



Regional Development Agency  
South Primorska



## THE SYSTEMIC AND PROSPECTIVE SUSTAINABILITY ANALYSIS (SPSA) WITHIN CAMP SLOVENIA

Report on the 3<sup>rd</sup> SPSA Workshop, 6<sup>th</sup> – 7<sup>th</sup> April, 2005

Facilitated by Simon Bell, Blue Plan SPSA Consultant

Hosted by Municipality of Sezana  
Reported on by Igor Maher, SPSA Local team Co-ordinator

Koper, June 2005

## Table of contents

1. Introduction.....	1
2. The aims and outcomes of the third workshop .....	1
3. Attendees in the third workshop .....	1
4. Third workshop program.....	1
4.1. Day one .....	1
4.2. Day two .....	2
5. The summary of results from the third workshop .....	3
Appendix 1 – Program of the 3 <sup>rd</sup> SPSA Workshop .....	5
Appendix 2 – List of the participant on 1 <sup>st</sup> SPSA Workshop .....	6
Appendix 3 – Summary report o the individual thematic teams .....	8
1. The report of the 1 <sup>st</sup> work group – Carst team.....	8
2. The report of the 2 <sup>nd</sup> work group for the coastal area .....	16
Appendix 4 – Photographs from the event .....	24
Appendix 5 – List of acronyms.....	27

# 1. Introduction

This report presents the third SPSA workshop and its results. The workshop was carried out on 6<sup>th</sup> and 7<sup>th</sup> April 2005 at the Municipality of Sezana.

The subproject SPSA is a horizontal project, connecting the activities and results of all the previous projects within the framework of CAMP Slovenia. The purpose of the SPSA project, which is a part of the CAMP Slovenia projects, is:

- Identification and agreement on what is the system, the stakeholders and the principal indicators of sustainability in the case of CAMP Slovenia
- The realization of SPSA workshops with the attendance of those who are directly or indirectly involved in the CAMP project. The participants become acquainted with the SPSA method and produce a description and evaluation of the system with its main indicators
- The development of different scenarios using key indicators; the scenarios are intended to serve as a help when identifying possible and desired futures
- Contributions to the final project documentation and proposals for after-project activities.

## 2. The aims and outcomes of the third workshop

The main aims of third workshop were the following:

- to imagine and visualise possible futures, to produce amoeba for the present and the past, to use scenario making based on key indicators
- to introduce the use of a matrix to compare and contrast key indicators and their inter-relationships.

The main outcomes of this workshop were the following:

- 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 for the SD of the project context
- the development of a matrix indicating inter-relationships between indicators.

## 3. Attendees in the third workshop

The list of attendees in the third workshop is listed in Appendix 2 of this report. Invitation was sent to all relevant institutions on regional and state level.

## 4. Third workshop program

### 4.1. Day one

At the beginning of the workshop, the participants were presented with the results of the previous two workshops. After the summary of these earlier activities the SPSA team introduced the finalised list of key indicators that were presented by participants of the second workshop to a wider circle of stakeholders (for more details see the second workshop report on the Plan Bleu website).

Later on, the SPSA team presented the activities which had occurred between the second and the third workshop. This period had been used for gathering databases for selected indicators from the second workshop:

- Indicators for the Carst area
  - Available data for 3 defined indicators out of 10, data for most of the others is available at the local level

- Indicators for the coast
  - Available data for 6 defined indicators out of 10,
- Indicators for the narrow coastal strip or theme projects
  - Available data for 7 defined indicators out of 10.

The participants were later on invited to participate in the discussion about the following questions:

- Do all the gathered indicators cover the required contents width for the Slovenian context (e.g. relevant pressures, states, responses...)?
- Do the gathered indicators reflect the actual demands and needs of CAMP projects?
- Are they suitable for performing the planned scenarios in individual content projects in CAMP Slovenia?

The discussion showed that the participants had many doubts about the gathered indicators. The main reason was the fact that only a few participants of the second workshop who could argue for and defend the gathered indicators took part in the third workshop. And also the representatives of practically every theme project within the framework of CAMP Slovenia participated in this third workshop and had their doubts about the contents and opinions about the indicators derived from the non-specialists who had attended the second workshop. The level of professional knowledge in the contents area of changing the state of the place was very high.

Given that a detailed review was necessary, for the purpose of operational continuity of the SPSA work it was decided to divide the participants into two groups (Carst and Coast) instead of three used previously. Representatives of the two groups have been dealing with the problems arising from the different specifications of the Carst and the Coastal area. The participants were given time to check and update the gathered indicators with their proposals.

The discussion showed that the participants were not only critical of the indicator set developed by the second workshop team but were also critical of the set areas of balance for individual indicators (e.g. band of equilibrium or BoE) and they subsequently changed almost all values that were set by participants of the second workshop.

Later on, the participants were dealing with the design of AMOEBA graphs.

For the indicator set they were asked to design a graph on the basis of gathered databases for the years 2001, 1996 and 1991 (or as near to these dates as possible). Databases for indicators have been maintained in digital form by working groups. The basic idea was that all the participants would draw tables with indicator values and draw AMOEBA graphs by hand beside them. In practice, every working group had an expert on information technology, who did the work on the computer. A problem that arose with this method was that the focus on IT resulted in reduced quality in team work involved and so all the work and responsibility fell upon a few individuals who could work also with the computer.

The results of the day were (despite the time lost with revising the results of the earlier workshops) very interesting. Despite the doubts concerning the indicators and bands of equilibrium a highly professional level of participation was evident, and this established a balance with the outcomes. The participants presented innovative views on existent forms of AMOEBA graphs and updated and professionally justified them in their presentations. Of particular interest was the demonstration of AMOEBA graph for Carst, which showed the relative relations between individual indicators and their trends of movement according to the defined area of balance.

## 4.2. Day two

The second day of the workshop was completely intended for the planning of scenarios. The Workshop organisers had reached a decision not to deal with the indicators in the workshop any more, but to undertake that work within a narrower working group in the interim period before the next, fourth workshop. We had also reached a decision not to use computers with our work, since they stunted team work the previous day. The bases for such decisions were the high professional

level of participants and their deep knowledge of current problems of the discussed area. This, it was thought, would provide the necessary basis for the designing of scenarios.

The participants focused on the planning of scenarios. They first arranged the indicators into individual sets and carried out SWOT analysis. Further, every working group was divided in half. So, two groups were dealing with optimistic scenarios for the coastal area and Carst and two with pessimistic scenarios.

The groups were in the beginning taken 5 years into the future, into the year 2010. With team work they designed positive and negative scenarios and displayed them with the help of drawing 'rich pictures' and presented them to each other. They laid down 5 elements, pressures and problems and they expressed them in picture form. Further on, the groups were dealing with scenarios for the year 2015 with the assumption of further development of positive and negative possible visions. On the basis of the picture drawn they laid down 5 major problems encountered for sustainable development for every scenario.

At the end the groups were again joined into two groups, and with team work they defined positive and negative aspects of further development in their area.

## 5. The summary of results from the third workshop

The third workshop was assessed by those attending as being largely successful. All the set and planned goals were achieved. Participation in the workshop, most specifically on the second day, was above the average, since participants managed to carry out the activities in the interim period between the second and the third workshop that assured active cooperation and participation of representatives of all theme projects within the framework of CAMP Slovenia.

The content of the third workshop was slightly different from the planned one, since the program was adjusted to the circumstances. It was necessary to complete the work concerning indicators, determining the area of balance and drawing AMOEBA graphs and making of the dependence between the indicators matrix. The reasons for such a decision are the following:

- above-average professional level of participants and detailed knowledge of the current state in the discussed environment
- dependence of certain actors from the second workshop, who could professionally defend and argue for the results of the second workshop
- presence of representatives of theme projects within the framework of CAMP Slovenia, who were not taking part in the designing of indicators
- adjusting of indicators with the needs of theme projects.

The produced optimistic and pessimistic scenarios were very interesting and they opened new horizons for many participants. The workshop turned out to provide a good opportunity for cooperation between individual thematic projects in CAMP Slovenia and the promotion of earlier results. Such creative workshops are generally much more effective for coordination and exchange of opinions than formal meetings. There were also representatives of practically every cooperating community present in the workshop and they are among the most important final users of the results of the CAMP Slovenia project. Management of CAMP Slovenia project also expects positive cooperation and promotional impacts between individual thematic projects which is also one of the most important outcomes from the SPSA project.

To carry out the fourth workshop, where we will be dealing with meta-scenario, we need the matrix of indicators with mutual dependence and AMOEBA graphs of the gathered indicators for the previous periods. The narrow working group will in the interim period till the fourth workshop make a matrix and AMOEBA graphs as a basis for further work. The necessary databases are generally available.

All of the results achieved by the SPSA Workshop were demonstrably very interesting for the participants attending. There was very high level of expertise within the group of participants; many of them were already familiar with much of the collected and defined data and databases for defining

the eventual Sustainability Indicators. But prior to the workshop their knowledge was mainly based on a limited set of data in tables, sometimes with calculated trends and indexes. By contrast, the process of forming data in AMOEBA graphs with agreed Bands of Equilibrium (or BoEs) from previous years produced very different views and insights. Group work on thinking about potential future scenarios supported with AMOEBA that had been produced and commonly defined BoEs produced new dimensions and views into the future for all participants. These results also updated current expertise and knowledge on building strategic development regional documents, such as the Regional Development Plan.

For most participants, especially on the side of contractors for the thematic projects under CAMP Slovenia, SPSA workshops are a completely new experience and way of working with stakeholders on project outcomes and results. Until now cooperation between contractors and direct stakeholders were based solely on solving narrow and specific questions for each development project, not taking into account whole picture as the sustainable development of the region. And if such cooperation between contractor and direct stakeholder was in place, there was no involvement of indirect stakeholders, such as NGOs, state level stakeholders or other organizations and individuals.

In the case of SPSA workshops those indirect stakeholders was very important and valuable source of knowledge, often providing different views on issues about what is sustainable. Cooperation and working on this matter in the informal and relaxed SPSA workshops was as valuable as knowing and learning the SPSA process itself.

Most of the participants on the SPSA Workshops are also active on forming strategic development documents at the local and regional levels. Positive experience with the use of SPSA process and new knowledge will have an influence in future activities on forming strategy and strategic sustainable development documents and on transferring this knowledge on other related projects at the regional level and in other parts of Slovenia.

## Appendix 1 – Program of the 3<sup>rd</sup> SPSA Workshop



### *Systemic and Prospective Analysis (SPSA) within CAMP "Slovenia"*



Regionalni razvojni center Koper  
Centro regionale di sviluppo Capodistria  
Župančičeva ul. 18, 6000 Koper  
TEL.: (05) 66 37 580  
FAKS: (05) 66 37 581  
E-POŠTA: INFO@RRC-KP.SI

### 3<sup>rd</sup> Workshop Program Sezana, 6. – 7. April 2005



Wednesday 6 <sup>th</sup> April 2005	
9h00 – 10h30 :	Opening session (30') <ul style="list-style-type: none"> <li>▪ Project contex – what has happened since last workshop</li> <li>▪ Project Implementers introduction</li> </ul> Session 1: <ul style="list-style-type: none"> <li>▪ Presentation: AMOEBA – presenting SIs</li> <li>▪ Round table: questions and responses</li> </ul>
10h30 – 10h45	<i>COFFEE-BREAK</i>
10h45 – 12h30 :	Session 2: <ul style="list-style-type: none"> <li>▪ Preliminary structural Matrix for presentation and coherence</li> </ul>
12h30 – 14h00	<i>LUNCH</i>
14h00 – 15h30 :	Session 3: <ul style="list-style-type: none"> <li>▪ Building ABOEBA and Matrix</li> </ul>
15h30 – 15h45	<i>COFFEE-BREAK</i>
15h45 – 17h30 :	Session 4: <ul style="list-style-type: none"> <li>▪ Introduction to Scenario makong</li> </ul>
Thursday 7 <sup>th</sup> April 2005	
9h00 – 10h30 :	<ul style="list-style-type: none"> <li>▪ Session 5: Scenario making</li> </ul>
10h30 – 10h45	<i>COFFEE-BREAK</i>
10h45 – 12h30 :	<ul style="list-style-type: none"> <li>▪ Session 6: Scenario making</li> </ul>
12h30 – 14h	<i>LUNCH</i>
14h – 15h30 :	<ul style="list-style-type: none"> <li>▪ Session 7: Scenario making</li> </ul>
15h30 – 15h45	<i>COFFEE-BREAK</i>
15h45 – 17h30 :	<ul style="list-style-type: none"> <li>▪ Session 8: Roundup and review</li> </ul>

## Appendix 2 – List of the participant on 1<sup>st</sup> SPSA Workshop

### ATTENDANCE LIST

Name & Surname	Company / Organization	Address	Telephone/e-mail
Nataša Režek Donev	Science & Research Centre of Koper	Garibaldijeva 1, 6000 Koper	05/663-77-06
Bogdan Macarol	Limnos, private company for applicative ecology	Podlimbarskega ulica 31, 1000 Ljubljana	041/736-367 <a href="mailto:bogdan@limnos.si">bogdan@limnos.si</a>
Valter Pikel	Municipality of Koper	Verdijeva 6, 6000 Koper	05/664-63-87
Mitja Logar	DOVES (Foundation for environmental education of Europe in Slovenia) – NGO	Cesta solinarjev 4, 6320 Portorož	<a href="mailto:mitja.logar@siol.net">mitja.logar@siol.net</a>
Srečko Gombač	Turistic business association – Izola	Sončno nabrežje 4, 6310 Izola	041/613-299 <a href="mailto:srecko.gombac@volja.net">srecko.gombac@volja.net</a>
Gregor Čok	University of Ljubljana, Faculty of architecture	Zoisova ulica 12, 1000 Ljubljana	040/371-725 <a href="mailto:gregor.cok@arh.uni-lj.si">gregor.cok@arh.uni-lj.si</a>
Jana Gojanovič Purger	Department for Urban Planning Municipality of Izola	Postojnska 3, 6310 Izola	041/476-042 <a href="mailto:jana.purger@izola.si">jana.purger@izola.si</a> <a href="mailto:jana.purger@volja.net">jana.purger@volja.net</a>
Mark Špacapan	Municipality of Piran, Department for Urban Planning	Tartinijev trg 26330 Piran	05/671-03-39 <a href="mailto:mark.spacapan@piran.si">mark.spacapan@piran.si</a>
Nevenka Tomšič	Municipality of Ilirska Bistrica Department for Urban Planning		05/71-41-361 <a href="mailto:nevenka.tomsic@ilirska-bistrica.si">nevenka.tomsic@ilirska-bistrica.si</a>
Nataša Macarol	Municipality of Divaca Consultant	Kolodvorska ulica 3A Divaja	05/731-09-37 <a href="mailto:natasa.macarol@divaca.si">natasa.macarol@divaca.si</a>
Slavko Škulj	Municipality of Sežana Department for Urban Planning	Partizanska 4, 6210 Sežana	<a href="mailto:urbanizem.skulj@sezana.si">urbanizem.skulj@sezana.si</a>
Manca Plazar - Mlakar	Studio Mediterana, architecture company, CAMP narrow coast project contractor	Pittonijeva 9, 6320 Izola	<a href="mailto:studio.mediterana@siol.net">studio.mediterana@siol.net</a>
Slavko Mezek	Coordinator CAMP Slovenija	Župančičeva 18, 6000 Koper	<a href="mailto:slavko.mezek@rrc-kp.si">slavko.mezek@rrc-kp.si</a>
Igor Maher	Coordinator SPSA CAMP Slovenija	Župančičeva 18, 6000 Koper	<a href="mailto:igor.maher@regic.net">igor.maher@regic.net</a> <a href="mailto:igor.maher@koper.si">igor.maher@koper.si</a>
Kristina Falatov	Regional Development Center Koper – RRC Koper	Župančičeva 18, 6000 Koper	05/66-37-582 <a href="mailto:kristina.falatov@rrc-kp.si">kristina.falatov@rrc-kp.si</a>
Nada Kozina	Local community Portorož	Belokriška cesta 66, 6320 Portorož	031/679-901 <a href="mailto:nkozina@email.si">nkozina@email.si</a>
Primož Banovec	Institute for water management (CAMP project contractor)	Hajdrihova 28A 1000 Ljubljana	<a href="mailto:info@i-vode.si">info@i-vode.si</a>
Andrej Sovinc	Soline pridelava soli d.o.o CAMP project contractor)	Seča 115 Portoož	<a href="mailto:andrej.sovinc@soline.si">andrej.sovinc@soline.si</a>

Peter Gabrijelčič	University of Ljubljana, Faculty of architecture Dean	Zoisova ulica 12, 1000 Ljubljana	<a href="mailto:peter.gabrijelcic@arh.uni-lj.si">peter.gabrijelcic@arh.uni-lj.si</a>
Leon Gosar	University of Ljubljana, Faculty of Civil and Geodetic Engineering	Zoisova ulica 12, 1000 Ljubljana	<a href="mailto:Leon.gosar@siol.net">Leon.gosar@siol.net</a> <a href="mailto:Leon.gosar@fgg.uni-lj.si">Leon.gosar@fgg.uni-lj.si</a>
Urška Kušar	Environmental Agency of the Republic of Slovenia (ARSO) - EU reporting office	Vojkova cesta 1B, 1000 Ljubljana	<a href="mailto:urska.kusar@gov.si">urska.kusar@gov.si</a>
Dr. Marjan Vezjak	Ministry of the Environment & Spatial Planning, Office for International Relations and European Affairs	Dunajska cesta 48, 1000 Ljubljana	<a href="mailto:marjan.vezjak@gov.si">marjan.vezjak@gov.si</a>
Žumer Jože	Divers association Koper Section for scientific research	Ulica II. Prekom.brigade 36G	<a href="mailto:joze.zumer@guest.arnes.si">joze.zumer@guest.arnes.si</a>
Urša Šolc	OIKOS d.o.o. (Private company)	Jarška c. 30, 1230 Domžale	01/722-64-00 <a href="mailto:ursa.solc@oikos.si">ursa.solc@oikos.si</a>
Sandra Rakovec	Hosting d.o.o. (private company)	Miklošičeva 5 2250 Ptuj	<a href="mailto:Sandra.rokavec@hosting.si">Sandra.rokavec@hosting.si</a>
Ivan Barba	Municipality of Ilirska Bistrica Urban planning	Bazoviška ulica 14 6250 Il. Bistrica	05/714-13-61 <a href="mailto:ivan.barba@ilirska-bistrica.si">ivan.barba@ilirska-bistrica.si</a>
Meta Muršec	Ministry of the Environment & Spatial Planning, Responsible for regional conception plan	Dunajska 21, 1000 Ljubljana	01/478-70-29 <a href="mailto:meta.mursec@gov.si">meta.mursec@gov.si</a>
Igor Jurinčič	University of Primorska Turistica – College of Tourism of Portorož	Zg. Škofije 105A 6281 Škofije	031/569-078 <a href="mailto:igor.jurincic@guest.arnes.si">igor.jurincic@guest.arnes.si</a>
Alenka Šlibar	Institute for water management (CAMP project contractor)	Hajdrihova 28A 1000 Ljubljana	<a href="mailto:info@i-vode.si">info@i-vode.si</a>
Irena Selak	Acer Novo Mesto d.o.o.	Šentjernejska c. 43 8000 Novo Mesto	<a href="mailto:Irena.selak@acer.si">Irena.selak@acer.si</a>
Elizabeth Coudert	Plan Bleu / Blue Plan	15 rue Beethoven Sophia-Antipolis 06560 Valbonne - F	00-33-492387130 <a href="mailto:ecoudert@planbleu.org">ecoudert@planbleu.org</a>
Simon Bell	Blue Plan Consultant	Green Lane, Wicklewood, Norfolk, NR18 9ET, UK	0044 (0)1953 604544 <a href="mailto:s.g.bell@open.ac.uk">s.g.bell@open.ac.uk</a>

## Appendix 3 – Summary report o the individual thematic teams

### 1. The report of the 1<sup>st</sup> work group – Carst team

Table 1. Carst area indicators

#	Indicator	BoE		Domain Type	Unit of measurement	Timeline (When)			Institutions in charge of measuring (Who)
		Min.	Max			~1991	~1996	~2002	
1	Public waste removal	12	20	Env	Kg per population	21,07	52,18	25,31	ARSO, SURS
2	% of connected households to public sewage system	80	90	Env	%	18	19	24	ARSO, SURS
3	Share of active working populaton	40	70	Social	Share %	43	48	47	SURS
4	Daily migration / # of active working force	1500	2500	Social	Rate	2100	3400	5000	SURS (to verify sources)
5	Aging index	35	50	Social	rate	80	112,1	128,2	SURS
6	Educational structure of inhabitants % of high education	20	30	Social	%	11,5	16,7	10,31	SURS
7	# of arrivals and nights of tourists per 100 inhabitants	250	350	Tourism	# nights/100	241,37	210,33	211,88	SURS
8	# of beds per 100 inhabitants	5	8	Tourism	# beds/100	2,27	1,94	3,11	SURS
9	Gross income tax base per capita	105	130	Economy	Index (Slovenia=100)	103.8	107.2	104,2	SURS (to verify 1991)
10	Business - Net profit / loss per employee	300	600	Economy	In SIT '000	-329	-289	286	SURS (to verify 1991)

Picture 1. AMOEBA graphs for Carst area

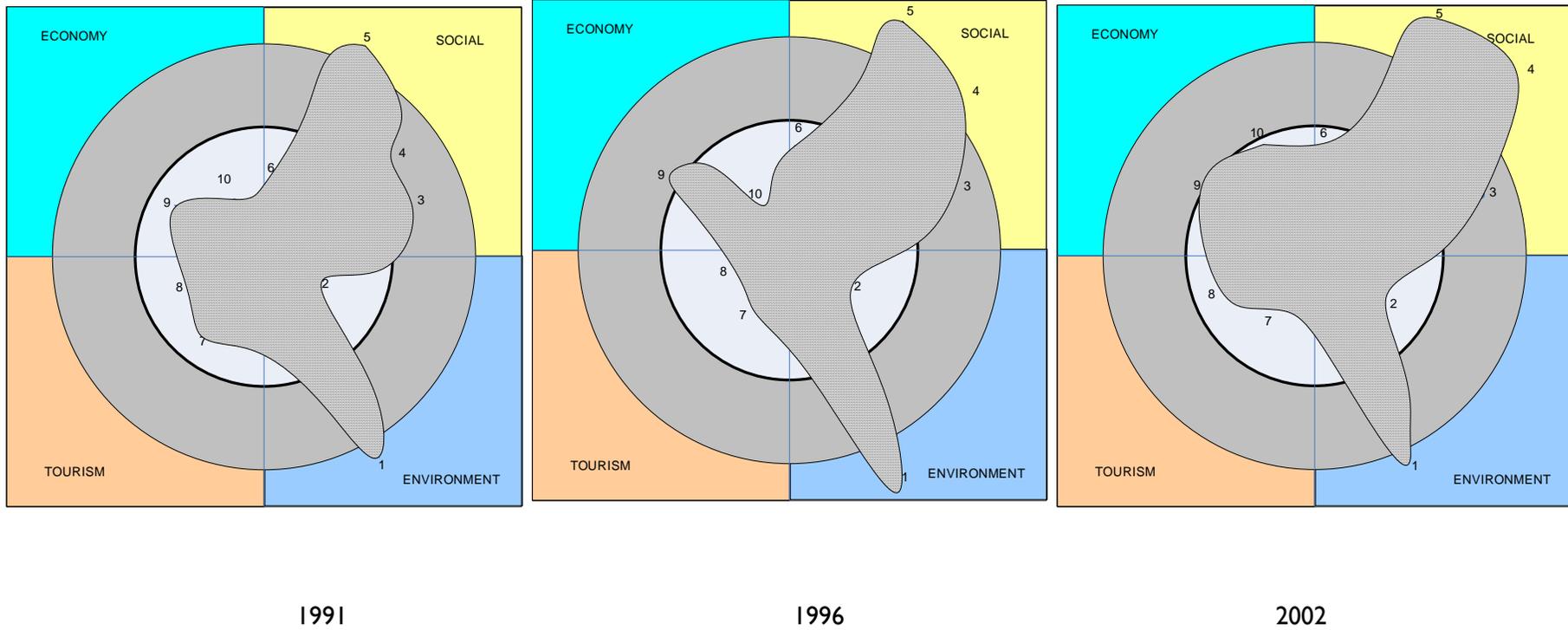
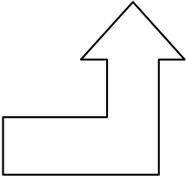


Table 2. Interrelation between indicators - Carst

		Public waste removal	% of connected households to public sewage system	Share of active working population	Daily migration / # of active working force	Aging index	Educational structure of inhabitants	# of arrivals and nights of tourists per 100 inhabitants	# of beds per 100 inhabitants	Gross income tax base per capita	Business - Net profit / loss per employee
1	Public waste removal	Grey	Yellow	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Green
2	% of connected households to public sewage system	Yellow	Grey	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green
3	Share of active working population	Green	Yellow	Grey	Green	Red	Yellow	Yellow	Yellow	Green	Green
4	Daily migration / # of active working force	Yellow	Yellow	Green	Grey	Red	Green	Yellow	Yellow	Yellow	Yellow
5	Aging index	Yellow	Yellow	Red	Red	Grey	Yellow	Yellow	Yellow	Green	Green
6	Educational structure of inhabitants	Yellow	Yellow	Yellow	Green	Yellow	Grey	Yellow	Yellow	Green	Green
7	# of arrivals and nights of tourists per 100 inhabitants	Green	Green	Yellow	Yellow	Yellow	Grey	Green	Green	Green	Green
8	# of beds per 100 inhabitants	Green	Green	Yellow	Yellow	Yellow	Green	Grey	Green	Green	Green
9	Gross income tax base per capita	Yellow	Green	Green	Green	Green	Green	Green	Green	Grey	Green
10	Business - Net profit / loss per employee	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Grey

Legend  Positive impact  Negative impact  Neutral

Table 3. SWOT Analysis for Carst

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Geostrategic position</li> <li>• Woods</li> <li>• Different and exceptional cultural and natural region</li> <li>• Potentials for sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>• Weak local community</li> <li>• Weak economy and business</li> <li>• Weak demographic structure</li> <li>• “Brain drain”</li> <li>• Monopoly on natural resources</li> <li>• Economy with low added value</li> <li>• Social problems (drugs...)</li> <li>• Bad communication (cooperation of the public to shape the future)</li> <li>• Unused available financial resources</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Cross-border cooperation</li> <li>• EU – financial possibilities</li> <li>• Logistical centre establishment</li> <li>• Increased demand for organic products (fruit)</li> <li>• University training</li> <li>• Tourist activity development</li> <li>• Stone-cutting</li> </ul>	<ul style="list-style-type: none"> <li>• Globalisation</li> <li>• Agriculture or Common Agricultural Policy of the EU</li> <li>• Promotion of traffic flow</li> <li>• “Strong neighbour” (the region of Furlanija Julijska Krajina – in Italy)</li> <li>• Migration</li> </ul>

Picture 2. Rich picture – Carst globalisation 2010



Carst – Globalisation 2010:

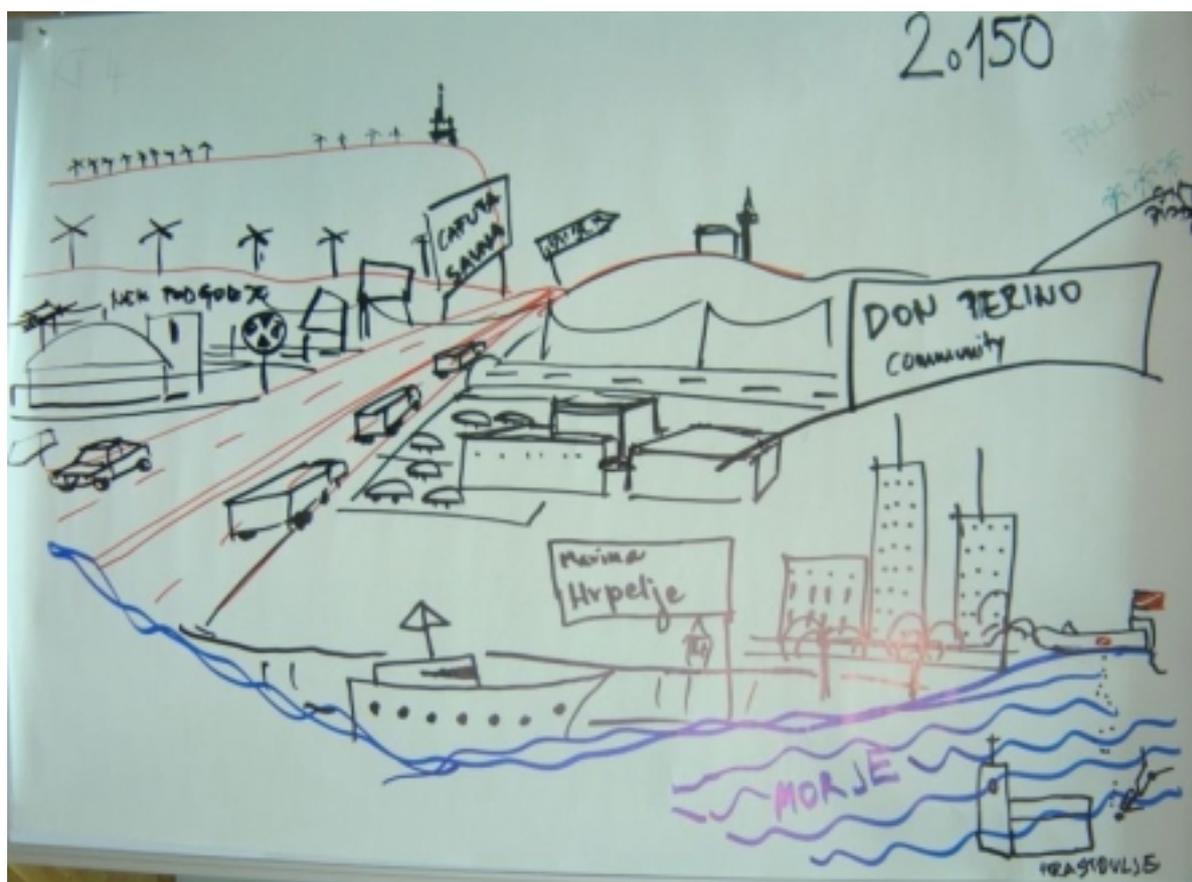
- problems of the active building of wind power stations and degradation of natural heritage

- promotion and increase of all the traffic through Carst and migration
- problems of globalisation concerning the active migration of foreigners and the loss of cultural identity
- active and uncontrolled building of trade centres
- prevailing capital influence – building of casinos
- degradation of the quality of underground drinking waters
- disorganisation of public utility infrastructure, which does not follow the needs of development
- problems with the protection of indigenous animals in Carst
- designing of reserves of untouched nature as islands in the middle of the urban areas.

Based on rich picture, team defines following elements, pressures and issues for scenario:

Elements	Pressures	Issues
<ul style="list-style-type: none"> <li>• Traffic and e-infrastructure</li> <li>• Secured areas (natural resources)</li> <li>• Settlement:                             <ul style="list-style-type: none"> <li>– residential areas</li> <li>– production areas</li> </ul> </li> <li>• Consumer infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Capital</li> <li>• Migration (one-day, temporary)</li> <li>• Goods and service flows</li> <li>• Tourism</li> <li>• Legislative frames</li> </ul>	<ul style="list-style-type: none"> <li>• Overloaded traffic structure</li> <li>• Availability of free housing, quality of residential environment</li> <li>• Loss of identity</li> <li>• Availability of jobs</li> </ul>

Picture 3. Rich picture – Carst globalisation 2015



Carst 2015 – Globalisation:

- final degradation of natural heritage of Carst with the ecologically problematic building of facilities (water power stations, nuclear power plants...)

- the European corridor will “cut” the Carst area in half and hence promote the flow of traffic and migration
- Carst will become the “service” zone for unnecessary activity on the coast
- urgent social problem (drug addiction, crime...)
- final monopoly of capital over spatial development, the development is based only on market logic and not on the sustainable development logic
- problems of global influences on the environment, which cannot be controlled by local population.

Based on rich picture, team defines following 5 biggest issues for Sustainable Development:

- ❑ greediness of people – economic power
- ❑ people with no conscience
- ❑ uneducated people
- ❑ program saturation
- ❑ abandonment of branches (eco-agriculture).

Picture 4. Opportunity – development of tourist activity – Carst 2010



Opportunity – development of tourist activity – Carst 2010:

- tourist connection and complementarity of the coast and Carst – unified tourist destination
- preservation and restoration of natural heritage, mostly old village centres
- sustainable exploitation of cultural and natural treasures of Carst and Brkini: Snežnik Regional Park, Lipica with its world-wide known horse breed Lipicanec and Škocjanske jame (Unesco)
- establishment of recreation environment for tourists

- local economy is based on sustainable tourism and organic agricultural production of local agricultural products
- preservation of natural heritage and protection of indigenous animal species
- establishment of infrastructure for the support of skydiving and gliding
- tourist infrastructure is adjusted to the natural and cultural heritage of Carst and Brkini.

Based on rich picture, team defines following elements, pressures and issues for scenario:

Elements	Pressures	Issues
<ul style="list-style-type: none"> <li>• underworld</li> <li>• ground configuration</li> <li>• pleasant climate</li> <li>• cultural heritage</li> <li>• products</li> </ul>	<ul style="list-style-type: none"> <li>• active spending of free time</li> <li>• financial stimulation, capital (+, -)</li> <li>• migration (both ways)</li> <li>• effective use of space</li> <li>• development of infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• tourism – marketing</li> <li>• eco-products</li> <li>• communication</li> <li>• quality assurance</li> <li>• education</li> </ul>

Picture 5. Rich picture - Carst & Brkini 2015



Carst and Brkini, 2015:

- Proper nature safe traffic connection of Carst through the Carst Edge (Kraški rob) with the coast and also Trieste (ex. tram...)
- Carst is known in the EU as the area that cultivates only organically produced foods
- Tourism between the coast and Carst is closely connected and complementary
- The majority of natural heritage is preserved

- Carst is a known destination for gliding and skydiving
- Most cultural heritage monuments and old villages are restored and in the function of sustainable tourism
- Carst-Brkini area is because of its pleasant climatic conditions a known destination for treatment of lung diseases
- Carst and Brkini are world-wide known for their Lipica Stud Farm (Kobilarna Lipica), Škocjanske jame and Snežnik Nature Reserve
- The traffic connection through Carst does not disturb the development.

Based on rich picture, team defines following 5 biggest issues for Sustainable Development:

- Knowledge and skills of an individual
- Self-awareness of the position in society
- No more social control over capital, market
- Self-control over consumer habits (energy consumption)
- Demographic structure, trends (migration, natality).

According to the overview of the scenarios Carst team wishes to propose the measurements for:

Encouragement (positive)	Prevention (negative)
<ul style="list-style-type: none"> <li>• Stabilisation of society</li> <li>• Positive system of examples (for the youth)</li> <li>• Stable legislation</li> <li>• Clear vision (deficit)</li> <li>• More power to professional organizations</li> <li>• More cooperation of trade with the public</li> <li>• Professionalism of media and others</li> </ul>	<ul style="list-style-type: none"> <li>• Consistent sanctioning</li> <li>• Prevention of interference of politics in trade</li> </ul>

## 2. The report of the 2<sup>nd</sup> work group for the coastal area

Table 4. Table with indicators for Coast area

#	Indicator	BoE		Domain Type	Unit of measurement	Timeline (When)			Institutions in charge of measuring (Who)
		Min.	Max			~1991	~1996	~2001	
1	Urbanization rate	60	70	Social	%	63,1%	66,3%	71,8%	SURS, Calc
2	% of connected households to public sewage system	75	90	Env.	%	42%	55,2%	70,2%	SURS
3	Quality of drinking water, % of unsuitable samples	0	2	Env.	%	2%	2,1%	1,1%	RVK, ZZV Koper (need to verify)
4	Quality of sea water in public baths % of good microbiological samples	90	100	Env.	%	72	74,4	86,7	ZZV Koper, Calc
5	Rate of coastline with regulative approach	30	50	Tourism	% of land	28	35	45,2	Calc by Leon Gosar
6	Investment in management of nature protected areas on coast	50	100	Economy	MIO SIT	18	23	50	ARSO, Calc (to verify 1991)
7	Employment structure	2	3	Economy	#	1	1	1	SURS (qualitative)
8	# bed places per 100 inhabitants	30	35	Tourism	# beds / 100	25,8	25,8	27,7	SURS
9	# nights per 100 inhabitants	3000	4000	Tourism	# nights / 100	1865	568	2603	SURS
10	Educational structure of inhabitants	20	30	Social	%	11,60	12,4	15,55	SURS

Picture 6. AMOEBA graphs for Coast area

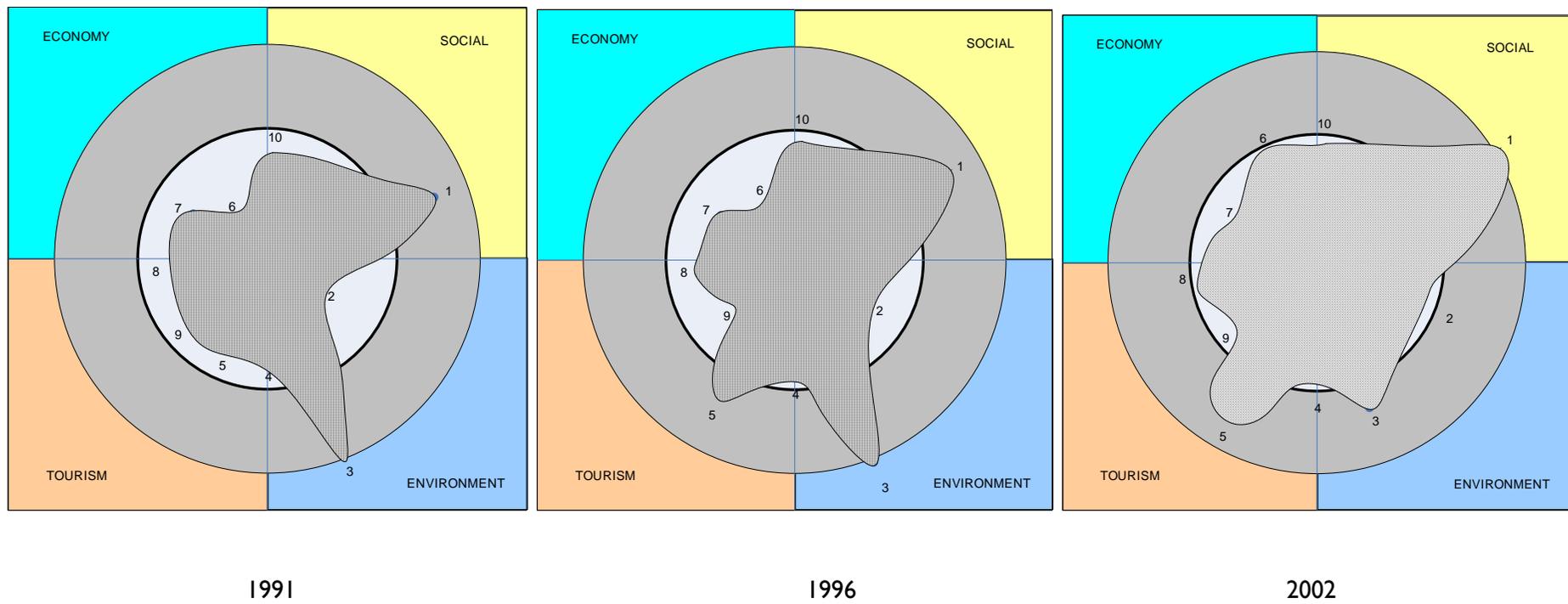
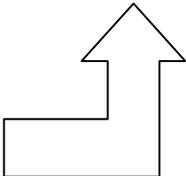


Table 5. Interrelation between indicators - Coast

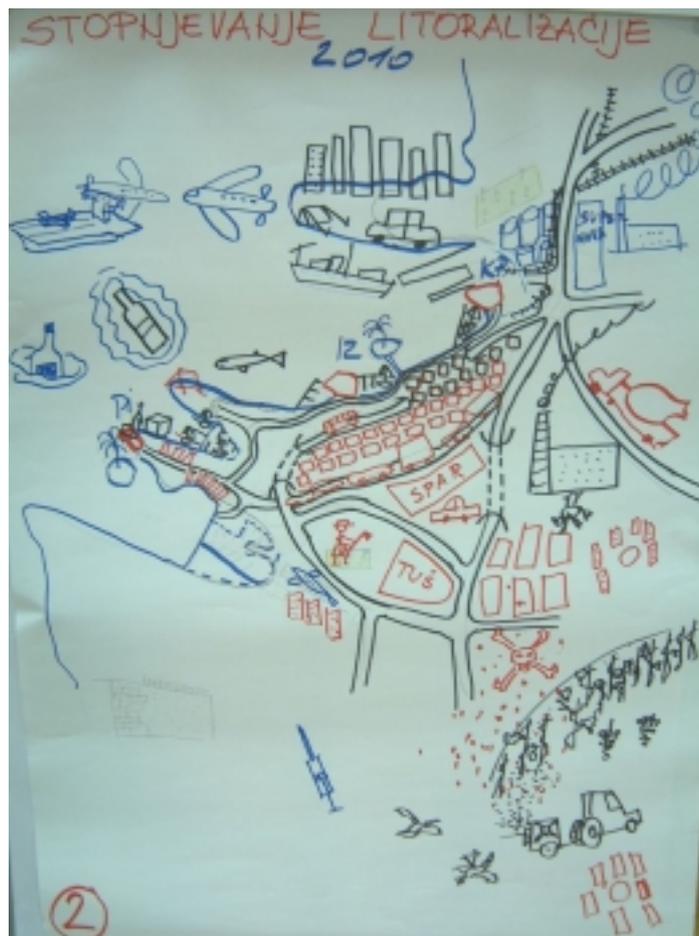
		Urbanization area rate	% of connected households to public sewage system	Quality of drinking water, % of unsuitable samples	Quality of sea water in public baths	Rate of coastline with regulative approach	Investment in nature protected areas on coast area	Employment structure	# bed places per 100 inhabitants	# nights per 100 inhabitants	Educational structure of inhabitants
											
1	Urbanization area rate	Grey	Yellow	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
2	% of connected households to public sewage system	Yellow	Grey	Red	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
3	Quality of drinking water, % of unsuitable samples	Red	Red	Grey	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
4	Quality of sea water in public baths	Red	Green	Yellow	Grey	Yellow	Green	Yellow	Green	Green	Yellow
5	Rate of coastline with regulative approach	Yellow	Yellow	Yellow	Yellow	Grey	Yellow	Yellow	Yellow	Yellow	Yellow
6	Investment in nature protected areas on coast area	Yellow	Yellow	Yellow	Green	Yellow	Grey	Green	Green	Green	Yellow
7	Employment structure	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Grey	Yellow	Yellow	Yellow
8	# bed places per 100 inhabitants	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Grey	Green	Yellow
9	# nights per 100 inhabitants	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Grey	Yellow
10	Educational structure of inhabitants	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Grey

Legend  Positive impact  Negative impact  Neutral

Table 6. SWOT Analysis for Coast

Strengths	Weknesses
<ul style="list-style-type: none"> <li>• Coastal area</li> <li>• Multiculturalism</li> <li>• Cultural region</li> <li>• Naturally and culturally developed activities</li> <li>• Traffic infrastructure</li> <li>• High level of active population</li> <li>• Higher education</li> </ul>	<ul style="list-style-type: none"> <li>• Emptying and destruction of old settlement centres</li> <li>• Littoralisation</li> <li>• Ignorance of load-bearing capacity of environment</li> <li>• Discrepancy of structural employment</li> <li>• Inappropriate interference</li> <li>• High level of addiction (drugs)</li> <li>• Disorganised public transportation</li> </ul>
Oportunities	Threats
<ul style="list-style-type: none"> <li>• Cross-border cooperation</li> <li>• Education possibilities</li> <li>• Identity development</li> <li>• Complementary connection of tourism with other activities</li> <li>• Connection of education and economy</li> <li>• Use of renewable energy sources</li> <li>• Development of hinterland</li> </ul>	<ul style="list-style-type: none"> <li>• Inappropriate traffic infrastructure</li> <li>• Intensification of littoralisation</li> <li>• Inappropriate settlement patterns</li> <li>• Danger of uncontrolled capital entrance</li> <li>• Brain drain</li> <li>• Inappropriate offer of jobs</li> <li>• Loss of identity</li> <li>• Increase of crime</li> </ul>

Picture 7. The coast – intensification of littoralisation – 2010



The coast – intensification of littoralisation – 2010:

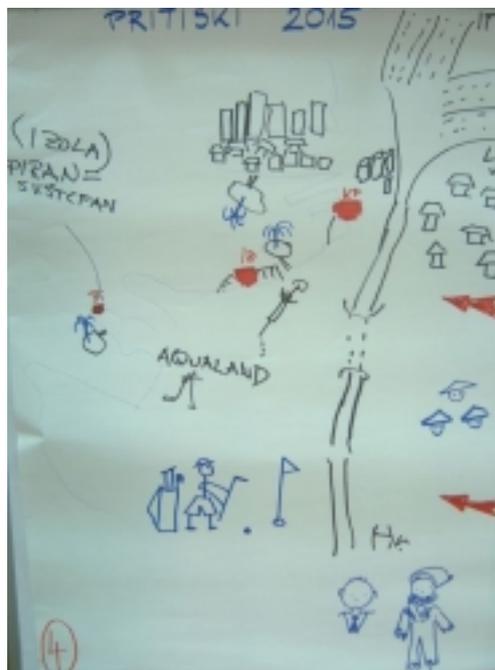
- “military tourism” – the coast is the destination for warships

- degradation of sea biotope
- inappropriate policy of spatial planning
- exaggerated urbanization of the narrow coastal strip
- exaggerated building of major trade centres
- inappropriate policy of ecologically problematic economic activities on the coast
- inappropriate policy of agriculture on the coast, which is based on gardens, inappropriate policy of management of agricultural land
- agricultural economy is based on production of hybrid, non-indigenous foods with uncontrolled use of sprinklers
- social problem with the increase of crime and the use of drugs
- tourism has no clear strategy, only a hotel and a view of the sea can be offered
- unexploited natural sites of the coast (saltpans) for the needs of tourism
- inappropriate traffic infrastructure, which is limiting the development.

Based on rich picture, team defines following elements, pressures and issues for scenario:

Elements	Pressures	Issues
<ul style="list-style-type: none"> <li>• the sea</li> <li>• climate</li> <li>• cultural region</li> <li>• knowledge</li> <li>• spatial coordination and diversity</li> </ul>	<ul style="list-style-type: none"> <li>• development of infrastructure</li> <li>• growth of population</li> <li>• increase of the costs of living</li> <li>• pressure of the activity on hinterland</li> <li>• realization of environmental standards</li> </ul>	<ul style="list-style-type: none"> <li>• diversity of offers</li> <li>• appropriate jobs</li> <li>• quality of life</li> <li>• environmental awareness</li> <li>• diversity of communication</li> </ul>

Picture 8. Rich picture – Coast pressures 2015



The coast – 2015 – intensification of littoralisation:

- because of poor offers and inappropriate traffic connection the Slovenian coast will become an unimportant tourist destination

- degradation of the sea is still in progress
- globalisation caused the loss of identity
- the whole coast is being build on and sold out because of the pressure of the capital, most real estate ownerships are no longer in the hands of local population
- free agricultural areas are used for disputed golf courses
- the sea is no longer appropriate for bathing, what follows is the building of huge water parks.

Based on rich picture, team defines 5 biggest problems for SD:

Five biggest problems for Sustainable Development:

- Unregulated policy of spatial use
- Evaluation of load-bearing capacity of environment does not exist
- degradation of the cultural identity of population
- subordination of society and environment to market logic
- territory colonization

Picture 9. Rich picture - The coast – complementary connection of tourism with other activities - 2010



The coast – complementary connection of tourism with other activities – 2010:

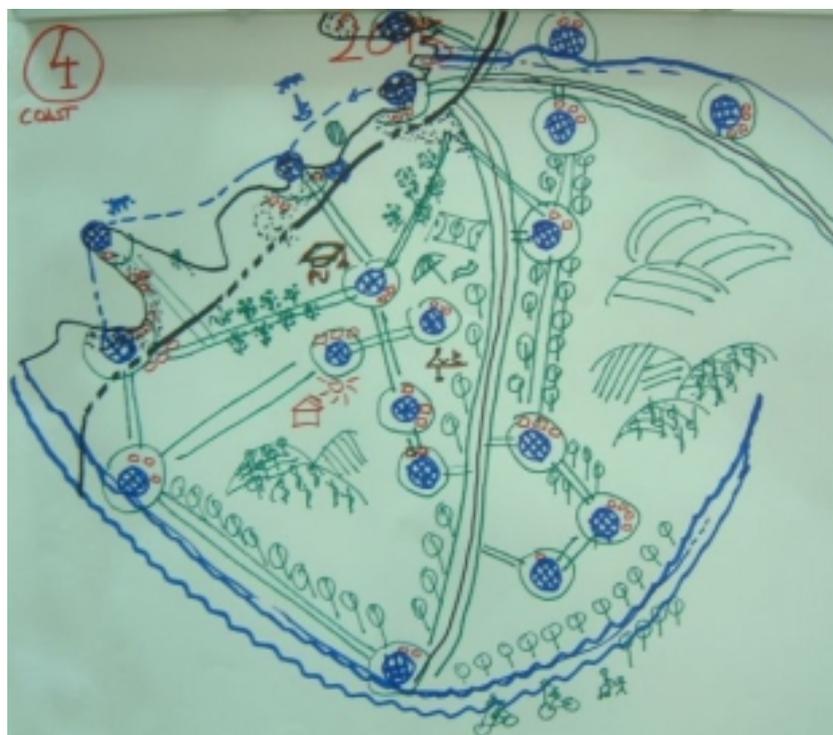
- revival of the sea passenger line
- organisation of public transportation, parking areas

- setting of clear tourism strategy by connecting the offer of Carst
- promotion of use of alternative energy sources
- 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
- prevention of brain drain with the proper offer of education and jobs on the coast
- 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
- restructuring of ecologically problematic economic activities in tourism
- establishment of the nature park of the Dragonja River.

Based on rich picture, team defines following elements, pressures and issues for scenario:

Elements	Pressures	Issues
<ul style="list-style-type: none"> <li>• traffic infrastructure</li> <li>• housing construction</li> <li>• filling up the sea</li> <li>• tourist facilities</li> <li>• plantation agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• migration</li> <li>• capital pressure</li> <li>• migration</li> <li>• non-critical implementation of foreign practices</li> <li>• dehumanization of society</li> </ul>	<ul style="list-style-type: none"> <li>• shortage of space</li> <li>• exaggerated urbanization</li> <li>• environment degradation</li> <li>• ignorance and disrespect for one's own identity</li> <li>• use of space undetermined by development (destination)</li> </ul>

Picture 10. Rich pictures – the Slovenian coast 2015



The coast – 2015:

- University of the Coast is internationally known and is the progressive force of the region, it uses the capacities of the coast as well as of the hinterland

- Most old village centres are restored, a proper infrastructure is established
- Village centres of the hinterland are intended for tourism and for the stay of local population
- Dragonja Nature Park is a known destination for those who love cycling and walks
- Awareness of people concerning the use of alternative energy sources is at a high level
- The economy and local population live in coexistence with the primary economic activity - tourism
- The coast and the Carst area are known in the world as a tourist destination for active spending of holidays
- Agriculture is based on organic production
- The centre of gravity of public transportation is partially redirected to the sea, there are also connections with the neighbouring countries, traffic is organised according to the demands of the local population and the primary economic activity.

Based on rich picture, team defines 5 biggest problems for SD:

- Capital pressure (organized capital – permanently disorganized society)
- Unprepared for changes (unity of life, egoism, nimby...)
- Inconsistency of competence regulations and measures for implementation, no coordination among competencies
- Lack of coordination in process: planning – implementation – monitoring)
- The system of values and the use of knowledge is not established

According to the overview of the scenarios Coast team wishes to propose the measurements for:

Encouragement (positive)	Prevention (negative)
<ul style="list-style-type: none"> <li>• evaluation of the load-bearing capacity of environment</li> <li>• designing the strategy for spatial development</li> <li>• defining the share of investments (in connection to the profile) for public intentions (environmental, social, cultural)</li> </ul>	<ul style="list-style-type: none"> <li>• irrational use of environment (tax legislation, inspection)</li> <li>• dehumanization of society (development of social capital)</li> <li>• loss of identity (jobs, standing of the professions)</li> </ul>

## Appendix 4 – Photographs from the event

Experts with the computers working on indicators – Carst team



Hard working Coast team



Presentation of the rich picture – Carst team



Debate about indicators and bands of equilibrium – Carst team



Presentation of the rich picture – Coast team



“Walking into the future, now is 2015”



## Appendix 5 – 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
CAMP	Coastal Area Management Program
DURS	Tax Administration of the RS
GZS	Chamber of Economy of Slovenia
KV	“Carst Aqueduct” public water supply company
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
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
SD	Sustainable Development
SI	Sustainable indicators
SPSA	Systemic & Prospective Sustainability Analysis
SURS	Statistical Office of the RS
ZZRS	National employment office of Slovenia
ZZV	Koper - Health Protection Institute of the RS
ZZZS	Health Insurance Institute of Slovenia