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THE SYSTEMIC AND PROSPECTIVE SUSTAINABILITY ANALYSIS *'Imagine'* WITHIN CAMP SLOVENIA

Final Report

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This final report was produced by Igor Maher (Coordinator 'Imagine' CAMP Slovenie, Regional Development Center, Koper) with assistance provided by Simon Bell, Blue Plan Consultant, and Elisabeth Coudert, Blue Plan.

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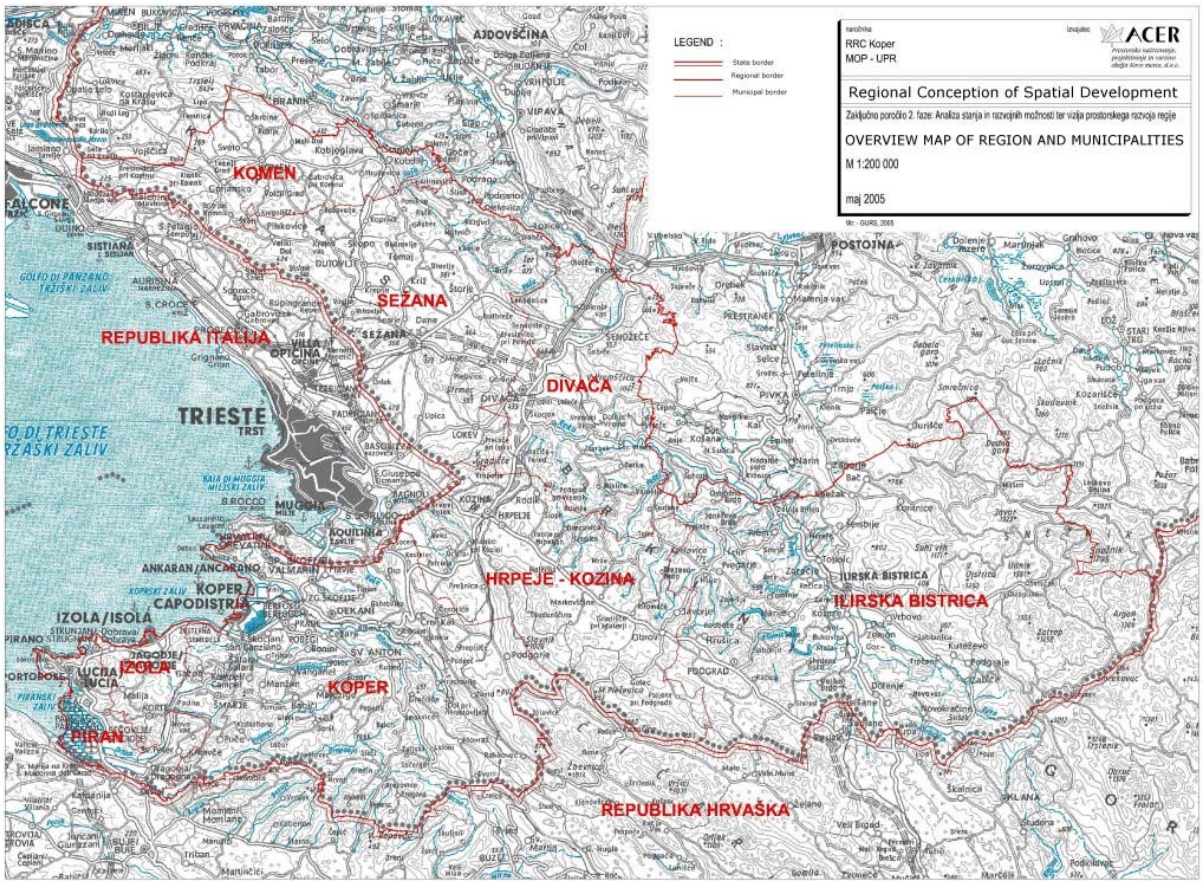
Introduction

Coastal Area Management Programme CAMP Slovenia is a programme within the framework of the Mediterranean Action Plan (MAP), aimed at sustainable management of coastal areas that incorporates environmental concern into development planning processes.

The programme is implemented jointly by the MAP – Mediterranean Action Plan, the Republic of Slovenia and the Municipalities of South Primorska. CAMP Slovenia is based on the MAP priorities relating to the management of coastal areas as well as on the adopted national strategic documents.

The region where the programme operated included 8 Municipalities of the statistical region of South Primorska which spreads from the coastal region to the Carst and Brkini region. Projects within the framework of CAMP Slovenia are directed principally to spatial planning and related topics and to sustainable development of the whole region. The main project within CAMP Slovenia is preparation of Regional Conception of Spatial Development of South Primorska which is one of the most important projects in the framework of the Regional Development Programme of South Primorska, as it is in the fundamental strategic spatial document of the region, affecting the future character of spatial development and consequently also sustainable development of the region.

Figure 1 : South Primorska – map of the region



The objective of Regional Conception of Spatial Development is to spatially integrate important strategies and programmes adopted at the national and regional levels. Particular attention is given to spatial arrangement of the narrow coastal strip, management of areas of preserved nature and protection of water resources. Modern spatial planning methodologies and tools will be introduced within the project, such as strategic environmental-impact assessment, scenario planning and tourism carrying capacity assessment. Due emphasis is given also to public participation and promotion of the project and to the principles of sustainable spatial development to the public at large.

Several individual and horizontal projects are implemented in the framework of CAMP Slovenia programme. Horizontal projects join individual projects into the whole offering them support, ensuring participation and directing results of individual projects towards joint objectives of CAMP Slovenia programme. The horizontal projects implemented in the framework of CAMP Slovenia are as follows:

1) Regional Spatial Information System – PRIS
2) Programme of Public Participation, Training and Promotion
3) Systemic and Prospective Sustainability Analysis (SPSA) – known as *Imagine.*

Individual projects deal with problems of individual areas and are as follows:

1) Regional Conception of Spatial Development of South Primorska
2) Detailed Conception of Coastal Strip Spatial Arrangement
3) Regional Strategy of Sustainable Tourism Development
4) Management of protected areas
5) Regional Programme of Environmental Protection and Water Resources
6) Sensitivity Maps of the Slovenian Coast.

The *Imagine* (SPSA) project plays a very important role within CAMP Slovenia programme. It is a horizontal project, connecting activities and results of all the individual projects. It guarantees the cooperation of those who are the final result users of individual projects, experts from all levels, performers of individual projects and public by identification and understanding problems of sustainable development of the region, defining optimal indicators of sustainable development for measuring success, determining possible scenarios of further development of the region and defining activities for achieving desired development scenarios.

Undertaking the *Imagine* project in practise followed four stages which were conducted on the principles of participation, open learning and transparent presentation of feedback to participants. The four stages of *Imagine* method represent individual stages of purposeful human activity:

- In the stage **reflect and understand** participants of workshops illustrated issues and understanding. They present their view of the condition of the region;
- In the stage **connect and investigate** participants dealt with outstanding issues and practises connected with problems;
- In the stage **model and explore** the participants used methods and indicators over time and so ascertained trends and possible scenarios of further development;
- In the last stage **suggest and do** they dealt with establishing suggestions for desired states of indicators. This stage is again followed by the first stage reflect and understand.

The *Imagine* project was carried out in the form of five workshops with more than 50 stakeholders participating, among them representatives from the local, regional and national levels, non-governmental organisations, performers of individual projects in CAMP Slovenia and other representatives of the public. Workshops were performed in various locations throughout the region:

- **The 1st Workshop**: *Introduction to the Sustainable Analysis*. The workshop was carried out on 12th and 13th January 2005 in the Municipality of Koper. The main goal of the first workshop was to introduce the participants to the whole *Imagine* process, to acquaint them with the basics of the systemic analysis method and the possibilities of applying this method to determining the sustainable development indicators. Through group work, the participants were able to understand the current state of affairs viewed from the different perspectives of those participating in a group, they set up a relevant system of priorities, defined the possible consequences and aims and produced a schedule of activities, which defined the process for the project as a whole.
- **The 2nd Workshop**: *Consolidation of the Imagine methodology and definition of the indicators*. The workshop was carried out on 9th and 10th February 2005 in the Municipality of Piran, hosted by the Center for Business Promotion Piran. The goal of the second workshop was to continue work on

indicators from first workshop and select 30 of the most representative indicators (10 for each thematic team). For this set of viable indicators participants defined the upper and lower limit of value for each indicator, which represented agreed sustainability values. Participants calibrated and charted the feasible indicators on AMOEBA graphs and tried to measure them by current experience and knowledge setting them as inside or above agreed bands of equilibrium. At the end of the second workshop each team presented results to the wider stakeholders community meeting for comment.

- **The 3rd Workshop**: *Refinement of the indicators, the bands of equilibrium and introduction to Prospective*. The workshop was carried out on 6th and 7th April 2005 in the Municipality of Sezana in the Carst part of the region. The main aims of the third workshop were to imagine and visualise possible futures, to produce AMOEBA for the present and the past and to use scenario making based on key indicators. The next job was to introduce the use of a matrix to compare and contrast key indicators and their inter-relationships. At the end of this workshop the team achieved a clear and agreed view of the AMOEBA representing the past for the project context, a clear and un-ambiguous view of the present position for the SD of the project context, a series of scenarios on key indicators for the future and finished with the development of a matrix indicating inter-relationships between indicators.
- **The 4th Workshop**: *Validation of the indicators, building a meta-scenario for whole region and scenario making exercise*. The workshop was carried out on 22nd and 23rd of May 2005 in the Municipality of Izola. The main aims of the fourth workshop were to further develop the process of *Imagine* in the CAMP Slovenia, to build a clear and unambiguous view of the present position for the sustainable development of the project context, to produce meta-scenarios which were believed to be accurate and thought provoking for stakeholders and to give a presentation of the meta-scenarios to stakeholders. Participants had an open discussion about the implications arising from the diagramming and scenario making exercise with the wider stakeholder groups.
- **The 5th Workshop**: *Revision of the Imagine process, building publicity and marketing plan.* The workshop was carried out on 22nd and 23rd of June 2005 in the Municipality of Koper. Participants at the workshop reviewed progress made in the collection of data, the production of SIs, the development of AMOEBA and mini scenarios and meta scenarios from Workshops 1, 2, 3 and 4. After that they created a publicity and marketing plan for the project outcomes and proposed a monitoring programme for the indicators, a reporting time and a means for revisiting the process.

The detailed reports from all workshops are annexes to this report.

1. *Imagine* Slovenia: context and method

1.1. Background to the CAMP Slovenia area

The region of Slovenian Coast has intensively been exposed to various pressures for many years. It is only about 48 km long, bordered to the north and to the south by national borders with Italy and Croatia respectively. In spite of only being 48 km this region experiences practically all possible types of use of the coastal area.

The region of South Primorska is characterised by a great imbalance. This is reflected in the increasing economic pressure on the narrow coastal strip and demands of environmentally disputable projects in the region of Carst and Brkini situated in the hinterland.

In the framework of CAMP Slovenia projects which will be the basis for further activities in the discussed area of South Primorska are carried out. The most important project is preparation of Regional Conception of Spatial Development of South Primorska. It is a partnership document between the state and all municipalities of South Primorska which comprehensively and harmoniously regulates the sphere of spatial development of individual municipalities in the longer term.

It is already clear from the presented issue that in the preparation process of such strategic document such as Regional Conception of Spatial Development of South Primorska active cooperation of representatives of the local community, investors, public services, non-governmental organisations, state and, not least, politics is necessary. Legislation precisely defines methods and procedure of adoption of such a document, also including public hearing and opinion of individual expert sectors (nature, environment, culture, traffic, etc.) It is however very important to integrate all actors in the most rational way possible in the phase of preparation of documents because interests can be very diverse and they need to be harmonised.

In the region of South Primorska quite a few very important projects with indicated conflicts between different interest groups are carried out. In the narrow coastal strip the conflict between interests between local population and state as the owner of Luka Koper (Port of Koper) is indicated in the project seeking the expansion of the third pier in the harbour, moreover, in the region of Carst and Brkini the example is building wind power stations as environmentally sustainable alternative sources of energy.

1.2. *Imagine*: its role in the region

The *Imagine* method is a participative method and tool with which actors coming from different interest groups, on the basis of previous knowledge and actual data, decide upon parameters of sustainable development and build possible scenarios for the future. That is the reason for support of such projects which are carried out in the frame of CAMP Slovenia.

Participants attending *Imagine* workshops use the following methods:

- in given circumstances collect all the knowledge needed and past data about development trends in various socio-economic and environmental parameters;
- reach agreement on what constitutes desired sustainable development in various areas (in economic, social, environmental, spatial…) and ascertain where momentary trends lead us;
- define concrete actions and projects having the most effective influence on those spheres where it is most needed and tending to the joint goal and vision of sustainable development balanced on every sphere of life.

In practise the *Imagine* method proved itself as very effective by defining current status and issues of sustainable development, defining and agreement between different interest groups about priorities and sustainable development, defining possible scenarios of further development and defining concrete activities for achieving set goals.

1.3. History

On the basis of references of many international organisations, and especially of the United Nations Conference on Environment and Development and adopted declaration "Agenda 21" in Rio de Janeiro in 1992 MCSD decided that indicators are one of the most important tools for reflecting the current status and building strategies. Blue Plan has for a number of years researched a long-term relationships between development and environment as well as on observation through indicators of progress towards sustainable development in the Mediterranean. The work of the Blue Plan includes a philosophy which is actively seeking sustainability in the Mediterranean. With the support of the Blue Plan a whole range of indicators of sustainable development for the Mediterranean basin has been formed.

On the basis of the practise of Blue Plan in numerous projects in the Mediterranean basin, and in collaboration with Dr. Simon Bell of the UK Open Univesity, the *Imagine* method was created. It was implemented for the first time in the framework of the CAMP Malta Project which started in February 2000. Until now *Imagine* has successfully been carried out in CAMP Lebanon and CAMP Algeria programmes. The practise has shown that the method is useful on many different levels irrespective of the size of the area concerned (e. g. a very vast area in Algeria or a very small area as in Slovenia's case).

With every implemented project the *Imagine* method has significantly enriched achieved results of CAMP programmes. On the other hand it has been improved through the reflectve practice of the various CAMPs and adapted to demands of the widest circle of potential users. That has also been the case of the CAMP Slovenia which according to the contents, spatial dimension and duration of projects differs from similar completed projects. Despite the ever-changing nature of CAMP locations and specific contextual issues, the *Imagine* team have carried out the method and achieved all set results.

1.4. *Imagine* methodology - holistic systemic approach based on indicators

The *Imagine* methodology is based on a participative approach, designed to collect available knowledge in the CAMP area. It's also based on evaluation and exploration of the current sustainability state in complex spatial system, where all system components are connected and in interaction. The approach of this eco-socio-system is based on views from the past, the present and the future. The knowledge and the projection of the system in the future is thus central to the analysis.

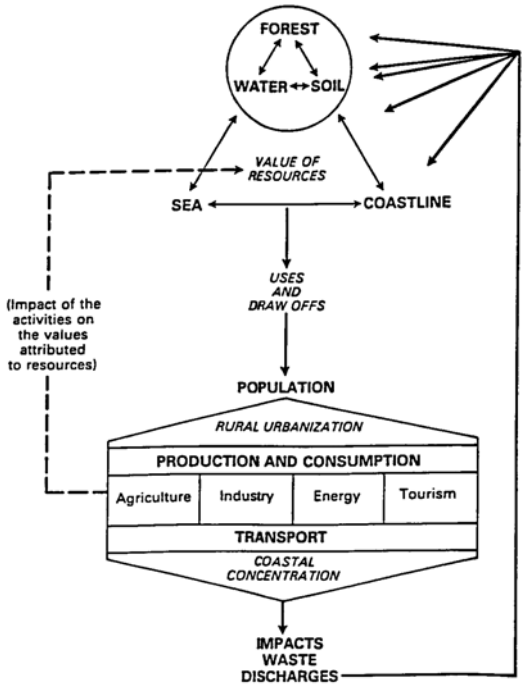
Blue Plan's definition of a system is the following: a system is **"an intellectual construction, for a certain purpose, constituted by chosen elements in dynamic interaction"** in order to describe and represent a complex reality or phenomenon. Figure 2 shows an overall diagram of the main components of the environment-development system, designed by Blue Plan for the purpose of making Mediterranean scenarios.

The purpose of developing a systemic approach to problem solving is generally to gain an in-depth perception resulting in knowledge of a complex reality or phenomenon represented by the system. The systems approach makes intelligible and understandable the complexity and allows analyst and stakeholders to concentrate attention on mutually agreed elements and above all on the relationships between these elements. The approach is global in its scope and considers the system as a whole capable of changes under the interactions of different elements within the internal and external context.

A system has a boundary with the external context (it is usually named "environment", so in order to avoid any misunderstanding we will call it "external context" in the following pages). A system is constituted of a number of sub-systems, which need to be carefully defined as well as their own boundaries.

A systemic analysis is an approach used to improve the knowledge about each element in relation with the other elements, to define inter-linkages, to identify the actors who control these elements, to quantify (or to try to quantify) the weight of the elements in the potential change of the system, and therefore develop an intimate understanding of the interests and complexities associated with the actors.

Figure 2: Main components of the environment-development system



Interactions between environmental components and development activities

The first task with a systemic analysis will be to agree and define the system to be studied as well as the relevance of each chosen element. The second task is to gain a deepening understanding of trends within the system and the system context, made from such items as current analysis of stakeholders perceptions, review of retrospective data and examination of present significant activities in order to identify constraints and seeds of change.

1.4.1 Seeking for possible and desirable future scenarios

The Scenario making character of *Imagine* makes it possible to explore possible futures for the system under examination. Scenario making approach allows the projection of past and current trends into the future to identify the system's possible changes in the future, according to the various hypothesis of evolution and according to actions that can be undertaken to achieve future desirable and feasible situations, which help to anticipate needs or negative impacts.

The subject of Scenario making, as with all scenario analysis, is the "Future" (Figure 3). *Imagine* explores possible futures situations and provides actors with the option to choose desirable future situations by the method of scenarios.

A scenario is made up of:

- an agreed understanding of the initial situation of the system,
- the choice of a set of hypotheses of evolution, with criteria of transparency, probability, consistency and relevance,
- drawing up a pathway, a link between present and future,
- the description of final situation and the emergent properties.

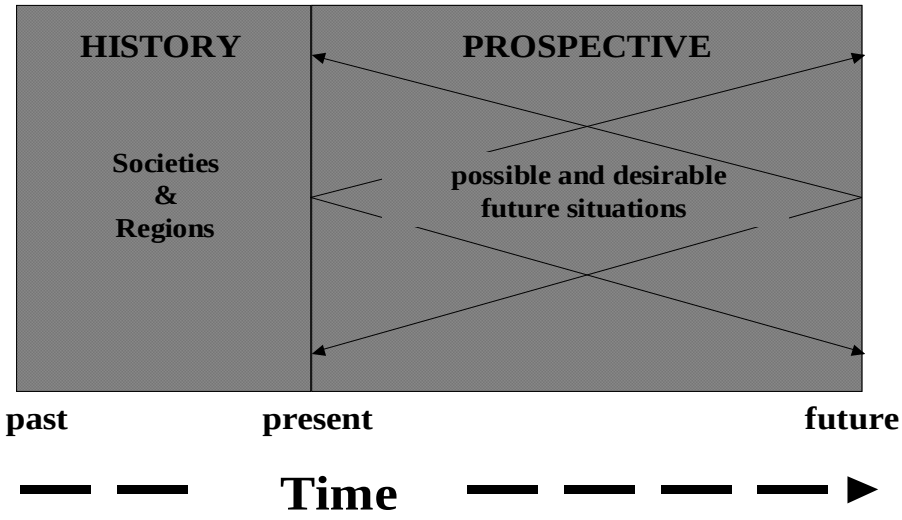
The initial situation of the system under review implies a very good knowledge of this system, of the past and evolutions that has led to the current situation. It is based on identification of trends, actors and stakeholders, process, conflicts, challenges and stakes and seeds of change.

The choice of a set of hypotheses of evolution is an essential stage of the method of scenarios. The hypotheses will help to imagine the possible and desirable evolution in main domains or fields as population and society, economy, environment, etc. The hypotheses have to respond to criteria of transparency, probability, consistency and relevance.

Drawing up a pathway from the original situation to a final time horizon provides a link between present and future, by reasoning "If… Then" or "What….If". The most important aspect of this is the search for consistency throughout the process of making scenarios.

The description of final images of possible situations gives actors choice between different situations and constitutes a powerful decision-making tool.

Figure 3: Scenario making the Future



source : d'après K. Valaskakis, 1994

1.4.2 What is involved in a Sustainability Analysis?

The sustainability concept arose from the Conference of Rio in 1992. Before that event, Blue Plan had explored the relationships in the long term between development and the environment in order to identify feed-back and retroactive loops. Blue Plan's work was already concerned with sustainability philosophy within the Mediterranean basin.

Sustainable development is defined by Blue Plan as following (a mix of Bruntland's definition and the FAO's): sustainable development is "**a development which is respectful of the environment, technically appropriate, economically viable and socially acceptable to meet the needs of present generations without compromising the ability of future generations to meet their own needs**".

Therefore, sustainability has in this definition three basic fields: environment, society and economics. We can add politics and the institutions, which are representative of the translation of society's wishes into action.

The sustainability concept is the outcome of society's political ability to put its wishes into action, in accordance with its environmental and economic concerns. It is important to measure sustainability and to explore the possible outcomes of current actions and policies in order to attempt to avoid crisis and environmental breakdown.

Sustainability indicators (SIs) have been variously designed to measure impacts of practice and policy. There is a vast literature on this subject and little agreement on matters of detail but it can be argued that indicators have as their primary aim the need to give useful information about:

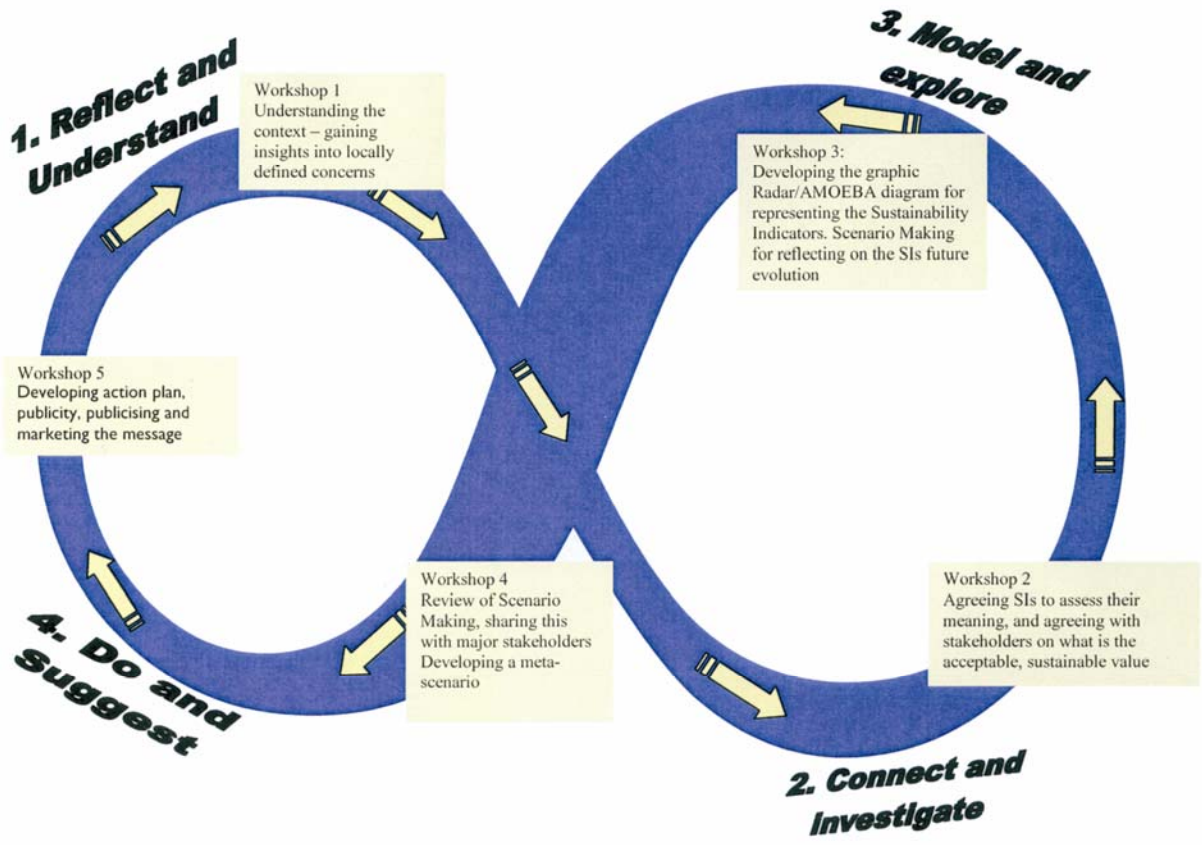
- the **State** of the environment as well as social, economic and ecological components of development and changes observed.
- **Pressures** which act to the detriment of an already degraded status by breaking the highly fragile balance between development and the environment. These pressures can also be essential **Driving Forces** for economic and social development whose impact on the condition of the environment is not directly perceivable or quantifiable.
- economic, political and institutional **Responses** which aim to reduce these pressures and improve the situation.

Sustainability indicators are intended to give the level of sustainability in the past, for the current situation and in the future according to certain assumptions about change and evolution. The definition of the level of sustainability for any given indicator is a difficult task which assumes an acute knowledge of both the indicator and of its milieu. Developing and evaluating indicators is further complicated because this process as applied in the current context is being undertaken in a subjective and participatory manner.

1.4.3 The implementation, stages and products resulting (AMOEBAs, Strategies of actions)

The *Imagine* methodology was undertaken according to four phases. The four phases are all intended to be undertaken in an open learning manner, providing feedback to stakeholders on a regular basis and being inclusive and transparent.

Figure 4: Phases of *Imagine*



The four phases can be seen as a learning cycle including periods of **reflecting** and **understanding** on issues, **connecting** and **investigating** with concerns and practices, **modelling** and **exploring** procedures and indicators over time, **suggesting** and **doing** the use of the indicators and then reflecting again

The implementation of *Imagine* is built around workshops, animated by the consultant of the Blue Plan and the national coordinator, with a work in participative workshops carried out by the local team.

1.5. Applications

Since 1995 UNEP/MAP began the second phase of his priority action plan regarding problems and relations between development and environment in the Mediterranean basin.

In this context Regional Activities Centre Blue Plan directed one of these actions towards the systemic and prospective studies of coastal areas. First approaches of integration environment - development were enriched with the introduction of sustainability indicators as a operational tool to fulfill objectives in the long term action plan, related with a desirable future.

Up to the present date *Imagine* has been introduced as a tool in CAMP Malta in year 2000, CAMP Lebanon in 2002 and CAMP Algeria in year 2003

Presentation of the *Imagine* results in CAMP Malta, Lebanon and Algeria

Within the framework of the CAMP of Malta, the work started by the Blue Plan and the Maltese governmental was carried out during the period from March 2000 to January 2002. Five workshops were undertaken with the local teams during this period and resulted in the determination of **27 sustainable indicators** within CAMP Malta regarding:

- Sustainable management of the coastal zone,
- Conservation of the strategic marine areas,
- The integrated management of the water resources,
- Coastal and soil erosion,
- Public health and tourism.

The *Imagine* (with the related methodological approach) within the CAMP Malta was carried out with the collaboration of the local teams, composed representatives of the various government departments. It was initially a question of promoting the participative step, after having identified the various actors and stakeholders who collectively had "to build" and to reflect on the system socio – economic space of the Maltese coast and to explore it on the basis of sustainable indicators. Then it was necessary to make an exercise of development of capable scenarios and to build an integrated action plan in relation to the sustainable development of the Maltese coastal area.

During one year (September 2002 – August 2003) the *Imagine* in the framework of CAMP Lebanon was held with 4 workshops. While being based on the Maltese experience, the *Imagine* in CAMP Lebanon involved 3 municipalities – **Damour, Sarafand** and **Naqoura**. The objectives which were assigned to them were:

- Construction and adoption of the socio - environmental system by all the partners which was including the sustainable analyses as well as sustainable indicators.
- The exploration of the system and a determination of the sustainable development objectives by sectors and fields, on the basis of methodology already tested in Malta (sustainable indicator, AMOEBA, cenarios,…).
- The proposal for actions in order to support the sustainable development in the 3 municipalities.

Imagine in the CAMP Algeria was started in October 2001 and included a coastal zone with 125 municipalities located in four regions – **Algiers, Blida, Boumerdes, Tipaza**. The main objectives were:

- to contribute to sustainable development, environmental protection and the rational use of the coastal resources,
- to apply the methods and the tools of the sustainable development,

- to contribute to the reinforcement of the national and local capacities for the sustainable development in the coastal zones,
- to produce results usable for definition and implementation of the post project activities,
- to develop approaches for planning, management and execution of the project in the CAMP Algeria zone applicable also to other parts of country.

Results

The *Imagine* in the framework of CAMP Malta led to the following results:

- Identification of 27 sustainable indicators in relation to the 5 sets of themes selected.
- Development of the AMOEBA reporting the situation in 2000.
- The construction of 3 scenarios for each of the 5 sets of themes selected, namely: sustainable management of the coastal zone, conservation of the strategic marine areas, the integrated management of the water resources, coastal and soil erosion and finally public health and tourism.
- Development of AMOEBA for scenarios 1 and 2 gathering all the sets of themes.
- Work was carried out for the North Western area and can be applied to the whole of the island in order to promote a strategy of sustainable development.
- The implication of all the stakeholders in the *Imagine* was fundamental. The participative step was unquestionably essential to guaranty the maximum of objectivity of the method and the products which are awaited. It was learned that giving due time to a stage of team formation for *Imagine* was a precondition for the success of the process.
- Adoption of the *Imagine* method by the all of the partners (sustainable indicators, band of equilibrium, AMOEBA, scenario making,…).
- Interest to renew the Maltese experience of *Imagine* in other Mediterranean areas, in particular within the framework of future CAMP projects.

The *Imagine* project in the framework of CAMP Lebanon, because of various logistical and operational reasons, did not show an operational product or strategic action plan for realization. Final results in the range of prospective and scenarios were more or less on an illustrative level. On the other hand *Imagine* in the framework of CAMP Lebanon achieved some very important results in the connection with some practical aspects:

- Minimal costs for the execution of the *Imagine* in the framework of CAMP Lebanon activity,
- Wide participation from the experts from the municipalities,
- Collection of the data,
- Internal workshops with the local SPSA *Imagine* team between main workshops for the evaluation of the results.

Imagine in the framework of CAMP Lebanon also produced some methodological improvements for future *Imagine* projects.

The *Imagine* in the framework of CAMP Algeria produced very good results building on experience and practice from the two previous *Imagine* projects in Malta and Lebanon:

- Identification of 30 sustainable indicators.
- Detailed trend scenario calculation for 21 sustainable indicators.
- Development of the AMOEBA reporting the current situation and for trend scenario.
- Development of the alternative scenario with the corresponding detailed calculation for year 2015 and corresponding AMOEBA.

- Development of the Strategic Action Plan based on 21 key sustainable indicators for performing alternative scenario.

Overall *Imagine* in the framework of CAMP Algeria fulfilled all the initial objectives. In Algeria there remains strong institutional support. This indicates that there is a good chance for future iterations of the *Imagine* in Algeria.

1.6. *Imagine* method in CAMP Slovenia

The letter of intention between the MAP and the Republic of Slovenia for CAMP Slovenia was signed in September 2003. Within the programme there were also anticipated activities of use of the *Imagine* method as a horizontal project which on the level of use of participation, system analysis and scenario analysis links individual projects in the framework of CAMP Slovenia. The history of CAMP Slovenia begins in year 1996, when the Contracting Parties to the Barcelona Convention, at their Extraordinary Meeting (Montpellier, 1-4 July, 1996), approved the decision to carry out a CAMP Project for Slovenia, following a request presented by the Government of Slovenia.

Prior to the signature of the Project Agreement, the following preparatory activities were implemented:

- the decision to start with the implementation of the CAMP Slovenia was discussed with the MAP Co-ordinator at the meeting in the Ministry of the Environment, Spatial Planning and Energy (MESPE) in Ljubljana, in May 2001;
- the decision to start with the preparation of a Feasibility Study (FS) was adopted at the meeting between MESPE and PAP/RAC in July 2001;
- after the meeting with the representatives of MESPE and the consultant for the FS and PAP/RAC in April 2002, a Final Document was prepared and submitted;
- the results of the FS and proposed activities were discussed at two meetings that took place in Koper, on 7 January 2003, with local communities and stakeholders, and on 8 January 2003, in Ljubljana with MESPE.
- The Agreement was signed in September 2003 in Ljubljana by Mr. Lucien Chabason (MAP Coordinator, for the United Nations Environment Programme), Mr. Janez Kopač (Minister of the Environment and Spatial Planning and Energy, for the Government of Slovenia) and Mr. Rajko Vojtkovszky (Major of Divača Municipality and the representative of Municipalities of South Primorska planning region).

Technical specifications and terms of references

In the document "Technical Specifications, Plan Blue – Sophia Antipolis – March 2004" were described the terms of references for the CAMP Slovenia.

Documents define that *Imagine* / SPSA is a transverse or lateral activity which is a focus of interest for all the other activities in the CAMP project. For this reason *Imagine* will focus at CAMP area level for the five thematic activities, i.e. Regional Spatial Structure Plan, Municipal detailed spatial plans related to the coastal strip, Koper – Izola recreational coast Project, Regional Tourist Development Strategy and Mitigation of non-point sources of water pollution in the Reka river basin.

These five thematic activities will constitute the main system of interest to be considered by *Imagine*.

Because of this, effective and continuous communication was needed between *Imagine* and the five thematic activities. Moreover, the *Imagine* would need inputs from Regional Environmental Information System (REIS) (data for indicators) and would possibly provide it with other indicators to be monitored. The *Imagine* process is a participatory process and would need to request information and collaboration from other elements of the Participatory programme. Finally, *Imagine* results would be integrated in the final Project documents.

This document defines expected outputs from the *Imagine* process in CAMP Slovenia:

- Insights in the sustainability of the project context;
- A tool box concerning methods and tools to be used throughout the *Imagine* process;
- A first list of indicators (between 75 to 100) describing measurable elements (qualitative or quantitative) of the system;
- Guidance of the key information issues for the region. This guidance may be used to inform REIS activities;
- A progress report about the choice of key indicators (10 to 15), relationships and main actors;
- A progress report concerning the band of equilibrium for key indicators, including schematic representation of the level of sustainability of the system for the past and present, pointing to trends, pressures on the environment and crucial points for sustainability indicators which we are observing;
- A progress report on future trends and desirable outcomes;
- A final report which will be a synthesis of the previous stages and will propose a monitoring programme in order to follow progress or downturns in the endeavour to achieve sustainable development according to the key indicators.

There are also definition of the qualitative and quantitative achievement indicators. Quantitative achievement indicators to be used are the following:

- Timely implementation: phases duration in comparison with the original timetable;
- Number of outputs produced in comparison with the number of expected outputs;
- Number and occupation of persons involved in workshop and working meetings;
- Overrunning of approved budget, if any (in % of overrun);
- Number of national/local experts involved in the activity.

Qualitative achievement indicator is defined as a success of introduction of innovative methods and tools and implementation and use at the project level and at the country level.

2. State of sustainable development in the area of CAMP Slovenia programme

Slovenia has many different databases of various time-frames and of diverse quality. In practice this provides an excellent basis for expert selection and use of available databases for the needs of defining indicators. On the other hand a great number of available databases means a special challenge to experts and other users in terms of how to choose and apply, out of this multitude, those which would best fit the needs and demands of the individual indicator.

Sustainable development in Slovenia is dealt with in numerous programmes and development documents, among them Development Strategy of Slovenia, Spatial Development Strategy of Slovenia on the national level and Regional Development Programme of South Primorska 2003-2005 on the regional level.

The *Imagine* programme represented an opportunity to examine existent strategic and development documents which deal with sustainable development in the region. Documents stated were, according to the practise so far, made on separate content areas which separate groups of experts worked on. *Imagine*, with its participative nature, ensures cooperation of the widest possible range of experts from different areas.

The advantage of participation in defining and understanding present conditions in the area proved itself at the first workshop, because participants, from a wide range of backgrounds, provided insights and understanding of momentary conditions in the area and defined an initial range of 75 indicators for Carst and Brkini region, the Coast and the narrow coastal strip. The range of indicators reflected participants' high expert level and width of knowledge of the area.

2.1. Initial choice of indicators

At the workshops participants defined initial ranges of indicators distributed into three spatial areas, coinciding with individual projects in the framework of CAMP Slovenia. The first range of indicators thus spatially referred to the narrow coastal strip, area of coastal municipalities and to the area of Carst and Brkini.

The choice of 75 indicators for three spatial areas covered the following spheres:

- 31 indicators from the environmental care and pollution spheres,
- 21 indicators from the economics, economy and infrastructure spheres,
- 14 indicators from the socio-economic sphere,
- 9 indicators from the sea protection sphere.

In next workshops the participants narrowed the number of indicators to two areas (to the area of the Coast and the area of Carst and Brkini) and to the total number of 20 indicators. By defining these indicators participants took into account the following criteria:

- Availability: for a chosen indicator there has to be historical data available with a possibility for future collecting.
- Reliability: for a chosen indicator. The data have to be reliable and the indicator should in the best way possible reflect appropriate measuring conditions.
- Relevancy: the data for a chosen indicator have to be in connection with the environmental condition and sustainable development problems.

Table 1: 20 indicators of sustainability

CARST AREA	COAST AREA
1. Public waste removal 2. % of connected households to public sewage system 3. Share of active working population 4. Daily migration / Number of active working force 5. Aging index 6. Educational structure of inhabitants 7. Number of arrivals and nights of tourists per 100 inhabitants 8. Number of beds per 100 inhabitants 9. Gross income tax base per capita 10. Business - Net profit / loss per employee	1. Urbanization area rate 2. % of connected households to public sewage system 3. Quality of drinking water, % of unsuitable samples 4. Quality of sea water in public baths 5. Rate of coastline with regulative approach 6. Investment in nature protected areas on coast area 7. Employment structure 8. Bed places per 100 inhabitants 9. Nights per 100 inhabitants 10. Educational structure of inhabitants

For the list of 20 validated indicators presented above there are available databases, there is also historic data available for all of them. For almost all of them there is also assurance for future data.

2.2. Defining bands of equilibrium (BoE) for indicators

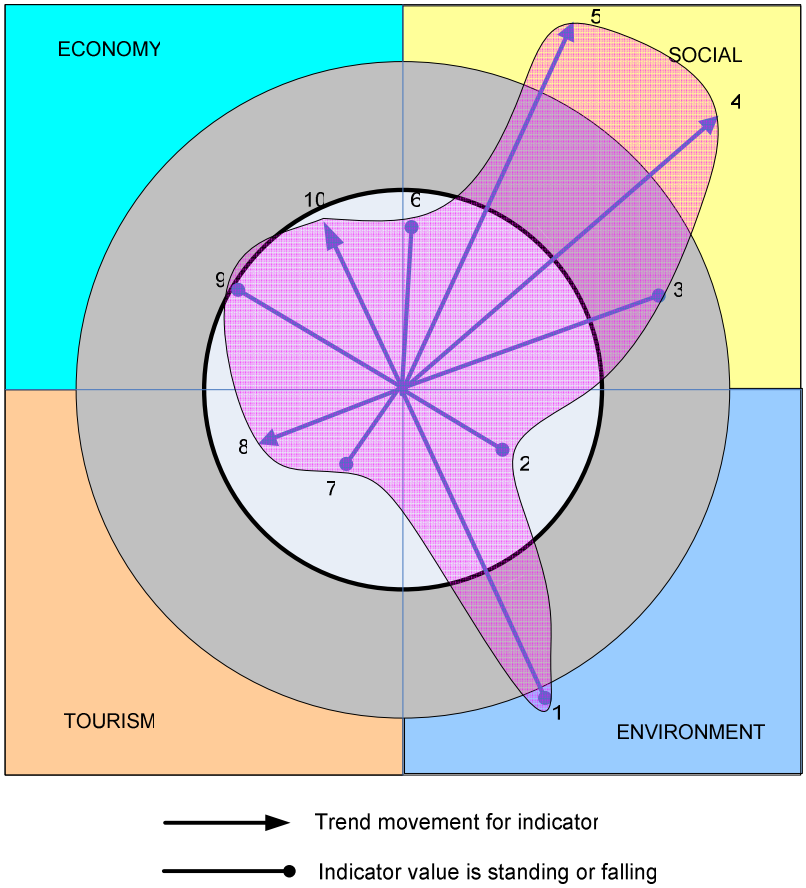
Defining and agreeing on the value of indicators, which reflect the state of sustainable development for individual indicator, in practice proved a demanding task and challenge for participants. The reason for this was, the workshop itself, made up by a heterogeneous group of participants belonging to various spheres, and demand for trying to reach, for the definition of the value of the bands of equilibrium for an individual indicator, the broadest consensus among the members of the work group.

As there are two very different parts of CAMP Slovenia region, participants produced two sets of indicators and two sets of BoE. Reason for this decision was in fact, that same indicator (for example % of connected households to public sewage systems) is very different in both parts of region and also defined BoE is different. Table 2 gives the values of the indicators for Carst area and Figure 5 shows the corresponding AMOEBA in 2003.

Table 2: Indicators for Carst area

N°	Indicator	Domain	BoE		Unit	~1991	~1996	~2003
			Min	Max				
1	Public waste removal	Env	12	20	Kg per population	21,07	52,18	25,31
2	% of connected households to public sewage system	Env	80	90	%	18	19	24
3	Share of active working population	Social	40	70	Share %	43	48	47
4	Daily migration / Number of active working force	Social	1500	2500	Rate	2100	3400	5000
5	Aging index	Social	35	50	Rate	80	112,1	128,2
6	Educational structure of inhabitants: % of high education	Social	20	30	%	11,5	16,7	10,31
7	Number of arrivals and nights of tourists per 100 inhabitants	Tourism	250	350	nights/100	241,37	210,33	211,88
8	Number of beds per 100 inhabitants	Tourism	5	8	beds/100	2,27	1,94	3,11
9	Gross income tax base per capita	Economy	105	130	Index (Slovenia=100)	103.8	107.2	104,2
10	Business - Net profit / loss per employee	Economy	300	600	In SIT '000	-329	-289	286

Figure 5: AMOEBA for Carst area 2003



Grey belt indicates outerlimits of the Band of Equilibrium – BoE

One of the strongest points of the Imagine methodology is a common definition of the BoE for each sustainable indicator and visualization of the indicators values in the corresponding AMOEBA (or radar) diagrams. It is very helpful for participants to chart all key indicators in AMOEBA diagram, allowing them to compare each other in different time frames and against their respective BoE. In the ideal sustainable world all connected indicators in AMOEBA should present more or less round circle inside BoE belt.

The AMOEBA 2003 graph for Carst area clearly shows unsustainability of the social, environmental and indicators for tourism in the Carst area based on 10 indicators. Almost all of them are currently outside of BoE:

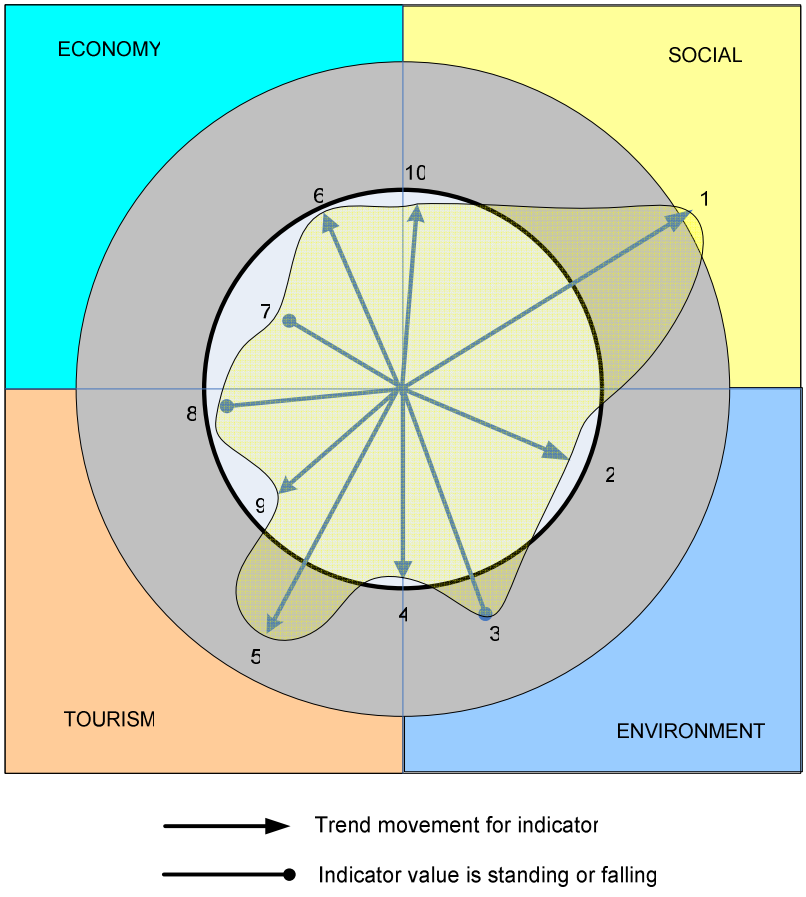
- **3** unsustainable indicators exceed BoE,
- **6** unsustainable indicators are under BoE,
- **1** indicator is located inside BoE and is sustainable.

Table 3 gives the values of the indicators for Coast are and Figure 6 shows the corresponding AMOEBA in 2003.

Table 3 : Indicators for Coast area -

N°	Indicator	Domain	BoE Min.	BoE Max	Unit	~1991	~1996	~2003
1	Urbanization rate	Social	60	70	%	63,1%	66,3%	71,8%
2	% of connected households to public sewage system	Env	75	90	%	42%	55,2%	70,2%
3	Quality of drinking water, % of unsuitable samples	Env	0	2	%	2%	2,1%	1,1%
4	Quality of sea water in public baths % of good microbiological samples	Env / Tourism	90	100	%	72	74,4	86,7
5	Rate of coastline with regulative approach	Tourism	30	50	% of land	28	35	45,2
6	Investment in management of nature protected areas on coast	Economy	50	100	MIO SIT	18	23	50
7	Employment structure	Economy	2	3	Number	1	1	1
8	Number of bed places per 100 inhabitants	Tourism	30	35	beds / 100	25,8	25,8	27,7
9	Number of nights per 100 inhabitants	Tourism	3000	4000	nights / 100	1865	568	2603
10	Educational structure of inhabitants	Social	20	30	%	11,60	12,4	15,55

Figure 6: AMOEBA for Coast area ~2003

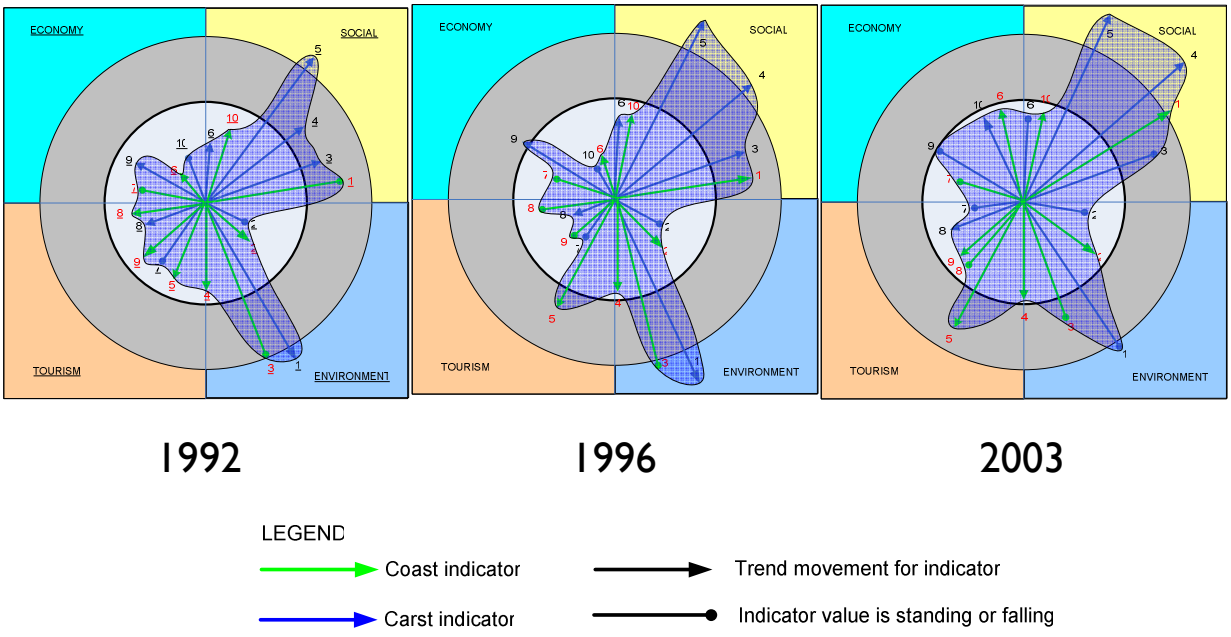


Grey belt indicates outerlimits of the Band of Equilibrium – BoE

The AMOEBA 2003 graph for Coast area also shows unsustainability of the social, environmental and economy indicators in the Coast area based on 10 indicators. Situation is slightly better than on Carst part of the region:

- **1** unsustainable indicator exceed BoE
- **7** unsustainable indicators are under BoE
- **2** indicators are located inside BoE and are sustainable.

Figure 7 : Combined AMOEBA graphs for whole region (Carst and Coast area)



Grey belt indicates outerlimits of the Band of Equilibrium – BoE

Combined AMOEBA graphs for whole regions through the time line from 1992 - 2003 clearly shows changes in selected indicators through past 10-15 years. It seems that most of indicators are moving forward to desirable values inside defined BoE. On the other hand almost all indicators from social domaine appear to be moving away from desirable values. Following indicator and BoE analysis is explaining the meaning of each indicator as a part of sustainability in CAMP Slovenia region.

2.3. Indicator and BoE analysis

2.3.1 Carst part

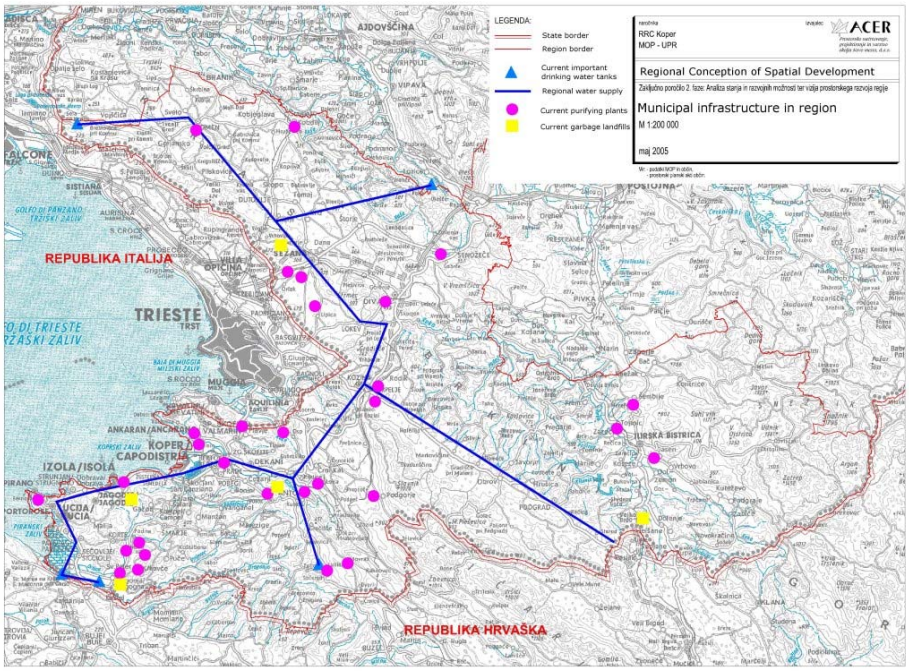
Public waste removal

In the last year, the Carst and Brkini areas of Slovenian coast have encountered the issue of a shortage of regulated garbage landfill sites that were available. In the coastal area, the problems arise because of the seasonal increases of the amount of garbage through tourism and the shortage of space available for building new landfill sites. Also, in the Carst part of the region, the problem lies in the exceptional fragility of the Carst environment, especially the groundwater, which supplies drinkable water to practically the entire region.

From the environmental viewpoint, an important fact is also the undeveloped system of separate garbage collection as well as the management of garbage in the region. Only a few areas within the region already have a developed system of that kind so far and, consequentially, the awareness of both the general population and the companies regarding the amount of garbage created is also being increased along with the introduction of such a system.

The participants in the workshops found that the information about the amount of garbage disposed of, measured in kilograms per inhabitant of the region, can be an indicator for the surveying of the development of garbage management in the region as well as the awareness of the population and the companies of the garbage management situation and the striving towards a constant decrease in the garbage created. In the formation of the band of equilibrium for this indicator, the workshop participants focused mainly on the present unsatisfactory situation, reflected in the constant increase of garbage shown also by the trend in the last year. Their assessment was that in order to reach the upper limit of this band of equilibrium and to keep it under that limit in future, it would be necessary to pass adequate measures to stop and reverse the trend of garbage increase and to decrease it by approximately 20%. In the following iterations, the band of equilibrium should be additionally adequately calibrated according to these requirements.

Figure 8: Municipal infrastructure in region



% of connected households to public sewage system

With its accession to the EU, Slovenia has committed itself also to adequately regulating the drainage and purification of wastewater. A large variation in the number of households connected to the public sewage system is characteristic of Carst and the coastal area. Another characteristic of both areas is the very expensive and demanding construction of the public sewage system due to the wide dispersion of individual structures as well as the demanding landscape (karstic rocky and hilly terrain). According to the EU directive, it is necessary to ensure the drainage and purification of wastewater for at least 80% of all households.

The indicator was one of the few that were placed in the narrow selection at both the discussed areas, for the whole coastal area as well as for Carst and Brkini. At Carst and Brkini themselves, the state of this indicator is considerably outside the band of equilibrium, since only 25% of the households are currently connected and additional measures for ensuring the more favourable growth trend need to be passed. At the current speed, it is not expected to reach the desired objective of 80% of households connected until 2015.

The participants in the workshops found that the information about the number of households connected to the municipal infrastructure is a good indicator for monitoring the efficiency of fulfilling the final objectives set in the National Development Program. The band of equilibrium was set within the frame of the requirements of the EU directive and was relatively easy to set due to the regulations. In the following iterations, it will be necessary to also consider the monitoring of households connected to the small local purifying plants as well as the individual purifying plants, which are not included in this indicator.

Share of active working population

The share of the active population in the years discussed is increasing persistently and has increased from 43% in 1990 to 47% in 2003 and is still increasing moderately. The favourable state of the share of active population is linked also to the low rate of unemployment in the area of Carst, amounting only to approximately 7%. Currently, the band of equilibrium is set relatively wide at between 40 and 70%. Throughout all the years discussed, this indicator was within the band of equilibrium, while the current trends also show that there will be no need for any radical measures in this area in the future. In the following iterations of the process, it will be necessary to study the possibility of a more precise definition of the band of equilibrium, or its replacement with one of the similar indicators from the domain of welfare, which would reflect the issue of the labour force in a more concrete manner.

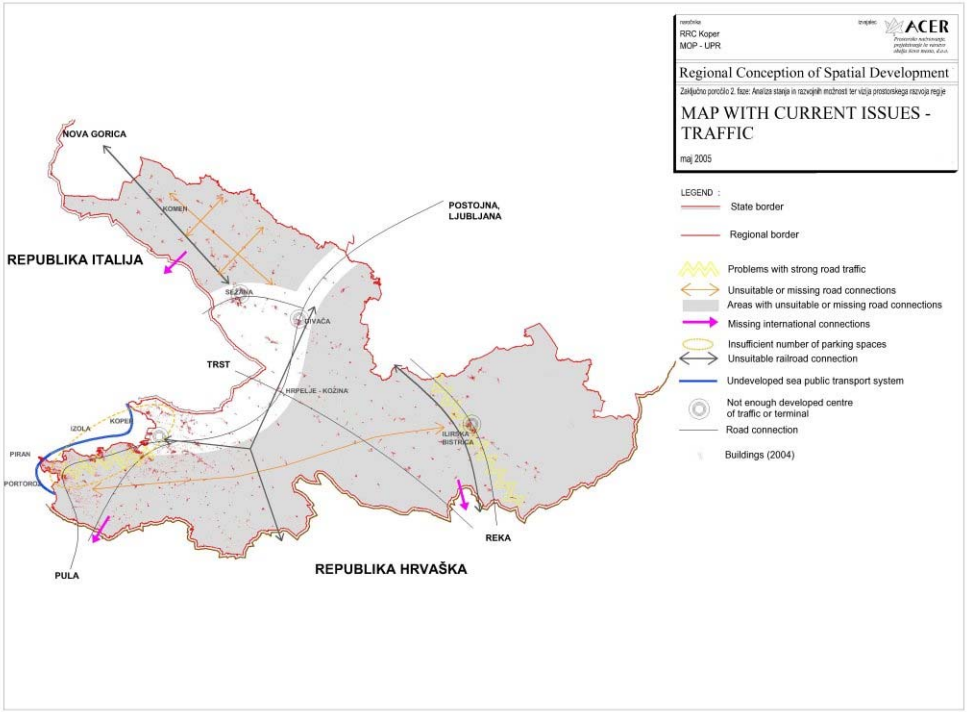
The above average commuting of the labour force is characteristic of Carst and Brkini, as the area is situated between the coast and Ljubljana and the favourable road connections enable a relatively easy and fast access to both centres. The stated indicator also reflects the ratio between the labour force and the number of places of work available in this area. Due to the relatively low prices of real estate and the favourable transport connections through the new highway, in the recent years a large number of families have decided to buy real estate and reside in this area.

Daily migration / Number of active working force

While the road connection means that the area of Carst and Brkini is relatively favourably connected and allows easy access by personal vehicles, the use of public transport within the region, on the other hand, is very low and poorly developed. That is why the access to towns such as Sežana and Ilirska Bistrica through public transport is very inefficient and poor at the regional level. The local road infrastructure is poor as well. The migration trend is increasing while the number of people using public transport in the area of the region is decreasing.

Using this indicator, the workshop participants wanted to monitor development in the area of the available places of work within the region, the development and promotion of public transport and the development of local transport infrastructure. The set band of equilibrium perhaps does not entirely reflect the precise values that would reflect sustainable development and should be improved and narrowed down in subsequent iterations.

Figure 9 : Current traffic problems map



Ageing index

The indicator of the ageing index was given mainly in relation to the large population ageing problem in the entire region. The indicator stated is not favourable at the national level either, but in the area of Carst and Brkini it is among the worst in comparison with the other areas in Slovenia. This very poor trend, as well as the fact that it is very difficult to reverse, presents an additional problem. Considering that the acceptable and sustainable ageing index is estimated to be around 40-60 in Europe, all values above 100, as in the case of Carst and Brkini, are quite alarming. Statistically speaking, the main unfavourable influence on this indicator is the current immigration of older and the retired people, since several homes for the elderly people are situated in this area, the real estate prices are also considerably lower than in Ljubljana or on the coast and, due to the intact nature and peaceful surroundings, the natural environment of the area is attractive for this type of people. In recent years, there has also been an increase in the immigration of retired people from the nearby city of Trieste in Italy. Since there is only a small population in the statistical area discussed (only around 38 000 people), the indexes can change very fast statistically, even simply by setting up a new home for the elderly.

The band of equilibrium is set at the level considered as sustainable adequate in Europe, but the fact is that in the situation as it stands it is impossible to reach these sustainable acceptable values in the following 10 to 15 years. To simply reverse the trend would be a success. Besides that, in the given situation it is necessary to seek also the opportunities for creating the most favourable living conditions as possible for such an age level of the population.

Educational structure of inhabitants

The educational structure of the population in the area of Carst and Brkini fluctuates heavily and perhaps does not realistically reflect the actual condition. With the foundation of the University of Primorska it is realistic to expect that this indicator will considerably change within a short period of time in the direction of the prescribed band of equilibrium, which was set at between 20 and 30% of the population having higher education. Besides that, higher education institutions are being founded with seats in the area of Carst and Brkini (e.g. the College of Stonecutting), which deals with promotion and education of specialists in those professional fields that are characteristic of Carst and Brkini and who will be able to stay and work in this area.

Number of arrivals and nights of tourists per 100 inhabitants

The chosen indicator has a double meaning within the indicators of sustainable development in Carst and Brkini. On one hand to ensure more tourism at natural and cultural sights, while on the other hand to prevent the exponential development of mass tourism as well as the construction of large tourist capacities due to the vulnerability of the environment. Among the participants the opinion prevailed that the tourist accommodation facilities on the coast and in the interior of Slovenia, as well as in Italy, are close enough to enable the access of the tourists to experience nature, walks, cycling, the excellent culinary arts and visits to natural and cultural monuments. The generally prevalent opinion was that some sustainable level of tourism had been nearly reached at the end of the 1980s in the area of Carst and Brkini, when the number of tourist visits per 100 people had approached 250 – the lower limit of the band of equilibrium. This decreased heavily later on after the independence of Slovenia however, though in recent years a slight trend of growth is showing again.

Number of beds per 100 inhabitants

This stated indicator supplements the previous indicator of the number of tourist visits per 100 inhabitants. This indicator has not experienced growth but, on the basis of current investments into renewal and the expansion of tourist capacities, it is realistic to expect a moderate growth in the following years. In addition the activities directed at the promotion of ecological and farming tourism take place, which is based on the renewal of old village centres and the planning of an adequate infrastructure for this kind of tourism. Since ecological and farming tourism is not based on large hotel complexes and mass tourism, the band of equilibrium was set in accordance with expectations. When the capability of the Carst area for tourism is fully known, then it will be necessary to adequately regulate the band of equilibrium in accordance with these expectations.

Gross income tax base per capita

In recent years numerous activities have been taking place in Carst and Brkini that have been oriented towards the construction of entrepreneur incubators and business centres that would enable the easier foundation and operation of entrepreneurs and enterprises in this environment. The participants set the band of equilibrium here according to the Slovenian average, which would be the basis for determining this equilibrium also in the subsequent iterations.

Business - Net profit / loss per employee

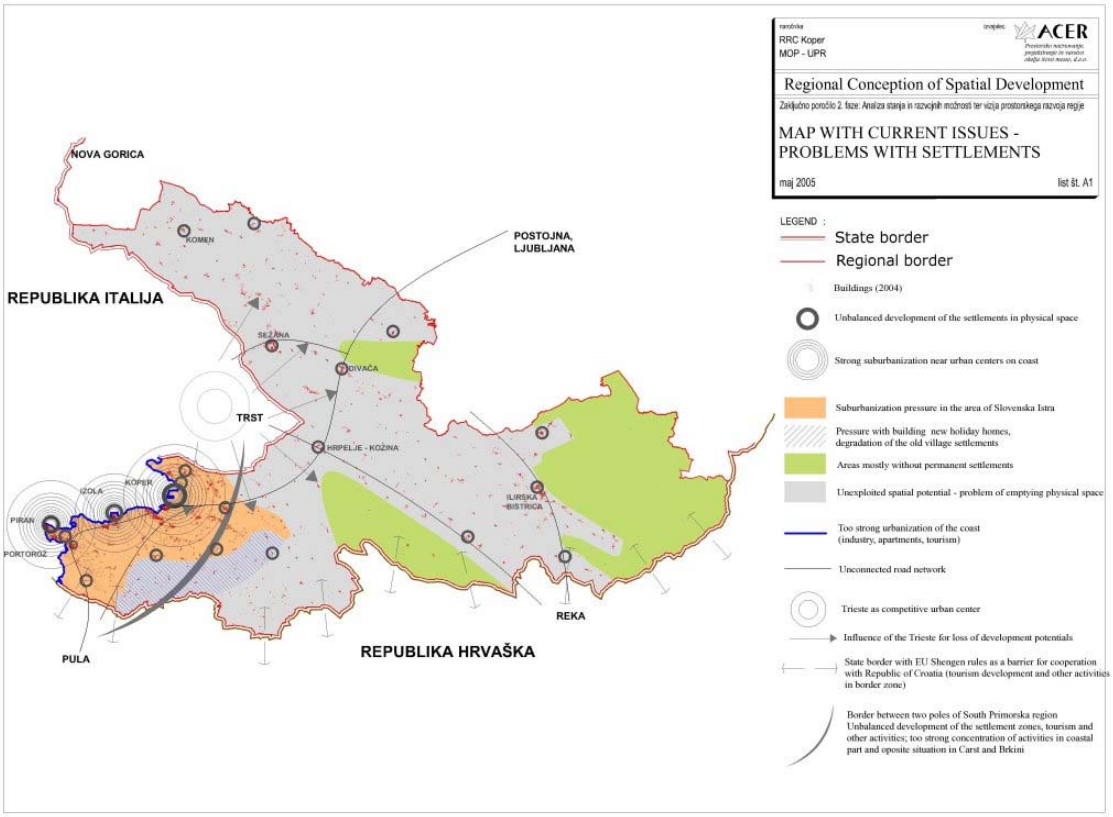
One of the fundamental economic indicators should reflect the "business health" of the enterprises that have their seats in the area of Carst and Brkini. After the independence of Slovenia in the 1990s the situation was very serious, since numerous enterprises were closed and went bankrupt due to the loss of the Yugoslav markets. In recent years though, the picture has been a great deal more optimistic. The participants set the band of equilibrium here also according to the Slovenian average, which would be the basis for determining this equilibrium also in the subsequent iterations.

2.3.2 Coast part

Urbanization area rate

Slovenia has a short coast, bounded on two sides by national borders. Due to its outstanding geo-strategic location, the coastal area is experiencing increasing pressure from investors, which is directly reflected in the urbanization of the area. Naturally, it is illusory to expect a substantial decrease in the share of urbanized space; however it is important to stop the steepness of the trend and to increase the efficiency of use of the urbanized space already existing. Setting the band of equilibrium was the product of quite a lot of discussion among the participants. In the end, a rationally set upper and lower limit prevailed, within the bounds of possibility, at between 60 and 70%. In the following iterations, the limit can be adjusted as required by reaching wide as possible consensus among the different interested groups.

Figure 10 : Problems with settlements in region



% of connected households to public sewage system

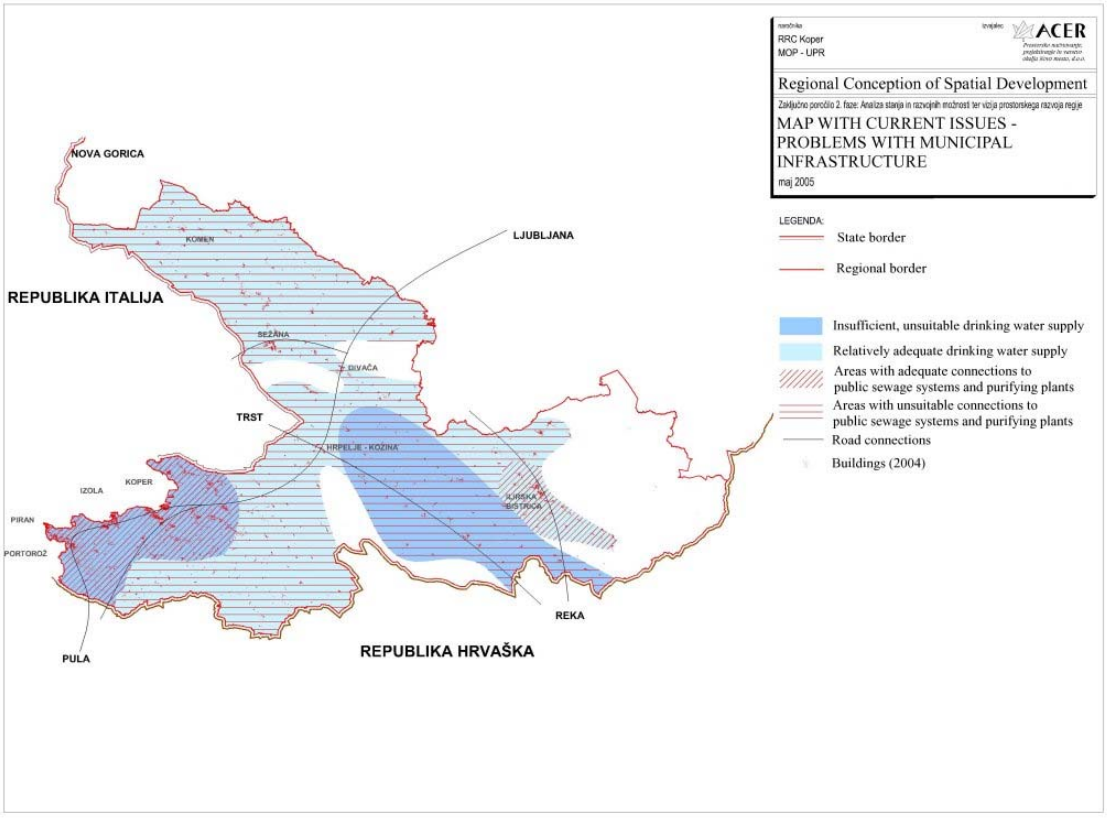
The indicator is one of the rare ones where both the discussed areas are placed within the narrow band, for the coast as well as for Carst and Brkini. The growth trend of the number of households connected to the sewage system in the coastal area is relatively favourable and the fulfilment of the requirements within the given deadlines can be realistically expected. The set band of equilibrium between 75 and 90% is identical for both parts of the region.

Quality of drinking water, % of unsuitable samples

In recent years, enviable results were accomplished in the area of ensuring quality drinking water. While in the other areas of Europe people are having to face the fact that the drinking water doesn't always flow from their public water supply, we have succeeded in increasing the quality of potable water in our area as the number of inadequate samples decreases year by year and is drawing close to the 1% limit, which is a success also on the Slovenian scale. Not only that, but only years ago we were confronted with reductions and limits to consumption due to the increased demand for drinking water in the summer months. These are becoming increasingly rare. Despite this success, large investments are awaiting us in the future, namely through the construction of new water intakes in the Carst area.

On one side, the indicator represents the quality of living in the region, while on the other side it stands as a viewpoint of the state of the environment, since the degradation of the natural environment quickly shows in the quality of the drinking water. This band of equilibrium is set below the limits of the average values in Slovenia.

Figure 11 : Problems with municipal infrastructure map



Quality of sea water in public baths

The workshop participants devoted considerable time to finding the adequate indicator that would reflect the state of the sea. They had quite a number of possible databases available for their selection. In the end, they chose the data on the measurement of the cleanliness of bathing water at the public bathing areas, for which the data has been gathered for quite some time and is relatively exact and adequate. It will also be possible to continue gathering data for this indicator in the future as well.

In the recent years, the quality of the seawater has been improving, since the percentage of microbiologically adequate samples has grown from 72% in 1990 to 86.7% in 2003, and is still improving year by year. A large positive step is expected with the construction of a wastewater purifying plant for Koper and Izola, since the wastewater from these two cities is not treated adequately at the moment.

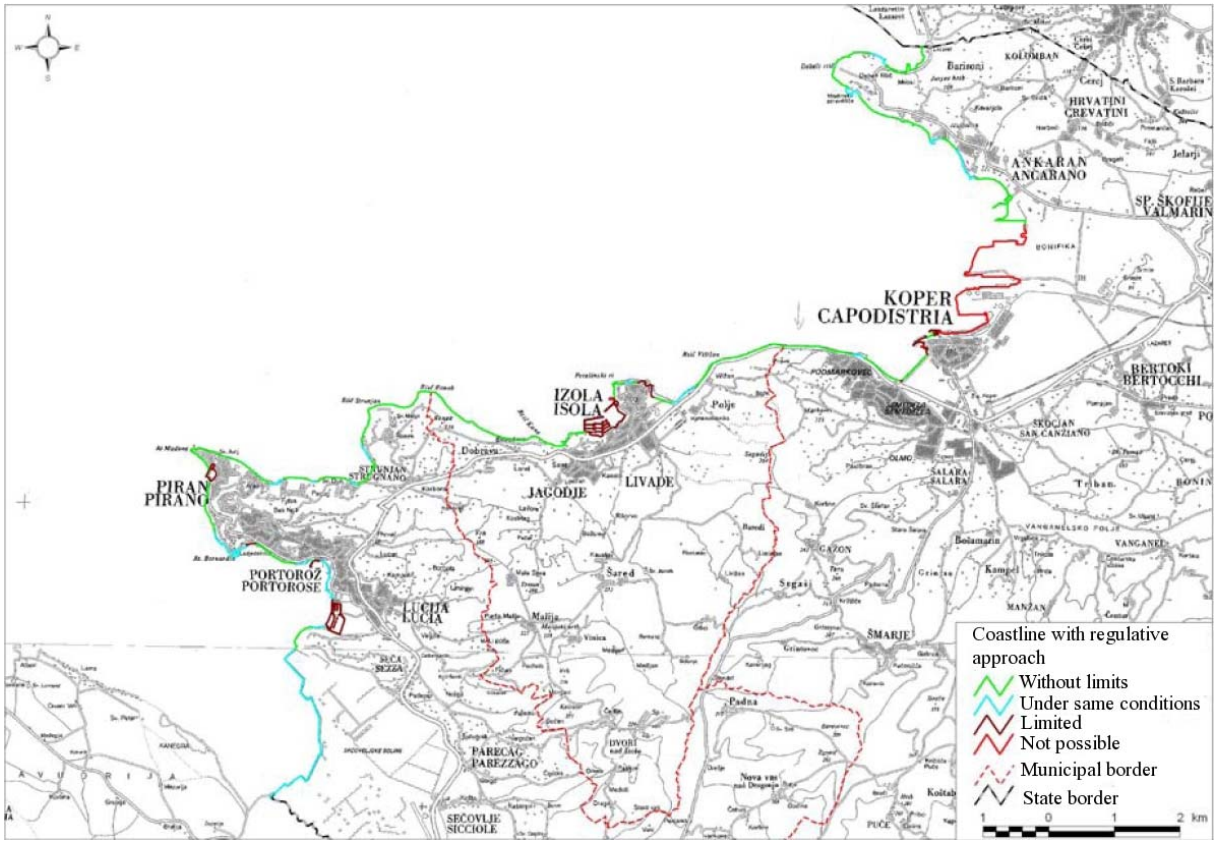
The band of equilibrium was set at above 90% of samples being adequate microbiologically, and it is realistic to expect that this will be reached within the 5-year period.

Rate of coastline with regulative approach

Compared to its neighbouring countries, the Slovenian coastline is very short, since it is only around 50 km long. However, it is a fact that the area has a large range of possible uses, not really any different from those which appear also along very long coastlines. These include industry, tourism, nature reserves, areas intended for traffic and transport etc. An analysis was conducted within the research paper that, among other issues, studied the share of the coastline that has regulated access. Due to the accelerated tempo and pressure of investments in the coastal area, there is the danger of restricted access to more than a half of the Slovenian coastline, despite the fact that the sea is very good for the public. Using this indicator, the participants wanted to measure the pressure on the nearby coastline and the use of space in that coastal zone.

The band of equilibrium is currently set between 30 and 50%, yet the subject provoked quite a discussion. In the future, it will be particularly important to set a more exact definition of this regulated access, since with the foundation of nature reserves and parks the access to the coast is being limited more and more, while the operation of such reserves is in fact oriented towards the sustainable development and the preservation of the rich natural heritage. This indicator particularly belongs among those that should be either verified again in subsequent iterations by a wide circle of scientists, or replaced by another adequate indicator.

Figure 12 : Coastline with regulative approach map

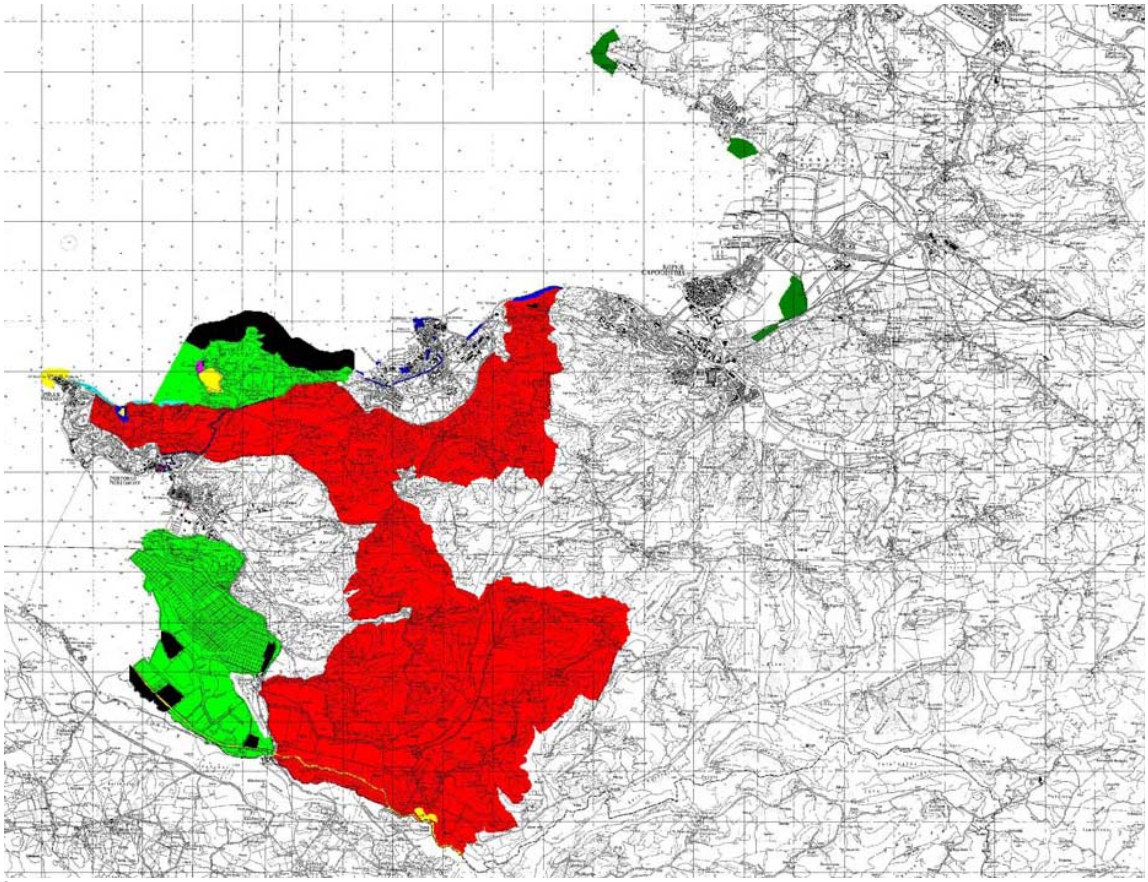


Investment in nature protected areas on coast area

In the past, the financial investments of the state and the private sector into the protected natural areas along the coast were relatively small. In recent years though, the picture has improved, since the tourist organizations have also learnt the value of such areas for the further development of tourism and the expansion of what is on offer. The leading projects are the "Sečovlje Saltpans" landscape park, which also manages the saltpan area at Strunjan, and the "Škocjanski zatok" nature reserve in Koper. In the following years, several similar projects are planned.

It is very difficult to set the band of equilibrium for an indicator of this kind. That is why the current indicator measures only the investments in MIO SIT, while probably it should be expanded to cover all the investments in the coastal area, as well as determining the exact methodology for gathering the required data. Namely, the gathered data has been collected from different databases and is only approximate and estimated on the basis of known information, while a considerable number of assets are in fact hidden also in other investments in the tourist infrastructure, which is indirectly related also to these protected areas.

Figure 13 : Map of nature protected areas on coast



Legend

	Natural reserve
	Cultural landscape
	Landscape park
	Natural heritage

	Natural monument
	Monument of shaped nature
	Geomorphologic heritage
	Shaped green areas

	Avenue planted with trees
	Natural reserve
	Promenades & undefined

Employment structure

At the assessment of issues in the economic area, the workshop participants concluded that the region has an inadequate employment structure and that the enterprises in the field of tourism especially are confronted with the issue of a shortage of an adequately qualified cadre. The problem arises when we want to monitor the adequacy of the structure according to the requirements of the local and regional economy. Using the existing statistical indicators we can monitor the very varied parameters in the field of

employment and education, while no data provided an adequate basis for the determination of the required indicator of the adequacy of the employment structure.

Despite this, they decided to place into the narrow selection an indicator that monitors the state of the employment structure. However, due to the inadequate databases, they provided it in the form of a qualitative value from 1 to 3, where the band of equilibrium is between the values 1 and 2. Such a decision was accepted mainly due to the completing of the selection of indicators and as the basis for the next iteration, with a warning that it is necessary to consider the employment structure also in the following selections of indicators.

Number of bed places per 100 inhabitants

Since the most tourist-oriented area in the country is involved, the indicator of bed capacity per capita is a logical choice for monitoring the tourist capacities. A larger problem appeared when determining which values of this indicator ensure sustainable development. Thus, some of the workshop participants believed that the already existing capacities more than fulfil the requirements, while other believed that with the existent capacities it is not possible to seriously compete with the competition from global tourism. The fact is that the capacity of the area is limited and that limits do exist in the real world. The opinion prevailed that it is necessary to use the current urbanized areas, which are already intended for tourism, and adapt them more to the requirements, which is why the limit of the band of equilibrium was set by agreement at between 30 and 35 rooms per 100 inhabitants. In the following years investments are planned, which will surely achieve this figure and there will then be the larger problem of stopping this growth trend, since the area is becoming more and more attractive for the large investors.

Number of nights per 100 inhabitants

Similar to the previous indicator, the same things holds true for the indicator of the number of nights per 100 inhabitants. When setting the band of equilibrium for this indicator, the participants considered the existing as well as the planned tourist capacities. They also considered that the yearly rate of occupation of these capacities has been increasing year by year. Only a few years ago, the Slovenian coast had been known as a tourist destination only during the summer but, with investment into congressional tourism, the occupation rate of hotels and other tourist facilities outside of the tourist season has been increasing.

Educational structure of inhabitants

In recent years the entire Primorska region has been achieving numerous projects and programs directed towards establishing an environment that would be an effective basis for new and innovative enterprises based on knowledge and education. The region has a young university, only a few years old, which increasingly develops new college and university programs. In the past, the youth of the region was educated mainly in Ljubljana and Maribor, where they often found jobs and remained after they finished their schooling. The University of Primorska ensures the opportunity for young people to receive their higher education in their own region, as well as attracting people from all over Slovenia and beyond to study there. This is why it is realistic to expect that in the next 10 years a considerably more substantial education structure will be achieved and the trend of the migration of people with higher education into other centres in Slovenia will be reduced. This indicator is also connected to the indicator of the adequate education structure of the labour force in the area.

2.4. Conclusions

Considering a series of socio-economic indicators in comparison with the other statistical areas, the area of southern Primorska is among the most successful areas in Slovenia. According to the results of the expert assessment on the use of the regional potentials for development and the assessment of the developmental possibilities of the region, the area is placed among the most statistically developed regions and with favourable developmental potentials.

The CAMP Slovenia area extends over two areas that are very different in their environmental, social, economic and spatial parameters. On the one hand there is the coastline and nearby hinterland, where the municipalities are confronted with an exceptional pressure from new investments, specific environmental

issues, seasonal tourism and the fast growth of the price of free building land, the availability of which is decreasing more and more. On the other hand there are Carst and Brkini, where they confront mostly with the remarkably unfavourable ageing and education structure of the population, the shortage of the holistic treatment of space and the planning and realization of activities as well as the undefined capacity of the natural environment, which slows down new investments.

The selected choice of indicators for both parts of the region therefore differs considerably. While some of the indicators are identical, in some areas the issues in the two parts of the region are totally different. That is why the measurements of individual areas should be adjusted especially to each part of the region.

Some participants believed that the number of selected indicators is certainly too small for treatment of the entire issue of sustainable development. Particularly for Carst and Brkini, the participants had problems selecting adequate indicators for presenting the issue of the undetermined capacity of space for the new investment projects. Several different strategic and development documents are currently present for Carst and Brkini, however there are problems in the realization of work and the monitoring of the efficiency with which the planned projects are realized. Consequentially it is very hard to gather relevant data for monitoring the adequate indicator.

It is characteristic of some indicators that they already have a relatively favourable trend within the existing measurements. In the debates among the participants, they mainly focused onto the most worrying problems of the region, such as the polemics about the usefulness and justification of building the third pier of the Port of Koper, the tourist strategy in the entire region, the connection of the economy with the new University of Primorska, the issue of traffic connections, the use of public transport and the issue of the increasing prices of real estate on the coast. A similar debate also took place about presenting the indicators and the bands of equilibrium at the meeting with the representatives of the broader public.

Viewed as an entirety, the workshop participants spent most of their time seeking an agreement on the bands of equilibrium for the individual indicators. Opinions on the issue of which values of the individual indicators are valid for sustainable development were different and it was imperative to seek compromises. Although many participants had already encountered the data and indicators in practice, most of them had not had the opportunity to work together in this field. In practice some of the indicators or studies were conducted by a smaller expert group where the opinions on the indicators were uniform, often determined already by the person who ordered the study. In the case of the *Imagine* process, the working groups were not burdened by a predetermined result and the participant structure was relatively diverse and often with a very varied viewpoints on the same issue. That is why the hearing of different opinions and the seeking for compromises in determining the indicator values was an entirely new experience to many.

The identification of key areas of issue was very useful also for the executors of the individual projects within CAMP Slovenia. In this part, the *Imagine* project entirely fulfilled its role as a horizontal and integral project since, in the area of understanding the sustainable development, defining the issues and the wide analysis of the situation, it linked the contents of other projects into the common objective of CAMP Slovenia – harmonized sustainable development of the entire region.

3. The Scenario Making aspect of *Imagine*: main trends and alternatives

The projected trends of the individual indicators for the next 10 years are not based only on mathematical calculations. Since the expertise of the workshop participants was very high and most of them had considerable experience of the data discussed, the trends at some of the indicators were corrected and adapted to the trends actually expected. This was the case with the indicator of the educational structure of the population, since the expectations of its increase since the foundation of the university are more optimistic than is showed by the current statistical trend of the indicator. Similar was the case of the indicators in the economic field, since in recent years the investments in the tourist and other infrastructures gradually increased compared to the previous years.

Among all the groups of indicators, the area of the social indicators stands out. Especially notable is the very unfavourable trend of the ageing index in the area of Carst and Brkini. The measurements in that field indicate an additional problem, since it is very hard to reverse negative trends of this kind of indicator into a positive direction in the relevant period of 10 years. In continuation, the trends of the movement of individual indicators are presented for the area of Carst and Brkini as well as for the coastal area.

3.1. Scenarios based on current trends

Primorska region has very different development problems on the coastal part and in Carst part. This clearly shows also in the set of chosen indicators where same indicator for Carst or coastal part has a different BoE. Therefore it was necessary to clarify trends also for each part of region separately.

Both tables for trend scenario shows that current activities and projects based on Regional Development Programme 2001-2005 drives region in the desired direction achieving sustainable development on several areas. As expected there is less of a problem around economic domain indicators. Successful accession to the EU and a lot of new investment projects in the past 10 years have a dramatic impact on almost all economic indicators. The opposite picture is shown in the social field indicators. Changing the unfavourable trend of ageing index or raising the share of people with higher educations is a long-term activity and current trends are not inside required values for sustainable development.

Table 4 shows trends for year 2015 for Carst part of indicators and Table 5 shows trends for year 2015 for Coast part of indicators.

Table 4: Trends for Carst indicators – 2015

N°	Indicator	BoE		Unit	Timeline			Scenario
		Min	Max		~1991	~1996	~2003	~2015
1	Public waste removal	12	20	Kg per popul.	21,07	52,18	25,31	29
2	% of connected households to public sewage system	80	90	%	18	19	24	38
3	Share of active working population	40	70	Share %	43	48	47	50
4	Daily migration / Number of active working force	1500	2500	Rate	2100	3400	5000	7000
5	Aging index	35	50	rate	80	112,1	128,2	132
6	Educational structure of inhabitants % of high education	20	30	%	11,5	16,7	10,31	17
7	Number of arrivals and nights of tourists per 100 inhabitants	250	350	nights/100	241,37	210,33	211,88	220
8	Number of beds per 100 inhabitants	5	8	beds/100	2,27	1,94	3,11	4
9	Gross income tax base per capita	105	130	Index Slovenia=100	103.8	107.2	104,2	105
10	Business - Net profit / loss per employee	300	600	In SIT '000	-329	-289	286	320

Table 5: Trends for Coast indicators - 2015

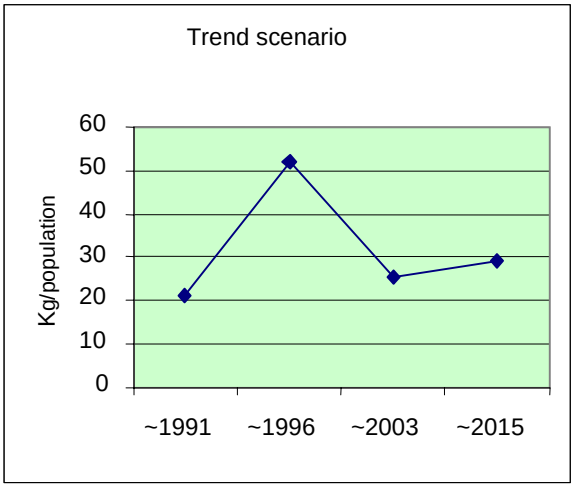
N°	Indicator	BoE		Unit	Timeline			Scenario
		Min	Max		~1991	~1996	~2003	~2015
1	Urbanization rate	60	70	%	63,1%	66,3%	71,8%	88
2	% of connected households to public sewage system	75	90	%	42%	55,2%	70,2%	80
3	Quality of drinking water, % of unsuitable samples	0	2	%	2%	2,1%	1,1%	1
4	Quality of sea water in public baths % of good microbiological samples	90	100	%	72	74,4	86,7	90
5	Rate of coastline with regulative approach	30	50	% of land	28	35	45,2	46
6	Investment in management of nature protected areas on coast	50	100	MIO SIT	18	23	50	60
7	Employment structure	2	3	Number	1	1	1	2
8	Number of bed places per 100 inhabitants	30	35	beds / 100	25,8	25,8	27,7	29,9
9	Number of nights per 100 inhabitants	3000	4000	nights / 100	1865	568	2603	3600

3.1.1 Carst part: Trend projections for each indicator

Public waste removal

Kilograms of waste per population:
1991: 21,07 kg
1996: 52,18 kg
2003: 25,31 kg
2015: 29 kg

- For year 1996 there was slightly different methodology for measuring (including also business)
- Trend value for year 2015 is based on calculation

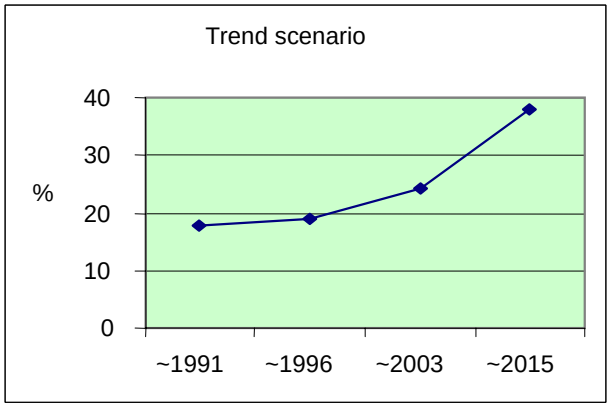


Unit: Kilograms per population

Connected households to public sewage system

Percentage of households connected to public sewage system:
1991: 18%
1996: 19%
2003: 24%
2015: 38%

- There are increased investments in building of the new public sewage system
- Trend is calculated based on current knowledge on investments and running projects
- There should be new collecting data m methodology for this indicator, as there are not involved connections on individual purifying systems

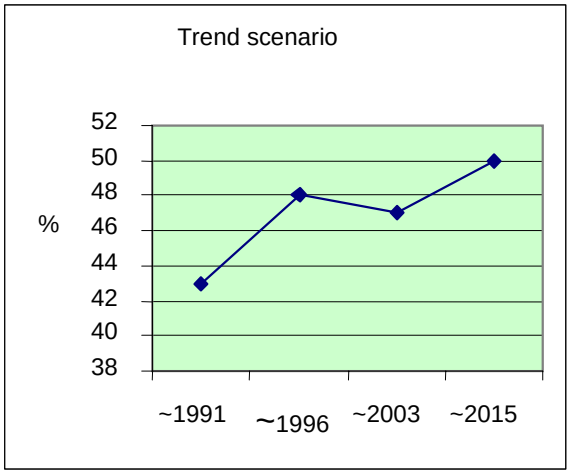


Unit: %

Share of active working population

Share working/all population:
1991: 43%
1996: 48%
2003: 47%
2015: 50%

- Despite of unfavour ageing index, share of working population is still growing

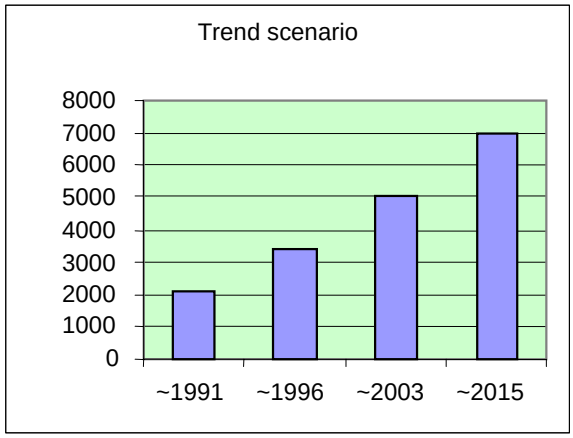


Unit: %

Daily migration / Number of active working force

Daily migration / Number of active working force:
1991: 2100
1996: 3400
2003: 5000
2015: 7000

- A lot of inhabitants of this part of region works in their parts of country (coast, Ljubljana,…)
- Low level usage of public transport

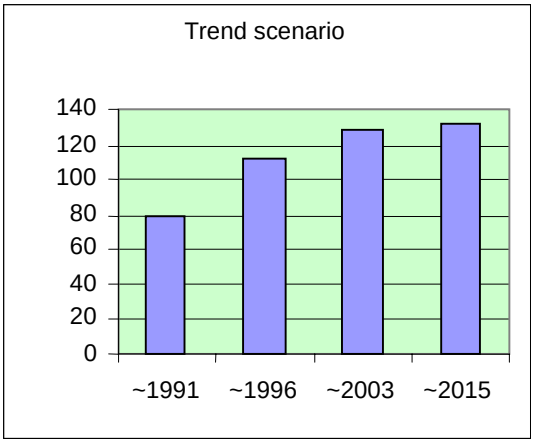


Unit: share daily migration/active working force

Aging index

Share of population between up to 14 years old / population older than 65 years:
1991: 80
1996: 112,1
2003: 128,2
2015: 132

- One of the most "problematic" indicators
- Indicator also show actual trends from increased immigration of elder people

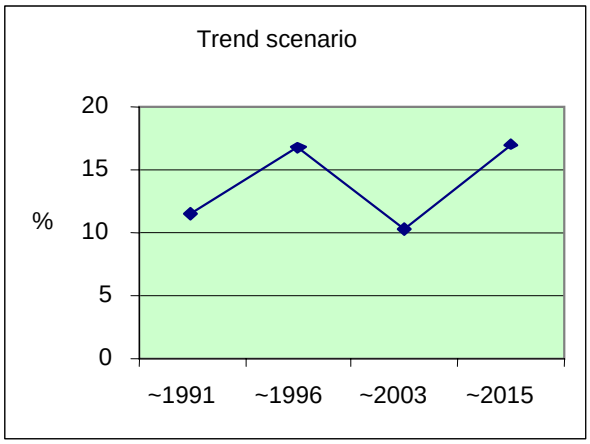


Unit: Share

Educational structure of inhabitants % of high education

Percentage of people with high education:
1991: 11,5 %
1996: 16,7 %
2003: 10,31 %
2015: 17 %

- There is no higher education institutions in region
- University of Primarska has a plan to open a faculty also on Cars part

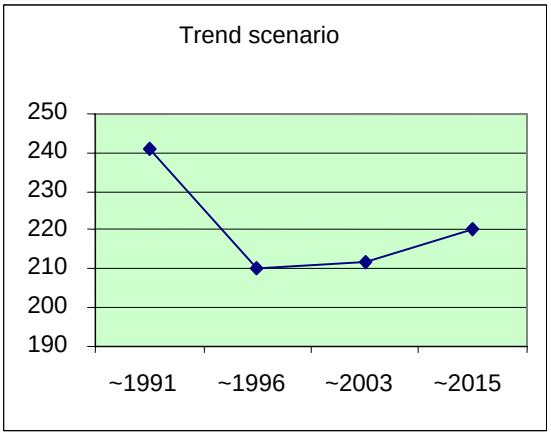


Unit: %

Arrivals and nights of tourists per 100 inhabitants

Number of arrivals and nights of tourists per 100 inhabitants:
1991: 241,37
1996: 210.33
2003: 211,88
2015: 220

- After strong recession in the beginning of 90's indicator shows slightly improvement
- There is a problem of current infrastructure capable to support more arrivals

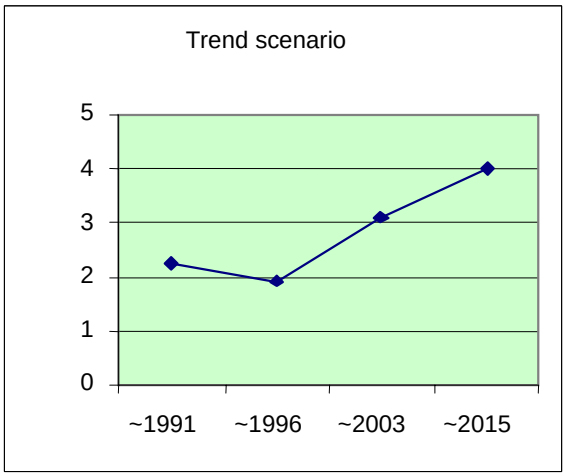


Unit: number

Number of beds per 100 inhabitants

Number of beds per 100 inhabitants:
1991: 2,27
1996: 1,94
2003: 3,11
2015: 4

- After strong recession in the beginning of 90's indicator shows slightly improvement
- There is a problem of current infrastructure capable to support more arrivals

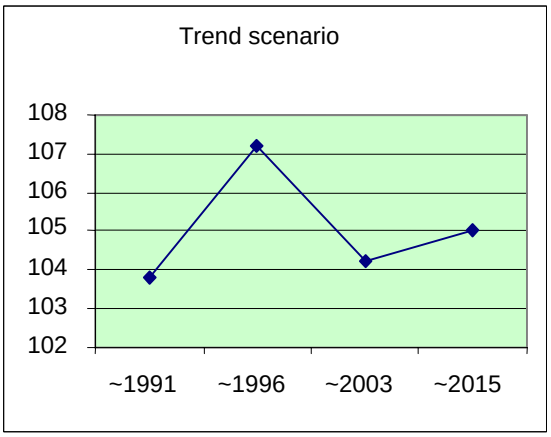


Unit: number

Gross income tax base per capita

Gross income tax base per capita (index, Slovenia=100):
1991: 103,8
1996: 107,2
2003: 104,2
2015: 105

- Indicator is still above county average

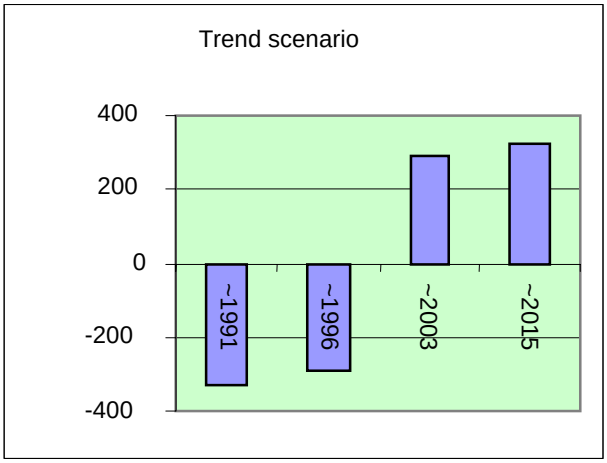


Unit: Index

Business - Net profit / loss per employee

In MIO SIT:
1991: 2,27
1996: 1,94
2003: 3,11
2015: 4

- Economy in Carst part of region is going better past 10 years
- Strong impact on this indicator is from a new business incubator and business center in Sežana



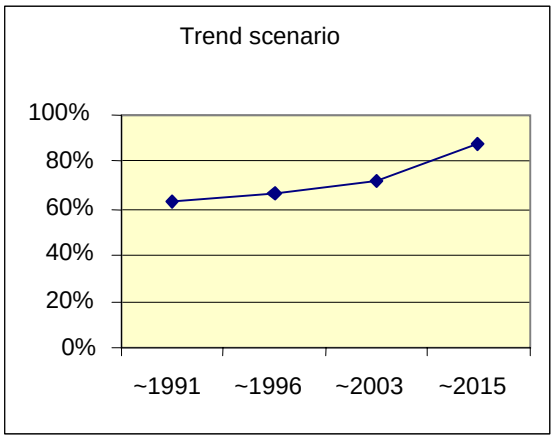
Unit: MIO SIT

3.1.2 Coast part: Trend projection for each indicator

Urbanization rate

% of urbanization:
1991: 63,10%
1996: 66,30%
2003: 71,80%
2015: 88%

- Indicator is just for narrow coastline
- It shows strong pressure of new investments on narrow coastline

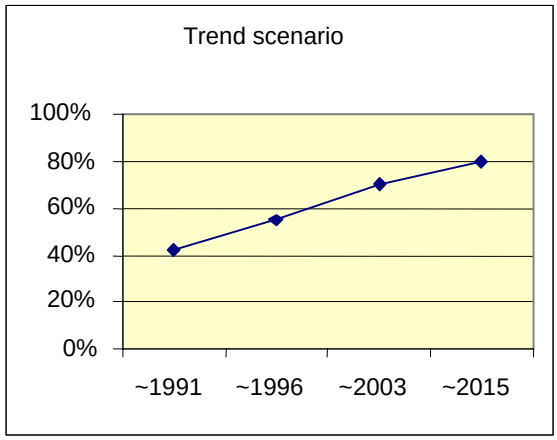


Unit: %

Connected households to public sewage system

% of connected households to public sewage system:
1991: 42%
1996: 55,20%
2003: 70,2%
2015: 80%

- Indicator shows good trend towards designated goals

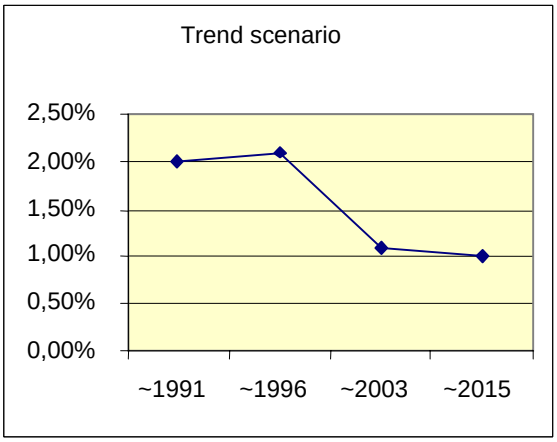


Unit: %

Quality of drinking water, % of unsuitable samples

% of unsuitable samples:
1991: 2%
1996: 2,1%
2003: 1,1%
2015: 1%

- Quality of drinking water is raising towards sustainable values
- There is a problem with new sources for collecting drinking water for future

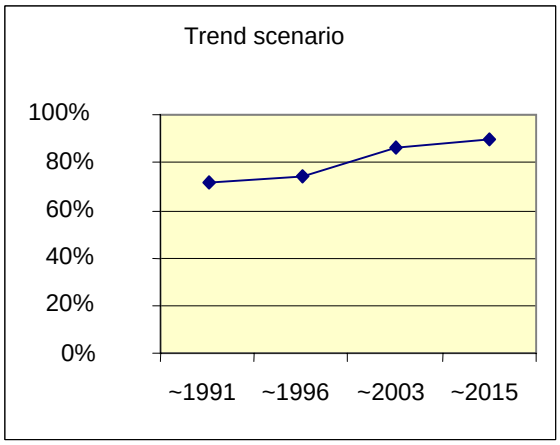


Unit: %

Quality of sea water in public baths

% of good microbiological samples:
1991: 72%
1996: 74,4%
2003: 86,7%
2015: 90%

- Indicator is improving during past 10 years

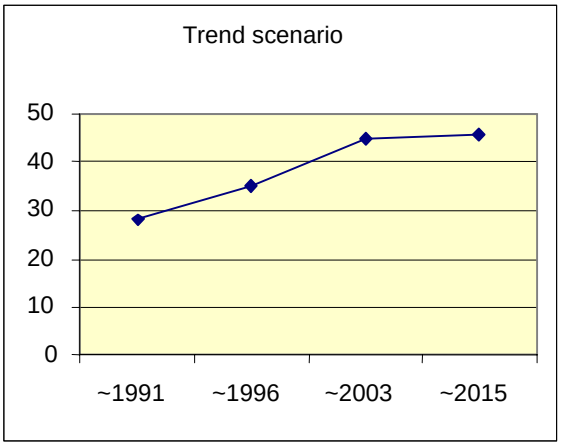


Unit: %

Rate of coastline with regulative approach

% of coastal land:
1991: 28%
1996: 35%
2003: 45,2%
2015: 46%

- Methodology for measurement of this indicator should me more clear in next iterations
- New municipal urban plans should consider and prescribe regulative approach

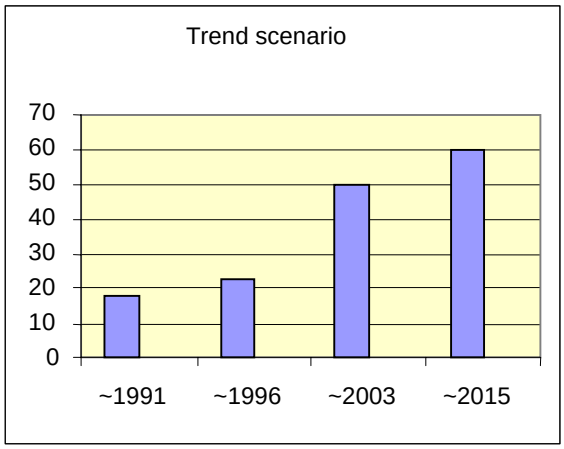


Unit: %

Investment in management of nature protected areas

In MIO SIT:
1991: 18%
1996: 23%
2003: 50%
2015: 60%

- Methodology for collecting data should be improved in next iterations
- There are many investments hidden in other investments in tourist infrastructure

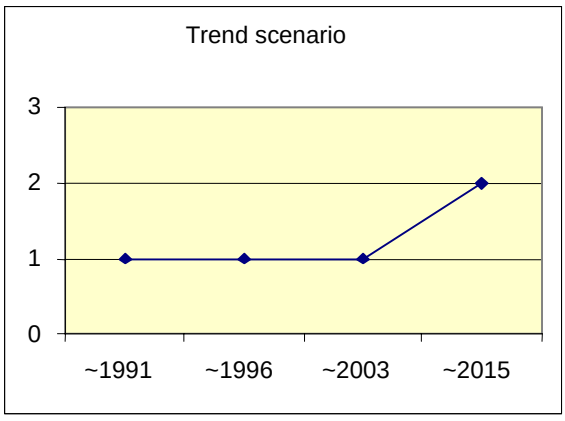


Unit: in MIO SIT

Employment structure

Qualitative indicator:
1991: 1
1996: 1
2003: 1
2015: 2

- Indicator is based on experience of the participants and other statistical data relating to the availability and demand of labour force
- Indicator is rising based on current activities and projects around University of Primorska
- It should be replaced with more measurable indicator in next iterations

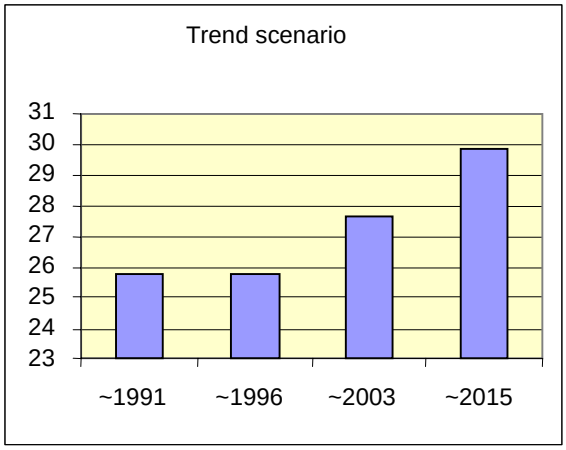


Unit: number

Number of bed places per 100 inhabitants

Number of bed places per 100 inhabitants:
1991: 25,8
1996: 25,8
2003: 27,7
2015: 29,9

- Indicator is raising as there are new investments in unused and old infrastructure
- BoE should be regulated on the basis of carrying capacity assessment at the end of CAMP Slovenia

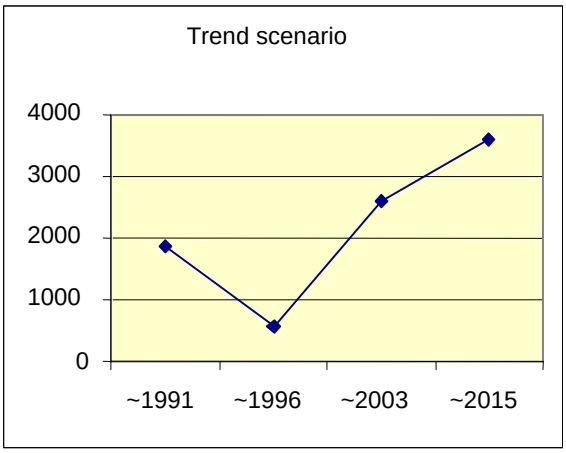


Unit: Number

Number of nights per 100 inhabitants

Number of nights per 100 inhabitants:
1991: 1865
1996: 568
2003: 2603
2015: 3600

- Indicator is raising in past 8 years
- There are many other "outside" events with a strong influence on this indicator
- Changing from just seasonal tourism to the whole year tourism

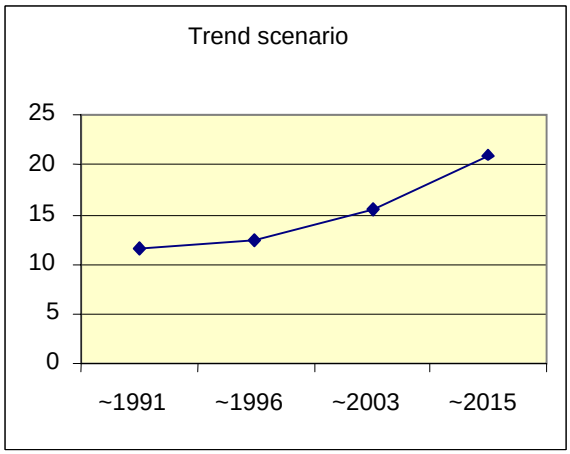


Unit: Number

Educational structure of inhabitants

Percentage of people with high educations:
1991: 11,6%
1996: 12,4%
2003: 15,55%
2015: 21

- It was a problem of fluctuation of high educated population in university center
- Indicator is changing based on new University of Primorska
- Week connection between business and academic work in universities and low response on business needs



Unit: %

3.2. Alternative scenarios of whole region

Participants formed two teams for building two future scenarios for whole region. Both produced scenarios for year 2015 were considered by participants to be very provocative and interesting and were also considered by most participants to be very realistic. Both scenarios turned out to be a good base for future work with scenarios in individual projects within CAMP Slovenia "Regional Conception of Spatial Development of South Primorska"[1] and also in other thematic projects in CAMP Slovenia. When teams were provided with indicators and trend predictions for their value in year 2015 there was several recommendations for different values for the BoE and even for more specific or different indicators.

This, positive and thoughtful outcome was considered to be a good starting point for possible future iterations of the 'Imagine' process on more specific issues inside thematic projects in CAMP Slovenia. Group work on thinking about how potential futures might be in the year 2015, with accompanying AMOEBAs that had been produced, again provided new dimensions and views into the future for all participants.

[1] The objective of Regional Conception of Spatial Development is to integrate important strategies and programmes adopted at the national and regional levels. Particular attention is given to spatial arrangement of the coastal strip, management of protected areas and protection of water resources. Modern spatial planning methodologies and tools will be introduced within the project, such as strategic environmental impact assessment, scenario planning and tourism carrying capacity assessment. Due emphasis is given also to public participation and promotion of the project and to the principles of sustainable spatial development to the public at large.

3.2.1 "Promising land" scenario

Table 6 : Promising land scenario indicators

N°	Indicator	BoE		Domain	Unit	Timeline			Scenario
		Min	Max			~1991	~1996	~2001	~2015
1	Urbanization rate	60	75	Social	%	63,1%	66,3%	71,8%	75%
2	Aging index	35	50	Social	rate	80	112,1	128,2	80
3	Share of active working population	40	70	Social	Share %	43	48	47	60
4	Quality of sea water in public baths % of good microbiological samples	90	100	Env.	%	72	74,4	86,7	97
5	% of connected households to public sewage system (Coast)	75	90	Env.	%	42%	55,2%	70,2%	90
6	% of connected households to public sewage system (Carst)	80	90	Env	%	18	19	24	80
7	Number of bed places per 100 inhabitants	30	35	Tourism	beds / 100	25,8	25,8	27,7	31
8	Number of nights per 100 inhabitants	3000	4000	Tourism	nights / 100	1865	568	2603	3500
9	Rate of coastline with regulative approach	30	50	Tourism	% of land	28	35	45,2	50
10	Number of arrivals and nights of tourists per 100 inhabitants	250	500	Tourism	nights/100	241,37	210,33	211,88	400
11	Employment structure	2	3	Economy	Number	1	1	1	3
12	Investment in management of nature protected areas on coast	50	100	Economy	MIO SIT	18	23	50	100
13	Business - Net profit / loss per employee	300	600	Economy	In SIT '000	-329	-289	286	500

This scenario is based on several important facts and predictions:

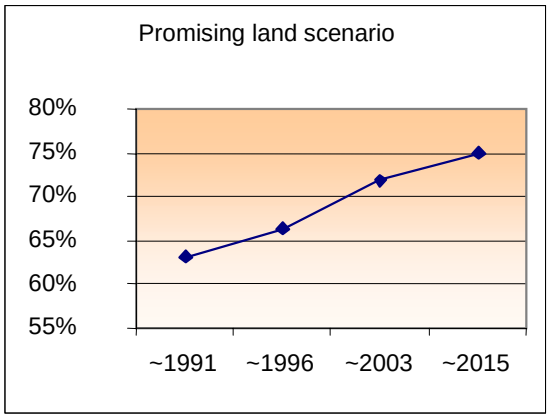
- tourist infrastructure is adjusted to the natural and cultural heritage of region – improving and stimulating B&B (Bed & Breakfast), Hostels, etc.;
- hotel offer is not merely an offer of a room and the sea, but many activities (rowing, walking, cycling, agro tourism, wine tasting, eco farms…);
- revival of the old village centres for different activities, also for a stay;
- promotion of connection between the university and local economy;
- the economy and local population live in coexistence with the primary economic activity – tourism;
- University of Primorska is one of the most important pillars for development of the whole region (building knowledge based society, preventing brain drain, reversing bad aging index indicator,…);
- proper organisation of public utility infrastructure, which does follow the needs of development;
- tourist connection and harmonizing of the coast and Carst – unified tourist destination;
- preservation and restoration of natural heritage, mostly old village centres;
- establishment of recreation environment for tourists;
- important part of local economy is based on sustainable tourism and organic agricultural production of local agricultural products.

'Promised land'[2] scenario indicators

Urbanization rate

% of urbanization:
1991: 63,10%
1996: 66,30%
2003: 71,80%
2015: 75%

- New municipal urban plans could stop unfavourable trend of strong urbanization
- Revival of the old village centers in the hinterland

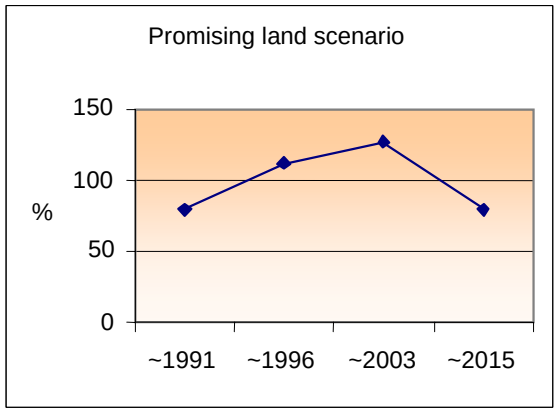


Unit: %

Aging index

Share of population between up to 14 years old / population older than 65 years:
1991: 80
1996: 112,1
2003: 128,2
2015: 80

- Because University of Primorska and available place for work more young people from other parts of country and abroad will come and stay in region

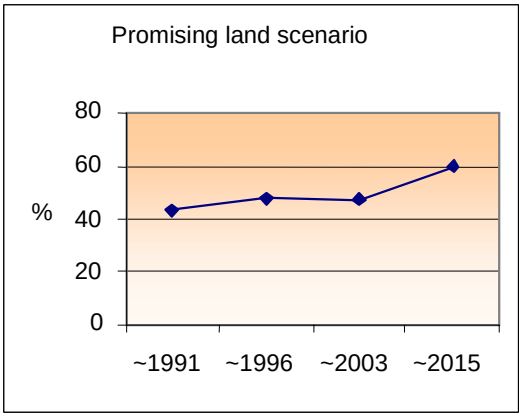


Unit: %

Share of active working population

Share working/all population:
1991: 43%
1996: 48%
2003: 47%
2015: 60%

- Improvement of local economy with a sustainable tourism and organic agriculture
- Strong demand for new labour force in future

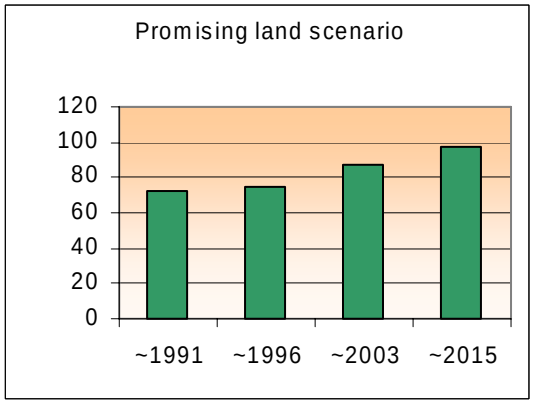


Unit: %

Quality of sea water in public baths

% of good microbiological samples:
1991: 72%
1996: 74,4%
2003: 86,7%
2015: 97%

- There will be new purifying system for whole region – no more uncontrolled exthausts in the sea



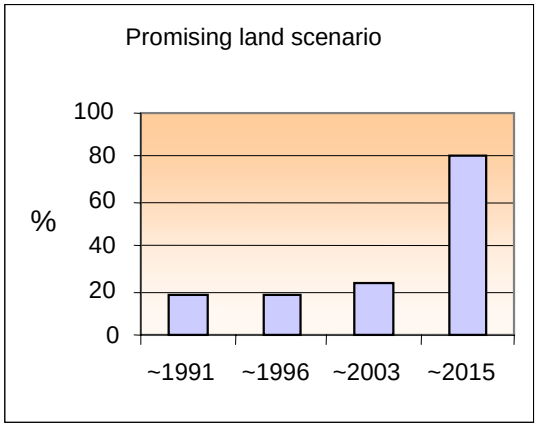
Unit: %

[2] This was the catchy title chosen for the scenario

Connected households to public sewage system (Carst)

Percentage of households connected to public sewage system:
1991: 18%
1996: 19%
2003: 24%
2015: 80%

- Strong need to put more efforts for building proper infrastructure
- Support for building smaller individual or group purifying systems

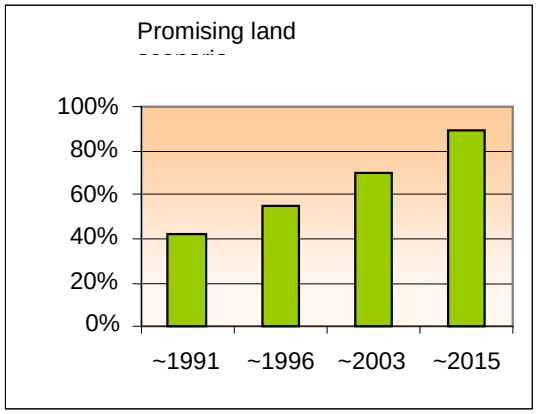


Unit: %

Connected households to public sewage system(Coast)

Percentage of connected households to public sewage system:
1991: 42%
1996: 55,20%
2003: 70,2%
2015: 90%

- Current trend is going towards sustainable values for Coast part of region
- There will be large regional purifying center until 2015 for all coastal part of region

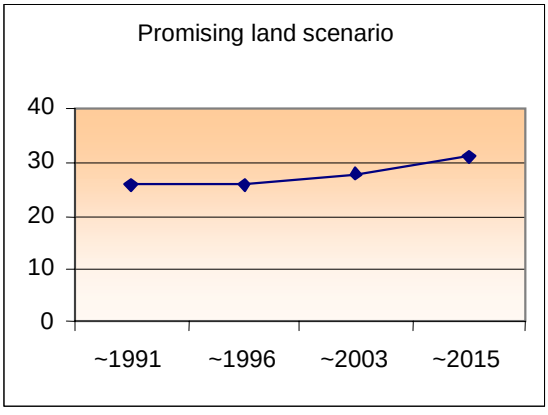


Unit: %

Bed places per 100 inhabitants

Bed places per 100 inhabitants:
1991: 25,8
1996: 25,8
2003: 27,7
2015: 31

- Revival of the old village centers also for tourism and common activities
- Quicker adoption of the new trends and demands

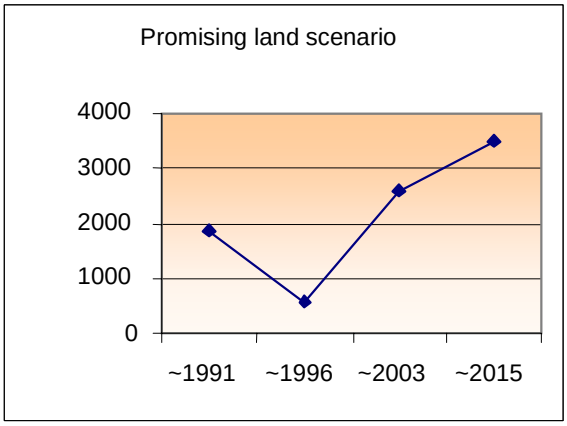


Unit: number

Nights per 100 inhabitants

Nights per 100 inhabitants:
1991: 1865
1996: 568
2003: 2603
2015: 3500

- Revival of the old village centers also for staying over night and common activities
- New investments and changing seasonal tourism in all-year tourism

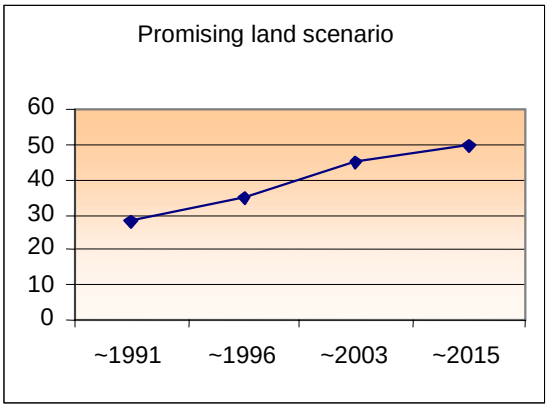


Unit: number

Coastline with regulative approach

% of coastal land:
1991: 28%
1996: 35%
2003: 45,2%
2015: 50%

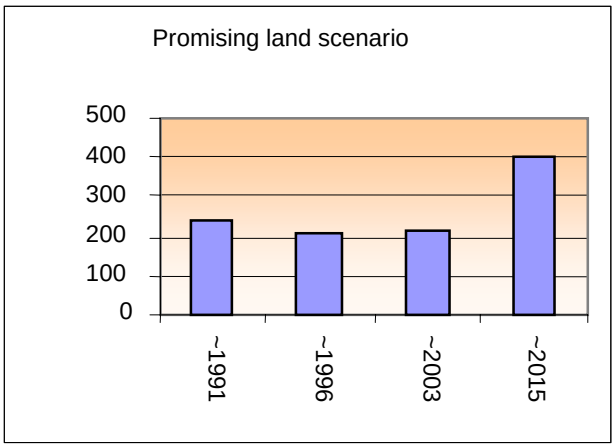
- New municipal urban plans will improve regulative approach to coastline



Unit: %

Arrivals and nights of tourists/100 inhabitants

Arrivals and nights / 100 inhabitants:
1991: 241,37
1996: 210,33
2003: 211,88
2015: 400

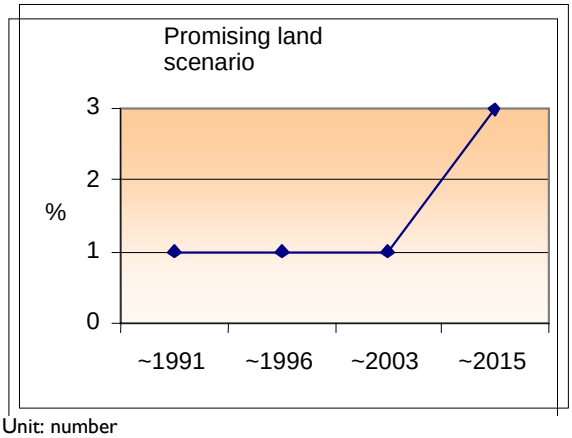


Unit: number

Employment structure

Qualitative measure of structure:
1991: 1
1996: 1
2003: 1
2015: 3

- Employment structure will change because of promotion of connection between the university and local economy

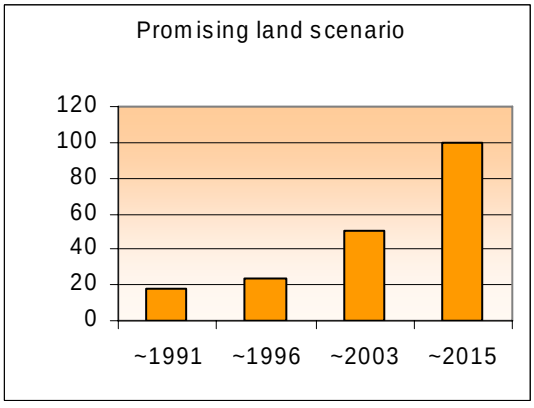


Unit: number

Investment in management of nature protected areas

In MIO SIT:
1991: 18
1996: 23
2003: 50
2015: 100

- Better management of protected areas
- Stronger involvement in economic and tourist way
- Privatization of management part and stronger connection to local community



Unit: MIO SIT

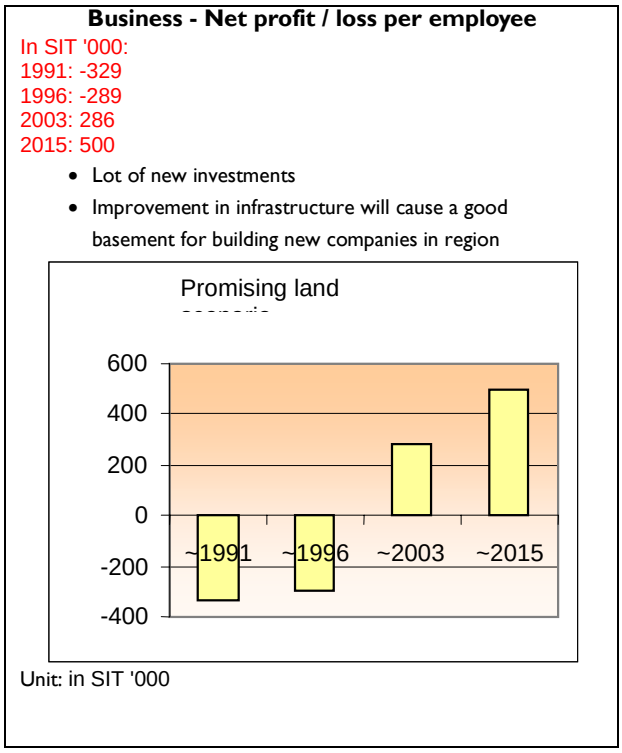
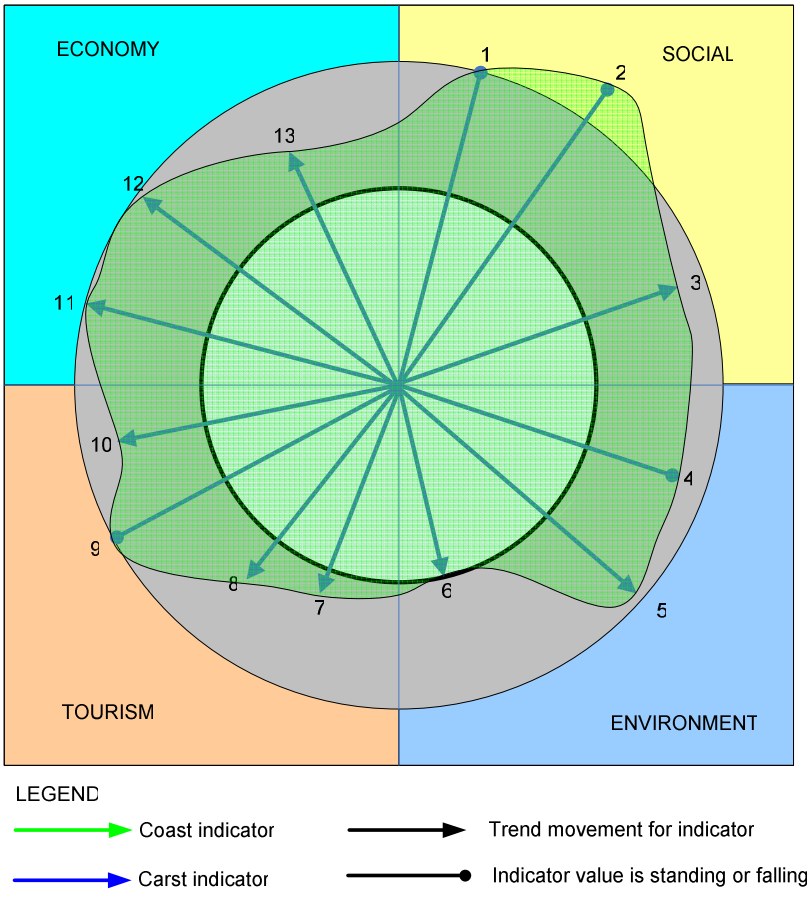


Figure 14: AMOEBA graph – 'Promising Land' 2015



Grey belt indicates outerlimits of the Band of Equilibrium – BoE

This scenario indicates very sustainable indicators for the year 2015 although it can be assumed that there will remain problems with indicator for aging index. The demographic reasons for the unsustainable trend of this indicator are powerful and will prove very hard to reverse in 10 years. There could also be problems with some of the indicators in the environmental domain - shown by their trend to go outside BoE values

3.2.2 "Quality in the 1/1000 of Mediterranean" scenario

N°	Indicator	BoE		Domain	Unit	Timeline			Scenario
		Min	Max			~1991	~1996	~2001	~2015
1	Share of active working populaton	40	70	Social	Share %	43	48	47	60
2	Urbanization rate	60	75	Social	%	63,1%	66,3%	71,8%	75%
3	Aging index	35	50	Social	rate	80	112,1	128,2	80
4	% of connected households to public sewage system	80	90	Env	%	18	19	24	80
5	Number of arrivals and nights of tourists per 100 inhabitants	250	350	Tourism	nights/100	241,37	210,33	211,88	300
6	Quality of drinking water, % of unsuitable samples	0	2	Env.	%	2%	2,1%	1,1%	0
7	Number of bed places per 100 inhabitants	30	35	Tourism	beds / 100	25,8	25,8	27,7	31
8	Rate of coastline with regulative approach	30	50	Tourism	% of land	28	35	45,2	50
9	Employment structure	2	3	Economy	Number	1	1	1	2
10	Business - Net profit / loss per employee	300	600	Economy	In SIT '000	-329	-289	286	350

This scenario is based on following presumptions and facts for year 2015:

- Tourist infrastructure is adjusted to the natural and cultural heritage of Carst and Brkini;
- Primorska University is internationally known and is the progressive force of the region, it uses the capacities of the coast and Carst as well as of the hinterland;
- The coast and the Carst area are known in the world as a tourist destination for active spending of holidays;
- Preservation and restoration of natural heritage, mostly old village centres, most cultural heritage monuments and old villages are restored and in the function of sustainable tourism;
- sustainable exploitation of cultural and natural treasures of the region: protected Sečovlje Saltpan, Snežnik Regional Park, Lipica with its world-wide known horse breed Lipicanec and Škocjanske jame (Unesco protected caves);
- establishment of recreation environment for tourists;
- local economy is based on sustainable tourism and organic agricultural production of local agricultural products, Carst is known in the EU as the area that cultivates only organically produced foods;
- establishment of infrastructure for the support of skydiving and gliding;
- revival of the sea passenger line, the centre of gravity of public transportation is partially redirected to the sea and also with the neighbouring countries, traffic is organised according to the demands of the local population and the primary economic activity;
- promotion of tourism with big passenger ships and appropriate tourism offer for all kinds of tourism, connection with Carst and hinterland;
- preservation and improvement of biological state of the sea;

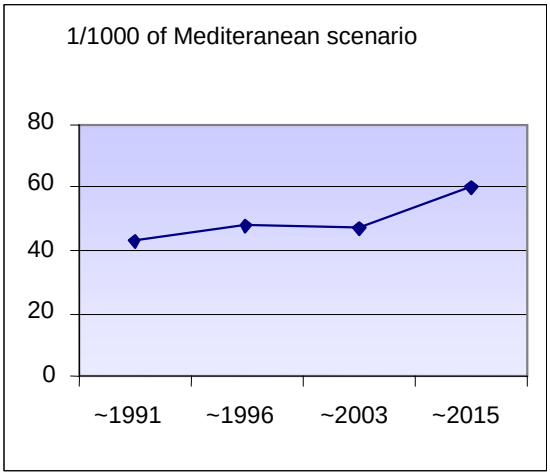
- Carst-Brkini area is because of its pleasant climatic conditions a known destination for treatment of lung diseases;
- village centres of the hinterland are intended for tourism and for the stay of local population;
- restructuring of ecologically problematic economic activities in tourism.

Quality in the 1/1000 of Mediterranean scenario indicators

Share of active working population

Share of active working population in %:
1991: 43
1996: 48
2003: 47
2015: 60

- University and new companies in region will have stron influence on active working population indicator

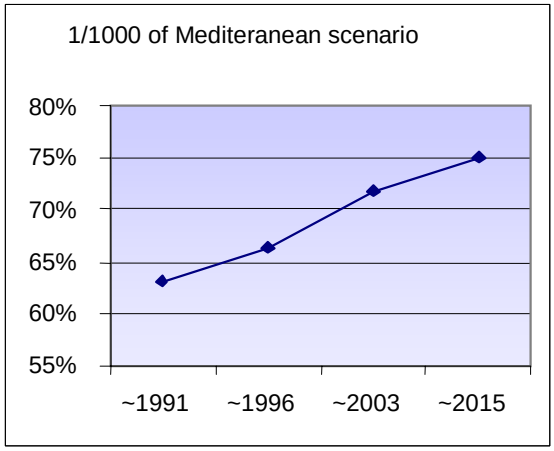


Unit: %

Urbanization rate

Percentage of urbanization:
1991: 63,1%
1996: 66,3%
2003: 71,8%
2015: 75%

- New municipal urban plans will improve management of the available urban land

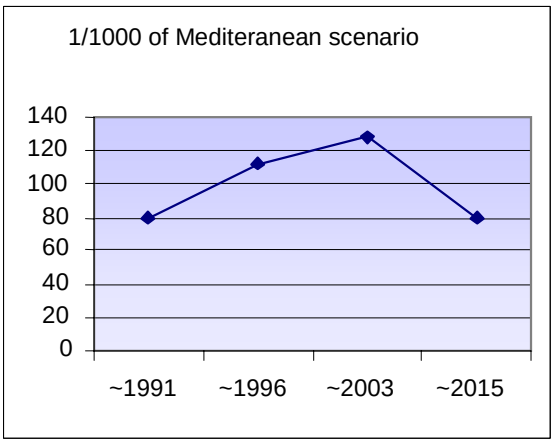


Unit: %

Aging index

Share of population between up to 14 years old / population older than 65 years:
1991: 80
1996: 112,1
2003: 128,2
2015: 80

- Building new activities for eldery people
- To take thi as a fact and to involve eldery people in wide range of different activities
- Good economic situation in region should accelerate immigration

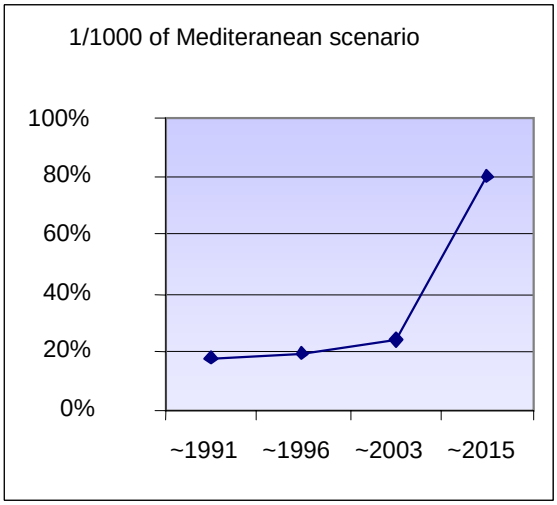


Unit: Index

Connected households to public sewage system (Carst)

Percentage of households connected to public sewage system:
1991: 18%
1996: 19%
2003: 24%
2015: 80%

- Carst part is problematic because of expensive building
- To support building smaller purifying systems

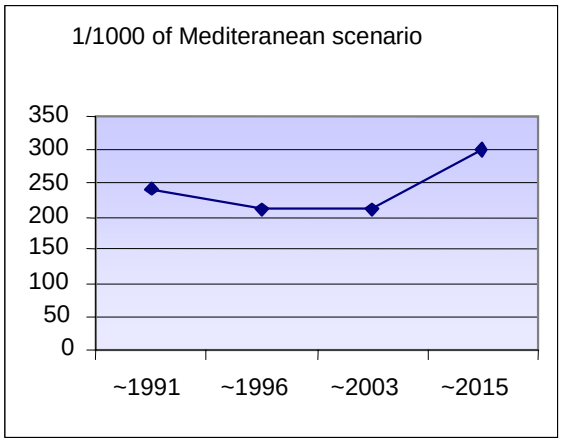


Unit: %

Arrivals and nights of tourists per 100 inhabitants

Number of nights per 100 inhabitants:
1991: 241,37
1996: 210,33
2003: 211,88
2015: 300

- Tourism with big passenger ships
- Connection between coast and Carst part with different tourist products

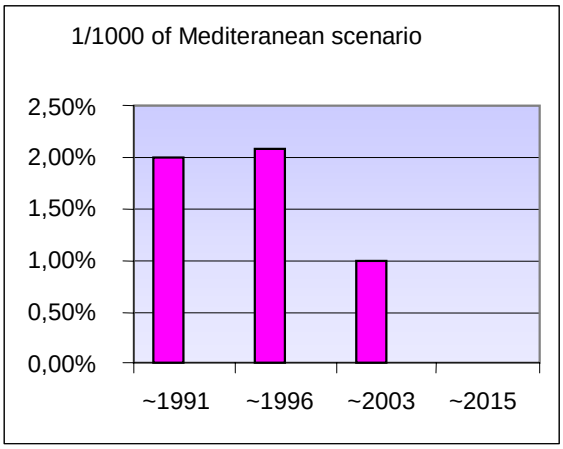


Unit: number

Quality of drinking water

Percentage of bad samples:
1991:2%
1996: 2,1%
2003: 1,1%
2015: 0%

- Problem with future demand for drinking water with more inhabitants and tourist
- Quality of water is improving during past years

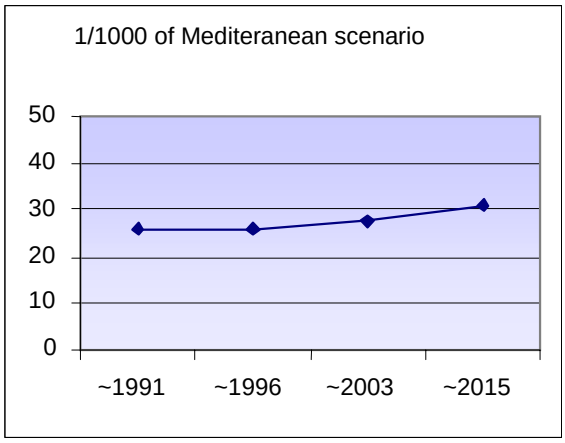


Unit: %

Bed places per 100 inhabitants

Number of beds per 100 inhabitants:
1991: 25,8
1996: 25,8
2003: 27,7
2015: 31

- New investments in turistic infrastructure
- Revitalization of the old village centers for touristic purposes

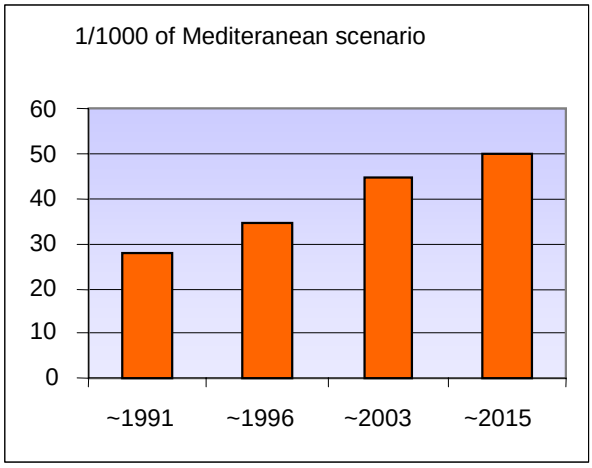


Unit: number

Rate of coastline with regulative approach

Percentage of coastal loje with regulative approach:
1991: 28%
1996: 35%
2003: 45,2%
2015: 50%

- New municipal urban plans will regulate approach to coastline
- Moving coastal road will in the hinterland will free about 8% of the currently possessed coastline

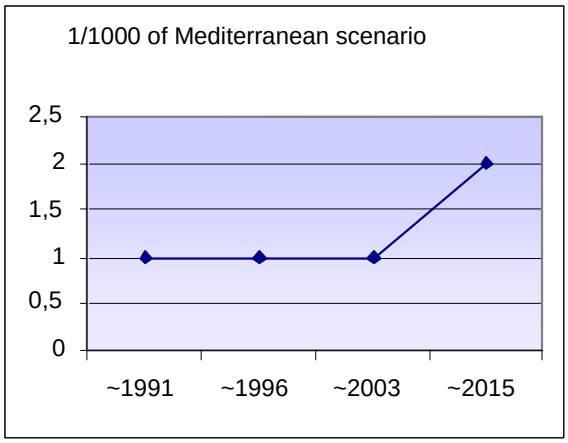


Unit: %

Employment structure

Qualitative measure of employment structure:
1991: 1
1996: 1
2003: 1
2015: 2

- University of Primorska in a leading force in the range of the employment structure improvement
- Strong demand for new labour force in region

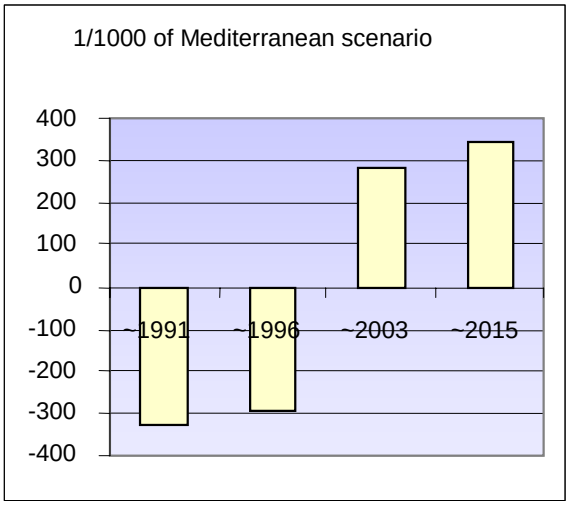


Unit: number

Business - Net profit / loss per employee

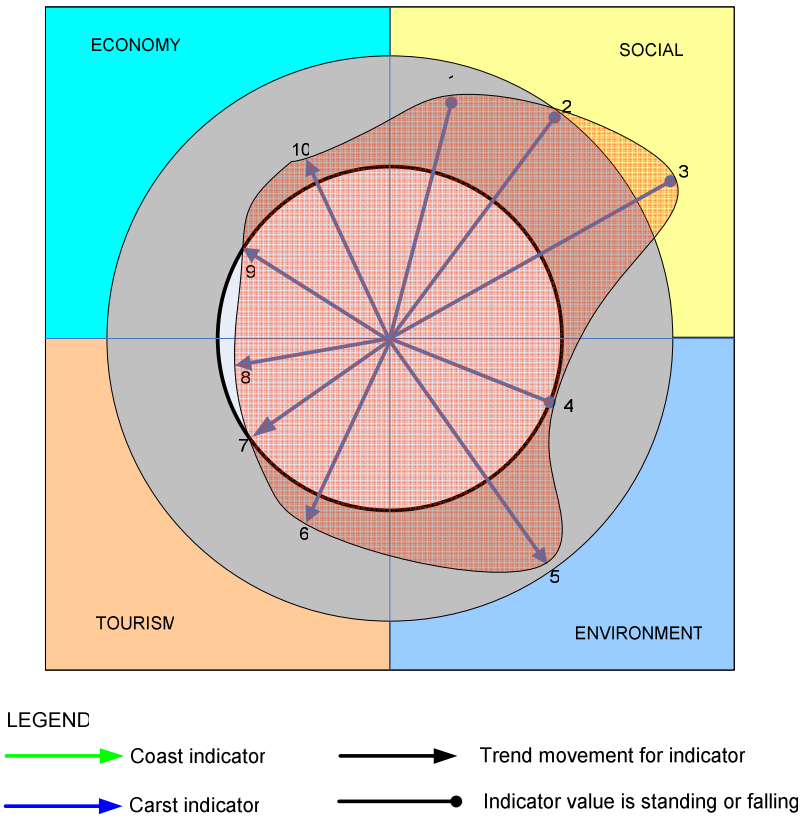
Net profit/loss per employee in SIT '000:
1991: -329
1996: -289
2003: 286
2015: 350

- local economy is based on sustainable tourism and organic agricultural production
- Strong support from local authorities for establishing new companies in region



Unit: in SIT '000

Figure 15 : AMOEBA graph – Quality in the 1/1000 of Mediterranean scenario 2015



Grey belt indicates outerlimits of the Band of Equilibrium – BoE

This scenario is very similar to the first one. Scenario shows same problem with aging index and is more conservative with predictions in economy and tourism domain indicators.

4. Strategic action plan

Together with the definition of both meta-scenarios, the participants determined a strategic action plan for reaching the desired indicator values. The plan is, on one hand, based on good knowledge of the current issues of space and the knowledge of measures that are already being realized. The fact is that even as it stands based on the current trends, a considerable number of the measures already adopted and their realization reflected positively, which is an incentive for work on the other problematic areas as well.

A characteristic of the *Imagine* project within CAMP Slovenia is also the interweaving with certain individual projects. This includes individual projects from the field of regional spatial development, the coastline development strategy, the regional tourist strategy, the methodology of managing the protected natural areas and the regional environment and water sources protection program, which in their fundamentals contain also a strategic action plan for implementation. The *Imagine* project concluded when most of the other individual projects within CAMP Slovenia were only halfway through implementation and were not actively concerned with the strategic action plan.

The preparation of the strategic action plan within the *Imagine* project was not intended to be an independent final product but the basis for producing related action plans within the other individual projects within CAMP Slovenia. It has entirely fulfilled the mission of a horizontal project, connecting the results of all the other individual projects.

When defining the strategic action plan and determining the priorities, the participants dealt with the region as a whole and with all the problem fields. They referred to the results of the first workshop, where they picturesquely with the help of "rich pictures" and in great detail presented the issue of the sustainable development of the region, defined the selection of the indicators with actual data from recent years, defined bands of equilibrium for the individual indicators and on the development scenario, based on trends.

So rather than building separate action plan participants dealt with the marketing plan and how to spread knowledge and results through other individual projects inside CAMP Slovenia and strategic action plans inside individual projects.

Primorska region is also in the process of the preparation of the new Regional Development Programme 2007-2013. The Regional Development Programme totally and equally comprises all fields of activity that characterize the level of development in the area: economy, human resources, environment and spatial planning and infrastructure. All this defines the quality of life as the highest value of each society. The authors of the Programme were guided by high international standards as they prevent the often misleading high averages from hiding big internal discrepancies and tension arising from them. It is planned that by conscious and organized action the abolishment or reduction of them to acceptable levels will be achieved. This way the discrepancies, which can never be avoided, will additionally stimulate activities of institutions and individuals at planning and implementing development tasks. **All participants agreed, that gained knowledge and the *Imagine* methodology itself is an ideal tool for building new Regional Development Programme 2007-2013.** This is great opportunity for the next iteration of the *Imagine* methodology.

Brainstorming activities as the final activity of the fifth and final workshop provided a good debate among participants about future developments and possibilities of the '*Imagine*' process and opportunity to produce detailed short term action plan. Produced short term activity plan will be very helpful for performing necessary future activities and incorporation with all relative activities in other thematic projects in CAMP Slovenia.

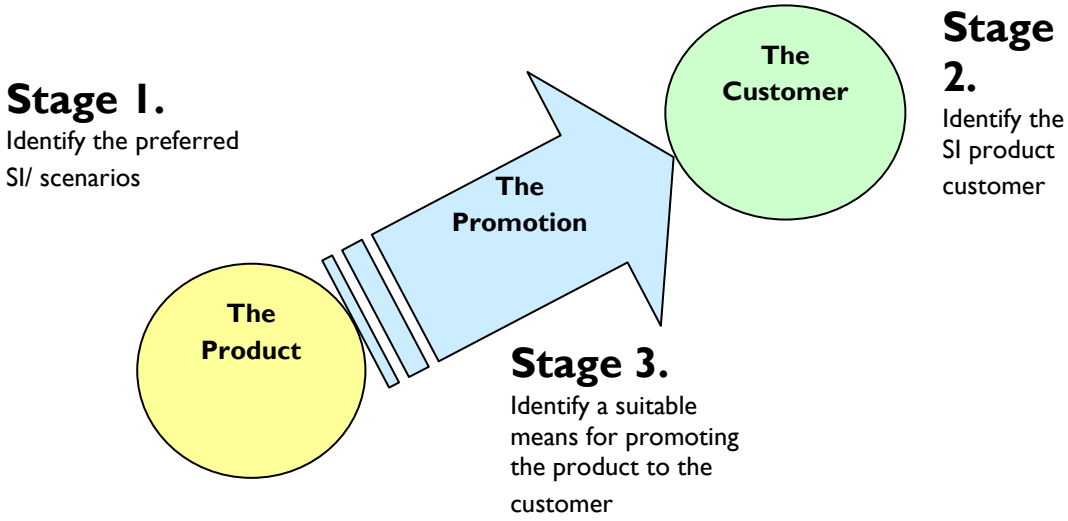
Table 7 : Short term action plan matrix

Activities	Who?	When
Presentation to the Mayors	Slavko Mezek, Igor Maher, other thematic CAMP Slovenia projects contractors	4th July 2005 (CAMP Slovenia Steering Committee Meeting)
Spreading information to public	Regional Development Center Koper (through project for participation in CAMP)	After 4th July 2005
Incorporation of the 'Imagine' results into other thematic projects	Contract partners in CAMP Slovenia CAMP Slovenia Project Management	To the end of CAMP Slovenia
Preparation of the Regional Development Programme 2007-2013	Regional Development Agency with other professionals	Beginning of 2006

5. Marketing plan

The production of a marketing plan was a unique experience for the participants of the final workshop. The first reason for this is the fact that until then we had never thought about the fact that the strategic plan, scenarios, indicators and bands of equilibrium are actually products, which have their end user – "the buyer". From an economic viewpoint, it is true that if there is no buyer for a certain product, then this product is doomed from the start. The case with the results of the *Imagine* project is very similar. Another reason lies in the basic education of the experts in the field of environment protection, planning, spatial planning and management, the protection of cultural heritage and municipal management, who are often not connected to the field of economy, which is why they had not acquired any knowledge from the field of marketing. Considering that, the use of marketing skills and gaining basic economic knowledge from that field was very useful for the participants of the last workshop and opened numerous new views on the issues discussed.

Figure 16 : Selling the message



The first task for participants were to generate definitions of the main products in the 'Imagine' process, definition of the customers and identification of the suitable means for promoting defined scenarios, SIs, amoebas and other selected products of the 'Imagine' process.

Two mixed teams brainstormed again the results from previous workshops to set out the main messages for customers. For selected messages they set out the support, what kind of data, SIs, graphs, pictures or with other tools those messages should be supported and what are the priorities for messages and present it in the matrix.

Table 8 : Information products table – first team

Messages		Support Data	Priority
1.	Quality in 1/1000 of the Mediterranean	- Rich pictures	2.
2.	Preservation of healthy environment	- Environmental indicators - Number of investments	1.
3.	Attracting potential investors for sustainable development goals	- Scenarios - AMOEBAs - Rich pictures	5.
4.	Connecting Brkini, Coast & Carst (Brand name BOK from Slovene language, also acronym for Better Environment and Quality)	- All statistical data for Sis	3.
5.	To preserve and sustain our own identity (cultural landscape & heritage, traditional products and services, multiethnic,…)	- Environmental indicators - Rich pictures - Investments in the nature protected areas	6.
6.	University of Primorska – the Mega Market of knowledge (demand, exchange & offer of knowledge, meeting point between business, local population, government and professionals)	- Scenarios - AMOEBAs - Rich pictures	4.
7.	Infrastructure is not just roads to connect people and places and their needs (traffic, energy management, drinking water supply, information,…)	- Presenting the negative scenario: we do not want that	7.
8.	Tourism are people and environment (natives, local business, natural & cultural landscape)	- SIs, AMOEBAs	10.
9.	Agreement about the boundaries in such a way, that our possibilities will be unlimited	- Rich pictures - Mission statement - Spatial order of Slovenia	8.
10.	Sea – Cradle of Life and/or Salt Polygon	- SIs - AMOEBAs	9.

Table 9 : Information products table – second team

Messages		Support Data	Priority
I.	Preservation of primary life sources	- Quality of drinking water - Quality of bath water - Level of urbanization	1.
II.	To balance the aging structure	- Aging index - GDP per population - Educational structure	7.
III.	To make possible gaining new knowledge and use of knowledge at home	- Number of educational and research institutions and development organizations - Number of new companies & entrepreneurs	3.
IV.	Realization of sustainable tourism	- Number of nights per population - Rate of coastline with regulative approach	6.
V.	Raising of personal and social standards	- GDP per population - Educational structure	8.
VI.	Deliberation and planning in the long term	- raising of GDP (positive trend) - acceptation and realization of the strategic documents	2.
VII.	To respect & preserve natural and cultural landscape	- Investments in the nature protected areas	4.

VIII.	To build social capital	- Number of NGOs, voluntary institutions and volunteers	5.

Identification of the customers for selected 'Imagine' products were the next task for both teams. To understand clearly the role of the each customer both teams prepared a table where each customer has also a definition of the possible influence, what we can tell to them (which message from the first table is suitable) and what might each customer do based on a positive response to our message. For that job both teams used all the possible messages from both matrixes produced in first task. At the end all participants developed a common priority list of all messages.

Table 10 : Customers table with connection to messages - first team

Who	Influence	What can we tell[3] (messages)	What might they do
Local population	Influence on activities which affect the physical environment Influence on consumer patterns	8,1,2,5,3,6,9,7	Elections, referendum, public hearings
Tourists	Unsustainable patterns of behaviour Identity	2,6,9,8	They can choose where to go (location)
Politicians	Changing of development decisions Influence on activities which affect the physical environment Obscure financing	8,1,2,5,3,6,9,7	Acceptance of the sustainable development decisions
Government	The speed of administrative procedures Preparation of the executive acts Influence on clarity of laws and administrative procedures	1,7,8	Implementation of the law Implementation of the politics decisions
Bearers of the capital	Influence on execution and priority of the projects Strong short-term influence Pressure and influence on politics	3,6,9,7,8	Respecting the law
Youths and children	Consumer and behaviour patterns	1,5,8	Educating the families through children
NGOs	Supervision on politics and business Wide spreading of information	1,4,8	Supervision of public sphere Permanent warnings about actual problems
Non-resident population	Not included in local society Lack of acceptance of local population and their needs	7	Respecting the law (also local)
Media	Opinion makers Supervision on decisions	1,4,5,8	Permanent warnings about actual problems Promotion of the sustainable patterns of activities
Educational institutions	Consumer and behaviour patterns Independent professional opinions	1,3,4,8,	Education about sustainable patterns of activities Transfer of knowledge into practice
Experts, Professional organizations	Professional solutions Pooling into professional chambers	1,4,3,8	Permanent educations Setting the knowledge standards
Syndicates	Potential influence on active population (health)	1	Care about labourers wealth Care about healthy working environment

[3] Numbers are corresponding to leading numbers for messages at table 10 & 11

Quasi-government organizations	Execution of the projects in public interest Not always clear financing	1,6	Care for healthy environment Respecting the law

Table 11 : Customers table with connection to messages - second team

Who	Influence	What can we tell[4] (messages)	What might they do
Mayors	Realization of the initiatives	2, III., V., 6, 9, VI	To make it possible, to support cooperation
Members of Parliament	Acceptation of the state laws	8, I.,6., VIII.	Acceptation of the Law about sea
City councils	Acceptation of the local laws	II., III., 5., 4., VIII.	Strategic – long term planning
Ministry of Education	Education policy programme	III., 3, 5, IV., VIII	To connect knowledge and practice, inclusion of proper values in education policies
Political parties	To support initiatives	3, VI	To work in City councils
Government	Preparation of laws, execution	8, I. II. V., 6, VII	To assure execution of the strategic plans
NGOs, Local communities	Supervision of the civil service Public opinion creators	2,5,IV,V,9,VI	To attend the work of civil services Execution of the projects
Public	Acceptance of the decisions	8, I.,3 ,5,IV	To participate on public hearings
Bearers of the capital	Execution of the initiatives Lobbying - politics	8, 1,2,4, III, V, 9, VI, VII, VIII	Respect the current law To support sustainable solutions
Tourist organizations management	Forming the strategies	8,1,2,9, VI, VIII	Forming the strategies taking into account regulations – nature protection
Media	Public opinion	3,5, IV, 9, VI	To support sustainable strategic decisions

The next task which was given to the participants was to produce three main and most important transformations we wish to achieve through marketing for years 2010, 2015, 2020 and 2050. Participants then produced a list of three transformations for each year.

Table 12 : Transformations – what do we want to change?

Year 2010	Year 2015
Enforcement of the concept of long term strategy planning	Concept of long term strategy planning is accepted on all levels of society
Collaboration of the population in public affairs	The very beginning of the participative democracy
Enforcement of the principles of sustainable development	Sustainable initiatives and practices
Year 2020	**Year 2050**
Long term strategic planning	Continually long term planning
Restoration of participative society	Participative society

[4] Numbers are corresponding to leading numbers for messages at table 10 & 11

Expansion of sustainable practices	Sustainable development

The next important task for participants was to connect listed customers with desired transformations and to propose what kind of activities and tools could be applied in order to achieve the target transformations. Participants produced a table of desired transformations for years 2005-2010 and 2010-2020. After that participants selected responsible persons in CAMP Slovenia projects for each group of customers for first set of transformations (for years 2005-2010).

Table 13 : How to get the information to the customer and to encourage the transformation to occur

Customer group	2005-2010 transformations		2010-2020 transformations
Mayors Responsible: Igor Maher	Transformation	Enforcement of the principles of sustainable development	
	With what?	Scenarios	Tracking SIs
	How? (tools)	Rich pictures, presentations	Common meeting between mayors
Bearers of the capital Responsible: Slavko Mezek	Transformation	Permanent enrichment of capital invested in projects compatible with Sustainable Development	
	With what?	Permanent informing & advising	Inclusion in the process of the preparation of strategies
	How? (tools)	Printed material, presentations, media	Forums, public presentations
Public Responsible: Slavko Mezek	Transformation	Cooperation on public issues	
	With what?	Permanent informing & advising	Inclusion in the process of the preparation of strategies
	How? (tools)	Raising awareness with printed materials, media, public presentations	Forums, public presentations
Media Responsible: Slavko Mezek	Transformation	Permanent informing about current issues	
	With what?	Printed material, invitations on presentations	Permanent informing (as a habit)
	How? (tools)	Building proper public relations	Monitoring
NGOs Responsible: Slavko Mezek	Transformation	Professional cooperation in public issues	Spreading sustainable practice in society
	With what?	Free access to proper data and information	Intensive communication and involvement in sustainable developments
	How? (tools)	Access to available data	Access to available data
Members of Parliament Responsible: Mitja Bricelj	Transformation	Enforcement of the principles of sustainable development	
	With what?	Through media	Through media
	How? (tools)	Active cooperation in preparation of the Regional Development Programme	Tracking of implementation
Youth	Transformation	Inclusion in public issues	

Responsible: Slavko Mezek	With what?	Permanent informing	Everyday practice
	How? (tools)	Building awareness and involvement	Everyday practice
Government Responsible: Mitja Bricelj	Transformation	Legislation harmonization	
	With what?	Regional Development Program	
	How? (tools)	Through usual procedures	
City Councils Responsible: Slavko Mezek & Igor Maher	Transformation	Enforcement of the principles of sustainable development	
	With what?	Scenarios, SIs, AMOEBAs	Tracking SIs
	How? (tools)	Active cooperation in preparation of the Regional Development Programme	Tracking of the execution of the Regional Development Programme

With a process of building a marketing plan, participants needed to learn the basic rules of marketing and selling the messages to the stakeholders. It is a fact that most *Imagine* participants are professionals dealing with strategies, long term planning, preparation and maintenance of the municipal land use plans, architects, natural scientists and they are mostly not familiar with marketing science and rules. For most participants this task produced a completely new view of the process of how to sell a message and this will have a great value in their future work also outside CAMP Slovenia.

6. Evaluation of results and general conclusions

The roll-out of the *Imagine* project in the case of the CAMP Slovenia was conducted in a more intensive way than in other *Imagine* projects concluded so far, in Algeria, Lebanon and Malta. The running of five two-day workshops – with the process concluded in six months in accordance with set plan and well before the conclusion of other projects in the framework of CAMP Slovenia with expected termination in February 2006 proved to be very challenging to all members of the team.

Because of the rapid pace of implementation of workshops it was very difficult to ensure suitable participation for a wide spectrum of participants. Imbalance in diversity of various groups of representative participants was also reflected in chosen 20 indicators. In spite of that the results made possible the following:

- Evaluation and understanding of momentary condition of sustainability on the basis of chosen indicators and data for past years,
- Ascertaining and identifying some negative trends,
- Performance of realistic scenarios of sustainable development until the year 2015.

Although many doubts were stated by participants about the chosen range of indicators and defined bands of equilibrium, achieved results enabled new and different insights into possible scenarios of further development and at the same time ensured a sound base for reiteration of the whole *Imagine* cycle. With this the *Imagine* project has fulfilled one of the key expectations of the contracted entity, participants and management of the whole CAMP Slovenia project.

Choice of indicators was, from the starting range of more than 75, reduced to 20 indicators the majority of which were not in the first range. An important influence on the choice of indicators had fluctuation of participants of workshops and accessibility of available data.

A good example of the influence of participants' fluctuation was shown in the second workshop because the majority of participants did not attend the first workshop. In contrast to the first workshop, where there was a rather balanced group of participants – from different fields of work, the second workshop's centre of gravity of experts was on the side of non-governmental and environmental organisations and municipalities. Participants on this workshop added quite a few new suggestions for indicators which however on the third workshop, with other participants, changed again. In practice there were about 100 suggestions for indicators and if we compare the range of final 20 indicators, we can ascertain that only three indicators from the first workshop were incorporated in the final range. That is why it is very important that already at the beginning of performing the *Imagine* workshops the core of at least 10 participants is formed, which in the process of workshop performance stick to the thread running through and facilitate passages between individual phases of the method. In the case of CAMP Slovenia there was an idea at the beginning that this core would be formed by representatives of performers of individual projects and municipalities but this unfortunately did not entirely succeed in practice.

Although a great quantity of available data for indicators in projects such as projects in the framework of CAMP Slovenia are mostly welcome, they bring some problems in practise. In spite of the available meta-data descriptions for most of the data for indicator forming, the interpretation of the contents and their usage by different experts differentiated a lot which is particularly shown in final choice of indicators and definition of bands of equilibrium for individual indicators. It appeared that in the end no participant was satisfied with a final choice and defined bands of equilibrium. This is also confirmed by interviews with participants, performed some months after the last workshop, in which the majority of them stated that for a better applicability of the results of the *Imagine* project it is essential to perform further iterations of method on a possibly narrower content area. All however agree that in given circumstances it was chosen the best possible compromise and that the results remain an excellent base for further work.

In defining possible scenarios of development the participants were rather realistic, scenarios were neither too optimistic nor too pessimistic. The reason for that can above all be found in rather high participants'

range of knowledge of the issue of the region. In spite of working in two separate work groups, both scenarios are much alike. In both scenarios we can thus perceive key sustainable problems of this area:

- problematic index of ageing in the region, above all in the Carst region which is in short term difficult to change;
- weak public utility infrastructure in the area of the Carst region which inhibits development;
- an uneven educational structure in the region according to the potentials of the development.

Results of the *Imagine* project are very compatible with the conclusions in existent strategic documents and they enable a different insight into the issue and open a new possibility of permanent monitoring of effective implementation of the strategy of sustainable development with the help of indicators and defined bands of equilibrium.

Similar to other already implemented, related *Imagine* projects, participants of workshops in Slovenia evaluated the participation and joint work of so wide range of experts from different spheres and levels on informal workshops very positively. It was interesting above all, to confront different views on sustainable development and to reach compromises for achieving joint results.

Areas discussed by projects within CAMP Slovenia are very heterogeneous and diverse. This was strongly reflected in the formation of work groups within workshops which were particularly divided to the regions of Carst and the Coast. The difficulty connected with it was collected data for indicators because of their often diametrical opposition for regions of Carst and the Coast. That is why it was even more difficult to determine bands of equilibrium and adjust outer limits of indicator value to the levels valid for the whole region.

Prepared action and marketing plan on the last workshop is an excellent basis for the *Imagine* method to be performed in smaller or greater extent also in the following iteration. It is a new and different form of cooperation than has been on the building of strategy of sustainable development in practice until now. The first opportunity of reiteration of the *Imagine* method will be indicated at preparing of a new strategic programme document Regional Development Programme of South Primorska in 2006 for the next period. Many participants of workshops SPSA - *Imagine* will, as experts, actively cooperate also at elaborating this document. The idea is for the method to be used on the lower contents levels of building the strategy of sustainable development, e.g. in the sphere of tourism, economy, space, social infrastructure and human resources.

Generally the *Imagine* project achieved all expected results. Performed analysis after the end of the project has shown that in some areas we could have been even more successful. We could have been more successful at ensuring more active participation of stakeholders of individual projects and incorporating results of *Imagine* method in their work. Stakeholders did not take advantage of participating on these informal workshops between municipalities, state and general public for examining the success of work within their projects. Practise has shown that the stakeholders behave rather self-sufficiently and they accept different way of work with difficulty. The consequence of this is that results of *Imagine* project could not directly be incorporated in the key project in the framework of CAMP Slovenia – Regional Conception of Spatial Development of South Primorska although both projects closely overlap each other in the area of defining scenarios of development with results and contents. Here is the recommendation for future *Imagine* projects: cooperation of stakeholders and consideration of results of projects in CAMP should also be formally ensured within the contracts for individual projects.

7. List of acronyms

ARSO - Environmental Agency of the Republic of Slovenia

AURE - Agency of the RS for Efficient Use of Energy

BoE – Band of Equilibrium

BP/RAC - Blue Plan / Regional Activity Centre

CAMP – Coastal Area Management Program

DURS - Tax Administration of the RS

EU – European Union

FS – Feasibility Study

GDP – Gross Domestic Product

GZS - Chamber of Economy of Slovenia

KV – "Carst Aqueduct" public water supply company

MAP – Mediterranean Action Plan

MESPE – Ministry of the Environment, Spatial Planning and Energy

MKGP - Ministry of Agriculture, Forestry and Food

MOP - Ministry of the Environment and Spatial Planning

NGO – Non-government organization

OZS – Chamber of craft of Slovenia

PAP/RAC - Priority Actions Programme / Regional Activity Centre

PPC – Pilot Project Carst (strategic document)

RRA – Regional development agency

RRC – Regional Development center Koper

RRP – Regional Development Programme (strategic document)

RVK – "Rizanski Aqueduct Koper" public water supply company

RZPR - Regional Conception of Spatial Development of South Primorska

SD – Sustainable Development

SI – Sustainable indicators

'Imagine' – Systemic & Prospective Sustainability Analysis (SPSA)

SPSA - Systemic & Prospective Sustainability Analysis

SURS – Statistical Office of the RS

ZVRSN - Institution for nature protection – Republic of Slovenia

ZZRS - National employment office of Slovenia

ZZV Koper - Health Protection Institute of the RS

ZZZS - Health Insurance Institute of Slovenia