

SEA TEAM

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STRATEGIC ENVIRONMENTAL ASSESSMENT

**for the purposes of providing the foundations for the ex-
ante assessment of the Regional Operational Programme
from an environmental aspect**

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SUMMARY

Project background

Hungary shall be granted European Union resources (Structural and Cohesion Funds) through the National Development Plan and its operational programmes. Articles 40 and 41 of Council Regulation (EC) No 1260/1999 of 21 June 1999 laying down general provisions on the Structural Funds provide for the ex-ante evaluation of these plans from social, economic and environmental aspects. The regulation puts special emphasis on the environmental assessment aspect, the basis of which is provided by the strategic environmental assessment. The strategic environmental assessment is part of the European Union's legislation (Directive No 2001/42/EC), which provides for the assessment of the effects of certain plans and programmes on the environment.

In accordance with the aforementioned developments, a decision has been made at the beginning of 2002 on „testing” the novel process of Strategic environmental assessment (hereinafter: SEA) in the case of the Regional Operational Program. In line with the provisions stipulated by the regulation, the ex-ante assessment of the Regional Operational Programme (hereinafter: ROP) from the environmental perspective has been launched in April 2002 in the form of a strategic environmental assessment (SEA) as a result of collaboration among three different organisations, National Agency for Regional Development (NARD), the Ministry for the Environment and Water Management and the Regional Environmental Center for Central and Eastern Europe. The three organisations jointly selected the expert team executing the assessment study. The successful bid was submitted by a consortium formed by ÖKO Rt. and Env-in-Cent Office, with the involvement of further consultants. This way, the so-called SEA (in Hungarian: SKV) Team was formed consisting of the representatives of the organisations supervising the project and the expert team actually carrying out the assessment.

The SEA procedure

As to its origin, the strategic environmental assessment (SEA) is a tool which has emerged from the environmental impact studies (EIS) and become independent later on. While an EIS evaluates the expected state of the environment anticipated as a result of a concrete investment project and decides whether it was acceptable from an environmental point of view or not, the SEA makes an attempt to exert an influence from an environmental perspective on the implementation mode (the „how”) of plans (strategies and programs) lying above the investment project level. The objective of a SEA is to make sure that environmental interests and aspects be enforced with appropriate weight in the development concepts. SEA is the first step towards prevention by calling the attention to expected or potential environmental risks and the possibilities to avoid them or mitigate their impacts. Given the approach set out above, a key characteristic of the SEA is avoiding confrontation and getting prepared instead,

simultaneously with the policy sector, for trying to enforce environmental arguments in the course of events. Thus the SEA is less of a policy document, much rather is a process or procedure, which intends to „escort” the design process with the wide ranging involvement of both experts and the public at large.

Methodological issues

There is no widely accepted methodology for the preliminary ex-ante evaluation of environmental impacts of plans and programs. For this reason, one of the main tasks of the work aiming at the strategic assessment of the Regional Operational Programme was to develop a methodology which on one hand complies with European Union regulations and makes an attempt to take into account domestic design procedures and characteristics on the other. The basic methodological approach was suggested by the Regional Environmental Center for CEE (REC). It used experience with similar projects supported by the REC in Czech Republic, Slovenia, Estonia and Poland and respective guidelines for SEA in the European Union Member States. The SEA team further developed the suggested methodical approach on the basis of domestic practical experiences in Hungary.

Two main parts of the methodology can be distinguished. For one part, it evaluates the new conditions which might arise in the wake of the plan, and tries to identify those criteria which provide environmentally sound solutions by answering the question of “how”. Simultaneously with the aforementioned measures, environmental indicators are identified which serve for the measurement of the processes explored above during implementation and control. The processes explored and the resulting changes must be equipped with such a set of indicators which provide the possibility for assessing environmental impacts during the implementation of the objectives.

The primary aim is not to comply with some kind of a limit value system (this is not possible since nothing is on the ground yet), but with well defined (legal, strategic, and so on) principles, priorities and goals. When the system of criteria holding these together is missing, changes cannot be evaluated, as there is no base for the comparison. Based on what was said above, the following three pillars of the system of environmental criteria (base of comparison) were formed:

- **Establishment of general sustainability criteria:** During the development of the methodology, we tried to provide a general set of sustainability criteria (taking into account the holistic approach of sustainable development). Proposed sustainability criteria might be applied like a kind of design requirement in the elaboration of all operational programmes (not only ROPs). They anchor a general attitude that may guide elaboration of truly sustainable regional development interventions. They offer some control criteria and a base of comparison rather than measurable requirements which must be accounted for.
- **Identification of environmental problems, their causes and consequences:** In order to make the environmental analysis feasible, it is necessary to explore those

social and economic processes which led to the emergence of the environmental problems. For the purposes of the analysis, a so-called “environmental problem tree” was formed, built on the analysis of the individual regions, which presents the elements of causative link between the cause and consequence of environmental problems. The aim of the application of an environmental problem tree is to make the causes leading to environmental problems known already in the design phase.

- **Identification of domestic and European Union environmental policy objectives:** Environmental policy objectives might be interpreted as “external acting factors”. Domestic and European Union environmental policy objectives form a framework, which has to be adhered to during all development efforts. In Hungary, environmental policy objectives were set in accordance with the second National Environmental Programme with due attention paid to the objectives of the Sixth Environmental Action Programme of the European Union. All in all, thirty two environmental policy objectives were set in a quantitative form, a part of which refers to the state of the environment and another part to the impact factors.

The goal of the SEA process following the determination of the framework set out above was to compare the structure and contents of ROP with this set of environmental criteria. This way, the SEA process investigated in details the depth of environmental problem management found in each chapter of the ROP (situation, SWOT, set of objectives and priorities, measures), evaluated how they fit to the sustainability criteria, checked compliance with environmental policy objectives and discussed the analysis of environmentally sustainable implementation possibilities of ROP tasks. Key steps of the assessment procedure include the following:

1. Environmental analysis of the ROP situation analysis:

a) To what extent the situation analysis reflects environmental problems: The basic objective of the analysis is to assess the situation analysis and determine how thoroughly and in what quality it explores the condition of the associated environmental states, the tendencies of characteristic changes and the causes, influencing factors which determine these tendencies in the state of the environment.

b) Fitting the situation analysis to the scale of general sustainability criteria: On one part it was examined to which extent the situation analysis touched upon the scale of the established sustainability criteria and to what extent the statements contained in the situation analysis cover the suggested sustainability criteria. On the other part, it was assessed how far the current regional development trends are from the requirements of sustainable development.

2. Environmental analysis of the ROP’s SWOT: The SWOT analysis was assessed by a practical solution aiming at the preparation of a SWOT formed on the basis of environmental, or even on the basis of sustainability aspects. Against this, the development-type SWOT spreadsheet could be measured. It was perceptible here that there are state indicators which are considered to be strengths from one aspect, while the same would be judged as weaknesses from the other. The result of this task – in

our view – primarily provides the possibility for complementing the SWOT with environmental considerations.

3. Environmental consistency assessment of proposed ROP objectives and priorities: The objective of this analysis is to identify how the three tier set of objectives of the National Development Plan, which in effect covers the pillars of sustainable development, i.e. objectives serving social, economic and environmental development, respectively, appear in the ROP, with special regard to environmental considerations.

4. Identification of the environmental impacts of ROP measures:

a) Comparison of ROP measures implying environmental impacts with the sustainability criteria: The analysis demonstrates to what extent the individual measures harmonise with the criteria contained in the sustainability criteria. The assessment also covered the closeness and the direction of links between the measure concerned and sustainability.

b) Comparison of ROP measures implying environmental impacts with the environmental policy objectives: The analysis demonstrates to what extent and in which areas the measure concerned might have an impact on the state of individual environmental elements and systems (both in terms of quality and quantity).

5. The necessary environmental conditions and further recommendations concerning the measures and their implementation: In the case of measures with environmental implications it was attempted to achieve the laying down of environmental criteria in the measures which can be taken into account in order to minimise the environmental risks identified. Furthermore, in the case of those social, societal measures and developments, where direct environmental impact could not be detected, recommendations were made for supplementing them with environmental contents, which, when integrated into the measure, empower the latter to contribute to the establishment of environmental awareness and sustainable economic and social standards.

6. The application of indicators in relation of the set of environmental objectives and their implementation: Taking into account the fact that the overwhelming majority of the measures is not of environmental nature, there is a need to apply a wider range of indicators (such as the performance level of measures, impact factors, indicators used for measuring the state of the environment) for the purposes of determination of the environmental impact of individual measures. Beside all these, sustainability indicators in addition to the environmental indicators were also developed for the assessment of the measures.

Main conclusions of the analysis

Background assessment and SWOT analysis

The structure of ROP (situation assessment, SWOT analysis, determination of objectives and priorities, identification of measures) is supposed to provide a logical method for design. In spite of this, the document does not contain the logical series of **state – problems – causes – objectives, priorities – means, tools. It is exactly this attitude – exploring the relationships between things – which is missing from the situation assessment chapter, not only in terms of environmental, but economic and social issues as well.** This results in the statements presenting the situation left without causes and consequences, thus allowing for measures which themselves lack causes and consequences.

Albeit the situation assessment parts reflect some general problems of attitude and approach, yet these are based on widely accepted, even though from a sustainability view point not well thought economic development axioms. These problems of approach were mitigated in the more recent updates of the ROP, yet they are still present in the document as a whole. **The situation assessment does not reflect the appropriate sustainability criteria which is relevant in terms of the ROP and which also complies with the three main objectives of the National Development Plan, i.e. social economic and environmental, and it does not reflect the elements of this scale of values and the current diversion from it.**

Background assessment parts start with the discussion of the differences in social and economic advancement, yet they do not touch upon the environmental aspects of these. The environmental problem tree developed during the Strategic environmental assessment tries to clarify both the causes and consequences of the emerging environmental problems. Partly, the objective of this is to determine the target areas for solving the problems, and partly to learn the poppling consequences of any individual environmental problem, since a design scheme like ROP must reckon with them. The system of argumentation of ROP is still built on the assumption that any regional development can be achieved basically through a series of economic development schemes, neglecting the fact that economic developments will only be fully successful and resultful, when they take into account both the social and the environmental conditions and possibilities.

Set of objectives for ROP

The overall objective, **balanced regional development** is built on the assumption that the development of the key urban centres of the capital and the individual regions has a closing up effect which might emanate to less developed areas as well. This set of arguments is defined without giving a rationale for either the reasons for falling behind and the *raison d'être* of the assumption itself. In fact, the reason for the different intensity of development seen in relation to city and country is the deterioration of the traditional relationship between the urban and rural environment and the changes in the co-existence pattern. This new relationship is an accompanying feature associated with globalisation, in the framework of which the “economic centres” representing a

larger market have become the marketplace for global goods, together with the “ranges of attraction” they are connected with.

From this point on, the “economic centre” will not take up the goods produced in its own range of attraction, since they are not competitive with the global goods, on the contrary, the “range of attraction” will procure “cheap goods” in the centre. Thus the productive role of the rural environment will be devaluated and the income generating potential will be further tightened. All these have considerable environmental impacts as well, which on one hand is manifested in the excess load put on the centres (traffic, transport, services concentration), and results in the deterioration of the traditional environmental conditions in the countryside and the elimination of the organic culture.

In spite of the fact that the main objective would be the elimination of the regional differences, and the situation assessment also focused to some extent to the regional inequalities (such as capital-country, East-West, and so on) **the measures themselves are so general that you cannot really identify those regions, areas or small regions where the implementation of the developments is justified.**

In effect, ROP links three priorities and areas of intervention with three objectives (*omitting part 4. Technical assistance, which is in effect a tool and in no way is it a priority, therefore cannot be analysed as a priority*). What is more, ROP mentions explicitly that “the objectives of the program correspond directly and in a straightforward manner to each of the priorities”. This effort has its problem of its own, since if the intervention areas are identical with one of the specific goals, there is no need for their separate definition. However, it would be very useful to select operational priorities which can be formulated as actions, supporting not individual goals or objectives, but the widest possible range of objectives. The formal mistake made here causes among others that:

- of all the various sectors, **only tourism development appears explicitly in the objectives (and, in addition, in a very unnatural way, in the environmental objective)** because it was thought that highlighting tourism as a priority cannot be justified without this. And this was made in spite of the fact that the ROP measure having the most serious environmental implications might easily be tourism development itself.
- **in the case of objectives, the greatest benefit of natural and cultural values is attributed to their economic exploitation.** Yet in many cases the preservation of these values is guaranteed by ensuring their untouched state, and also, their social and incorporeal value is much higher than their actual economic value.
- **the program concentrated the development of economic potential to towns.** This assumption – as it was mentioned earlier – is not the most effective implement to achieve spatial balance in development, and is problematic for reasons of environmental or rural development policy objectives as well.

Measures

One of the key tasks of SEA is to determine what kind of environmental impact certain ROP measures might have on individual environmental elements and systems. **Without the other operational programmes** the analysis of these impacts, and thus the **environmental impact of ROP cannot be interpreted**. A fundamental goal of the ex-ante assessments shall be the determination of the environmental impacts and natural resource use of the National Development Plan as a whole. The majority of the measures in the ROP have no significant environmental impact when compared to other operational programs, yet in the case of ROP the medium of development is natural or built environment, thus a certain kind of mutual impact must be reckoned with.

From the environmental perspective, two neuralgic points of ROP are tourism development and improvement of regional accessibility. The entire structure of the ROP is characterised by the dominance of **tourism development measures**. Other measures are also seen through the tourism aspect. Thus, the rationale behind the necessity of environmental, infrastructural and even human resources development is stuffed with the argument of tourism development, which of course might result in biased outcomes. It would have been a lot better to deduct the necessary measures from real world– in this case environmental – problems (such as sewage treatment and disposal of small communities).

Measures attached to priorities, enhancement of compatibility of attractive forces, development of associated and auxiliary services, exploration of attractions all generate environmental burdens locally and globally alike. The plan does not discuss at all the management of emerging environmental problems, or development alternatives, where such problems do not exist. Measures generate problems which cannot be eliminated or only with difficulties, thus determining the environment of the area for a long term, imposing among others increased mobility, greater spatial demand, growing and concentration of environmental load, further aggravated by the seasonality of the industry, and so on.

The **improvement of regional accessibility** is exclusively meant in the ROP as the development of traffic and transport infrastructure. However, traffic and transport are exactly two sectors which in most aspects take the leading edge when it comes to generating environmental problems. Environmental considerations are totally overlooked by the ROP in respect of the area to be developed, in spite of the fact that the separation of the growth in GDP from the increased mobility is an important objective in the European Union environmental policy (Sustainable Development Strategy, VI Environmental Action Programme). The tool to achieve this might be the energy and road tax to be introduced in application of the polluter pays principle, which might serve for the internalisation of the external costs of traffic. Under such circumstances, mobility development trends must be obviously given different priorities and it is not at all apparent that problems in regional development must be solved by public road traffic alone.

Main experiences of ROP SEA

The activity of the SEA Team in the process of the ROP development represented a continuous work of making proposals, reviewing and negotiations, and the assessment of environmental impacts were assessed in the case of the final version, and further aspects to be taken into account during the implementation were developed.

It was not an easy task to judge the environmental performance level of the ROP as the set of objectives and measures of ROP have been constantly changing in the past one and a half year. As the mandate of the SEA Team was restricted to only the ROP assessment, certain components vanished from our view from time to time, as we had no influence on the design of the other operational programs. Another difficulty was represented by the fact that objectives and measures of the ROP were too general, thus making any assessment with analytical tools possible with great difficulties.

All in all, the conclusion was made that the ROP is a very “mild” programme from the environmental perspective, although certain measures in it, such as tourism development, might entail considerable environmental risk. This risk, however, can only be estimated only very vaguely at the current level of finalisation of the ROP. It is a different issue, but the non-sustainable measures, thrown out of ROP, were “sucked up” by other operational programmes under the National Development Plan. In our view, albeit the SEA process improved the environmental integrity of the ROP, the performance of the National Development Plan as a whole did not get any better, since the “greening” of ROP implied the “greying” of other operational programmes to some extent. It has to be noted that in spite of the SEA process, the economic, business mentality is still prevalent in the ROP, thanks to the fact that the role of the SEA Team was mainly that of the reviewer and not the active proposal maker.

As it was mentioned before, SEA is not merely an analytical work but a partnership-building training at the same time, since the SEA might only achieve its objective if the proposals and recommendations prepared by the SEA Team are continuously integrated into the design document. We felt that the main benefit of the SEA was to establish new willingness for cooperation. The SEA, although it is an analytical tool, facilitates the thematic dialogue between various professions, institutions and social Teams. It provides the possibility to disseminate and localise “eco-logical” attitudes in areas where the green approach had serious difficulties so far, thus SEA might be one of the tools to “hand-on” experience of environmental policy integration. Further SEA project might well want to put an even greater emphasis on this awareness raising, integration aspect.

I. THE BACKGROUND OF THE ROP STRATEGIC ENVIRONMENTAL ASSESSMENT

1. THE PROCESS OF THE STRATEGIC ENVIRONMENTAL ASSESSMENT

History

The strategic environmental assessment of the Regional Operational Programme with an environmental focus was commenced last year when the methodology was completed and the assessment work was started with regard to the actual version of the ROP at the time. The programme itself has changed in the past period so much that any serious substantial work had to be commenced afresh. The present assessment was made on the basis of two ROP versions dated from April and May 2003, taking into account to some extent the changes made in the period elapsed since then. **The main events that occurred are detailed below:**

- ☞ **May 2002:** processing of the regional situation analysis target trees started and methodological background work was made.
- ☞ **June 20th, 2002: negotiation meeting with the planners** in NARD (Room 705, Floor VII, 99 Krisztina krt.): The strategic environmental assessment Team (SEA Team) presented its work so far, the methodology to be applied and the evaluation and assessment criteria to regional experts.
- ☞ **19th September, 2002:** Workshop discussion on the strategic environmental assessment of the National Development Plan ROP in the Regional Environmental Center for Central and Eastern Europe. Previously, finalisation of the sustainability criteria at the expert level.
- ☞ **Versions of ROP** from 15th October, 2002 and 21st October, 2002, respectively. Preparation of situation assessment and objective evaluation materials.
- ☞ **Transfer of ROP versions dated January, 2003 and February 28, 2003, respectively.**
- ☞ **March 2003:** summarisation of methodological issues in one single study for dissemination purposes.
- ☞ In depth discussion and preparation of an expert opinion dealing not only with environmental issues on the **ROP version dated 18th March, 2003.**
- ☞ **24th April, 2003:** Partnership for environmentally sound regional development: Workshop No 2 on the strategic environmental assessment of Regional Operational Programme of the National Development Plan.
- ☞ **Versions of ROP from 30th April and May 2003, respectively, which represent the actual subject matter for the present assessment.**

Background to the task

Articles 40 and 41 of Council Regulation (EC) No 1260/1999 of 21 June 1999 laying down general provisions on the Structural Funds are dealing with ex-ante evaluation issues. The regulation provides for the implementation of ex-ante assessment at the

level of plans, operational programmes and programme supplement documents. The regulation puts a special emphasis on the environmental assessment procedures.

In line with the provisions stipulated by the regulation, the ex-ante assessment of the Regional Operational Programme (hereinafter: ROP) from the environmental perspective has been launched in April 2002 in the form of a strategic environmental assessment (SEA) as a result of collaboration among three different organisations, National Agency for Regional Development (NARD), the Ministry for the Environment and Water Management and the Regional Environmental Center for Central and Eastern Europe. The three organisations jointly selected the expert team executing the assessment study. The successful bid was submitted by a consortium formed by ÖKO Rt. and Env-in-Cent Office, with the involvement of further consultants. This way, the so-called SEA (in Hungarian: SEA) Team was formed consisting of the representatives of the organisations supervising the project and the expert team actually carrying out the assessment.

The work of the SEA Team is adapted to the key stages of programming, it ensures continuous and interactive environmental assessment of the programme.

2. METHODOLOGICAL ISSUES

There is no widely accepted methodology for the preliminary ex-ante evaluation of environmental impacts of plans and programs. Methodological materials recommended on the basis of the Work Paper No 2 of the European Commission provide assistance to the work of cognisant authorities and experts, all of which dealing with Strategic environmental assessment as a central tool.

- „Manual on the environmental assessment of programmes and regional development plans associated with the Structural Funds of the European Union” European Commission, DG Environment.
- Assessment of social-economic programmes: Comprehensive evaluation of the environmental, employment and other intervention priority impacts. MEANS books, Vol.5.

Thus, the present methodology is a by-product of the work aimed at the strategic environmental assessment of Regional Operational Programmes, which – in lack of appropriately formulated schemes – desires to define its own structure and contents. The basis for the methodology to be developed was provided by works published in European Union Member States so far in various organisations and domestic practical experiences, respectively. Last but not least, a third source of methodology is commonsense. Consequently, what is described below does not represent a well-trained and practically proved methodological scheme, much rather a potential, an opportunity which can be supplemented, modified and adapted.

A few introductory fundamentals

The environmental impact assessment is a procedure which serves for the evaluation and estimation of material changes in the state of the environment due to some planned human activity and which thus has an impact on the decision concerning the activity in question. This definition can be naturally projected to the social-economic impact assessments or the ex-ante assessment as well, since the task of the assessment is the same to a great extent.

As to its origin, the **strategic environmental assessment (SEA)** is a tool which has emerged from the **environmental impact assessments (EIA)** and become independent later on. During the environmental impact assessment of various investment projects the major issue to decide on it whether the expected state of the environment anticipated as a result of the concrete human activity was acceptable for us or not. It is quite a different issue when we step up at a more abstract level towards strategic environmental assessment, and the latter does not refer to an individual investment, where the acceptance or refusal of an activity is at stake. With the sectoral development concepts, programmes and regional plans providing the basis for strategic environmental assessments an attempt is made to exert an influence from an environmental perspective on the implementation mode (the „how”) of plans (strategies and programs) lying above the investment project level.

At the strategy level, for instance in the case of ROP, and other programmes with regional development perspectives, environmental protection usually means objectives as well, not merely a set of criteria, thus the mission of an environmental impact assessment is complemented with the study of environmental objectives adequacy and compatibility of non-environmental objectives with environmental objectives.

Therefore, first of all it is worth giving a thought to the difference between the environmental and regional development criteria. The main objective of environmental protection – both as a human aspiration and actual activity – is to protect natural and man-made values found in the environment. This means on one hand the maintenance of the currently existing state of the environment provided it is perceived as valuable, and restoration of the currently damages or deteriorated values (to a possible level). **Natural environment cannot be developed**, thus development objectives reaching beyond the protection and restoration of values do not any more constitute the responsibility of environmental protection, they belong to the realm of regional development. The two kind of activities get into conflict as a result of their diverging selection of values, especially when regional development eliminates or damages old values in the course of creating new ones.

A basic goal common to all regional development type scheme or plan is supposed to be to ensure better quality of life and to ensure sustainable economic development at the regional level, beside conserving environmental values and their restoration if appropriate.

The most essential goal to be formulated by any plan is to attain better life in the region after the plans will have been implemented. Beside this, it would be also very important to consider natural habitats in the region as an excellent property and not a hindrance or impediment, to be expressed in uses and regulations as well.

According to the aspects set out above, it is a key question to determine the notion of good quality of life. This is usually measured in economic indicators, which is not a guarantee for obtaining the appropriate results. Quality of life entails personal security needs just as much as the sustenance of the potential to community existence. **At any rate, population satisfaction could be one of the most fundamental sustainability indicators, even, if it is well known that the selection of values by the population are frequently erroneous¹.**

The environmental assessment of ROP will necessarily divert from the practices of environmental impact assessment for the following reasons:

- (a) While EIA is a suitable means for the analysis of impacts exerted by investment projects, concrete individual facilities, (projects), there was also a need to develop a procedure which exposes environmental aspects in an earlier stage, in the period of **policies, plans and programmes**. This step taken towards prevention can be regarded as the creator of *Strategic Environmental Assessment, SEA*. It was first the Netherlands in 1987, then from the nineties on New Zealand, Canada, Great Britain and the European Commission to create guidelines for the environmental assessment of strategies². During application it turned out that SEA, just for reasons of its integration into the decision making process is a significant tool not only as an impact assessment tool but it is closely linked with the idea of sustainability and in this function it is the most direct procedure to be used for the assessment and evaluation of the move toward sustainability.
- (b) **Given the approach set out above, one of the main characteristics of SEA is indeed the avoidance of confrontation and rather a joint preparation with the plan, thus enforcing environmental arguments in the course of events. The assessment must result a programme containing acceptable compromises from the environmental perspective in each case.** In our case, there is no way of saying no as is the case with investments. **Thus the main purpose of the work is to identify the existence and extent of the potential environmental conflicts and solving them as much as possible.** This also

¹ The will of the majority can only be a guiding force when members of this majority observe a set of rules which cannot be questioned even when observance of these rules happens to be in conflict with the momentary interest of the individual or the community. Without obeying to such „10 commandments” any value is relativised.

² Article 43 of Act LIII of 1995 contains a provision similar to SEA, which is called there „assessment analysis”, the formulation of which was driven by concepts similar to SEA objectives. Assessment analysis was however used so far (as opposed to the stipulations contained in the law) for the preparation environmental legislation. One of the reasons was that these substantial requirements contained in Article 43 have any meaning only when they are used in connection with these legal environmental requirements.

means that SEA requires the joint consideration of social and economic aspects a lot more than does EIA.

- (c) Actual impacts affect such a large number of recipients and such a large area that the objective of the work cannot be the estimate of the extent of changes in any individual location or on any recipient, much rather projecting and analysing the trends of changes concerning a region or the country as a whole. Thus, the question is not to determine how many percentage increase or decrease can be expected at any individual point source of sulphur-dioxide emission, but to decide whether an increase in emission loads can be accepted or not, and if it can be tolerated, what consequences might arise as a result of the order of magnitude of the changes.

The most important consequence of this is that **the plan is not supposed to meet some system of limit values, but to meet certain principles, priorities and objectives. These could not be qualified without a comprehensive set of criteria, for the base of comparison would be missing.** The system of criteria must be laid down firmly and concretely before the impacts would be evaluated. Making distinction between the good and the bad might be assisted by the existing strategic level programmes, concepts and guidelines. In connection with the protection of the environment, the following programmes – provided for by various regulations and adopted by either the Government or the House of Parliament – are available:

- ☞ National Programme for the Protection of the Environment (NKP)
- ☞ National Nature Conservation Base Plan
- ☞ National Environmental Health Action Programme
- ☞ National Regional Development Concept
- ☞ National Agrarian Environmental Programme, and so on.

The close scrutiny of these guiding documents however reveals that the various plans, even those concerning the environment, have no common approach, they are rooted in different assumptions. This means for us a need for selection between the goals and objectives of the programmes in order to ensure consistency in our own system.

- (d) The fundamental logic and use of terms of the new strategic environmental assessment methodology might be similar to that applied for individual investment projects. A basic difference is however that no definite impact factors³ can be identified here, merely assumed types and directions can be provided. As a consequence, prediction of changes in the state of the environment is necessarily less certain and more vague than in the case of impact assessments of projects. **It is perceivable that in these cases, issues like "what not" and "what and how", or „which way or which way not” are raised, as opposed to the question “how to make a definite project”.**

³ An impact factor is such part of the projected activity which can be regarded as the causing factor of changes in the state of environmental elements or systems, i.e. the impacts. **An impact factor is the cause of the changes.**

- (e) The environmental impact assessment methodology developed is adapted to the provisions of the related European Commission Directive⁴. **Information embodied in the Directive⁵ and related to the contents of the assessment define a broader perspective than the one emerging from the need with regard to the “ex-ante” assessment provided for by Article 41 of Regulation 1260/1999/EC on the Structural Funds. Recommendations concerning „ex-ante” assessment, albeit sometimes more concrete in terms, yet do not represent different needs in their contents. This means that an appropriately prepared SEA would also qualify as an environmental ex-ante assessment as well.** (In the present case, a strategic environmental assessment is an analysis, negotiation and learning process at the same time. Findings of the assessment– especially in terms of a ROP „Ex-ante” assessment – should be opened for the widest possible professional public for discussion and should be exposed to the public at large⁶. Just for the wide ranging negotiation and dissemination requirements, the interpretation of the results cannot be of qualifying and confrontative in nature, an hence it is advisable that it rested upon a consensus among the planners and the SEA Team.)

Key steps in analysis

Two main parts can be distinguished in the methodology. On one part, the analysis will qualify the expected new states of the environment from an environmental perspective, and it will have to find those conditions and circumstances, which offer an environmentally sound solution for the answering the “how” question. Simultaneously with the aforementioned procedure, indicators are defined, which serve the assessment and measurement of the processes revealed above during implementation and control. Processes and changes explored must be supplied with such a set of indicators which make it possible further on to assess environmental impacts during the implementation of the objectives.

Plans are not expected to comply with some set of limits (which is not possible since nothing is on the ground yet), but the must meet definite (legal or strategic) principles, priorities and objectives. Based on what was said above, the following three pillars of the system of environmental criteria (base of comparison) were formed:

⁴ Taking into account the directive is the more justified because it can be rightly assumed that provisions contained in the directive shall remain effective for the plans and programmes of the Structural Funds following the 2000-2006 and 2000-2007 programming peridos, respectively. (See Article 12 of Directive 2001/42/EC)

⁵ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.

⁶ See pursuant Article 8 of Directive 1260/1999/EC: „in designating the most representative partnership at national, regional, local or other level, the member state shall create a wide and effective association of all the relevant bodies, according to national rules and practice, taking account of the need to promote equality between men and women and sustainable development **through the integration of environmental protection and improvement requirements.**”

- **Establishment of general sustainability criteria:** During the development of the methodology, we tried to provide a general set of sustainability criteria (taking into account the holistic approach of sustainable development). Proposed sustainability criteria might be applied like a kind of design requirement in the elaboration of all operational programmes (not only the ROP). They anchor a general attitude that may guide elaboration of truly sustainable regional development interventions. They offer some control criteria and a base of comparison rather than measurable requirements which must be accounted for.
- **Identification of environmental problems, their causes and consequences:** In order to make the environmental analysis feasible, it is necessary to explore those social and economic processes which led to the emergence of the environmental problems. For the purposes of the analysis, a so-called “environmental problem tree” was formed, built on the analysis of the individual regions, which presents the elements of causative link between the cause and consequence of environmental problems. The aim of the application of an environmental problem tree is to make the causes leading to environmental problems known already in the design phase.
- **Identification of domestic and European Union environmental policy objectives:** Environmental policy objectives might be interpreted as “external acting factors”. Domestic and European Union environmental policy objectives form a framework, which has to be adhered to during all development efforts. In Hungary, environmental policy objectives were set in accordance with the second National Environmental Programme with due attention paid to the objectives of the Sixth Environmental Action Programme of the European Union. All in all, thirty two environmental policy objectives were set in a quantitative form, a part of which refers to the state of the environment and another part to the impact factors.

The goal of the SEA process following the determination of the framework set out above was to compare the structure and contents of ROP with this set of environmental criteria. This way, the SEA process investigated in details the depth of environmental problem management found in each chapter of the ROP (situation analysis, SWOT, set of objectives and priorities, measures), evaluated to what extent they tackled environmental issues, how they fit to the sustainability criteria, checked compliance with environmental policy objectives and the possibilities to establish consonance of environmental objectives with non environmental goals

II. STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE REGIONAL OPERATIONAL PROGRAMME

1. DETERMINATION OF ENVIRONMENTAL OBJECTIVES, PRIORITIES AND CRITERIA

Determination of environmental objectives, priorities and criteria makes sense at two different levels at least. At the level of criteria and conditions defined at the

general sustainability principles, and at the level of state and process indicators typical. These criteria and conditions have to be expressed together because it is possible to achieve improvement at any one point while impairing another factor or the system as a whole.

1.1. Overall sustainability criteria

Below, an overall system of criteria is attempted to be laid down which could be applied as a sort of design requirement during the development of any operational programmes, not only ROPs. Thus, the general environmental priorities and sustainability criteria try to reflect more of a kind of attitude, an approach, some control criteria and a base of comparison and not so much measurable requirements which must be accounted for.

System of sustainability criteria

<p>I. A long term balance must be achieved between meeting the needs and the preservation of natural/ environmental values.</p> <p><i>(a) the use of the environment should not exceed the extent of resource generation, and</i></p> <p><i>(b) the load of the environment should not exceed the assimilation capacity of the environment.</i></p>	1. The state and stock of environmental elements considered to be a substance of existence such as air, water, wildlife and the potential and the self-regulating capacity of the environmental systems constituted by them must be maintained within the loading capacity of the system and, if and where appropriate and possible, their state improved.
	2. In the management approach of the natural resources in general, a positive balance must be preserved between sacrificed and created values, whilst the use of non-renewable resources must not exceed the extent by which replacement of their use with renewables can be implemented.
	3. The amount and hazardousness of materials put back to nature as a waste must be diminished.
	4. The size of the available areas for use must be regarded as a stringent upper limit when planning spatial development, thus green-field conservative solutions must be preferred in development schemes.
<p>II. Processes entailing the loss of essential values cannot be tolerated.</p> <p><i>We lose with each extinct species.</i></p>	5. Diversity of natural and nature-like habitats, spatial coherence of habitats and the conservation and protection of naturally occurring species and traditionally grown or raised cultivars and breeds, all in all: the conditions for conserving biological diversity must be ensured.
	6. Maintenance of architectural, landscape and cultural values must be ensured.

<p>III. The potential for an equitable and humanely conducted life must be given to all both in the present and the future.</p> <p><i>A development makes sense only when it will be better to live there afterwards.</i></p>	<p>7. Development schemes must preserve local cultures and the production and consumption patterns developed in the process of adaptation to the local environment, thus ensuring the harmony between the community and its environment on the long run. In addition or instead of this – provided the former is not possible any more – development schemes are expected to support the establishment of sustainable production and consumption patterns. The direction of forming production and consumption patterns must turn from the range of material and energy intensive products and services towards more and more material and energy efficient solutions entailing knowledge and culture based production and consumption.</p>
	<p>8. Local communities must be given the possibility to a wide variety of choices in terms of desired and selected ways of life, provided these do not mutually exclude each other and comply both with sustainability and development criteria.</p>
	<p>9. Each activity depending on environmental management must be implemented at the level where the management of the problem entails the largest benefits for both the environment and otherwise and the least environmental risk and harm, respectively.</p>
	<p>10. At the local level, the use of manageable resources should serve primarily the common good of the local community.</p>
<p>IV. Sustainable development can only be achieved by a responsible person.</p> <p><i>An improvement in the quality of life of an individual cannot happen at the price of damaging environmental goods preferred by him or by others.</i></p>	<p>11. The individual, the community and the region (or any other unit of design) does not threaten either directly or indirectly the enforcement of the same criteria and requirements in other regions or areas.</p>
	<p>12. There are the necessary tools available for awareness raising with regard to sustainability principles and to make them an ethical norm in the members of society, simultaneously ensuring participation of all the interested parties in the decision making process.</p>

1.2. Environmental policy objectives

The general criteria described above can be considered as “internal” from the point of view of ROP (and its environmental assessment, respectively), but there exist “external” factors as well, which might determine the environmental performance shown by ROP. Such external factor can be the effective National Environmental Programme (NKP) or the National Regional Development Concept (see also the list page 14, item c)). In our view, the NKP objectives currently in the pipeline and dealing with the period between 2003-2008 must also be taken into consideration as a baseline. Among the external factors, not only the environmental objectives of the NKP must be considered but also the main objectives of the environmental policy in force in the European Union. The entirety of these factors can be regarded as a system of criteria

from the perspective of the ROP as effective regulations ensure the implementation of these environmental objectives.

Below, the key domestic environmental policy objectives are demonstrated and their connection with the priorities set out in the Action Programme No VI of the European Union, indicating the number of the priority as well. Objectives are presented in a structured way so that beside the column concerning objectives in relation to the state of the environment (see column „Objective concerning the state”), objectives encouraging the elimination of the causes leading to the environmental problems are also defined (see „Objective concerning the impact factors”). As it was indicated before, at this level of regional development schemes, the potential social, economic causes need to be analysed, which might result in adverse changes in the processes defining the state of the environment. The observance of this two-tiered system makes it possible for the development plan to focus on the avoidance of potential environmental damages, in other words on the prevention of formation of causes.

Environmental policy objectives and their connection to the European Union legislation

Affected environmental element or field	Objective concerning the state	Objective concerning the impact factors	Connection of the objectives to the VI Action Programme of the European Union
1. Air quality	1.1. The size of polluted areas, the number of population affected and the number of limit violations should be reduced.	1.2. Decrease in sulphur-dioxide, nitrogen-oxides, volatile organic compounds (VOCs) and ammonium emissions.	III. Environment and health: Achievement of air quality which does not cause unacceptable impacts or risks to human health and the environment.
		1.3. In order to reduce global air pollution impacts, the net greenhouse gas potential should be reduced.	I. Managing climate change: The European Union has undertaken under the Kyoto Treaty to reduce greenhouse emissions by 2008-2012 by 8 % of the base rate 1990
2. Surface waters	2.1. Improvement of oxygen and nutrient turnover and the bacteriological parameters (class).	2.2. Organic matter load of surface waters should be diminished, even when the volume of sewage water discharge is expected to grow.	III. Environment and health: Achieve such a water quality standard which does not cause any unacceptable impact or risk to the human health and the environment.
3. Underground waters	3.1. Diminish the number of water extraction wells contaminated with nitrates in excess of 50 mg/l nitrate concentration.	3.2. Disposal of waste water without causing damage should become common.	III. Environment and health: ensuring long term sustainability of drinking water extraction rates.
		3.3. During the use of thermal waters, recharge must be applied more frequently.	
	3.4. In terms of groundwater depression, the decline in water table pressure levels should be stopped and the increase in pressure levels started.		IV. Sustainable use of natural resources and waste management: Ensuring that the consumption of renewable and non-renewable natural resources and their secondary impacts did not exceed environmental carrying capacity.

Affected environmental element or field	Objective concerning the state	Objective concerning the impact factors	Connection of the objectives to the VI Action Programme of the European Union							
4. Soil and fertile land	4.1. The size of the areas threatened by soil deterioration should be reduced.	4.3. The number of environmentally noncompliant landfills should be less.	<p>II. Nature and biodiversity: Soil protection against erosion and contamination.</p> <p>IV. Sustainable use of natural resources and waste management: Ensuring that the consumption of renewable and non-renewable natural resources and their secondary impacts did not exceed environmental carrying capacity.</p>							
	4.2. In terms of pesticide residues and heavy metal concentration, the goal is to reduce the frequency of limit violations and the concentration of organic and inorganic micro pollutants.			5. Landscape and nature	5.1. The ratio of protected areas compared to the country's total area should be 12 %		<p>II. Nature and biodiversity: Protection and – if appropriate – restoration of the functionality of natural systems, stopping the decline of biodiversity.</p>	5.2. Improvement of the situation for endangered species, elimination of the endangered statue (number of species not considered as endangered /re-qualified species).		5.3. The ratio of interdependent natural and nature-like habitats should be kept at the present level
5. Landscape and nature	5.1. The ratio of protected areas compared to the country's total area should be 12 %		<p>II. Nature and biodiversity: Protection and – if appropriate – restoration of the functionality of natural systems, stopping the decline of biodiversity.</p>							
	5.2. Improvement of the situation for endangered species, elimination of the endangered statue (number of species not considered as endangered /re-qualified species).				5.3. The ratio of interdependent natural and nature-like habitats should be kept at the present level		<p>II. Nature and biodiversity: Protection and sustainable development of forests.</p>	5.4. Increase in areas covered with growing stock and dedicated for re-forestation, increase in the size of forests found in protected and strictly protected nature conservation areas and forest reserves.		
	5.3. The ratio of interdependent natural and nature-like habitats should be kept at the present level		<p>II. Nature and biodiversity: Protection and sustainable development of forests.</p>							
	5.4. Increase in areas covered with growing stock and dedicated for re-forestation, increase in the size of forests found in protected and strictly protected nature conservation areas and forest reserves.									

Affected environmental element or field	Objective concerning the state	Objective concerning the impact factors	Connection of the objectives to the VI Action Programme of the European Union
	5.5. The proportion of woodland covered with native forests should be increased.		
	5.6. The ratio of Natura 2000 areas compared to the total area of the country should be 15%.		II. Nature and biodiversity: Establishment of Natura 2000 areas.
	5.7. Beside ensuring the survival of geological and geomorphologic values the ratio of endangered values should be diminished		
	5.8. Traditional landscape structure, nature-like landscapes and unique scenic beauty should be preserved		II. Nature and biodiversity: Establishment of Natura 2000 areas, integration of landscape protection into the rural development and agricultural policies.
6. Sustainable use of natural resources		6.2 The ratio of renewable energy sources in the power mix should be increased to at least 6 % by 2010.	I. Managing climate change: improving energy efficiency and energy rationalisation, broader use of renewable energy resources and raw materials.
	6.1. Increase the agricultural area in the realm of extensive use and protected zones.	6.3. The size of certified land cultivated using organic farming methods should be increased.	II. Nature and biodiversity: integration of landscape protection into the rural development and agricultural policies.
		6.4. Unjustified seizing of land and land use patterns must be avoided (such as landfills, line facilities, built-in zoning)	IV. Sustainable use of natural resources and waste management: Ensuring that the consumption of renewable and non-renewable natural resources and their secondary impacts did not exceed environmental carrying capacity.

Affected environmental element or field	Objective concerning the state	Objective concerning the impact factors	Connection of the objectives to the VI Action Programme of the European Union
7. Spreading environmentally friendly consumption habits		7.1. Waste generation must be prevented both during production and consumption.	IV. Sustainable use of natural resources and waste management: separation of waste generation from economic growth, comprehensive shrinking in volumes of waste generated through waste prevention initiatives; better resource efficiency and a shift towards more sustainable consumption patterns.
		7.2. Options for environmentally conscious way of life should be improved (such as selective communal waste collection, improvement in competitiveness of environmentally friendly and ecological products)	
8. Health protection	8.1. Decrease the prevalence of hay-fever and asthmatic conditions.		III. Environment and health: Creation of quality environment where artificial pollutants do not have any adverse impacts on the human health and they do not represent any material risk.
		8.2. Chemical risk exposure limitation in food.	
9. Improvement of environmental quality in settlements	9.1. Increase of green public urban land		
	9.2. Decrease slumming.		
		9.3. Healthy drinking water supply to all communities.	
		9.4. The number of population exposed to a noise in excess of 75 dB(A) should approximate zero	III. Environment and health: the number of people exposed to long term significant noise impact routinely should be reduced by 10 % by 2010 and by 20 % by 2020.

When sustainability criteria and environmental objectives are compared, it is striking for the first sight that the latter extends to a lot more narrow scope, i.e. to attain only certain environmental state indicators. This situation is problematic for we want to protect various states, while influence can be exerted only to processed and not states. A progress needs to be made in this respect, which is a difficult issue for even the state indicators of environmental elements cannot be appropriately monitored.

2. ASSESSMENT OF THE ROP SITUATION ANALYSIS AND SWOT ANALYSIS

The grading included in the situation analysis can be compared most of all with the scale of values presented above, yet the situation description itself is needed to be matched with the system of actually emerging environmental problems. For this to happen, the first step is to create a problem tree which takes into account the regional aspects as well, containing a consolidation of all the problem trees prepared in an earlier stage of the work explicitly for each of the regions (see pages 27 to 29). The basic objective of the analysis is to assess the situation analysis and determine how thoroughly and in what quality it explores the condition of the associated environmental states, the tendencies of characteristic changes and the causes, influencing factors which determine these tendencies in the state of the environment.

Thus, the situation analysis was to be analysed from following the three aspects:

- A. **Completeness:** The problem tree completed is to be confronted with the situation analysis of the ROP which in turn provides the basis for a **completeness assessment** focusing mainly on deficiencies and omissions.
- B. **Consistency:** Confronting the ROP situation analysis with the problem tree is a suitable tool to carry out a so called **consistency assessment**, which reveals whether the objectives of the plan are in line with the problems raised and *vice versa*, whether the objectives set have an origin among the problems identified.
- C. **Rating adequacy:** As a third task, the situation analysis can primarily analysed from the point of view of the scale of values, where the issue to be decided is not completeness, much rather the **adequacy of the quality-oriented statements contained in the analysis**.

2.1. General assessment

When the material as a whole is seen, the most elaborate chapter will be the one about measures, consequently it can be clearly sensed that planning was made backwards. This would not be a problem in itself, but the document does not contain the logical series of **state – problems – causes – objectives, priorities – means, tools**. The main reasons for this are as follows:

- The descriptive parts remain an unarticulated text, **it is not highlighted which state indicators justify individual interventions and why**. Similarly, the reason for the problematic status of each of the state indicators is not revealed. Here, at the end of the individual chapters, it would be worth highlighting the essence of the situation description and the emerging problems and to make some conclusions.
- **The missing logical sequence outlined above is indicated by the situation of the SWOT analysis**. The analysis itself has no organic ties to the situation description parts and it does not really turn out what is the system which represents the basis for judgements.
- **The problems identified are systematically of effect type**, environmental problems are treated by the situation description part embedded in social and economic issues, in other words in conjunction with the issues of development. Cause and effect exploration of the development problems is missing entirely and therefore the programme is not capable of adequate management of development issues.

It is also a consequence to the aforementioned facts that the ROP would consider such states as advanced, as a goal or objective to be achieved which are unfavourable from an environmental perspective. This problem is set out in details in the chapter to follow.

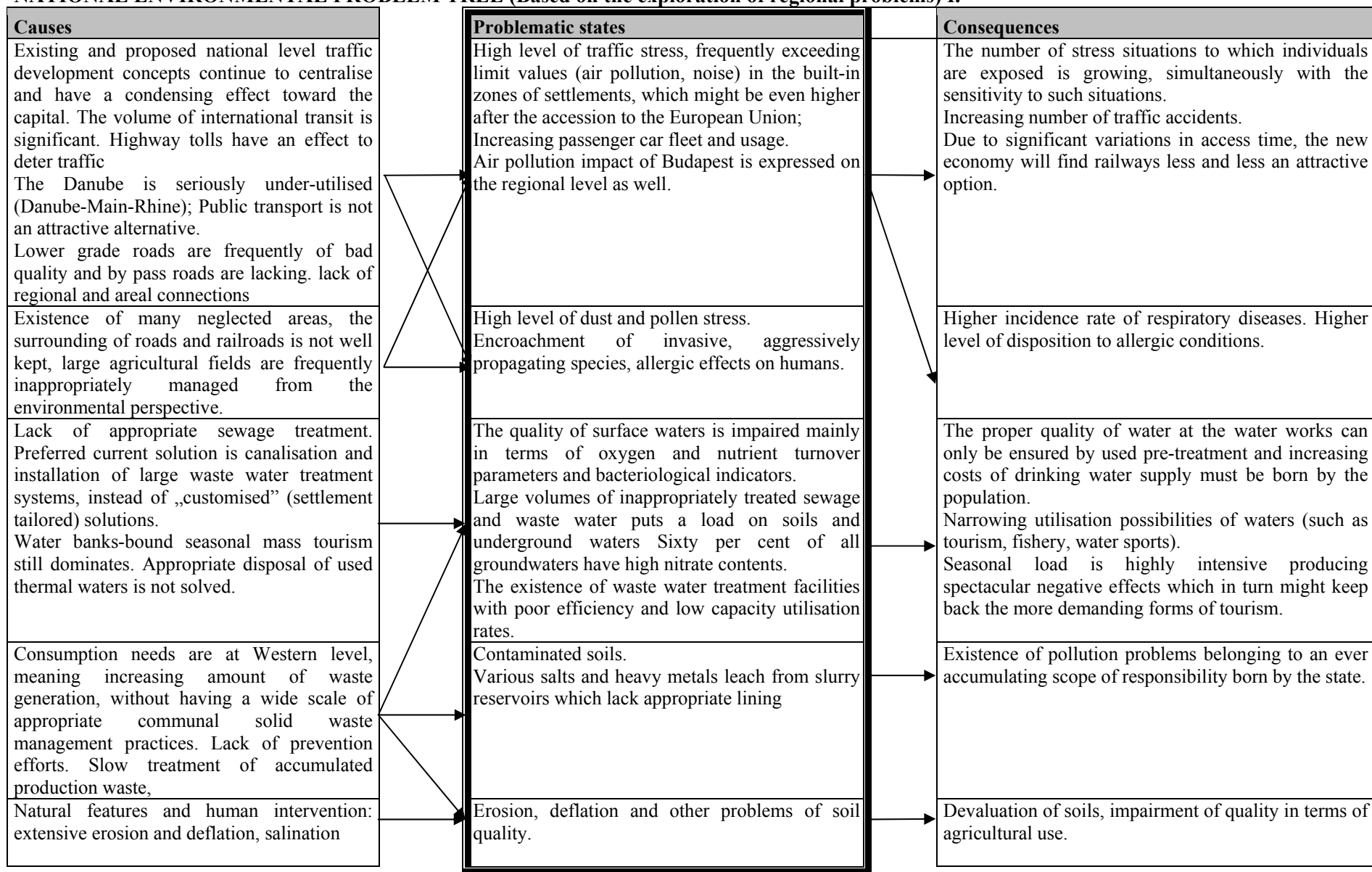
Situation exploration parts reflect some problems in the general approach which are built on the economic development axioms of the era which are generally accepted but not well considered from the aspects of sustainability. These problems of approach were mitigated in the more recent updates of the ROP, yet they are still present in the document as a whole. Part of the problems are independent from the actual ambitions and aspirations of the planners as the structural and substantial planning of the ROP (like the entirety of the NFT itself) was frequently a function of direct expectation from the European Union and these limits did not provide the opportunity to eliminate the problems raised. The process is well characterised by the changing attitude of the ROP from the regional to the thematic focus. According to the original plans, ROP was the only operational programme to plan measures at the regional level. A ROP made in this assumption would have been able to reinforce the establishment of local decision making systems, the representation of local interests, and the use of local labour force in compliance with the local needs. In lack of this, however, the success of the main objective of ROP itself, i.e. the equalisation of regional inequalities will be questionable.

It was objected in the 2002 versions that objectives and associated measures were determined by neglecting the features of physical and economic geography. This objection was further aggravated in later and the final versions as the country was handled as “one region”.

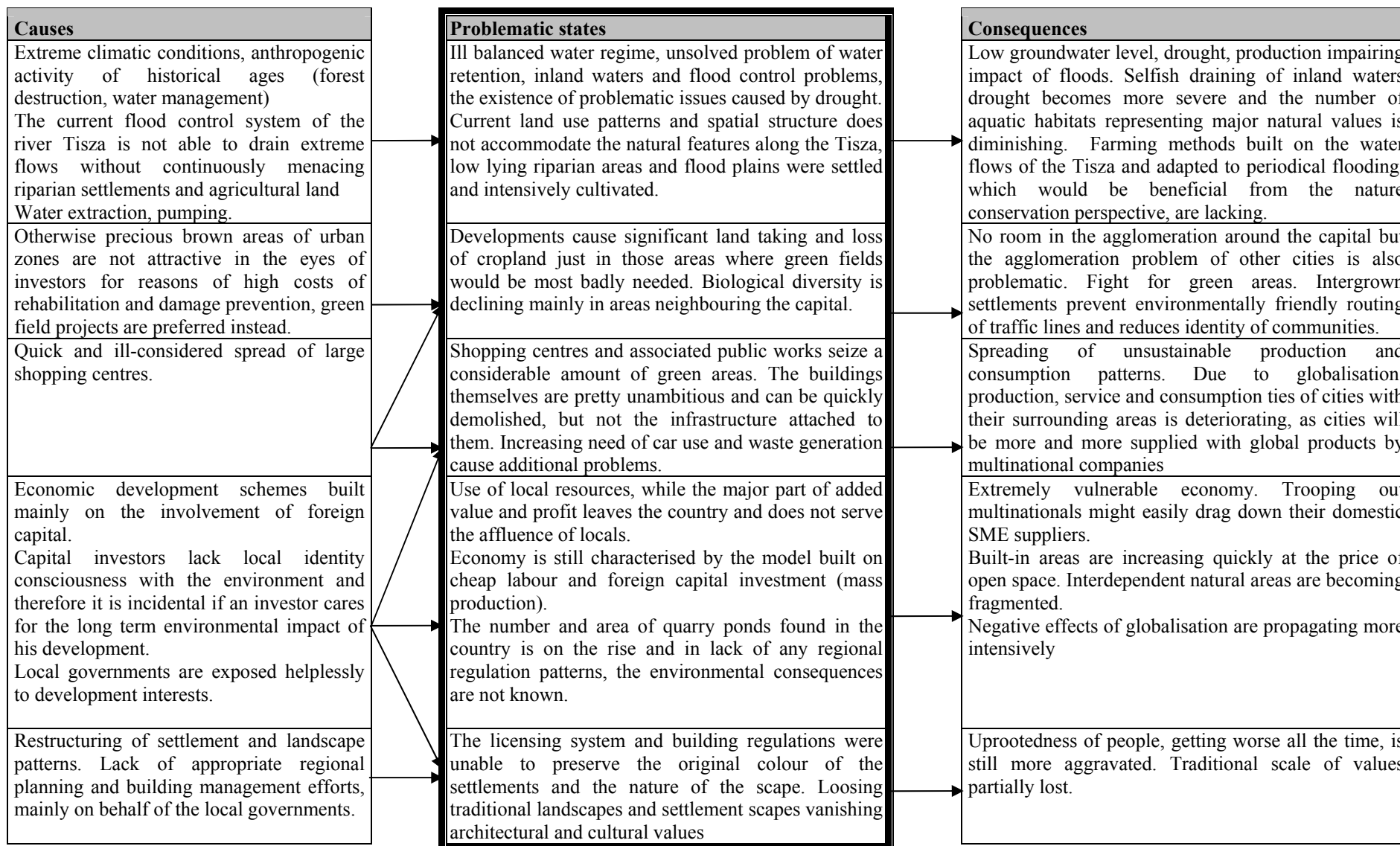
Although the programme refers to the requirement of planning the individual projects in accordance with the characteristic features of the regions, yet the

programme itself there are hardly any reference to these features. SWOT analyses prepared for each of the regions demonstrated explicitly that programmes of the various regions which have a great variety of historical past, ecological or cultural background and affection to the locality, cannot be schematised.

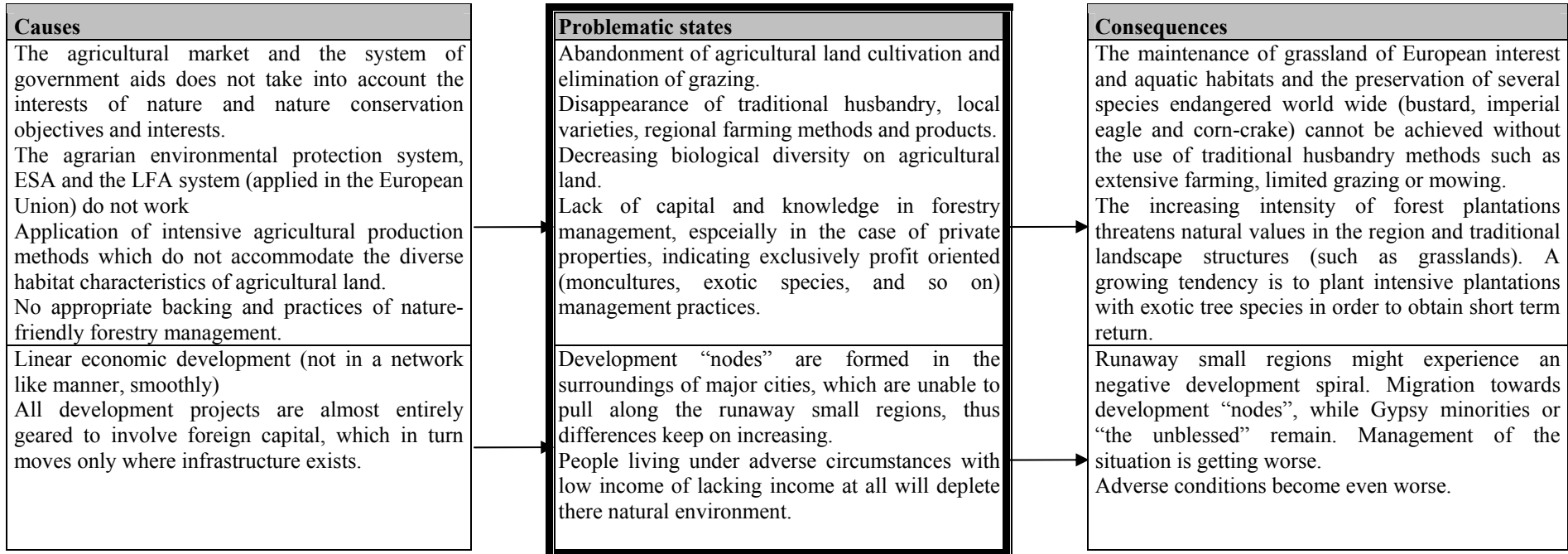
NATIONAL ENVIRONMENTAL PROBLEM TREE (Based on the exploration of regional problems) I.



NATIONAL ENVIRONMENTAL PROBLEM TREE (Based on the exploration of regional problems) II.



NATIONAL ENVIRONMENTAL PROBLEM TREE (Based on the exploration of regional problems) III.



2.2. Consistency of the situation analysis with the problems identified

The national environmental problem tree described in the previous chapter tries to clarify both the causes and the consequences of the emerging environmental problems. Partly this is aimed at defining the target areas of problem solving and partly to get to know the accumulated consequences of the existence of any environmental problem, since in a comprehensive programme like the ROP, you have to reckon with these. **It is exactly this attitude – exploring the relationships between things – which is missing from the situation assessment chapter, not only in terms of environmental, but economic and social issues as well.** This results in the statements presenting the situation left without causes and consequences, thus allowing for measures which themselves lack causes and consequences.

The situation description parts start with the discussion of differences in economic and social development. The problem tree also touched upon some issues associated with this, but the first few chapters do not recognise really the existence of such types of correlations. The first two chapters elaborated on the lines of the conventional concept of advancement and backwardness. The picture is further distorted by the description obviously not reckoning with the impact of the grey and black economy, for instance in terms of judging economic activities, yet which ought to have been taken into consideration to some extent. A typical example for this problem is the evaluation of the communities around the Tisza lake. According to the data of the Central Statistical Office, the area is backward, income generating capacity is less developed and unemployment rates are high. Yet in certain settlements one third of the houses was built in the last ten years, beside the large number of weekend houses. The reason for this is that less than half of all income of the population is reflected in the statistics.

Beside this, it would also be important to know that why the network of mutual favours operates so smoothly in the villages considered to be backward, a system which stands a lot closer to sustainability than to the advanced level of market economy. People carry out work free or for symbolic sums to each other based on mutual courtesy. There is no value added tax, income tax here and it does not count in the gross domestic product, either. Actual economic performances could easily be measured from the products created. Unfortunately, the system of mutual courtesy will diminish for the transformation of economic processes but this is not an improvement, much rather deterioration from a sustainability perspective. The more developed an area, the less you can reckon with this feature and at the same time this is exactly which enables people to make a living on lower, taxed revenues. (Let alone the existence of equitable human relationships.)

Customarily, the situation description part regards the capital as the top of domestic advancement. In contrast to this, approaching from the side of environmental problems and sustainability, **the big cities – a title which Budapest is also striving for – appear in this perspective as a failure covering almost all criteria of sustainability.** This is the kind of metropolitan medium where not only the states contradict to sustainability concepts but also the main trends in changes, tendencies which are

notoriously presented to the population as examples of forward-driven modernisation.

The Hungarian capital, just like any other megacities, is not capable to tackle the its own problems or the problems caused by it, and the situation is further aggravated by the strong negotiation position of the capital which results in plans and programmes at the national level further strengthening centralisation. If Budapest is considered to be a typical stage of development, sustainability has no chance whatsoever against this, however, if something else is considered to be development, why do we leave large metropolises to move away from the good on an undesirable development course. A city making the wrong tendency might easily carry away the larger part of society and then these people could experience any material changes towards sustainability as a personal disaster.

The parts presenting development do not heed the problems which represent a threat to the environment or to society as a result of the various economic processes taking place in this country. Development schemes, built in an overwhelming majority onto the involvement of foreign capital, might raise a legion of problems due to their lack of affection towards the country or the area concerned. Similarly, environmental problems and social tensions are formed exactly in places where development was said to be dynamic because of lacking the appropriate determination and opportunities on behalf of the local governments and municipalities. For this reason, it would be interesting to think a little bit over the statements set out in the problem tree.

The evaluation found in the Chapter 1.3 of the ROP were already covered in context with Figure 1.2. The heart of the matter is that the figure and, consequently, the analysis associated with it is based on such a type of indicator system which originates the criteria of being developed from the characteristic features of a large city. In view of this, the appearance of the well developed status – as it can be seen on the figure as well – is not the result of some kind of a more elaborated analysis, but merely a consequentiality of the fact that how many and how big cities are there in the small region in question.

The first chapter and to a great extent the second one as well, serve for the presentation and demonstration of differences between the level of development, in accordance with the very same concept which has dominated the earlier versions of ROP and which asserted that the fundamental mission of the programme was exactly to eliminate or at least reduce these differences. However, this aspect vanished from the later versions of the ROP, thus making the analysis itself somewhat dusty, since the results hardly have any influence on the objectives of the measures. This is the same situation as it was in the case of the regional breakdown of the situation analysis, in other words there is no integral relationship between it and the objectives or the measures. **The situation analysis is a residual trace of another, better than the present concept, represented by the makers of the document in earlier versions, which however cannot be naturally integrated into the system of objectives and**

priorities, simplified in due diligence according to the instructions received from Brussels.

Chapter 2 of the ROP analyses **the evolution of the entrepreneurial segment and the spatial variations of foreign capital in-flow**. Here, it is especially disturbing that due to the data originating from the agglomeration around the capital, the Central Hungarian region is indicated as the most developed one, masking the real situation which is that the development of the agglomeration did not entail the development of the region around it. Environmental problems clearly show that this capital influx is getting to be having adverse effects on the agglomeration itself, where there is hardly any more area to be used for the development schemes without facing some kind of problems.

Even within this context, the paragraph concerning wastewater treatment is not tied up to the message organically. Tourism is limited by a number of other deficiencies as well, for instance the state of the water management practices, yet this aspect is not highlighted in a similar way. It might have been better to derive the desired measured from the existence of the real environmental problems. For instance, the fact itself that a community has less than 2000 inhabitants, would not necessarily entail that it was contaminated and polluted to an extent which prevents tourism from development. Let alone the fact that the adverse situation here is characterised by the septic tanks deliberately left leaking, the harmful effects of which is not very much perceived by a tourist.

One of the most neuralgic point from the environmental perspective is **regional accessibility**, discussed in Chapter 2.5, which considered here by the operational programme to be identical with the problematic of the state and development needs of the traffic infrastructure. As it was stated above, traffic and transport are the developing sectors taking over the leading role in generating environmental problems. The European Union is also inconsistent in this respect as it will induce mobility through the Structural Funds, whilst according to its own environmental policy objectives (both in the Sustainable Development Strategy and the VI. Environmental Action Programme and the Traffic Policy 2001) there is a desire to separate the growth of gross domestic products from increasing mobility. A tool for this would be the application of energy and road taxes as a manifestation of the polluter pays principle, in other words external costs of traffic would be internalised. Under such circumstances obviously the development tendency of mobility would be given different preferences and it is not that certain that the problems of regional development would be wanted to be solved with the means of traffic and transport only. In addition, the ROP is erroneous in identifying accessibility with mobility, which leads to the mistaken statement where the development level of mobility is called the depositary of development. The measurement concerning the accessibility of county seats is false for several reasons. One hand, various areas obviously possess different physical geographical features and peculiarities, for instance the penetrability of a hillside country differs from that of a plain. It is even more important however that the accessibility evaluation of a county seat is measured by the development model where county seats are regarded as the centres for supply, albeit the very

essence of spatial development would be to provide the opportunities for dealing with services, production, market and public affairs locally. In the latter case, *accessibility* of the services would be improved substantially without necessarily having to make long distance trips.

The descriptive part also contains a frequent mistake when it assumes to have discovered the following correlation: „A mere 2 % increase in the length of public road network and simultaneously an increase in the number of motor vehicles of one third in the last decade contributed significantly to the impairment of road quality and incremented accessibility times.” Impairment of road quality was due to the inappropriate pavement and state indicators and the lack of the necessary maintenance works and renovations. **Provided the road network was even bigger, the situation would have become even worse, as a consequence of lacking resources.** Bringing the existing road network up to an acceptable standard and the continuous maintenance of that standard would result in a substantial improvement in itself, including the achievement of the appropriate levels of building up. This is a lot more important in most rural areas than the extension of the network.

The public traffic network coverage might seem to be appropriate in an international comparison because the subject matter of the comparison might have involved countries where passenger car use is even higher than in this country. In the case of the railway, even the existing network density is under serious threat with more and more feeder lines being eliminated, and the technical conditions of the main lines can also be called very bad, in spite of the railway's potential to take over passenger traffic provided there is an appropriately high standard achieved in services. This impact could be felt when the Intercity lines were established. One of the main reasons underlying of the reduction in network coverage is the lack of suitable level of subsidies, for instance for the purposes of passenger traffic development and the construction of fast train services, etc. State subsidies or their shortage for that matter are strongly influenced by the set of economic values, which has a power far beyond the interest promoting capability of environmental protection.

An excellent example to this trend is the Budapest – Debrecen – Nyíregyháza line where there are eight pairs of train running on a daily basis (with incidental shortage of seat reservations occurring at the weekends), which means an annual seat capacity of nearly two millions and a very good average utilisation rate of 75%. Converted into real passengers this involves 1.5 million travellers. (When considered on the daily basis, and assuming that all the persons otherwise would have used their passenger cars, this figure might easily mean that these trains drain some 1000 cars from the roads every day.) The use of intercity trains might be further developed. Reflecting the example of a major part of European Union Member States, a long term objective might be the daytime hourly train connection with regard to the county seats, major regional centres and the capital.

What was said above deserves special attention because road traffic has become the source of environmental problems more recently which are the most difficult to tackle,

as it is indicated by the problem tree, and the situation analysis provided by the ROP also covers this issue the most extensively.

2.3. Fitting the situation analysis to the scale of sustainability criteria

Below, it was investigated on one hand that to which extent the situation analysis affects the set of sustainability criteria, to which extent the statements contained in the situation analysis can “cover” the criteria suggested by us. On the other hand, it is also assessed, how far the existent present trends of spatial and regional development tendencies are from the desired parameters of sustainable development.

Elements of sustainability criteria	Are they represented in the situation analysis?	Sustainability situation
1. Preservation and improvement of conditionally renewable environmental elements	No	+
2. The desired level of utilisation of natural resources	No	+
3. Diminishing rate of waste generation and their level of hazardousness	Only as a mention	+
4. Restrictive use of land surface in the process of development projects	Yes (in the environmental chapter)	-
Elements of sustainability criteria	Are they represented in the situation analysis?	Sustainability situation
5. Conservation of biological diversity	Yes (in the environmental chapter)	-
6. Ensuring the survival of architectural, landscape and cultural values	Yes (in the environmental chapter)	-
7. Conservation of consumption and production patterns adapted to the local environmental characteristics	No	--
8. Preservation of the opportunities for selecting a lifestyle of free choice	No	-
9. Subsidiarity at the level of various activities	Yes (in the local administration chapter)	--
10. Local resources should benefit the local populations.	No	--
11. The region cannot restrict or prevent other regions in attaining the achievements listed above	No	-
12. Sustainability principles should become an ethical norm	No	--

Key to symbols:

- ++** there is a good potential for switching to sustainability
- +** there is a potential for switching to sustainability
- the current state of affairs is disadvantageous from the point of view of sustainable development
- the current state of affairs is unsustainable

The situation analysis of ROP is basically built on the logic arguing that only those situations (problems, values and so on) are required to be explored which are being dealt with to some extent by any of the ROP measures. This reverse thinking is absolutely mistaken from the environmental perspective, since the environmental impacts are very frequently indirect effects and thus a development might easily influence the evolution of such social-economic or environmental situations, which otherwise are not subject to the development scheme in question.

Thus, the situation analysis does not cover or mentioned only marginally the issues concerning the application of renewable energy resources or waste management practices. In spite of the existing potential available for the development schemes to be formed in a way (provided there is an appropriate incentive in place to do so) which result in preferring those technologies during the investment phase. **Elements of the sustainability criteria mean such a set of conditions which might be taken into consideration in the process of any kind of development scheme and which have a generic nature.** Yet, there are no aspects present in the ROP which could be enforced generally in the overall development process.

In lack of this set of conditions, the ROP had to focus on economic development in the definition of the comprehensive overall objective, i.e. the regional balancing procedure: „This means both the development of the decisive centres and cores of the individual areas just as well as the development of socially and economically backward areas and parts of settlements inhabited by mainly those finding themselves in a backward situation, respectively.” Any direction and depth of development is outlined in concrete forms only in terms of economic development. This attitude is present all over the entire ROP, thus important values such as improvement and protection of lifestyles, local traditions, local communities and resources are put backstage, the representation of which is very weak anyway, due to the overweight of economic aspects. These tendencies are illustrated by the “Sustainability situation” column in the table above.

2.4. Concrete suggestions

The social-economic differences outlined in the chapter “**Capital and country**” are the originating force for a number of environmental problems which have to be faced

in the area, exerting an ever growing environmental toll on both the capital and the agglomeration around it. Textual recommendation is as follows:

At the same time, Budapest is prone to more and more problems associated with large cities. „Due to the role played by the capital as a central economic and traffic hub, environmental pollution of industrial and traffic and transport origin is concentrated in a significant extent in the capital and its agglomeration. Spread of the capital and the other settlements in its area of agglomeration leads to the diminishing amount of green areas, especially as a result of the population expatriating from the capital and settling down in those settlements. As a result, the proportion of slumming and neglected areas scattered with litter within the city is on the rise. In the agglomeration, by the increasing number of commuters, the traffic situation worsened substantially and the environmental impact in the form of pollution increased. In parallel to this trend, emigration is a typical feature in the areas outside the central agglomeration, a significant rise can be seen in the number of pauperised masses, which entails the simultaneous degradation of traditions and cultural values.”

In the chapter entitled „**Western-eastern dichotomy**”, when the advancement of the western parts is discussed, there is a need to mention a certain number of environmental risks. Textual recommendation is as follows:

„However, multinational big business renders individual western parts uniform to a certain extent, which have been characterised by a rich diversity of traditions and culture for several centuries. As a consequence of the extreme popularity of the “international sameness”, the lifestyles and cultures typical for the respective areas are vanishing quickly which phenomenon in turn is accompanied by the adverse effects of the changing consumption patterns. In order to eliminated these impacts and the handle them, there are only rudimentary initiatives in place, for instance in most cases the basic conditions required for selective waste collection are not there, and information dissemination serving the promotion of environmentally sound behaviour patterns are also lacking. In the future, efforts should be made to encourage economic development in the specific areas only when environmental and infrastructural conditions for receiving them are already in place.”

The issues covered by the chapter „**Small regions and settlements**” also include the aspect that the reinforcement of rural communities building on the local traditions and natural resources is of key importance from the point of view of implementing the sustainability criteria. Textual recommendation is as follows:

„However, in economically backward or stagnant small areas, husbandry forms and practices co-operating with nature are still to be found, there is a tradition-preserving handicraft history, and clean and healthy environment. Economic close-up can only be facilitated through the preservation and development of these values.”

In the chapter entitled „**Characteristic features of the settlement pattern**” the table illustrates the disparity between water supply and sewage treatment facilities well, yet no textual information or assessment is given on this particular feature in the chapter. It would be important to highlight that the multi coloured nature of the settlement

pattern in Hungary is an important cultural values, the preservation of which and sustaining the rural population there is a task of paramount importance.

The chapter on „**Economic competitiveness**” should cover the impacts of environmental considerations on the competitiveness, thus energy efficiency and resource economy. Textual recommendation is as follows:

„The competitiveness of the Hungarian economy is impaired considerably by the unsparing and squandering natural resource management practices. The advantages which have originated from the restructuralised economy and the abandonment of intensive agricultural husbandry practices in the period after the political transition are slowly fading away and newer types of environmental problems take their place, such as an almost complete lack of environmentally friendly waste management, insufficient energy rationalising measures, the missed opportunity to introduce high quality environmental management systems, the increase in the number of greenfield investments, and so on.”

The chapter on „**Demographic processes**” discusses the causes of migration, among them as a disadvantageous and unfavourable tendency the economic backwardness and the insufficient quality of life. (The opinion from here goes on as a textual recommendation as follows.)

„It is important to stress that these tendencies contribute to non-sustainable development patterns and their unfavourable environmental impacts to a great extent. During migration, handicrafts and other local manufacture practices based on the traditions and cultural values left behind start to deteriorate quickly and long distance transport and use of natural resources in the large centres of attractions are further reinforced and concentrated. These processes further aggravate environmental problems and the impairment of quality of life both locally and in the large centres of attraction, respectively. In order to stop these disadvantageous processes, developments based on local resources and labour must be preferred and the production and consumption patterns co-operating with the environment and relying upon local, centuries long traditions must be preserved.”

In the chapter on „**Labour market**” the statement to be found in the last paragraph, saying that “By taking advantage of the more intensive utilisation of local employment potential in backward areas offering low level of job availability and in settlement parts inhabited by low status and usually backward situation people, the level of employment and quality of life can be enhanced considerably” represents only partly the truth. Certainly, solving the employment problem in backward regions might facilitate the elimination of several other associated problems simultaneously, but it involves substantial sustainable economic, quality of life, cultural or environmental benefits in a number of other, more advanced or developed regions and areas.

The situation analysis in the chapter on „**Education and training**” does not deal with the substantial matters involved in education, yet the ROP, with its great number of objectives and measures makes an attempt to establish knowledge-based industries and regional knowledge-centres. Beside adapting the training schemes to the vocational

needs of various trades, at least equally important is to engrave the proper integrated attitude in young generations. Education institutions must create the intellectual capital which is able to direct and manage economic and social development in a sustainable way.

The chapter entitled „**Accessibility in the region**” does not deal with the environmental implications of the quality of public roads and the adverse effects of an overwhelmingly dominating road traffic on the environment. However, by preferring developments which take into consideration environmental aspects as well, the already established harmful effects can be seriously mitigated and the further risks avoided.

In respect of the earlier versions of the plan it was proposed that an environmental situation analysis be presented in parallel and with equal weight beside the situation analysis of the social and economic aspects, containing the key regional implications of the environmental state. The last version of the ROP already contained this amendment. Based on the completed national environmental problem tree further amendments were recommended in the chapter „3. A comprehensive assessment of the state of the environment in Hungary”: (Additions highlighted by underlining)

3. A comprehensive assessment of the state of the environment in Hungary

The chapter on the regional environmental situation analysis in Hungary has been developed with due regard taken of the contents contained in the environmental situation analysis of the National Development Plan. Key conclusions are in line with the situation analysis defined by the second National Environmental Programme, launched this year. This assessment provides the basis for the monitoring of the environmental impacts of activities financed by the Regional Operational Programme.

3.1. Environmental state of the individual regions

Social and economic transformation of the past decade has changed the nature and magnitude of effects having an influence on the state of the environment a great deal. The change in the state of the environment having taken place during the past few years with a favourable outcome in the aggregate was experienced in different extent in the various regions of the country, and even within one region, perceivable differences were seen between individual settlements or clusters of settlements. Certain kind of environmental loads were reduced significantly (such as the air pollution caused by heavy industry emissions or the use of artificial fertilisers, and so on), yet at the same time new types of environmental problems also appeared in the past decade as a result of changing production and consumption patterns (for instance, the increasing amount of waste generated, the change in its composition, etc.). Adverse processes occurring in the various elements of the environment frequently extend to the entirety or a part of a whole physical geographical unit (such as a water catchment area), maybe the problems present themselves along a linear expansion pattern such as alongside roads or rivers.

For the major part, environmental problems are associated with the trends seen in the social economic processes and to a minor part they have a connection with the former pollution of an area which was left behind. In parallel with the still remaining and from a certain aspect even reinforced social and economic inequalities, environmental state indicators also feature significant spatial differences. The overwhelming economic dominance of the capital in the Central Hungarian region is a source of significant regional environmental problems (for instance, noise and air pollution originating from an overloaded traffic). The tendency is further aggravated by the centralised traffic network of the country around the capital and the city's encroachment onto surrounding areas. Although these problems afflict the capital and its agglomeration most, the ever increasing urbanisation, the deterioration of

rural communities, in other words the so called "city versus country" problem is typical for several regions of the country.

The natural beauties of Hungary are of paramount importance in international comparison. A wide variety of multi-coloured geographical features are supplemented with the manifoldness of landscape sceneries and biological diversity. Traditional land use patterns contributed to the formation of further characteristic and species rich habitats and biotic communities. In 2002, 9.2% of the entire surface area of this country was designated to be a nature conservation area and within this, 1.2 % was strictly protected. The proportion of areas under nature conservation measures is the highest in the North-Hungarian region (13.4%) and the lowest in South Transdanubia (5.7%).

At the same time, a number of disadvantageous phenomena and processes indicate the threatening of these abundant natural heritage. The relatively untouched proportion of the land area was reduced to 15% of the whole surface and once interdependent habitats, featuring continuous transition from one into the other has become fragmented by now. Changes in the land use patterns (for instance, an ever growing ratio of land set aside where cultivation is being abandoned, and so on) entailed a number of other processes as well, which are not beneficial from the nature conservation perspective: spatial development of the settlement took place in many cases at the price of the green ring around the settlement, which had ensured an organic tie with the surrounding landscape. Changing conditions and dangerous processes seen since the political transition have compelled nature conservation to revise the earlier version of natural reserve-based conservation attitude and practice.

From the point of view of **air quality**, an important fact to be noted is that a large number of industrial point sources have been eliminated and the pollutant emissions reduced substantially, which resulted in a mosaic-like fragmentation of large areas in both the Northern Hungarian and the Mid-Transdanubian regions, which have been qualified earlier on as strongly polluted areas from the air pollution point of view, while now the polluted areas are restricted to the still existing point sources (mainly power plants) and their next proximity. Currently, traffic-related emissions and among them, emissions of the public road traffic are the single major causative agents of air quality and noise problems, which is clearly shown by the distribution pattern of the pollution, having a more even coverage nation-wide, and a concentration in and around settlements suffering from heavy transit traffic. The major causes of this pattern include the centralised nature of traffic developments, the substantial level of international transit, and the highway tolls, imposed heedlessly on drivers, and causing a diversion of traffic from highways to lower ranking roads. In respect of the use of the various vehicles of transport, the proportion of those taking advantage of individual means of traffic such as cars has kept on to increase compared to those using public transport (railways, in the case of water-borne traffic, the river Danube is hardly utilised, and so on). Between 1990 and 1997, the number of motor vehicles grew from 2.4 million pieces to 3.9 million, an increase of more than 60%. This growth rate was most seriously influenced by the number of passenger cars, which changed from 1.9 million to 3.1 million. Environmental impacts caused by the increase of number of cars could not be offset by the obvious improvement in the quality of the car fleet. As a result of these disadvantageous processes, the stress situation to which individuals are exposed to is growing constantly, and with it the sensitivity to such situations as well. The number of road accidents shows a clearly increasing picture.

The sulphur-dioxide and dust emission originating primarily from thermal power plants and industrial facilities is typical to the greatest extent to the industrialised Mid-Transdanubian and Northern Hungarian regions, while the major part of the NO_x emission, originating overwhelmingly from traffic-related activities, is sent to the air in the Central Hungarian region, which is positioned centrally in terms of traffic and transport. Some half of all the population live in areas with moderately or strongly polluted air.

Two thirds of all **surface waters** come from outside the boundaries of the country, one third originating from the precipitation falling on the surface of the country. As a consequence, the quality of the waters entering the country and the environmental risks associated with it are predominantly determined by the riparian countries. The largest part of water flowing through the country is concentrated at the water courses of the Danube and the Tisza. Surface waters quality keeps on deteriorating (partly due to the insufficient sewage treatment capacity) in respect of several components at the point of exit from the country. Especially, oxygen and nutrient turnover indicators and bacteriological parameters are impaired further, diminishing the utilisation potential of the surface

waters (in terms of tourism, fisheries, water sports) in addition to the environmental problems caused. Current climatic changes, anthropogenic activities of the 19th and 20th centuries (deforestation, water management schemes, and so on) make the water regimes unbalanced, resulting in serious droughts at some parts, while causing inland waters, waterlogging and flood protection problems at others. The extremes occurring in the water flows and yields or water quality of large watercourses (floods, travel of contaminants) represent a threat and emergency situation to a series of riparian settlements and communities of several regions at the same time (in the case of a flood on the Danube, it is five, on the Tisza, it is three regions). Worst quality water courses are those minor ones flowing through settlements with a large number of population and having significant industrial developments. Water quality in the Lake Balaton has been improving constantly in the last few years, thanks to the environmentally sound economic development schemes of the three riparian regions around it, i.e. Western Transdanubia, Mid-Transdanubia and South Transdaubia, which require concerted efforts further on. However, a cause for concern is in the past few years the permanent low water level of the Lake Balaton.

Underground water resources are of fundamental importance from the point of view of drinking water supply, which is based in more than 90% to such water types, a third of which is water from bank filtrated wells. Although the quality of water to be explored is usually excellent and the water supply networks are fully installed in nearly all of the regions, in accordance with the new quality requirements of the drinking water supplied, raw waters need to be treated with new cleaning procedures. In the regions of South Great Plain, North Great Plain and South Transdanubia, the enrichment of natural elements in the drinking water resources make the improvement of quality necessary. This country is rich in thermal waters, which have significant roles to play in certain regions both for medical and heating purposes. At the same time, disposal of used water originating from the thermal water use is problematic. A number of settlements in the South Great Plain and the Northern Great Plain regions, respectively, consider the development of tourism based on spas and medicinal waters as a key element to their economic prosperity.

Some two thirds of the underground waters is vulnerable to surface borne pollution sources. Especially sensitive underground water quality areas are to be found in the Mid-Transdanubian, North Hungarian, Central Hungarian and South-Transdanubian regions, respectively. In certain areas (mainly in Transdanubia) water bodies have suffered a substantial extent of damages in the past decades, mostly due to the mining activities. while in certain parts of the South Great Plain region, harmful effects of the underground water table sinking can still be experienced, greatly reinforced by the dry period lasting up to the mid-nineties and was considerably longer than similar periods before. Of the underground water storages, groundwater reservoirs are overwhelmingly contaminated by nitrates in a concentration in excess of a limit value of 40 mg/. Approximately 60 % of all groundwater has high nitrate contents. The most well known factors causing nitrate contamination include the lack of canalisation, waste disposal in land fills and agricultural runoff. While nitrate contamination of groundwaters is a nation-wide phenomenon, the presence of natural arsenic in these waters is most typical in the South Great Plain region.

Physical, chemical and biological characteristics determining **soil conditions** are good, the damages present in soils are relatively low, soil quality is nation-wide good and favourable even in international comparison. A total of 83% of all surface area in Hungary is suitable for agricultural production. Agricultural production methods are still characterised by the wide spread use of intensive farming methods, instead of alternative methods adapting to the various site specific features and taking into account natural values. The impact of the use of chemicals, which is gradually on the rise again, can be first expected in the Mid-Transdanubian and the two Great Plain regions, which have extensive areas under agricultural cultivation. Water and wind erosion cause degradation of the soil in 40% of the country's surface area, mostly in the sensitive parts of the North Hungarian and the three Transdanubian regions. Acidification is present primarily in the West-Transdanubian and the North Hungarian region, plus in the south-east of the South Great Plain region, while secondary salinisation is a problem in the North Great Plain region.

3.2. Quality of life at the settlements

Differences in local quality of life are manifested not so much on the regional level but more among the small regions and individual settlements. Disparaging social and economic situation led to the deterioration of the state of the environment **in the settlements.** In parallel with the trends in the

social and economic processes, the original local colour, once typical to individual settlements, the structure of settlements, the traditional, attractive landscape accommodating natural peculiarities and the structure of the scenery has changes as well, the main reason being that the enforcement of the appropriate level of country planning and building management and surveillance systems were missing, mostly on the side of local municipalities. In built up areas, dilapidated urban quarters (untidy public areas, city centres, historical downtown areas, gradually loosing their original function, albeit frequently rich in architectural heritage and slummed neighbourhoods) are situated predominantly in areas where people with multiple backward situation live. Among this population, the ratio of the unemployed and the extent of social welfare beneficiaries is extremely high, which makes the implementation of the necessary development even more difficult.

*A great part of the environmental requirements applied to **cities** on a general basis and very frequently supported with limit values required by law *can not be enforced effectively*. It is enough to think of the issue of traffic-related air pollution and noise, or the required extent green areas. Legal requirements of the various professional areas contain both emission type and state type limit values. However, one of the main characteristic features in the big cities and especially Budapest is that compliance with limits and standards cannot be enforced any more. The state of the air pollution or noise load indicates this situation clearly. The generation of unacceptable noise and vibration load can also be attributed to a great part to the traffic. According to the estimates, approximately 40 % of the population in Hungary lives in areas where the noise originating from the traffic is higher than desired.*

Division of labour and connections between the cities and their respective surroundings is changing as a result of the ever increasing globalisation. Around major towns, development “hot spots” are formed, which however are not able to pull the areas falling behind with them, thus the differences are gradually increasing again. Cities are supplied with world market products by large multinational companies in an ever growing ratio, thus the originally organic ties between city and country are transformed. Foreign capital currently concentrates on relatively low cost labour force and resources, and it is questionable what kind of identity is felt by foreign capitalists with local culture and natural environment. Compulsive growth triggers such needs in terms of traffic which can only be met by further concentration and centralisation, inducing mainly ever newer encroachment and enclosure of green areas in the agglomeration by the considerable growth of shopping centres and associated infrastructure. The buildings themselves are pretty unambitious and can be quickly demolished, but not the infrastructure attached to them. Western level of consumption needs is associated with an increasing level of waste generation (with the simultaneous slowness of treatment of accumulated waste and a general lack of appropriate communal solid waste management practices). *Parallel to this, non-sustainable production and consumption patterns extend towards the ever growing agglomeration around the cities.*

A different kind of problem is born by the living environment of especially the **low capitation, bad infrastructure** settlements. The situation is worst in South Transdanubia, North Hungary and the North Great Plain in the marginalized tiny villages of these regions, where the social situation of the usually uneducated – and in many instances, to a great extent of Gipsy origin – population is extremely disadvantageous, at any rate. Bad traffic infrastructure (dead-end villages, weak public transport systems, and so on), lack of established institutional systems (mostly education and social) which would ensure basic care, and the lack of job opportunities force the younger and mainly the more educated generations to migrate. With an aging population remaining, the situation of these settlements is further aggravated.

In Hungary, after the political transition a compulsively quick change in the economic structure was experienced, which resulted in a great number of **brown field areas**. There are empty military barracks all over the country and abandoned or hardly operating industrial complexes primarily in the heavy industrial and mining centres (such as North Hungary, the mountain range axis, South Transdanubia).

Brownfield areas, unused or – compared to their potential/possibilities seriously under utilised – industrial areas and the former military barracks spoil not only the town scenery, but cause serious concerns in terms of land use patterns, urban operations and traffic in a number of settlements. Pollution accumulated in these areas sometimes represents a serious risk to the environment around it. The unused area is not capable to produce the “income” proportional to its value, but the deterioration of formerly operational production infrastructure and buildings and facilities is also an

economic loss. Neglected, unarrayed areas are penetrated by invasive species, and the raising dust and pollen contamination boosts people's inclination to allergic conditions and the occurrence of respiratory diseases. The sight of these areas in itself is demoralising, impacts adversely the image of the settlement and might impair public security. The concerns are further augmented by the fact that – just for reasons of eliminated industrial production – a great part of the brown field areas is situated in an economically depressive environment anyway, where unemployment rates are high and the ability of the region to attract the capital is low. Due to the deteriorated state of these areas and their contaminated environment, re-use of them cannot be effectuated on a business basis entirely. Investors prefer greenfield areas and possibilities, which is unfavourable for reasons of land protection as well as economic considerations and acts against the ambition to sustainable development. These developments with considerable need for spatial expansion cause significant land taking and loss of cropland, thus biological diversity is declining mainly in areas neighbouring the large cities and especially the capital. Due to a series of greenfield investments, settlements are typically and gradually growing together, which result in eliminating the possibilities to route traffic lines in a. from the environmental perspective relatively more favourable way and certain elements of the ecological and green corridors, respectively, essential from an ecological point of view, thus rendering the entire system unviable.

The result of this environmental extremely harmful process, diminishing the quality of life of those living in these communities, that the length of travelling time and distance of the population taken with resting or recreational purposes will be increased. There is no possibility or the existing possibilities in many places are more restricted for getting refreshed, recharged in a green area or fresh air close to home, maybe coming from your workplace and homeward bound, but people are making ever longer trips in an ever more concentrated way to visit recreational and holiday areas far from the settlements, which thus become overloaded or threatened by overloading.

A significant problem is caused by the unsolved issue of **waste water treatment**, especially in the light of the almost fully built up piped drinking water supply which is available for the whole population. Due to the structure of the settlement pattern, the number of small communities where the population headcount falls short of 2000 persons is very large. Canalisation rate in these areas is less than 20%. Currently, canalisation works and the installation of large waste water treatment works is preferred, in spite of the fact that these are sometimes less efficient and most of the time their capacity is under-utilised. Considering economic and environmental reasons, it might be well justified to apply more simple, individual treatment procedures in the aforementioned areas. In terms of differences between large areas, in the regions east to the Danube, the ratio of apartments connected to the sewage system fell considerably short in 2001 from those in the national average (32-42%) and (53.5%), respectively. Building up the sewage systems is an essential precondition of luring enterprises into an area.

2.5. SWOT analysis from the environmental perspective

In the early phases of SEA (up to November, 2002), the SWOT analysis was made by regions. Tables contained both general statements, which could be interpreted for the country as a whole as well, beside the regions in question and specific statements, concerning the region is question only. Later on, when the whole architecture of the ROP was re-engineered (thematic ROP), the ROP does not name the regions at the level of the SWOT analysis, in spite of the fact that its main effort still remained the promotion of regional development.

The current versions of SWOT analysis (April and May version, respectively) do not explicitly demonstrate the connection between the situation analysis and the SWOT, and it does not turn out which kind of fact finding activity preceded the statement found in the analysis. Currently it seems that the analysis was rather made “backwards”, in other words it serves for the justification for the necessity of ROP measures (although, no such feedback can be identified in the ROP, either), instead of

marking out the social, economic and environmental frameworks and possibilities, where measures can be implemented effectively. Thus the system of environmental criteria is also not discussed in full details, which would facilitate to “divert” the measures into a more environmentally friendly direction.

A development might have simultaneous economic benefits and environmental costs, and vice versa, which is a strength from the point of view of the economy, might easily represent a threat from the environmental perspective. **Therefore, the SEA Team set the objective to specify a SWOT analysis focused entirely on the environmental aspects (which certainly might be supplemented with social or economic analyses), to include the full range of environmental strengths, weaknesses, threats and opportunities.** It would be necessary to consider all the SWOT aspects relevant to the measure in question when a measure is determined, in other words to decide whether the measure is based on the efficient exploitation of strengths and opportunities, whether it avoids threats and whether it possibly answers the currently outstanding unfavourable situations (weaknesses).

The goal was finally to prepare a table on the basis of environmental, or more on the basis of sustainability criteria. Through this, the SWOT table of the developments could be evaluated. It could be perceived that there are state indicators which are considered to be strengths from one aspect and weaknesses from the other. The steps of the analysis were carried out as follows:

- ☞ Delete all the statements from the original SWOT table except for those having an environmental aspect.
- ☞ Correction or pasting of items situated in the wrong place from the environmental or sustainability perspective or items with unclear composition.
- ☞ After the completion of the corrections, an environmentally biased SWOT is the result.
- ☞ Textual comparative analysis and evaluation based on the differences and similarities.

Similarly as it was made in the situation analysis, the consistent representation of the environmental aspects was achieved by the following SEA documents:

- A. the extent of wholeness to be evaluated on the basis of the problem tree, and the appearance or lack of key environmental problems and the processes causing them.
- B. the main objective of comparison with the sustainability criteria is to decide whether on the basis of the environmental, or, in a broader sense of the sustainability type system of criteria what can be really considered to be a strength of a weakness, respectively (sustainability criteria as a base for comparison).

- C. to summarise of the general statements made by earlier regional SWOT analyses (typical for the country as a whole as well)

In our opinion, the result of the task should be reflected primarily in an need for supplementation. The result of the analysis described above is a SWOT spreadsheet reflecting the sustainability aspects more emphatically. Efforts were made to define the contents of the environmentally oriented SWOT analysis as concrete forms as possible. If the analysis operated with statements featuring excessive generalisations, it will loose its spatial ties on one hand and any evaluative or qualifying statement will become more relative.

In the next table, the environmental SWOT analysis is presented. The elements taken from the April ROP version are highlighted with **bold letters**, while parts to be omitted were indicated by ~~striketrough letters~~.

SWOT analysis with the environmental perspective added

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Varied natural landscape, attractive environmental peculiarities. Natural and natural-like biotic communities, protected natural values, extensive green corridors • Centres of higher education with significant history and tradition can be found in many regions of the country • Each region has its own touristic attractions (Budapest, Lake Balaton, world heritage sites, National Parks, architectural heritage, medical and thermal baths, spas, wine countries with historical traditions, and so on) • Good quality standing crops, which is favourable for forestry and wild game management. • Good opportunities for multi-functional agricultural activities. • Of the renewable energy sources, the country is especially rich in geothermal energy, and there are good opportunities for exploiting biomass energy • There is a wide range of variety of special Hungarian products (“hungarica”) which sell well. • You can find a network of precious wildlife and ecosystems in each of the regions. • Certain areas of education and training provide a very strong foundation for knowledge. • Traditional consumption patterns, which can partly be regarded as sustainable (such as low level of water consumption, efficient and low level energy use, the practice of re-use solutions, and so on) can partly be preserved in the countryside. • Indicators showing waste generation and per capita energy use are a lot more favourable than those in the European Union Member States which are considered to be advanced by many • The existence of traditional knowledge allow for the survival of extensive husbandry, peasant life and a few handicrafts. • Relatively low level of chemisation in agriculture. • There are land parcels available in a large number, currently not used. • There are still available traditional local breeds both in animal husbandry and crop production. • Hungarian creativity and ingenuity. 	<ul style="list-style-type: none"> • There are considerable social-economic inequalities present in relation of the capital and the country, between the eastern and southern part of the country, which has only a weak economic potential and the West of Hungary, furthermore within individual regions in relation to the marginalized small areas struggling with structural adversities and the centres, respectively • The radial structure of the public road network (lacking junction roads and bridges connecting them horizontally) prevents safe and quick channelling of traffic between regions and entails unnecessary environmental load. • Within the regions, the lower, subordinate traffic network is of bad quality, by-pass roads to balance and relieve settlements, furthermore connecting cross-roads are missing. There is a high level of noise and air pollution originating from traffic. • The bicycle track network is not built up, there is no possibility to safely separate cyclists from the traffic • Tourism is seasonally and geographically strongly concentrated • The neglected condition of public areas rich in historical monuments within settlements impairs quality of life, reduces the touristic force of attraction of the settlements, the strength of cities to organise areas is limited • There is a high number of dilapidated quarters inhabited by a large number of groups with socially low ranking • There is a large number of contaminated, unused industrial and military zones, facilities (brownfields), especially concentrated in large cities • Waters are thoroughly contaminated, originating from foreign pollution on one hand and the lack of domestic sewage water treatment systems on the other. • The condition of railway networks is unsatisfactory, especially country branch-lines are dilapidated. • Undeveloped infrastructure for sewage draining and waste waster treatment facilities in areas with tiny villages would contribute to the deterioration of the environment, which represents an unsolved problem especially areas with small villages • The deficiencies and shortcomings in the human resources capacity and the shortage of assets of local administration and non-governmental civic organisations (for instance in relation to information about the European Union or information technology systems) prevent local administration from being effective and modern. • Low level of awareness on sustainable development, on the interconnectedness of environment and development, consumers do not recognise the correlation between increased consumption and the eventual impairment of the environmental conditions. • The potential offered by renewable energy resources are not exploited appropriately. • The infrastructure, organisational background and efficiency of agricultural production, the environmentally sound agricultural practices and the prevalence of organic farming is far from being satisfactory.

	<ul style="list-style-type: none"> • Complex and serious environmental load in the agglomeration around the capital as a consequence of the metropolitan nature of the area. • Unregulated and extravagant land use practices in the agglomeration zones. • Shrinking opportunities to make one's livelihood in smaller settlements. Abandonment and deterioration of villages.
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<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Environmental ties along the borderline and internationally are strengthening. • Naturally harmonic and ecological husbandry forms are implemented based on the existing natural amenities. Establishment of diversified, environmentally friendly production methods and carrying multifunctional agricultural husbandry on the suitable land. • Appraisal of ecological products. • Development of rural areas based on natural environment and cultural heritage, spread of development schemes based on varied local and regional resources and labour. • Creating landscape rehabilitation schemes and scenic centres based on existing natural beauties, exemplary for the European Union Member States. • Development of knowledge-intensive and relatively low environmental load industry sectors with high added value • The ratio of renewable energy resources – so far under utilised – will grow in the energy mix and preference is given to energy efficient solutions • Productive industry must be gradually re-settled from the capital into areas outside the agglomeration, • Quality assurance and organisation of the industry integrating environmental aspects as well (ISO, EMAS etc.) 	<p>THREATS</p> <ul style="list-style-type: none"> • The significant amount of transit results in excess loads from the environmental perspective. Europe's most important traffic corridors cross the country. Undertaking the role of a traffic "turntable" causes further environmental harm. • Concentration is further aggravated by the traffic development concepts concerning the capital and the nation, while developments prefer mainly clearways. • Developments still concentrating on using mass production might result in further distorting the economic structure. Those small areas which decide to make development alongside with their local traditions, will not have become competitive with the "development" as offered by modern life, and will lag even more behind in terms of development of the current meaning. • The multinational companies making rapid headway will render the country uniform. (The characteristic lifestyle once so typical for individual regions is about to vanish as a consequence of the enormous popularity of the "international sameness") • Mass production arising from the modern agrarian economy will outcompete low economic efficiency local production patterns. Intensive land use practices
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<ul style="list-style-type: none"> • Strengthening education, training and research aiming at the raising of environmental awareness. • Civil society – increasing number and activity of non governmental and civic organisations • Improving accessibility of regions by public transport, integrating a large number of railway lines into active public transport • Brownfields investments, spread of land use patterns with higher environmental quality demand • Environmentally friendly settlement development (for instance by shutting off the central core from public traffic, traffic organisation measures, creating green areas during investments, reconstruction works, rehabilitation of abandoned areas, and so on), • Increasing demand both domestically and internationally for high quality touristic products. Raising tendency of cultural, medical, wellness and eco-tourism. 	<p>on environmentally sensitive areas are carried on.</p> <ul style="list-style-type: none"> • The explosive growth of built-in areas implies the fragmentation and deterioration of extensive large, interdependent natural areas, and the elimination of ecological corridors which so far have ensured the migration and contacts of various species and populations. Foreign capital prefers greenfield investments, whilst unused and contaminated brownfield zones impair environmental quality in most settlements. • Migration of highly qualified workforce and intellectuals from the areas affected by the crises. Unfavourable demographic processes are further strengthened: depopulation of small villages and aging population • The more intensive traffic associated with the touristic developments entails the impairment of the state of the environment in the local environment. Entrepreneurs active in the hospitality industry do not heed to the local peculiarities and sustainability criteria. • As a consequence of growing the current unfavourable tendencies in consumption patterns more intensively the amount of communal solid waste and sewage water is on the rise as a result of non appropriate waste and sewage management systems, the state of the environment is impaired • Deepening social crisis, disintegration of communities, disappearance of local ties, further pauperisation of various social groups. • Switching higher education to mass training will hinder the chances of conscious raising of environmental awareness.
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Any statement in the environmentally or sustainability-minded SWOT analysis, respectively (hereinafter: ESWOT), might be transferred to the analysis presented in ROP. Beside making a comparison of the texts, it is worth noting that there are a number of problematic contents in the SWOT analysis.

Strengths might seem a little too meagre especially when they are compared with weaknesses, and they are shaped in a **very biased manner, as if from the viewpoint to please a foreign capital investor**. In other words, strength is which is deemed as such by the foreign capital. It is exactly the ROP which cannot be satisfied with this. This kind of approach would appraise factors which are not necessarily strengths. Such aspect is for instance the condition that how many percentage of the nation's total population lives in a settlement larger than 5000 inhabitants. The ESWOT, as it can be perceived, would reckon with a lot more numerous strengths, and in spite of the environmental perspective, it contains several elements where the ROP measures can be tied up to.

In terms of **weaknesses**, the picture is more complex, yet there are disputable elements present in the list. The real weakness is the quality of traffic networks, and not the lacking elements in the networks. The need for greater mobility means clearly openly undertaken higher pollution. Brownfields represent opportunities rather than weaknesses. The lack of satisfactory waste water management schemes has never prevented the capital from being developed, yet the larger part of all waste water generated here is still untreated. As to the activities, the statistics in this country are pretty blurred, the ratio of grey and black economy in Hungary is at about 40%. The ESWOT contains a number of very similar elements, yet uses different formulations, because the exact meaning of a one-two line statement might depend on the usage of words.

In terms of **opportunities**, the differences are much greater, than in the two factors discussed so far. The main reason for this is that while the Team has looked for the potential to move towards sustainability, the makers of the ROP have built on the dynamic effects of centres and the interest of foreign capital as premises. Therefore, the differences are in the approach, thus there is no reason to dispute the statements made here point by point, (the former point contains elements which are not appropriate from a different approach either), however, attention must be called to the opportunities found in the ESWOT, for the mention of these would increase the programme's room to move.

As to the **threats**, a part of them is of environmental nature in the ROP as well, so there is a kind of parallel argumentation here with the ESWOT. Fears from recession in the world economy are stressed twice. This is a process completely independent from us, which cannot be influenced by us. We only have a say in one thing, to shape the things towards bearing the consequences of a recession more easily. From this point of view, however, it seems pretty strange to build any kind of development on the influx of foreign capital, since this way our exposure to a risk which cannot be influenced by us would be greatly increased, in an economy all too open anyway. The threat of growing the gap between the level of advancement is a real one, but it

remains to be seen what ROP itself would do against this threat. Threats described in the ESWOT were mainly defined in accordance with the expected consequences of current existing tendencies and efforts, and they might easily become real provided these tendencies keep on to prevail.

3. ASSESSMENT OF THE SET OF OBJECTIVES OF THE ROP AND EVALUATION OF THE CONSISTENCY OF THE SET OF OBJECTIVES

3.1. Comparison of the set of objectives defined for the purposes of development with the sustainability and environmental objectives

ROP objectives and priorities were investigated for their contents to what extent they comply with the environmental objectives and sustainability expectations. In a number of cases it was found that the base of comparison of the objectives was the economy, therefore development schemes promoting the growth of the economy were simply considered “good” and necessary. In terms of judging the advancement of an economy, the Programme relies upon old assumptions which have been found overturned in several instances. Especially a programme setting the overall objective of regional development ought to follow an approach integrating social and environmental aspects into its development schemes, in order to avoid the flawed economic development solution already experienced by the developed countries. Below, the aforementioned faulty fundamental assumptions are highlighted.

Conceptual variations, differences in the scale of values:

☞ **Modern cities are advanced, while the country is backward, therefore developing large metropolitan centres must have a basically favourable impact on the region as a whole.** This belief was stressed more prominently in the earlier versions of ROP but is present less strikingly in the version which can be deemed final. The assumption was never verified in practice. It will suffice to analyse the relationship of the capital with Pest county. Without the capital, the region would definitely belong to those less developed, especially in accordance with the development concepts of the ROP and the National Development Plan, respectively. (Which is even highlighted by the text.) The situation is properly characterised by Figure 1.2 of the ROP, which indicates the areas covered by large cities in regions considered by it to be less developed. The figure by the way reflects the aforementioned – and criticised – approach well, since it shows clearly and unanimously that cities are advanced, the country is backward. As opposed to this, we find the development of lesser centres – as much as possible under the circumstances in a given area – a lot more appropriate. The only exemption being higher education, although Gödöllő for instance is a typical town which is not a city yet suits to the goals of hosting higher education. Albeit the programme has made a move toward this more flexible direction, the objected approach can still be tracked down in it.

In fact, the real cause for the differences in development between cities and country is the deterioration of the previous symbiotic equilibrium between city and country, and the shift of a co-existence pattern towards that of parasitism. This new relationship is an accompanying phenomenon of globalisation, which entails the “economic centres” which represent stronger markets becoming the marketplace of

global goods and services, in conjunction with the associated “area of attraction”. From this point on, the “economic centre” would not absorb the goods produced in its own zone of attraction, since it is losing competition with the low cost global products, but the relationship is turned upside down and the zone of attraction would procure “cheap” goods in the centre. This leads to the depreciation of the country as a producer of goods and opportunities to generate incomes are further tightened. All these have considerable environmental costs, which is manifested in the excess environmental load exerted on the centres on one hand (transport, traffic, concentration of services), and the disruption and deterioration of traditional environmental relationship and the elimination of the organic culture on the other.

Areal parasitism is illustrated well by the fact that „regional differences grew in the period between 1994 and 2000 both in respect of per capita GDP and capital investments”, although spatial development was taken care of in this period in a conscious manner. The statement saying that „migration of primarily the qualified social groups from runaway areas is continued” refers also to the deepening of spatial differences. Where from on earth could you get down in a depressed area afflicted with multiple counter-selection the spiritual driving forces of development at one go overnight? Unfortunately, the environmental implications of all these features are more than obvious, runaway ranges would turn directly against natural resources, use them in an unsustainable way and devastate the natural resources in their next environment (forest, arable land, biological values, built environment, and so on).

- ☞ **Infrastructure in the villages and towns should correspond to that of the cities which is the state-of-the art solution.** City infrastructure is the best example of the conspicuous and extravagant, non sustainable development on one hand and intensifies dependence and exposure of the population because there is no substitute solution at hand when the large supply systems fail. In small settlements, garden-suburbs heating, water supply and sewage treatment can be solved even when the central system is defunct. Let alone the fact that the operational arrangement of a small settlement is quite different of that of a major city.
- ☞ **Exploitation of the natural values for economic purposes.** Earlier versions of the ROP systematically forgot to add the emphasis „in a sustainable way” and „not in an all-embracing way”, and consequently in this respect the term utilisation and exploitation might have easily meant depletion just as well, if you only considered the text. Although the additions appeared in the more recent version, however, the overall feel of the ROP in this respect did not change much and this hold true even when the drafters did not have this intention to do. In one of the earlier versions the following sentence is seen: „*Hungary has a great variety of natural and cultural values and peculiarities which are neglected and their touristic or economic exploitation is not solved*”. This sentence reflects the objected attitude clearly. **Natural values largely remained natural values because their exploitation was neglected.** If man did have an influence on them – in other words: had they not been neglected –, they would not be considered to be natural any more. Culture has also a misinterpreted meaning in this sentence in a narrowing sense, maybe the reference was intended to mention neglected cultural monuments. However, for the

culture to sustain there would be a need for organic development and not an artificial, forced promotion. As to nature, it would be wise to acknowledge that we ought to need pristine nature for higher interests, let us call them the interest of evolution. Her immaterial benefits shall be materialised for the society in an indirect manner.

☞ **The faith firmly anchored in the omnipotence of infrastructure.** Similarly, the statement saying „*the differences between the road density in the individual areas corresponds relatively well to the economic differences*” is also flawed. This attitude assumes on one hand that the most important single indicator of quality of life was economic advancement. On the other hand, roads were historically lead where there were reasons to go to. These reasons might have been various reasons. Explored natural resources, nice places suitable for settlement, sights, and so on provide mostly the objective foundations for economic development. Now you can't expect economic development alone from installing infrastructure somewhere where there are maybe the objective foundations necessary for development missing. Yet you should not foster the feelings of people in these places that they were backward or underdeveloped just because for instance their GDP indicators are bad. It is well known that maybe their other indicators of quality of life are better than in other, economically more developed areas. In an environmentally conscious society, or in a society where the possibilities of choosing values are more liberate, habitats featuring higher quality of life and rich in immaterial goods will have been appreciated.

☞ **Only the capital, enterprise, operation etc. coming from the outside can be seen as a guarantee for development.** In judging the tools of development, employment and creating of jobs is given a high ranking. From the sustainability perspective, this is not held a sufficient aspect in itself. Instead of stressing these aspects, it would be better to strive for the broadening of opportunities for generation of income. What is the difference between these two? In evaluating this difference in respect of sustainability, the principal issue is the access to resources. Sustainability requires the control of local communities over local resources. Income generation, which lays the foundations for the material, financial conditions necessary for the high quality of life, is not pending on jobs. In order to generate income, you need resources, instruments of labour, knowledge and know-how, the possession of all these and market access. If these conditions are met, sustainability has a greater potential. Environmental implications are beneficial, because local owners have the appropriate identity and affection to local resources and environment they use. Jobs and employment mean most of the time wamework, an opportunity created by others and thus they increase outside dependence. In this case, benefits derived from the resources are shared by a small elite. In the light of this, people have the choice of being a wameworker or a capital owner, yet the development model embraced by many today casts a vote on the status of the wameworker. Doubtlessly, this is the road which can be stepped onto more quickly but which does not lead to sustainability. In the situation analysis, the paper is unreasonably silent about the phenomenon which has been commenced more recently, namely the perpetual transfer of capital to “more favourable” areas which comes from the very nature of money.

3.2. Evaluation of consistency of objectives and priorities

Having assessed the objectives, there is a need – according to our experiences – for the review of these objectives in the programme assessed in terms of their consistency. For instance, in the first versions of the ROP there were goals of various levels and having diverse connections with each other, beside the three distinguished priorities. In order to be able to carry out the evaluation, these priorities and objectives has to be arranged and aligned, thus exposing the need for reviewing the goals from the perspective of their inherent consistency.

The set of objectives governing the ROP are outlines in general terms in the introductory chapter entitled „Conditions for the development of the ROP, General framework”, and they are set out in details later on in the main chapter of Programming strategy. In the following, statements of both chapters are considered together.

Specific goals and objectives of the National Development Plan (NFT) are illustrated in the generic chapter, the implementation of which in turn are served by the various operational programmes. The **National Development Plan (NDP)** providing the framework for the ROP **has three specific objectives as follows:**

- ☞ a more competitive economy,
- ☞ better utilisation of human resources, and
- ☞ better quality of environment and balanced regional development.

Right on page seven in Chapter 1. General framework⁷ ROP lists all the key objectives in textual form which are according to this listing as follows:

- ☞ promoting sustainable touristic development projects,
- ☞ developing urban environment in cities,
- ☞ development of economic potential in areas,
- ☞ infrastructural development schemes, and („besides”)
- ☞ employment policy and training support.

The set of objectives of ROP is laid down in the Chapter Programming strategy, Objectives and development strategy sub-chapter. (It has to be noted that the various terms appearing in the titles are mixed up in their meaning such as programme, strategy, development, etc.)

The **overall objective** of the **ROP itself is to promote balanced regional development.**

The comprehensive goal (i.e. promoting balanced spatial and regional development) is given a two-tiered interpretation right away:

- developing decisive centres and cores of various areas,

⁷ Based on the April 30th version of the Regional Operational Programme.

- development of socially and economically backward regions and quarters inhabited by disadvantaged, underprivileged people

In the earlier version (11th April) the second interpretation is included in explicit terms in the chapter, but in this form it can only be seen now in the Executive summary. Irrespective of this, however, the development of the decisive centres are not considered by the ROP as a merit in itself, they are favoured in order to exert a catching up effect on the underprivileged regions.

The overall objective described above is then set out, interpreted or formulated by the ROP in the form of three objectives and four priorities and there is no consistent interconnection between these groupings.

The three **specific goals** of the **ROP** are as follows:

- ☞ Sustainable utilisation (exploitation) of natural values and cultural heritage for the purposes of touristic development,
- ☞ shaping an attractive urban environment and developing economic potential in the cities
- ☞ creating a local community which is able to be revitalised

The four *areas of intervention* present in the Regional Operational Programme (or, in accordance with later references, **priorities**):

- ☞ strengthening the *touristic* potential,
- ☞ development of the areal *infrastructure* and built environment,
- ☞ development of *human resources* in the regions,
- ☞ technical assistance and consultancy

In the grouping of the objectives, no clear organising principle was discovered, yet at the same time it is assumed that a formal order can be arranged with a small amount of intervention. This intervention, initiated by us shall treat the overall objective of the ROP as a starting point and this shall not be touched upon (i.e. *promoting balanced regional development*)

When you review the other objectives and specific goals, or priorities, from a substantial and formal aspect, you can find

- *objectives formulated in different forms, which however are presumably meant to have the same contents* (such as shaping an attractive built environment or the development of urban environment in cities, respectively; or promoting employment policy and training support and the development of human resources in the regions, respectively);
- *objectives which are formulated almost the same way, yet which they bear different substances* (development of economic potential in the areas and development of economic potential in the cities, respectively);
- as regards the groups, there are groups, where the organising principle can be identified unanimously and those where this was not successful.

Below, we will try to organise the objective of the ROP with attention paid to the overall objectives of the National Development Plan and by using the organising principles deciphered by us from them (and within this, using the key words highlighted *by us* in italics). Where formal contradictions were encountered, suggestions were made to dissolve them: in these cases, the correction might influence not only the form but the contents as well, therefore we made an attempt to call the attention to the selection of values.

The discussion of the overall ROP objective in two points makes an interpretation for two target areas of regional balancing: *decisive centres* and *underprivileged areas*. Below, this grouping is analysed in conjunction with the three specific goals of the National Development Plan. (Table 1)

	More competitive ECONOMY	Better utilisation of human resources SOCIETY	Better quality ENVIRONMENT
(ADVANCED) CENTRE	(1) <i>economic development of decisive centres and cores of areas</i>	(2) <i>development of quarters inhabited mainly by disadvantaged, underprivileged people</i>	
(BACKWARD) AREA	(2) <i>development of socially and economically backward regions</i>	(2) <i>development of socially and economically backward regions</i>	

Table 1. Interpretation of the overall objective of the ROP and its match to the specific goals of the National Development Plan

The heading of the table lists the specific goals found in the National Development Plan. Capital letters highlight those key words, which in our opinion would be advisable to be kept hereinafter by the ROP as well (such as ECONOMY, SOCIETY, ENVIRONMENT). The clause referring to the *more balanced regional development* was omitted from the objective concerning the environment, since the entirety of the ROP is organised around it: in other words, the vertical columns of the table should display the overall objective relevant to this, i.e. the promotion of the *more balanced regional development*.

Thus, the following formulation of objectives were studied in this table:

- economic development of *decisive centres*, areas cores,
- development of socially and economically *backward regions* and quarters inhabited by disadvantaged, underprivileged people

This interpretation of the comprehensive, overall objective, in spite of its being present in the April 30th version only in the Executive summary, **does not cover the specific objectives of the National Development Plan. However, a balanced regional development would need to illustrate the regional dimension of the three specific goals of the NDP.** The first formulation concentrated clearly to the economic goals from the trinity of economy-society-environment only (economic development of *decisive centres*, areal cores), while in the formulation of the second interpretation

(development of socially and economically *backward* ...) with a little benevolence, the objective might be extended to develop areas economically and socially, *furthermore* to address socially problematic quarters.

Furthermore, this listing interprets basically the notion of balanced regional development in two distinct categories: one in advanced centres and another in underprivileged, less developed areas. In fact, this apportionment does not cover the entire space to the full: it is mixed from a distinction between centres versus areas and another distinction between advanced areas versus underprivileged areas, which practically speaking would designate four areas for interventions: *advanced centres, lesser developed centres, developed areas, underprivileged areas*. Of these, only the first and the last ones are formulated in the case of the ROP, complemented with the underprivileged quarters of the centres which are otherwise considered to be well developed).

No environmental aspects are present in this interpretation of the objective. As the ROP hereinafter fails to refer back to this two-tiered interpretation of the comprehensive, overall objective and sticks to the three specific objectives to be discussed later on, maybe it would be more appropriate to omit the allotment of objectives in this form and to use the categories centre versus area and advanced versus underprivileged in a more consistent and logical arrangement throughout the ROP. **The current (April 30th) interpretation of the comprehensive objective contains only the first formulation which makes the overall objective of the ROP even more biased. Therefore, it would be more advisable to stress that the overall objective set by the ROP was the promotion of balanced regional development which supports all the three specific goals laid down in the National Development Plan as a different dimension of development schemes.**

In other words, the framework for the definition of specific ROP objectives are determined by the following two factors (or at least, they should do so):

- specific objectives set by the National Development Plan (i.e. economy, society, environment)
- and their regional variations

In terms of determining the regional implications, the categories used to far with regard to centre versus area and advanced versus underprivileged might also be applied in a consistent manner so that all the four possibilities would be mentioned (advanced centres, lesser developed centres, developed areas, underprivileged areas), or any of the categorisation schemes would be focused on. In Table 1. the division between centre and area was stressed. Based on what was said above, the following framework can be specified for the determination (assessment) of specific ROP objectives:

	ECNOMOMY	SOCIETY	ENVIRONMENT
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CENTRE			
AREA			

Table 2. Framework for the consistency evaluation of the specific objectives found in the ROP

Inconsistency in the specific objectives set by the ROP

In the next step, we will make an attempt to fit the specific goals of the ROP into this table which was thus formed with due regard to preserve the specific objectives set out in the National Development Plan.

	ECNOMOMY	SOCIETY	ENVIRONMENT
CENTRE	Development of economic potential in the cities	<i>[Employment policy and training support to projects mostly associated with local governments]</i> <u>Human capital development</u>	Shaping an attractive built environment and <u>preservation</u> of the cultural heritage <i>[sustainable use with regard to the touristic objectives]</i>
AREA	Development of economic potential in the areas	Creating local society able for revitalisation, <u>development of the social capital</u>	<u>Preservation of the natural heritage</u> <i>[sustainable use with regard to the touristic objectives]</i>

Table 3. Fitting the specific objectives of the ROP to the specific objectives set out in the National Development Plan

Legend:

- **bold black** typing indicate wordings which were taken from the specific goals set out in the ROP and found to be fitting with the logic of the table.
- Normal letters are reserved for objectives which – although not present among the specific objectives of the ROP – occurred in some other list of objectives mentioned earlier on.
- *Italics* refer to the formulations which appear in the list of objectives of the ROP, but which need to be eliminated in our views,
- **Bold underlined** letters differentiate for the additions suggested by us.

Using the six definitions of objectives described above, the regional development objectives in accordance with the specific objectives set forth by the National Development Plan (based on the development of economy – society – environment), in other words **specific goals of the ROP can be formulated like this:**

- **Development of economic potential in the areas and the centres**

- **Creating local society able for revitalisation, development of human capital and the system of social ties**
- **Preservation of both the natural environment and the cultural heritage, shaping an attractive environment**

The suggestions and recommendations set out above are practically the minimally recast versions of the current ROP objectives and aim exclusively at the establishment of an inherent consistency across objectives. Taking into consideration what was said above, the drafters of the programme ought to think it over once again both in terms of form and contents, how they want to formulate the objectives. For this to happen, certainly, there is a need to lay the substantial foundations for the table itself, which is taken as a framework, therefore the issue of target operationalisation based on the distinction made between advanced target area versus underprivileged target areas instead of the focus on centre versus area as mentioned earlier on should be considered.

3.3. Consistency evaluation of priorities

The ROP emphasises four priorities (respective areas of intervention) for the three objectives discussed above, of which the fourth one cannot by any means be regarded as a priority, since it is about merely a measure to be considered as a direct tool for implementation. Thus the three specific objectives – in accordance with the view of the ROP – can be „directly and in a straightforward manner related to each of the priorities”. **In our opinion, the definitions of priorities and objectives, respectively, serve different goals in the process of strategic design, a direct one-to-one association of them to each other makes no sense from the professional point of view.** In contrast to this, it would be a lot more useful to select easily operationalised priorities which can be specified for each of the fields of actions, which do not support any individual aim but the broadest possible range of objectives. In other words, priorities ought to define those key areas of intervention which need to be promoted in order to achieve the entirety of the objectives to the greatest possible extent.

Thus, priorities don't have to correspond to individual specific objectives, much rather a priority must correspond to all the objectives. It is exactly this formal mistake which causes that the makers of the ROP **tried to mention in one of the objectives (in addition, in a forceful manner in the environmental one) tourism in an explicit way, because they thought without this reference the distinction given to tourism in the form of priority cannot be justified satisfactorily.** However, parallel to this, the objective of „developing the economic potential” practically speaking would incorporate the potential for developing tourism as well.

In the following part, the recommended specific ROP objectives will be recalled again and it will be demonstrated how the current priorities can facilitate the achievement of these objectives in our opinion. **The priorities in this case do not repeat an already defined objective, but indeed they direct attention to fields of action cutting through the sections of objectives.** Thus all the identified priorities can be considered

as actual fields of intervention, to be justified by at least two or even all of the specific objectives.

Recommended specific objectives	Priorities
Development of economic potential in the areas and the centres	Improvement of the touristic potential
Creating local society able for revitalisation, development of human capital and the system of social ties	Development of the areal infrastructure and the built environment
Preservation of both the natural environment and the cultural heritage, shaping an attractive environment	Developing human resources in the regions

Carrying on the line of thought above, **putting down a part of the priorities (areas of intervention) more accurately is necessary**, because in the present formulation their contents are totally identical with that of the specific goals. These are the following:

- (...) *and developing the built environment*, which is narrowed in terms of contents than the measures assigned to it (settlement rehabilitation actions, brownfield investments) **Recommendation: Versatile utilisation of neglected areas and facilities in the settlements**
- *Development of human resources in the regions*, instead recommended is: **Strengthening the vocational and institutional capacities for the improvement of regional knowledge bases and local employment opportunities**

4. ASSESSMENT OF THE MEASURES FROM THE ENVIRONMENTAL PERSPECTIVE

4.1. *The system of the ROP measures*

Following the logic of the previous chapter, consistent determination of objectives and areas of priorities should be tracked down and this way the measures to be proposed could be identified. This task and the decision, what are adopted from among the recommendations concerning a more consistent set of objectives, are necessarily up to the designers of the programme to embrace. Therefore, instead of the consistent system of measures to be determined in accordance with the modifications above, we will consider only the measures defined as such by the assessed version of the ROP.

In order to be able to analyse the measures of the ROP, there is a need to introduce the interconnected system of measures for which an attempt is made with the assistance of the table on the next page. The table makes a distinction between two categories of measures:

On one hand, **measures with environmental implications**, where you can expect direct impacts to be characterised by changed in the state of the environmental elements, such as:

- ☞ Increasing the competitiveness of touristic attractions (Priority 1)
- ☞ Increasing the ability of the tourist industry to receive guests (Priority 1)
- ☞ Sewage management in small communities (Priority 1)
- ☞ Developing the system of connections in the areas (Priority 2)
- ☞ Settlement rehabilitation actions (Priority 2)
- ☞ Re-use of brownfield areas (Priority 2)
- ☞ Support to local employment initiatives (Priority 3)

On the other hand, there are **measures carrying environmental contents as well but lacking direct environmental impacts**. These are social or societal measures and developments, which, albeit they do not have any direct environmental impacts, yet they are measures which might contribute to the establishment of an environmentally conscious behaviour and the sustainable economic or social standards if they are enlarged by certain tasks implying environmental contents or by the reinforcement of environmental contents. These kind of measures include the following:

- ☞ Development of the infrastructure for regional knowledge centres (Priority 2)
- ☞ Capacity building for local administration and civil organisations (Priority 3)
- ☞ Setting up regional knowledge centres (Priority 3)
- ☞ Supporting vocational training specific for the individual regions (Priority 3)

The environmental assessment of the various measures is different for the reasons set out above. Measures of the first group are compared with the sustainability criteria and the environmental policy objectives in order to evaluate their impacts on the environment. In the case of measures belonging to the second group, it was assessed

what kind of “environmental contents” the measures in question can be stuffed during their implementation. The **table** makes an attempt to display the potential measures in most concrete way possible, since too broad compositions would render substantial evaluation impossible.

MEASURES WITH ENVIRONMENTAL IMPLICATIONS

Priorities	Measures		Contents	Affected factors
1. Improvement of the touristic potential	Increasing the competitiveness of touristic attractions	- Developing touristic attractions and products	- Supporting investments associated with the utilisation of cultural heritage sites and distinguished natural values - Renovation and building up of roads leading to touristic attractions - Building up of bicycle roads leading to touristic attractions	In areas possessing significant natural or cultural heritage and considered as recreational areas from the tourist industry perspective, irrespective of the size of the settlements. In the aforementioned areas, for settlements below a population of 2000
		- Publicity, marketing	- Supporting accompanying marketing tools	
	Improvement of the tourist industry to receive guests	- Increase the quality of accommodations	- Developing accommodations and accompanying services (investment elements)	
		- Extending the associated service background	- Developing services accompanying attractions (investment elements)	
Sewage treatment in small communities	- in the small settlements frequented by tourists	- Pollution-free sewage disposal solutions for touristically frequented settlements with lower environmental load than 2000 inhabitant-unit		
2. Development of regional infrastructure and the built environment	Developing the system of connections in the areas	- Development of lesser roads networks	- Renewal and building up of crossroads and access roads of small areas in the periphery, including even renewal and building up of bad quality three, four or five figure roads	Centrally located settlements having a decisive role in small area or regional level
		- Improvement of accessibility of economic facilities	- Renewal and building up of crossroads and access roads leading to industrial areas and centres of logistics	
		- Improving the infrastructure of local and long distance public transport	- Development of park and ride systems, creating bus lanes and enhancement of passenger traffic services	
	Rehabilitation actions in settlements	- Revitalisation of deteriorated centres in settlements and incentives to appearance of new functions	- Rehabilitation of public areas, development of urban green areas, re-fashioning of surroundings in residential neighbourhoods; establishment of facilities to host economic, cultural, community, community-information technology, and recreational and sports services activities; to increase the public security of city quarters	
- Rehabilitation of quarters with low social status and reputation				
Re-use of brownfield areas	- Re-use of brownfield areas in order to encourage the change in their functions	- Environmental remediation and clean-up or re-use of abandoned or seriously under-utilised industrial sites, empty military barracks (such as community cultural, industrial, administrative, touristic or commercial functions)	Anywhere	
3. Development of human resources in the regions	Support to local employment initiatives	- Expanding the opportunities for the employment of the underprivileged levels	- Supporting social economy-type programmes aiming at the employment of socially backward people. - Training of experts skilled in developing and managing non-	Anywhere

		through the development of social economy	profit employment projects, development of pilot projects, dissemination of experiences, operation of consultancy services	
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MEASURES CARRYING ENVIRONMENTAL CONTENTS BUT LACKING DIRECT ENVIRONMENTAL IMPACTS

Priorities	Measures		Contents	Affected factors
2. Development of regional infrastructure and the built environment	Development of the infrastructure for regional knowledge centres	- Elimination of infrastructural obstacles hindering the regional knowledge centres also serving community functions	- Establishment of new positions for education and research and positions suitable for providing services to both the businesses and the population, transformation, renovation of the existing ones (information technology system development, installation and development of central libraries)	Centrally located settlements having a decisive role in small area or regional level
3. Development of human resources in the regions	Capacity building for local administration and civil organisations	- Development and modernisation of local administrative capacities	- Development of skills associated with the design and implementation of projects accompanying the use of the structural funds - Organisation re-engineering, associated training courses and information technology system developments - Development of language and computer skills of personnel	Anywhere
		- Incentives to encourage the cooperation between the local administration and the civil sector	- Improvement of cooperation with the civil sector in the development policy implementation and in fulfilling the tasks of local governance	
	Setting up regional knowledge centres	- Broadening the vocational selection of institutions in the higher education, adaptation to regional needs	- Development of the selection of vocational training opportunities at institutions of higher education adapted to the economic needs of the regions	Settlements affected by higher education institutions in the countryside
		- Strengthening the bonds between institutions of higher education and the industry	- Developing cooperation models between institutions of higher education and business enterprises, elaboration of studies laying the foundations for new innovative activities	

	Supporting vocational training specific for the individual regions	<ul style="list-style-type: none"> - Broadening the professional knowledge base of employees with special regard to the employees of tourist enterprises 	<ul style="list-style-type: none"> - Support vocational training and post graduate training programmes enhancing the professional skills of employees in SMEs and micro enterprises, with special regard to tourism - Implementation of vocational training programmes organised by the National Institute of Vocational Training in the field of sectors and occupations important for the region for those who do not have marketable vocational skills 	Anywhere
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4.2. Comparison of ROP measures with the scale of values

According to our original concept, the ROP objectives would have been compared to the sustainability criteria. This however made not much sense in terms of the most recent versions of the programme, as the set of objectives has become so simplified and general that no reasonable statements can be made any more. For this reason, the comparison is made in terms of the comprehensive measures with the assistance of the table found on the next page. Sustainability criteria already demonstrated above are represented as the columns of the table in a simplified, short form. Rows were formed on the basis of the measures with environmental implications. Each of the cells illustrates that which of the measures are affected by an individual sustainability criterion and how close relationship they have got.

The **closeness of the relationship** is meant in a sense that to what extent a certain proposed ROP measure is able to influence some elements of the sustainability criteria, in other words to what extent it is able to exert an influence on the practical enforcement of the sustainable development principle, or on the unenforceability of it, for that matter. As a first step, the extent of the relationship is determined, irrespective of its direction. Namely, using some kind of supplementation (environmental priorities, conditions or criteria) the directions might be modified or even reversed.

In certain cases, there is no relationship between the value criterion and the measure, in these cases the cell in question was left blank. In these instances, it makes no sense to supplement the measures with the sustainability criteria. In most cases, albeit only to a more-or-less limited extent, the measure has an effect on the enforceability of the sustainability criterion in question (darkening indicates the closeness of the ties, the darker a cell the closer the relationship).

Direction of the relationship is meant in a sense that which is the nature of the relationship between the individual measures and the sustainability criteria. The direction of the relationship is first determined on the basis of the general experiences gained so far in connection with the measures in question (symbolised with the letter: A) and the contents of the measure, respectively (the direction of the relationship being either negative or positive) and the size of it. Measures having both positive and negative influences on the elements of the sustainability criteria simultaneously might also occur, which are indicated with a separate letter (E). In the second step it was investigated to what extent this direction of the relationship, i.e. the impact of the measure might be modified provided certain sustainability criteria are taken into account (symbolised by the letter: F).

Comparison of ROP measures with environmental implications with the scale of values (sustainability criteria)

	1. Increasing the competitiveness of touristic attractions	2 Improvement of the tourist industry to receive guests	3. Sewage management in small communities	4 Developing the system of connections in the areas	5. Rehabilitation actions in settlements	6. Re-use of brownfield areas	7. Support to local employment initiatives
1. Preservation and improvement of conditionally renewable environmental elements	A - F 0	A-- F-	A + F++	A - F 0	0	A+ F++	A+ F+
2. The desired level of utilisation of natural resources	A-- F-	A-- F-	A + F+	A - F 0	0	A+ F++	0
3. Diminishing rate of waste generation and their level of hazardousness	A - F -	A - F -	A - F 0	0	A + F +	0	A 0 F +
4. Restrictive use of land surface in the process of development projects	A-- F 0	A -- F -	0	A - F 0	A 0 A +	A + F ++	0
5. Conservation of biological diversity	A - F 0	A - F -	0	A - F -	0	A + F ++	0
6. Ensuring the survival of architectural, landscape and cultural values	A + F ++	A 0 F +	0	0	A + F +	A 0 F +	0
7. Conservation of consumption and production patterns adapted to the local environmental characteristics	A - F +	A - F 0	0	0	0	0	A+ F+
8. Preservation of the opportunities for selecting a lifestyle of free choice	0	0	A + F +	A - F +	A 0 F +	A 0 F +	0
9. Subsidiarity at the level of various activities	A - F +	A - F +	0	A - F 0	A 0 F +	A 0 F +	A+ F+
10. Local resources should benefit the local populations.	A - F +	A - F +	0	0	A + F ++	A + F ++	A+ F+
11. The region cannot restrict or prevent other regions in attaining the achievements listed above	0	0	0	0	0	0	0
12. Sustainability principles should become an ethical norm	A - F +	0	A + F +	0	A + F +	A + F +	A + F +

Key to symbols: Darkening: closeness of the ties, the darker a cell the closer the relationship

A: general characteristic direction of the relationship based on the experiences gained so far

F: direction of relationship provided the appropriate conditions are enforced, it must be better than A

--: strongly negative relationship from the point of view of sustainability

-: negative relationship, from the point of view of sustainability

0: neutral relationship

++: strongly positive (beneficial) relationship from the point of view of sustainability

+: positive (beneficial) relationship from the point of view of sustainability

E: dominance of characteristically contradictory impacts as seen in practice so far, in other words - and + at the same time

Bold typing: issues to be influenced strongly, conditions are mainly required here

*Key statements made during the assessment***1. Increasing the competitiveness of touristic attractions**

The measure in question would exert an influence on the performance of most sustainability criteria, which relations are usually characterised by strong coherence. Development of the tourist industry might be accompanied by substantial amount of land taken, and natural resource use, and guests participating in the touristic activities increase waste generation at the location. Changes in the natural resource base and the environmental elements might have an adverse impact on the natural heritage and biological diversity as well. However, these negative impacts of the measure on sustainability might be mitigated to some extent when an appropriate system of criteria is developed and applied. During the implementation of the measures, each time extra care should be given that the development schemes be accompanied by the least possible impairment of environmental values and that the environmental damages do not exceed the advantages offered for the society as a whole.

A positive “side-effect” of tourism development is that the cultural or natural heritage representing the key target of tourism will have become a value to be sustained, thus its preservation will be secured for a while. Beside all these, it is necessary to establish conditions which ensure the prevention of damages to the values and long term preservation or conservation for the future generations, irrespective of the potential touristic interest in the future.

Another part of the sustainability elements worth to pay attention to it even though its connections with sustainability is not so close. Neglecting these conditions acts against sustainability, while their exploitation serves the realisation of a number of local interests, such as the implementation of developments adjusted to the local environment and traditions, which condition can be especially enforced in connection with tourism, developments based on local resources and labour, transmission of the sustainability criteria through shaping the touristic attractions, and so on.

2 Increasing the ability of the tourist industry to receive guests

An objective of developing the tourist industry is to be able to attract visitors to the sight or spectacle the longer the better, which required the expansion of accommodation sites and lodging possibilities. This measure does not ties up to the preservation of cultural and natural heritage, therefore the relationship with environmental elements, natural resources and the use of nature is even more unfavourable. There is risk of increased environmental load appearing in the area as a result of increasing the ability to receive guests and this load might exceed the carrying capacity of the natural and cultural values concerned. Predefined framework conditions are extremely important, which might be of assistance to manage the direction and timing of environmental loading (thus making various forms of damaging nature preventable, such as a yachting event during the nesting period or motorboat racing on the Tisza-lake; mountain bike racing or collection of wild flowers in the proximity of the nests of endangered species in unprotected areas, and so on).

However, at the same time there is a number of old manor houses and traditional farms requiring repair in the territory of this country, which might be important to preserve for future generations. Therefore it is advisable to set such conditions which prefer the renovation of old (monument or monument-like) properties as part of broadening the capacity of accommodations, as opposed to new investments. A further positive implication of the application of this condition might have on the negative overall relationship mentioned above. Namely, these developments can be perceived as “brownfield investments” in a sense that the property in question and the infrastructure associated with it, when repaired and renovated, will contribute to the improvement of the image of the settlement. Furthermore, additional sustainability criteria defined in the case of the former measure can also be taken into account here: thus the implementation of developments adjusted to the local environment and traditions, developments based on local resources and labour, and so on.

3. Sewage treatment in small communities

The measure entitled „Sewage treatment in small communities” can be basically considered as an environmentally friendly measure, which has no negative relationship in terms of any sustainability element. During the sewage treatment process, purified waste water and sewage sludge is generated, the former representing yet another load for the receiver water course and pollution free disposal of the latter creates a new challenge for the designers. Solving these problems might further improve the quality of conditionally renewable environmental elements such as receivers.

4 Developing the system of connections in the areas

In general, it can be stated that compacting the local system of connections in an area and strengthening of communities concurs with the sustainability objectives to a great extent. However, inadvertent design concepts might easily turn this relationship the other direction. Promotion of regional and areal connections must serve the expansion of multiple cooperation opportunities and not the broadening of the zone of attraction of the centres with all the negative environmental implications included (such as increased level of commuting, growth of traffic, migration, and so on). Development of the infrastructure of the system of connections is only advisable to be started when mutual economic and social relationships are ensured. This connection is expressed by the medium level of closeness given during the evaluation of the relationship. At the same time, improvement of accessibility by the construction of small public roads entails land seizing and natural resource utilisation, and modifies the scenery, the environmental elements and natural values to an extent.

Development schemes taking into account nature conservation aspects such as habitat conservation and fitting into the landscape eminently might mitigate the expected adverse impacts. Biological diversity and nature conservation suffers from certain kinds of adverse effects in each case, for instance due to the shrinking habitats, but the opportunities to minimise these effects must be investigated in every case.

In the case of protecting environmental elements and especially in order to reduce noise and air pollution, developing the infrastructure of public transport must be given

preference, and wherever possible, new schemes must be implemented in the furthest possible places from residential areas, while in the case of modernisation projects, environmentally sound solutions such as protective belts and noise dampening walls must be applied.

Construction of public roads shall not only serve the traffic of passenger cars alone, much rather public transport and bicycle roads, as these might improve the chances for shaping a sustainable lifestyle.

5. Settlement rehabilitation actions

Implementation of settlement rehabilitation actions is especially important in terms of both balancing regional development trends and to improve environmental protection (such as elimination of neglected and littered places, preservation of architectural and cultural values, improvement of the image of the settlement, end so on). However, these measures can be further broadened by aspects serving the achievement of sustainability objectives. In the course of rehabilitation, when new functions are determined, preference should be given to functions promoting sustainable lifestyles and habits such as culture, sports and recreation and efforts should be made that the settlements preferred Settlement rehabilitation actions when implementing new facilities serving cultural or social goals. (In order to achieve this objective, cooperation is necessary with other cultural, health care, lifestyle promoting actions found in various other operational programmes, in order to provide synergy when individual measures are on the road to implementation.)

During the implementation of development schemes, taking into account additional sustainability criteria is also necessary, which encourage the possibilities of sustainable, environmentally friendly lifestyles and thus provide an incentive to local activities, preservation of local natural and cultural traditions and maintaining preference of local labour and resources.

6. Re-use of brownfield areas

In addition to the risk they represent from an environmental contamination point of view, formerly abandoned military compounds and industrial sites spoil the scenery of the settlement of the landscape. Their winding up and re-use has a positive connection with the sustainability criteria. During the re-use process, functions serving social and environmental purposes must be preferred. For instance, cultural, sports and so on complexes might be established in such old industrial sites which have lost their former functions, but the rehabilitation of the facility and its surrounding render them suitable for fulfilling new functions (an excellent example in the past years was the creation of the Millennial Park). Provided the area becomes an industrial area again as part of the re-use process, so called “win-win” solutions need to be looked for in this case as well. Namely, these solutions might save green areas otherwise required for the installation of new facilities. With such investments, it can be achieved that no land seizing affecting environmental elements and systems would be made and now fresh natural resources fall victim to these developments.

During development, further additional sustainability aspects are also to be taken into account, which encourage the possibilities of sustainable, environmentally friendly lifestyles and thus provide an incentive to local activities, preservation of local natural and cultural traditions and maintaining preference of local labour and resources.

7. Support to local employment initiatives

This measure intends to achieve first of all the enlargement of employment among the underprivileged and socially backward people. The measure has the intention to employ and retain labour locally, which is in coincidence with the sustainability objectives. Public works organised by local governments frequently serve the purposes of improving the state of the environment, which might thus become the target areas of support. As far as possible, efforts should be made to carry on traditional and cultural production patterns. In the process of implementation, the significance of local employment must be extended to cover the dissemination and education of sustainable moral standards.

4.3. Comparison of measures with the environmental objectives

The second table compares measures with the concrete environmental objectives and is designed mainly to illustrate whether the measure in question was favourable or unfavourable in terms of achieving these objectives. In this table, the type of impact factors triggering environmental impacts were also indicated.

Key to symbols:

0=irrelevant, no connection

2=environmental benefits can be reckoned with

1= in case of prevalence of appropriate conditions, environmental benefits can be reckoned with

-1= environmental problems which can be averted must be reckoned with

-2= environmental problems must be reckoned with at any rate

Types of possible impact factors:

Sz: discharge of pollutants (relations are determined by the contents of the column concerned, a figure with negative sign means increase, a positive figure implies reduction)

Z: noise or vibration exposure

T: considerable land seizing

K: changes of stock or way of use in terms of natural resources

H: considerable change in land use patterns (here, the environmentally positive change is indicated with the positive figure)

É: change in quality of life

ROP measures, sub-measures	Measure 1				M 2	M 3	Measure 4		M 5	M 6	M 7	
Environmental policy objectives	Investments associated with the utilisation of the cultural heritage and distinguished natural values	Renovation and building up of crossroads and access roads to touristic attractions	Renovation and building up of bicycle roads to touristic attractions	Support for associated marketing tools	Increasing the ability of the tourist industry to receive guests	Sewage treatment in small communities	a) Development of lesser road networks b) Improvement of accessibility of economic facilities c) Improvement of local and long distance public transport infrastructure	Settlement rehabilitation actions	Re-use of brownfield areas	Support to local employment initiatives		Summary of the environmental impact triggered by the ROP (short textual assessment)
1.1. The size of polluted areas, the number of population affected and the number of limit violations should be reduced.	SZ-2	0	0	0	SZ -2	0	SZ -2	SZ 2 É 1	0	0	0	Eventually locally emerging problems. Therefore, the carrying capacity limits and the reduction of the number of impact exposure must be born in mind.
1.2. Decrease in sulphur-dioxide, nitrogen-oxides, volatile organic compounds (VOCs) and ammonium emissions.	SZ -2	SZ -2	SZ 1	Sz -1	SZ -2	0	SZ -2	SZ 2 É 1	0	0	0	The traffic generating effect of tourism is a factor increasing air pollution, which might be mitigated to a certain extent by the use of the bicycle road network. Public transport development might be accompanied by the appropriate environmental benefits
1.3. In order to reduce global air pollution impacts, the net greenhouse gas potential should be reduced.	SZ-1	0	0	0	SZ -1	0	0	0	0	0	0	From the point of view of greenhouse gas emissions, the excess emissions arising from the growth in traffic is not considerable
2.1. Improvement of oxygen and nutrient turnover and the bacteriological parameters (class).	SZ -2	0	0	SZ -1	SZ-2 É-1	SZ-1	0	0	0	0	0	- In the case of tourism the large number of visitors might cause the volumes of waste water and the accompanied environmental load to grow!
2.2. Organic matter load of surface waters should be diminished, even when the volume of sewage water discharge is expected to grow.	SZ -2	0	0	SZ -1	SZ-2	SZ-1	0	0	0	0	0	- Direct impact of swimming on live waters - Even purified waste water causes excess load when discharged into the live waters.

ROP measures, sub-measures	Measure 1				M 2	M 3	Measure 4			M 5	M 6	M 7	
Environmental policy objectives	Investments associated with the utilisation of the cultural heritage and distinguished natural values	Renovation and building up of crossroads and access roads to touristic attractions	Renovation and building up of bicycle roads to touristic attractions	Support for associated marketing tools	Increasing the ability of the tourist industry to receive guests	Sewage treatment in small communities	a) Development of lesser road networks b) Improvement of accessibility of economic facilities c) Improvement of local and long distance public transport infrastructure			Settlement rehabilitation actions	Re-use of brownfield areas	Support to local employment initiatives	Summary of the environmental impact triggered by the ROP (short textual assessment)
3.1. Diminish the number of water extraction wells contaminated with nitrates in excess of 50 mg/l nitrate concentration.	SZ-1,	0	0	0	SZ-1	SZ 2	0	0	SZ 1	SZ 1	0	An enhanced risk of groundwater contamination as a result of touristic developments. Using appropriate waste water treatment methods the environmental loading can be diminished.	
3.2. Disposal of waste water without causing damage should become common.	SZ 1,	0	0	0	SZ 1	SZ 2	0	0	0	0	0	Support to sewage treatment methods and the demand for a higher level of infrastructure assist in meeting the objectives.	
3.3. During the use of thermal waters, recharge must be applied more frequently.	Sz -1	0	0	0	SZ -1 K -1,	0	0	0	0	0	0	Thermal water use is inappropriate during the development of the tourist industry. Appropriate management of the waters used must be provided for.	
3.4. In terms of groundwater depression, the decline in water table pressure levels should be stopped and the increase in pressure levels started.	K -1	0	0	0	K -1	K-1	0	0	0	0	0	In terms of groundwater, relatively low impact, but canalisation for instance reduces water levels.	
4.1. The size of the areas threatened by soil deterioration should be reduced.	0	0	0	0	0	0	0	0	0	0	0	This can be affected by the ROP only in very extreme cases.	
4.2. In terms of pesticide residues and heavy metal concentration, the goal is to reduce the frequency of limit violations and the concentration of organic and inorganic micro pollutants.	0	0	0	0	0	0	0	0	SZ 2	SZ 2	0	The occurrence of soil contamination will be diminished when abandoned industrial and military sites are restored.	

ROP measures, sub-measures	Measure 1				M 2	M 3	Measure 4			M 5	M 6	M 7	
Environmental policy objectives	Investments associated with the utilisation of the cultural heritage and distinguished natural values	Renovation and building up of crossroads and access roads to touristic attractions	Renovation and building up of bicycle roads to touristic attractions	Support for associated marketing tools	Increasing the ability of the tourist industry to receive guests	Sewage treatment in small communities	a) Development of lesser road networks b) Improvement of accessibility of economic facilities c) Improvement of local and long distance public transport infrastructure	Settlement rehabilitation actions	Re-use of brownfield areas	Support to local employment initiatives		Summary of the environmental impact triggered by the ROP (short textual assessment)	
4.3. The number of environmentally noncompliant landfills should be less.	SZ 1 H 2	0	0	0	SZ 1 H 2	SZ 1	0	0	SZ 1 H 2	SZ 1 H 2	0	It should be a requirement for the development schemed to provide a solution for pollution-free disposal of the waste generated. Settlement of this issue will improve the potential for the use of the environment.	
5.1. The ratio of protected areas compared to the country's total area should be 12 %	T -1 H -1	T -1 H-1	0	0	0	0	T -1 H-1	0	0	0	0	Although the protection of the nature conservation areas is not dependent on infrastructural developments, in the case of habitats fragmented by roads without a just cause the protection can be maintained with difficulties	
5.2. Improvement of the situation for endangered species, elimination of the endangered statue (number of species not considered as endangered /re-qualified species).	SZ-1 T -1 Z -1	SZ-2 T -1 Z -1	SZ1 Z 1	0	SZ-1 T -1 Z -1	0	SZ-2 T -1 Z -1	0	0	0	0	Efforts made to minimise the damages to the affected wildlife and their habitats might reduce risk exposure	
5.3. The ratio of interdependent natural and nature-like habitats should be kept at the present level	T -1 H -1	T -1	0	0	T -1 H -1	0	T -1	0	0	0	0	Priority status should be only given to development schemes which are implemented in accordance with the requirements of habitat protection.	
5.4. Increase in areas covered with growing stock and dedicated for re-	K 1 H 1	T-1	0	K 1	T -1	0	T -1	0	0	0	0	Tourism development should support the aim where appropriate, but developments	

ROP measures, sub-measures	Measure 1				M 2	M 3	Measure 4			M 5	M 6	M 7	
Environmental policy objectives	Investments associated with the utilisation of the cultural heritage and distinguished natural values	Renovation and building up of crossroads and access roads to touristic attractions	Renovation and building up of bicycle roads to touristic attractions	Support for associated marketing tools	Increasing the ability of the tourist industry to receive guests	Sewage treatment in small communities	a) Development of lesser road networks b) Improvement of accessibility of economic facilities c) Improvement of local and long distance public transport infrastructure			Settlement rehabilitation actions	Re-use of brownfield areas	Support to local employment initiatives	Summary of the environmental impact triggered by the ROP (short textual assessment)
forestation, increase in the size of forests found in protected and strictly protected nature conservation areas and forest reserves.													cannot impair the size and quality of forested areas.
5.5. The proportion of woodland covered with native forests should be increased.	H 1	0	0	0	0	0	0	0	0	0	0	0	Increase of the attraction might move parallel with the objectives.
5.6. The ratio of Natura 2000 areas compared to the total area of the country should be 15%.	H 1	0	0	0	0	0	0	0	0	0	0	0	
5.7. Beside ensuring the survival of geological and geomorphologic values the ratio of endangered values should be diminished	SZ-1	0	0	SZ-1	SZ-1	0	0	0	0	0	0	0	If the tourist attraction is a geological monument, protection must be ensured, for these formations are usually pretty sensitive.
5.8. Traditional landscape structure, nature-like landscapes and unique scenic beauty should be preserved	H -1	H -1 T -1	0	H 1	H -1	0	H -1 T -1	0	0	0	0	0	A decisive factor is what tourism development is built on. If it is built on the maintenance of the values indicated in the objectives, it can be enforced, otherwise these values will be difficult to sustain.
6.1. Increase the agricultural area in the realm of extensive use and protected zones.	H 1 É 1	0	0	0	0	0	0	0	0	0	0	H 1 É 1	This represents values for tourism, unlike intensive industrial agribusiness, therefore it is worth of support.
6.2 The ratio of renewable energy sources in the power mix should be increased to at least 6 % by 2010.	0	0	0	0	0	0	0	0	0	0	0	0	There is no substantial difference between the two, but in the development schemes the use of renewable energy resources

ROP measures, sub-measures	Measure 1				M 2	M 3	Measure 4			M 5	M 6	M 7	
Environmental policy objectives	Investments associated with the utilisation of the cultural heritage and distinguished natural values	Renovation and building up of crossroads and access roads to touristic attractions	Renovation and building up of bicycle roads to touristic attractions	Support for associated marketing tools	Increasing the ability of the tourist industry to receive guests	Sewage treatment in small communities	a) Development of lesser road networks b) Improvement of accessibility of economic facilities c) Improvement of local and long distance public transport infrastructure			Settlement rehabilitation actions	Re-use of brownfield areas	Support to local employment initiatives	Summary of the environmental impact triggered by the ROP (short textual assessment)
													must be encouraged during implementation and operation
6.3. The size of certified land cultivated using organic farming methods should be increased.	H 1 É 1	0	0	0	0	0	0	0	0	0	0	H 1 É 1	This represents values for tourism, unlike intensive industrial agribusiness, therefore it is worth of support.
6.4. Unjustified seizing of land and land use patterns must be avoided (such as landfills, line facilities, built-in zoning)	T -1 H -1	T -1 H -1	É 1	0	T -1 H -1	É 1	T -1 H -1	É 2	H 2 É 2	H 2 É 1		É 1	Almost all of the development schemes entails some kind of changes in the land use patterns. Negative impacts must be mitigated by setting up conditions, and wherever possible, sustainable land use patterns must be encouraged.
7.1. Waste generation must be prevented both during production and consumption.	SZ -1	0	0	0	SZ -1	SZ -1	0	0	0	0	0	0	The ROP essentially does not have an influence of preventing waste generation, waste reducing technologies might get a more favourable evaluation when aids are granted.
7.2. Options for environmentally conscious way of life should be improved (such as selective communal waste collection, improvement in competitiveness of environmentally friendly and ecological products)	É 1	É -2	É 2	É 1	É -1	0	É -2	É 2	É 1	É 1		É 1	Development schemes encouraging environmentally sound lifestyles should enjoy priority (such as waste-reducing operation, incentives to environmentally sound lifestyles, and so on).
8.1. Decrease the prevalence of hay-fever and asthmatic conditions.	H 1	Sz -1	0	0	H 1	0	SZ -1	0	SZ 2	SZ 2		0	Arrangement of grounds (such as weed control) must be a condition and not only for environmental reasons.

ROP measures, sub-measures	Measure 1				M 2	M 3	Measure 4		M 5	M 6	M 7	
Environmental policy objectives	Investments associated with the utilisation of the cultural heritage and distinguished natural values	Renovation and building up of crossroads and access roads to touristic attractions	Renovation and building up of bicycle roads to touristic attractions	Support for associated marketing tools	Increasing the ability of the tourist industry to receive guests	Sewage treatment in small communities	a) Development of lesser road networks b) Improvement of accessibility of economic facilities	c) Improvement of local and long distance public transport infrastructure	Settlement rehabilitation actions	Re-use of brownfield areas	Support to local employment initiatives	Summary of the environmental impact triggered by the ROP (short textual assessment)
8.2. Chemical risk exposure limitation in food.	0	0	0	0	0	0	0	0	0	0	0	No relationship.
9.1. Increase of public green areas in cities	H 1	0	0	0	0	0	0	0	H 2 É 2	H 1 É 1	0	Tourist attraction can be increased and built environment enjoyable when the settlement produces an agreeable medium for them.
9.2. Decrease slumming of urban land.	H 1	0	0	0	H 1	0	0	0	H 2 É 2	H 1 É 1	0	Tourism can assist in this as a demand and arrangement of grounds as a parallel objective.
9.3. Healthy drinking water supply to all communities.	0	0	0	0	H 1	SZ 1	0	0	0	0	0	In tourism development, healthy drinking water is a requirement.
9.4. The number of population exposed to a noise in excess of 75 dB(A) should approximate zero	Z -2	Z -2	Z 1	Z -1	Z -2	0	Z -1	Z 1	0	0	0	Noise exposure to a certain level, as a result of increased traffic, can be tolerated. It has to be mitigated for instance through the development of by-pass roads, bicycle roads and public transport.

In the table above, it was analysed what kind of impact certain ROP measures might have on the individual environmental elements and systems. As it was referred to earlier on, as a matter of fact, the environmental impact of the ROP cannot be interpreted without analysing the other operational programmes. A fundamental task of the ex-ante assessments is to determine the environmental impacts and the use of natural resources of the entire National Development Plan as a whole.

Most of the measures included in the ROP do not have any serious environmental impact, yet the medium of the development projects is natural or built environment, thus a certain extent of interaction must be reckoned with.

The **state of the air quality** is basically impacted by the measures developing traffic infrastructure and those encouraging mobility. In the case of the ROP, increased air pollution and noise exposure can be expected with regard to the development of tourism and the connection system of the areas.

As to the **state of water quality**, a substantial impact can be expected from increased volumes of waste water, which is caused by the large number of visitors as a result of tourism development projects for both surface and underground waters, provided no appropriate attention is given to minimise these effects. The management of the excess load must be encouraged in the development schemes. Supporting the sewage disposal generated in small settlements is an important task from the environmental perspective as well. Illegally drained waste waters contaminate both the soil and groundwaters. In terms of live waters, swimming might also entail some adverse effects.

Soil quality is not seriously impacted by the ROP measures. Pollution must be expected mainly along the narrow band on roadsides as a result of the emissions originating from public road traffic. In tourism development, during the operation the application of waste reducing technologies might be encouraged, and requirements setting limits for the appropriate waste management practices can be advisable. Using these conditions, it can be avoided that tourist sights be littered.

Settlement rehabilitation actions and brown-field operations have positive effects on the quality of soils as they decontaminate contaminated soils locally, cleaning up additional contamination or the risk of them.

Special attention must be paid to the preservation of **natural and landscape values** especially in connection with the tourism development projects. Dramatic increases in the number of visitors might disturb the functioning of wildlife. Investments with consequential changes in land use patterns might change traditional landscape structures. Infrastructural investments designed to develop areal system of connections might be accompanied by the fragmentation of natural values and habitats, which in turn might jeopardise the implementation of nature conservation objectives. In order to avoid the risks detailed above, nature conservation aspects must be taken into account as well, and compensating measures designed where appropriate.

In terms of using **natural resources** the observance of fundamental sustainability criteria is indispensable. The ROP measures might increase the number of unjustified land seizing and land use. When designing new facilities (structures, buildings, and so on) greenfield investments must be avoided, because they set aside yet another parcel from nature. The establishment of new roads can only be supported by the ROP when it replaces existing environmental loads. For instance, when it relieves a sensitive ecosystem, diverts traffic, shortens long tracks, etc. The construction of new roads changes habitats considerably and individual habitats become fragmented, isolated, altering the living conditions for wildlife once and for all.

It holds true for all the development projects that wise use of natural resources (both materials and energy) must be preferred in order to encourage sustainable husbandry.

The **built environment is a** direct target area of ROP, thus there is a group of measures which identified the improvement of the state of the environment as a direct task. In these cases, the quality of implementation shall be the factor which decides the extent of environmental benevolence. However, there are other measures where the impairment of the built environment can appear as an environmental implication, mostly due to the increasing loads originating from traffic related pollution. Tourism development which is considered to be successful might still entail these general impacts provided there are no conditions set or they are set inappropriately. This means that irrespective of the evaluation of individual design schemes or plans, the issue is how much traffic is tolerated by the settlements, even when this is considered by locals as a workplace nuisance and not as an environmental harm, which might be offset in their minds by the revenues provided by tourism.

5. NECESSARY ENVIRONMENTAL CONDITIONS AND ADDITIONAL RECOMMENDATIONS WITH REGARD TO THE MEASURES AND THEIR IMPLEMENTATION

Environmental conditions are meant to be such aspects or environmental policy contents which, when taken into consideration, effect to improve the environmental performance of the individual measures.

With regard to the additions (conditions and recommendations), primarily those measures might be affected which have been given -1 or 1 values in terms of comparison with the environmental objectives.

On the other hand, if serious negative environmental impact can be expected in the comparison with the sustainability criteria, but this impact might be improved considerably by the addition of the appropriate conditions, then such conditions must be assigned to the objectives concerned which ensure compliance with the favoured direction.

Knowing the current state of the design process, the major part of the recommendations might be a condition and a minor part an addition. It is important that the condition-type recommendations be incorporated into the tendering procedures and systems, since these might influence or even determine the evaluation criteria of the proposals and hence, indirectly, the results of the tenders. Thus incorporating the project selection criteria suggested in the framework of SEA into the implementation of the aid granting system might ensure minimisation of negative environmental impacts. Environmental type conditions might be taken into account when indicators are specified and when ex-post assessment of the implementation is made. From primarily the nature conservation perspective, suitable framework can be provide by the following regulations:

5.1. Expected interconnectedness of the ROP and the Natura 2000 areas

European regulation concerning Natura 2000 areas is contained in Council Directive 92/43/EEC of May 21, 1992 on the conservation of natural habitats and of wild fauna and flora. Recognising that natural habitats keep on deteriorating in the territories of European Union Member States, and that more and more species of flora and fauna becomes endangered, the primary objective of the directive is to provide priority to certain kind of habitat types and species in the light of their endangered status in the process of quick implementation of measures taken in order to preserve them and that special nature conservation areas should be designated for the purposes of restoring or maintaining the beneficial protected status of these habitats and species.

The Directive covers the habitat types and habitats of flora and fauna referred to in the Annexes thereof. Member States shall have the possibility to extend the list with habitats and species not included in the Annexes but endangered in the territories of

the Member States concerned. Both for the habitats and the habitats of species included in the list Natura 2000 areas shall be designated and the measures laid down in the aforementioned Directive provided for.

Among the necessary measures, the following provision is included under Article 6 (3):

Any plan or project not directly connected with or necessary to the management of the (Natura 2000) site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

It can be seen from the expectations that requirements included in the Directive are far beyond the expectations incorporated into the environmental impact assessment procedure. Provided a proposed project is subjected to an environmental impact assessment anyway, these expectations might be incorporated into the process of the environmental impact assessment procedure, but the said Directive shall extend the obligation of environmental impact assessment to many other projects and plans otherwise not subjected to such assessments, provided they affect any Nature 2000 site.

Part of the projects included in the ROP is expected not to be subjected to such procedure, however there are programme types where impact on Natura 2000 sites must be assessed whatever the circumstances. Assessment of the sites whether they are concerned might be reckoned with in the ROP with regard to the following types of programmes:

- Investment projects associated with the utilisation of cultural heritage and distinguished natural values
- Construction of access roads leading to tourist attractions
- Construction of bicycle roads leading to tourist attractions
- Development of accommodation sites and associated services
- Development of services associated with attractions
- Pollution-free sewage disposal solutions for touristically frequented settlements with lower environmental load than 2000 inhabitant-unit
- Renewal and building up of crossroads and access roads of small areas in the periphery.
- Renewal and building up of crossroads and access roads leading to industrial areas and centres of logistics.

5.2. Measures with environmental impacts

Priority 1: Improvement of the touristic potential

General remarks on priority:

The programme envisages sustainable utilisation of natural values and cultural heritage for touristic purposes **without, however, determining the respective carrying capacity and loadability of the said resources or their touristic potential, for that matter**. What the sustainable use can be based upon when these factors are not investigated first and planning is not carried out with these potentials and restrictions in mind? The conclusion to be drawn from this is that sustainable use cannot be justified with the anticipated measures. *A precondition of sustainable use is not to exceed the carrying capacity of the environment.*

Development cannot be built only on tourism and the development side-effects associated with it (such as increased demand for services, production of handicrafts, and so on), **since tourism depends on many external and internal conditions, which conditions are extremely vulnerable**. Such is for instance the vulnerability of the local touristic potential (attraction), its environmental depreciation due to overexploitation or damages caused accidentally; limitation of travelling opportunities as a consequence of security of financial reasons; uncertainty of the growth of supply in the tourist industry worldwide; security policy issues; diseases, epidemics; giving currency to rumours, and so on. Activities accompanying tourism and their profitability are dependent on the tourist industry market, therefore they cannot be trusted as exclusive holders of development. It seems that the programme does not provide any *alternative* to those areas where it promotes the development of the touristic potential.

It is not really clear to which extent can touristic *attractions* be developed. Most of these attractions already exist physically (primary attractions), such as a lake, a monument, a waterfall, in other words they are unique, individual values. This is exactly which makes them an attraction. In other cases the attraction can be shaped (secondary attraction), such as the location of an activity (ring, beach, museum, settlement). However, their potential and their potential for development are not the same. In the case of the first category, it is especially important to make it clear **what does the potential of the attraction concerned for development means**. It could also mean namely to eliminate certain kind of current loads just as well as it is anticipated in the programmes, i.e. the generation of even more pollution and stress. Measures attached to the priority (i.e. enhancement of competitiveness of the attractions, development of associated services, exploration of attractions) generate environmental stress locally and globally alike. As it was mentioned in the part dealing with the situation analysis, certain types of environmental stress prevent appropriate touristic exploitation (such as the contamination and pollution of surface waters), and on the other hand tourism itself might facilitate environmental contamination easily.

The assessment of environmental impacts of tourism requires somewhat peculiar considerations on the global level. A tourist, when he/she moves from one place to

another, essentially alters the location of the environmental stress, he/she merely exports his/her daily environmental load. This does not entail any excess stress globally. **However, excess loads and stress are generated by travelling itself, and the extra consumption usually experienced with tourists.** An extra load is represented by the fact that in the case of eco-tourism, the ecological sensitivity of the destination usually surpasses that of the place of origin.

Environmental loads exerted by tourism has a seasonal fluctuation, which causes serious concerns for the management of environmental loading. Loading peaks experienced in the **main season** would require the service capacities to be installed at a level corresponding to these peaks, which capacities however become quickly superfluous outside this very short period of time. The **unused period** represents excessive extra costs and environmental loads as well, since depreciation is accelerated, maintenance must be taken care of, maybe heating must be installed even when the facilities are out of use. **The programme does not discuss the management of these environmental problems at all**, or with a development type where such problems would be non-existent. Extension of the seasons for the tourism as a whole is obviously a limited option since there are physical constraints to it. For instance, people usually are given their holidays during summer, or they choose to make holidays in good weather, and so on. Seasonality is not tackled in an appropriate manner by the programme from the social perspective either, although the much wanted employment and revenues generation are both dependent on seasonality.

It would be interesting to assess, what **does a high quality touristic product means**. In the interpretation of the programme, the necessary criteria are known. However, „high quality” is depending on individual taste or particular needs. There are some who can't stand a duty little village, or an overcrowded city, while others appreciated these as a high quality. In the case of an ecological touristic product *a prerequisite for high quality is the untouched beauty of nature, or the intention to create a natural world around us. Part of the eco-touristic product is the opportunity for learning or the possibility to participate in maintaining the attraction in question.* These qualitative aspects are also missing from the approach embraced by the programme.

The programme does not deal with the **distribution of revenues generated by tourism** across local inhabitants, who theoretically share the local resources but benefits are retained usually by only a few. It is also crucially important, how the revenues are used, *is there any of them returned to preserve or develop if appropriate the potential which gave rise to them.*

Each of the indicators assigned to the objectives are so called performance indicators, which is not a problem in itself, should any of them integrate some kind of environmental features. The indicators are contradictory in themselves. For instance, the extent of revenue generation would be a more appropriate measurement tool than guest nights, since it might be possible that competition will drive the prices down and income levels stagnate. The number of settlements involved in the sewage management schemes does not in itself qualify the environmental performance of the solutions applied. *We suggest the changes in income levels as a sustainability*

indicator, and the index reflecting the seasonal excess environmental load, respectively.

The following measures are included within the priority:

1.1. Measure: Development of touristic attractions

(Including support to investment projects aiming at the utilisation of cultural heritage and distinguished natural values, construction of access roads leading to tourist attractions, construction of bicycle roads leading to tourist attractions and supporting associated marketing tools)

1.2. Measure: Increasing the ability of the tourist industry to receive guests

(Including the development of accommodation sites and associated services (investment element) and the development of services associated with attractions (investment element))

1.3. Measure: Sewage treatment in small communities

Pollution-free sewage disposal solutions for touristically frequented settlements with lower environmental load than 2000 inhabitant-unit

Seen from the point of view of their contents, the measures have not the same solidity throughout. The first measure for instance, albeit aiming at the development of concrete (cultural or natural) touristic attractions in accordance with its title, yet it contains measures which would rather be oriented to the development of infrastructure serving the attractions (as an access road). However, the other two measures are standing closer to this infrastructural sub-measure. From the environmental perspective, there are two important segments of this priority, first the preservation and development of the cultural and/or natural value itself, and second the development and putting into operation of the associated infrastructure (use by visitors). **From the sustainability perspective, the priority needs to be handled in context with its relationships, since where the ability to receive guests is extended, it will probably be associated with consequential extra load of the touristic attractions as well.**

The measure entitled *Sewage treatment in small communities* – when only taken into account by title – would not necessarily belong to the assessment of impacts caused by tourism. In the case of the ROP however, only those sewage treatment measures are implemented, which are important from the point of view of tourist attendance. Thus this measure is rather a precondition of the aforementioned two other measures from the environmental point of view.

For this reason, only the entirety of Priority 1 can be interpreted from the environmental perspective. Practically, the environmental impacts explored in details below and the recommendations to prevent them can be understood to both of the first two measures.

Potential environmental impacts of the proposed measures:

Adverse environmental effects of development projects are manifested and even enhanced to a certain extent during operation as well, in addition to the investment phase. With the assistance of environmentally friendly technologies and procedures

certain environmental impacts can be mitigated considerably (such as waste water generation, waste generation, allergic plants, and so on), while certain loads can only be reduced partially or not at all (such as the noise exposure and air pollution increments originating from the increased traffic at attractions). Development schemes always entails some kind of land seizing and changes in land use patterns, therefore the risk of impact of these on natural values and landscape scenery must be minimised. Adverse environmental impact of development projects on the quality of air can be interpreted as the consequence of the increased traffic and mobility. The significant traffic generating impact of tourism development has an air pollution increasing effect and the noise exposure originating from traffic is also more intensive. During the description of the measure, there is only one reference made to the fact that construction and renovation of roads in most of the cases concerns the public roads found inside the settlement boundaries only. Public roads situated in built-up areas and open spaces, respectively, are associated with different environmental impacts, and the aspects of mitigating these effects must also be managed in a different way. In the case of roads in built-up areas, the impact is born by man and the built environment, while in the case of roads running in open spaces, the impact is made primarily on the natural environment. The construction of public roads entails land seizing and natural resource utilisation, which in most cases modifies the scenery, the environmental elements and natural values to an extent.

In the situation analysis, the significance of the bicycle road network and its connections with the tourist industry is mentioned in a prominent place, yet the measure description does not contain any reference to the preference of developing this. The development of the bicycle road network might considerably enhance the attraction of tourism, and in addition it also has a significant awareness-raising impact as well. However, the development of bicycle roads cannot only be associated with the tourism, but also with the development of the system of connections between settlements. Establishing the conditions for bicycle traffic provides an opportunity – especially on smaller settlements – to abandon the use of the passenger car, thus it might contribute to the reduction of increased air pollution and noise exposure to some extent, which arise from the more intensive traffic.

The sub-measure „**Supporting accompanying marketing tools**” encourages the development of marketing tools accompanying tourism development. However, the tools demonstrating the attractions can also be considered as important means of disseminating information and increasing public awareness, in addition to being just marketing tools. It is up to the information transmitted through these tools that for which purposes and in what level the services offered by tourism are taken into account by tourists, therefore the protection of environmental and natural values, the dissemination of environmentally conscious attitudes must be an integral part of these support structures.

In addition to all these, certain kind of environmental benefits might have been also included in the measures, because conscious exploitation of these must be encouraged. Thus it would be important to ensure long term protection of natural values, dissemination of sustainable lifestyles and habits and the implementation of other

environmentally sound developments accompanying the development projects, such as increasing the surface of green areas, forestation, and so on.

Based on what was said above, the following environmental impacts can be identified:

- ☞ material and energy used for local construction works and the direct and indirect environmental loading associated with these
- ☞ material and energy requirements for the operation and maintenance of the new facilities and the associated environmental loading
- ☞ excess material and energy use of already existing facilities as a result of the growing requirements
- ☞ the impact of seasonally appearing consumption peaks on the sustainable use of certain resources such as drinking water or energy
- ☞ the impact of seasonally appearing consumption peaks on the local and broader environment, e.g. waste or sewage
- ☞ accelerated depreciation as a consequence of seasonal utilisation patterns (overloading in summer, under utilisation in winter)
- ☞ increase of local and long distance (travel) mobility in accordance with the use of the attraction, excess energy use and discharges
- ☞ habitat segregation impact of new road sections
- ☞ disturbing impact of traffic on ecosystems, direct devastation (accidents) and indirect impacts such as noise, air pollution, vibration, and the impacts of pollutant transports to the ecosystem
- ☞ increased light pollution, impact on wildlife
- ☞ direct disturbance of the habitats as a consequence of the growing number of visitors.

Recommendations for the environmental conditions

- It has to be ensured in all areas of development that the entirety of the projects be assessed for their accumulated impacts on the environment.
- The number, nature and impact areas of the projects must accommodate the carrying capacity of the environment, this aspect must be integrated into the evaluation of applications for support, even, when the procedure entails multiple rounds of tendering.
- Local tourism development projects must be designed in a way that their implementation did not cause any excess loading of the environment. Before starting new investment projects, the measures must be shown the implementation of which will terminate other already existing loads (compensatory measures).
- No such development can be accepted which make an impact on the local environment at the expense of the broader environment and which do not allocate funds for compensation for the excess environmental loads thus exported from their returns.
- Priority should be given among the projects to be subsidised to those which serve the benefit of the local community, which require the participation of locals for implementation and operation, and which – when coupled with other

developments – shall make sure that revenues be distributed evenly across the local community.

- Touristic developments must be supported primarily at locations where there is a relatively little difference between the maximum environmental load experienced during peak periods of the main season and the minimum load seen when the tide is at its lowest ebb off-season. In places with great differences no more loading shall be allowable.
- Any new facilities should be placed not in the protected areas but in their respective buffer zones or at the edge of these zones, in other words developments involving construction works should be restricted to the buffer zone or outside of it. An exception can be given when the developments are made with the change of the function of facilities already existing on site and if the new function does not represent any new threat or excess load compared to the previous activity. Development of buffer zones relieves the natural attraction from degradation and by exploiting the attraction it also develops areas with lesser development potential.
- Construction of new facilities and buildings must be executed by selecting from the environmental perspective the best available technology and materials, thinking on the environmental efficiency of the operation as well (priority to the use of local resources and materials, energy supply, insulation, lighting, waste water treatment, and so on).
- Renovation and function change of existing buildings should be designed with due attention given to environmental aspects in order to enforce environmental considerations. Implementation of local materials, renewable energy resources and alternative technologies must be ensured.
- When selecting functions for the facilities, design should be extended to the entire life cycle (construction, operation and subsequent usability), and environmentally friendly usage must be ensured during operation as well.
- Development of any attraction should be accompanied with the least possible material and energy use. In other words, preference should be given to the implementation of projects accompanied by low specific construction and operational costs when the development alternatives have the same level of profitability.
- Support to touristic attraction development should only be given when the opportunity to implement sustainable water reserve management it there, in other words only when economically exploitable local water resources are available in an appropriate amount.
- In the case of local touristic developments, special attention should be given to the aspect that where physical features make it possible, organic and natural local husbandry in the small area be given an appropriate role in contributing to the supply of visitors with high quality food and, to a certain extent, with implements and tools.
- The establishment of new roads can only be supported when it replaces existing environmental loads. For instance, when it relieves a sensitive ecosystem, diverts traffic, shortens long tracks, etc.

- In order to prevent the development of air polluting emissions, development schemes must be extended to incorporate the target area and the target facility, respectively, into the public transport system and to encourage the use of it, to the encouragement of the application of traffic smoothing solutions and speed limiting devices, and so on. Preference should be given to developments where the bicycle roads connect settlements
- In the neighbourhood of natural ecosystems, in protected areas neon signs and advertising lights must be prohibited in order to protect wildlife sensitive to light attraction.
- Using some of the profits generated by the subsidised touristic projects, care should be given to protect local natural values, to diminish environmental loads and to compensate for loading which cannot be avoided.
- Education programs increasing public awareness should be organised in the developed areas in order to disseminate environmentally friendly lifestyles.
- Areas to be developed should be equipped with guides and information plates educating and orienting visitors and raise environmental awareness. Attention should be called to environmentally friendly solutions and it is necessary that the entire locality and its inhabitants emanate the right livelihood attitude towards the visitors.
- Developments and programmes attracting visitor attendance in guided, organised and predictable manner should be given priority in order to protect the values, and programmes building on the revitalisation and maintenance of organically developed cultural traditions and promoting the conservation of natural values establishing the nature of a world heritage site.
- In order to avoid the development narrowing natural habitats and avoid damaging endangered flora and fauna, the habitats situated in and in the surrounding of the development scheme must be assessed and it must be verified that the development does not threaten their expanse and quality.
- Preference should be given to those developments which contain supplementary landscape and nature conservation and forestry management efforts as well (or those, where the development is linked with some other nature conservation project which is also implemented in the area)
- In the case of supporting marketing tools, provisions should be made in order to ensure the information is given on other environmental, nature conservation and cultural values, knowledge, rules as well beside describing tourist information, and attention should be called to the opportunities and advantages associated with environmentally friendly lifestyles.
- Preference should be given to the extension of services background based on community services serving the preservation and revitalisation of local cultural heritage adapted to the features of the area concerned.
- During the operation of the facilities, pollution free disposal of sewage must be ensured and only those areas can be supported, where this problem can be solved
- Maintenance of the landscape attraction might be facilitated when the extension of the service is based on the local specialities, agricultural products, local traditions and the trades and skills owned by the local inhabitants.

- During operation, the conditions necessary for selective garbage collection and utilisation must be ensured
- During operation, preference should be given to the application of waste reducing technologies
- Environmental health requirements such as arrangement and increase of mandatory green areas, eradication of allergic plants, securing safe and healthy drinking water supply must be implemented in the course of development implementation
- Prefer the arrangement and remediation of values found on deteriorated, dilapidated and slummed areas in view of facilitating the rehabilitation of these quarters of settlements
- Stipulations to reduce the noise exposure arising from the increased traffic intensity by means of by-pass roads, dampening walls, bicycle roads, and so on.

Sewage treatment in small communities

- When alternative sewage treatment procedures are selected, the extremities of the seasonally changing loads must be taken into account as well as the financial carrying capacity of the local population in terms of specific investment and operation costs.

Priority 2: Development of areal infrastructure and built environment

2.1. Measure: Developing the system of connections in the areas

General remarks:

The subject of the ROP interventions is the network of lower ranking roads which require modernisation and renovation as opposed to extension. Within this, distinction should be made between those roads which have an appropriate number of lanes corresponding to the intensity of the traffic on them and which only require maintenance and renovation and those which require the amendment of the lanes and routing as well. The latter might mean by-passing settlements, the modification of certain sections of the track (such as correction of bends), or the enlargement of the carriageway and increase safety. These actions eventually might be more important than the development of freeways at any price, and even when freeways are available, you cannot expect the beneficial economic effects generated by them until the lower grade roads are not put in order.

The excellent potential of domestic tourism is frequently characterised by the figure saying that in terms of numbers, 2-3 % of *all international tourism* touched Hungary. On the other hand, in terms of income generated by tourism, the proportion is smaller by one order of magnitude, it is only 0.2 to 0.3 per cent of all international tourism related income is generated in this country. This difference reflects the dichotomy which can be seen between the *abundance of transit volumes* and the ability to receive guests which is typical for the country domestically, in other words the *absorbing capacity*. For tourist experts in this case it is apparent that the situation can be solved not by increased advertisements and luring even more people here but measures which

are able to increase absorbance domestically in a way that the tourist industry might be capable of offering higher level of services for the tourists who already come to here anyway.

The same relationship can be less accepted by the experts preparing the concepts of the traffic sector, they still live in a world where increasing the flux of tourists flowing through the country is the most important thing to do. This approach inclusively implies the illusion that an ever increasing transit might “drop” a little bit of profit here as well. In contrast, however, just as it can be seen both in the tourist industry and the transport industry, domestic revenues are not increased in relation to the extent of transit, but the profitability of these sectors is dependent on the absorbing capacity of the domestic industry, infrastructure, and traffic network. With a little insight it would be advisable to recognise that what we need most is the richness and enrichment of the *internal system of connections*. From the contents side, this notion requires the increasing density of links between production, processing and service points, while in terms of form, the *density of traffic links and their appropriate technical conditions is which becomes the most important factor*. Suitable and dense internal connections cannot be traded off by the building up of the backbone routes in the country, or even worse, when the proper ratio between the two is broken up, then having built the backbone routes, the country will wait in vain to see the benefits arising from the excess traffic precipitated in the domestic economy.

Accessibility is interpreted by the ROP generally in a very unilateral sense, identifying it practically with traffic accessibility. The objective (see indicator), of achieving a three minutes reduction in the access time of the areal centre one hour drive away will not imply any substantial development for anybody, in our mind. No ecological aspect whatsoever is served by this measure. For instance, the 45 minutes accessibility of the centre from any point of the small area would require re-drafting of the maps instead of development of the road networks.

Recognising the fact that lower grade roads are in a very bad shape, they require modernisation first of all, and **only in very rare instances the building up of new elements in the network can be justified. This happened primarily when the new element rationalises from the structural point of view or when it relieves some environmental load.** The most important direct factor of destroying wildlife are traffic and transport. Areal ecological connections, the operation of ecological networks are in confrontation with the very existence of the road network. Having said this, *we agree with the statement found in the material saying that the environmental burden put on the settlements will be diminished by the development of the side-road network and the facilities associated with it. This is apparently not true for the next proximity of the road, nevertheless overall environmental loads are reduced when the local road construction results in the connection of the reliable public transport lines serving the small area. This development thus must facilitate the establishment of a multi directional system of connections at the small area level.*

It is somewhat antinomic however, when instead of the interpretation of local development in a manner set out above, mobility of the population is to be

increased in a way by which they can more easily commute between their respective places of residence and the central settlement or the shopping centres in the region. Important structural implications are underlying the matter, but it is a mistake to think about how the bad structure can be kept alive by achieving larger mobility level instead of planning for structural remedies.

Environmental impacts

- ☞ No new roads can be established primarily in areas which have formed an interdependent and interconnected natural or nature like habitat complex. The negative impact of road developments in these areas is several times higher than that of those which cross disturbed areas.
- ☞ The amount of areas affected by pollution transport is growing in this country. Pollution transport being: emissions, spreading of weeds and pests, roads as corridors for weeds intrude and penetrate untouched nature.
- ☞ Direct devastation of wildlife is more imminent (accidents).
- ☞ Performance of the ecological network is impaired and new cross points are established between the two networks.
- ☞ Habitat segregation is on the rise.
- ☞ New network elements generate more traffic, more transports and hence generate extra environmental burden.
- ☞ Construction and maintenance of roads requires materials and energy and maintains environmental loads.

Recommendations for the environmental conditions

1. Development resources must be expended mainly on the renovation of existing road networks while paying due attention to environmental aspects as well.
2. New network element can only be planned in places where the cooperation of the settlements is a real necessity.
3. New network element can only be planned in places where it does not endanger natural habitats and does not change the ecological characteristics of these, not causing segregation within each of the habitats.

2.2. Measure: Settlement rehabilitation actions

In the framework of this measure the following key groups of activities are subsidised: rehabilitation of public areas, green area protection and development in settlements; renewal of built environments in the neighbourhoods of residential quarters; establishment of facilities to host economic, cultural, community, community-information technology (telehouses), and recreational and sports services activities; to increase the public security of city quarters.

General remarks:

In the present measure, the economy-minded approach of the entire ROP can be seen again. Settlement rehabilitation actions, which primarily mean the improvement

of quality of life in settlements and the shaping of a healthy and clean built environment, are necessary from the point of view of the ROP mainly because the current state of affairs „impairs the investment environment, the opportunities of the local population to get jobs and to live in an agreeable living environment, furthermore it is an obstacle for economic developments”. However, a favourable investment environment is not an otherwise clean area having a great number of green areas and cultural facilities, much rather the economic situation, employment tendencies, beneficial inflation rates and a number of other factors– it is nevertheless important tendency that the significance of an agreeable physical environment is more and more decisive from the point of view of the investment attraction. Certainly, economic and social rehabilitation of public areas, buildings might have a positive impact on the investors appetite, but this is by no means the only most limiting condition. An economic minded approach of this measure is the more contradictory because „beneficiaries of the subsidies to be granted on the basis of this measure are not enterprises but not for profit organisation the activity of which does not have an impact on business competition and the benefits of the infrastructure developments implemented with the assistance of the grants can be enjoyed by the whole community” It must be emphasised again that the expected favourable impact of the measure might be an economic boom but this is not the primary goal.

It would be advisable to separate causes, problems, objectives and the effects of measures when they are described in a measure. The problem on the neglected settlements includes the decreasing standard of living, a permanent downshift of public security and dilapidation of buildings, high unemployment rates and the impairment of the health situation and an increased environmental contamination as a result of all these. Causes include the failed economic developments, but, as it is referred to in the measure as well, the lack of financial funds in local governments and municipalities also causes the deterioration of public areas and buildings very frequently. As an objective, the multi functional development of dilapidated settlement quarters can be formulated in line with the urban development concepts (see one of the objectives of the measure: incentives to the appearance of new functions). The development of multifunctional spaces, as it is already found in the description of the ROP measure, have a “complex impact on the life of the rehabilitated quarter. In the wake of the interventions, the appearance of new economic and community functions can be expected, and furthermore the commencement of favourable changes is seen like a reduction in crime rates and the development of a more safe built environment, improvement of the state of the built environment, and the reintegration of socially backward, underprivileged groups. As a result of the developments, operational environment for businesses is improved, and those areas, which represent the next proximity of business enterprises will appraised.”

If the earlier statement is accepted, saying that the Regional Operational Programme serves the regional foundation of the National Development Plan, the ROP might easily undertake measure which have only and explicitly social and environmental importance. **This is by the way allowed by the ROP since the development of the built environment is an outstanding, separate ROP-specific objective. Thus, real**

objectives must be looked for behind the reasons of the measure such as quality of life an liveable built environment and environmental health.

The measure restricts subsidized without any justification or rational to those centres of areas or partial centres which have a decisive impact on the economic and social life of the settlement and the surrounding areas. As it was seen and discussed earlier on, improvement of the built environment is reasonably justified not only in cities alone, and the improvement of the built environment has a decisive impact on the economic and social life of certain areas not only in areal centres. **The ROP ought to undertake as well that it was not possible for a programme to solve all the problems within such a short time horizon.** It would be more reasonable to explain the restriction with the short first period of the National Development Plan of three years and to begin with the developments in places where the creation of new functions entails the biggest possible economic, social and environmental benefits, certainly bearing in mind that further developments are still valid and justified. Explanation is the more necessary because somewhere it must be justified why a regional programme, which has its most important key objective to harmonise and balance regional development, focused on the areal centres and cities which are already advanced anyway.

In the paragraph discussing the beneficial impacts of the measures (Page 73, paragraphs 1 and 3 in the April 30th version) you can find as an argument the improvement of the situation of multiple disadvantaged and underprivileged social groups. Attention must be called to the fact that those extremely backward and underprivileged groups do not live in the areal centres in most of the cases, much rather in the rural small settlements, in the countryside. On the long term this is a goal anyway, but it is questionable whether during this very short period, through this specific measure any large ranges or levels of society could be targeted at. in the description of the measure, expected long term impacts and results ought to be separated from the short term impacts of the measure.

There is also a sentence in the description of this measure which is incomprehensible: „Activities are implemented in the *geographically interconnected* and clearly *delineated development target area of the settlement*, they aim at the solution of a well defined problem and they constitute part of the comprehensive development concept developed for the settlement as a whole.” The phrase in italics has no meaning but in our view the **entire sentence should be reformulated**. Obviously, planners meant that in larger interconnected areas or quarters, the support of well defined measures can be justified which serve as a simultaneous solution to several problems such as public security, public sanitation, environmental protection, economic development, ensuring opportunities for cultural or recreational activities and so on) and hence they have a comprehensive impact on the quality of life of people living in the settlement concerned.

Recommendations for the environmental conditions

☞ The principle of sustainable development must be enforced in the course of the measures and the development of the settlement must harmonise with the need

to maintain environmental values. Rehabilitation shall not entail damages to the existing environmental values

- ☞ When new functions are created, their traffic enhancing effects must be reckoned with. As a consequence, the excess burden on the environment can be accepted only when it does not exceed the carrying capacity of the area concerned (for instance, air pollution limits)
- ☞ Growth of public city parks should be implemented primarily in the city centres where population density is high and green area occurrence is low. Increasing green areas is important for purposes of their ability to reduce harmful adverse effects (air pollution), and conditioning capacities.
- ☞ Achievement of the appropriate state of the existing green areas must be also supported. In addition to increasing green areas, the protection of existing public parks from parasites must also be encouraged.
- ☞ In the event of public area rehabilitation projects extending over major areas, each time multifunctional areas should also be established which might function as playgrounds or sports facilities and ensures a recreational opportunity for the inhabitants of the neighbourhood.
- ☞ Rehabilitation of the quarters of settlements should extend to eradication of allergic plants found in the area and the rehabilitation should contribute to the reduction of the adverse and harmful effects these allergic plants cause. State subsidy is justified for the owners of the various properties and grounds were many times reluctant to manage their own property in an appropriate manner. As a first step, state and local government must join hands to show a good example in this respect.

2.3. Measure: Re-use of brownfield areas

The measure supports environmental remediation and clean-up or re-use of abandoned or seriously under-utilised industrial sites, empty military barracks and their change of function. It will encourage the appearance of new functions (such as community cultural, industrial, administrative, touristic or commercial functions) which fit organically to the structure of the settlement and ensure long term survival.

General remarks

It would be advisable to separate causes, problems, objectives and the effects of measures when they are described in a measure here as well. Rehabilitation of brown-field areas is a very important environmental and environmental health task, and greater emphasis should be given to these aspects in the description of the measure.

The description of the measure should mention that the regional development concepts of the local governments receiving state aid, needed to harmonise with the aims and objectives of the state subsidy. As a matter of fact, re-use of brown-field areas will only be successfully when the new function given to them remain permanent and on the long term in the rehabilitated area. When this fails, the currently existing problems will arise again any time soon. Local government must harmonise the ratios of greenfield investments approved for the open spaces within the settlement's

administrative boundaries, and the brown-field investments, and in order to achieve this, greenfield investments must be restricted to a certain extent.

In the description of the measure it would be needed to touch upon the possible and justified mode of the re-use. Namely, it depends very much on where the area in question is situated in the structure of the settlement that in which way it can be righteously utilised from both the environmental and the economic perspective. The greater part of the areas concerned can be found at the periphery or the surrounding of the settlements and a number of them are situated within the city boundaries. Usually, industrial zones and military barracks in the built up areas were originally also situated in the outskirts and they have become surrounded by the settlement later on, as the urban sprawl reached them. Provided an affected area is situated in the inner parts of a settlement, it is not very wise to insist on its repeated use as a production facility, instead the establishment of some new function as cultural or recreational facility is more righteous, thus increasing the ratio of built in areas green spaces which are otherwise usually on a very short supply anyway. Thus the location of the brownfield areas is a function-determining factor in any case.

From the environmental perspective, it is held to be very important to discuss the issues of clean-up and remediation. In fact, clean-up must be made without re-use as well, and furthermore it is of paramount importance that pollution and contamination be appropriately cleaned up and disposed of. Maybe it would be wise to stress that subsidies will provide funds for both remediation and re-use simultaneously (We assume that this is the case!)

The next sentence can be misinterpreted: „Especially in traditionally industrial areas, contaminated sites prevent economic restructuring, because they occupy the areas necessary for the restructuring process, therefore the exploitation of these areas is indispensable.” As a matter of fact, contaminated sites do prevent not only the restructuring of the economy, but any other change in function (cultural, sports, touristic, etc.). Contaminated soils threaten underground water bodies and is harmful for human health as well.

Recommendations for the environmental conditions

- ☞ It should not mobilise previous environmental contamination by disturbing the area or exports the problem to another site!
- ☞ Previous environmental pollution should not be replaced by another form of environmental load, for instance resource use.
- ☞ Where brownfield investments are supported, approval of green-field site must be restricted.
- ☞ Rehabilitation should be made in places where it is reasonable from the environmental perspective and economically well-founded. From the environmental perspective, a rehabilitation project is justified when it serves the prevention of spreading the contamination or eliminates health risk.
- ☞ In the case of rehabilitation projects implemented in the built-up areas, community, cultural or touristic function change must be encouraged or preferred.

- ☞ No rehabilitation or re-use should be made at the time being where there is no guarantee for long term use in advance.

Priority 3: Development of human resources in the regions

3.2. Measure: Support to local employment initiatives

Sub-measures: Supporting social economy-type programmes aiming at the employment of socially backward people.

Training of experts skilled in developing and managing non-profit employment projects, development of pilot projects, dissemination of experiences, operation of consultancy services

General remarks:

The notion of social economy is not defined in the plan, but it seems to be outlined and understood in a sense that it was an economy operated by the non-profit sector and the target groups of which are socially backward ranges (uneducated people, the long term unemployed, women, and so on). The scope of activity covers social, cultural and environmental service activities which cannot be operated in a market oriented manner but it can also include products, i.e. production activities as well.

Persons skilled in the non existent „social economy” would know that **feasibility of the described contents is more than questionable and this mainly has regulator reasons. The objectives give cause for concern from the sustainability point of view as well. The concept of social economy would suggest that activities, which are – albeit indispensable for the society as a whole, but – not profitable in a market oriented economy and therefore not feasible for operation, be the burden of the non profit sector.** However, there are some other activities as well which do not operate on a market oriented manner, provided they are still operated in a market form using the taxpayers money. Therefore, it is obviously the short string of the budgetary resources why some social and other kind of functions remain unfounded and thus cannot be operated on the market oriented manner. If this is so, it would be a mistake to make it felt that “see”, there are services which can be operated on a market based manner. All these would anticipate that a not for profit social economy will hardly be a success story when lacking basic allocable funding possibilities. It is hardly possible to build employment and income generation on such shifting foundations.

It is extremely disproportional and unjust if certain social, cultural, health and environmental services are operated on the market using public money, then others are distinguished from them and put into an underprivileged situation.

An important problem bringing about substantial sustainability consequences when the proposed social economy is sustained by badly designed mechanisms and incorrect processes. **Arrangements for the social economy are arrangements for the sustenance of the problems as well, which means that no attempts are made to overcome the structural causes triggering the problems, but we want to permanently treat the consequences.** This method is only suitable for an aggravated reproduction of the problems and thus drives the social economy to agony right away.

On the regulation side, the set of conditions for a social economy is missing, since the two components of a not for profit economy are not compatible with each other: *the non-profit character* and the *economy*. In practical terms, the opportunity to re-invest the profits arising from the activities of an organisation managing resources received from the state or the local governments into purposes in line with its activities are not there, let alone the other alternative, when a business entity making business activities wants to return its financial means for social and environmental purposes. The latter refers to „the production of any kind of products” since even when an organisation incorporated with social or charity purposes produces some kind of a product, it cannot be exempted from the taxation imposed on the products of the competitive sector. In other words, products of the social economy must stand the competition with the products of the competitive sector on the marketplace.

It can be seen frequently that developers suggest *handicraft activities* for the socially deprived as a point of break out. This is inappropriate for several reasons but it is also not **ethical**. Obviously they recommend them because these are activities which can be carried out with low capitalisation rate. (In other words, the social economy is thus forced to remain in a capital-scarce environment!) Artisan activities using local materials and carried out with simple implements and tools can usually be considered as environmentally friendly, they represent very few negative externalities for the society as a whole. However, their productivity is also very low, and they are unable to compete with the highly productive mechanised industrial production. **They are at a comparative disadvantage in a sense**, because while they pay the same contributions and taxes as anybody else, those dealing with intensive production methods do not pay for the high level of negative externalities caused by them. **Therefore, it is unethical to convince socially backward and economically underprivileged levels to undertake a situation which is hopeless outright.** It is clear that social economy models attempted so far are only viable as long as the subsidies are there. In our opinion the problems of the social economy cannot be overcome without first regulating the negative externalities.

Threat to the environment in a social economy

The most serious threats are represented by projects designed without the appropriate attitude. Cleaning of watercourses, tidying of water drain ditches, cutting of roadside grass, collecting litter and movement provide the backbone for the environmentally minded activities of social employment in the local governments. These are frequently accompanied by habitat destruction, negligent movement of waste or disposal.

Lacking the appropriate professional background and advice, such employment is short in ideas which further impairs the otherwise deficient environmental attitude.

Another favoured field is the participation in afforestation projects, which might also cause environmental and economic damage due to lack of expertise and competent management.

The implementation of environmental recultivation projects, irrespectively of the competence of those participating in them, usually entails the generation of more environmental harm than the benefits they result in.

Recommendations for the environmental conditions

Obviously, the answer to the problem would be the solution given to the regulatory issues, but this can hardly be effectuated in the framework of the structural funds (unfortunately!)

Aspects for the activities of the „social economy”

Production of „some kind of products” with due attention paid to the sustainability aspects: Most of the aid should be spent on the design of the products in order to compensate for the deficiencies and shortcomings arising from the regulations and to ensure competitiveness for the product starting from an underprivileged situation. Aspects for design should be as follows:

- Capital scarce process, in other words the product should be produced without the necessity of any major investment, using simple tools only.
- It should use local resources which does not threaten the sustainable use of local environmental and there is no need to have an investment for its extraction.
- Material and energy scarce production technology.
- As a resource, waste harmless for health and which can be recycled should be used.
- Intellectual capital contribution should be high, which can be exploited in pricing as a unique added value. Marketability of the idea!
- It should use waste reducing procedures, minimise environmental emissions and discharges and produce only very few negative externalities
- Design should encompass the entire life cycle.
- Durable, high quality should be produced.
- It should be marketable, produce for the local or regional market is possible.
- It should be unique, special.
- It should be versatile, variable, constantly renewable.
- The customer should have real information with respect to the product, he/she should get acquainted with the maker of the products and their natural environment.

Activities recommended for the non-profit environmental sector, subject to subsidies

Carrying out integrated sustainability assessments Assessment of the various plans and programmes and associated projects which is aiming at providing assistance in the prevention of environmental damages. Its role is to minimise the material and energy

requirements of processes and reduce their negative external impacts, providing various options for decision makers.

Environmental assessment and environmental monitoring: local population is part of the environment, it lives in it, from it and with it. Inhabitants are familiar with the changes in the environment, because its part of their life. This potential might be exploited in order to map the state of the environment and to monitor it.

Information dissemination for the general public, environmental awareness raising, environmental consultancy: Credibility and reputation of the civil sector is greater in the local society, therefore it can carry out the aforementioned activities more successfully. The civil sector lives among the people as it is society itself.

Participation in the assessment of programmes and projects: Impartial assessment might ensure the improving quality of the programmes and projects.

Participation in sustainable resource management: Resource management methods which are not accompanied by the reduction of the environmental carrying capacity. Such target areas are mainly sustainable land use, forestry management and agriculture. Support should be given to the model value initiatives of the non profit sector.

Dissemination of the application of alternative technologies in the general public: Mainly in the field of energy generation and use, waste water treatment and solid waste management technologies, there are a number of technologies available which assist both in providing social welfare of the population through economisation and savings, and reduce environmental loads. The non profit sector might play a crucial role in this.

Rehabilitation of and mitigation of damages in natural habitats: These activities are such activities of public utility which eliminate the burdensome heritage of the past, otherwise their impacts might be broadened both in time and space. It requires competence. Voluntary work might be an important added value which must be accounted with.

5.3. Measures carrying environmental contents as well but lacking direct environmental impacts

Priority 2: Development of areal infrastructure and built environment

2.4. Measure Development of infrastructure in regional knowledge centres

(There is one sub-measure in the measure: „ Elimination of infrastructural obstacles hindering the regional knowledge centres also serving community functions”)

General remarks

The specific goal of the measure is formulated as follows: The measure is intended to eliminate the infrastructural obstacles hindering the regional knowledge centres also

serving community functions. In our view, in **the description of the measure there is a much more progressive objective underlying than the specific goal which is stated explicitly**, namely education and research facilities must be made suitable for strengthening and developing social and economic relationships. The wording „infrastructural obstacles” is misleading in this respect as it can be understood as conventional infrastructural investment projects.

The contents of the measures does not appear in the ROP in a comprehensive manner, there are only references made to proposed projects such as „...qualitative and quantitative development of training infrastructure (for instance, development of education and research positions), ... development of central university libraries accessible for the general public as well, installation of conference rooms suitable for the organisation of cultural events ... development of network links for the information technology systems in the institutions ...”. Essentially, the aim is to create such a physical and virtual space where the knowledge accumulated in the “knowledge centres” can be transmitted with the appropriate efficiency. *Due to reasons set out above, the re-formulation of the specific goal is suggested and a more precise wording in the case of the concrete contents of the measure.*

Knowledge centres play a significant role in changing attitudes. **During the elaboration of the developments above it should be emphasised that only such “spaces” should be formed where there is a possibility to establish a “knowledge centre” operating on a sustainable basis.** On one hand, developments must include the establishment of sustainable forms of operation (selective waste collection, the application of solar energy and so on), which might provide appropriate knowledge and experiences for an environmentally conscious, material and energy efficient modes of operation of the institution and on the other hand the potential must be created that the knowledge centre to be established be suitable for the preservation of sustainable production and consumption patterns, dissemination of information and the explanation of environmentally conscious lifestyles. *Namely, this measure is supposed to be more than merely a centre disseminating information, and not only the contents but its infrastructure must also reflect the appropriate attitude and the scale of values.*

Service type knowledge centres will never come to existence by merely developing education and research positions. There is a need to launch projects which are able to transmit the scientific and practical results, information and attitude towards the operators of the economy and the general public. Frequently, – and not only in the case of integration of environmental aspects but with other innovations as well – the problem most difficult to overcome is that scientific findings and practical opportunities remain hidden from the general public and the entrepreneurs alike. The centres could bridge this gap between science and economy. *It must be encouraged that “knowledge centres” jointly run by for instance the environmental inspectorates, national parks and water management authorities be established.*

Suggestions for the environmental contents to be incorporated into the measure

Support the installation of demonstration centres serving the purposes of presenting sustainable consumption and production traditions and procedures (note: in addition to and not instead of developing rooms and libraries)

In the design process, availability of the best construction technologies, environmentally friendly construction materials, alternative building engineering solutions must be ensured in order to create a facility which can be operated in an efficient manner, and which promotes the proper shaping of the attitude of those working or learning in it by its sheer existence.

Preference given to sustainable operation and working forms (selective waste collection, application of solar energy and introduction of EMAS and so on), as sustainable infrastructure developments in order to transmit sustainable and environmentally conscious behaviour patterns.

Priority 3: Development of human resources in the regions**3.1. measure: Capacity building of local administration and civil organisations***General remarks*

There are two apparent tools for the integration of sustainability and environmental aspects in the European Union, these are EMAS 2001 and SEA, respectively, and both of them might serve as tools for the improvement of cooperation with the civil sector. It is important that these integrated institutional systems be implemented the sooner the better and that the sustainability aspects could be enforced in the earliest, conceptual phase of the planning and design process concerning the development.

It is especially important to introduce EMAS for the local governments, which is in line with the intention of the ROP to strengthen local governmental qualification and assurance systems. Application implications of SEA must be given room for integration in the preparation and in the implementation of the projects when the participants are trained. *Conscious application of both tools will serve the building up of connections with the civil sector or with any other interested party. Both tools can be seen as design implements which provide a wide ranging opportunity for public participation.*

It would be nice to see among the **indicators** defined that how many local governments have introduced EMAS and how many of them qualified.

Threat to the environment:

In the event environmental aspects are not enforced in the development policy, no integrated institutional system is formed at the local governments, society is not given an opportunity or does not demand the participation in decision making, the historical

practice and experiences might be repeated and short sighted economic interests are given priority.

Suggestions for the environmental contents to be incorporated into the measure

In order to make environmentally conscious programming part of daily practice at local governments, and in order to make the defined development projects indeed serve the sustainability objectives, support to the following measures can be suggested:

1. As part of the training process, the institutions of EMAS 2001 and SEA must be taught to local government employees and civil representatives.
2. The measure should support EMAS 2001 qualification of local governments
3. Environmental management system must be installed and the qualification set as a n objective.
4. A committee or task force within the local government must be set up which is explicitly responsible for the harmonisation of environmental issues with other fields, and which also ensures continuous communication of people working in other professional fields.
5. In smaller local governments which do not have any major system of institutions, an environmental manager must be appointed (even small communities might ask someone from the local inhabitants), or the appropriate environmental institutions must be formed through the association of municipalities.
6. Cooperation agreements with the locally cognisant Environmental Inspectorate and public health offices in order to acquire information concerning environmental health and environmental sanitation.
7. Setting up contact with local environmental non governmental or professional organisations in order to receive constant support for the work of the local government.
8. Conscious collaboration with local non governmental groups in order to improve contacts of the local government with external environmental relations.
9. Setting up environmental information database and its continuous development.
10. Reports on the state of the local environment.
11. Better information of the public on the environmental harms, findings of measurements and organisation of open days and hearings.
12. Formulation of mechanisms which can be used to involve the public into the process of environmental planning and the implementation of the plans, respectively.

13. Environmental audit of the local governmental budget and preparation of an environmental budget.
14. Surveying environmental impacts of the local governmental policy.
15. Preparation of a so called green public procurement programme which takes environmental concerns into account.
16. Environmental review of the local government's own development programmes, plans, and investments prior to decision making.
17. Clear feedback system in relation to activities which are harmful or beneficial from the environmental perspective, respectively, measurement of the results of the environmental and development measures, monitoring and the shaping of indicators.

3.3. Measure: Development of regional knowledge centres

Two sub measures of the measure:

Broadening the vocational selection of institutions in the higher education, adaptation to regional needs
Strengthening the bonds between institutions of higher education and the industry

General remarks

Attention must be called first of all to the fact that there are overlaps in the contents of measure No. 3 and 4, respectively, furthermore the contents do not cover the title of the measure which can be seen already when the specific objectives of the measures are compared:

The specific objective of the measure "Development of regional knowledge centres" is to „Broaden the selection of institutions of higher education through adaptation to regional needs" is identical with the title of measure 4, i.e. „Support region specific vocational training". In turn, this measure is not identical with its own specific objective, i.e. with the broadening of the professional expertise of employees.

Terms and definitions concerning education and training are mixed up in the two measures:

- Adaptation of vocations and trainings (as a supply) (it is dealt with by measure No 3, instead of dealing with the establishment of the professional contents of the knowledge centres as would be appropriate according to its title),
- vocational training of employees, which in practical terms means re-training or post graduate training, including non-formal education (measure 4)
- ensuring adaptable labour force possessing professional knowledge complying with the requirements of the market demand (measure 4)
- Broadening the professional expertise of employees (such as awareness raising)

For the purposes of correction of differences and overlaps in the title and contents of measures the following solution is suggested (and also, the environmental analysis is also given based on the suggested names and contents hereinafter):

Original measures and their contents		Suggested measures and their contents	
Measure 3: Development of regional knowledge centres	- Broadening the vocational selection of institutions in the higher education, adaptation to regional needs	Measure 3: Development of regional knowledge centres	- <i>Laying the foundations for the professional and scientific role of regional knowledge centres</i>
	- Strengthening the bonds between institutions of higher education and the industry		- Strengthening the bonds between institutions of higher education, the <i>general public</i> and the industry
Measure 4: Supporting regions-specific vocational training projects	- Broadening the professional knowledge base of employees with special regard to the employees of tourist enterprises	Measure 4: Supporting regions-specific vocational training projects	- Broadening the professional expertise of employees
			- <i>Broadening the vocational selection of institutions in the higher education, adaptation to regional needs</i>

Specific objectives of the measure „Development of regional knowledge centres” are Broadening the vocational selection of institutions in the higher education, adaptation to regional needs, furthermore Strengthening the bonds between institutions of higher education and the industry. As it was demonstrated above, the development of the training selection does not depend necessarily from the establishment of knowledge centres and therefore its emphasis as a specific goal makes no sense.

On the other hand, the arguments aligned to prove the righteousness of the objective fail to stand. The basic objective of creating regional knowledge centres is seen by the ROP in „complying the professional structure of the training centre with the changing economic environment and the labour market need of the regions”. **This objective has a faulty logic and certain elements of it are contradictory to the sustainability objectives.** Here again, the flawed consideration appears again which was analysed earlier on in the situation analysis, namely the exclusivity of the economic approach in the assessment.

Namely, „changing economic environment” is in most of the cases a direct consequence of the settlement of foreign capital and multinational companies which is not based on the local values and production culture, but on the „imported mode of economy”. If education and training adapt to these changing and often transient condition without making any sustainability reservations, just as much local unemployment can be reckoned with if not more than it was before.

Therefore, the professional structure of the training system must be based much rather upon a longer term regional economic development policy which makes an attempt to implement an

economic model based on the local resources and traditional local production structure as much as possible. *The responsibility of the regional knowledge centres can be to encourage the sustainable development of the region in the regional research workshops by taking into account the local knowledge and wisdom, which will account for local social, economic and environmental aspects alike, while also taking into account the changes of the economy (globalisation, prosperity, and so on).*

On the other hand, the content of the measure seems to be in contradiction with the objective of it. The essence of the knowledge centre should be manifested in collecting, transmitting and relaying the knowledge and scientific findings acquired among the players of the scientific community, and in a „service” approach towards businesses and the general public. **No practical implementation methods of these „service type institutions” are included in the description of the measure.** From a sustainability and environmental point of view it is of paramount importance to get the information on environmental matters as well as on environmentally conscious lifestyles and corporate management practices to those concerned. But these institutions must be given a distinguished role in implementing modern economy and knowledge based society.

In its further contents, the measure concentrates only on the quantitative “adaptation” of the trades and vocations and not their development. Measures promoting the qualitative renewal of the training and education system must be encouraged. Only those professionals might become the driving force behind development in an age of the information boom who have an integrated attitude. *Appropriate environmental knowledge, sustainable production and consumption patterns and opportunities constitute all part of an integrated approach which need to be incorporated into any training forms.*

On the other hand, the ROP mentions the education system being centralised in the capital as an impediment to the regional knowledge centres: „In order to loosen the spatial concentration the measure concentrated mainly on the broadening the selection of training options in the institutions of higher education in the country”. Spatial concentration is obviously a typical feature of the Hungarian education system but it is wrong to think that *reducing spatial concentration alone (for instance, by launching new faculties in country institutions of higher education) would cause these institutions to develop into regional knowledge centres.*

The necessity of establishing knowledge centres (their specific objectives) can be summarised as follows.

Laying the foundations of the professional and scientific role of regional knowledge centres: setting up a network of institutions uniting the appropriate scientific and technical information and knowledge (institutions of higher education, economic representations, environmental and nature conservation authorities, and so on), in order to implement sustainable developments in the region which are most appropriate to the opportunities and needs of the region, preserving the traditional natural, landscape and cultural values inherent in the region.

It is noted here that the measure presently can see the justification to the development of regional knowledge centres exclusively in the fact that „the development of regional knowledge centres will increase the economic performance of the region and thus contributes to the balanced regional development”. It is not necessary to set up regional knowledge centres just for the purposes of supporting economic development projects. The knowledge centres must serve social, cultural and environmental interests just as well as economic ones.

Strengthening the bonds between institutions of higher education, the general public and the industry: The original material also promotes only the supply of the regional economy with intellectual potential instead of striving to provide appropriate scientific and technical information, plus moral, ethical norms, environmentally conscious behavioural attitudes, sustainable approached and preservation of traditions.

Suggestions for the environmental contents to be incorporated into the measure

Education, research and service institutions might be especially suitable for the purposes of deepening environmental knowledge and attitudes, furthermore to initiate environmentally oriented economic activities. The following cooperations must be given special attention:

- a) Collaboration with the environmental industry (such as thermal collectors, manufacture of wind generators, management of waste disposal technologies, and so on)
- b) Application of material and energy efficient technologies (especially in the automotive industry, food industry and construction industry)
- c) Spreading so called cleaner production technologies such as recycling, “waste-to-product” technologies, and so on)
- d) Enforcement of local aspects of sustainable development (local ecological characteristics, production and consumption habits, lifestyle, harmonisation of development efforts)

3.4. Measure: Supporting regions-specific vocational training projects

One sub-measure can be identified within the measure. Broadening the professional knowledge base of employees with special regard to the employees of tourist enterprises

General remarks:

As it was discussed in the case of the former measure, the measure mixed up vocational training with post graduate training. In our mind, it would be necessary to separate the two consistently.

On the other hand, the generally formulated title, as it turns out from the contents, in reality concentrates on the field of tourism, while the comprehensive support of the vocational training system is within the scope of authority of the Human Resources

Operational Programme. This must be clarified clearly and unanimously. It is not at all the same whether the objective covers only the broadening of the professional knowledge of entrepreneurs and employees operating in the tourism sector only or the training in question would cover operators of other sectors as well.

The approach implying that ensuring adaptable labour force possessing professional knowledge complying with the requirements of the market demand was justified “merely” for the purposes of improving the economic competitiveness of the region. In our view, appropriate professional skills and experience is necessary for the creation of such economic business entities which can adapt not only to economic and business conditions but also to environmental and natural conditions (not to speak about the social ones). More concretely, they take natural conditions into account and the requirements of managing local natural resources sustainably, the carrying capacity of the landscape, preservation of the established land use patterns, the potential to use energy and material efficient technologies, and so on. In terms of employees, the formation of environmental awareness and acquiring basic environmental skills and the demonstration of possibilities for sustainable lifestyles, and so on.

Suggestions for the environmental contents to be incorporated into the measure (especially in terms of the tourist sector)

In the vocational training activities, special attention is to be paid to raise environmental and ecological awareness and the basic knowledge of legal environmental requirements and legislation.

- e) In the areas involved in the touristic development schemes (for instance, in small area organisation level) training programmes must be initiated to raise environmental awareness of the affected people and broaden their information on the environmentally friendly ways of living. Beneficiary managers of small and medium enterprises under Priority 1 shall be obliged to participate on these training programmes.
- f) Hospitality industry facilities (spas, hotels, ski resorts) included in the touristic development schemes have to be equipped with information dissemination tools and guides, which educate and inform visitors by increasing their environmental awareness. For this to happen, a permanent choice of training must be ensured which also encourages the participation of experts from hospitality industry facilities not benefiting from the programme, but having interests in the area.
- g) Vocational training programmes covering the following topics should be given priority:
- h) Information dissemination on eco-tourism, healthy life-styles and environmentally sound recreational activities,
- i) Education with regard to the business aspects of sustainable tourism (project design, resource mapping)

- j) Introduction of environmental management systems applied in the field of hospitality and tourist industry

6. THE APPLICATION OF INDICATORS IN TERMS OF THE SYSTEM OF ENVIRONMENTAL TARGETS AND COMPLIANCE

Three kinds of indicators might be used for evaluation:

- a) data reflecting the trends of changes in the state of the environment
- b) data characterising the trends in individual impact factors
- c) data characterising the operation, application and results of any measure.

The real issue when the environmental assessment is made is the trends of changes in the state of the environment, but in the practice unfortunately indicators of items b) and c), respectively, are used a lot more frequently as these are easier to determine and by using them, the efficiency of the measures can be mystified, blurred over. In terms of priorities, only state indicators make any sense.

6.1. Analysing the indicators assigned to priorities

In the present structure of ROP, only three priorities have 3 to four indicators assigned to. These indicators, if not in an explicit manner, but basically might almost all be assigned to a specific measure. In the ROP, the current formulation of the indicators might give rise to misinterpretations. Namely, the essence of the indicators applied during the design phase is as follows. Design formulates the objective to be achieved. In order to be able to measure the successfulness of the design phase, one or more indicators are selected which allow for drawing conclusions relatively quicker than monitoring and consolidating individual projects would make it possible. The value of the indicator to be expected during the implementation of the measure is determined. Having the measure implemented, the compliance of the measure with the set objectives can be measured by the difference between the expected and actual value of the indicator. The ROP features the expected value of the indicators.

Certainly, you cannot make full range of conclusions from a set of data as regards the results of actual and concrete measures (spatial distribution, efficiency, direct and indirect economic, social and environmental impacts) Thus no conclusions can be made from these indicators as to the basic goals or objectives of the ROP, i.e. the balanced development, or the mitigation of the differences across areas, which has been pushed into the background somewhat.

The indicators in the ROP are – at least in terms of their nature – “measure type (performance) indicators”, which measure the realisation of the measures, in other words the results of the proposed interventions. **Since measures are only associated with performance indicators, predicted effects like environmental loads, spatial balancing, or sustainability are not measured by the ROP in its current form.**

Indicators selected for **Priority 2** in the case of Development of areal infrastructure and built environment are different from the performance type indicators but the

selected impact-type indicators are not very fortunate. As a consequence of the ambiguity of *improving accessibility*, more harm than benefit can be caused during the planning and implementation phase if they are not made with meticulous care, as it was pointed out in the part dealing with the assessment of the measures. Even though the indicator shows improvement, accumulated impacts can still be negative in their entirety.

In the measure “development of regional knowledge centre infrastructures” the indicator attached to the measure, namely that how many higher education institution benefits from the infrastructure development subsidies, in fact does not indicate anything. We don’t know for certain, whether any grants were given for the defined purpose and more importantly, with what result.

The third indicator is also an economic type indicator (i.e. the number of enterprises settled in the quarter supported) while the title of the priority includes the development of the built environment, and the accompanying measures include Settlement rehabilitation actions and the Re-use of brownfield areas. The indicator assumes again that the rehabilitation of a neglected and contaminated site was successful when new businesses mushroom in their place, although the measure is supposed to support „the establishment of facilities to host economic, cultural, community, community-information technology and recreational and sports services activities” as well.

6.2. The measure indicators

The environmental indicators assigned to the measures have a double function. First, they indicate the environmental impacts of actual activities and second, provide information on the changes in the state of the environment in a special area which offers the possibility to carry out more general assessments.

Accordingly, the tables included in the chapter provide two levels of the indicators. The upper level assesses the group of measures as a whole, associated with the priorities from the point of view of sustainability, while the second one wants to indicate as much as possible the changes in the state of the environment and the changes in the impact factors in the case of more concretely postulated measures. As it was shown, for us the state indicators are of crucial importance.

A part of the indicators can be estimated in the case of a project proposal, or, which might be even more important, in the case of the entirety of proposals concerning a certain area. The latter is often more important because many interventions, even with minor impact of each, might become the source of serious problem when impacts are added up. Estimation of the changes in the indicators might be eventually a mandatory part of the tender documentation.

In addition to the prevention requirement, ex-post assessment is another field of use of indicators, although it is questionable what can you rectify subsequently, should adverse impacts arise. Anyway, the investigation provides the opportunity not to commit the same mistakes once again.

Sustainability indicators

Priority 1: Strengthening the touristic potential		
<i>Increase competitiveness of touristic attractions⁸</i>	→	Differences between desired level of traffic to be associated with the attractive force (based on loadability) and the actual traffic Trends in the number of locally resident population in the settlements concerned
<i>Improvement of touristic facilities to receive guests</i>	→	Number of services based on local traditions and resources Trends in revenues of small and medium size enterprises (SMEs) found on the area concerned and connected to the tourist industry
<i>Sewage management in small communities</i>	→	Number of households affected by alternative sewage treatment methods
Priority 2: Development of areal infrastructure and environment of the settlements		
<i>Development of areal traffic connections</i>	→	Changes in the number of commuters, and the proportion of those using means of public transport Trends in motor vehicle traffic affecting the settlements in the area concerned in unit vehicle. Length of eliminated railway branch lines in the area concerned
<i>Rehabilitation actions of settlements</i>	→	Trends in locally resident population in the settlements concerned
<i>Re-use of brownfield areas</i>	→	Size of re-used areas and the proportion of environmentally friendly solutions Trends in land seizing by greenfield investments implemented annually
<i>Development of infrastructure in the regional knowledge centres</i>	→	Number of events popularising and promoting sustainable and traditional consumption and production patterns and lifestyles
Priority 3: Development of human resources in the regions		
<i>Capacity building of local administration and civil organisations</i>	→	Number of local governments introducing EMAS
<i>Support to local employment initiatives</i>	→	Number of initiatives built on the local traditions and resources (such as ecological farming, and so on)
<i>Establishment of local knowledge centres</i>	→	Number of new trainings and post graduate trainings containing environmental awareness

⁸ Measures in italics are measures with environmental impacts.

<i>Support to professional trainings specific to the regions</i>	→	raising elements
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Environmental indicators of measures

Measure (indicator)		Impact factor indicator		State indicator	
<p>Increase the competitiveness of touristic attractions:</p> <ul style="list-style-type: none"> - Incentives to investments associated with the utilisation of cultural heritage and distinguished natural values - Modernisation and building up of access roads leading to tourist attraction - Building up of bicycle roads associated with tourist attractions - Support marketing tools associated with tourism <p><i>Current measure indicator:</i> The number of guest nights shall increase with approximately 2% in the supported areas between 2004 and 2008</p> <p>Increase the ability to receive guests</p> <ul style="list-style-type: none"> - Improve the quality of accommodations - Development of services associated with attractions (investment element) <p><i>Current measure indicator:</i> Establishment or renovation of 3 % of all commercial accommodations existing in 2001 during the period between 2004 and 2006</p>		Changes in motor vehicle traffic in the target areas in unit vehicle and the size of the population concerned	→	Seasonal differences in the state of air quality in terms of nitrous oxides.	
		Trends in the volume of inappropriately treated sewage and waste water in the target area	→	Nutrient turnover and bacteriological parameters of live waters suitable for swimming	
		Volumes of used thermal waters discharged into surface waters			
		Differences between the size of areas deforested and afforested, respectively, in the target areas	→	Trends in changes of the ratio of interconnected natural or natural-like habitat-complexes	
		Trends of changes in the ratios of built-up areas	→		
				→	Condition of buildings, quarters, world heritage monuments constituting part of the cultural heritage and treated as an attraction (number of revitalised, renovated cultural values such as buildings, structures, other facilities)
				→	Nature and extensiveness of changes in land use patterns in the proximity of accommodations
				→	State of the natural values treated as attractions (species, habitats, landscapes, monuments)
		The extent of selective waste management in the settlements concerned.			
<p>Sewage management in small communities:</p> <p>Pollution-free sewage disposal solutions for touristically frequented settlements with lower environmental load than 2000 inhabitant-unit</p> <p><i>Current measure indicator:</i> The number of settlements involved in the sewage treatment projects and affected by the tourist industry shall be 20 communities between 2004 and 2006</p>	→	The ratio of sewage subjected to the pollution-free waste water treatment process as opposed to the overall amount generated in the settlements affected by the measures	→	Number of water extraction wells having a nitrate contamination in excess of 50 mg/l nitrate concentration	
			→	Trends in surface water quality	

Measure (indicator)		Impact factor indicator		State indicator
Development of area system of traffic connections: - Development of lower road network - Improvement of accessibility of economic facilities - improvement of local and long distance public traffic infrastructure <i>Current measure indicator: Access time of settlements supported between 2004 and 2006 from the next areal centre shall be shorter by 5%</i>	→	Changes in motor vehicle traffic in the target areas in unit vehicle and the size of the population concerned	→	Air quality in terms of nitrous oxides.
		Number of those taking advantage of public transport in the target area		
	→	Changes in passenger car use patterns of the people living in the area concerned by the measures in km/year	→	
		Proportion of renovated and freshly built roads		
Settlement rehabilitation actions Rehabilitation of public areas, development of urban green areas, re-fashioning of surroundings in residential neighbourhoods; establishment of facilities to host economic, cultural, community, community-information technology, and recreational and sports services activities; to increase the public security of city quarters <i>Current measure indicator: none</i>			→	Changes in the size of city greens
			→	Changes in the urban areas affected by slumming in the settlements concerned
	→		→	Trends in changes of pollen allergy and similar conditions in the settlements affected by the measures
Re-use of brownfield areas: Re-use of brownfield areas in order to provide them with new functions (such as community, cultural, industrial, administrative, touristic, and commercial functions) <i>Current measure indicator: The number of enterprises settled in the supported quarter shall increase by 5% between 2004 and 2006</i>			→	Number of revitalised, renovated cultural values such as buildings, structures, other facilities featuring state indicators which might be considered as appropriate
			→	The proportion of the area and the number of population which have been affected by the appropriate changes

Measure (indicator)		Impact factor indicator		State indicator
<p>Support to local employment initiatives</p> <ul style="list-style-type: none"> - Supporting social economy-type programmes aiming at the employment of socially backward people. - Training of experts skilled in developing and managing non-profit employment projects, development of pilot projects, dissemination of experiences, operation of consultancy services <p>Current measure indicator: <i>Employment of approximately 2500 people in the social economy between 2004 and 2006 as a result of the support</i></p>	→	<p>Number of environmental projects raising environmental awareness within the overall number of non-profit projects</p>	→	<p>The expanse of the area affected by the actions entailing improvement in the state of the environment.</p>