# Sustainable regional development

Green Agenda training seminar for Romanian and Bulgarian NGO's Tirgu Mures – Romania 24 – 26 February 2007

Report of the input of Dutch

experiences and examples from practice

Assigned by: Milieukontakt Oost-Europa

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(Presentations not included in this version of the report)

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 $<sup>^{\</sup>scriptscriptstyle 1}$  separate brochure, not added to this report

# Preface

In the framework of the Green Agenda training seminar for Bulgarian and Romanian NGO's Milieukontakt Oost-Europa looked for an expert with experience in sustainability, regional development, public participation and in addition: Dutch examples of local projects. The expert would be asked to contribute to the training by providing a series of presentations, participating in training sessions and by providing some background information. I applied for the call for expert and we agreed on this assignment.

# **Preparations**

The training seminar was part of the support by Milieukontakt to the NGO's in Bulgaria and Romania for formulating of Green Agenda project proposals. In an exploratory talk, we concluded that the NGO's would be assisted at most with information and support that is close related to their ideas and preliminary proposals.

Awaiting those proposals a provisional programme for the training seminar was formulated, that was completed by Milieukontakt. After consultation and harmonisation with focus Eco Centre, the Romanian hosting organisation for the seminar, the final programme was sent to all participants in advance. Connection of the programme to the project proposals of the NGO's appeared to be awkward, because the proposals were not available until close to the starting date of the seminar. Nevertheless, the existing contacts of Milieukontakt and available context documentation<sup>2</sup> offered sufficient information for an adequate programme.

The participating NGO's have generally a focus on environmental aspects. However, the proposals to be submitted will have to be targeted on sustainable development. Therefore, at the beginning of the training seminar a presentation about aspects of sustainability was planned, in addition to the Green Agenda method that would be elucidated.

Furthermore, information has been collected of a number of Dutch projects that could serve as examples during the training. Starting point was a flexibility of the programme, so that it could easily be adapted during the training seminar when wished for.

# **Programme**

Programme

The programme covered two days training, alternated with a full day of field trips and preceded by an informal meeting. This was important for social acclimatising and getting acquainted.

Mentioned below follows a short explanation of the parts of the programme in which Dutch experiences and examples were put in.

Public participation in sustainable regional development in EU-accession countries Romania and Bulgaria, Milieukontakt Oost-Europa, April 2006

#### DAY 1

# Introduction to sustainable development

- Short overview of the attention to sustainable development in the last decades, up from the report for the Club of Rome (1972). It places sustainable development in historical perspective and shows the change in the course of years in the approach on macro level; at micro level, similar processes still take place. Insight into these developing processes is of importance for stimulating bottom-up initiatives and self-organisation in civil society.
- Explanatory remarks at the questions of sustainability in the Dutch situation (Brabant). Illustration of a route for mobilising social actors (manifest Brabant 2050) and placing in context: not the vision itself, but the process was important.
- Presentation and explanation of the Sustainability Triangle, an instrument for monitoring and assessment of sustainability, with emphatic input of stakeholders in the stage of defining indicators. This instrument can be a good supplement to the process phases according to the Green Agenda method.

# Counselling of a working group

 After an explanation by Milieukontakt about the approach and importance of inventories and analysis of stakeholders I counselled one of the subgroups on the review of their project proposal related to this topic.

#### Directing regional development

- Step-wise built presentation of topics and parties, that play a role in regional development, how these parties interact and influence chances of successful directing and control in regional development.
- It's the result of the analysis and conclusions of a group of experts, following for over a year 6 areas in the Netherlands that are dealing with questions about regional development.
- The intention was also to present some cases from those six areas during the training seminar that are similar to the project proposals of the participating NGO's. However, after resetting of priorities during the training there was no time left for this part.

#### DAY 2

#### Field trips

- During this day, five locations were visited with projects about regional development or
  environmental issues. The projects contain a diversity of topics, aims and approaches.
   Already during the field trips discussions started off concerning relevance, contribution to
  sustainability and knowledge dissemination to the region.
- The working visits illustrated the spectrum of possible initiatives for sustainability and showed how abstract topics as economic perspective, regional development, socio-cultural capital and natural values can be put into practice at operational level.
- During the bus travel and during the lunch plenary comparisons were made with Dutch practices and were commented.

#### Characterisation of the visited projects

- Project 1: waste management. Objective: reduction of the waste quantity and improvement of the waste management by establishing a public service for waste collection in a region with approximately 36,000 inhabitants.
- Project 2: straw hat museum. One examines how this museum can catalyse the tourist
  attractiveness of the region in order to initiate the regional development. What is needed
  is a focus point. Especially private initiatives might contribute the start off sustainable
  development of the region, but have to be initiated.
- Project 3: model village, proposed for the world heritage list of UNESCO. Cooperation has been started up between private initiators, local authorities, NGO's and universities. After several studies and inventories, one now aims for a strategy for sustainable development.
- Project 4: handicraft as stimulator of regional development. In a region without agrarian possibilities, entrepreneurs have taken up old crafts industry that has improved the employment and has stimulated tourism to the region. Until now it is a successful development, but one is wondering how long this will last and how to sustain it.
- Project 5: health and well-being tourism. Usage of an ancient salt mine for new
  developments, especially eco-tourism for health and well-being. It demands the good use
  of natural resources, establishing of tourism programmes and creation of a network of
  eco-tourism accommodations.

#### General observation

Each of the visited projects contained interesting starting points for sustainable development, but most of them are meant to stimulate just *economic* development. Broadening of the project agenda to *sustainable* development isn't that hard to do, and can give an extra boost to economic development as well. Attention will have to be given to:

- awareness of the urgency (and opportunities) of sustainability instead of just economic development;
- 2) involvement of local authorities (especially according this broadened project agenda);
- 3) creating sufficient scale of scope;
- 4) strengthening of the degree of organisation, directing and control, and professionalism.

#### DAY 3

# Regional branding as developing process

- Presentation of the opportunities of regional branding for regional development by means
  of experiences from Cork Ireland, The Green Forest the Netherlands and from Finland.
  Regional branding is a form of destination marketing; it initiates a process and mobilises
  actors. Branding takes the identity (core values) of a region, as experienced by its inhabitants and visitors, as a starting point for new services and products that fulfils the needs
  of consumers (commercial products) and citizens (public services). This leads to questions
  such as: what is it, which aims serves it, how does it work in practice, how to get started?
- By extension of other items on the agenda, only lateral attention could be given to the way in which one could mobilise and involve people in projects for sustainable development (example of the Dutch NGO Innovationplatform Sustainable Meierij IDM).
- Tools for a stakeholder analysis (part of the presentation concerning IDM).

#### Cross-cutting chains and networks

- Relationship between chains and networks, value chains and sustainability.
- Leading principles for development of new value chains in the countryside.
- Cross-cutting cooperation offers new chances, like e.g. linking of the agro production chain to the energy sector and care sector. Especially cross-cutting cooperation could meet the social need for the mix of commercial and public products and services.
- Explanation by means of the example of new concepts for Heuvelland Limburg (most southern part of the Netherlands): problem description, innovative approach with important role for images and maps, concept development for new product-market combinations and attempts to interest businesses and (private) investors to finance developments.

#### Oracle

The agenda for the afternoon session has been adapted in consultation between the participants. These days an overwhelming quantity of information has been exchanged. An important part of the afternoon has therefore been cleared for answering individual questions from the NGO's about their proposals they were formulating. Besides the others (Milieukontakt, Focus Eco Center, participants) I have been replying questions and giving considerations and suggestions that could be helpful for focusing their proposals.

# **Conclusions**

- The various projects of the participating NGO's (and visited locations) show many similarities.
- The essences of projects and developments do not really differ from those elsewhere in (West) Europe. However, there are differences in context, initiators and stages of development.
- There seems to be a lack of overview of opportunities and developments, and a lack of
  insight in how they are related. At least, there is not much of a directing strategy
  connecting individual projects to regional development. In addition: the point of view of
  the (participating) NGO's is mostly environmental; sustainable development asks for a
  broader orientation.
- There is a large need (and opportunity) for a toolkit, both with regard to methods of approaching and organising (process), included linking of topics (integrated, practical solutions) and to practical instruments (checklist, formats) as well.
- The gap between willingness and initiatives from private parties and NGO's on the one hand and the interests or priorities of authorities on the other hand has to be overcome. It should not be expected that this could be done by the NGO's only; it needs a so-called multi-level and multi-actor strategy in which also for example universities, (foreign) politicians and influential entrepreneurs are welcome to participate.
- There is a danger of split up effort and too small-scaled and not connected projects. (See also the experiences with the LEADER-programme) Bottom-up initiatives seem hardly able to mainstream developments.

- The strength of the current NGO's (volunteers, spirit and dedication) also makes them vulnerable because of their small capacity and dealing with an increasing number of relevant topics and stakeholders.
- Chances and need for professionalism should be picked up, both with regard to individual
  competencies and to the degree of organisation. The challenge is to think at European
  level of developments, policies, programmes and funds, and at the same time to initiate
  hands-on projects at local level that are recognizable and visibly contribute to improvements.

# Recommendations

- More (interregional and international) exchange for NGO's (but for other organisations as well) is advisable to take knowledge of projects and developments elsewhere, and at the same time enlarge ones own knowledge, insight and experiences.
- Organise the connection (thematically, programmed or structural in networks) between
  the NGO's and their projects with other parties and developments with similar or adjacent
  objectives. Sometimes other regions are dealing with exactly the same questions about
  development or run similar projects and programmes. The same wheel is too frequently
  invented again.
  - But: avoid incorporation of NGO's and private initiatives in large organisations and projects or other unwieldy, bureaucratic or abstract entities; maintain the direct contact with people in a region, continue to stimulate the bottom-up initiatives and nourish them. It is important for democratic development and a social society.
- More structural support of and more intensive cooperation with the individual NGO's at
  formulating of proposals, organisation of stakeholders and networks, and implementation
  of projects seems more than useful. Without intensified networking, regional initiatives
  might not reach the professional and integrated stage or position in the further
  developing society. All effort for project initiating and support, earlier performed, may
  then turn out to be unfruitful.
  - This could be avoided by, for example, stimulating and accommodating staff exchange for disseminating expertise. Likewise, more attention is needed to evaluate projects and to share experiences. In this way, processes of social learning (on regional, national and/ or international level) will accompany the processes of regional development and hence make them more powerful. Also for this social learning and knowledge dissemination it is recommended to join forces with existing efforts and projects from others, instead of starting from the very beginning. See for example the Dutch national knowledge programme 'Leren voor Duurzame Ontwikkeling' (Learning for Sustainable Development).

Appendix 1



# Introduction to sustainable development

Part of presentations and background information for the participants of the Green Agenda training seminar by Milieukontakt, 24 – 26 February 2007, Tirgu Mures, Romania

Marien Sonneveld February 24<sup>th</sup>, 2007 GA-training seminar, txt. 1

#### **Historical milestones**

Sustainable development seems to be a rather new phenomenon. However, the idea first appeared some 300 years ago in some German literature about mining, and may even have been applied in ancient civilizations. But in recent years the publication of Dennis Meadows' report for the Club of Rome has refocused attention on sustainable development.

The main point of this report from 1972 is the observation that, globally, people are facing a range of problems, which are hard to understand and often seem to be unmanageable, like disturbing the environment, unverifiable extension of cities and recently the climate change. But also uncertainty concerning employment, alienation of youth and the rejection of the value systems of our society by a growing number of people were mentioned by the Club of Rome and are still part of our society's problems. And society is still struggling with monetary, economic and political questions despite of or due to globalization.

These various problems have three characteristics in common.

- 1<sup>st</sup> Firstly, they have worldwide dimensions or influences and appear in all societies, irrespective of the dominant social or political system and stages of development.
- 2<sup>nd</sup>Secondly they are complex and contain technical, social, economic and political elements at the same time
- 3<sup>rd</sup> Finally, they have a strong mutual interaction, which we're not always aware of.

#### Meadows reach the following conclusions:

- ➤ If the current developments of increasing world population, industrialization or exhaustion of the natural resources continue, this planet will meet its limits to growth within the coming hundred years.
- ➤ It is possible to alter these developments and build a better future with a long-lasting ecological and economic balance. This situation of global balance should be devised in a way to satisfy everyone's primary life needs, and offering an equal chance for individual development.
- ➤ If all people strive for this second outcome instead of the first, the chance of success will increase the sooner we start.

Since then, the emphasis in the public discussion has been on the first conclusion. Environmental organisations and other special interest groups emerged and forced companies and politicians to discuss the relationship between economy and environment and change policies. This is the so-called physiocentric approach of sustainable development.

Contemporary thinking concerning sustainable development is strongly associated with the work of the Brundtland commission, i.e. the UN World Commission on Environment and Development that in 1987 published the report Our Common Future. It says: "Sustainable development meets the need of the present without compromising the ability of future generations to meet their own needs."

No one seemed to foresee, that the term sustainable development would be used and misused for every kind of development, irrespective of the basis of Brundtland's report. Sustainable development is not another word for environment policy, nor for "normal" economic growth. It contains both social, economic and financial elements as well as elements of nature and environmental protection. The term should be used to replace a simple perception of economic growth by a better description of lasting developments, especially by taking into account the interests of future generations.

This report formed the basis for the Rio Declaration produced at the UN Conference on Environment and Development (UNCED) in 1992. From about this point the anthropocentric approach appeared. This is illustrated by the following statement from the Rio Declaration: "Human needs are at the centre of concerns for sustainable development".

Later on agreements followed which are legally binding: the Convention on Biological Diversity and the Climate Change Convention. The latter in turn led to the Kyoto Protocol. The social dimension however, hardly used to play a role at that time and is still less prominent.

Now here is an essential link with one of my experiences in rural and sustainable development. That is that the social aspects of these developments are still being underestimated. Maybe it is a matter of stage of development, like the physiocentric and antroposofic approach. And perhaps it is easier to solve economic or environmental problems in a technological way, as to improve social problems, mobilise people to take responsibility, organise networks for exchanging knowledge and experiences, and let people from different backgrounds cooperate to build that better future.



# Introduction to sustainable development

Part of presentations and background information for the participants of the Green Agenda training seminar by Milieukontakt, 24 – 26 February 2007, Tirgu Mures, Romania

Marien Sonneveld February 24<sup>th</sup>, 2007 GA-training seminar, txt. 2

What was the context of, and especially: what reasons induced the interest for, sustainable development in the Netherlands?

# Difficulties and questions in Dutch society<sup>3</sup>

# Agriculture and its effect on environment

After the Second World War Dutch agricultural policies – like elsewhere in Europe – favoured food production and the provision of a range of non-expensive food supplies. The world famous paintings and drawings of Vincent van Gogh remind us of some of the traditional and grim images of rural Holland and the hardship of its inhabitants. A lot has changed since then. Government regulation and support provided a climate for investments. Farming practices have improved enormously. New areas were cultivated and industrialisation of agricultural practices helped to establish the Netherlands as one of the larger exporting countries for agricultural produce in the world. However, during the years eighty agricultural production encountered its limits. The intensive production led to growing use of crop protection materials, soils poisoned with phosphate, nitrogen leached to surface water and a serious manure problem, and in the nineties animal diseases became a serious problem.

#### Change of the rural society

The farming community has always played a major role in the agricultural developments. As an unexpected by-product of the developments, however, the rural society, which was still predominantly manifest in the 1960 and 1970, has gradually disappeared. Farmers used to be rural entrepreneurs with a strong commitment to their community, based on self-interest. But diversification, specialization and the global market demanded that they either transformed more and more into managers for large scale and industrialised agricultural operations, or look around for another type of employment. While agricultural policies initially needed extra labour, soon the amount required became smaller and smaller. Many people did leave farming altogether and are still leaving today.

# Spatial problems

Despite of agriculture's success for decades, success is no guarantee for a reward: urban development now demands more space. It needs to expand and claims whatever part of the countryside it can get. But also climate change and the expected increase in rainfall demands space for water retention. And finally, as a result of the animal diseases the government ordered a spatial spread of intensified farming in certain areas. This challenges authorities to find new, innovative ways of multifunctional land use.

#### Value of landscape

Prosperity increased the wants of living and recreation in the countryside. Civilians appreciate the countryside and landscape much more than they used to. The landscape originates from the mix of nature and agriculture. Actually, landscape was a by-product of the food production. But as agri-

<sup>&</sup>lt;sup>3</sup> Mainly based on the rural developments in the southern Province of Noord-Brabant; here not mentioning other social questions like demographic ageing, multi-cultures, mobility or restructuring industry.

culture changed it also affected the maintenance of landscape. The demand for cultivating the land and enhancing the landscape requires a new type of rural entrepreneurship, better suited to farming in densely populated urban areas. Better suited also to the conservation and enhancement of the regional identity of the landscape.

# Dreaming (about sustainable development) as perspective

#### Choosing the right moment ...

The experienced difficulties and questions in Brabant's society led to the insight that sustainable development is a matter of patience. It concerns formulating a common perspective, an idealised image possibly, that can bridge contrary or even conflicting interests in a high-grade manner. Such a perspective was needed not only in political-administrative respect, but also wished for in social sense. The idea was that new solutions would come about by connecting questions and perspectives. As there just had been (regional) elections, the new regional governmental officials wanted to make a statement that they could be accounted for.

From that idea a mixture of government officials, civil servants, thinkers, civil society organisations and businesses were invited to contribute to developing a vision of the future of Brabant. Thereby creativity and imagination of the future played a prominent role; to speak with Saint-Exupéry<sup>4</sup>: "When you want to build a ship, then don't bring people together to lug the wood, prepare the work and communicate plans. But at first, teach people to desire to the endless sea."

This process of vision development in the latter years of last age resulted in the Manifest Brabant 2050. The title illustrates the ambition during this process.

Afterwards we can conclude that this manifest, this ideal, has been mobilising people and organisations. A strategic agenda was set for economic, environmental and spatial development and several new programmes were developed. Moreover, the decision was made to monitor these developments to see if they would contribute to sustainability. The lack of a useful monitoring instrument on regional level gave birth to a new research institute: Telos, the Brabant Centre for Sustainable Development. This institute got the assignment to develop such an instrument, to monitor and to initiate and stimulate the public debate about sustainability: with governmental officials, business directors, scientists, as well as interest groups and organised civilians.

#### Personal note

As I look back now, I must conclude that the long-term vision has lost most of its urgency now. Yes, Brabant is still ambitious about sustainability. And yes, the instrument is developed, monitoring does take places and frequently debates are organized. But everyday's problems easily seem to break into priority lists. Real sustainable development takes more and to my opinion government officials has to play a role in it, but the real work has to be done in and by society, not authorities.

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<sup>&</sup>lt;sup>4</sup> Antoine Antoine de Saint-Exupéry, in: Citadelle (posthumous)

Appendix 3



# Introduction to sustainable development

Part of presentations and background information for the participants of the Green Agenda training seminar by Milieukontakt, 24 – 26 February 2007, Tirgu Mures, Romania

Marien Sonneveld February 24<sup>th</sup>, 2007 GA-training seminar, txt. 3

#### Manifest Brabant 2050

A process of vision development in the late nineties in Brabant (southern part of the Netherlands) resulted in the Manifest Brabant 2050. It led to the founding of the research institute Telos, the Brabant Centre for Sustainable Development.

#### The manifest declares:

"Brabant in 2050 is a caring society that is worth living and in which every human counts; a society also in which knowledge and education give access to workforce participation. Parallel to the globalization of the economy Brabant's own identity has been formed by drawing from the past as well as realizing new ideals together. Cities, villages and landscape are characteristically formed, based on an authoritative vision. In Brabant 2050 the distinction between city and country in socioeconomic sense has disappeared. The landscape exists from new, extended nature areas, in between which strongly decentralized living and work cores (villages) are situated, varied by only some urban concentrations. In Brabant 2050 a good neighbour is as important as a distant friend, continuing roads will be free of traffic-jams by the construction of new infrastructure for ultra-light vehicles. All companies reduce emissions to zero and all kind of agriculture is sustainable. Art and culture are commonly acknowledged and form recognized inspiration sources for the future."



# Introduction to sustainable development

Part of presentations and background information for the participants of the Green Agenda training seminar by Milieukontakt, 24 – 26 February 2007, Tirgu Mures, Romania

Marien Sonneveld February 24<sup>th</sup>, 2007 GA-training seminar, txt. 4

# Sustainability Triangle<sup>5</sup>

What is meant by sustainable development?

There are many definitions of sustainable development. Present-day thinking on sustainable development usually refers to the work of the Brundtland Commission, the World Commission on Environment and Development, which published the report Our Common Future in 1987. In this report, sustainable development is defined as, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Humankind is in the centre of this definition or, rather, the needs of humankind. Telos concurs with the Brundtland Commission's definition of the concept of sustainable development. The description is a very broad one, however. In order to further develop the concept of sustainability, we utilise the so-called three-pillar model in which a distinction is made between the economic, ecological and socio-cultural capital. In Telos' view, sustainable development can be conceived as a development process aimed at fostering balanced growth in the resilience and quality of nature (the ecological capital), in the physical and spiritual of people (the socio-cultural capital) and healthy economic development (the economic capital).

Following on from the theories of the Brundtland Commission, sustainable development will be possible if three requirements are met:

- > There must be simultaneous improvement in the economic, ecological and socio-cultural capitals. Improvement of one capital must not occur at the expense of one or both of the other capitals.
- ➤ The development must be capable of being maintained for future generations: problems must not be passed on to the future.
- ➤ The development must also be capable of being maintained at a global level, in other words: there must be no passing on of problems to other areas. Our development must not occur at the cost of those in other regions or other countries.

By adopting this integral approach, Telos is explicitly choosing to take a broad perspective on sustainable development. The concept has both a strategic dimension (the longer term), and a normative dimension (responsibility for various tiers of government and future generations).

#### Relevant terms

In the sustainability audit chart various terms are used. The table below gives brief definitions of these terms.

<sup>&</sup>lt;sup>5</sup> Abstract of the English translation of the publication 'De Duurzaamheidbalans van Brabant 2006', by Telos. Translation is in progress. This text is not official but meant as background information for the GA seminar.

Table 1. The relevant terms from the sustainability audit chart

| Term         | Description  |
|--------------|--|
| Capitals     | The three essential parts, sub-systems of the total social system: ecological, socio-cultural and economic |
| Stocks       | The essential elements which together determine the quality and quantity of a capital                      |
| Requirements | The long-term goals which are formulated for the development of a stock                                    |
| Indicators   | Measurements which can be used to operationalise the requirements  |
| Norms        | Set of standards by means of which we can assess the scores of the indicators                              |

# Capitals and the sustainability triangle

The development of the three capitals, their size and change over time, is presented in the form of an equilateral triangle: the sustainability triangle. The choice of an equilateral triangle was deliberate in order to illustrate the fact that each of the three capitals is equally important. Each corner of the triangle represents one of the capitals.

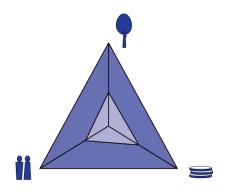


Figure 1. Sustainability Triangle

In the triangle the length of the lines radiating from the central point of the triangle to the corners, indicate the maximum size of the capitals. These lines are all of equal length. The measured situation is illustrated by the inner triangle.

In practice, monitoring sustainable development using the sustainability triangle chiefly comprises determining the size of the inner triangle in relation to the corners of the outer triangle. The closer the inner triangle is to the outer triangle, the closer we are to approaching a sustainable situation. By taking repeated measurements we can make a comparison in time thus creating a dynamic monitor model.

# Stocks and requirements

Each capital is made up of a number of stocks. These are chosen on the basis of existing theoretical insights. In comparison with the 2002 audit, under the influence of new scientific and social insights there has been a revision of the complete stock system. Some stocks have disappeared, others have been added or been given a different content. The new classification of the stocks is shown below.

Table 2. Overview of the 2006 stock audit

|   | Socio-cultural            | Ecological    | Economic                    |
|---|---------------------------|---------------|-----------------------------|
| 1 | solidarity                | nature        | labour                      |
| 2 | citizenship               | soil          | capital                     |
| 3 | identity and diversity    | groundwater   | knowledge                   |
| 4 | safety                    | air           | raw and auxiliary materials |
| 5 | living conditions         | surface water | spatial location conditions |
| 6 | health                    | minerals      | economic structure          |
| 7 | education                 | landscape     |                             |
| 8 | art and cultural heritage |               |                             |

Requirements are subsequently imposed on these stocks, which they must meet in the long term. In other words, these are the long-term goals expressed in qualitative terms. These are directly linked to the stock to which they refer and are largely determined by the context (the prevailing pattern of values and standards) and the tier of government for which the audits chart is being drawn up. The requirements may also change over time, precisely because they are determined by stakeholders. During interviews with the stakeholders for the essay entitled 'Brabant looking ahead', these requirements were presented and tested for their current relevance.

#### **Indicators**

The degree to which the requirements are being met is measured using indicators. One or more indicators may be used for each requirement. Figure 2 gives an overview of the connection between capitals, stocks, requirements and indicators.

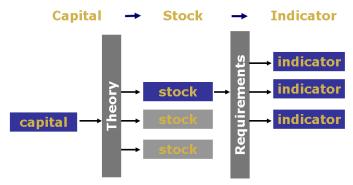


Figure 2. Relationship between capitals, stocks and indicators

A measuring scale is drawn up for each indicator. This measuring scale consists of set standards that have a zero value and a target value with limit values between the two. This classification is shown above.

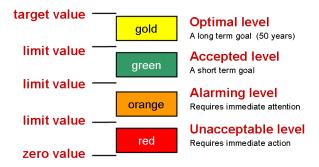


Figure 3. Classification

Determining the target values is a part of the method, which generates a lot of discussion. In order to determine these target values, use is made of policy documents, comparisons over time, comparisons with other regions and the results of social discussions.

#### Determining the size of stocks and capitals

A total score is determined for each stock by adding together the weighed scores from all the indicators. Weighing takes place because the requirements and the indicators are not all considered to be of equal importance. The weights for each requirement are determined based on the number of requirements per stock. The weights for each indicator are determined on the basis of the importance that is attributed to a particular requirement and the importance that can subsequently be assigned to an indicator. Table 3 shows an example of this.

Table 3. Example of weighing indicators when requirements are of equal importance

|         |               |             | weighing in % | angle |
|---------|---------------|-------------|---------------|-------|
|         |               |             |               |       |
| stock 1 | requirement 1 | indicator 1 | 25.00         | 90    |
|         |               | indicator 2 | 25.00         | 90    |
|         | requirement 2 | indicator 3 | 16.67         | 60    |
|         |               | indicator 4 | 16.67         | 60    |
|         |               | indicator 5 | 16.67         | 60    |
|         |               |             | 100.00        | 360   |

The weighing of indicators can be seen in the pie charts from the vertex of the sector that each indicator occupies in the charts. The arc length of the pie chart sector shows the measured situation. The greater the arc length, the better the score. The dotted line represents the situation at the time of the previous measurement. An outward-facing arrow indicates an improvement; an inward-facing arrow indicates deterioration. The year 2001 has been used as far as possible as a base year for comparison purposes. For measuring the current situation, the most recent available data for each indicator have been used.

The sum of the stocks within a particular capital subsequently determines the score of the capital. Weighing also occurs here. Not every stock is equally important. The weighing used for the stocks can be found in the conclusions for each capital. For this edition it was not the stakeholders but Telos itself that determined the weightings. Figure 5 shows an overview of the stocks and the capitals in the sustainability triangle.

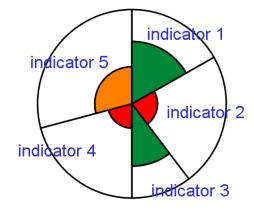


Figure 5. Condition of a capital detected by the sum of the scores of various stocks and their indicators

Figure 4. Example of a pie chart for a stock  $\,$ 

An overview of all the sources and data used and an explanation of the choices made in the weighing of stocks, indicators, and standards can be found on the Telos website and in the document entitled 'Background to the 2006 sustainability audit chart'.

See: www.telos.nl

# **Appendix**

This is the 'consumers' magazine table. It mentions the stocks per capital and gives a short description of the requirements per stock. This can be used for defining criteria for projects that aims to improve sustainability. The columns on the right form the basis for discussion about the stocks and requirements, and their relevance.

As the sustainability triangle is not a scientific, but a normative model, it is important those stake-holders decide which stocks define each of the three capitals and that they define and discuss the relevance of requirements. This leads to a tailor-made instrument. The preceding discussions are at least as relevant as the final monitoring.

| Capital/ Stock | Requirements   | Relevance |    | Effect <sup>6</sup> |
|----------------|--|-----------|----|---------------------|
|                |  | Yes       | No |                     |
|                | Ecological capital   |           |    |                     |
| Nature         | Area covered by linked nature reserves and preservation of biodiversity  |           |    |                     |
| Soil           | Clean (for humans and wildlife). Preservation of the productive quality (agriculture)  |           |    |                     |
| Air            | Clean (for humans and wildlife). No adverse influencing of the climate.  |           |    |                     |
| Surface water  | There is sufficient surface water and it is clean (humans and wildlife)  |           |    |                     |
| Groundwater    | Clean (for humans and wildlife). No more abstraction than can be naturally replenished.  |           |    |                     |
| Minerals       | The extraction of non-renewable minerals is reduced  |           |    |                     |
| Landscape      | Citizens find the landscape attractive. Official nature and cultural landscapes are protected and strengthened.                      |           |    |                     |
|                | Social and cultural capital  |           |    |                     |
| Solidarity     | There is social cohesion. There is no poverty or exclusion   |           |    |                     |
| Citizenship    | Citizens are involved in politics (both passively and actively) and have access to the necessary information                         |           |    |                     |
| Health         | The population is and perceives itself to be physically and spiritually healthy. Good quality health care is accessible to everyone. |           |    |                     |

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<sup>&</sup>lt;sup>6</sup> To what extent does the project affect stocks? If the score is negative, a further evaluation is necessary, possibly followed by modification of the project to mitigate its impact.

<sup>++</sup> very positive + positive 0 neutral - negative -- very negative

| Education             | Education meets the needs of society, is of   |      |  |
|-----------------------|---|------|--|
| Luucation             | - · · · · · · · · · · · · · · · · · · ·   |      |  |
| li.i.a. a.a.dikia.a.a | high quality and easily accessible to all   |      |  |
| Living conditions     | People are satisfied with their own home and  |      |  |
|                       | living conditions, public facilities and  |      |  |
|                       | everyday necessities are accessible and   |      |  |
|                       | within easy reach   |      |  |
| Safety                | Everyone feels safe in Brabant because the  |      |  |
|                       | risk of becoming a victim of crime or   |      |  |
|                       | accident is negligible.   |      |  |
| Identity and          | Expressing one's identity is desirable and  |      |  |
| diversity             | acceptable as long as it does not restrict  |      |  |
|                       | other people's freedom  |      |  |
| Art and cultural      | There is a wide diversity of culture on offer,                                      |      |  |
| heritage              | accessible to anyone who wishes to make   |      |  |
|                       | use of it either actively or passively. The   |      |  |
|                       | cultural heritage is protected and  |      |  |
|                       | strengthened.   |      |  |
|                       |   |      |  |
|                       | Economic capital  |      |  |
|                       |   |      |  |
| Labour                | There is balance on the labour market (in   |      |  |
|                       | both qualitative and quantitative terms). The                                       |      |  |
|                       | workforce is well trained. Work is healthy  |      |  |
| Capital (goods)       | Companies make sufficient profit and  |      |  |
| Capital (goods)       | sufficient investment   |      |  |
| Knowledge             | The innovative and creative capability of   |      |  |
| Miemeage              | companies, organisations and people is  |      |  |
|                       | constantly being strengthened. The  |      |  |
|                       | knowledge institutions play an active,  |      |  |
|                       | supportive role in this.  |      |  |
| Cnatial location      |   |      |  |
| Spatial location      | The accessibility (via road, water, rail, air,                                      |      |  |
| conditions            | and ICT) of companies, facilities and   |      |  |
|                       | economic centres is good. There is sufficient                                       |      |  |
|                       | space available for commercial enterprise   |      |  |
|                       | and this is well managed.   |      |  |
| Economic              | The economic structure has a good mix of  |      |  |
| structure             | driving industries and service industries.  |      |  |
|                       | They are constantly regenerated by the  |      |  |
|                       | arrival of new enterprises (starter companies                                       |      |  |
|                       | and enterprises newly locating to the area)   |      |  |
| Raw and auxiliary     | Investment by businesses is aimed at  | <br> |  |
| materials             | preventing emissions of harmful substances  |      |  |
|                       | and at reducing the use of non-renewable  |      |  |
|                       | raw and auxiliary materials.  |      |  |
|                       | preventing emissions of harmful substances and at reducing the use of non-renewable |      |  |