Romania,
on its way to a sustainable society

Regional Sustainable Society Index
RSSI-Romania-2009

INS

ANPM

Ministry of Environment

SSF

Regional Sustainable Society Index for Romania
RSSI-Romania-2009

North-West region

For all children, grandchildren and great-grandchildren in Romania

---

A sustainable society is a society

- that meets the needs of the present generation,
- that does not compromise the ability of future generations to meet their own needs,
- in which each human being has the opportunity to develop itself in freedom, within a well-balanced society and in harmony with its surroundings.

The earth offers enough for everyone's need, not for everyone's greed.
Mahatma Gandhi

Regional Sustainable Society Index for Romania

RSSI-Romania-2009

with special focus on

North-West region

With a foreword of

Nicolae Nemirschi

Minister of Environment

Ciprian Popovici
Geurt van de Kerk
Arthur Manuel

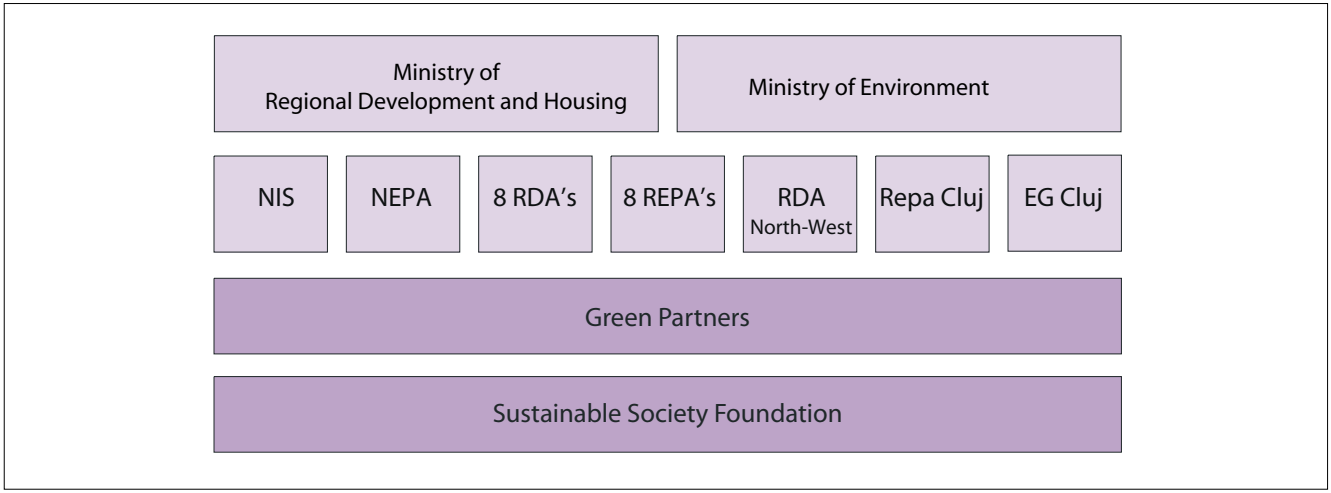
Sustanable Society Foundation

Romania, on its way to a sustainable society

The project is financially supported by the Social Transformation Programme (Matra) of the Netherlands Ministry of Foreign Affairs.

Project organisation

The development of the regional index is part of the project Romania, on its way to a sustainable society. It has been realized in only six months, thanks to the support and help of our project partners. They were of great importance for the collection of data and offered their guidance, assistance, advice and feedback whenever necessary.



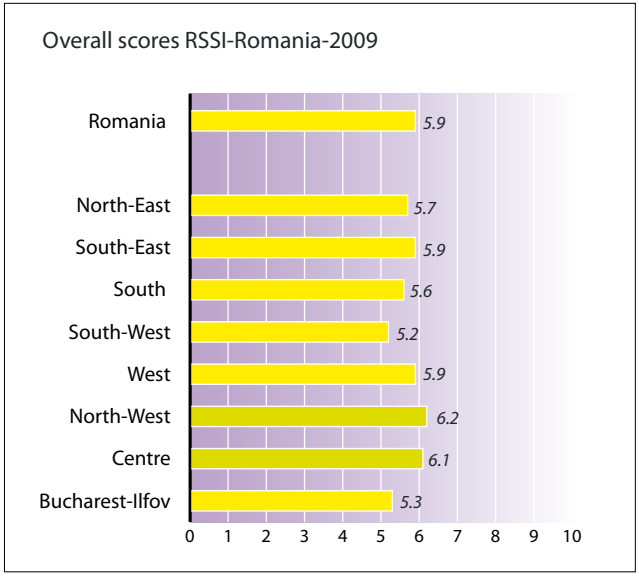
Project implementation team

Ciprian Popovici, social and sustainability expert, Green Partners, Romania
Réka Soós, environmental consultant, Green Partners, Romania
Gyongyi Balint, junior environmental consultant, Green Partners, Romania
Geurt van de Kerk, project director, Sustainable Society Foundation
Arthur Manuel, senior advisor, Sustainable Society Foundation

www.romaniadurabila.net
www.sustainablesocietyindex.com

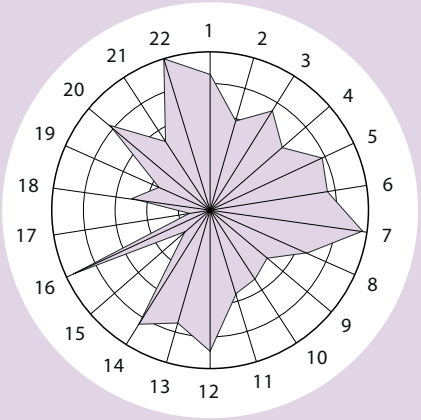
Content

At a glance



RSSI-Romania-2009
North-West Region

22	International Cooperation	10
21	Ecological Footprint	5.2
20	Emission of Greenhouse Gases	8.3
19	Preservation of Biodiversity	3.6
18	Forest Area	5.0
17	Consumption of Renewable Energy	1.3
16	Use of Renewable Water Resources	9.9
15	Waste Recycling	2.1
14	Public Debt	8.5
13	Income Distribution	7.4
12	Population Growth	8.9



1	Life Expectancy	8.6
2	Poverty Rate	5.8
3	Sufficient to Drink	7.4
4	Safe Sanitation	6.0
5	Education Opportunities	7.8
6	Gender Equality	7.5
7	Air Quality	9.7
8	Surface Water Quality	6.7
9	Land Quality	4.7
10	Good Governance	5.2
11	Employment	5.5

The spider web shows the extent of sustainability. The outer circle expresses full sustainability, a score of 10; the centre of the web expresses no sustainability at all, a score of 0.

Foreword

Only a year ago the Sustainable Society Index for Romania – SSI-Romania-2008 – has been published. This national index showed the actual level of sustainability of Romania and indicated what is going well and what needs further improvement. The SSI appeared to be a real asset. At that time the need for a similar instrument on regional level was strongly felt. I am happy to note that such instrument is already now in my hands: the Regional Sustainable Society Index for Romania, RSSI-Romania-2009.

In this one year there has been a rapidly growing awareness and concern about sustainability. However, on regional level a concrete touchstone for the policy, programmes and plans with respect to sustainability was still lacking. To meet this need the Regional SSI has now been developed, with a special focus on North-West region. I welcome the results. They show us very clearly where to put emphasis in the coming years. We have to find ways for improving Quality of Life without compromising Sustainability. The present economic crisis which has ruined expectations and plans of so many people, also offers us a great opportunity to make a definitive change. From now on sustainability will be both the guide and the touchstone for our work.

I'm fully aware of the difficulties encountered when developing the RSSI. Many data were not available or couldn't be used for this purpose. In view of the importance of having an easy and transparent tool to measure the level of sustainability in our regions, I support the improvement of data collection, as suggested in this report.

I wish that the regional index will contribute – at national as well as at regional level – to develop the regions in a sustainable way. I strongly encourage to continue the work of developing, updating and implementing the RSSI-Romania in each region. I look forward to the next edition in 2011.

Nicolae Nemirschi,
Minister of Environment

Coordinator of the implementation of
National Sustainable Development Strategy

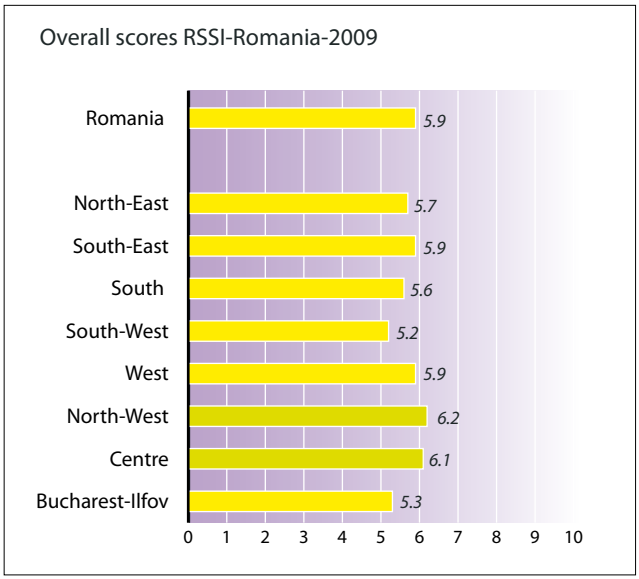
Summary

Mid 2008 the Sustainable Society Index, SSI-Romania-2008, was published. The SSI shows at a glance the level of sustainability of Romania based on the scores of 22 indicators. The indicators cover the main aspects of sustainability, including quality of life, according to the definition of the well-known Brundtland Commission.

Subsequently the need for a similar instrument on regional level was strongly felt by all stakeholders. Ideas for the set-up of such instrument where thus developed during the first working meetings with our project partners, resulting in the current format of Regional SSI. SSF has transformed this idea into reality in close cooperation with its partners: Ministry of Environment, Ministry of Regional Development and Housing, Regional Development Agencies (RDA), National Institute of Statistics (NIS) and its regional offices, National Environmental Protection Agency (NEPA), Regional Environmental Protection Agencies (REPA) and Environmental Guard of Cluj. The work was made possible by the financial support of the Social Transformation Programme (Matra) of the Netherlands Ministry of Foreign Affairs.

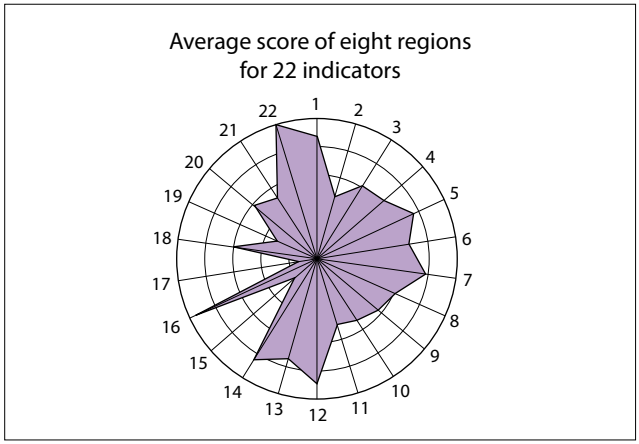
The objective of the project was to develop and operationalize an easy instrument, similar to the SSI-Romania-2008, to measure the level of sustainability in all eight development regions of Romania, with a special focus on North-West region. The results of this project are presented in this publication.

Main results



The overall scores for the regions, an aggregation of the scores of the underlying 22 indicators, vary from 5.2 for South-west region to 6.2 for North-West region, with an average score for Romania of 5.9. This means all regions are way below a 10 of full sustainability. Thus many opportunities arise for improvement.

The overall scores show only minor differences. The small variations in scores are partly due to lack of data which forced us to use national average data for seven indicators. Nevertheless, the underlying data reveal interesting details.



Except for Indicator 22 – International Cooperation, all indicators are below the 10 of full sustainability, many even way below. Thus all these indicators need attention to improve their score. [1]

Data collection

The collection of data turned out to be not as easy as expected. Many data were not available. It will be a challenge for the regions to set up an adequate system for collecting reliable data.

Recommendations

Institutional measures

Assign the overall responsibility for data collection and data processing to one regional institution for all indicators. The actual day-to-day work can be assigned to other regional institutes.

1. Strengthen the institutional capacities of regional authorities for working with policy monitoring tools.
2. Improve the communication flow and cooperation among regional stakeholders with responsibilities for sustainable development.

Priorities in sustainability measures

4. The overall priorities for the regions are:
   a. *Energy:* to reach the EU target of energy consumption from renewable resources of 24% of total energy consumption by 2020, structural measures in all regions are required.
   b. *Waste:* Since the actual level of waste recycling is way below the set target of 50% recycling in 2012, all regions need to take urgent measures to increase recycling rates on short notice.
   c. *Biodiversity:* except for South-East region, all regions have to enlarge their protected areas, in order to double the actual 7% of protected areas in Romania to reach the target of 15% in 2013.
   d. *Poverty Rate:* The four Eastern and Southern regions require concrete measures to reduce poverty. The same applies to Centre region and North-West region.
   e. *Employment:* Already now the overall figure for employment indicates it needs urgent attention. The more so, since employment will have been deteriorating since the start of the economic crisis in 2008 and may well continue to do so.
5. Prioritize – in each region – the programmes and projects according to the regional needs and regional indicators.

Implementation measures

6. Improve the process of data collection and data accuracy in all regions.
7. Coordinate between all eight regions the format of the data to be collected, the methodology of processing and the way of presentation.

[1] This spider web differs from the one presented in the SSI-Romania-2008, because data have been updated since then.

8. Ensure policy effectiveness by incorporating the RSSI results in the regular policy cycle of each region.
9. Monitor the results of the plans and projects on sustainability in each region periodically, for instance yearly.
10. Update the RSSI for each region every two years, as well as in Romania on national level.

Legend

The colours used in the various graphs for the SSI-scores facilitate a quick assessment of the actual situation. Each colour corresponds with a score range:

- 9.1 to 10
- 8.1 to 9
- 7.1 to 8
- 6.1 to 7
- 5.1 to 6
- 4.1 to 5
- 3.1 to 4
- 2.1 to 3
- 1.1 to 2
- 0 to 1

For each indicator, the scores are shown in the graphs in successively the following manner:

- Romania
- The eight development regions

Part I

1

Introduction

When working on the preparation of the SSI-Romania-2008 on national level, partners acknowledged the need for a similar instrument on regional level. They expressed their wishes to develop a regional sustainable society index, RSSI. Thus a request was made to the Sustainable Society Foundation (SSF) to develop a RSSI for all eight development regions in Romania, with special emphasis on North-West region.

The publication you have now before you offers the result of this study. It has been a joint effort of all partners involved: Ministry of Environment, Ministry of Regional Development and Housing, National Institute of Statistics, National Environmental Protection Agency, Regional Development Agencies and Regional Environmental Protection Agencies of all eight regions, RDA North-West, Regional Statistical Office Cluj, REPA Cluj, Environmental Guard Cluj and SSF.

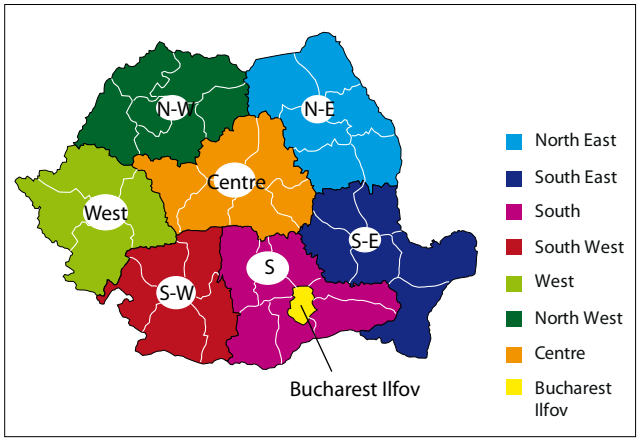
The work was made possible by the financial support of the Social Transformation Programme (Matra) of the Netherlands Ministry of Foreign Affairs.

As you will see, the results are certainly not yet complete. Quite some data were missing or not in a format that could be used. However, already now the results can be of great value for each of the regions. It offers the state of the art with respect to sustainability in each region, enabling mutual comparison and thus stimulation for improvements. It shows clearly what is going well and what needs most attention most in the coming years. Moreover, the RSSI can be used as a monitoring instrument for the implementation of programmes and plans with respect to development towards sustainability.

A major challenge for the next years will be the adequate collecting of data. This should be given high priority. Hopefully the results of these efforts will be visible already in the next update of the RSSI in two years: the RSSI-Romania-2011. To ensure a proper and timely implementation of the updates of the RSSI an appropriate institute should be assigned to take care of the further development and maintenance of the RSSI.

2

Regional Development in Romania



Source: Ministry of Regional Development and Housing, 2009

The Romanian administrative organisation comprises 42 counties. Starting with 1998, Romania has decided to follow the EU example for regional development policies. One of the first measures which have been taken was to restructure the administrative territorial organisation in 8 larger regions, based on voluntary associations of counties. The table lists the counties of each region.

Counties per region			
North-East	South-East	South	South-West
Bacău Botoşani Iaşi Neamţ Suceava Vaslui	Brăila Buzău Constanţa Galaţi Tulcea Vrancea	Argeş Călăraşi Dâmboviţa Giurgiu Ialomiţa Prahova Teleorman	Dolj Gorj Mehedinţi Olt Vâlcea
West	North-West	Centre	Bucharest-Ilfov
Arad Caraş-Severin Hunedoara Timiş	Bihor Bistriţa-Năsăud Cluj Maramureş Satu Mare Sălaj	Alba Braşov Covasna Harghita Mureş Sibiu	Ilfov Municipiul Bucureşti

Although there are several laws which refer to regions as administrative units, regions still are not legal administrative entities with governing power. The decision-making power still lies with the counties. There are only some exceptions with respect to a small number of EU funds (such as the regional development funds), which are allocated directly to the regions.

Regionalization of Romanian territory brought a new way of looking at the local and regional developments. Counties and regions are more and more encouraged to cooperate among each other for further planning and development.

In each region a Regional Development Agency (RDA) has been established. These RDAs are coordinated by the Regional Development Council, in which all 8 regions are

represented. The main task of a RDA is the implementation of the regional development policy, as set by the Ministry of Regional Development and Housing.

Beside RDAs there are several other institutions which have regional responsibilities. Among these are the Regional Environmental Protection Agencies (REPAs) and Regional Statistical Offices (RSOs). REPAs are under direct coordination of the Ministry of Environment, while the RSOs are coordinated by the National Institute of Statistics. Both REPAs and RSOs are closely cooperating with local Environmental Protection Agencies (EPAs) and Statistical Offices (SOs) which are functioning in each county in Romania.

All these regional organisations are facilitating the regionalization process of Romania by developing or offering support for development of regional projects and by facilitating the accession of EU funding of beneficiaries within each region. The regional organisations also bear responsibilities for development and implementation of regional policies, strategies, programmes and plans. More specifically the tasks of the RDAs include:

- developing regional strategies, programmes, plans and funding schemes
- obtaining funds for regional projects from national or international bodies
- monitoring and evaluation of regional projects
- reporting on regional development status
- assessing the impact of regional projects
- establishing partnerships for development with other regions
- promoting regionalization and identification of the local and regional projects which aim at attracting investors at regional level.

Policy objectives for regional development in Romania:

- to diminish the regional discrepancies and putting more emphasis on balanced development among regions and revitalisation of low-developed regions; prevention of new events which could impact the balanced development;
- to stimulate the interregional cooperation, at national and international level, which has a high impact on economic development.

Principles which are governing the regional development policy in Romania:

- decentralisation of decision-making processes from national to regional level;
- partnership between regional stakeholders;
- regional planning;
- co-financing of regional projects.

Ministry of Regional Development and Housing, 2009

3

Sustainable Society Index

3.1 Sustainability

The notion of sustainability is interpreted in many quite different ways. Already the Indians, the native people in America, used it, maybe without naming it sustainability. One of the guidelines for their life was: 'We must give the earth back to our children at least as nice and clean as we have received her ourselves.' This is quite contrary to the way we're exploiting the earth, by depleting its resources and spoiling the environment.

Long after the time of the Indians we've now realised that in order to shape a sustainable society two aspects should be integrated: Quality of Life and Sustainability. Sustainability without quality of life makes no sense and quality of life without sustainability has no perspective. Both aspects are essential for development towards a sustainable world.

In 1987 the Brundtland commission published its well-known definition of sustainability, however, without making explicitly clear that the qualitative aspects of human life are included. Subsequently, IUCN, UNEP and WWF, already over fifteen years ago, defined sustainable development as 'Improving the quality of life of humans while living within the carrying capacity of supporting ecosystems'. Therefore, we have extended the Brundtland definition with one sentence to include both aspects, so that it runs as follows:

A sustainable society is a society

- that meets the needs of the present generation,
- that does not compromise the ability of future generations to meet their own needs,
- in which each human being has the opportunity to develop itself in freedom, within a well-balanced society and in harmony with its surroundings.

It will be a challenge for everybody to ensure development to sustainability according to this definition.

3.2 Sustainable Society Index

Several years ago the Sustainable Society Index[2] has been developed to meet the need of a transparent tool for measuring the actual level of sustainability of a society. The Sustainable Society Index or SSI shows at a glance how sustainable a society is: what is going well and where bottlenecks are experienced. The SSI integrates the most important aspects of quality of life and sustainability for the first time. It is built upon a solid definition, the abovementioned extended Brundtland definition. Starting from this definition, 22 indicators have been determined, covering sustainability in its broad sense. The 22 indicators are clustered into 5 categories as shown on the next page[3].

[2] For a detailed description of the SSI, see www.sustainablesocietyindex.com.

[3] The names of Category II and Indicators 1, 2 and 11 have been changed, as compared with the SSI-Romania-2008.

I Personal Development

1 Life Expectancy
2 Poverty Rate
3 Sufficient to Drink
4 Safe Sanitation
5 Education Opportunities
6 Gender Equality

II Healthy Environment

7 Air Quality
8 Surface Water Quality
9 Land Quality

III Well-balanced Society

10 Good Governance
11 Employment
12 Population Growth
13 Income Distribution
14 Public Debt

IV Sustainable Use of Resources

15 Waste Recycling
16 Use of Renewable Water Resources
17 Consumption of Renewable Energy

V Sustainable World

18 Forest Area
19 Preservation of Biodiversity
20 Emission of Greenhouse Gases
21 Ecological Footprint
22 International Cooperation

The SSI has been published for the first time in 2006, followed by the SSI-Romania-2008 mid 2008. End 2008 a worldwide update of the SSI has been presented, showing the changes – incline as well as decline – over time for 151 countries, including Romania.

Now, June 2009, we present the index which has been elaborated for the eight development regions of Romania.

4

Regional Sustainable Society Index – RSSI

4.1. Concept of the RSSI

Basically the concept of the regional set of indicators is the same as the one on national level. That offers the advantage of comparability. For the SSI-Romania-2008 next to the 22 indicators mentioned above – the standard indicators – five additional indicators have been included to address specific topics in the Romanian policy on sustainability. For the regional version of the SSI the same standard and additional indicators have been examined. However, for a number of indicators it appeared impossible to collect reliable data or to collect data at all. Since these indicators are nonetheless relevant on regional level, they have been kept in the concept, for the time being without regional data. In the near future this gap will be filled.
Four changes have been carried through:

1. Indicator 1 has been renamed into Life Expectancy, since no data about Healthy Life are available at regional level.
2. Indicator 2 – Sufficient Food has been replaced by Poverty Rate, due to lack of data with respect to Sufficient Food. Since Sufficient Food and Poverty Rate are strongly related to each other, Poverty Rate, for which data on regional level are available, is included as indicator 2. For SSI-Romania-2008, Poverty Rate has been examined as one of the additional indicators.
3. Indicator 11 has been renamed into Employment, instead of Unemployment.
4. Transport infrastructure has been inserted as an additional indicator, since developments with respect to Infrastructure are very important for regions.

4.2 Data collection

In just over half a year the RSSI has been developed and elaborated. This could be done only thanks to the help and support of our project partners. Nevertheless the collection of data has not been easy. We encountered serious problems:
For some indicators data could be found, but not the same data as has been used for the calculation of the index on national level. For some other indicators no data per region could be found at all. Other problems were that not all data are comparable over the regions, since they are not collected and reported in the same format, whereas other data appeared to be not reliable.

As far as possible we have processed the collected data, put them all in the same format for each region, calculated the scores and presented the results in this publication. However, for seven indicators adequate data could not be generated at regional level: indicators 10, 13, 14, 15, 17, 21 and 22. In order to be able to calculate the overall index for each region, we have adopted for each of these indicators the average score of Romania in the most recent update SSI-2008.

All parties involved feel the urgent need for adequate and reliable data and therefore a rapid improvement of data collection. Hopefully in the next update less than seven indicators will be 'missing'.

5

RSSI-Romania-2009

main results

In this chapter the main results are presented. All data are available on the website of the project www.romaniadurabila.net.

5.1 Calculation

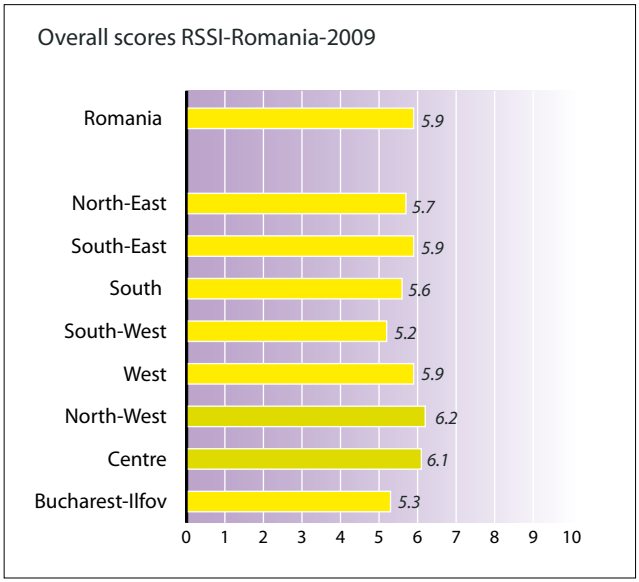
The overall index has been calculated as the weighted average of the scores of the five categories. Quality of life has its main effects within the own region, whereas sustainability has serious effects on other regions as well as on the world at large. Therefore the three categories with emphasis on quality of life (I, II and III) received a single weight; the two categories with emphasis on sustainability (IV and V) received a double weight.

The score for each category is calculated as an average of the scores for the underlying indicators. Each indicator has been given the same weight, since there is no scientific argument to give one indicator a higher weight than another.

All scores for the overall index, categories and indicators are expressed on a scale from 0 to 10. A 10 means full sustainability; a 0 no sustainability at all. The scores for each indicator are based – if possible – on the sustainability value, i.e. the situation of full sustainability according to the Brundtland+ definition. In case of 100% sustainability, the value of the indicator is 10. If there is no sustainability at all, the value of the indicator is 0. If the sustainability value of an indicator is unknown, the region with the highest value of this indicator receives a 10, the region with the lowest value a 0.

A more detailed description of the calculation methodology is presented on the website.

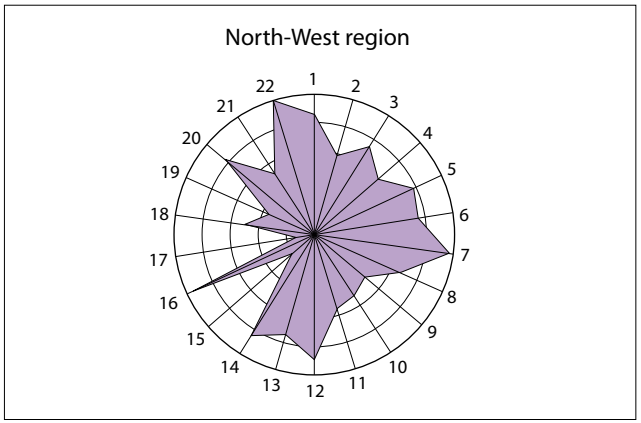
5.2 Overall index

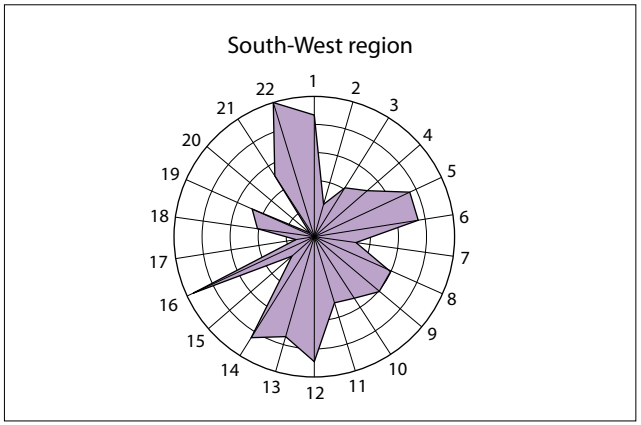


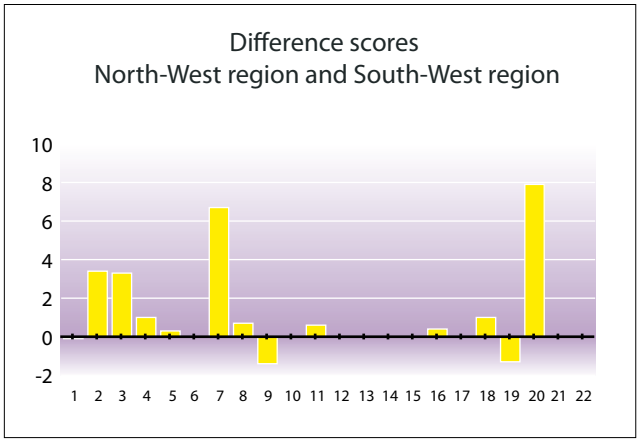
All regions score between 5.2 (South-West) and 6.2 (North-West), with an average score for Romania of 5.9[4]. This means all regions are way below a 10 of full sustainability. Thus many opportunities arise for improvement.

[4]The overall score for Romania in the SSI-Romania-2008 was 5.7, based on the data available at that time.

The overall scores for the eight development regions show only minor differences. These are partly due to lack of data, which obliged us to use average data for seven indicators. Thus again, this shows the importance to always have a close look at the underlying figures, i.e. the results of each of the indicators. For instance, the results of the two regions with maximum and minimum overall score show interesting differences.





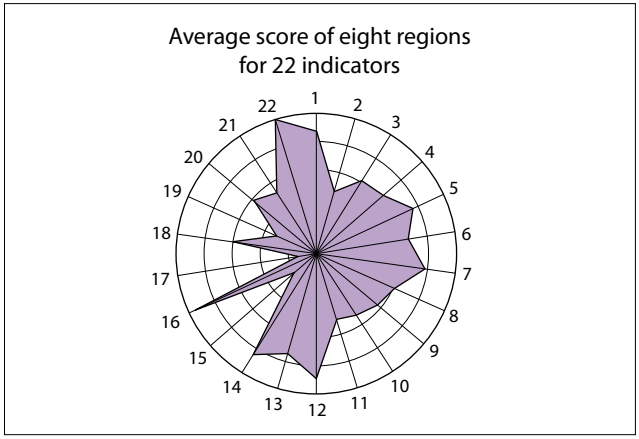


These spider webs offer a clear overall view. The next graph better reveals where the differences between the two are.
The main differences are found for indicators 7 (Air Quality) and 20 (Emission of Greenhouse Gases), where North-West region is performing better than South-West region. The same applies for indicators 2 (Poverty Rate) and 3 (Sufficient to Drink). South-West region scores better on indicators 9 (Land Quality) and 19 (Preservation of Biodiversity). It should be noted that minor differences can also be interesting and revealing.

5.3 Categories

No special attention has been paid in this first edition of the regional SSI to the five categories. Due to the missing data for seven indicators, concentrated in category III, IV and V, the scores of these categories offer little valuable information. It is more worthwhile to focus on the information from the underlying data, the indicators.

5.4 Indicators



The average scores for the eight development regions vary from 10 (International Cooperation) to 1.3 (Consumption of Renewable Energy). Indicators 16 (Use of Renewable Water Resources, 9.4), 12 (Population Growth, 8.9), 1 (Life Expectancy, 8.7) and 14 (Public Debt, 8.5) perform relatively well. The remaining indicators offer (many) opportunities for further improvement.

Ranking the scores in order of increasing value, shows which indicators need most attention.

		Average score
17	Consumption of Renewable Energy	1.3
15	Waste Recycling	2.1
19	Preservation of Biodiversity	3.1
2	Poverty Rate	4.6
11	Employment	4.9
21	Ecological Footprint	5.2
10	Good Governance	5.2
9	Land Quality	5.7
20	Emission of Greenhouse Gases	5.9
3	Sufficient to Drink	6.1
18	Forest Area	6.1
4	Safe Sanitation	6.3
8	Surface Water Quality	7.0
13	Income Distribution	7.4
6	Gender Equality	7.5
5	Education Opportunities	7.6
7	Air Quality	7.8
14	Public Debt	8.5
1	Life Expectancy	8.7
12	Population Growth	8.9
16	Use of Renewable Water Resources	9.4
22	International Cooperation	10.0

The average score for the eight development regions is the unweighted average of the scores of the regions. This score may differ from the score for Romania as a whole, since that is the score, based on the data for Romania itself. This score is in fact the weighted average score of the regions.

The top-5 priorities have been identified for each region, i.e. the 5 indicators with the lowest scores. These are shown coloured in the next table. It cannot be surprising that Consumption of Renewable Energy and Waste Recycling are indicated for all regions, since for these indicators national average values have been used.

	Priorities	Average of all 8 regions	North-East	South-East	South	South-West	West	North-West	Centre	Bucharest -Ilfov
1	Life Expectancy	8.7	8.7	8.7	8.7	8.7	8.6	8.6	8.7	9.0
2	Poverty Rate	4.6	2.0	3.4	3.4	2.4	7.2	5.8	4.6	8.2
3	Sufficient to Drink	6.1	5.5	8.0	5.6	4.1	6.6	7.4	6.3	4.9
4	Safe Sanitation	6.3	5.3	6.2	4.6	5.0	7.0	6.0	6.7	9.3
5	Education Opportunities	7.6	7.7	7.0	6.7	7.5	7.9	7.8	7.6	8.6
6	Gender Equality	7.5	---	7.3	7.2	7.5	7.6	7.5	7.5	8.1
7	Air Quality	7.8	9.8	8.3	6.0	3.0	8.0	9.7	8.3	9.4
8	Surface Water Quality	7.0	7.5	---	6.8	6.0	8.1	6.7	8.4	5.6
9	Land Quality	5.7	5.4	6.2	6.2	6.1	5.4	4.7	4.5	7.3
10	Good Governance	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
11	Employment	4.9	5.5	4.1	3.9	4.9	5.3	5.5	4.1	6.2
12	Population Growth	8.9	8.4	8.6	8.9	8.9	9.4	8.9	9.0	8.7
13	Income Distribution	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
14	Public Debt	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
15	Waste Recycling	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
16	Use of Renewable Water Resources	9.4	9.6	8.4	9.1	9.5	9.3	9.9	9.7	---
17	Consumption of Renewable Energy	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
18	Forest Area	6.1	5.3	5.3	4.6	4.1	7.6	5.0	10.0	6.6
19	Preservation of Biodiversity	3.1	1.6	10.0	2.0	4.8	0.7	3.6	1.1	1.0
20	Emission of Greenhouse Gases	5.9	8.1	6.7	6.6	0.4	3.5	8.3	5.8	7.8
21	Ecological Footprint	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
22	International Cooperation	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

The message of this table is clear: Energy, waste, biodiversity, poverty rate and employment require intensified action plans – and actions – on short notice. Moreover, other issues should not be neglected, in view of the low scores in several regions, like Sufficient to Drink and Safe Sanitation (connection to adequate drinking water and sewerage systems), Air Quality and Land Quality, Good Governance, Emission of Greenhouse Gases and Forest Area.

Each region will have to define its specific approach to address the indicated priorities for its region. For North-West region these priorities are:

- Consumption of Renewable Energy
- Waste Recycling
- Preservation of Biodiversity
- Land Quality
- Forest Area.

However, also other issues which have low scores in North-West region, like Good Governance, Employment and Poverty Rate need serious attention.

6

Use of the RSSI-Romania-2009

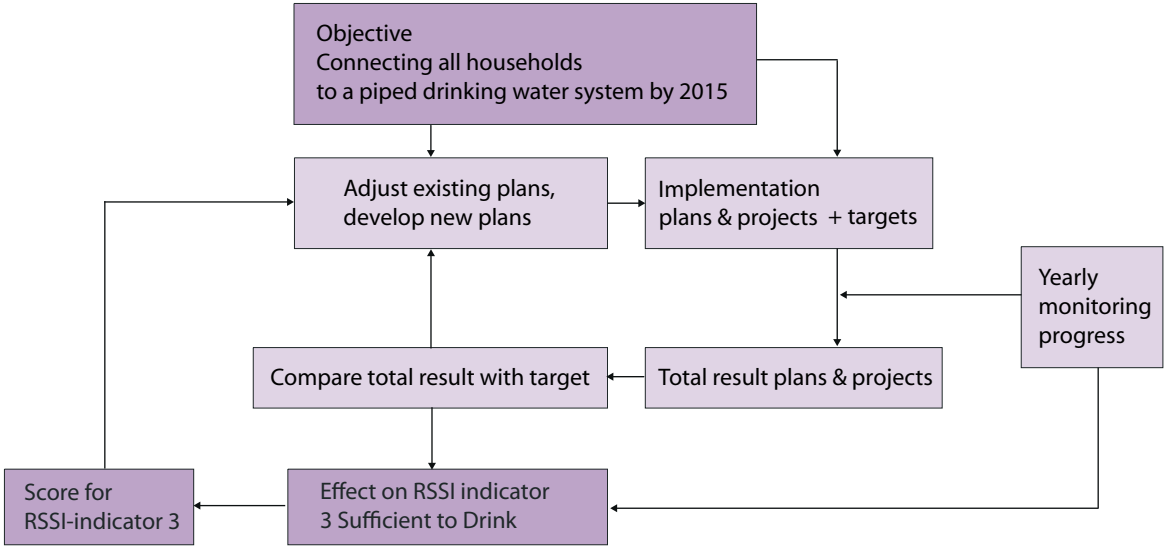
The Sustainable Society Index is an instrument that addresses a large target group, as well on national as on regional level. It can be used by politicians, regional authorities, education institutes, civil society organizations and the public at large. There are many ways to use the RSSI-Romania-2009.

1. **Awareness**
   Enlarge the awareness of the public about the extent of sustainability of the region.
2. **Policy development**
   Use it as an instrument for defining which issues need most attention and for setting targets for each indicator. The RSSI can contribute to the updating and renewing of Regional Development Plans and Sector Operational Plans.
3. **Benchmark**
   Compare the scores of the regions in order to learn from each other and to stimulate each other to make progress on the road to sustainability.
4. **Monitoring**
   Monitor progress of implementation of development plans with respect to sustainability and stimulate reaching the objectives.
   A concise example of the use for monitoring is given on page 23.
5. **Education**
   Education institutes – schools, high-schools, special education institutions, universities and research institutes – can make use of RSSI-Romania-2009 within their work. RSSI enables them to:
   - open the debate about sustainability in Romania,
   - teach students about sustainability,
   - stimulate research and development on all aspects of sustainability.
6. **Civil Society**
   Civil society organisations, such as NGOs or CBOs, can easily use RSSI-Romania-2009 as a tool for defining their strategies, programmes and action plans and to facilitate communication between actor networks at all levels.
7. **Innovation**
   The RSSI can contribute to many possibilities for innovation. For instance, it may stimulate the development of new approaches towards sustainability; it may be a basis for new sets of indicators for specific industries, to stimulate and facilitate their efforts on the way to sustainability.

Monitoring the policy implementation process with RSSI

In order to ensure that policies, programmes, plans or projects will have maximum effectiveness, one has to monitor their implementation. RSSI is one of the monitoring tools which offers good monitoring possibilities.

The chart below presents a concrete example of how RSSI can be used for monitoring the implementation process of programmes, plans and projects which aim at achieving the target of connecting all of the households to a piped drinking water system by 2015.



Indicator 3 – Sufficient to drink reflects the total number of localities connected to a piped drinking water system. For this indicator, the average score is 6.1, which means that there are still many citizens who are not connected to a piped drinking water system. To reach the objective, defined in the Environmental Operational Programme and the Regional Development Operational Programme, concrete programmes and projects have been defined at regional level. Since the objective has a long implementation period, a yearly monitoring of the progress is required, for each project as well as for the whole programme. The progress will be compared with the set target, thus enabling to conclude whether the realization is on schedule or not. If not, appropriate measures can be taken to accelerate the implementation. If new ideas come up to change the objective – the existing plans can be adjusted accordingly.

7

Recommendations

Institutional measures

Assign the overall responsibility for data collection and data processing to one regional institution for all indicators. The actual day-to-day work can be assigned to other regional institutes.

1. Strengthen the institutional capacities of all regional authorities for working with policy monitoring tools.
2. Improve the communication flow and cooperation among all regional stakeholders with responsibilities the sustainable development.

Priorities in sustainability measures

4. The overall priorities for the regions are
   a. *Energy:* to reach the EU target of energy consumption from renewable resources of 24% of total energy consumption by 2020, structural measures in all regions are required.
   b. *Waste:* Since the actual level of waste recycling is way below the set target of 50% recycling in 2012, all regions need to take urgent measures to increase recycling rates on short notice.
   c. *Biodiversity:* except for South-East region, all regions have to enlarge their protected areas, in order to double the actual 7% of protected areas in Romania to reach the target of 15% in 2013.
   d. *Poverty Rate:* The four Eastern and Southern regions require concrete measures to reduce poverty. The same applies to Centre region and North-West region.
   e. *Employment:* Already now the overall figure for employment indicates it needs urgent attention. The more so, since employment will have been deteriorating since the start of the economic crisis in 2008 and may well continue to do so.
5. Prioritize – in each region – the programmes and projects according to the regional needs and regional indicators.

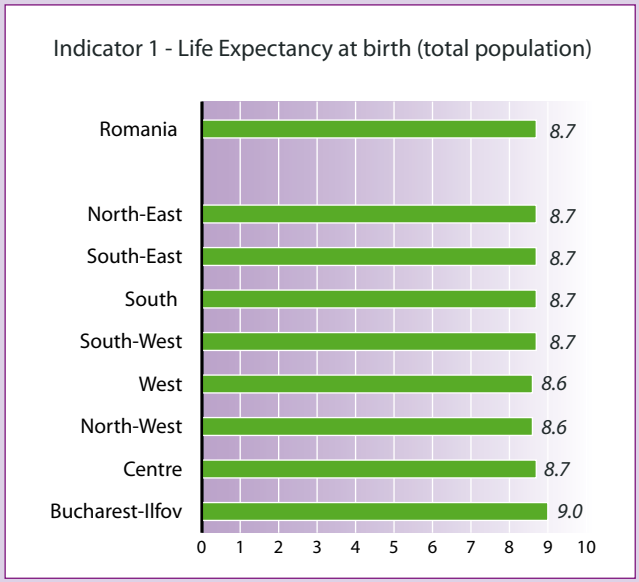
Implementation measures

6. Improve the process of data collection and data accuracy in all regions.
7. Coordinate between all eight regions the format of the data to be collected, the methodology of processing and the way of presentation.

Part II

Indicator 1
Life Expectancy

Description indicator: Life expectancy at birth
Source: WHO
Year: 2004-2006



Indicator
This indicator reflects the number of years a newborn can expect to live. It is the average value for male and female.
This indicator differs from the one used in the SSI-Romania-2008: Healthy Life. No regional data are available for the adjustment of Life expectancy at birth to Healthy Life on regional level. WHO calculates these data on national level only.

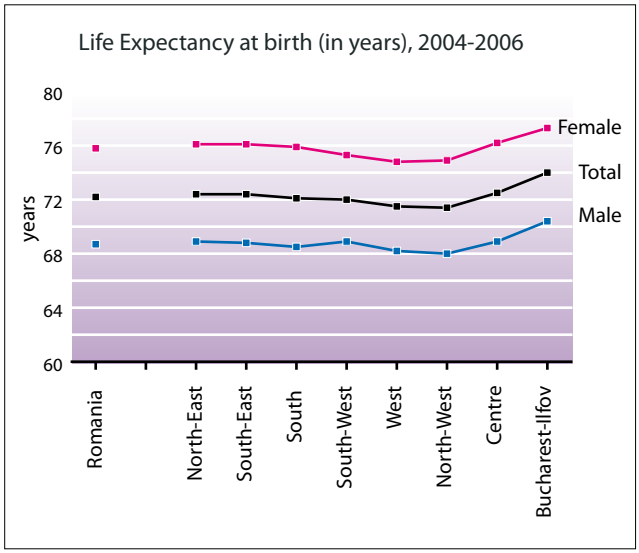
Scores
The scores for this indicator per region are among the best scores of all indicators. There are only minor differences between regions. Bucharest-Ilfov region has the highest score (9.0), while both North-West and West region have the lowest score for this indicator (8.6).

	Life expectancy at birth 2004-2006		
	Total (years)	Male	Female
Romania	72.2	68.7	75.8
North-East	72.4	68.9	76.1
South-East	72.4	68.8	76.1
South	72.1	68.5	75.9
South-West	72.0	68.9	75.3
West	71.5	68.2	74.8
North-West	71.4	68.0	74.9
Centre	72.5	68.9	76.2
Bucharest-Ilfov	74.0	70.4	77.3

In absolute figures, the life expectancy at birth in Romania is 72.2 years (according to the WHO statistics presented for the 2004-2006 period, see table above).

Bucharest-Ilfov region registers the highest value for life expectancy (74.0 years), North-West region the lowest (71.4 years).

Regional differences

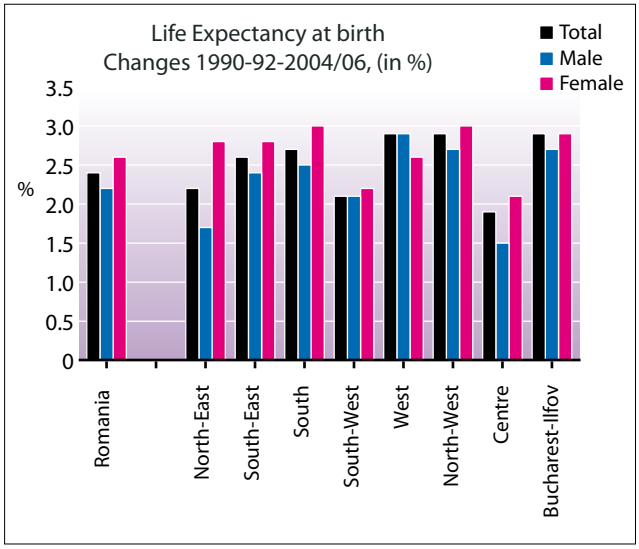


The graph clearly shows differences in life expectancy between regions as well as between male and female. Life expectancy is higher for females than males, with values ranging from 74.8 for West region to 77.3 in Bucharest-Ilfov region. For males, life expectancy values range from 68.0 for North-West region to 70.4 for Bucharest region.

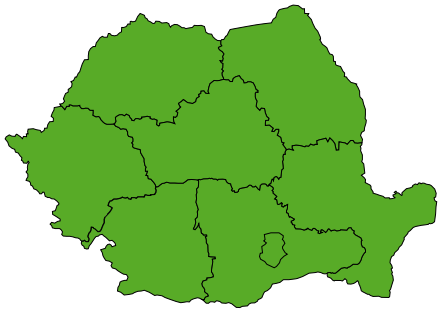
The difference between female and male life expectancy in Romania is on average 7 years, with the highest difference in South region, where female life expectancy is 7.4 years higher than male life expectancy.

Developments

The developments in the period 1990 – 2006 show an increase in life expectancy in all regions. The largest



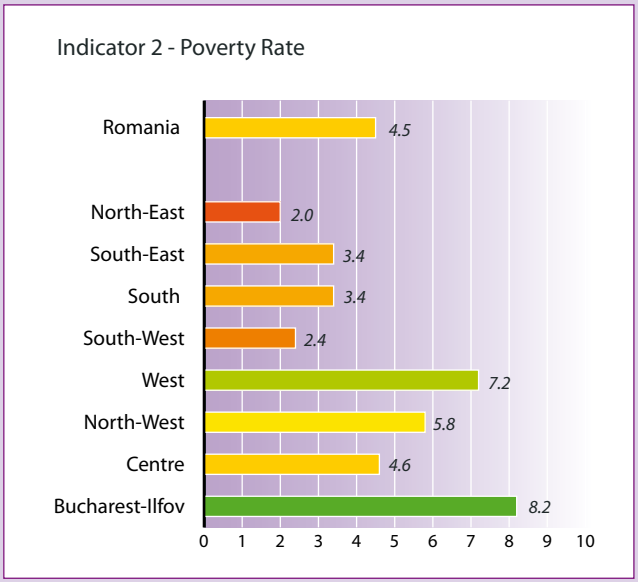
change in percentage for life expectancy for the total population occurred in North-West region where the life expectancy increased by 4.2%. In Centre region the change was only 2.6%, the lowest change of all regions. Distinguishing between male and female, one notices that West region reported the highest change: life expectancy of male has increased by 4.4 %. The lowest change was reported by Centre region where female population registered an improvement of life expectancy of only 2.8%.



Indicator 2

Poverty Rate

Description indicator: Population living under poverty line as percentage of total population
Source: World Bank Poverty Assessment 2007
Year: 2006



Indicator

Indicator 2 - Poverty Rate reflects the number of people living under the poverty line as percentage of the total population. According to the World Bank, individuals are classified as (totally) poor if their consumption per adult equivalent is lower than the poverty line. This line is calculated as a percentage of the national annual average income.

This indicator replaces Indicator Sufficient Food, which has been used in the SSI-Romania-2008, due to lack of data with respect to Sufficient Food on regional level. Since Sufficient Food and Poverty Rate are strongly related to each other, Poverty Rate, for which data on regional level are available, is now included as indicator 2. For SSI-Romania-2008 Poverty Rate has been examined as one of the additional indicators.

Scores

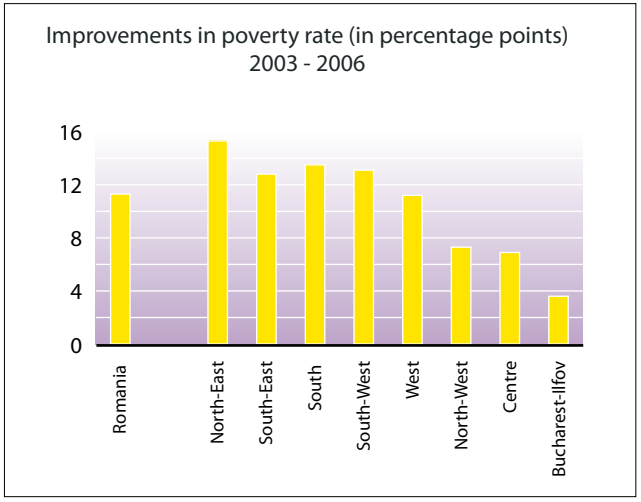
The scores for this indicator show large differences between the regions. The score for Romania is 4.5, expressing that 13.8% of the population is living below poverty line[5]. North-East region registers the lowest score for this indicator (2.0), which reflects the fact that 20.1% of the population is living under the poverty line. Bucharest-Ilfov region is topping the list with a score of 8.2.

[5] For calculation methodology, see website www.romaniadurabila.net

	Population below poverty line (in%)							
Year	1995	2000	2001	2002	2003	2004	2005	2006
Romania					25.1	18.8	15.1	13.8
North-East	37.5	48.5	42.5	35.4	35.4	25.9	19.6	20.1
South-East	26.3	37.4	32.3	29.2	29.2	23.9	20.9	16.4
South	27.6	40.0	33.1	29.9	29.9	23.9	20.9	16.4
South-West	28.5	34.5	32.5	32.1	32.1	22.7	19.5	19.0
West	17.9	30.1	22.2	18.1	18.1	11.5	8.1	6.9
North-West	22.2	34.4	23.0	17.7	17.7	14.8	11.7	10.4
Centre	23.9	31.4	23.4	20.3	20.3	17.0	12.6	13.4
Bucharest-Ilfov	10.2	18.2	10.6	8.1	8.1	6.1	4.1	4.5

Regional differences

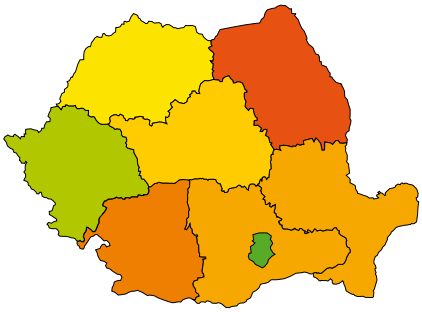
Although in the last 3 years the poverty rate has been reduced in every region, still considerable regional differences exist: Poverty Rate ranges from 4.5% to 20.1%. Looking at the improvements made in reducing the poverty rate per region, North-East region has improved most, more than 15 percent points reduction of poverty rate.



Based on two scenario's, World Bank has made a prognosis on the poverty dynamics over 2007-2010 for Romania. Assuming an economic increase of 2 to 5 % for this period, then in 2010, the absolute poverty could be reduced to 7 to 9 % out of total population.

World Bank, Poverty assessment report, 2007.

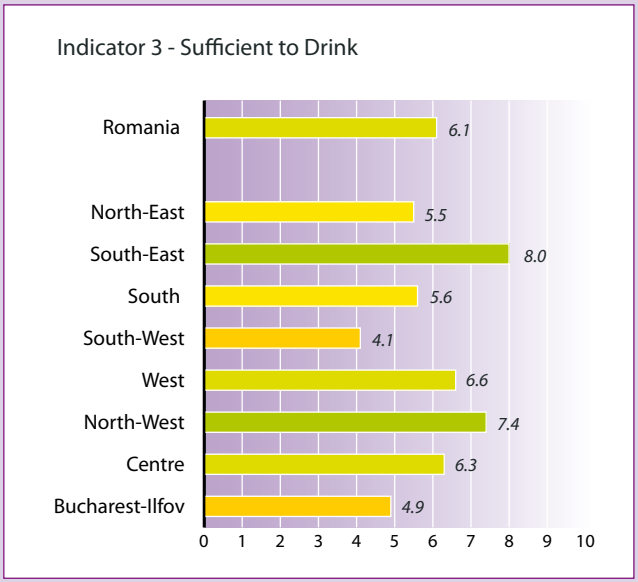
The World Bank outlook for 2007-2010 mentioned above most probably will turn out to be too optimistic, due to the present economic crisis.



Indicator 3

Sufficient to Drink

Description indicator: Number of localities connected to a drinking water system, as percentage of total number of localities
Source: Ministry of Development, Regional Development Operational Programme
Year: 2005



Indicator
In the SSI-Romania-2008 data have been used concerning the number of people with access to an improved water source as percentage of the total population. Since such data were not available at regional level in Romania, we have decided to use data of the number of localities connected to a piped drinking water system, as percentage of total localities. Of course this does not necessarily mean that localities not covered with a piped system do not have adequate water supply. In any case they lack the convenience of a piped system. The current approach explains why scores are lower than could be expected in view of SSI-Romania-2008.

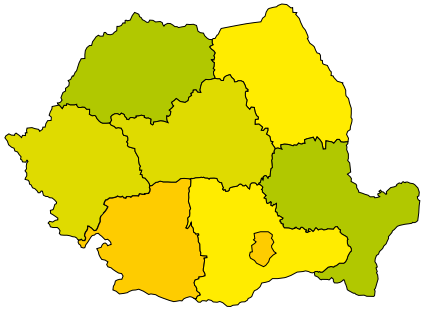
Scores
Scores for this indicator range from 4.1 (for South-West region) to 8.0 (for South-East region) with a score for Romania of 6.1. One may notice that 3 neighbouring regions, West, North-West and Centre scored above the national score, while the other regions, except South-East region, all scored lower than the national score.

Regional differences
At regional level major differences are found between the Eastern regions of Romania. The coverage of drinking water systems in South-East region is much better than in the other two neighbouring regions. Of all localities in this region, 80% have piped water systems. South-West region has the lowest coverage percentage, with only 41.3% of all localities being covered with piped water systems.

Developments
With respect to the total volume of drinking water provided to households in 2005 and 2006 in Romania, it appears that in three regions the total volume of drinking

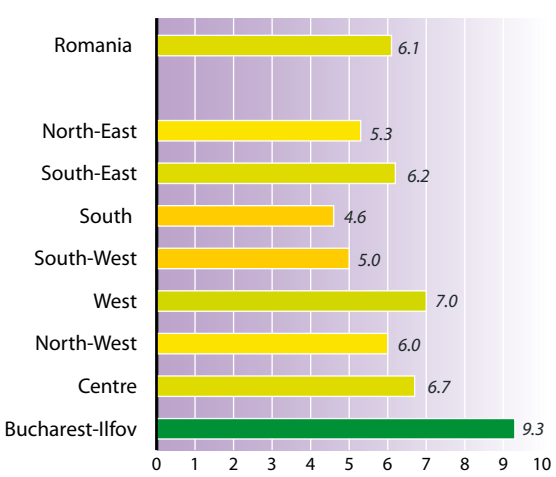
water supplied has decreased (South, West and North-East regions), while in the other five regions an increase of the supplied volume took place. This might reflect that in most of the latter regions new water networks have been installed and thus more localities have received access to the piped drinking water system.

Changes in volume of supplied drinking water (in %)
2005-2006



Indicator 4
Safe Sanitation

Description indicator: Population connected to a sewerage system as percentage of total population
Source: NIS
Year: 2005



Indicator
Indicator 4 – Safe Sanitation reflects the percentage of the population connected to sewerage systems in Romania at national and regional level. For the SSI-Romania-2008 the percentage of people with access to improved sanitation facilities as defined by WHO has been used as the yardstick. These data are not available on regional level. One has to bear in mind that access to improved sanitation facilities comprises more than connection to a sewerage system. Septic tanks, pour-flush latrines, simple pit latrines and ventilated improved pit latrines are also considered to be improved sanitation facilities. That may explain why scores are lower than could be expected in view of SSI-Romania-2008.

79% of all waste water which is not or insufficiently treated ends up in rivers. Only 52% out of the total population benefits from access to both piped drinking water and sewerage systems.

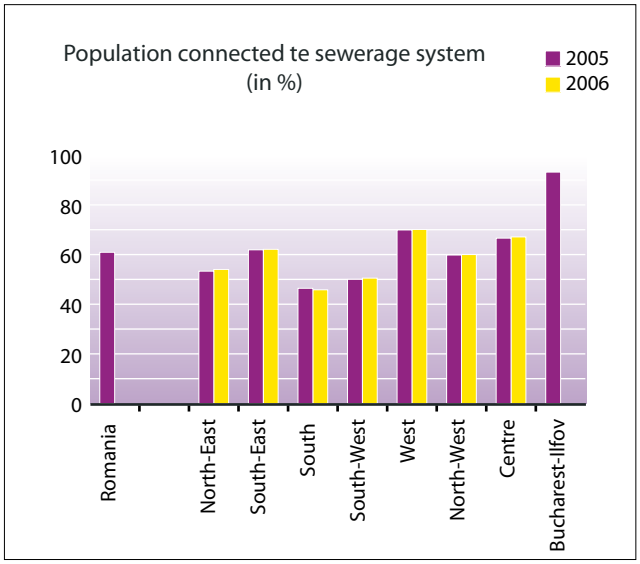
Ministry of Environment, Environmental Operation Programme, 2007

Scores
Except for Bucharest-Ilfov region, all regional scores for this indicator range from 4.6 (South region) to 7.0 (West region). Bucharest-Ilfov region is scoring by far the best with a score of 9.3 for this indicator.

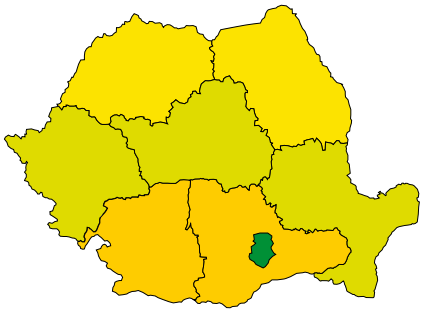
Regional differences

Looking at the geographical positioning of the regions with lowest and the ones with the highest scores one can notice that Bucharest-Ilfov region, where the coverage percentage of sewerage systems is 93.2, is surrounded by South region where the coverage percentage is only 46.4. A much more equal distribution of coverage percentage is found in the Western, North-Western and Central regions of Romania, where over 60% of the population is connected to a sewerage system.

Developments

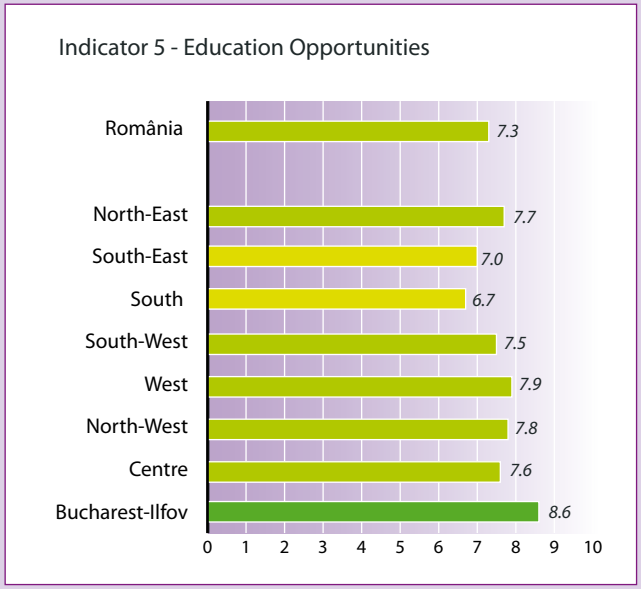


In many regions of Romania, the sewerage systems are old and need urgent rehabilitation. Furthermore, in the last years only little changes have occurred in the number of people connected to these systems. The Environmental Operational Programme which was designed by Romanian authorities and approved by the EU Commission, gives the legal and financial framework for improving the sanitation services all over the country. It is now estimated that by 2020 10 million people (= 93%) from urban areas and 8 million people (= 79%) from rural areas will have access to both piped water and sewerage systems.



Indicator 5
Education Opportunities

Description indicator: Combined gross enrolment rate for primary, secondary and tertiary education
Source: RDAs
Year: 2006

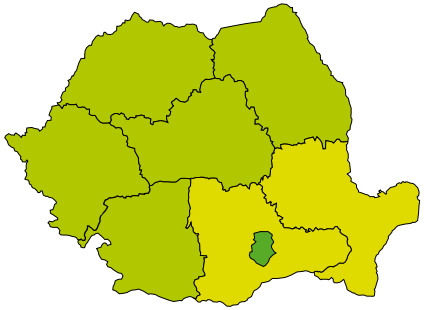


Indicator
Indicator 5 – Education Opportunities reflects the combined gross enrolment rate for primary, secondary and tertiary school. In Romania, the compulsory education system includes 10 grades, starting with the age of 7 to the age of 16-17.
The gross enrolment rate reflects the total number of pupils enrolled in primary, secondary and tertiary schools, regardless of their age. The net enrolment rate confines the number of pupils to the ones that are of school age.

Scores
The highest score for this indicator is found for Bucharest-Ilfov region, which includes the capital city of Romania (8.6). 6 other regions have scored above 7.0 and only one region below this figure. The score for Romania is 7.6. South region has the lowest score, 6.7.

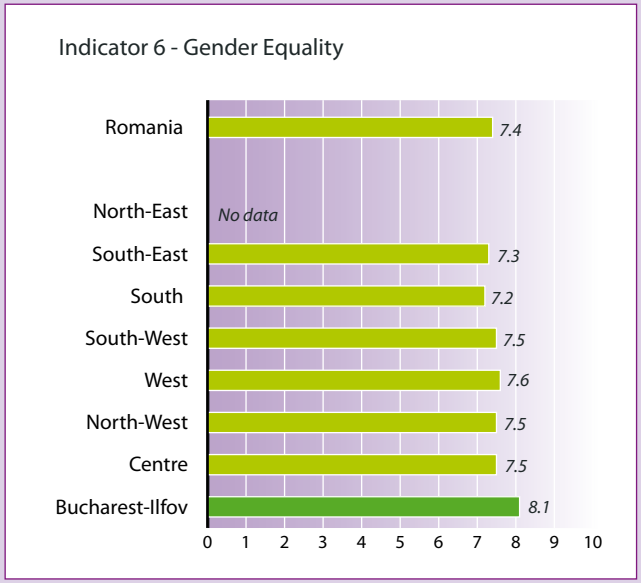
Regional differences
At first glance, the regional differences seem to be quite small, but analysing the underlying figures one must conclude that education opportunities are higher in Bucharest-Ilfov, West and North-West region, while in South and South-East region people have less education opportunities. One has to bear in mind that at national level a difference of only 1% means on average a number of no less than some 30,000 pupils!

Developments
Due to lack of historical data no regional developments over the last period of time can be presented.



Indicator 6
Gender Equality

Description indicator: Gender Equality Index
Source: SSF
Year: 2006



Indicator
Gender Equality reflects the equality of chances of men and women, boys and girls in society. The Gender Equality Index is based on the methodology of the UNDP, presented in the regular Human Development Reports. It has been calculated by SSF experts taking into account the following aspects: life expectancy at birth, education opportunities and income distribution. Contrary to the Human Development Report, data about adult literacy are not included, due to lack of these data. Thus the scores are not completely comparable to the ones in the SSI-Romania-2008.

Scores
The scores for this indicator range from 7.2 for South region to 8.1 for Bucharest-Ilfov region. Note that due to lack of data no score has been calculated for North-East region. The overall score for Romania is 7.4.

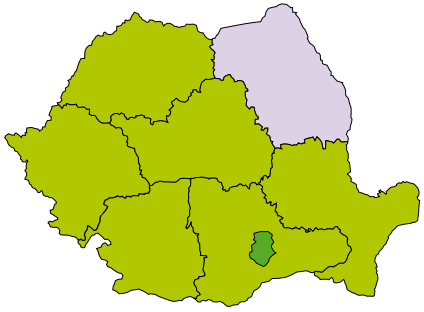
Regional differences
Since the scores are all within a small range (from 7.2 to 8.1) one must conclude that there are no major differences between the regions. However, the highest score and the lowest score have been obtained by two neighbouring regions. Bucharest-Ilfov is the region with the capital city and with many opportunities for both men and women, so it is not surprising this region has the highest score. South region is surrounding Bucharest-Ilfov region, but the geographical proximity apparently is not sufficient for enhancing the score for South region (only 7.2) to the level of Bucharest-Ilfov region.
In one of the latest reports on gender equality in Romania, the Centre for Partnership for Equality concluded that women are getting less involved in decision-making processes compared with men. They are also having less education opportunities and gaining less money than men do.

Developments

Since data over time are not available, regional developments over time cannot be presented for this indicator.

Romanian women are less educated and paid than men and they are not getting involved in decision-making. These are the results of a research about gender equality. The research also reveals that there are major differences between women and men in income, both from industry as well as from other more "feminized" fields of activity such as public administration or retails.

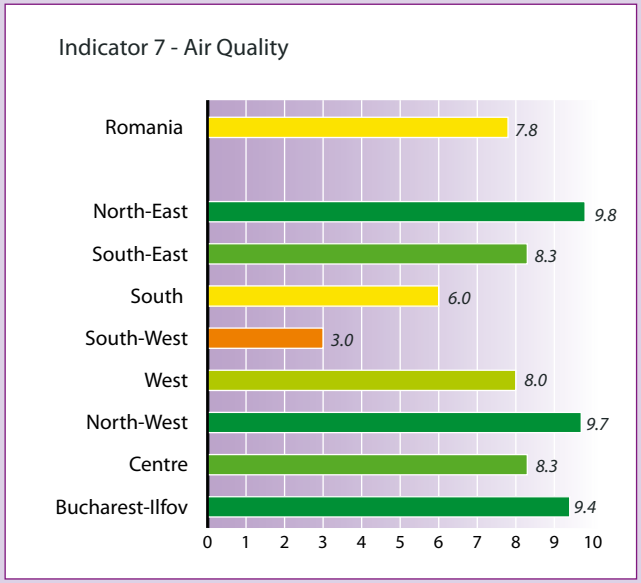
Centre for Partnership for Equality,
A study about gender equality in Romania, 2007



Indicator 7

Air Quality

Description indicator: Air quality with respect to concentration of SO_2 and NO_x
Source: NEPA
Year: 2006

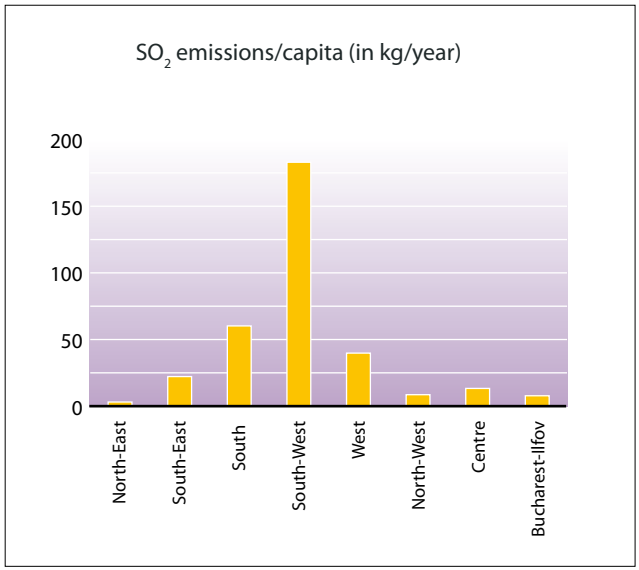


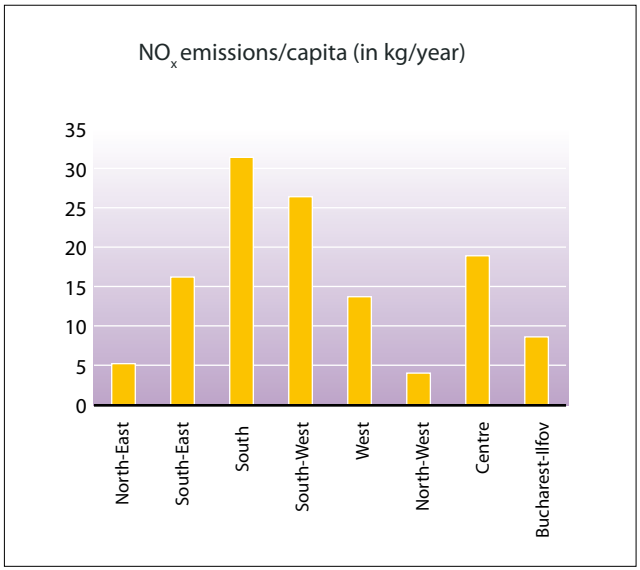
Indicator
For expressing the air quality conditions of Romanian regions, data about two compounds – SO_2 and NO_x – have been used. However, the available data at regional level for these two compounds are not very accurate, thus the scores are not as reliable as they should be. For improving the data accuracy a new national air quality monitoring system is now being developed in Romania.
For the SSI-Romania-2008 four variables have been used, so a direct comparison with the current results is not possible.

Scores
Air quality is one of the environmental indicators which is almost always quoted and taken into consideration whenever somebody wants to refer to environmental conditions of an area. The scores for each region in Romania are based on the available data about air quality.

That seems a very obvious remark, but here it is relevant, since some regions have reported much more accurate data than other regions. The highest score was obtained by North-East region (9.8), while South-West region has registered the lowest score (3.0), of course with a degree of uncertainty given the inaccuracy of some data.

Regional differences
The scores show large differences between regions. Seven regions have scores ranging from 6.0 to 9.8. Only one region, South-West region, has a score much out of this range: a mere 3.0. The reported per capita emission of SO_2 in 2006 in South-West region has a value of no less than 183 kg/year, which is highly unlikely. The average for EU-27 is 16.8 kg per capita per year in 2005.

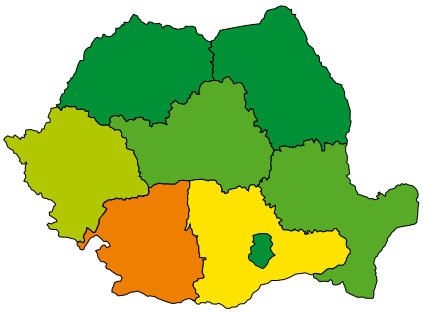




For NO_x emissions the highest value of emission per capita is found in South region, the lowest one in North-East region. In absolute figures, air pollution due to NO_x in North-East region is 4.0 kg of NO_x per capita per year in 2006, while the emissions per capita in South region are 31.4 kg/year. The average for EU-27 is 22.7 kg per capita per year.

Developments

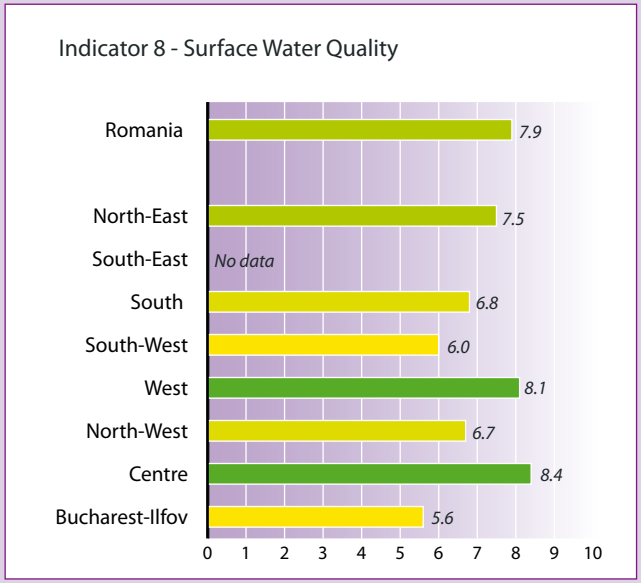
Due to lack of accurate data over time no developments on regional level can be presented.



Indicator 8

Surface Water Quality

Description indicator: Quality of the surface water as monitored in five quality classes
Source: NIS and REPAs
Year: 2006 and 2007



Indicator
The assessment of the surface water quality is carried out by monitoring a number of parameters: biological, hydro-morphological and physic-chemical parameters, the priority pollution agents and other pollution agents evacuated in important quantities. Five quality classes are distinguished, ranging from first quality class – very good state, to fifth quality class – bad state.

Scores
The scores for this indicator range from 5.6 (for Bucharest-Ilfov region) to 8.4 (for Centre region). Only two regions are scoring higher than the national score while the rest are below the 7.9 value which represents the national score. Due to lack of data we were not able to calculate the score for South-East region.

Regional differences
Centre, West and North-East region have scored above the national average. On the other hand, the Southern regions as well as North-West and Bucharest-Ilfov region score below the national average.

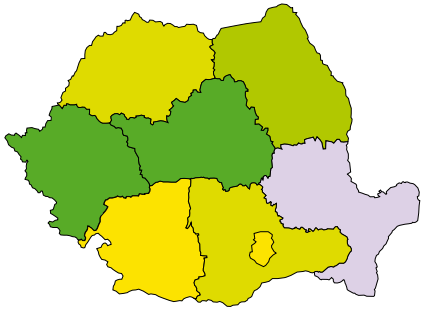
Water Quality						
Region	total length of monitored rivers (km)	Quality Class				
		I	II	III	IV	V
		Monitored length per class (in %) 2006				
Romania	27056	30	46	17	5	2
North-East	2367	14	62	11	12	1
South-East						
South	4788	17	35	24	18	6
South-West		0	33	42	17	8
West		32	46	17	4	1
North-West	3123	4	50	29	10	7
Centre	3224	37	52	9	1	1
Bucharest-Ilfov			22	50	14	14

Developments

In Romania, 27,056 km of the rivers were monitored in 2006, which represents almost 35% of the total length of rivers. The monitored length in 2006 was about 9% higher than in 2005.

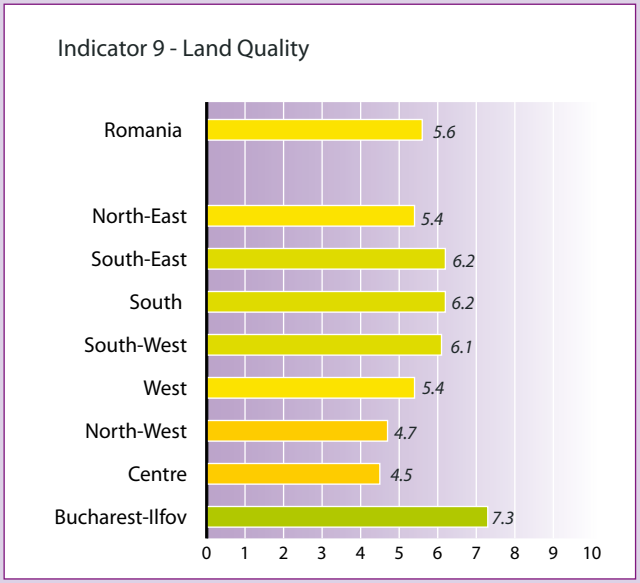
Since quite some years Romania is working together with relevant actors in the European Union on improvement of its water quality.

The European Commission adopted a proposal for a new Directive to protect surface water from pollution on 17 July 2006 (COM(2006)397 final). The proposed Directive, which is required to support the Water Framework Directive, will set limits on concentrations in surface waters of 41 dangerous chemical substances (including 33 priority substances and 8 other pollutants) that pose a particular risk to animal and plant life in the aquatic environment and to human health.



Indicator 9
Land Quality

Description indicator: Land quality as monitored in five quality classes
Source: NIS
Year: 2007, except for Bucharest-Ilfov region (year 2006)



Indicator
Indicator 9 – Land quality indicates the quality of monitored used land areas based on five quality classes. The average score for Romania and the score for Bucharest-Ilfov region are calculated for year 2006, the other regional ones for year 2007. The changes of the scores at regional level do not show a significant change, thus the present analysis is quite representative for year 2007.

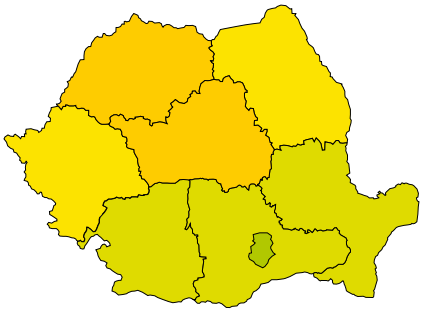
Scores
Five regions score within a range from 5.4 to 6.2, two (North-West and Centre region) score below this range and one (Bucharest-Ilfov region) is with a score of 7.3 (significantly) above this range.

Regional differences
Analyzed from a geographical perspective, the scores stand for a relatively well identifiable regional differentiation. In general terms, Southern regions have better Land quality than the other regions. More specifically, for Centre region the lowest land quality score is found, while the Southern regions score above and the Western regions below the average for Romania. This pattern is reinforced by the score of Bucharest-Ilfov region which can be considered the centre of the Southern area.

Land Quality								
				Quality Class				
				I	II	III	IV	V
	Total surface (ha)	Used total surface (ha)	Year	% from Used total surface				
Romania	23,839,100	14,557,065	*2006*	5	21	33	27	13
North-East		2,799,705	2007	2	24	30	31	13
South-East	3,576,200	2,263,876	2007	5	32	39	18	7
South		4,420,031	2007	7	12	69	9	3
South-West		1,518,155	2007	8	28	32	24	7
West		1,410,949	2007	7	19	30	27	17
North-West		1,756,016	2007	2	12	28	36	22
Centre		1,926,140	2007	2	8	28	41	22
Bucharest-Ilfov	182,100	115,945	*2006*	4	66	23	4	4

Developments

Improvement of land quality proves to be a very slow process. There is not only progress, but also deterioration or no change. The latter is the case in North-West region, at least according to the achieved scores. The two regions which improved their land quality from 2006 to 2007 are North-East and South region; the ones that are facing deterioration of land quality are South-West and West region.



Indicator 10
Good Governance

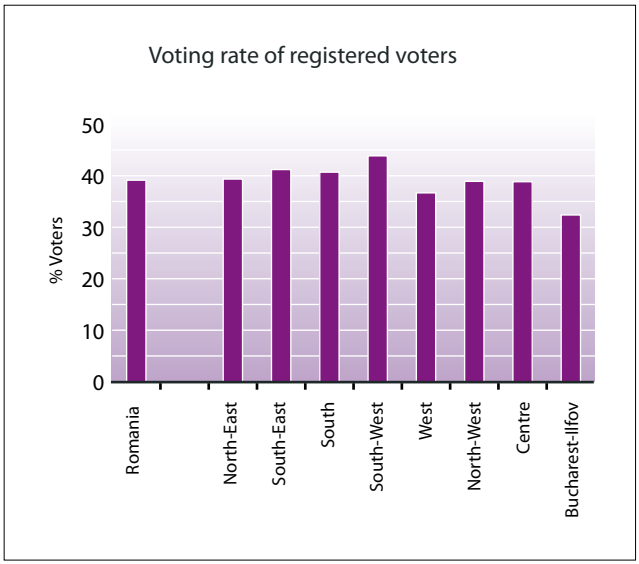
Description: The average of the values of 6 governance indicators of the World Bank

Indicator
This indicator reflects the values of 6 indicators of Good Governance as established by the World Bank. These are: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption.
In 2008, when we prepared the national Index – SSI-Romania-2008 – we calculated this indicator, based on World Bank data. Unfortunately, for the regional index we were not able to find specific data necessary to calculate the scores for each region of Romania.

Scores
No scores could be calculated for this indicator. To be able to calculate the overall index for each region, the score of Romania in the latest update of the SSI, SSI-2008, 5.2, has been adopted for each region.

Alternative indications
As mentioned, data about good governance in Romania are missing at regional level. Still, we were able to collect data about voting rate of registered voters, crime rate and level of implementation of action plans for environment. These data reflect to a certain extent the quality of governance at regional level.

Voting rate
In the local elections of 2008 in Romania, almost 40% of the total registered voters used their voting right. As one can see in the graph below, there were no major differences between regions. Still, the best voting rate has been registered in South-West region (43.9%) while the lowest rate was in Bucharest-Ilfov region, where only 32.4 % of total registered voters participated in the local elections.



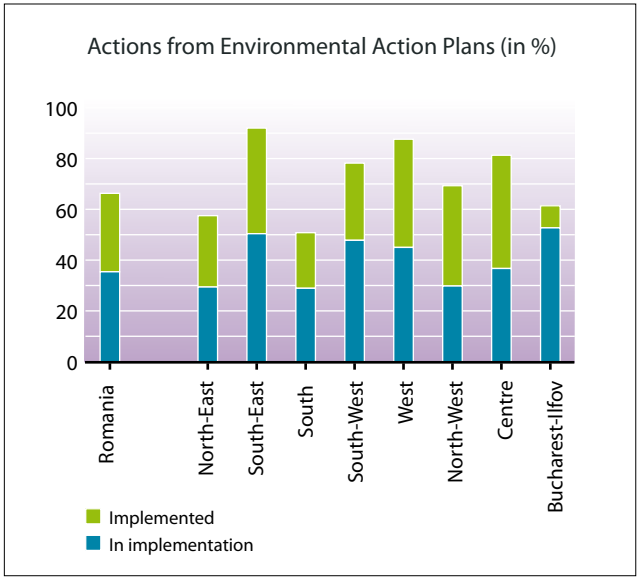
Crime rate (per 100,000 inhabitants)									
	1995	2000	2001	2002	2003	2004	2005	2006	2006 in % 1995
Romania	448	336	370	375	353	320	304	263	59
North-East	458	376	397	429	401	382	366	325	71
South-East	456	366	402	423	402	342	316	273	60
South	433	270	322	344	319	267	249	214	49
South-West	577	401	467	431	430	372	364	293	51
West	525	340	365	359	335	290	270	277	53
North-West	463	354	367	367	346	395	354	270	58
Centre	437	322	320	305	306	242	241	245	56
Bucharest-Ilfov	238	252	321	318	257	237	241	187	79

Crime rate

As shown in the table below crime rates were decreasing in all regions over the period 1995 – 2006, with a temporary increase between 2000 and 2002 in most regions. One notices that these are decreasing constantly. In absolute numbers South-West region showed the strongest decrease of the crime rate, viz. from 577 crimes (per 100,000 inhabitants) in 1995 to 293 crimes in 2006.

Implementation of Environmental Action Plans

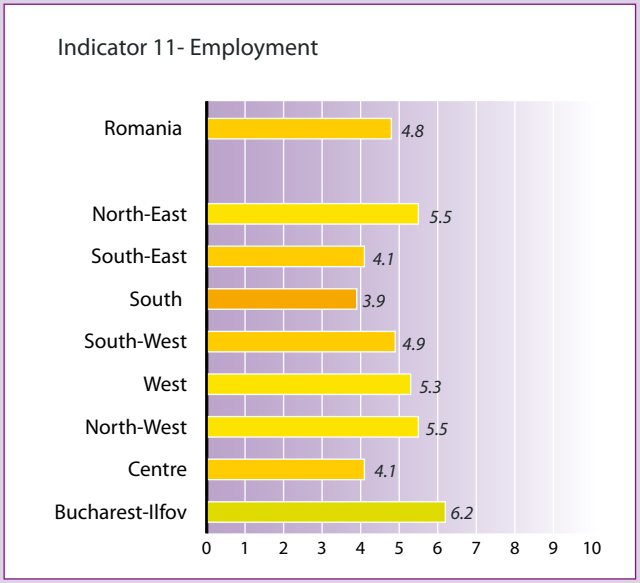
NEPA (National Environmental Protection Agency) has initiated the development and implementation of local, regional and national action plans for the environment. These documents comprise a project portfolio aiming not only at improving the environmental conditions at local, regional or national level, but also at a sustainable development of all regions of Romania. As shown in the graph below, all regions have implemented or are currently implementing more than 50% of the total actions mentioned in their plans. The rest of the actions has been either postponed or cancelled. With only about 50% South region has the lowest implementation rate.



Indicator 11

Employment

Description indicator: Unemployment as percentage of total labour force
Source: Territorial Statistics, NIS, 2008
Year: 2006



Indicator

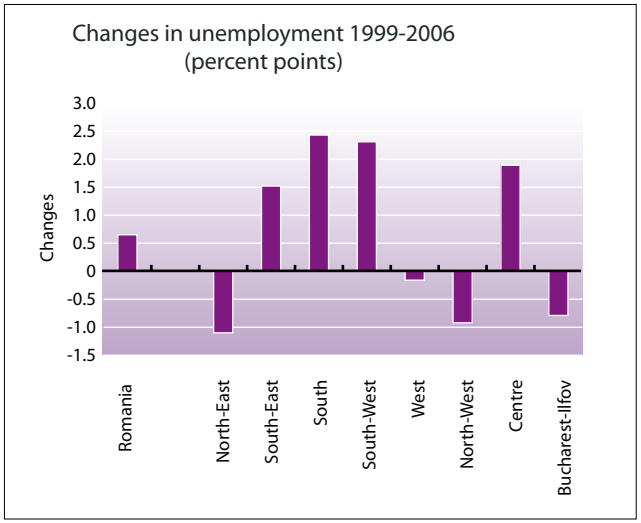
This indicator reflects the state of the art of the Romanian labour force market. The total labour force in 2006 was 10,041,000, the number of employed persons was 9,313,000, thus 92.7 % of the total labour force is employed and 7.3 % is unemployed.

	% unemployed 2006
Romania	7.3
North-East	5.9
South-East	8.9
South	9.4
South-West	7.1
West	6.4
North-West	5.9
Centre	9.0
Bucharest-Ilfov	4.7

Scores

The scores range from 6.2 for Bucharest-Ilfov region to 3.9 for South region. The national average score is 4.8.

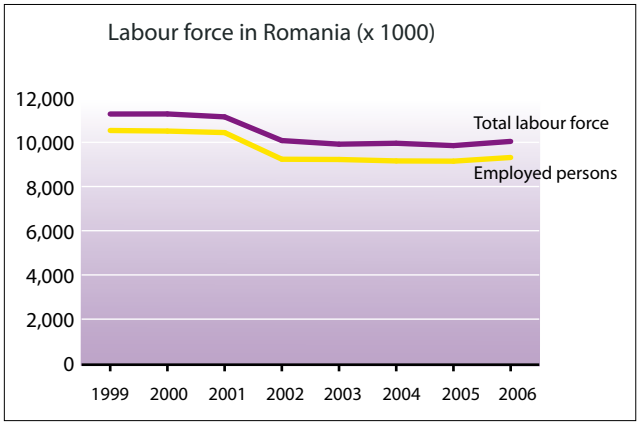
Regional differences



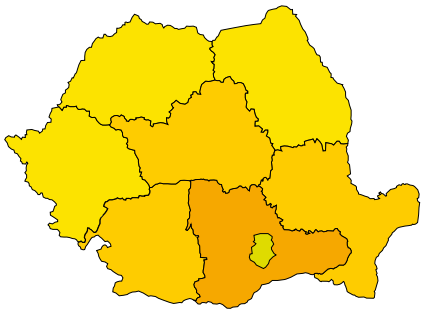
Note: a decrease is positive, since it means diminishing unemployment.

Differences between regions are substantial. Some regions report a decrease in unemployment over 1999 – 2006 (North-East, North-West, Bucharest-Ilfov and West region), while others report an increase (South, South-West, Centre and South-East region). Overall unemployment in Romania increased by 0.6% over 1999 – 2006.

Developments



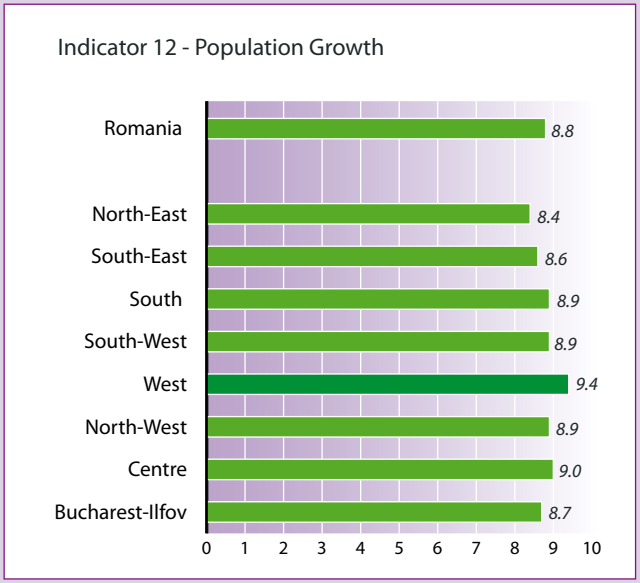
Developments over time show that in the period of 1999 – 2005 the total labour force decreased from 11,280,000 to 9,851,000, with a slight increase in 2006 to 10,041,000. The number of employed persons shows a similar pattern. The average percentages of unemployment for Romania fluctuated during this period between 8.4% and 6.4%. In 2006 this value is 7.3%. The tendency over the last two years is that the total labour force is increasing, while the percentage of unemployment from the total labour force stays more or less equal just above 7%. This percentage may increase during the coming period, due to the present economic crisis.



Indicator 12

Population Growth

Description indicator: Average annual population growth over 2000 - 2005
Source: NIS
Year: 2008



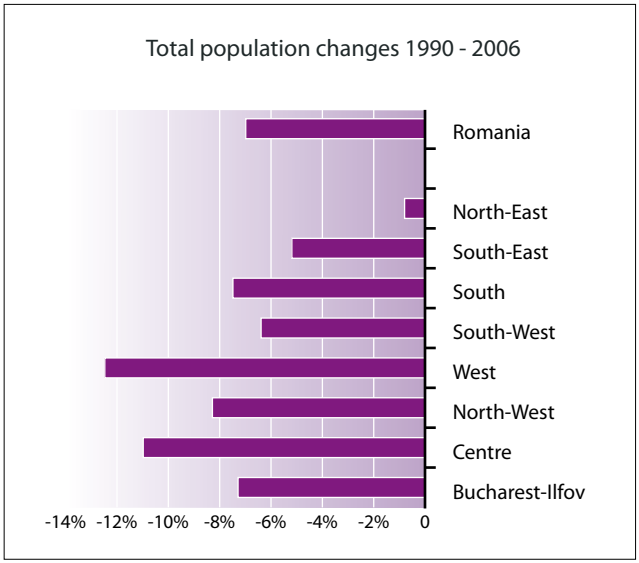
Indicator

This indicator reflects the changes over time of the total number of inhabitants of a region. For calculating this indicator for the regional index the average annual population growth over 2000 – 2005 for each region has been used.

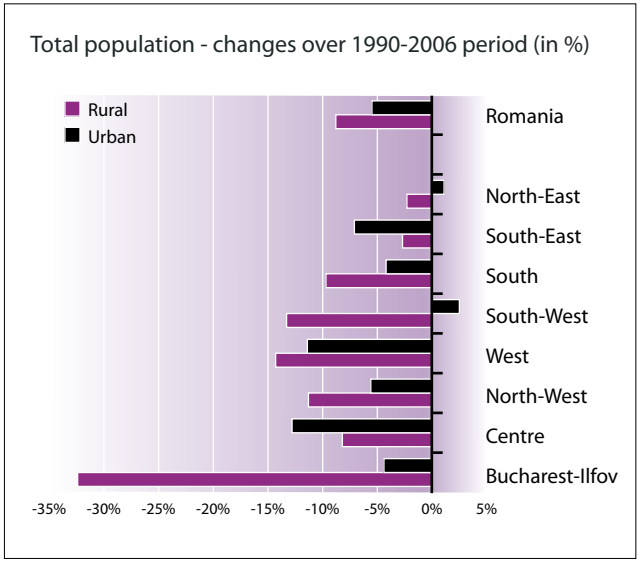
Scores

The scores of the indicator range from 8.4 in North-East region to 9.4 in West region. The average score at national level is 8.8. There are no considerable differences between the regions, with the exception of West region which scores 9.4. West and Centre region are the only ones with a score above 9, the other regions scoring between 8.4 and 8.9.

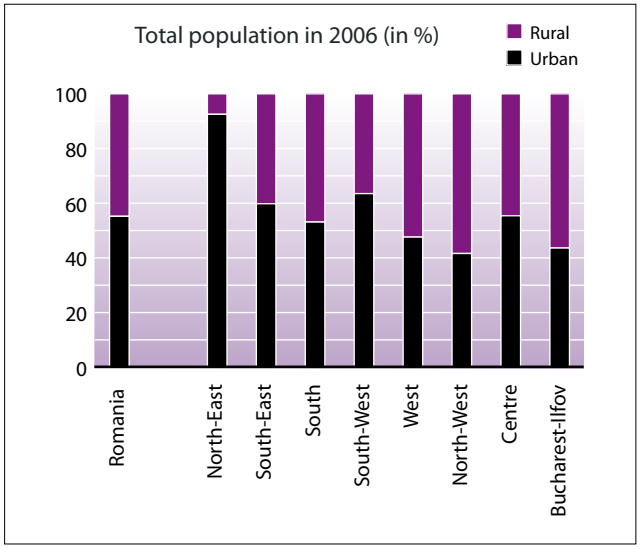
Regional differences

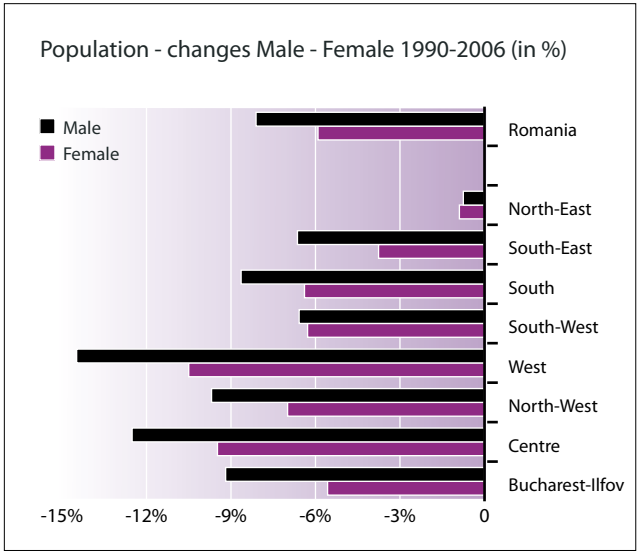


In all regions total population decreased over the period 1990 – 2006. However, differences in changes over the regions are considerable. West and Centre region saw their population decrease by over 10%, while the decrease in North-East was only 1.1%.



Changes in urban and rural population also show large differences, as one may see in the graph above. Only two regions saw an increase in urban population, North-West and South-West region. The urban – rural rate is very unequal over the regions, as is shown in the table below. Rural population is larger than the urban one in 3 regions, South, North-East and South-West.

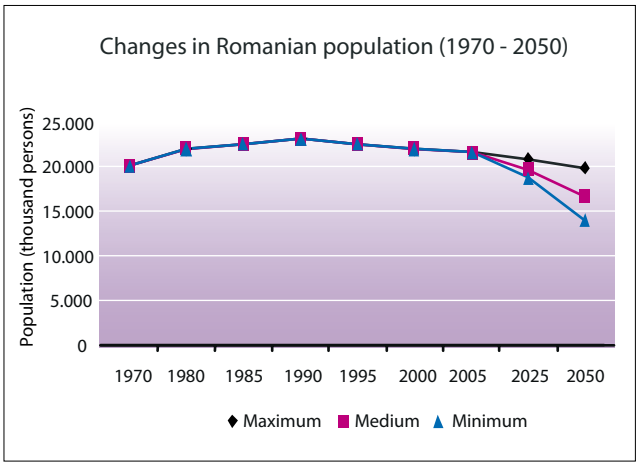




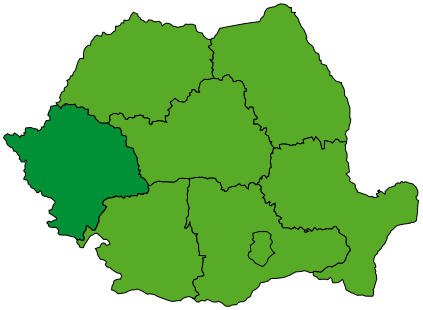
Besides total population and urban versus rural population, differences in changes of the rate of male and female population are relevant. Also in this respect differences between the regions are considerable. In

all regions the decrease of male population has been substantially larger than of female population, except in North-East and South-West.

Developments



While total population of Romania increased between 1970 and 1990, it decreased since then, as is shown in the graph above. Projections of the number of inhabitants of Romania point out a further decrease. No distinction in the projections has been made so far between the regions.



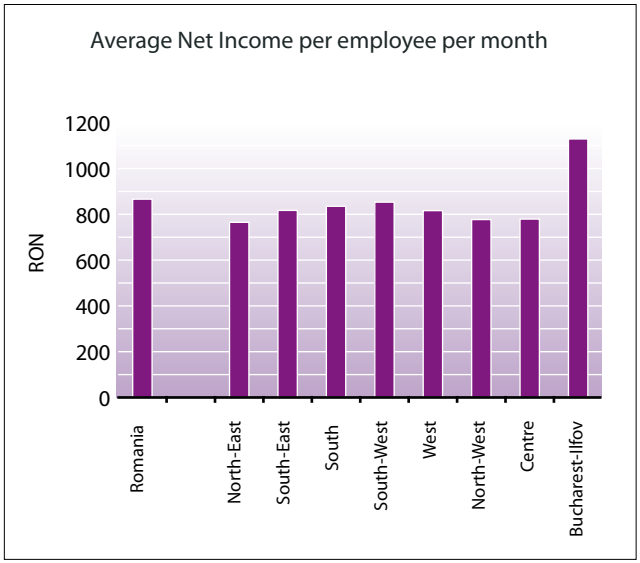
Indicator 13
Income Distribution

Description: Ratio between the income of the richest 10% and the poorest 10% of the people in a country or region

Indicator
This indicator is reflecting the distribution of incomes between different groups of the population. It is a relevant indicator for the balance and social quietude of a country or region. In 2005, in Romania, the poorest 10% of the population had a share of 3.3% of the total expenditure where the richest 10% shared 24.4%.

Scores
Due to lack of data on regional level, no scores could be calculated for this indicator. To be able to calculate the overall index for each region, the score of Romania in the latest update of the SSI, SSI-2008, 7.4, has been adopted for each region.

Alternative indications
As mentioned before, scores for indicator 13 could not be calculated. However, some data about income are available at regional level. As background information data about net income at regional level are presented.



Regional differences
The highest incomes are earned by people from Bucharest-Ilfov region, while the other regions are all close to the average net income (which is 866 RON per month per capita in 2006). The lowest net income per capita per month is earned by the population of North-East region.

Indicator 14

Public Debt

Description indicator: The level of public debt – and if this figure is lacking, the foreign debt – of a region as percentage of Gross Domestic Product

Indicator

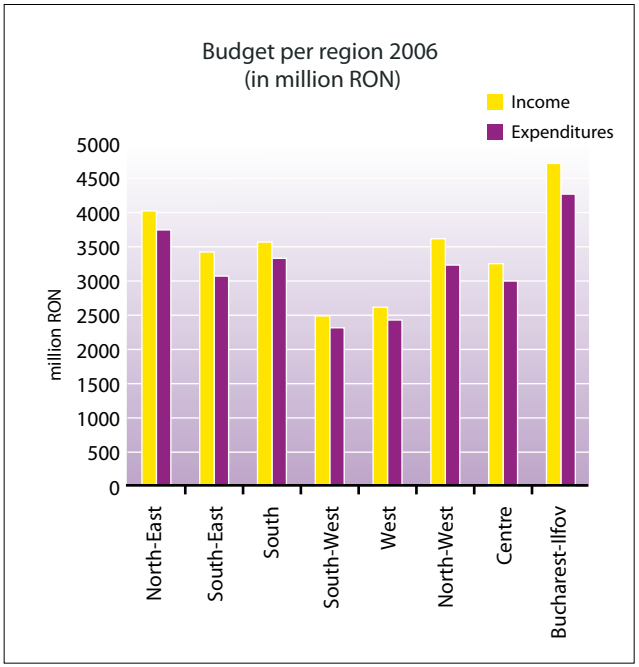
This indicator is reflecting the level of public debt of a country or region as a percentage of Gross Domestic Product (GDP). This indicator is very important since the level of public debt is an indication for the level of freedom in decision making of a region, especially with respect to budget allocation.

Scores

Data about public debt are not available at regional level in Romania. Due to lack of these data no scores could be calculated for this indicator. To be able to calculate the overall index for each region, the score of Romania in the latest update of the SSI, SSI-2008, 8.5, has been adopted for each region.

Other data

Data about the yearly budget for each county are available. These have been totalized to the regional budgets as shown in the next graph. All regions appear to have had a budget surplus in 2006. This is in itself a positive indicator. However, it doesn't reveal information the status of the public debt.



Indicator 15
Waste Recycling

Description indicator: Recycled solid waste as percentage of the total quantity of solid waste

Indicator

Indicator 15 should give an overall picture of the quantity of waste that is recycled. However, available data are insufficient and incomplete.

On regional level data about recovered municipal waste are available, thus the total of reused and recycled municipal waste. Unfortunately, since these data are not broken down in their two components, they cannot be used for calculating the indicator. On the one hand because they would show a large underestimation of recovery since the total quantity of waste in the country is much more than collected municipal waste only. On the other hand, the ratio between reused and recycled materials is not known. Thus, no scores for this indicator can be presented.

Scores

As mentioned before scores for indicator 15 could not be calculated. To be able to calculate the overall index for each region, the score of Romania in the latest update of the SSI, SSI-2008, 2.1, has been adopted for each region.

Recovery includes reuse and recycling. **Reuse** means to use an item more than once. This includes conventional reuse where the item is used again for the same function, and new-life reuse where it is used for a new function. In contrast, **Recycling** is the breaking down of the used item into raw materials which are used to make new items.

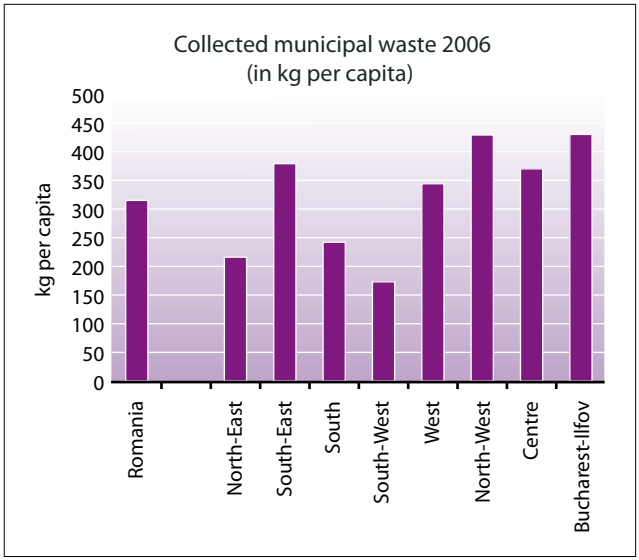
Alternative indications

The available data on collection and recovery of municipal waste offer at least some indication as to the situation with respect to waste recycling, and will be presented in this paragraph. The available data are shown in the following tables.

	Collected municipal waste (x 1000 tonnes)				Change 2003-2006
	2003	2004	2005	2006	
Romania	6353	6717	7025	6809	7.2%
North-East	888	861	916	807	-9.1%
South-East	904	795	983	1074	18.8%
South	693	578	882	803	15.8%
South-West	427	364	488	397	-7.0%
West	679	686	607	664	-2.2%
North-West	1100	1094	1359	1172	6.6%
Centre	786	1082	865	936	19.2%
Bucharest-Ilfov	876	1257	924	955	9.1%

	Recovered municipal waste in % collected municipal waste			
	2003	2004	2005	2006
Romania	0.31	1.25	2.07	0.60
North-East	0.12	0.16	0.12	0.38
South-East	0.13	8.02	10.86	0.41
South	0.09	0.21	0.37	0.58
South-West	0.06	0.08	2.40	0.64
West	0.34	0.23	0.17	0.12
North-West	0.53	0.14	0.33	0.40
Centre	0.38	0.15	0.25	0.38
Bucharest-Ilfov	0.62	0.99	1.62	1.81

Regional differences



The collected municipal waste per capita varies in 2006 from 173 kg per capita in South-West region to 430 in Bucharest-Ilfov region. The average quantity of generated municipal waste in the EU-27 is with 523 kg per capita in 2006 substantially higher.

The percentages of waste recovered (of collected municipal waste) in each of the 8 regions are very low. They vary between 0.12% and 1.81%. The average percentage of waste recovery in Romania is 0.60% of total waste collected. The only region that scores far above the national average is Bucharest-Ilfov region, registering a recovery of 1.81%, as can be seen from the table in the previous paragraph The lowest percentage is recorded in West region where only 0.12% of the waste is recovered. The values of the other six regions show only marginal differences. They vary from 0.38% in North-East region to 0.64% in South-West region.

Developments

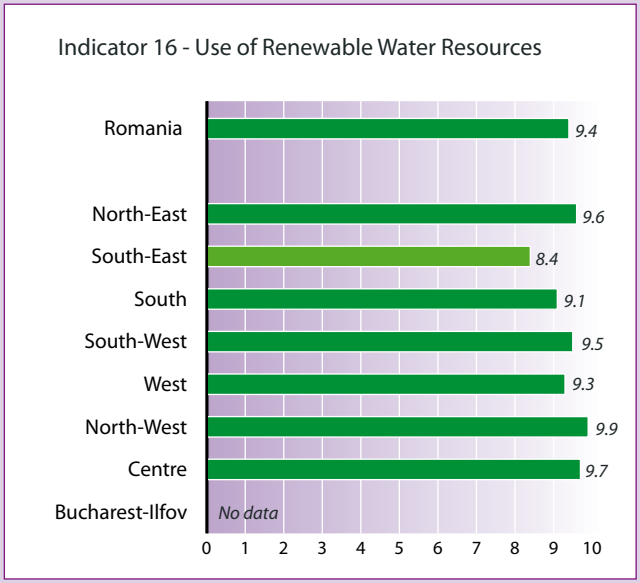
Over the period 2003 - 2006 the total quantity of collected waste in Romania increased on average by only 7.2%, with a decrease for North-East, South-West and West region. However, looking more closely at the underlying figures, one sees peculiar fluctuations. It is worthwhile to examine the causes of these fluctuations more in detail.

On average the percentage of recovered waste doubled in three years from 2003 – 2006, except for North-East, South-West and West region where it decreased. However, it appears that recovery percentages are fluctuating very strongly over time. This could be true, but could also be due to lack of reliability of the underlying data. The presented data for South-East and South-West region are highly improbable.

Indicator 16

Use of Renewable Water Resources

Description indicator: Water intake as percentage of the total theoretical water resources
Source: NEPA
Year: 2006



Indicator

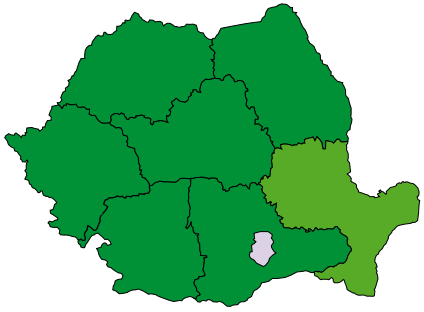
This indicator reflects the sustainability of usage of water resources at regional level. It is expressed as percentage of actual water intake out of the total theoretical water resources. In SSI-Romania-2008 other data have been used for calculating the scores for this indicator, viz. the water consumption from renewable water sources. Unfortunately, this type of data is not available at regional level in Romania. Thus data about actual water intake per region have been used.

Scores

The scores for this indicator concerning renewable water resources are generally high, ranging from 8.4 to 9.9. The lowest score was found in South-East region (8.4), while North-West region had with 9.9 the highest score. The overall score for the country is 9.4. No data were available for Bucharest-Ilfov region.

Regional differences

Differences between the regions are only small. Western and Central regions score higher than the Eastern/Southern regions, except for North-East region, which also has a high score of 9.6.



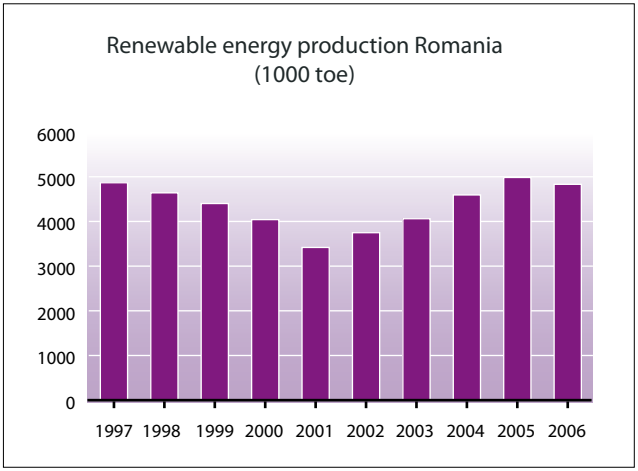
Indicator 17
Consumption of Renewable Energy

Description indicator: Consumption of renewable energy as percentage of total energy consumption

Indicator
Indicator 17 refers to the total energy consumption of a country/region from renewable energy sources. These sources include: hydro, wind, solar, biomass and thermal power.

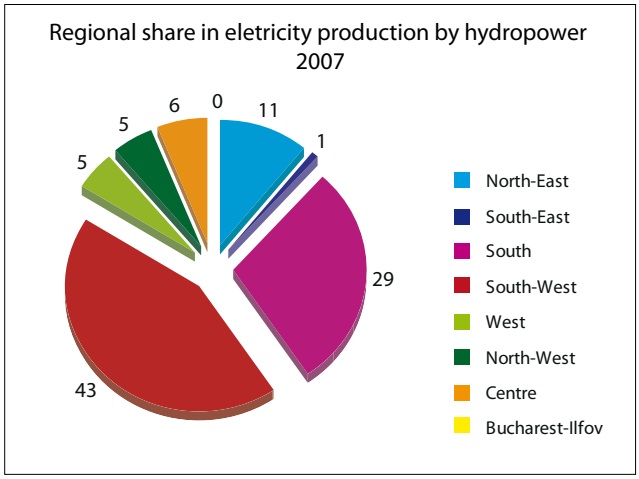
Scores
No or only incomplete data could be found regarding renewable energy sources on regional level. Only data about hydropower are – to some extent – available at regional level. Contrary, there is a severe lack of data with respect to wind-, solar- and geothermal energy sources. Unfortunately calculation of this indicator conform the definition is thus not possible. In order to be able to calculate the overall index for each region, the score of Romania in the latest update of the SSI, SSI-2008, 1.3, has been adopted for each region.
This score reflects a very poor consumption of energy from renewable sources, only 1.3%. It is way below the EU-target of 24% in 2020.

Alternative indications
As mentioned before no scores for this indicator could be calculated. However, data on total renewable energy production in the country and the regional share of hydropower in electricity production do give some indication.



As recorded by Eurostat, the total primary production of renewable energy in Romania has been fluctuating over the last 10 years, with again a slight decrease in the last year. Still, the percentage of renewable energy out of total primary production is very small.

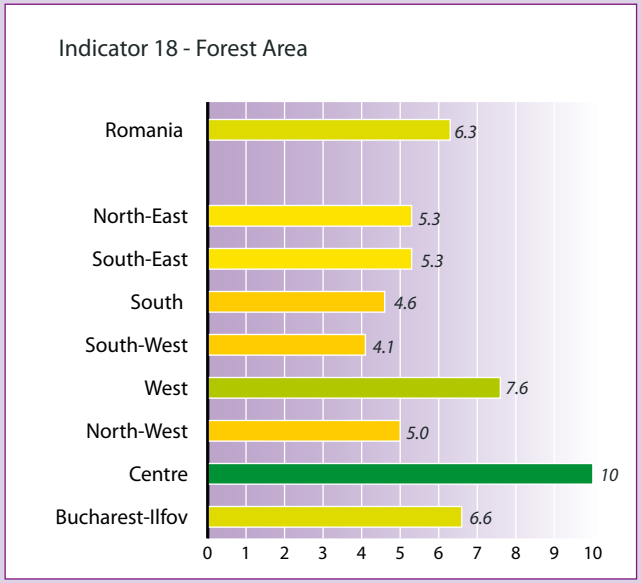
Regional differences
The overall hydro-energy production of Romania in 2007 was 15,806,932 MWh, which makes up 29.4% of the total electricity production of the country. The largest share of this hydro-energy production comes from South-West region of the country with 12.8%. The South region is the second largest producer of hydro-energy with a contribution up to 8.5% out of the total of 29.4%.


Regional share in eletricity production by hydropower 2007
11
1
29
43
5
5
6
0
North-East
South-East
South
South-West
West
North-West
Centre
Bucharest-Ilfov

Indicator 18

Forest Area

Description indicator: Changes in forest area of a region as percentage of total forest area of Romania in the period 1990-2006
Source: NIS
Year: 1990 - 2006



Indicator
Indicator 18 reflects the changes in forest area over time at regional level in Romania. Forests are present all over the country with a total surface of 6,427,678 ha, which represents almost 30% of the total area of Romania.

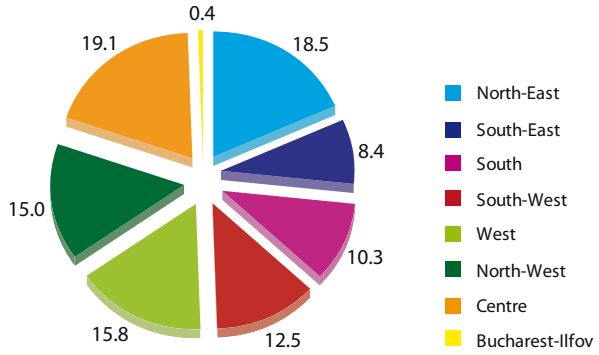
Scores
The scores of this indicator range from 4.1 to10. According to the calculation methodology used for this indicator, a score of 10 means the maximum increase in forest area. A score of 5 means the forest area has stayed equal over the examined period. Romania's overall score shows a fairly elevated value of 6.3, with 3 regions showing higher scores than the overall average.

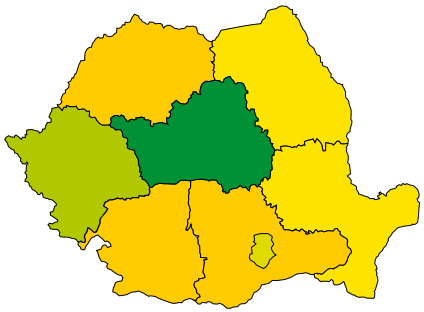
Forest area Changes 1990 - 2006	
	changes in %
Romania	0.9
North-East	0.2
South-East	0.2
South	-0.3
South-West	-0.6
West	1.8
North-West	0.0
Centre	3.5
Bucharest-Ilfov	1.1

Regional differences

Regional differences are considerable for this indicator. The highest score is obtained by Centre region (10.0), i.e. an increase in forest area of 3.5% over 1990 – 2006, followed by West region with a score of 7.6. The other regions show values fairly close to the overall score of the country. In two regions the forest area decreased, in South region by 0.3% and in South-West region by 0.6%.

Forest area per region as % of total forest area of Romania 2006

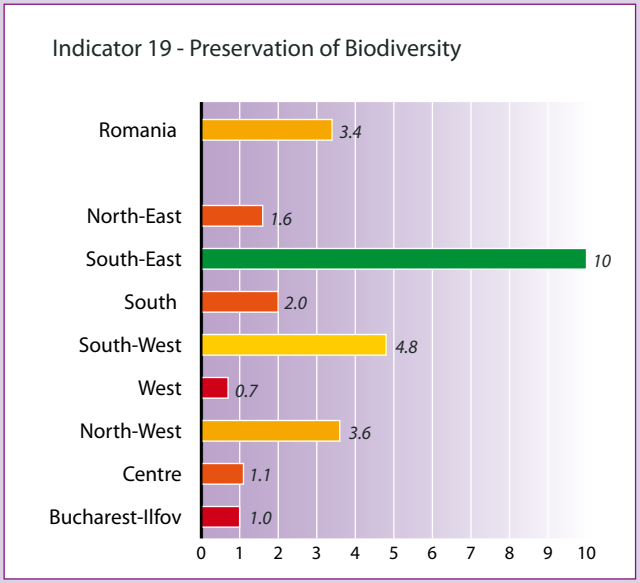




Indicator 19

Preservation of Biodiversity

Description indicator: Total surface of protected areas as percentage of the total surface of a region
Source: NEPA, REPA
Year: 2006



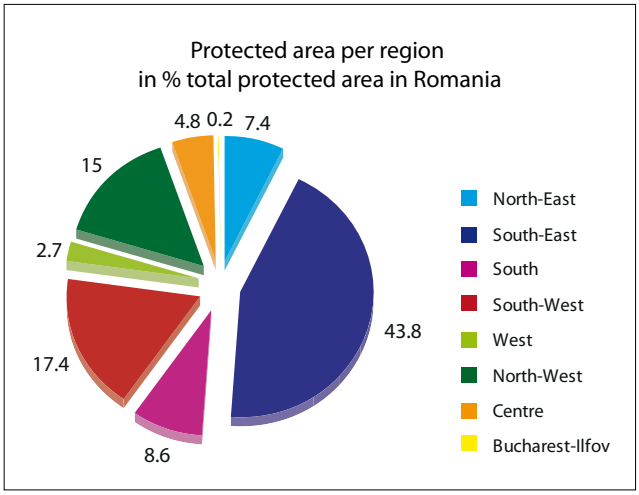
Indicator

This indicator reflects the total surface of protected areas in each region as percentage of the total surface of each region. Since 2007, Romania is implementing EU directives for habitat and birds protection, thus establishing Natura2000 protected areas. Indicator 19 reflects this process at regional level.

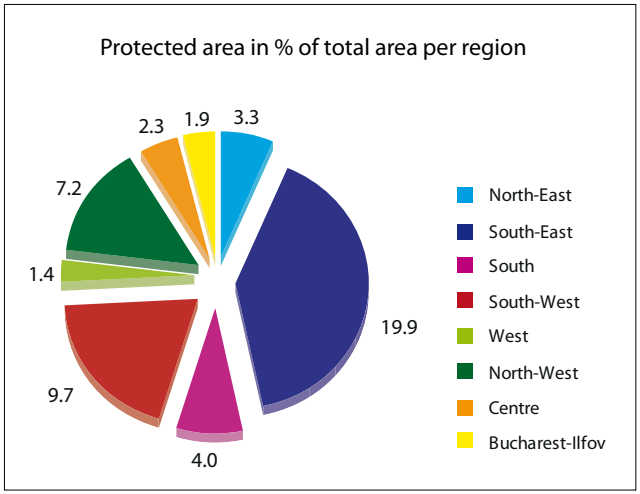
Scores

Overall Romania scores 3.4 for preservation of biodiversity. Regional scores range from 0.7 in West region to 10.0 in South-East region. South-East region has the largest protected area in comparison to its total area - the Danube Delta Biosphere Reservation.

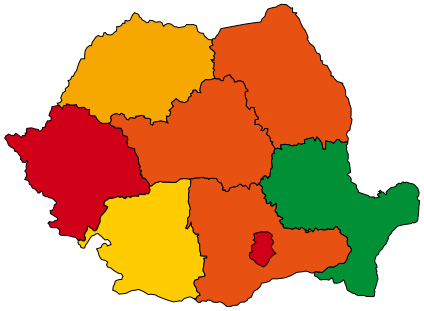
Regional differences



Expressed as percentage of total protected areas in Romania, the size of protected areas shows large differences over the regions. In South-East region it is by far the largest (43.8%), thanks to the Danube-delta. Other regions vary from 0.2 to 17.4%.



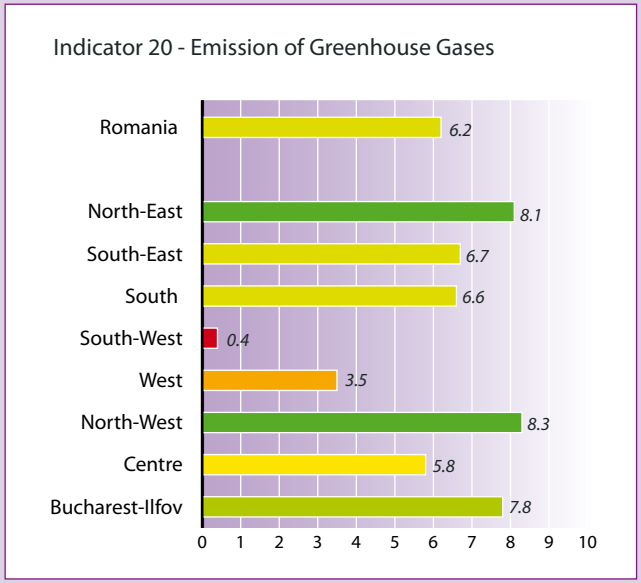
Looking at each region individually, it appears that, again, South-east region is topping the list with the highest percentage of protected area: 19.9% of the total area of the region is protected. At the bottom one finds West region, with only 1.4% of its area protected, just above Bucharest-Ilfov with 1.9%.



Indicator 20

Emission of Greenhouse Gases

Description indicator: CO_2 emissions per capita
Source: NEPA and REPA
Year: 2006



Indicator

This indicator expresses the per capita emission of CO_2. Since no data were available for all regions of all Greenhouse Gases (GHG) at regional level in Romania, only the CO_2 emissions are considered.

CO_2 is currently the main greenhouse gas. It is responsible for warming up the earth and so for a serious worldwide change of the climate. Nowadays only few scientists doubt the human influence on global warming. Climate change is one of our major challenges this century. It has been internationally acknowledged that climate change is affecting us and will continue to affect us severely if we do not reduce CO_2 emissions in the atmosphere significantly and soon.

It should be noted that the accuracy of data we have collected is not as good as we expected them to be. In the future better and more reliable data will be available at regional level.

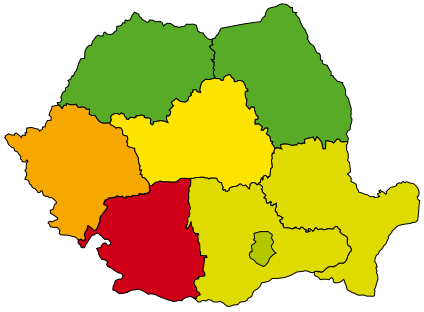
Scores

The scores vary between 0.4 (South-West region) and 8.3 (North-West region). The general score of Romania is 6.1.

Regional differences

	CO_2 emissions per capita 2007 (tons CO_2 per year)
Romania	3.8
North-East	1.8
South-East	3.3
South	3.4
South-West	9.6
West	6.6
North-West	1.7
Centre	4.2
Bucharest-Ilfov	2.2

This indicator shows large differences between the regions, ranging as said from 0.4 to 8.3. The 0.4 for South-West region reflects the emission of 9.6 tons CO_2 per capita per year. The EU-27 average was 8.6 tons CO_2 per capita per year in 2006. Of all 151 countries, examined for SSI-2008, only 24 reported higher CO_2 emissions.



Indicator 21
Ecological Footprint

Description indicator: The ecological footprint in global hectares per capita

Indicator
This indicator reflects the ecological footprint expressed in global hectares per capita. Ecological footprint is a concept born in the beginning of 1990s and calculated for the first time at international level in 1996. Since then, WWF calculates the ecological footprint of each country every two years.

The Ecological footprint measures humanity's demand on the biosphere in terms of the area of biologically productive land and sea required to provide the resources we use and to absorb our waste. In order to calculate the ecological footprint of a country/region one has to take into consideration all the cropland, grazing land, forest, fishing grounds required to produce the food, fibre and timber it consumes and to absorb the waste it emitted in generating the energy it uses, and to provide space for its infrastructure.

Scores
Due to lack of regional data, no scores have been calculated for this indicator. To be able to calculate the overall index for each region, the score of Romania in the latest update of the SSI, SSI-2008, 5.2, has been adopted for each region.

Indicatorul 22
International Cooperation

Description indicator: Participation in 16 international treaties and agreements with respect to human rights, nature and environment.

Indicator

The indicator International Cooperation shows the level of openness and willingness to cooperate of each country/region fulfilling its commitment regarding international treaties. Since Romania has joined EU in 2007, many international and especially European treaties and agreements became mandatory.
According to the data retrieved from the Human Development Report, Romania scored 8.3 for this indicator.
It should be noted that this indicator is less relevant on regional level than on national level, since regions usually don't participate in international treaties and agreements. Thus no data on regional level are available.

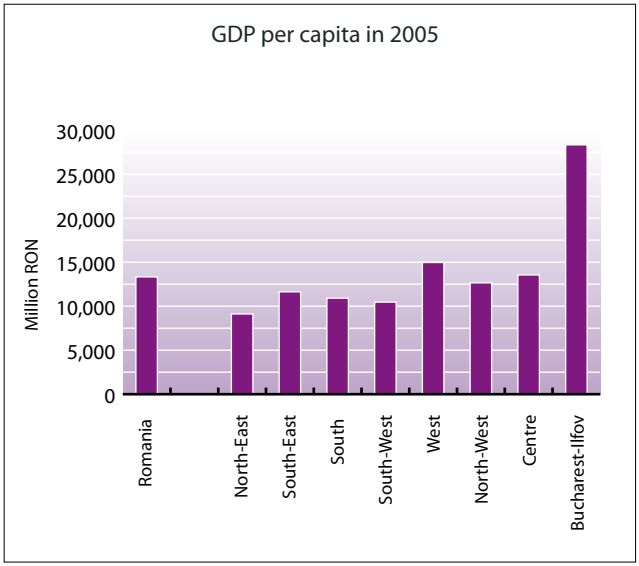
Scores

No scores have been calculated for this indicator. To be able to calculate the overall index for each region, the score of Romania in the latest update of the SSI, SSI-2008, 10.0, has been adopted for each region.

Indicator A1

Gross Domestic Product

Description indicator: GDP of each region of Romania as expressed in million RON current prices
Source: NIS
Year: 2005



Indicator

Gross Domestic Product (GDP) is probably the most-used indicator worldwide. Politicians focus very much on GDP and especially the yearly GDP growth rate. That is important for a country. Alas, often one forgets to ensure that the growth of the economy has to be within the limits of sustainability. Two other indicators, ISEW – Index for Sustainable Economic Welfare – and GPI – Genuine Progress Indicator – are more informative than just the GDP. However, neither ISEW nor GPI are available for Romania. So as yet, we'll have to confine the monitoring to the GDP.

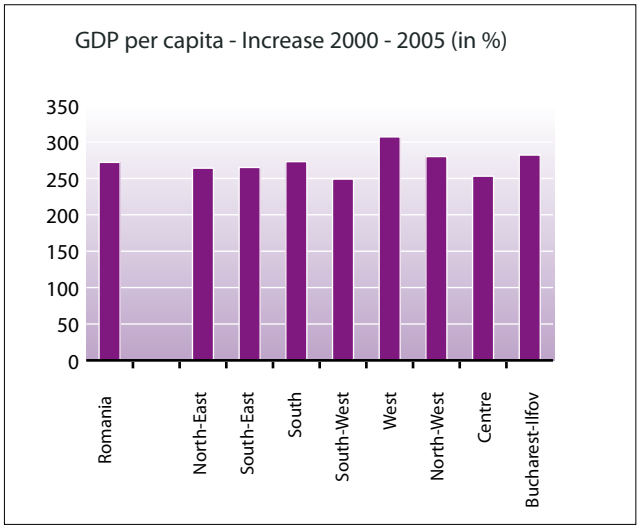
Regional differences

It appears that in 2005 regional differences in GDP were large, ranging from 9,114 RON in North-East region to 28,326 RON in Bucharest-Ilfov region. The average for Romania was 13,327 RON in 2005.

Regional differences in GDP per capita (2005)

	in % value of Romania	in % of highest value	in % of lowest value
Romania	100	47	146
North-East	68	32	100
South-East	87	41	128
South	82	39	120
South-West	78	37	115
West	112	53	164
North-West	95	45	139
Centre	102	48	149
Bucharest-Ilfov	213	100	311

Developments



In the period 2000 – 2005, GDP per capita has continuously increased over all regions of Romania. West region has increased its GDP per capita value most, by 307% over the period 2000 – 2005. South-West region had an increase of 249%, the lowest increase of all regions. Note that the inflation rate over the period 2000 – 2005 was 171%.

	Price Index Number (GDP deflator)
2000	100
2001	137
2002	170
2003	210
2004	242
2005	271
2006	301
2007	333
2008	377

Source: IMF

Indicator A2

Research and Development

Description indicator: Expenditures for research and development as percentage of GDP
Source: NIS
Year: 2005

Indicator

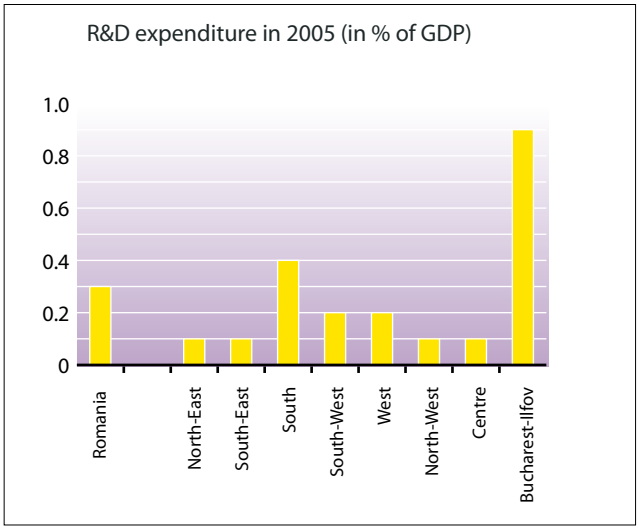
Expenditures for Research and development (R&D) indicate the interest and possibility of a country or region to invest in innovation. As for all additional indicators, no scores have been calculated for this indicator.

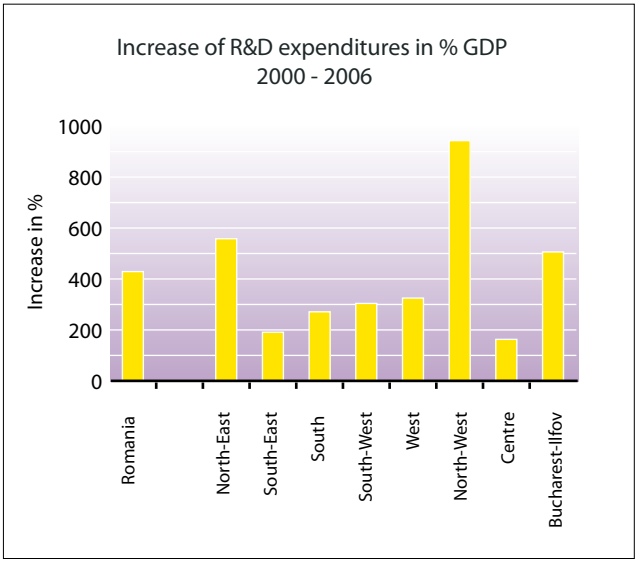
Regional Differences

In 2005, the total expenditures for R&D at national level amounted to 0.4% of GDP. All regions except for Bucharest-Ilfov region spent lower percentages on R&D than the national average. The average of EU-27 was 1.8% of GDP in 2005.

Developments

From 2000 on, the R&D expenditure values have significantly increased in each region of Romania. North-West region has increased its R&D expenditures most, by more than 900%, while Centre region has increased its R&D expenditures by only 163% during the period 2000 – 2006.





Here the same remark must be made as for the previous indicator: inflation amounted just over 200% over the period 2000 – 2006. This means that in constant prices R&D expenditures in % GDP remained about equal in South-East region and decreased in Centre region.

Indicator A3

Transport infrastructure

Description indicator: Road and railroad infrastructure
Source: NIS
*Year:*2005

Indicator

In the SSI-Romania-2008 Transport has been included as one of the additional indicators. It appeared not possible to do so on regional level too, since no regional data with respect to transport and transport modes are available. However, data are retrieved concerning transport infrastructure: roads and railroads.

Regional differences

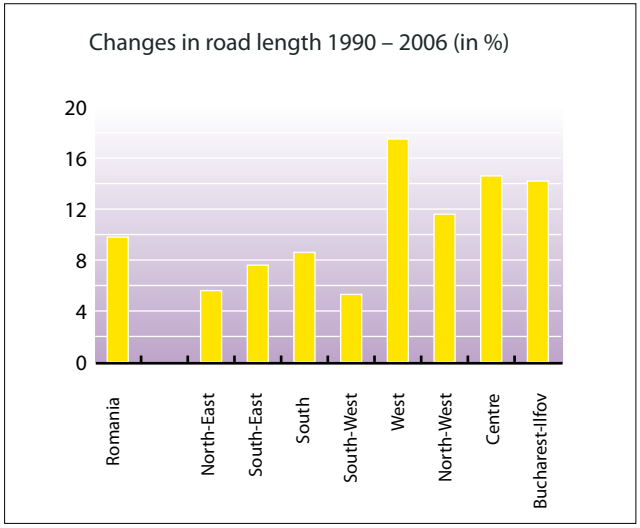
Public roads

The length of roads and railroads can be expressed in density per 100 km^2, i.e. the number of kilometres per 100 km^2.

The density of public roads ranges from 29.9 in Centre region to 48.9 in Bucharest-Ilfov region, with an average of 33.5 for Romania as a whole.

	density of rail-roads in km per 100 km^2	density of public roads in km per 100 km^2
Romania	45.3	33.5
North-East	44.1	36.5
South-East	48.0	30.0
South	36.4	35.0
South-West	33.9	35.9
West	59.4	32.2
North-West	49.1	34.8
Centre	39.5	29.9
Bucharest-Ilfov	153.2	48.9

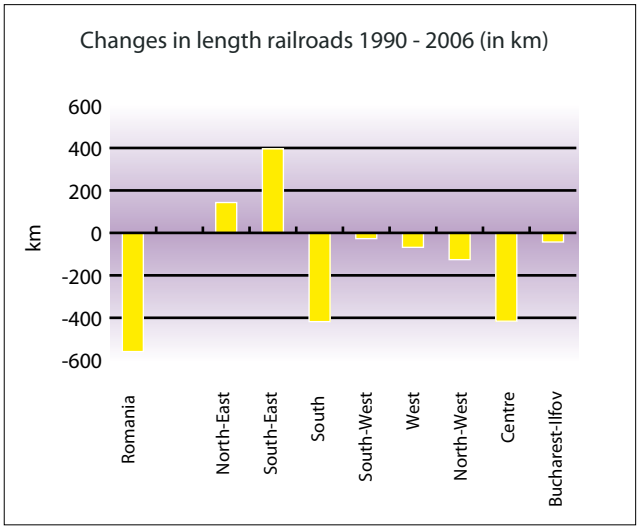
Over the period 1990 - 2006 the length of public roads increased by nearly 10% in Romania. The largest increase occurred in West region, where the length of road infrastructure has increased with almost 18%. The below table presents the changes in all regions over the period 1990 – 2006.



Railroads

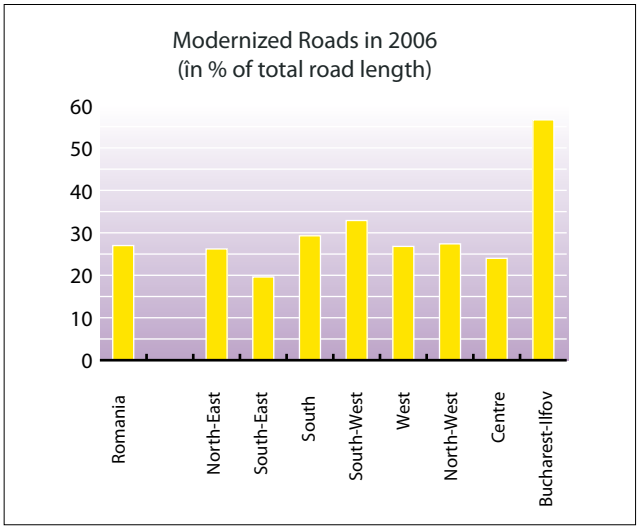
The density of railway infrastructure in Romania is 45.3 km per 100 km^2. The density is higher in Bucharest-Ilfov (153.2) and West region (59.4), while the lowest density of railway infrastructure is registered in South-West region (33.9).

Over the period 1990 - 2006 the railroad infrastructure decreased with more than 500 km. The decrease was the consequence of the closure of railway lines (either due to closure of economic activities or because they were narrow railways and no more in use for several years). The highest decrease was registered in South and Centre regions, while North-East and South-East regions are the only regions where the railroad infrastructure increased.

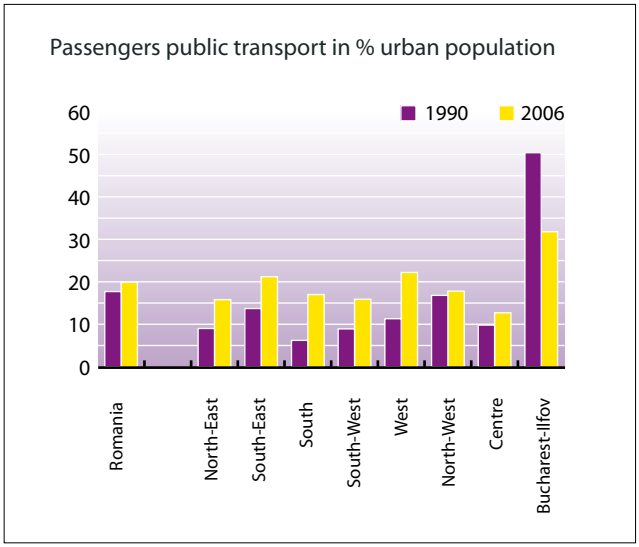


Modernization of public roads

Romania is working hard on the modernization of its infrastructure. In 2006 27% of the public roads had been modernized. This percentage varies from 19.6 in South-East to 32.9 in South-West region, with a maximum of 56.6 in Bucharest-Ilfov region.

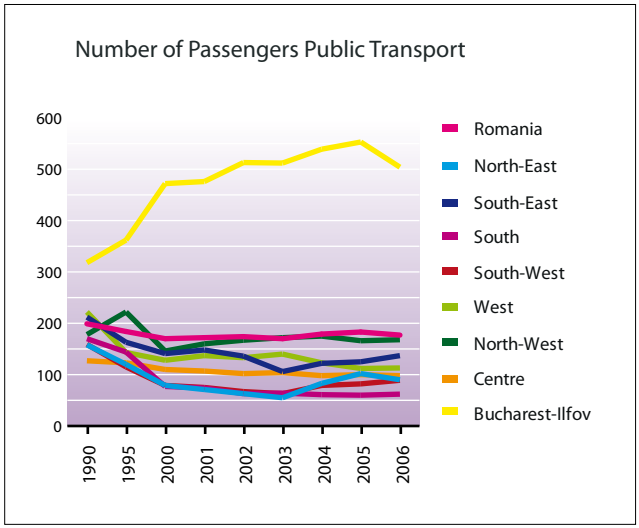


Number of passengers in public transport



The number of passengers using public transport decreased in the period 1990 – 2006. It fell from 19.9% of urban population to 17.7% in Romania. All regions

reported a decrease, except Bucharest-Ilfov, wher it increased from 31.8% to 50.4%.



Indicator A4
Organic Farming

Description indicator: Surface of organic farmland
Source: REPA
Year: 2007

Indicator
This indicator reflects the state of the art of the organic agriculture at regional level in Romania. In the last years, more and more people are interested in organic farming. Authorities are increasing their efforts in promoting this type of environmentally friendly agriculture. Still, the phenomenon is at its early stages in Romania. Thus, data about on this subject are scarce and only focusing on some of its aspects. The reliability of the data seems to be rather poor.

Regional differences
According to the Ministry of Agriculture, Forestry and Rural Development an estimated total of 140,000 ha are organically farmed in Romania. The figures at regional level show quite some differences between the regions. In 2007, South-East region had almost 20,000 ha of land organically farmed, while North-East only 510 ha.
Also, the total number of producers which is currently registered as eco-producers or retailers is very small. Centre region has the highest number of eco-farmers, with a total number of 694, which represents almost 30% of total number of eco-producers from Romania.

Developments
Sizeable areas of land are currently under conversion. In South-East region alone, around 18,000 ha of land are said to be in conversion, which means that in one or maximum two years this surface will be organically farmed.
Due to lack of data no further developments for this indicator can be presented.

Part III

North-West Regional Index
a case study

Region

North-West region is one of the eight development regions of Romania. It comprises six counties: Bihor, Bistrița-Năsăud, Cluj, Maramureş, Satu Mare and Sălaj. Its total surface is 3,415,900 ha with a total population of 2.7 million.

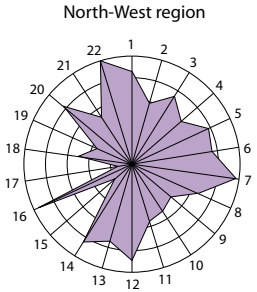
County	Population	Surface area(km^2)
Bihor	594,982	7,544
Bistrița-Năsăud	317,685	5,355
Cluj	689,523	6,674
Maramureş	515,313	6,304
Satu Mare	367,677	4,418
Sălaj	244,952	3,864
TOTAL North-West	2,730,132	34,159

Overall score

In Part I the overall indexes for all regions have been presented. North-West region received the highest overall score, 6.2. This means that according to the available data North-West region is farthest of all regions for ensuring that its development is heading towards a sustainable future. Still, a 6.2 leaves much room for further improvements and no less need to do so urgently. Many of the indicators need attention. It should be noted that, due to lack of data for seven indicators we were not able to calculate their scores. Thus, for the calculation of the overall score for these indicators for each region, the average score for Romania has been used as calculated in the latest update of the SSI, the SSI-2008 for 151 countries, among which Romania.

Indicators

It is important to understand the scores for each indicator and the background data which have been used in the scoring process. The spider web below presents the actual situation of North-West region with respect to the scores for each indicator. One sees at a glance that indicators 9, 15, 17 and 19 are scoring (way) below 5, thus needing attention most urgently. Nevertheless, all indicators with a score lower than a sustainable 10, need attention.



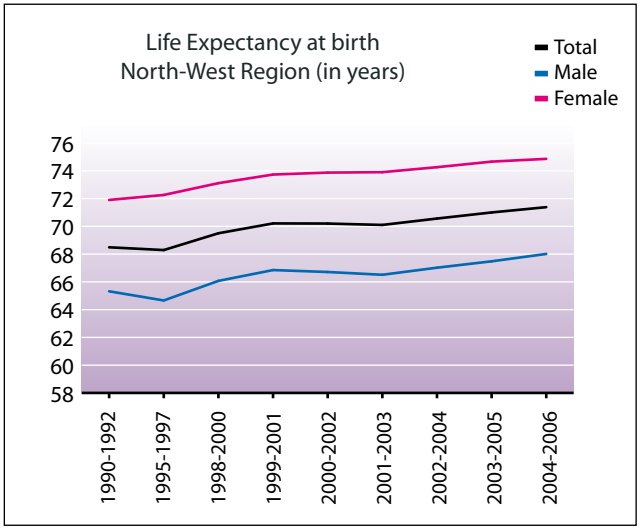
1	Life Expectancy	8.6
2	Poverty Rate	5.8
3	Sufficient to Drink	7.4
4	Safe Sanitation	6.0
5	Education Opportunities	7.8
6	Gender Equality	7.5
7	Air Quality	9.7
8	Surface Water Quality	6.7
9	Land Quality	4.7
10	Good Governance	5.2
11	Employment	5.5
12	Population Growth	8.9
13	Income Distribution	7.4
14	Public Debt	8.5
15	Waste Recycling	2.1
16	Use of Ren. Water Resources	9.9
17	Cons. of Ren. Energy	1.3
18	Forest Area	5.0
19	Preservation of Biodiversity	3.6
20	Emission of Greenhouse Gases	8.3
21	Ecological Footprint	5.2
22	International Cooperation	10

Starting from this spider web, now the North-West regional realities will be presented through the perspective of each indicator.

8.6

Indicator 1

Life Expectancy



Score

North-West region has a score of 8.6 for this indicator. Though relative high, this score is the lowest one of the 8 regions. In absolute figures, the score reflects the fact that North-West region has the lowest life expectancy at birth in Romania with an average of 71.4 years. Women are expected to live on average 74.9 years while men's life expectancy is 68.0 years.

Looking at the developments over time for life expectancy in North-West region one notices that life expectancy increased considerably between 1995 and 2000. Since 2000 changes are small, but still positive. Over the period 1990 – 2006 life expectancy in North-West region increased by 2.9 years (4.2%). The changes for male and female are quite similar with an increase of 2.7% for male population and 3.0% for female population.

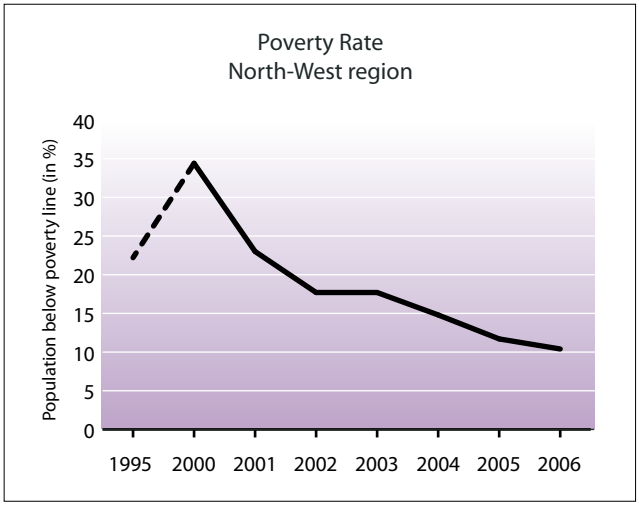
Targets

No specific targets have been established for this indicator.

5.8

Indicator 2

Poverty Rate



Score

The score for North-West region is 5.8. This score reflects that 10.4 % of the population is living under the poverty line in 2006. As compared with the other regions' scores, the score of North-West region is the third one, following Bucharest-Ilfov and West region. Over the last years, the poverty rate has been reduced in North-West region from a maximum of 34.4% in 2000, to 10.4% in 2006.

As presented in the graph, the poverty rate has diminished constantly in the last 6 years in North-West region. In year 2000, poverty rate in North-West region registered a peak of almost 35%. In 2006 this percentage has decreased by almost 25 percent points

Targets

No specific targets have been established for this indicator.

7.4

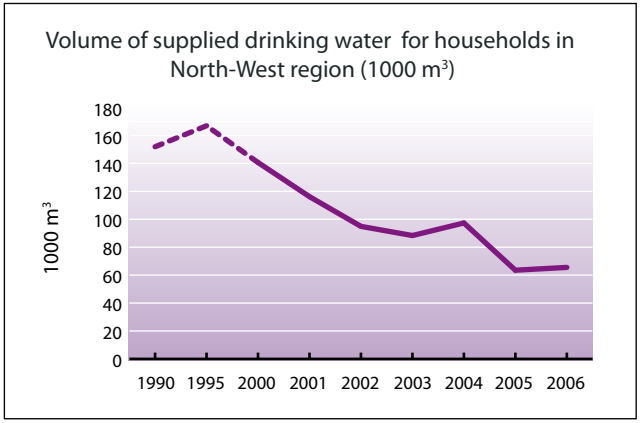
Indicator 3

Sufficient to Drink

Score

North-West region scores 7.4 for this indicator. This score is the second best of the eight regions, with only South-East region scoring better. North-West region has 440 administrative units, comprising 42 cities and 398 clusters of villages. 74.3% of the total administrative units, which according to the representatives of the ministry of environment represents around 52% of the total population, have a piped drinking water system.

Looking at the volume of water supplied to households in North-West region, one notices a nearly constant decrease. Major investments are currently done in rehabilitation of old water systems and extensions, thus redu-cing the level of leakages.



Targets

By 2018 all localities with more than 20,000 inhabitants have access to piped drinking water and sewerage systems. This means that 70% of total population will have access to both piped drinking water and sewerage systems.

6.0

Indicator 4

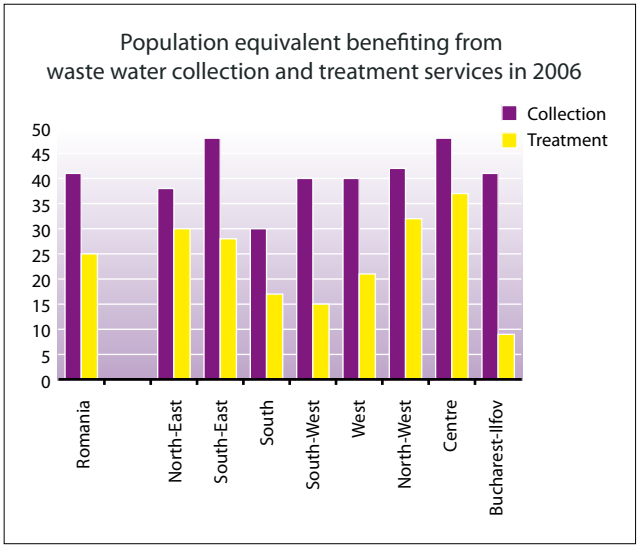
Safe Sanitation

Score

North-West region's score for this indicator is 6.0, which is almost equal to the average score for Romania.

With a total of 106 localities (of which 35 cities) having access to a sewerage system, North-West region does not have a very adequate and extensive sewerage system. Especially small cities and rural communities do not have access to a sewerage system at all. Recently, a large project for water and sanitation has been approved in North-West region. Thus people in Sălaj and Cluj counties will within 4 years benefit from improved or new water and sewerage systems, both in rural and urban areas..

According to the Environmental Operation Programme, in North-West region the total number of produced population equivalents (see explanatory box) is over 3 million. 42% is collected through waste water collection services, only 32% is treated in waste water treatment plants.



Population equivalent represents a measurement unit for pollution and establishes the amount of pollution generated by a human settlement. It is expressed as an average value of produced pollution per person per day.

Targets

The regional environmental strategy requires that by 2018 all the localities with more than 20,000 inhabitants will have access to piped drinking water and sewerage systems. This means that 70% of total population will have access to both systems.

7.8

Indicator 5

Education Opportunities

Score

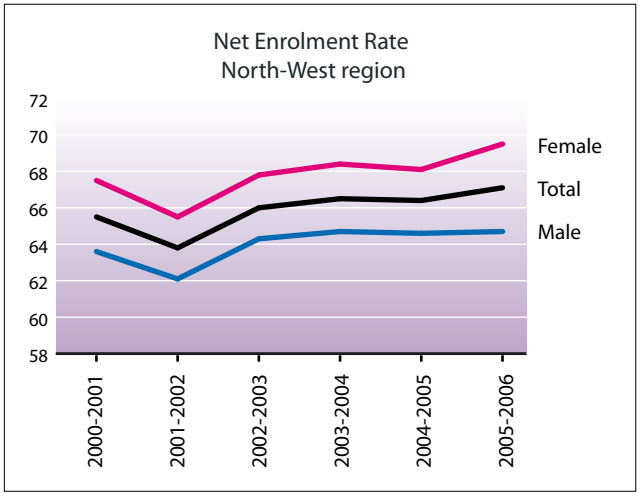
With 7.8 North-West region has the third best score with respect to Education Opportunities, with 0.2 points above the average score.

In school year 2005/2006 the net enrolment rates in North-West are:

Total	67.1%
Male	64.7%
Female	69.5%

The North-West Regional Action Plan for Education presents some interesting figures regarding the combined net enrolment rate for primary, secondary and tertiary education. Over the last 5 years, the net enrolment rate has increased by 1.6 percent points. Female enrolment rate has increased with 2, male enrolment only with 1.1 percent points.

As in any other region, rural population in North-West region has less education opportunities than urban population. Even worse, the net enrolment rate for the rural population has diminished over the last 5 years by 1.5 percent points, while the net enrolment rate of urban population has increased by 4.7 percent points in this period.



Targets

Regional targets have been established for several education aspects. Among these, vocational education and training (VET) and lifelong learning process are the best defined. Thus, by 2013:

- 80% of all VET institutions should have improved their infrastructure,
- each year, over 15,000 persons should benefit of at least one training,
- at least 50% of VET trainers and teachers should participate in lifelong learning programmes,
- 50% of people with special needs should be integrated in the regular education system.

7.5

Indicator 6

Gender Equality

Score

North-West region is scoring 7.5 for this indicator, 0.1 above the overall score for Romania.

Gender equality reflects the equality of chances for men and women. According to the methodology used in the UN Human Development Report three issues are examined:

- Equality in life expectancy
- Equality in education opportunities and literacy of adults
- Equality in income.

The first two issues have been presented in the previous chapters, Indicator 1 and 5. With respect to income, the average female income in North-West region is 86% of average male income. These data result in the following sub indexes and finally in the Gender Equality Index of 7.52 for North-West region. Thus the score for this indicator is 7.5.

Equally distributed Life expectancy index	0.774
Equally distributed Education Index	0.779
Equally distributed Income Index	0.702
Gender Equality Index	0.752

Beside these important aspects of gender equality other issues are also relevant. One of these is the presence of women in political life. The table below presents the number of men and women as a councillor, vice-president and president for the county councils in North-West region.

The percentage of women councillors is very small (9.2) compared with the percentage of men councillors (90.8%).

Targets

No specific targets have been established for this indicator.

County Councils	Councillors					Vice presidents		Presidents	
	Total	Male	%	Female	%	Male	Female	Male	Female
Cluj	36	33	91.7	3	8.3	2	1	1	0
Bihor	34	32	94.1	2	5.9	2	0	1	0
Bistrița-Năsăud	30	28	93.3	2	6.7	2	0	1	0
Sălaj	30	27	90.0	3	10.0	2	0	1	0
Maramureş	34	30	88.2	4	11.8	2	0	1	0
Satu Mare	32	28	87.5	4	12.5	2	0	1	0
Total North-West	196	178	90.8	18	9.2	12	1	6	0

9.7

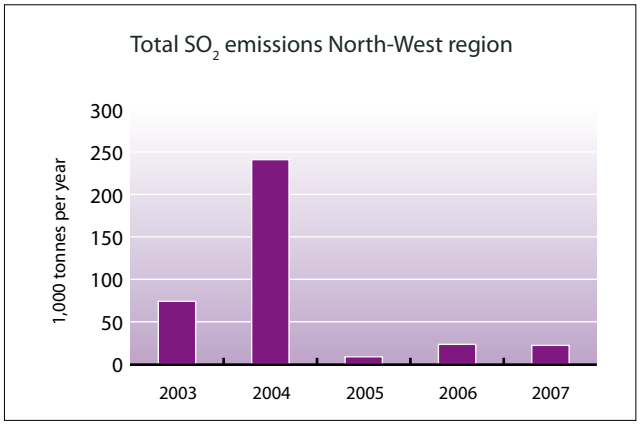
Indicator 7

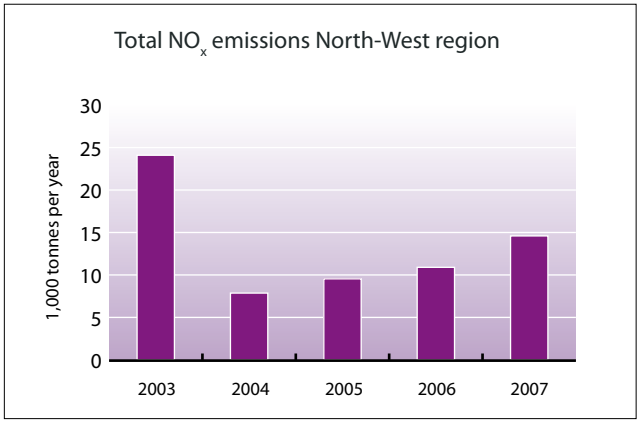
Air Quality

Score

The score of North-West region is the second best of all regions (9.7). Nonetheless, according to the Environmental Development Plan prepared by North-West Regional Development Agency, the air quality is still very low. In many urban areas, the air quality is influenced by the increasing number of cars and old trucks.

The score for Air Quality is based on the figures of two components: SO_2 emissions and NO_x emissions. According to the retrieved data it seems that SO_2 emissions remain stable, while NO_x emissions show an upward trend after the sharp decline in 2004.





One of the steps which local, regional and national authorities have decided to take in order to improve the air quality is to set up an adequate and coherent air monitoring system. This system is currently operational but not yet at full capacity. Thus, data for this indicator are still scarce and not always reliable.

Targets

Besides the national commitments established by international protocols (such as Kyoto) and other European targets for air quality which Romania has to respect, North-West region has taken some concrete measures for improving the air quality. These are:

- upgrading the big industrial power plants
- introducing BAT (best available technologies) for reduction of SO_2, NO_x and other components
- reducing the urban air pollution through rehabilitation of heating systems in at least 8 cities.

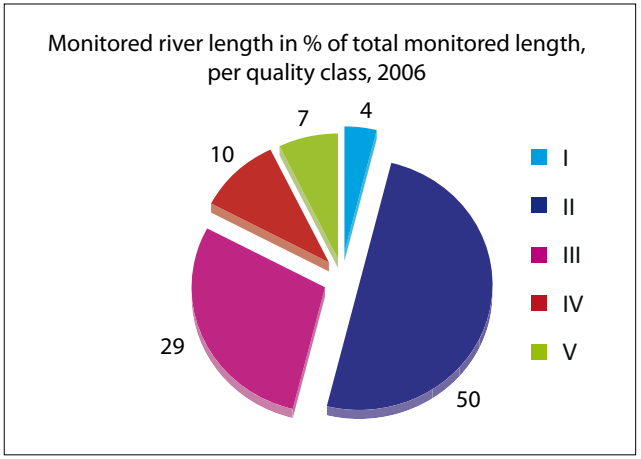
6.7

Indicator 8

Surface Water Quality

Score

With 6.7 North-West region scores 1.2 points below the average of the eight development regions in Romania; four regions score higher than North-West, two score lower. For South-East no score has been calculated due to lack of data.



As outlined in Part II, Surface Water Quality is measured by classifying the rivers in five quality classes. 50% of the total length of monitored rivers in North-West region is included in quality class II. Only 4% out of total length of monitored rivers is in quality class I, while quality class V, the most polluted one, includes 7%.

The water of the Somes-Tisza basin proves to be only for 46% in conformity with the standards, especially with respect to water quality. However, improvements are underway, also in this area.

According to the present plans there will be several investment programmes implemented until 2013 in the area of Cluj-Napoca, financed from EU funds with the aim of improving the surface water quality. The most important project is the extension of the water-channel network and waste water treatment.

Green Report, December 2008

Targets

Romania has a national goal of reaching quality class I for all its surface waters. This target applies to all regions.

4.7

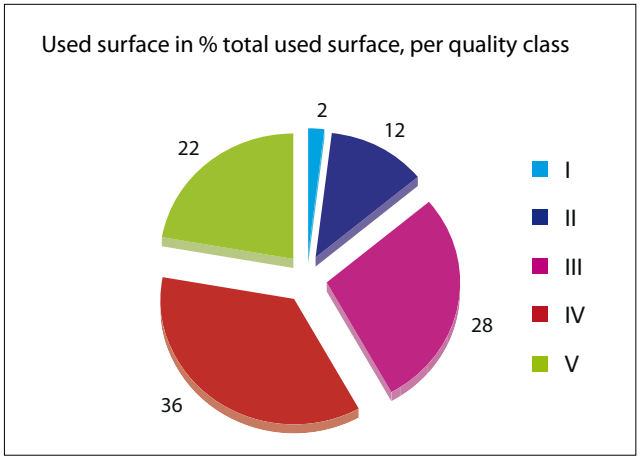
Indicator 9

Land Quality

Score

North-West region scores 4.7 for Land Quality, with only Centre region scoring lower. This score is 1 point below the national score.

No less than 58% of the monitored used surface for agriculture (arable, grasslands, orchards) and forestry is classified in quality classes IV and V. A mere 2% is classified in quality class I.



The whole area of the North-West region is to a smaller or larger extent influenced by several restrictions. These restrictions are caused either by natural factors (climate, forms of relief etc.) or anthropogenic actions, agricultural and industrial. In many cases these factors may act synergistically in the negative sense, having as an effect the decrease of land quality and even loss of its functions. The tests carried out demonstrated that there were no quantities of chemical fertilizers or pesticides used that would endanger the quality of the land. The floods of the previous years, erosion of surface and depth, landslides and excessive moisture affect considerable areas. Regarding industrial pollution, excesses of the alert and intervention thresholds were identified in the case of non-ferrous metals, e.g. in the area of Baia Mare, Baia Borsa, Turt, Rodna, as a result of the mining and metallurgical activities. The pollution of the soil with paraffin products is specific for the areas where activities of crude oil exploitation is taking place, especially on the territory of Satu Mare, Bihor and Maramureş counties. The deterioration of the quality of the land and moreover, that of the air and the water is also to a large extent caused by household and industrial landfills, the latter ones functioning within a semi-controlled system.

Socio-economic profile of North-West region, 2006

Targets

North-West region has decided that by 2015 the land quality will be increased by improving waste management and by reducing the number of historical polluted sites.

5.2

Indicator 10

Good Governance

Score

Due to lack of data no scores could be calculated for this indicator. Thus each region received the same score as the national one calculated in the most recent update SSI-2008, which is 5.2.

The good governance concept, as elaborated by the World Bank, incorporates six dimensions:

- Voice and Accountability
- Political Stability and Absence of Violence
- Government Effectiveness
- Regulatory Quality
- Rule of Law
- Control of Corruption.

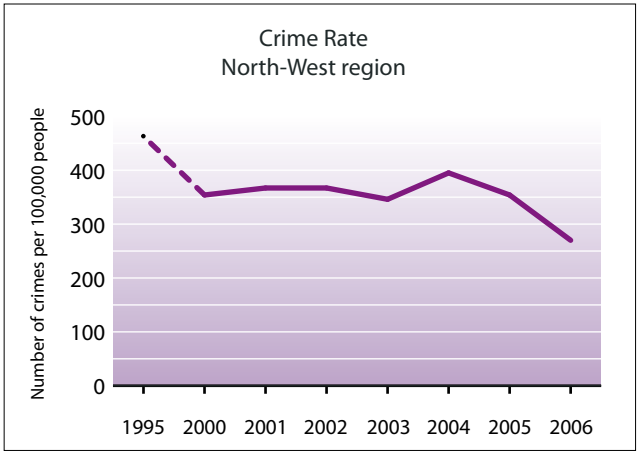
The World Bank provides only data on national level for these issues. So one has to look for alternative information. As mentioned in Part II of this publication, data have been collected with respect to voting rate, crime rate and level of implementation of environmental action plans. Other data should be collected in the years to come.

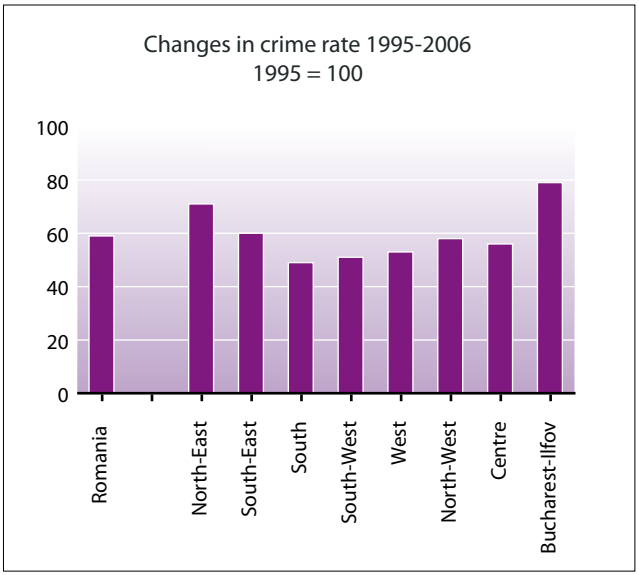
Voting rate

In North-West region 38.9% of total registered voters have participated in the 2008 local elections. According to the national authorities and mass-media, the total number of voters is constantly decreasing.

Crime rate

The table below presents the situation of crime rate in North-West region over the period 1995-2006. In the last three years the crime rate in this region has diminished from a total of almost 400 to 270 crimes per 1000 inhabitants.





Compared with other regions the decline in crime rate in North-West is about average, with four regions showing an even larger decline and three regions performing worse than North-West region on this issue.

Implementation of environmental action plans
With respect to this issue, North-West region again performs about average. North-West region has implemented or is currently implementing 69% of the actions from its Environmental Action Plan. Four regions are performing better, with figures ranging from 78% to 92%, three regions show lower figures (51% to 61%) than North-West region. The overall average is 66%.

Targets
No specific targets have been established for this indicator in North-West region.

5.5

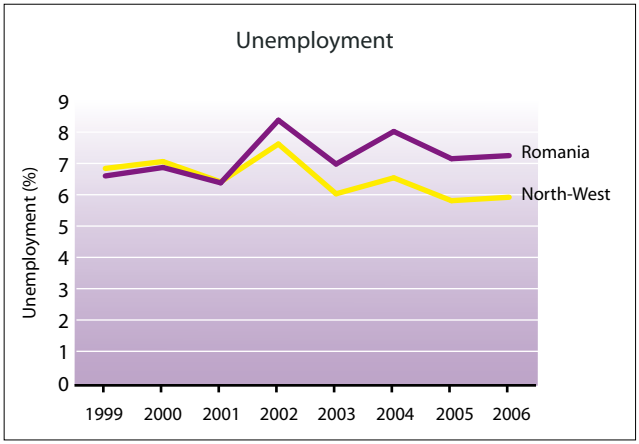
Indicator 11

Employment

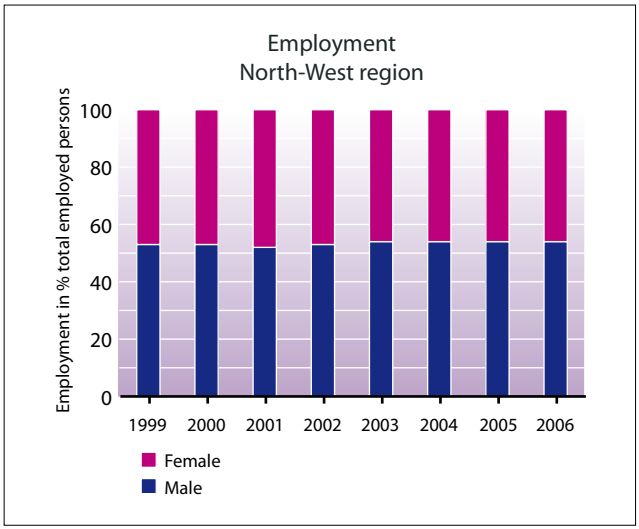
Score

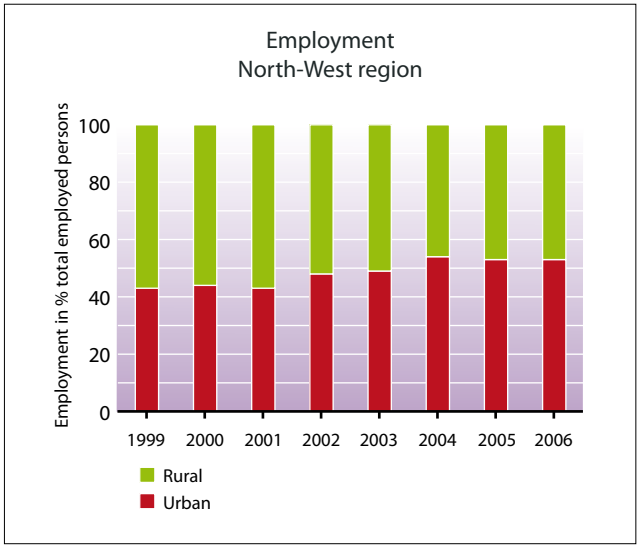
With a score of 5.5 North-West region has the second best score of all regions. This score situates North-West region 0.7 points above the national score.

The situation of North-West region follows more or less the national pattern. During the period 1999 – 2006 unemployment rate in North-West region fluctuated from 7.6% in 2002 to 5.8% in 2005. Since 2001 the rate for North-West region has been below the level of the average unemployment in Romania. The overall trend is a decreasing unemployment. Compared with the other regions North-West region reported the second best performance with a decrease of unemployment of 0.9% between 1999 and 2006, just behind North-East region with a decrease of 1.1%. In spite of the positive trend, a renewed increase can be expected, due to the actual economic crisis.



A slight majority of the employed persons were male over the period 1999 – 2006, as shown in the graph below. The percentage male varied from 53 to 54%. In this period urban employment increased, from 43% of the employed persons to 53%, while rural employment decreased proportionally.





Targets

North-West region has committed itself to increase the total number of employed persons with 10% by 2020.

8.9

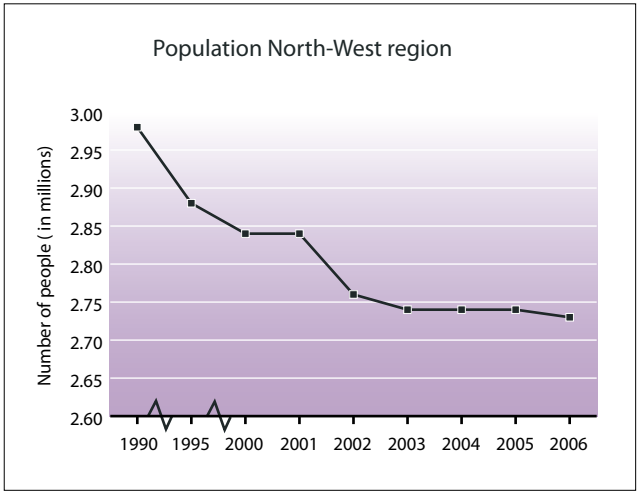
Indicator 12

Population Growth

Score

With 8.9, North-West region scores just above the average (8.8) of all eight regions.

From 1990 to 2006 population in North-West region diminished continuously, from 2.978 million to 2.730 million, a decline of 8.3%. This decline is larger than the average in Romania, resulting in a diminishing share of North-West region in the total population in Romania. This share was 12.8% in 1999 and fell to 12.6% in 2006.



Like in all other regions except North-East region, male population decreased faster than female: by 9.7% for male and 7.0% for female. The decrease of urban population was smaller than of rural population in North-West. During 1990 – 2006 the total rural population decreased 11.2%, while the urban population decreased with only 5.6%.

Targets

No specific targets have been established for this indicator.

7.4

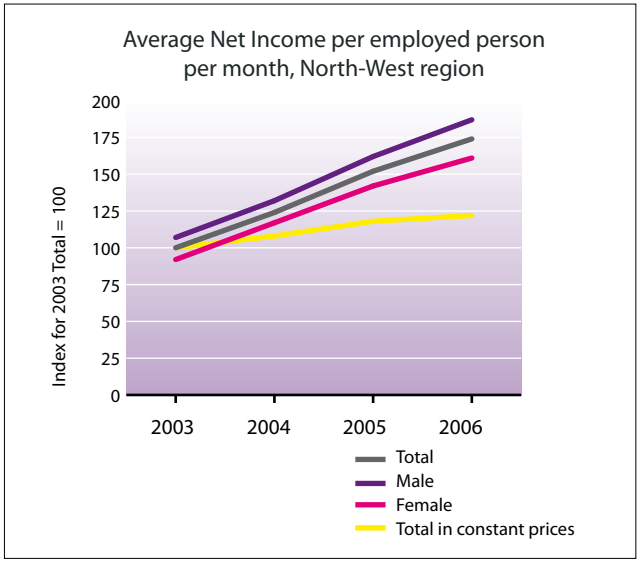
Indicator 13

Income Distribution

Score

Due to lack of data no score could be calculated for this indicator. Thus, the national score for Romania in the most recent update SSI-2008, represents also the score for North-West region (7.4).

As described in Part II of this publication, average net income has been adopted as a substitute. The figure below presents the development of average net income per employed person per month over 2003-2006.



Data about net income per employed person are not yet available for 2007 and 2008. The graph shows a steady and substantial increase in net income per employed person in North-West region over 2003 to 2006. Incomes for male and female in North-West region have increased at about the same rate. Adjusted for the inflation, the graph also shows the average net income in constant prices. The total increase is 22% in 4 years.

Targets

No specific targets have been established for this indicator.

8.5

Indicator 14

Public Debt

Score

Since data are not available for this indicator, the same score as in the most recent update SSI-2008 was allocated to all the regions in Romania. Under this circumstance, the North-West region has a score of 8.5.

In spite of lack of data at present, the importance of this indicator, also on regional level, should not be underestimated. Little public debt leaves a region more freedom to allocate its budget at its own will, thus enabling authorities to allocate more or less money in development towards sustainability.

Targets

No specific targets have been established for this indicator.

2.1

Indicator 15

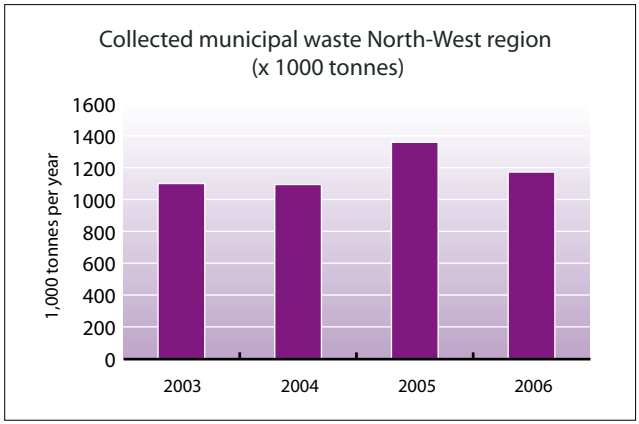
Waste Recycling

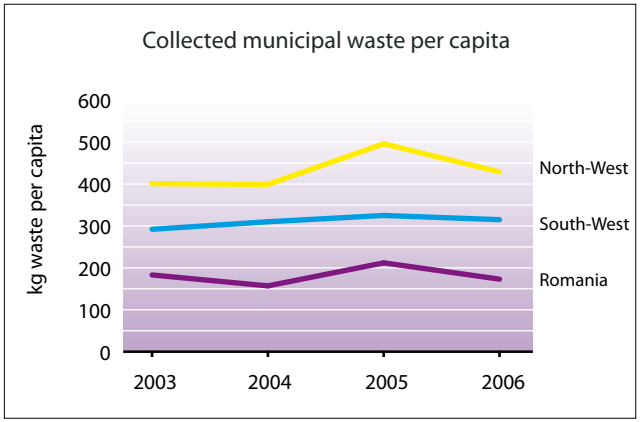
Score

Since data were lacking, scores could not be calculated for this indicator. North-West region, as well as the other regions, received a score of 2.1 which represents the score of Romania in the most recent update SSI-2008.

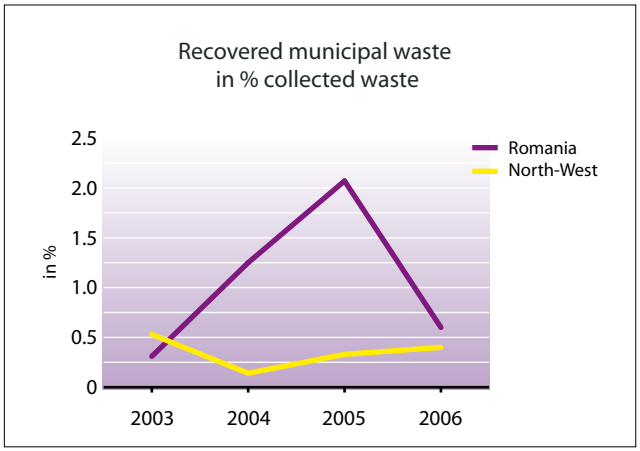
As already mentioned in Part II, some other data have been collected for this indicator as substitute. Unfortunately they are way from complete either.

Municipal waste





The collected municipal waste in North-West region shows a peak in 2005. It varies from 400 to 500 kg per capita per year. Together with Bucharest-Ilfov this is the maximum of the regions, way above the average of some 300 kg per capita per year. The average of the EU-27 was 522 kg per capita in 2007.



The quantity of waste which is recovered in North-West region is very small. In percentage it is even below the average for Romania.

Packaging waste

Packaging waste North-West region (in tons in 2006)	Total amount of collected waste	Recycled	% from total collected
Plastic	33,464	14,793	44.2
Cardboard and paper	48,458	31,093	64.2
Glass	17,223	1,448	8.4
Metal	10,683	6,476	60.6
Wood	12,860	6,814	53.0
Others	668	2	0.3
Total	123,357	60,626	49.1

According to the REPA Cluj, Environmental Report, 2007 in North-West region the packaging waste amounted to 123,357 tonnes in 2006. Out of this quantity 60,626 tonnes was recycled, i.e. 49% of the collected packaging waste. The sort of waste with the highest recycling percentage is cardboard and paper (64.2%), while glass has the lowest recycling rate (8.4%). For metal, wood and plastic recycling rates were recorded from 60.6% to 44.2%.

Targets

The Romanian target for recovery is 50% out of total collected waste (including municipal waste but not only that). This applies to all regions. Furthermore, each county in North-West region has to develop an integrated waste management plan.

Recycling initiatives in Romania are so new that nation-wide statistics are spotty, and sorting refuse is far from being a priority in many cash-strapped towns. Even in larger cities like Cluj-Napoca, a Transylvanian university town of 360,000 residents, and the capital Bucharest, there is limited interest in sorting waste.

While a university town would seem a natural place for recycling to succeed, the slow pace indicates that Romania is a long way from European Union norms. EU law calls for the country to recycle half of its waste by 2013 – a target that seems improbable today. Across the EU, the quantity of recycled waste doubled between 1995 and 2005, and nearly half of discarded paper products, plastic, and glass is recycled, according to the OECD – Organization for Economic Cooperation and Development.

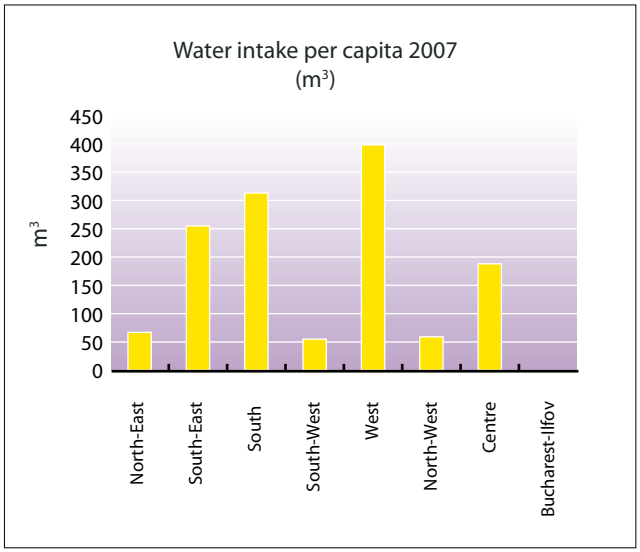
Source: Sinziana Demian, Recycling does not resonate in Romania, 2009

9.9

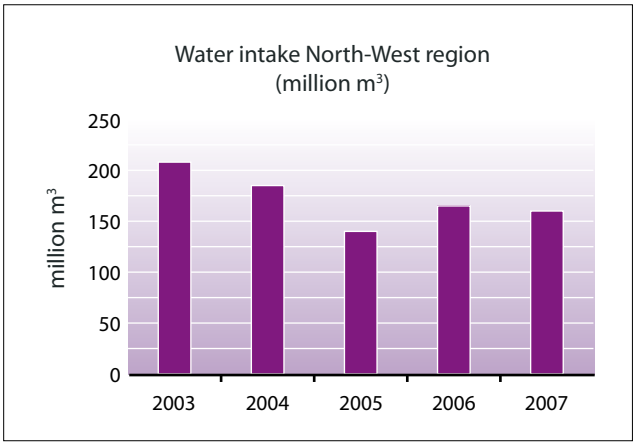
Indicator 16 - Use of Renewable Water Resources

Score

The score for this indicator of the North-West region is 9.9, which is the highest of all regions of the country.



The actual water intake from surface water resources in 2007 in North-West region was only 160 million m³, compared to a total intake in Romania of 7900 million m³. This intake includes the needs of the households, the industry and agriculture as major components. Expressed as intake per capita per year the figure for North-West region of 59 m³ per capita is very low, compared to four other regions, where values range from 250 to 400 m³ per capita per year. The quantity of water intake shows rather a capricious pattern, as can be seen in the next graph.



Targets

No specific targets have been established for this indicator.

1.3

Indicator 17 - Consumption of Renewable Energy

Score

No data are available for this indicator, which concerns an issue that may be of decisive importance for this century. Thus we were not able to calculate scores for any region for this indicator. Each region received the same score as Romania in the most recent update SSI-2008, which is 1.3.

On regional level only some data about hydropower could be collected. The share in hydropower in electricity generation of North-West region is 5%, which corresponds with1.5% of the overall electricity production. This is the third lowest production rate, after South-East and West region.

Besides hydropower, the other renewable energy resources in North-West region are geothermal energy, biomass and wind energy. The geothermal potential is estimated at about 200,000 Gcal per year out of which 65,000 Gcal are currently used. In North-West region there are two wind parks.

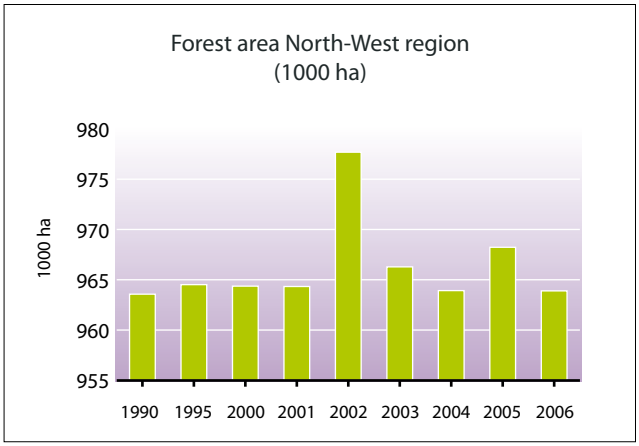
Targets

Romania is aiming at generating 33% of the total electricity production out of renewable resources by 2010. This target is also considered to be valid at regional level. Furthermore, by 2020, Romania has to increase its energy consumption from renewable resources to 24% of total energy consumption.

5.0

Indicator 18

Forest area



Score

The forest area in North-West region stayed equal over the period 1990–2006, to be more precise it increased by 0.03%. In the applied calculation system, no change in forest area is rewarded with a score of 5.0. This score of North-West region is lower than the overall national value of 6.3. North-West region ranks third from the bottom, above South-West (4.1) and South (4.6).

In 2006 the forest area in North-West region takes up 28.2% out of the total area of the region.

Although over the whole period of 1990 – 2006 hardly any change can be seen, there have been some fluctuations in the forest area of North-West region, with a peak in 2002. Since 2002 the forest area has been diminished by some 14,000 ha, if data are correct.

The total forest area of North-West region is 873,948 ha. The table below presents the data about forest ownership per county and the afforestation areas. The largest forest areas are in Bihor county while the lowest are in Satu Mare county. Maramureş county is the first when considering the afforestation process. In 2007, a total area of 784 ha have been either naturally afforested or by man. In the whole region, more than 2500 ha have been afforested.

Targets

No specific targets have been set for this indicator.

Year 2007	North-West	Bihor	Bistriţa-Năsăud	Cluj	Maramureş	Satu Mare	Sălaj
Forest area by ownership and county (ha)							
Public	394,200	71,493	20,618	66,894	157,404	34,375	43,416
Private	479,748	129,014	168,749	75,395	20,722	32,772	53,096
Total	**873,948**	**200,507**	**189,367**	**142,289**	**178,126**	**67,147**	**96,512**
Afforestation area (ha)							
Natural	1,542	405	218	27	439	267	186
Antropic	970	146	267	14	345	118	80
Total	**2,512**	**551**	**485**	**41**	**784**	**385**	**266**

3.6

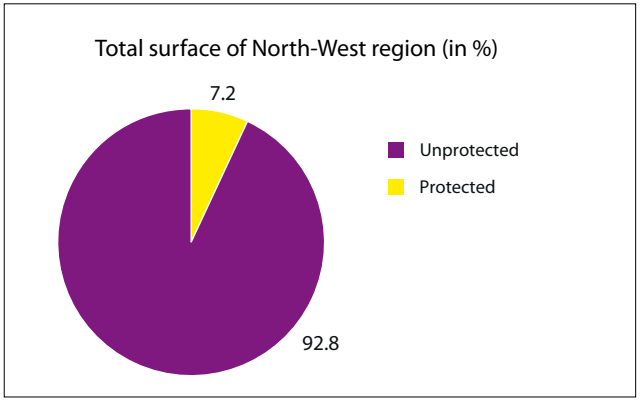
Indicator 19

Preservation of Biodiversity

Score

The North-West region scores 3.6, slightly higher than the national average of 3.4.
The region ranks 3rd best of the eight regions, after South-East region (10.0) and South region (4.8).

According to the Environmental Report of Cluj county in 2007, the percentage of protected areas in this region was 7.16%. This means that North-West region has approximately 15% of the total protected area of Romania.



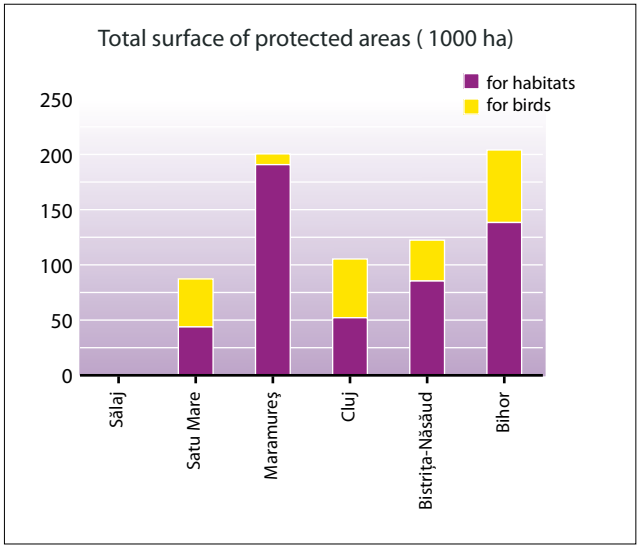
67 types of habitats have been identified as being important for nature conservation. Thus, a total number of 195 areas which include all these habitats, have been recognised as having a nature conservation value in North-West region. Out of this, Bihor county has the most of them, with a total number of protected habitats of 58, while Sălaj county has only 2.

163 species of animals have been identified within North-West region as being important from a European perspective, out of which 86 birds and 77 other animals. 6 bird species are considered as endangered species and are under strict European protection rules.

Out of the total 195 areas recognised as important for nature conservation, a total of 169 has been classified as important at national and international level. The table below presents the number of protected areas, their total surface and their IUCN protection category.

IUCN category	Number of protected areas	Surface (ha)
I	3	3,400
II	2	47,339
III	59	356
IV	102	14,581
V	3	185,605
TOTAL	169	251,280

Many of the protected areas are also part of the Natura-2000 network. The total surface of protected areas which are recognised as having European nature conservation value (both for habitats and birds protection) is almost 720 thousand ha. The graph below includes the division of these protected areas per county. Most of the surfaces important for Natura2000 network are situated in Bihor and Maramureş counties.



Targets

50% of the total protected area will benefit in the period 2007–2013 of conservation measures.

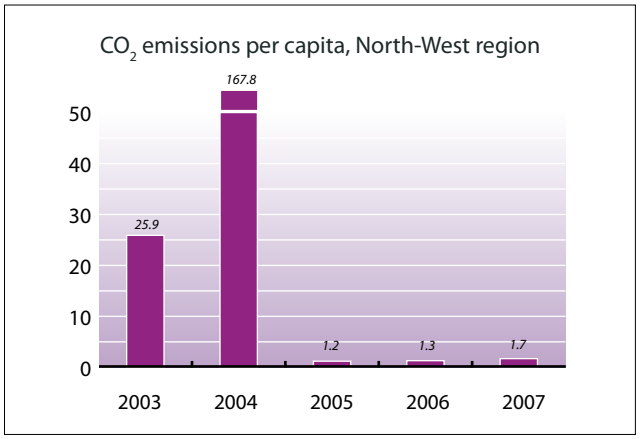
8.3

Indicator 20

Emission of Greenhouse Gases

Score

North-West region has the highest score for this indicator (8.3) from all the other regions, which means the lowest emission of greenhouse gases (GHG). This score is closely followed by North-East region with 8.1 and Bucharest-Ilfov region with a score of 7.7.



The background data for this indicator are not as accurate as we expected them to be. Therefore, the recorded emission quantities are unreliable. This is certainly the case in North-West region, where the values of 25.9 (2003) and 167.8 tons CO_2 per capita (2004) are almost certainly not correct.

We strongly recommend to ensure that in the near future appropriate and reliable data will be collected with respect to the emission of greenhouse gases, on local as well as regional level.

Targets

Beside the targets established by Romania due to its commitments within the framework of the Kyoto protocol and EU protocols, no other targets have been set for North-West region. Romania will have to reduce its GHG emissions by 20% till 2020 with 1990 as the baseline year.

5.2

Indicator 21

Ecological Footprint

Score

The Ecological Footprint is regularly calculated for each country. As yet this has not been done on regional level. Thus each region received the score, 5.2, of Romania in the most recent update SSI-2008.

The relevance of including the ecological footprint in the set of indicators is that it gives an indication of the level of consumption and depletion of the natural resources. Many institutes are involved in research projects to find more accurate ways of calculating a country's consumption.

Targets

No specific targets have been set by representatives of North-West region with respect to the ecological footprint.

10

Indicator 22

International Cooperation

Score

Due to lack of data for this indicator on regional level, all regions received the same score, 10, as Romania in the most recent update SSI-2008.

Targets

No specific targets have been set by representatives of North-West region.

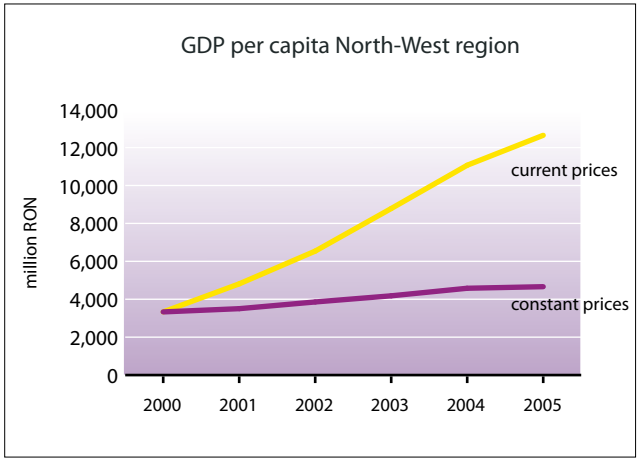
Indicator A1

Gross Domestic Product

Indicator

In the last 5 years, gross domestic product (GDP) has constantly increased in North-West region. Its value was around 3,300 RON/capita in 2000 and reached a total value of more than 12,600 RON/capita in 2005.

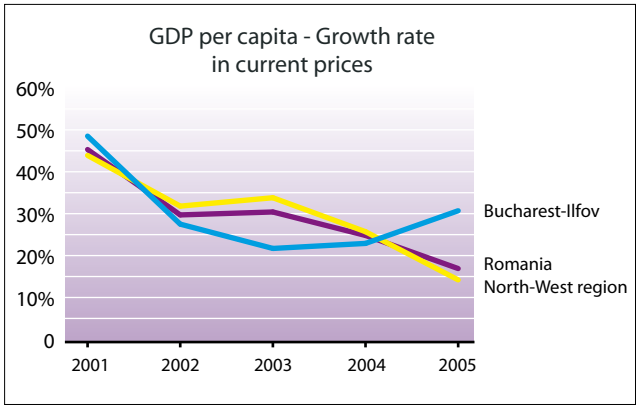
The table below presents the development of GDP per capita during 2000 – 2005 period of time, in current prices as well as in constant prices.



In 2005 GDP per capita in North-West region was just below the average for Romania: 95%. Bucharest-Ilfov, West and Centre regions had a higher GDP per capita.

Regional differences in GDP per capita - 2005			
	in % value of Romania	in % of highest value	in % of lowest value
Romania	100	47	146
North-East	68	32	100
South-East	87	41	128
South	82	39	120
South-West	78	37	115
West	112	53	164
North-West	95	45	139
Centre	102	48	149
Bucharest-Ilfov	213	100	311

Although GDP has increased, its growth rate of North-West region has decreased almost every year, from 44% in 2001 to 14% in 2005 (in current prices). The growth rate of North-West region is almost similar to the one of Romania. Bucharest-Ilfov region is the only region where the growth rate increased the last two years for which data are available.



Targets

By 2015 the GDP should increase with 10% per year.

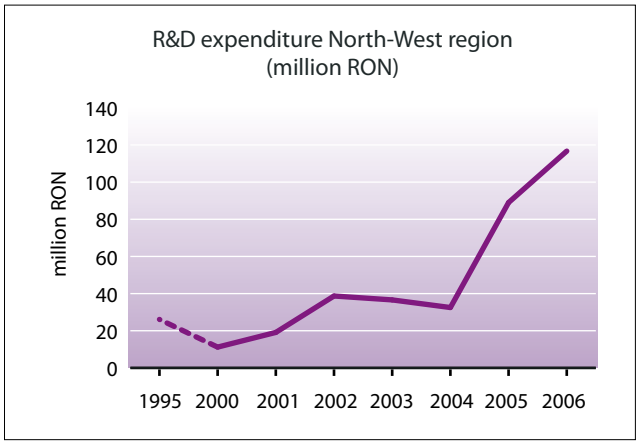
Indicator A2

Research and Development

Indicator

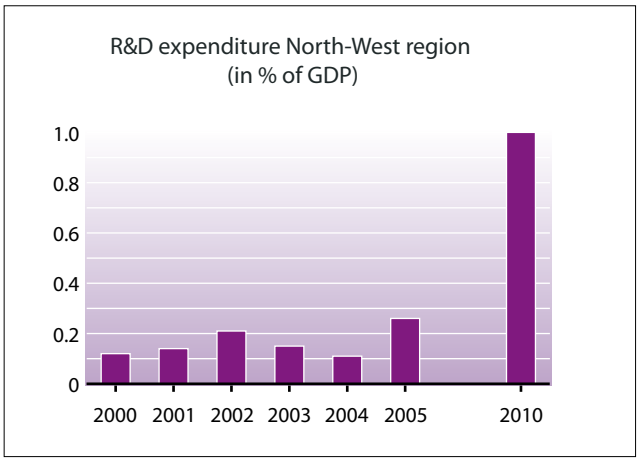
In 2006 North-West region spent 120 million RON on R&D, about 0.26% of GDP. This is below the Romanian average of 0.41%. Two regions spent more on R&D than North-West region: Bucharest-Ilfov region with 1.12% and South region with 0.37%.

The total amount of R&D expenditure has substantially increased over the last decade in North-West region. An even stronger increase can be noticed over the last 3 years. Compared with the other regions, North-West has by far the highest increase of R&D expenditure in % of GDP, with more than 900% from 2000 to 2006, in current prices.



Targets

By 2010, total R&D expenditure has to reach 1% of GDP or about 4 times the current figure. As presented in the graph below the distance to target is large: 0.74%.



Indicator A3

Transport infrastructure

Indicator
This indicator refers to road and railway infrastructure.

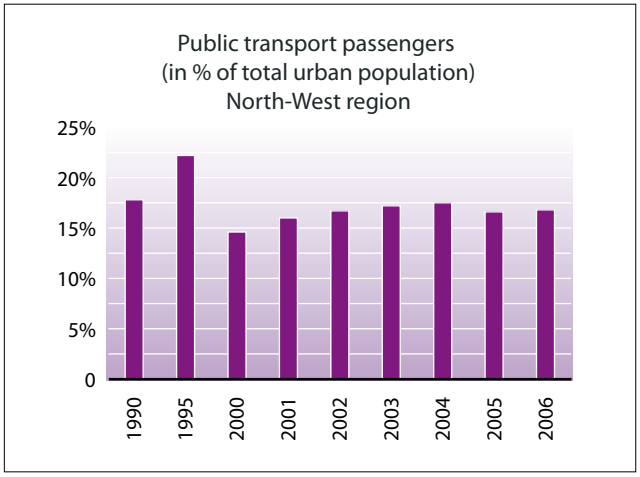
Roads
Within North-West region, the road infrastructure had a total length of 11,884 km of public roads in 2006. Over the period 1990-2006 the total length of public roads has increased by 11.6%. 27.4% of the length of public roads have been modernised in this period. The figures for North-West are slightly better than the average of Romania.

Public roads	North-West region	Romania
Length (km) 2006	11,884	79,952
Change in length 1990 - 2006 (%)	11.6%	9.8%
Density 2006 (km roads/100 km^2)	34.8	33.5
Modernized 2006 (%)	27.4%	27.0%

Railroads
In 2006, North-West region had a total of 1678 km of railroads. The railroads total length have decreased in the last 15 years with more than 120 km in the North-West region. Compared with 1990, the railroads density has decreased with 7.5%. Nevertheless, the railways network in North-West region has a higher density than the Romanian average (45.3 km railroads/100 km^2).

Railroads	North-West region	Romania
Length (km) 2006	1,678	10,789
Change in length 1990 - 2006	- 126	- 559
Density 2006 (km railroads/100 km^2)	49.1	45.3
Change in density 1990 - 2006	-7.5%	-5.2%

Passengers



The total number of passengers in North-West region using public transportation within urban areas is almost stable, with very low fluctuations in the last 6 years. These values are just below the average of Romania. This average is highly influenced by the high values of Bucharest-Ilfov region.

Targets

No concrete targets have been set at regional level for this indicator. Still, the regional strategy for transport for the period 2007 – 2013, mentions the following specific objectives:

- assuring people's right of mobility by creating functional connections between development poles (cities) (increase of 65%);
- re-establishing the balance between different modes of transportation and development of intermodal transportation systems (increase of 20%);
- reducing the traffic congestions in urban areas (reduction of 15%);
- improving public road safety.

Indicator A4

Organic Farming

Indicator

Organic farming is slowly getting off the ground, also in North-West region of Romania. The total number of eco-producers is 49. Compared with the other regions, North-West region has a very low number of farmers who are producing ecologically. Also the total surface which is ecologically farmed is only 946 ha. Another 1681 ha are currently being converted to organic farming.

North-West region has 2148 beehives which are currently registered in the ecological farming system. They represent about 10% of the total beehives which are registered in Romania.

All these figures show that the organic farming in North-West region is at the very beginning and there is much room for developments over the coming years.

Targets

No specific targets have been set for this indicator.

Conclusions

The Regional SSI Romania 2009 looked at sustainability through a regional perspective. This has a high relevance for the future steps which each region as well as Romania on national level has to take in order to achieve a higher level of sustainability. Moreover, the RSSI-Romania-2009 focused its attention on North-West region. It shows the possibilities for progress towards sustainability and offers an easy monitoring tool for policies at regional level.

Examining the state-of-the-art of North-West region regarding its efforts in sustainable development was a very interesting process. Identifying the right source of information, collecting and processing the available data and compiling them in one comprehensive and clear chapter were some of the challenges we encountered during this process.

The following conclusions and recommendations can be formulated for North-West region:

1. North-West region's overall score is 6.2. This is the highest score of all regions, which range from 5.2 to 6.2. Still, also for North-West region there is much room for further improvements and no less urgency to do so.

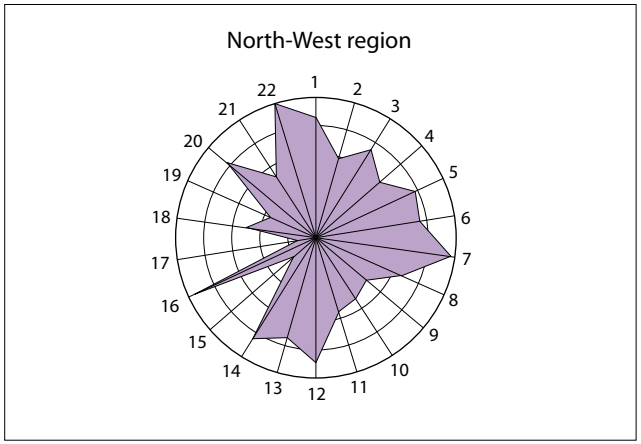
2. For North-West region the Top-5 priorities are:
   - Consumption of Renewable Energy
   - Waste Recycling
   - Preservation of Biodiversity
   - Land Quality
   - Forest Area

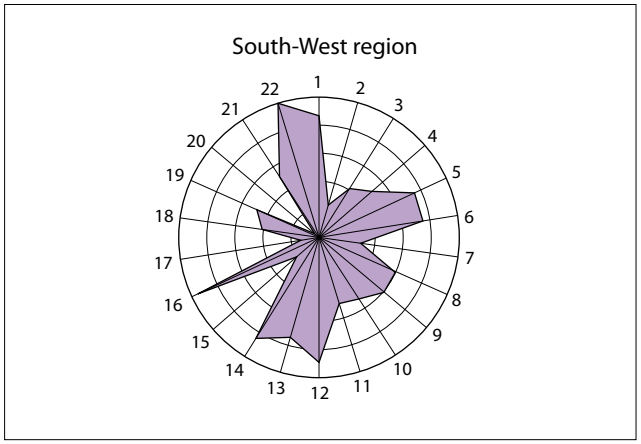
3. Other issues which have low scores in North-West region, like
   - Good Governance
   - Employment
   - Poverty Rate

   need serious attention too.

4. On top of attending to these priorities, North-West region should also pay attention to all indicators.

5. Comparison of the scores for each indicator of North-West region with the scores of the other regions will help in identifying the strengths of each region and the possibilities of sharing knowledge and experience for improving the weaknesses.





The spider webs of the regions with the highest and the lowest overall score offer a clear overall view. The notion of the differences will stimulate each region to better performance.

6. Monitoring and evaluation of policy implementation processes, programmes, plans and projects at regional level by using RSSI, will increase their effectiveness.

Annex 1

Abbreviations

BAT	Best available technology
CBO	Community Based Organisation
EG	Environmental Guard
EPA	Environmental Protection Agency
EU	European Union
EU-27	27 member states of the European Union
Eurostat	Statistical Office of the European Union
FSC	Forest Stewardship Council
GDP	Gross Domestic Product
GHG	Greenhouse gas
GPI	Genuine Progress Indicator
IMF	International Monetary Fund
ISEW	Index for Sustainable Economic Welfare
IUCN	International Union for Conservation of Nature
NEPA	National Environment Protection Agency
NGO	Non Governmental Organisation
NIS	National Institute of Statistics
OECD	Organisation for Economic Cooperation and Development
R&D	Research and Development
RDA	Regional Development Agency
REPA	Regional Environment Protection Agency
RSO	Regional Statistical Office
RSSI	Regional Sustainable Society Index
SO	Statistical Office
SSF	Sustainable Society Foundation
SSI	Sustainable Society Index
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
VET	Vocational education and training
WHO	World Health Organisation
WWF	World Wildlife Fund

Annex 2

References

Reports

Children's Environment and Health Action Plan for Europe – EU, 2007
Environmental Report – National Environmental Protection Agency, Romania, 2000-2006
Europe 2007, Gross Domestic Product and Ecological Footprint – WWF, 2007
FAO Global Forest Assessment 2005 – FAO, 2006
GHG National Inventory Report – Ministry of Environment and Sustainable Development, Romania, 2007
Global Biodiversity Outlook 2 – Convention on Biological Diversity, 2006
Governance Matters VI: Aggregate and Individual Governance Indicators 1996-2006, Kaufmann et al. – World Bank, 2007
Human Development Report – UNDP, 2005, 2007/2008
Lisbon Strategy – EU, 2000
Living Planet Report 2008 – WWF, 2008
Millennium Development Goals for Romania – UNDP, 2005
National Development Plan 2007-2013 – Ministry of Economy and Finance, Romania, 2007
National Report on Education – Ministry of Education, 2007
National Research, Development and Innovation Action Plan, 2007-2013 – Ministry of Education, Romania, 2007
National Rural Development Programme 2007-2013 – Ministry of Agriculture and Rural Development, Romania, 2006
National Strategic Planning – Ministry of Agriculture and Rural Development, Romania, 2007
National Strategy for Climate Change – Ministry of Environment and Sustainable Development, Romania, 2005
National strategy for fighting against droughts – Ministry of Agriculture and Rural Development, Romania, 2007
National Strategy for Research, Development and Innovation, 2007–2013 – Ministry of Education, Romania, 2007
National Strategy for Water and Sanitation – Ministry of Environment and Sustainable Development, Romania, 2006
Our Common Future, the Brundtland Report – WCED, 1987
Progress report on implementation of environmental action plans in Romania – NEPA, 2008
Regional Statistics – NIS, 2008
Report progress towards Lisbon objectives in education – EU, 2007
Romania of education, Romania of research. A report analysing the education and research policies of Romania – National Commission for Education under the Presidency of Romania, Bucharest, 2007
Romania, on its way to a sustainable society, SSI-Romania-2008 – Green Partners, 2008

Romania: Poverty Assessment Analytical and Advisory Assistance Program: First Phase Report, Fiscal Year 2007 – Human Development Sector Unit Europe and Central Asia Region, Ministry of Labour, Family, and Equal Opportunities and NIS, 2007
Romanian National Strategic Framework 2007-2013 – Government, Romania, 2007
Romanian Regional Environmental Reports – REPAs, 2007
Romanian Regional Development Plans – RDAs, 2007
Sectoral Operational Programme for Transport, 2007-2013 – Ministry of Transport, Romania, 2006
Sectoral Operational Programme Environment – Ministry of Environment and Sustainable Development, Romania, 2006
Sectoral Operational Programme for Economy – Ministry of Economy and Finance, Romania, 2006
Sectoral Operational Programme for Human Resources – Ministry of Labour, Family and Gender Equity, Romania, 2006
Sustainable Society Index, SSI-2008 – De Vijver, The Netherlands, 2008
The Romanian National Reform Programme – The Romanian Government, 2007
Third national report, Romania 2005 – Convention on Biological Diversity, 2005
National Strategy for Sustainable Development, Romania – Ministry of Environment, 2008

Websites

adrbi.ro – Bucharest-Ilfov Regional Development Agency
adrcentru.ro – Centre Regional Development Agency
adrmuntenia.ro – South Regional Development Agency
adrnordest.ro – North-East Regional Development Agency
adroltenia.ro – South-West Regional Development Agency
adrse.ro – South-East Regional Development Agency
anpm.ro – National Environmental Protection Agency
biodiv.org – Convention on Biological Diversity
bnr.ro – National Bank of Romania
calitateaer.ro – Romanian Air Quality Monitoring System
cdiac.ornl.gov – Carbon Dioxide Information Analysis Center
cgdev.org/section/initiatives/_active/cdi – Center for Global Development
ciesin.columbia.edu/indicators/esi – Environmental Sustainability Index 2005
earthforever.org – Earth for Ever
earthtrends.wri.org – Earth Trends
ec.europa.eu – European Commission
edu.presidency.ro – Romanian National Commission for Education, under the coordination of the Romanian President
enhiscms.rivm.nl – ENHIS, European Environment and Health Information System
epp.eurostat.ec.europa.eu/portal – databank of Eurostat, Statistical Office of the EU
euractiv.com – EU news portal
euro.who.int – WHO Regional Office for Europe
eurofound.europa.eu – European industrial relations observatory on-line

fairtrade.net/contactus/html – information about Fair Trade organizations
fao.org/ag/agl/aglw/aquastat/main – Aquastat – FAO databank with respect to water
fao.org/forestry/site/fra2005/en – Global Forest Assessment 2005
footprintnetwork.org – Global Footprint Network site
green-report.ro – Environmental news portal
guv.ro – The Romanian Government
gwp-romania.ro – Global Water Partnership, Romania
hdr.undp.org – Human Development Reports van de UNDP
iisd.ca – International Institute for Sustainable Development
imf.org – International Monetary Fund
ipcc.ch – UN – International Panel on Climate Change
isric.org – World Soil Information, Wageningen, The Netherlands
itcilo.org – International Training Centre
iucn.org – The World Conservation Union
maap.ro – Ministry of Agriculture and Rural Development
mie.ro – Ministry of Regional Development and Housing, Romania
mmediu.ro – Ministry of Environment, Romania
nord-vest.ro – North-West Regional Development Agency
oecd.org/statsportal – OECD databank
populatiaromanieiincotro.unfpa.ro – Romanian National Commission for Population and Development
rec.org/reeep – Renewable Energy and Energy Efficiency Partnership
rowater.ro – Romanian Waters National Administration
sustainablesocietyindex.com – SSF
undp.ro – United Nation Development Programme for Romania
unece.org – UN Economic Commission for Europe
unep.org – United Nations Environmental Programme
unfccc.org – United Nations Framework Convention on Climate Change
unwater.org – UN Water Department
waterwebster.com – International Water News Portal
wcd.coe.int – Council of Europe
wds.worldbank.org – World Bank
wecf.org – Women in Europe for a Common Future
who.int – World Health Organization
worldwatch.org – Worldwatch Institute
yale.edu/epi – Environmental Performance Index 2006

AGENȚIA DE DEZVOLTARE REGIONALĂ NORD-VEST

A.R.P.M. Cluj-Napoca

Ministerul Mediului
Garda Nationala de Mediu
Comisariatul Regional Cluj

DIRECȚIA REGIONALĂ DE STATISTICĂ CLUJ

Regional Sustainable Society Index for Romania – RSSI-Romania-2009
North-West region

Published by Green Partners, in commission of the Sustainable Society Foundation,
www.greenpartners.ro
Design and layout: Krek design, De Bilt, The Netherlands, www.krekdesign.nl
Photo: Daniel Roş, Green Partners, Romania

Printed on FSC labelled paper

ISSN 1844 – 9980

ciprian.popovici@greenpartners.ro

www.romaniadurabila.net
www.sustainablesocietyindex.com

SSF