodies by 2015, whereas the EU Nitrates Directive addresses diffuse pollution from agriculture. In Kosovo, the Law on Integrated Environmental Prevention and the Law on integrated prevention pollution control, set out how the planning system can help to reduce pollution of water courses and flood risk and promote the protection and preservation of environmental contents, namely water. Kosovo’s Spatial Plan further promotes implementation measures to promote the protection of ground water and the integration of systems of sewage wastewater. In the Spatial Plan of Kosovo the pollution of River Lepenc is ranged on category “II-III” out of “IV” categories.

### *Baseline Information*

For the purpose of this report, data on the chemical and biological quality of rivers was not accessible. However, there is concern about the degree of water pollution (ground water, surface water, river water) over the amounts of polluting substances coming from industry which continue to threaten water quality. The MDP reports the present situation of water pollution in the Lepenc River and its streams as a consequence from untreated waste of the sewage system, combined with the chemical pollution from heavy industry. In the flooding map of Kosovo, Hani i Elezit is not considered a flooding zone. According to the field survey conducted by UN-Habitat’s MuSPP team, there was flooding in 1979 in the neighbourhood of “Lagja e Ranave”. The MDP also refers to an annual flooding in Seqishte new neighbourhood, caused by melting snow and heavy rain. This potential flooding area is delimited in the MDP’s Hydrological map.

## 7.8. Social and economic factors

### 7.8.1. Demographics and Human Health

#### *Relationship with other Plans and Programmes*

Public health can greatly be influenced and improved through the planning process. Planning can introduce measures to support healthy lifestyles and to decrease demands on the requirement for services and resources, namely through the provision of water and sewage supply and waste management systems, public open space and leisure facilities, the reduction of pollution and noise, and the improvement of the access to services and facilities. Objectives with respect to human health are included at the all levels of planning and decision-making processes. MDG introduces health issues as some of the most important goals for the future, whilst the EU Sustainable Development Strategy (2001) includes ‘Address threats to public health’, amongst its main objectives. At a national level health is tackled through a number of

documents, including Kosovo’s Spatial Plan which introduces the “Improvement of the general health condition” as one of its major strategic and implementation actions.

*Baseline Information*

In Kosovo, the data regarding health issues is from 2001 (Table 10). The population data available for Hani i Elezit is from 2009 and is the result of a field survey conducted by the Municipality and UN-HABITAT. The population is estimated in 10065 inhabitants with continuous growth since the establishment of the cement factory in 1936. The most populated settlements are Hani i Elezit including the new neighbourhood of Seqishte with a total population of 4019 inhabitants, followed by Paldenicë with 1876 inhabitants, the village of Seqishte with 1074 inhabitants and Gorance with 1026 inhabitants. In Hani i Elezit the number of births per 1000 inhabitants in 2009 was of 15,89; the number of deaths per 1000 inhabitants in 2009 was of 5,36 (estimated). The estimated natural growth is of 1,1,% which is below growth rates for Kosovo. Data shows that the municipality has a young population, composed mainly of Albanian (99,6%) muslims (100%). There is no data available for Hani i Elezit regarding maternal health and infant mortality rates, which are to be considered in order to meet the MDG.

**Table 10: Demographic indicators for Kosovo (Source: Kosovo’s Spatial Plan, 2010)**

	1991	2000a	2000b	2001
<b>Approx. number of births per 1000 inhabitants</b>	<b>28.5</b>	<b>26.9</b>	<b>18.9</b>	<b>n/a</b>
<b>Approx. number of deaths per 1000 inhabitants</b>	<b>5.2</b>	<b>4.8</b>	<b>5.8</b>	<b>n/a</b>
<b>Natural growth per 1000 inhabitants</b>	<b>23.3</b>	<b>22.1</b>	<b>13.1</b>	<b>20.1</b>
<b>Child mortality</b>	<b>44.0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>Potential mortality per 1000 inhabitants</b>	<b>n/a</b>	<b>n/a</b>	<b>33</b>	<b>28.7</b>

Data source: UNICEF, 2000a; UNFPA/IOM, 2000b; WHO, 2001. Table information was taken from UNDP Human Development Report (2002).

The report from the Directorate of Health of Hani i Elezit states that there were 52 195 patients annually (143 daily) attending the municipal health care system in 2007; 53 290 patients annually (146 daily) in 2008, 53 655 patients annually (147 daily) in 2009. The report also indicates an average of doctors per 1000 inhabitants of 0,59 and nurses of 1,49 per 1000 inhabitants which is below national average and well below neighbouring countries average.

### 7.8.2. Noise

*Relationship with other Plans and Programmes*

There are a number of EU Directives in place which control noise from transport sources, for example from vehicles and outdoor machinery or the EU Directive 2002/49/EC (Environmental Noise Directive) which is related to the assessment and management of environmental noise. It aims to define a common approach across the European Union to avoid, prevent or reduce the harmful effects of environmental noise from road, rail and air traffic and industry. By 2007 strategic noise maps have to be prepared and by 2008 action plans have to be developed on how to reduce environmental noise where necessary. In a national context, Kosovo’s Law on Environmental Protection sets out the Kosovo Environmental Action Plan as a measure that can be used to minimise the adverse impacts of noise. It also states the Ministry of Environment and Spatial Planning’s responsibility for ensuring the monitoring of noise levels and collecting the data that shall be introduced in the System of Environmental Protection. Kosovo’s Spatial Plan states that “research shows that the burden of noise affects human health, in sleeplessness, and up to cardio-vascular diseases”. The report indicates that although there is no noise monitoring system in Kosovo, it is shown as very high in all environments. The Spatial Plan for Kosovo determines that green belts should be constructed on both sides of highways, to protect the environment from noise and gases that are released from vehicles.

*Baseline Information*

There is no monitoring system for noise pollution. The MDP report indicates that the main sources of noise come from the highway Prishtina-Skopje, Fushe Kosovo-Skopje railway (which both run through the city) and also from the cement plant “Sharrcem” and quarry close to the settlement in Kashan neighbourhood of Paldenica.



### 7.8.3. Housing

#### *Relationship with other Plans and Programmes*

The ESDP establishes a number of common objectives and concepts to be adopted at national, regional and local spatial planning. One of the main goals is Economic and social cohesion, and housing plays an important role in the achievement of that goal. The document states that the “future of the towns and cities in the EU depends on fighting growing poverty, social exclusion and stemming the loss of certain urban functions. Both the reconstruction of neglected areas and derelict industrial land and a balanced supply of inexpensive, high-quality housing in urban areas have to be promoted”. The main national guidance relating to the provision of new housing is Kosovo’s Spatial Plan, which considers housing and its policies to be “the most essential problems for social, economic and political development of the country”, and stresses “the importance of creating mechanisms which would provide a range of adequate conditions for housing for all, especially for the vulnerable social categories”. Kosovo’s Spatial Plan identifies the main factors of recent demand for housing as being related to the migration of families towards medium and large cities.

#### *Baseline Information*

**Table 11: Housing indicators**

	Kosovo 2000	Hani i Elezit municipality 2009
<b>Individual housing (%)</b>	<b>93.7</b>	<b>99</b>
<b>Collective housing (%)</b>	<b>6.23</b>	<b>1</b>
<b>Housing area per capita (m2)</b>	<b>18.65</b>	<b>n/a</b>
<b>Average family members</b>	<b>6.5</b>	<b>6.77</b>

Data source: Kosovo’s Spatial Plan; Hani i Elezit MDP (2010).

Data regarding housing area and conditions, and average house prices is currently unavailable. The municipality identifies one informal settlement dating from the 1970s (Bravet, 5 ha). However, MDG considers as criteria for establishing lack of housing quality the at least one of the four characteristics in households: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (3 or more persons per room); and (d) dwellings made of non-durable material.

### 7.8.4. Accessibility

#### *Relationship with other Plans and Programmes*

The ESDP established a number of common objectives and concepts to be adopted at national, regional and local spatial planning. One of the main goals is “Economic and social cohesion”, and accessibility (to services and employment) plays an important role in the achievement of that goal. The EU Sustainable Development Strategy also refers to accessibility, aiming at the improvement of transport systems and land use management and providing easy access to amenities including hospitals, in which public transport and mixed use planning plays an important role. Kosovo’s Spatial Plan includes Hani i Elezit in the Yellow area (bridges of Kosovo), and also mentions the importance of developing efficient inter-urban links with other areas, in particular through development of infrastructure (namely road, rail, ICT).

#### *Baseline Information*

The MDP provides the following indicators: The percentage of roads in need of repair is at 84%. There is also no street lightning apart from the city centre. Railroad is currently misused and the decrease in the number of passengers has led to reducing the number of schedules, which now only run once a day to Skopje, and three times a day from Fushe Kosova. Officially this is the only mode of public transportation in the municipality. Rural transport is done with vans for students but the MDP report states the need of improvement in this service, especially regarding student access to the school in Kaçanik. The existing telecommunication service, according to the Municipality, was only available for the former socially-owned enterprises and not functioning for residents. There have been recent works done to install digital telephone systems and also internet connection. This network already serves the town centre, industry and

customs. According to the MDP profile, the network is being extended to Paldenica, Dimca and Secishte. Mobile telephone signals of both Kosovo companies and also from the mobile system of the FYROM, cover the territory of Hani i Elezit.

### **7.8.5. Social Deprivation**

#### *Relationship with other Plans and Programmes*

The MDG sets the goal of eradicating extreme poverty. The ESDP established common objectives and concepts to be adopted at national, regional and local spatial planning. One of the main goals is “Economic and social cohesion”, and social integration plays an important role in the achievement of that goal. Kosovo’s Spatial Plan indicates the objective of “Reduction of the poverty rate especially emphasized in rural areas”.

#### *Baseline Information*

The MDP field survey, shows that 17 % of the population live in extreme poverty with less than €0.60 per day and 56% of the population live with 1€ per day. These numbers are below the country’s average: according to the World Bank’s Poverty Assessment, 37% of the population in Kosovo is classified as “poor”, living on less than €1.42 per day while 15% are below the extreme poverty line of €0.93 per day. Hani i Elezit presents social deprivation related to unemployment (ranked at 67% in the municipality) and lack of access to essential human needs such as clean water. The unemployment rate in the municipality is well above Kosovo’s unemployment rate of 44.4%. However, the unemployment numbers cannot measure informal employment sectors and there is no empirical evidence of increase in crime rates or social instability, which is a positive social trend to be emphasized: solidarity and sense of social identity seem to prevail or compensate over lack of basic needs.

### **7.8.6. Recreation, Sport and Leisure**

#### *Relationship with other Plans and Programmes*

The way in which public spaces are treated within land-use is vital to civic engagement and urban development. The ESDP refers to this need to address the improvement of quality of the public environment in many city areas. Without it, there will be an “economic impact due to loss of attractiveness and reduced investment, employment and municipal financial resources”. The ESDP also points out the value of rural areas in terms of providing recreation and leisure and offering balance for urban activities. National guidance within Kosovo’s Spatial Plan, makes reference to the need to ensure public services in favour of the citizen, aiming at an increased quality of life.

#### *Baseline Information*

In Hani i Elezit, there are no museums and few opportunities for civic engagement in cultural activities. According to MDP, there are sports activities organized within school structures, one youth sports club with football field and one culture building (where several activities take place). There is no data available regarding usage of public open spaces, although it is visible that the population makes intense use of public space (formal and informal) for recreation (such as children using street space for sliding in the snow) and daily activities (such as walking to school or shopping).

### **7.8.7. Education Sector**

#### *Relationship with other Plans and Programmes*

One of the MDG is to achieve universal primary education. The ESDP established “Economic and social cohesion” as one of its main goals, and education is high on the agenda. Kosovo’s Spatial Plan indicates “decline of interest of youth for high education” as a main threat in the long term development of the Yellow area. The plan recognizes education as “one of the most important inducers of economic success, and general success in modern societies”, important in “achieving equal development, creation of an inclusive society, where all residents have the possibility and initiative to participate with their full capacity to social and economic life of the country” and the need to implement measures to further improve the quality and access to secondary and high education.

*Baseline Information*

The MDP report gives a percentage of 30% of the population in the 0-14 group (3019 inhabitants). There is currently no kindergarten in the municipality. In Hani i Elezit the student-teacher ratio per classroom in primary school is 30,15, above national average of 23,97; student-teacher ratio in elementary and junior school is 22,40, above national average of 18,34. In Hani i Elezit the student-teacher ratio per classroom in high-school is 33,5, above national average of 31,65; student-teacher ratio high-school is 21,20, above national average of 20,1.

**Table 12: Students in elementary and secondary education**

GRADE	No of CLASSES	NUMBER OF PUPILS		
		F	M	Total
<b>Preschool (5-6 years)</b>	4	67	67	134
<b>1</b>	6	71	85	156
<b>2</b>	7	57	74	131
<b>3</b>	7	78	99	177
<b>4</b>	7	97	72	169
<b>5</b>	6	64	84	148
<b>6</b>	6	78	81	159
<b>7</b>	6	80	82	162
<b>8</b>	6	85	111	196
<b>Key stage 9</b>	<b>6</b>	<b>65</b>	<b>100</b>	<b>165</b>
<b>Combinated classrooms</b>	7	30	39	69
<b>Special needs</b>	0	0	0	0
<b>Total (T)</b>	<b>68</b>	<b>772</b>	<b>894</b>	<b>1666</b>

Source: 2009/2010 Reports from the Directorate of Education, Culture and Sport, Hani i Elezit Municipality

**Table 13: Students in high school**

GRADE	No of CLASSES	NO OF STUDENTS		
		F	M	T
<b>10</b>	5	87	96	183
<b>11</b>	3	58	60	118
<b>Key stage 12</b>	<b>5</b>	<b>68</b>	<b>88</b>	<b>156</b>
<b>13</b>	0	0	0	0
<b>Total (T)</b>	<b>13</b>	<b>213</b>	<b>244</b>	<b>457</b>

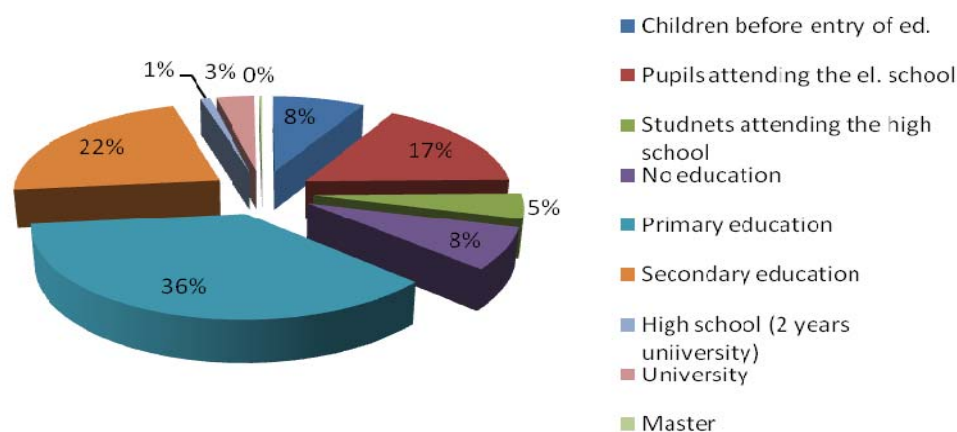
Source: 2009/2010 Reports from the Directorate of Education, Culture and Sports, Hani i Elezit Municipality

**Table 14: Students in higher education**

STUDENTS IN HIGHER EDUCATION	GENDER		
	F	M	TOTAL
<b>No of students</b>	<b>37</b>	<b>68</b>	<b>105</b>

Source: Field survey 2009

Based on the information from the field survey, most of the population in Hani i Elezit have primary and secondary education. (36% has primary education and 22% has secondary education) and people with no education are around 8%. 3% of the population has higher education (master degree 0.2%).



**Image 6: Qualification of the Population**  
 Image Source: MDP Field survey 2009

### 7.8.8. Economic Activity

#### *Relationship with other Plans and Programmes*

Economic resilience plays an important role in achieving sustainable development. Two out of the three main goals of the ESDP are specifically related to economic issues: to achieve economic and social cohesion in all European regions; and to promote a more balanced competitiveness of the European territory. The theme is also adopted by Kosovo's Spatial Plan, recognizing that in "sustainable economic development, industrial, commercial and service activities are vital in creating income opportunities for the residents". The plan proposes the development of commercial services, agro-industrial and touristic, for the Yellow area, which includes Hani i Elezit municipality.

#### *Baseline Information*

Unemployment rates in the municipality are very high (see section on Social deprivation). The region, however, has a solid manufacturing and industrial economic background and some informal economic sector.

## 8. Data gaps/limitations

The main data gaps are identified in

Table 15. Data regarding air quality and cultural heritage is currently being collected, in collaboration with other consultants and the Ministry of Environment and Spatial Planning. The need to collect further information regarding the main environmental factors was considered to be irrelevant due to the strategic nature of the MDP and the emergency in giving response to environmental issues at stake. The establishment of priorities in further investigating environmental, social or economic topics is related to which of these environmental issues are likely to be more affected by the MDP and therefore remit more detailed assessment. It is anticipated to evaluate, during the implementation and monitoring phase of the plan, the following topics in more detail: air quality, biodiversity, cultural heritage, soil, water and health.

Table 15: Data gaps

DATA GAPS/LIMITATIONS	
<b>Air quality</b>	<ul style="list-style-type: none"> <li>- Nitrogen dioxide (NO<sub>2</sub>);</li> <li>- volatile organic compounds;</li> <li>- metals and their compounds;</li> <li>- asbestos (suspended particulates, fibres);</li> <li>- chlorine and its compounds;</li> <li>- fluorine and its compounds;</li> <li>- arsenic and its compounds;</li> <li>- cyanides;</li> <li>- substances and preparations which have been proved to possess carcinogenic or mutagenic properties or properties which may affect reproduction via the air;</li> <li>- polychlorinated dibenzodioxins and polychlorinated dibenzofurans.</li> </ul> <p>The existing data on dust, NO<sub>x</sub> and SO<sub>2</sub> needs to be monitored. MuSPP has already engaged in hiring a consultancy to collect this data.</p>
<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>- biodiversity sites are not identified;</li> <li>- monitoring is needed to collect data on fauna and flora.</li> </ul>
<b>Climatic factors</b>	<ul style="list-style-type: none"> <li>- carbon emissions in commercial and domestic use, road transport;</li> <li>- energy consumption.</li> </ul>
<b>Heritage</b>	<ul style="list-style-type: none"> <li>- inventory of cultural heritage, including vernacular heritage, religious heritage, archaeological sites and building complexes (namely industrial).</li> </ul>
<b>Waste management</b>	<ul style="list-style-type: none"> <li>- quantity of solid waste disposal from industry, mining, agriculture and households.</li> </ul>
<b>Soil</b>	<ul style="list-style-type: none"> <li>- land contamination.</li> </ul>
<b>Water</b>	<ul style="list-style-type: none"> <li>- chemical and biological quality.</li> </ul>
<b>Social and economic factors</b>	<ul style="list-style-type: none"> <li>- maternal and infant mortality;</li> <li>- noise pollution;</li> <li>- housing conditions;</li> <li>- average house prices.</li> </ul>

## 9. Significant Effects Assessment

The assessment has considered the issues established in Stage A (scoping report): air quality, biodiversity, water quality, soils, climate change (namely CO<sub>2</sub> and other GHG emissions), natural resources, heritage, health, social inclusion and equity, housing and social deprivation. Table 16 exhibits the existing links and complementarities between the MDP goals and SEA objectives. The matrix allows for a clear representation of possible conflicts in the Strategic environmental assessment, which may rise from industrial, urban, rural and touristic new activities.

The MDP was analysed regarding the predicted changes and their impact on the established baseline. As well as estimating the impacts of the MDP on the environment, the SEA also considers the secondary, cumulative and synergistic impacts that may result from implementation of the proposal. The impacts are further studied in terms of temporal scale (regarding short term, medium term and long term effects), their reversibility, magnitude, value, the vulnerability of the area likely to be affected and the cross-boundary effects. Predicted significant effects on the environment are next presented with further detail.

ENVIRONMENTAL ISSUES OBJECTIVES	SEA	MDP OBJECTIVES								
		main themes				specific goals				
		PROMOTE COMPACT DEVELOPMENT	DEFINE LOCATIONS AND RESOURCES FOR MUNICIPAL DEVELOPMENT	PROTECT NATURAL AND CULTURAL HERITAGE	IDENTIFY PROJECTS FOR CROSS-BORDER COOPERATION	SUPPORT ECONOMIC DEVELOPMENT (INDUSTRIAL, RURAL AND TOURISM ACTIVITIES)	CREATION OF AN INTEGRATED URBAN STRUCTURE (PHYSICAL INFRASTRUCTURE, MOBILITY AND TRANSPORT SYSTEMS)	PROMOTE SOCIAL COHESION (IMPROVE SOCIAL SERVICES AND STRUCTURE MAIN URBAN AREAS)	DISASTER REDUCTION AND MITIGATION (URBAN REGENERATION, REFORESTATION, BIODIVERSITY AND ECOLOGICAL NETWORKS)	IMPROVED HOUSING AND QUALITY OF LIFE FOR ALL
TO PROTECT AND ENHANCE BIODIVERSITY		Strong	Strong	Strong	Moderate	Weak	Strong	No Link	Strong	No Link
ENHANCE AIR QUALITY IN URBAN AREAS		Strong	Moderate	Strong	Moderate	Moderate	Strong	No Link	Strong	No Link
ENHANCE WATER QUALITY AND LIMIT WATER CONSUMPTION		Moderate	Strong	Strong	Moderate	Weak	Moderate	No Link	Strong	No Link
MINIMISE THE LOSS OF VALUABLE SOILS		Strong	Strong	Strong	Moderate	Weak	Strong	No Link	Strong	No Link
ENSURE NEW DEVELOPMENT DOES NOT INCREASE GHG		Strong	Strong	Strong	Moderate	Moderate	Strong	No Link	Moderate	No Link
REDUCE CO2 AND OTHER GHG EMISSIONS		Strong	Strong	Strong	Moderate	Weak	Strong	No Link	Strong	No Link
USE NATURAL RESOURCES EFFICIENTLY		Moderate	Strong	Strong	Moderate	Moderate	Moderate	No Link	Strong	No Link
MAINTAIN AND ENHANCE CULTURAL HERITAGE		Moderate	Moderate	Strong	Strong	Moderate	Moderate	No Link	Moderate	No Link
CONSERVE AND ENHANCE THE LANDSCAPE AND TOWNSCAPE		Strong	Strong	Strong	Strong	Moderate	Strong	No Link	Strong	Moderate
ENCOURAGE HEALTHY LIFESTYLES		Strong	Moderate	Moderate	Moderate	No Link	Strong	Strong	Moderate	Moderate
PROMOTE EQUITY AND SOCIAL INCLUSION		Moderate	No Link	No Link	Moderate	Moderate	Moderate	Strong	No Link	Strong
ENSURE ACCESS TO GOOD HOUSING FOR ALL		Moderate	Moderate	No Link	No Link	No Link	Moderate	No Link	Moderate	Strong
REDUCE DEPRIVATION		Strong	Moderate	No Link	Moderate	Strong	Strong	Strong	Moderate	Strong



Table 16: Complementarities / conflicts between MDP and SEA objectives

### **9.1. Air Quality**

The cumulative effects of new industrial activities and new conditions for Freight Transport are predicted to have a significant negative impact on Air Quality. The promotion of a new urban subcentre in Gorance may increase, in the long term, car dependency and also result in secondary negative impacts in the air quality. However, the planned reforestation (with the control of illegal wood cutting) and the creation of a green-belt to protect the cement industry, along with the establishment of the air monitoring system, will help to balance and control these negative impacts. The improvement of physical infrastructures, namely through the asphaltting of several roads in the municipality, will also improve the conditions for car travel, resulting in a possible secondary long term effect of sprawl pattern. The predicted transport plan, including new bus station, and the encouragement of new modes of transport including pathways and bike lines will have a positive impact on air quality. If introduced with cost-efficiency at an early stage of the implementation, this transport system may control the unintended car dependency and sprawl pattern.

### **9.2. Biodiversity**

The cumulative effects of land zoning and encouragement of agricultural activities are predicted to have a secondary impact on biodiversity, with the introduction of livestock, poultry and honeybees as well as new agricultural trends which will introduce changes in ecological balances. The protection of forest areas, reforestation, improvement of Lepenc riverbed and Dimca streambed, along with decontamination actions and reinforcement of environmental protection law measures, will have a significant positive and permanent impact on the environment. This positive effect will be visible on the short and mid term but will have more visible results on the long term.

### **9.3. Water quality**

The cumulative effects of new industrial development are predicted to have a negative impact on water quality. However, the enforcement of environmental protection laws, the decontamination of Lepenc river from asbestos, the decontamination of Lepenc riverbeds and Dimca streambed, the land zoning rules, and the creation of water and sewage networks and sewage plant are predicted to have a significant positive impact on water quality.

### **9.4. Soils**

The cumulative effects of agriculture development and livestock are predicted to have a negative impact on soils. The cumulative effects of decontamination of riverbeds and elimination of the tanks from ex-army within the environment regeneration MDP objective and the establishment of a sewage network are likely to have an immediate and long term positive effect on soils. Synergetic positive effects of the implementation of these measures will result from the establishment of a public company for waste management.

### **9.5. Climate change**

The cumulative effects of industrial (namely allocation of new industries and of space for parking and the organisation of freight transport) and rural (namely introduction of livestock) development proposed will result in negative short term impacts in terms of increase of GHG emissions. The improvement in road infrastructure and urban subcentre will also result in an increase of CO<sub>2</sub> emissions, from predicted increase in private transport. However, the proposal of an efficient transport system, along with the reforestation plan, the protection of forest area and the measures proposed to prevent illegal deforestation will have significant positive effects on the long term on the environment. Moreover, the proposed establishment of an air monitoring system will allow to fully implement these measures and follow-up in a satisfactory

manner. The necessary Environmental Impact Assessment for new industrial activities to take place, will in the long term, help reduce these emissions, namely through clean energy investments and carbon capture procedures.

## 9.6. Natural resources

The proposed new industrial, rural and urban development with resulting demographic growth will also increase the demand for natural resources, namely demands for food and materials. Land use and transport will have a significant impact on GHG emissions and the demand for natural resources. Renewable power sources and efficient transport systems are likely to compensate for this increased demand and provide a stable climate future and energy consumption pattern. Reducing demand on the end use (in buildings and in transportation) will have a direct impact on emissions and have an effect on GHG needed for industrial and facilities purposes. All the strategies proposed for environment protection (namely the protection of forest areas, reforestation, decontamination of river and ex army areas, etc.) will have direct significant cumulative positive impacts on natural resources.

## 9.7. Heritage

Tourism and new urban development in Gorance subcentre will have a direct impact on heritage. There is a risk that these measures will have a permanent negative impact on architectural heritage, with loss of authenticity. The measures to avoid this potential negative impact are to prioritize strategic actions, providing for the vernacular architecture heritage inventory to be the first step, engaging scientific and academic partnerships to raise awareness on the vulnerability and value of this heritage and mostly, to establish the predicted Conservation Plan that will guide strategically all potential new developments at an early stage, without further endangering the existent cultural heritage. It is expected that these measures will have a long term positive impact on the urban environment.

## 9.8. Health

The cumulative effects of Environment Protection and Regeneration, improvements in health facilities (namely construction of the annex for Family health care Centre and enhancement in services in Gorance subcentre) and sports activities, along with measures to ensure urban infrastructure (such as the sewage system and water supply network) are predicted to have a significant positive impact on human health. Most importantly, the measures to ensure that the existing mechanisms for law enforcement on environment protection are put to practice, will have a significant long term improvement in health issues. The increase in industrial activities must be preceded by an EIA to adjust all new proposed development to new technologies such as carbon capture, in order to prevent negative impacts to human health.

## 9.9. Social inclusion and equity

*“Social sustainability is a large and challenging concept. Part of the concept is to give various groups in society equal opportunities for accessing common city space and getting around town. Equality gets a substantial boost when people can walk and bicycle in combination with public transport. People without cars must have access to what the city has to offer and the opportunity for a daily life unrestricted by poor transport options.” (Gehl 2010)*

There is risk that the new proposed urban development in Gorance will allow a space for social sectorisation and unequal access to basic needs. In order to prevent this, the MDP has proposed a number of new educational, social, health and cultural services. However, all these actions require fundings and there is a risk of not being fully implemented. In such case, there is a predicted medium term negative impact in terms of social inclusion and equity. Measures to promote social inclusion are proposed in the



strategy to establish a public transport system, which should also be a priority in terms of achieving social inclusion and equity. These are actions that require time, means and effectiveness and without proper implementation will have a negative impact in social balance. As such, it is important that public development precedes private investment in housing and that funding opportunities for these actions are found at an earlier stage of the process.

### **9.10. Housing**

The cumulative effects of measures to promote public services (such as electricity network) and infrastructures (such as sewage and water supply networks) will have a significant positive impact on the mid term. In addition, measures to promote social housing, in partnership with the Ministry for Social welfare are also predicted to have a positive impact on the mid term.

### **9.11. Social deprivation**

The creation of job opportunities in the industrial, agricultural and tourism sectors will have a significant positive impact in reducing social deprivation. The synergetic effects resulting from transboundary cooperation will also impact on social deprivation, providing opportunities in access and improvement of social, educational and cultural activities. There are also secondary positive effects resulting from the programmed improvement of public facilities and services such as education, health, sports and cultural activities. As stated in point 9.9, the cumulative effects of improvement in public space and transport will also have an important positive effect on social inclusion and access to goods and services.

## **10. Mitigation and Enhancement**

*Mitigation measures* are those measures considered necessary to prevent, reduce and where possible remedy or offset any significant adverse effects of planned actions. In this chapter we will explore all the possibilities considered in the MDP and introduce other measures to mitigate possible negative impacts on the environment in order to promote sustainable development.

*“While job creation is essential, a meaningful solution to today's problems lies not in simply restarting the engine of consumption. That approach led to the degradation and depletion of the planet's resources even as it failed to meet the basic needs of the majority of humanity. The current crisis offers a unique opportunity for laying the foundation for a greener and fairer global economy.”* (The Worldwatch Institute 2010a)

As the number of households increase, total energy consumption will also increase. The high energy demands for industrial activities must be compensated by measures to increase energy efficiency in vehicles and buildings. Green technologies, namely in industrial and agricultural development and public facilities, will play an important role in reducing carbon impacts. Reducing demand on the end use will have an effect on GHG emissions resulting from industrial, public activities and transportation. The proposed reforestation is also an important step to balance GHG emissions resulting from industrial development.

Another important measure predicted in the MDP is to ensure that industrial investors respect current Environmental protection Law, namely in what concerns the enforcement of an Environmental Impact Assessment, which should introduce measures to reduce GHG emissions such as Carbon capture and sequestration. Implementation provisions must include a space for industrial activities, reminding that all establishment of new industrial activities must be preceded by an EIA and appealing to creative low-energy industries, namely in the field of waste management and recycling. The municipality should take steps to enable innovative partnerships in related scientific fields and with the industrial sector.

Farming activities have a decisive impact on climate change with livestock providing for 51% of global CO<sub>2</sub> emissions (Goodland and Anhang 2009). As a mitigation measure, farmers should be compensated for modification of their agricultural practices in promoting regenerative agriculture (carbon sequestration).

Tourism and new urban development pose challenging impacts on heritage. The measures predicted to protect cultural heritage will be insufficient if they are not seriously taken, with scientific knowledge and at an early stage of the process. There is a high risk that tourism and new proposed development may have a permanent negative impact on architectural heritage, with loss of authenticity in the village settlements. The strategic actions predicted in the MDP must be prioritized, in order for the vernacular architecture heritage inventory to take place before any other development action in the context of the villages, engaging scientific and academic partnerships to raise awareness on the vulnerability and value of this heritage. Knowledge on the current state of vernacular heritage, including all elements that compose the village landscape is a key tool to support the preservation of these settlements. The Conservation Plan is an important instrument to guide all strategic actions within these settlements. It should be accompanied by heritage experts and as always, by engaging the population in integrated conservation schemes.

Equal access to public services such as education, health and culture is a fundamental requirement for sustainable development to take place. Along with the beautiful landscape and cultural heritage, social balance is one of the vital strengths of the municipality today. Measures to reinforce social inclusion and equity are proposed in the MDP. However these actions (namely to establish a public transport system, and to build and improve a number of public facilities), require a significant effort in terms of financial and technical resources. There is a risk of not fully implementing the needed public facilities and transport system and raising an opportunity to increase social gaps. As such, it is important that public development precedes private investment in housing (namely for new population in Gorance subcentre) and that funding opportunities for these actions are found at an early stage of the process.

Regulatory measures must be taken in order to ensure that housing developments are integrated into walkable neighbourhoods, built only after public infrastructures are fully implemented. In this process, the emergence of informal settlements poses a risk to which regulatory and law enforcement must also prepare. Social housing is an important step in the process of providing equal access to housing. As a measure to avoid social sectorisation it is proposed that small housing units are integrated in the existing settlements, respecting vernacular architecture and the existing landscape rather than importing a housing model that does not fit the population expectations and townscape. It is proposed that the population needs are studied in order to eventually provide for other types of social support and use public investment where it is most needed, while at the same time providing an opportunity for private investment making use of local construction work. Measures to support local economies and micro-finance should be studied in order to promote local development.

In Table 17 we present a synthesis of the significant effects assessment, considering the main positive and negative predictable impacts and mitigation measures to be considered within the Plan.

**Table 17: Synthesis of risks detected in Significant Effects Assessment and Mitigation measures**

	NEGATIVE IMPACTS	POSITIVE IMPACTS
<b>AIR QUALITY</b>	<p><b>New industrial activities and new conditions for Freight Transport.</b></p> <p><b>Promotion of a secondary urban centre in Gorance.</b></p> <p><b>Improvement of road infrastructures.</b></p>	<p><b>Planned reforestation.</b></p> <p><b>Protection of forest areas.</b></p> <p><b>Control of illegal deforestation.</b></p> <p><b>Environmental protection Law enforcement.</b></p> <p><b>Creation of a green-belt to protect the cement industry.</b></p> <p><b>Transport plan.</b></p> <p><b>Air monitoring system.</b></p>
<b>Mitigation</b>	<b>EIA enforcement for new industrial activities (with promotion of CCS).</b>	

measures	<p>Green technologies, use and generation of renewable energy, higher energy efficiency.</p> <p>Low emission vehicles in public transport.</p> <p>Reforestation.</p> <p>Buffer green-belts along highway and industrial settlements.</p> <p>Prioritize implementation in order to promote public transport system in advance of new development.</p>	
BIODIVERSITY	<p>Unknown effects in introduction of farming, livestock, poultry and honeybees.</p>	<p>Protection of forest areas.</p> <p>Reforestation.</p> <p>Improvement of Lepenc riverbed and Dimca streambed.</p> <p>Decontamination actions.</p> <p>Enforcement of environmental protection law measures.</p>
Mitigation measures	<p>Promote regenerative agriculture (carbon sequestration).</p> <p>Reforestation.</p> <p>Identification of biodiversity sites.</p> <p>Monitoring system for fauna and flora.</p>	
WATER QUALITY	<p>New industrial development.</p>	<p>Enforcement of environmental protection laws.</p> <p>Decontamination of Lepenc river from asbestos.</p> <p>Decontamination of Lepenc riverbeds and Dimca streambed.</p> <p>Land zoning.</p> <p>Creation of water and sewage networks.</p> <p>Creation of sewage plant.</p>
Mitigation measures	<p>EIA enforcement for new industrial activities (with promotion of CCS).</p> <p>Promotion of innovative partnerships in related scientific fields and with the industrial sector.</p>	
SOIL	<p>Agriculture development and livestock.</p>	<p>Environment regeneration.</p> <p>Public company for waste management.</p> <p>Enforcement of environmental protection laws.</p> <p>Decontamination of Lepenc riverbeds and Dimca streambed.</p> <p>Land zoning.</p> <p>Creation of water and sewage networks.</p> <p>Creation of sewage plant.</p>
Mitigation measures	<p>Sustainable organic agriculture.</p> <p>Promotion of innovative partnerships in related scientific fields.</p>	
CLIMATE CHANGE	<p>Industrial and rural development.</p> <p>Promotion of a secondary urban centre in Gorance.</p> <p>Improvement of road infrastructures.</p>	<p>Planned reforestation.</p> <p>Protection of forest areas.</p> <p>Control of illegal deforestation.</p> <p>Environmental protection Law enforcement.</p> <p>Creation of green-belts to protect urban environment from the cement industry and highway.</p> <p>Transport plan.</p> <p>Air monitoring system.</p>
Mitigation measures	<p>EIA enforcement for new industrial activities (with promotion of CCS).</p> <p>Green technologies, use and generation of renewable energy, higher energy efficiency.</p> <p>Buffer green-belts along highway and industrial settlements.</p> <p>Promote regenerative agriculture (carbon sequestration).</p>	

	<p>Reforestation.                  Transport plan.                  Low emission vehicles in public transport.                  Promotion of innovative partnerships in related scientific fields and with the industrial sector.                  Air monitoring system.</p>	
<b>NATURAL RESOURCES</b>	<p>Industrial, rural and urban development.</p>	<p>Planned reforestation.                  Protection of forest areas.                  Control of illegal deforestation.                  Decontamination of Lepenc riverbeds and Dimca streambed.                  Creation of water and sewage networks.                  Creation of sewage plant.                  Environmental protection Law enforcement.                  Creation of green-belts.                  Land zoning.                  Transport plan.                  Air monitoring system.                  Public company for waste management.</p>
Mitigation measures	<p>EIA enforcement for new industrial activities (with promotion of CCS).                  Green technologies, use and generation of renewable energy, higher energy efficiency.                  Promote regenerative agriculture (carbon sequestration).                  Environment protection and regeneration measures.                  Transport plan.                  Low emission vehicles in public transport.                  Promotion of innovative partnerships in related scientific fields and with the industrial sector.                  Air monitoring system.</p>	
<b>HERITAGE</b>	<p>Tourism and new urban development in Gorance subcentre.</p>	<p>Conservation Plan.                  Heritage inventory.</p>
Mitigation measures	<p>Prioritize strategic actions.                  Conservation Plan.                  Heritage inventory.                  Promotion of innovative partnerships in related scientific fields.</p>	
<b>HEALTH</b>	<p>Industrial development.</p>	<p>Improvements in health facilities.                  Improvements in sports facilities.                  Planned reforestation.                  Protection of forest areas.                  Control of illegal deforestation.                  Decontamination of Lepenc riverbeds and Dimca streambed.                  Creation of water and sewage networks.                  Creation of sewage plant.                  Environmental protection Law enforcement.                  Creation of green-belts.                  Land zoning.                  Transport plan.                  Air monitoring system.                  Public company for waste management.</p>
Mitigation measures	<p>EIA enforcement for new industrial activities.                  Buffer green-belts along highway and industrial settlements.                  Environment protection and regeneration measures.                  Transport plan.</p>	

	<b>Promotion of innovative partnerships in related scientific fields and with the industrial sector.</b>	
	<b>Air monitoring system.</b>	
<b>SOCIAL INCLUSION AND EQUITY</b>	<b>Gorance subcentre.</b>	<b>Creation and improvement of educational, social, health and cultural services and facilities.</b> <b>Public transport system.</b>
Mitigation measures	<b>Prioritize strategic actions.</b>	
<b>HOUSING</b>		<b>Creation of water and sewage networks.</b> <b>Creation of electricity network.</b> <b>Social housing.</b>
Mitigation measures	<b>Not needed.</b>	
<b>SOCIAL DEPRIVATION</b>		<b>Creation of job opportunities in the industrial, agricultural and tourism sectors.</b> <b>Creation and improvement of educational, social, health and cultural services and facilities.</b> <b>Improvement in public space.</b> <b>Public transport system.</b> <b>Transboundary cooperation.</b>
Mitigation measures	<b>Not needed.</b>	

## 11. Uncertainties and risks

The foreseen challenges ahead include the difficulty in channelling funds and delegating authority for empowerment; strengthening health and education services; creating new livelihood and employment opportunities; building measures to reduce future disaster impact on forestry, agricultural sectors; ensuring resources are also channelled towards services that advance human development; ensuring that the existing and predicted industrial activities respect the environmental recommendations and take part in the sustainable development of the community. Since the population is in itself very reduced, the capacity to mobilise the resources that are needed to implement the plan must go beyond the established frontiers of the municipality and take place within cooperation with transboundary communities, profiting from synergetic development and partnership with transversal sectors (scientific, academic, NGO's, private sector, etc.).

Current trends show a lack of capacity to involve relevant stakeholders in the planning process (namely the cement industry), difficulties in establishing partnerships and actively persuade third parties to take part in the process of urban regeneration that is needed. The municipality is currently dealing with difficult pollution issues, while at the same time, facing high unemployment rates. The foreseen opportunities within the area are the landscape and cultural heritage, together with valuable mining resources. These natural resources are those which the municipality should look to secure, strengthen and enhance, since these biodiversity and natural features characterise Hani i Elezit. Some of the constraints that need further assessment are the difficulty in establishing sustainable industrial activities, which can help reduce poverty rates, without further endangering the natural landscape, and, at the same time, dealing with the urban development that is needed in order to provide a healthier lifestyle for the population. The expected new urban development in Gorance raises several levels of concerns, namely the increase in car dependency, the increase in social disparities (caused by the sectorisation of housing developments), the endangering of cultural heritage, difficulties in warranting that the process of urban development is led with quality design.

It is recognised that Hani i Elezit is socially, economically and physically interlinked with neighbouring areas. This poses challenging administrative and territorial opportunities. Whilst the MDP has considered transboundary issues as a vital component for the municipality’s development, it is recognised that there are limits to the influence of the MDP in respect of potentially national and international transboundary development. It has also been acknowledged that the existing data gaps and the difficulties in measuring and representing complex issues resulting from transdisciplinary and transboundary issues may be problematic. The SEA Framework has therefore been developed to reflect the regional challenges and opportunities within Hani i Elezit, yet recognising the fact that some of these issues may straggle Hani i Elezit’s administrative boundaries and require the need to widen the flexibility in objectives and indicators.

## 12. Monitoring

Another aspect to be considered is the detailing of indicators to monitor, by which the environmental performance of the plan and the environmental effects of the plan can be assessed. The Global City Indicators Facility (GCIF), developed by the University of Toronto with the support of UN-Habitat contains a detailed checklist of indicators to evaluate city performance.

It is proposed to join this platform which provides an established set of city indicators allowing for global comparability of city performance. Due to the strategic nature of the MDP the target indicators to measure the success and follow up implementation of the plan should also be set to aim at a broad spectrum of sustainability issues, relevant at the local level.

The GCIF is organised in 22 themes that measure a range of City services and Quality of life factors. City services themes are Education, Energy, Recreation, Fire Emergency, Response, Governance, Health, Social Services, Solid Waste, Transportation, Urban Planning, Waste Water, Water. Quality of life themes are: Civic Engagement, Culture, Economy, Environment, Shelter, Social Equity, Subjective Well-Being, Technology And Innovation. Overall, 26 indicators have been identified, which all cities are encouraged to report on, and another 26 desirable indicators. Table 18 gives a list of all the indicators established to track performance. These indicators were selected in order to be “Generally available, current, and able to be reported annually; Readily comparable across cities; Relevant for public policy decision making; Linked to established goals (eg. MDGs, master plans, infrastructure, investment planning); Cost effective to collect; Meaningful to cities across the globe, regardless of geography, culture, affluence, size, or political structure; Flexible for refinement and expansion over time; Understandable and not overly complex; and Clear as to what a change in the indicator implies.”.

**Table 18: Global City Indicators**  
(Core indicators in bold, supporting indicators non-bold)

THEME	
<b>1. CITY SERVICES</b>	
Education	<ul style="list-style-type: none"> <li>▪ <b>Percentage of children completing primary and secondary education: survival rate</b> <ul style="list-style-type: none"> <li>▪ Percentage of students completing primary education</li> <li>▪ Percentage of students completing secondary education</li> </ul> </li> <li>▪ <b>Student/teacher ratio</b></li> <li>▪ Percentage of school-aged children enrolled in schools by gender                             <ul style="list-style-type: none"> <li>▪ Percentage of male children enrolled in schools</li> <li>▪ Percentage of female children enrolled in schools</li> </ul> </li> </ul>
Fire and Emergency Response	<ul style="list-style-type: none"> <li>▪ <b>Number of firefighters per 100,000 population</b></li> <li>▪ <b>Number of fire related deaths per 100,000 population</b></li> </ul>

	<ul style="list-style-type: none"> <li>Response time for fire department from initial call</li> </ul>
Health	<ul style="list-style-type: none"> <li><b>Under age five mortality per 1,000 live births</b></li> <li><b>Number of in-patient hospital beds per 100,000 population</b></li> <li><b>Number of physicians per 100,000 population</b></li> <li><b>Average life expectancy</b></li> <li>Number of nursing and midwifery personnel per 100,000 population</li> </ul>
Recreation	<ul style="list-style-type: none"> <li>Square metres of public indoor recreation facility space per capita</li> <li>Square metres of public outdoor recreation facility space per capita</li> </ul>
Safety	<ul style="list-style-type: none"> <li><b>Number of homicides per 100,000 population</b></li> <li><b>Number of police officers per 100,000</b></li> <li>Violent crime rate per 100,000 population</li> </ul>
Solid Waste	<ul style="list-style-type: none"> <li><b>Percentage of city population with regular solid waste collection</b></li> <li><b>Percentage of the city's solid waste that is recycled</b></li> <li>Percentage of the city's solid waste that is disposed of in an incinerator</li> <li>Percentage of the city's solid waste that is burned openly</li> <li>Percentage of the city's solid waste that is disposed of in an open dump</li> <li>Percentage of the city's solid waste that is disposed of in a sanitary landfill</li> <li>Percentage of the city's solid waste that is disposed of by other means</li> </ul>
Transportation	<ul style="list-style-type: none"> <li><b>Km of high capacity public transit system per 100,000 population</b></li> <li><b>Km of light passenger transit system per 100,000 population</b></li> <li><b>Number of personal automobiles per capita</b></li> <li><b>Annual number of public transit trips per capita</b></li> <li>Number of two-wheel motorized vehicles per capita</li> <li>Commercial Air Connectivity (number of nonstop commercial air destinations)</li> <li>Transportation fatalities per 100,000 population</li> </ul>
Wastewater	<ul style="list-style-type: none"> <li><b>Percentage of city population served by wastewater collection</b></li> <li><b>Percentage of the city's wastewater that has received no treatment</b></li> <li>Percentage of the city's wastewater receiving primary treatment</li> <li>Percentage of the city's wastewater receiving secondary treatment</li> <li>Percentage of the city's wastewater receiving tertiary treatment</li> </ul>
Water	<ul style="list-style-type: none"> <li><b>Percentage of city population with potable water supply service</b></li> <li><b>Domestic water consumption per capita</b></li> <li><b>Percentage of city population with sustainable access to an improved water source</b></li> <li>Total water consumption per capita</li> <li>Percentage of water loss</li> <li>Average annual hours of water service interruption per household</li> </ul>
Energy	<ul style="list-style-type: none"> <li><b>Percentage of city population with authorized electrical service</b></li> <li><b>Total residential electrical use per capita</b></li> <li>Total electrical use per capita (kilowatt/hr)</li> <li>The average number of electrical interruptions per customer per year</li> <li>Average length of electrical interruptions (in hours)</li> </ul>
Finance	<ul style="list-style-type: none"> <li><b>Debt service ratio</b> (debt service expenditures as a percent of a municipality's own-source revenue)</li> <li>Tax collected as percentage of tax billed</li> <li>Own-source revenue as a percent of total revenues</li> <li>Capital spending as percentage of total expenditures</li> </ul>
Governance	<ul style="list-style-type: none"> <li>Percentage of women employed in the city government workforce</li> </ul>

Urban Planning	<ul style="list-style-type: none"> <li>▪ <b>Jobs/Housing ratio</b></li> <li>▪ Green area (hectares) per 100,000 population</li> <li>▪ Areal size of informal settlements as a percent of city area</li> </ul>
<b>2. QUALITY OF LIFE</b>	
Civic Engagement	<ul style="list-style-type: none"> <li>▪ <b>Voter participation</b> (as a percent of eligible voters)</li> <li>▪ Citizen's representation: number of local officials elected to office per 100,000 population</li> </ul>
Culture	<ul style="list-style-type: none"> <li>▪ Percentage of jobs in the cultural sector</li> </ul>
Economy	<ul style="list-style-type: none"> <li>▪ <b>City product per capita</b></li> <li>▪ <b>City unemployment rate</b></li> <li>▪ Percentage of person in full time employment</li> </ul>
Environment	<ul style="list-style-type: none"> <li>▪ <b>PM10 Concentration</b></li> <li>▪ Greenhouse gas emissions measured in tonnes per capita</li> </ul>
Shelter	<ul style="list-style-type: none"> <li>▪ <b>Percentage of city population living in slums</b></li> <li>▪ Number of households that exist without registered legal titles</li> <li>▪ Number of homeless people per 100,000 population</li> </ul>
Social Equity	<ul style="list-style-type: none"> <li>▪ Percentage of city population living in poverty</li> </ul>
Subjective Well-Being	<ul style="list-style-type: none"> <li>▪ Subjective Well being Index</li> </ul>
Technology and Innovation	<ul style="list-style-type: none"> <li>▪ <b>Number of internet connections per 100,000 population</b></li> <li>▪ Number of new patents per 100,000 per year</li> <li>▪ Number of higher education degrees per 100,000 population</li> <li>▪ Number of telephones (landlines and cell phones) per 100,000 population</li> <li>▪ Number of landline-telephone connections in the city</li> <li>▪ Number of cell phone connections in the city</li> </ul>

### 13 Public participation and next steps

The SEA Regulations require that consultation bodies, the public and any other relevant stakeholders be invited to express their opinions on the SEA report to help ensure all significant environmental issues have been identified. As such, the following questionnaire is presented.

#### Questions for consultees

**Q1:** *Are there any other policies, plans or programmes that contain environmental protection objectives or identify issues that are not covered by this assessment?*

**Q2:** *Are there any other issues or information related to the topics covered in section 4.2 that are relevant to Hani i Elezit's development plan and should be included?*

**Q3:** *Are there any potential interrelationships, cumulative or synergistic effects which should be considered in more detail?*

**Q4:** *Are there any other problems, opportunities or issues that are relevant to Hani i Elezit's development plan and have not been covered?*



**Q5:** *Where do you see the main issues in the area and which topics do you want to see addressed with priority within the SEA?*

**Q6:** *Do the SEA objectives, criteria and indicators provide a reasonable framework through which the likely significant environmental effects of the development plan documents can be assessed?*

**Q7:** *Are there any other potential conflicts between the proposed SEA objectives and core strategy objectives that have not been identified in the compatibility assessment?*

**Q8:** *How could potential conflicts be addressed?*

**Q9:** *How would your organisation like to be involved in the rest of this SEA process?*

**Q10:** *Do you believe that the significant impacts of the development plan can be identified using this approach?*

**Q11:** *Are there other additional methodologies that could be used to identify the significant impacts of the core strategies?*

**Please send your responses to:**

Following the consultation period, and consideration of all opinions expressed by the consultation bodies, the public and relevant stakeholders, the Ministry of Environmental and Spatial Planning must review the SEA report. According to article 14 of LAW No.03/L –230 of 2010, the responsible authority (in this case the Municipality of Hani i Elezit) shall take in account the SEA report and the results of consultation including any transboundary consultation, during the preparation of the plan and before its adoption.

## 14. Glossary

Here we present definitions of some of the main terms that were used throughout the report of this strategic environmental assessment.

**Cumulative impacts:** impacts caused by several projects and strategic actions resulting from a proposed action.

**Environmental assessment:** Method or procedure for evaluating the environment. In the SEA Directive (Article 2(b)), an environmental assessment means “the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making and the provision of information on the decision.

**Environmental impact assessment:** The process of examining the environmental consequences of development projects in advance of decision-making. Differs from Strategic Environmental Assessment in the sense that it generally refers to more specific effects resulting from project implementation at the local level whereas many environmentally negative decisions had already been made at a wider strategic level (for example the fact that new transport infrastructure may generate an increased demand for travel). Stages of an EIA may include:

- deciding whether an EIA is needed ("screening")
- deciding which impacts and issues need to be addressed ("scoping")
- describing the proposed project and alternatives
- describing the environmental baseline
- predicting and evaluating the possible impacts of the project on the baseline
- proposing measures to mitigate any significant negative impacts (and also to further enhance positive impacts)
- reporting the findings in an environmental impact statement

- involving the public and other interested/affected stakeholders at various stages of the EIA.

**Indicator:** A piece of information, generally quantitative, which is used to measure and track the current status and progress of a complex system. Within SEA, indicators are often used to measure the level of success of a plan or project and achievement of objectives.

**Indirect impacts:** Impacts that may be induced by a project or strategic action, for instance development that takes place around motorway junctions after a motorway has been built. Also called generated or induced impacts.

**Mitigation measure:** Measures that avoid, reduce, remediate or compensate for significant adverse impacts of a strategic action on the environment.

**NGO:** Non-governmental organisation (e.g. civic associations, farmers' union) legally constituted by natural or legal persons that operates independently from any government.

**Objective:** The aim of the strategic action or SEA, specifying what it tries to achieve, the desired direction of change or improvement in current trends.

**Plan:** Formalised procedure, setting co-ordinated and timed objectives for the implementation of a policy.

**PM10:** Particulate matter which passes through a size-selective inlet as defined in the reference method for the sampling and measurement of PM10, EN 12341, with a 50 % efficiency cut-off at 10 µm aerodynamic diameter. Some particulates occur naturally, originating from volcanoes, dust storms, forest and grassland fires, and other sources. Human activities, such as the burning of fossil fuels in vehicles, power plants and various industrial activities also generate increased levels of fine particles in the air which are linked to health hazards such as heart disease, altered lung function and lung cancer.

**Scoping:** The process of deciding the contents and level of detail in an SEA (types of environmental effects, alternatives to consider) and how the SEA should be carried out (timeframe, methodology, structure of the report, etc.). This process should be carried out early, ideally in consultation with the competent authority and affected groups.

**SEA report:** The report required by the SEA Directive as part of a strategic environmental assessment, which identifies, describes and evaluates the likely significant effects on the environment of implementing a plan or programme. The document should record the process and findings of the SEA process. Also called environmental report.

**Stakeholder:** Someone affected by the strategic action: they have a stake in it.

**Strategic action:** A decision that is "above" the project level: a policy, plan or programme.

**Strategic environmental assessment (SEA):** Environmental assessment applied to policies, plans or programs, requiring a process of predicting and evaluating the impact of a strategic action on the environment. The information resulting from SEA is intended to be used in decision-making. Also referred to as sustainability appraisal, environmental appraisal, sectoral assessment, programmatic environmental impact assessment. In this report, SEA is used to refer to the type of environmental assessment which is required under the SEA Directive and Kosovo Law.

**SEA Directive:** European Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment".

**Sustainability appraisal/assessment:** An SEA that considers economic and social as well as environmental issues.

## 15. References

- Agência Portuguesa do Ambiente, *Guia de boas práticas para a Avaliação Ambiental Estratégica: Orientações Metodológicas*, Lisbon, Direcção-Geral do Ordenamento do Território e Desenvolvimento Urbano, 2007
- ANDRÉ, Pierre et al, *Public participation: international best practice principles*, Special Publication Series No. 4, Fargo, USA, International Association for Impact Assessment, 2006
- BERGERHOFF, Joachim, *Environmental Assessment methodology*, UN-Habitat Municipal Spatial Planning Support Program in Kosovo, 2010 [memo]
- CALTHORPE, Peter, *Urbanism in the age of climate change*, Washington, Island Press, 2010
- European Commission, *Eurostat regional yearbook 2010*, Luxembourg, Publications Office of the European Union, 2010
- European Commission, *Implementation of Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment*, Brussels, 2003
- European Commission, *European Spatial Development Perspective: Towards Balanced and Sustainable Development of the Territory of the European Union*, Brussels, 1999
- GEHL, Jan, *Cities for people*, Washington | Covelo | London, Island Press, 2010
- Global city indicators facility*, Toronto, University of Toronto, 2010 [report]
- GOODLAND, Robert and Jeff ANHANG, "Livestock and Climate Change", *World Watch Magazine*, November-December 2009, pp. 10-19
- Hani i Elezit Municipality, *Municipal Development Plan – Draft document V2*, HiEM, 2010
- International Association for Impact Assessment, *Strategic Environmental Assessment: Performance Criteria*, Fargo, IAIA, 2002
- Office of the Deputy Prime-Minister, *A Practical Guide to the Strategic Environmental Assessment Directive*, London, ODPM Publications, 2005
- PARTIDÁRIO, Maria do Rosário, *Guia de Boas Práticas para Avaliação Ambiental Estratégica: Orientações Metodológicas*, Lisbon, Agência Portuguesa do Ambiente, 2007
- PINHEIRO, Manuel Duarte, *Ambiente e construção sustentável*, Amadora, Instituto do Ambiente, 2006
- Regional Environmental Center for Central and Eastern Europe, *EIA training resource manual for South Eastern Europe*, Szentendre, REC, 2003
- UN-HABITAT, *State of the World's Cities: Cities for All, bridging the urban divide*, London, Earthscan, 2010
- World Business Council for Sustainable Development, *Cement Technology roadmap: carbon emission reductions up to 2050*, Paris, International Energy Agency, 2009
- The Worldwatch Institute, *State of the World 2010: Transforming cultures, from consumerism to sustainability*, London, Earthscan, 2010
- The Worldwatch Institute, *Vision for a sustainable world: Green economy program*, 2010a. Accessed January 11 2011, [http://www.worldwatch.org/programs/global\\_economy](http://www.worldwatch.org/programs/global_economy)