

NORTH-EAST DEVELOPMENT REGION

REGIONAL DEVELOPMENT PLAN

PART ONE

- REGIONAL PROFILE -

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REGIONAL PROFILE

1. General Description of the Region

The region covers the north-eastern part of the country, and, according to the tradition, it is part of the old historical region of Moldavia.

Geographically, the region is neighbouring Ukraine in the North, the Galati and Vrancea counties in the South (South-East Region), the Republic of Moldova in the East, and the counties of Maramures and Bistrita Nasaud in the West (North-West), as well as the Mures, Harghita and Covasna counties (Centre Region) – see Presentation Map I.

Having a rich historical, cultural and spiritual background, the region provides the picture of tradition joining modern look, the past joining the present to capitalise the human resource potential, the industrial infrastructure, and a clean tourism area from an ecological point of view.

1.1. Administrative Units, Components of the Region (Counties, Communes and Towns)

The North-East Region is made of six counties (Bacau, Botosani, Iasi, Neamt, Suceava, Vaslui), summing up an area of 36,850 sq.km and a population of 3,807,455 inhabitants, being thus rated first among the eight regions of the country.

In terms of extent, the region covers 15.46% of the total area of the country, which is 238,391 sq.km; the most extensive counties are Suceava, with an area of 8.553 sq.km, and Bacau, with 6,421 sq.km, while the distance to the capital of the country, Bucharest, is 349 km (Map II).

- The administrative units composing the region are presented in Annex II, tables 1.1-1.4 and the table below:

COUNTY	Total area (sq.km)	Number of inhabitants (as at 1 st January 1999)	Number of towns and municipalities	Of which municipalities	Number of communes
BACĂU	6.621	750.747	8	2	79
BOTOȘANI	4.986	462.128	4	2	68
IAȘI	5.476	831.282	4	2	85
NEAMȚ	5.896	584.954	4	2	70
SUCEAVA	8.553	713.782	8	4	90
VASLUI	5.318	464.562	4	3	71
TOTAL REGION	36.850	3.807.455	32	15	463

Source: NCS – Statistical Yearbook of Romania, 1998

1.2. Geographical Areas – Main Characteristics: Topography, Climate, Hydrology

The region is characterised by a harmonious combination between all the forms of relief, 30% is represented by mountains, 30% Subcarpathian (hilly) relief, and 40% is covered by plateaus and plains; actually in the counties of Botosani, Vaslui and Iasi 70% covered by this form of relief.

A longitudinal section across the region looks as a slope plunging west-eastwards, with a number of variations. In the West, the Carpathian Mountains stand as a wall, having heights of nearly 2000 m in the North (peaks of Pietrosu, Rarau, Giupalau, Ocolasu Mare, Hasmasu Mare), with a drop in the height southwards (Ciuc Mountains, Trotus Mountains and in a low extent, the Vrancea Mountains).

In the centre the Subcarpathians are stretching, with heights ranging between 7-800 m, surrounding the mountains like a tight belt. Going further, the eastern half is divided into two large areas: the Moldavian Plain in the northern part, and the Barlad Plateau in the South.

The north-western part of the region is also known as the Suceava Plateau, with an average height of 500 meters and is famous for its long mountain ranges or high hills with peaks.

- Main mountain heights of the region:

Name of mountain peak	Name of massif	County	Height of the peak (m)
Pietrosu	Căliman	Suceava	2.100
Ocolaşu Mare	Ceahlău	Neamţ	1.907
Toaca	Ceahlău	Neamţ	1.900
Budacu	Bistriţa	Neamţ, Suceava	1.859
Giupalău	Rarău	Suceava	1.857
Rarău	Rarău	Suceava	1.651

Source: NSC – Statistical Yearbook of Romania, 1998

- Climate

The various topography creates climate zones with significant differences, such as mountainous, and the ones typical to hills and plains.

In the mountain area of the region (western areas of the Suceava, Neamt and Bacau counties) the climate is moderate continental, with cool summers and winters rich in snowfalls.

In the Subcarpathian area, which includes hills and plains (the eastern parts of the Suceava, Neamt, Bacau counties, as well as the entire territory of the Botosani, Iasi, Vaslui counties), the climate is continental, with hot and dry summers, and cold winters, most of the times with no snow at all.

The yearly average temperature of the air is 2°C in the mountain area and 9°C in the Subcarpathian area of hills and plains. The air temperatures system is shown in Annex I, table 1, and the rainfall/snowfall picture is presented in Annex I, table 1.2.

- Hydrology

The region includes a number of eight significant waterways, which are stretching north-southwards; the largest hydrographical basins are Siret (42,890 sq.km) and Prut (10,990 sq.km). The latter represents the natural border with the Republic of Moldova, over about 680 km.

Many of the waterways in the region were subject to vast arrangement and straightening works. On the Bistrita River even since the '70s a chain of seven micro-power systems has been built, along with the largest artificial lake of the region (Bicaz-Neamt), with a 1.130 mil.c.m at normal retention level.

1.3. Natural Resources of the Region

- Soils

More than 60% of the total area of the region is represented by agricultural land, and forests represent 28.1 %. This natural wealth of the soil has enabled the development of traditional trades in the region, such as agriculture (cereal crops, potatoes and sugar beet – in all the counties, viticulture – in the Vaslui, Bacau and Iasi counties, fruit growing – in the Iasi, Suceava and Neamt counties) and wood exploitation and manufacturing – Suceava, Neamt and Bacau counties.

- The subsoil

The region has available the following underground resources:

- 1) *manganese*: Dadu, Ciocănești-Oarța, Vatra Dornei, Iacobeni, Șaru Dornei, Broșteni, all of them communes in the Suceava county;
- 2) *base metal sulphides*: Cârlibaba, Fundu Moldovei, Valea Corbului, Gemenea, Leșul Ursului - all of them communes in the Suceava county;
- 3) *sparkling mineral water*: Neagra Șarului, Șaru Dornei, Vatra Dornei, Poiana Negrii, Dorna Căndreni, Poiana Stampei, Coșna, Dornișoara-Suceava country, Oglinzi, Băltașești – communes in the Neamt county;
- 4) *sulphur and iron-bearing mineral water*: Strunga, Nicolina Iași - Iasi county; Brânceni, Murgești, Pungești, Gura Morii – Vaslui county; Băile Slănic, Moinești, Târgu Ocna, Poiana Sărată, Sărata-Bacău – Bacau county;
- 5) *construction materials*:
 - *limestone*: Pojorâta, Câmpulung Moldovenesc, Botuș – Suceava county; Bicaz Chei - Neamt county; Bărbătești, Costești, Ipatele, Păun, Schitu Duca, Deleni, Strunga – Iași county; Darabani, Ștefănești, Lipcenii – Botoșani county; and in Vaslui it is prevalingly encountered on river sides;
 - *clay*: Bistrița, Timișești, Tașca Girov Ozana – Neamț county; Vlădiceni – Iași county; Bucecea, Dorohoi, Leorda, Mihăileni, Botoșani – Botoșani county; Doftana, Măgura, Călugăra – Bacău county;
 - *sandstone*: Tarcau – Neamt county; Cosula, Tudora, Hudesti – Botosani county; in Vaslui sandstones and sands occur on the riversides; they are also encountered in Ghimes, Faget and East of the Slanic Moldova area – Bacau county; Solca Platinoasa – Iasi county;
 - *gypsum*: Miorcani, Darabani – Botosani county; Perchiu, Onesti – Bacau county;
 - *sands*: Miorcani, Hudesti – Botosani county; Lespezi – Iasi county; Comatel, Urechesti, Garleni, Orbani – Bacau county.
- 6) *peat*: Poiana Stampei – Suceava county; Dersca – Botosani county;
- 7) *salt*: Cacica – Suceava county; Moinești, Sarata, Targu Ocna – Bacau county;
- 8) *sulphur deposits* in the Caliman Massif;
- 9) *oil shales deposits* in Tazlau-Neamt;
- 10) *brown coal* in the Darmaesti Basin;
- 11) *natural gas* in Tazlau-Oituz – Bacau county, and Tazlau, Romani – Neamt county.

In the North-East region there are areas of mining tradition – the Bucovina area – Suceava county, and Moinesti-Comanesti – Bacau county, as well as concerning exploitation of salt deposits and mineral water – Cacica and Vatra Dornei respectively – Suceava county.

1.4. Main Centre of the Region (Location, Accessibility, Distances)

- The main urban centres of the region are indicated in Map I.

Iasi, being also called the capital of historical Moldavia, is the “heart” of Romanian university education, with its seven higher education institutions. It shelters the greatest Orthodox creed house in Romania – the Metropolitan Cathedral (1840-1880) and the Botanic Garden, that includes in its 12 sectors rare floral species from over the world. Iasi is also the location of an important research-development core for the industrial sector, respresented by most of its branches.

In Bacau a diversified range of enterprises is concentrated, acting in the industrial sector, business infrastructure, banking services, as well as a number of state and private education institutions.

The town of Piatra Neamt, historically certified since 1392, under the name of Piatra lui Craciun, locating near the Ceahlau massif like a real “Olympus of Moldavia”, is not only representing the crossroad for touristic routes, but also an important objective for the industry and tourism, as it includes several monuments of value.

By its nowadays look, Suceava is a pleasant and interesing place, an important tourism objective, especially for its old monuments reminding of its glorious past as the royal residence of historical Moldavia.

The Slanic Moldova town is known under the name of “Pearl of Moldavia”, being one of the most famous spas in the country (it has more than 200 mineral water springs, which value is comparable, according to specialists, with the ones in Karlovy-Vary).

- Access to the main centres of the region

On the North-South direction important roadways and railways develop, that ensure most of the ware and passengers traffic:

- **Bucharest-Suceava-Siret** (border check point) – E 85 international road, with the **Suceava-Budapest** ramification on the E 576 international road
- **Bacau-Brasov-Pitesti – E577 international road** (making the connection with the E70 international road: Craiova-Vidin-Scoplje)
- **Bucharest-Barlada-Albita-Chisinau – E581 international road**, crossing the Vaslui county
- **Regional railway corporation Iasi**, with the following routes: **Bucharest-Bacau-Suceava-Siret-Ukraine** – thoroughfare 500, and **Bucharest-Iasi-Ungheni-Republic of Moldova** – thoroughfare 600.

Airtransport in the region is provided through the following **airports**:

- **Bacau – Bacau county** – internal and international
- **Iasi – Iasi county** – internal and international.

Road distances between main centres of the region and Bucharest (May II):

- km -

	Bacău	Botoşani	Iaşi	Piatra-Neamţ	Suceava	Vaslui	Bucureşti
Bacău	-	193	130	58	151	83	294
Botoşani	193	-	187	145	42	258	499
Iaşi	130	187	-	139	145	71	430
Piatra-Neamţ	58	145	139	-	103	129	354
Suceava	151	42	145	103	-	216	457
Vaslui	83	258	71	129	216	-	359

Source: NCS – Statistical Yearbook of Romania, 1998

1.5. Comparative Analysis Against the Ratios at National Level

The region is rated last in Romania as concerns the gross domestic product (GDP) and the human development index (HDI).

Its position compared to the other regions and to the average at country level is shown in the table below:

Statistical regions	Gross domestic product per capita in 1996 per PPP (US dollars)	Life expectation at birth (years) 1994-1996	Level of literacy in adult population % 1996	Gross rate of coverage by all levels of education 1996/1997	Human development index (HDI) 1996
ROMÂNIA	4244	69,1	97,0	62,0	0,758
NORTH-EAST REGION - 1	3256	69,0	96,9	58,6	0,699
SOUTH-EAST REGION - 2	4270	68,9	97,0	58,6	0,7554
SOUTH REGION - 3	3866	68,7	95,0	56,9	0,724
SOUTH-WEST REGION - 4	3900	69,4	95,5	61,2	0,736
WEST REGION - 5	4996	68,1	97,8	63,8	0,797
NORTH-WEST REGION - 6	3981	68,2	97,2	62,1	0,739
CENTRE REGION - 7	4526	69,8	98,5	60,5	0,779
BUCHAREST REGION - 8	6090	69,5	98,9	82,1	0,888

Source: National Human Development Report, 1998

The other human development ratios over the regions are shown in Annex I, table 1.3.

The region faces a strong economic regression, accounted for by the gross domestic product (GDP) which is lower by 22% than the national one (3256 USD) and the existence of a high percentage of unemployed not enjoying allowances, i.e. 52.38% as against 29.8% at national level. The large number of people who have emigrated during 1990-1998 (Annex II, table 1.12), affects the real figure of the unemployed population.

The data supplied by the latest census undertaken by the National Statistics Commission indicate the existence in the region of a 3.8% weight of population without access to the electricity network (as against 2.0% which is Romania's average), and a weight of 60.15% of population having no access to water supply (as against the 45.6% average per country).

1.6. Conclusions

Having a total area of 36,850 sq.km and a number of 3,807,455 inhabitants, the North-East Region is the largest of all the eight development regions in Romania.

The rich topography includes hilly and plain areas that lend themselves to a wide range of agricultural crops, and mountain areas with spectacular scenery favouring the development of tourism.

The region has cross-border points with the Republic of Moldova and Ukraine (roads and railways), and three civil airports (Bacau, Iasi and Suceava).

In terms of climate, the region ranges in the temperate-continental type.

The region has a rich hydrographical network, evenly distributed over the territory.

44% of the population of the region is concentrated in the urban areas, the largest of which is the Iasi municipality, with 348,399 inhabitants.

According to the human development index and the GDP, the region is rated last in Romania, being considered the area with the highest level of poverty.

2. Population and Activity Rate

2.1. Total population

As at 1st January 1998 the total population of the North-East region was 3,785,530 inhabitants, representing 16.7% of the total population of the country, and reaching 3,807,455 inhabitants at 1st January 1999. From this point of view, the North-East region is rated first over the country.

The population of the region is concentrated in 32 urban centres, and 463 communes made of 2,421 villages. The density is 6.6 villages / 100 sq.km, and 0.9 towns / 1000 sq.km, as against 5.5 villages / 1000 sq.km and 1.1 towns / 1000 sq.km at national level (annex II, tables 1.1, 1.2, 1.3).

The size of the villages is generally medium and small, with an average population of 870 inhabitants (Annex II, 1.4, 1.5).

The weight of the urban population in the total population is 44.3%, while the rural population represents 55.6% (higher by 10% than the existing situation in the other regions – Annex II, tables 1.6, 1.7, and 1.8). The counties with the largest number of population are Iasi (823,735 inhabitants) and Bacau (746,931 inhabitants), just opposite to the counties of Botosani (460,115 inhabitants) and Vaslui (460,931 inhabitants).

Against the total figure for the region, there is a balanced proportion between genders, the highest weight being scored by female population – 50.54% (Annex II, table 1.9).

As concern ethnicity, the population of the North-East region has a high level of homogeneity. According to the 1992 census data, 98.4% of the total population is represented by Romanians, 0.1% Hungarians, 0.7% Romanies, 0.1% Lippovan-Russians, and 0.6% other nationalities (Attachment II, table 1.11).

In terms of religion, most of the population of the North-East Region is Orthodox (91.04%), which feature is closely correlated to the ethnical structure. The other religions hold lower weights, as follows: Roman-Catholic 5.93%, Pentecostal 1.12%, Adventist 0.31%, and other religions 1.58%.

2.2. Education and Social Problems

The basic factor in the development of a national and regional economy is represented by human capital. Although it is difficult to quantify and it represents a controversial notion in itself, human capital could include human resources with a certain level of education.

The North-East Region has available an education system providing education and adequate training to all education levels. At the beginning of the 1997-1998 school year, the number of people included in a form of education was 809,173, which represents 21.37% of the total population of the region (Annex II, table 1.13, 1.14).

The North-East Region includes all the types of education, having an appropriate level of development. In the three universities centres of Iasi, Bacau and Suceava there are 10 universities, where more than 42,000 students are attending and 3500 teaching staff are operating.

These data demonstrate the existence of a teaching tradition in the region and a continuous interest in training the future generation at the highest standards.

As concerns criminality rate, this is higher than the country average at regional level, i.e. 505 people definitely convicted per 100,000 inhabitants, as against 496 people convicted at national level (Annex I, table 2.1.).

2.3. Active Population and Labour Resources

The active population in the North-East Region as at 1st January 1998 was 1,644,700 people, of which 201,000 unemployed and 1,443,700 employed population.

As concerns professional status, the employees hold the highest weight in the active population (63.86%), the self-employed follow (24.38%), then the members of co-operative associations (3.22%), unpaid family workers (2.55%) and employers (0.58%) (Annex I, table 2.2).

The level of literacy in the population, according to the data of the latest census, is 96.3% at regional level, but with the following differences by counties: Iasi, Neamt and Suceava – 97.1%, Bacau – 96.1%, Botosani, Vaslui – 95.1% (Annex I, table 1.3). This ratio reflects the main processes having occurred in the improvement and diversification of the level of training in the population, with the following distribution at regional level: 3.57% having attended tertiary education, 0.33% post-high school, 1.1% foremen schools, 14.4% vocational schools, 14.9% high schools, 33.2% gymnasium, 28.1% elementary schools, while 4.4% are illiterate (Annex II, table 1.13, 1.14).

The active female population in the region exceeds the average per country (46.70% as against 44.73%), while the active male population is ranging below the national average (53.30% as against 55.27%).

2.4. Rating Against Other Regions

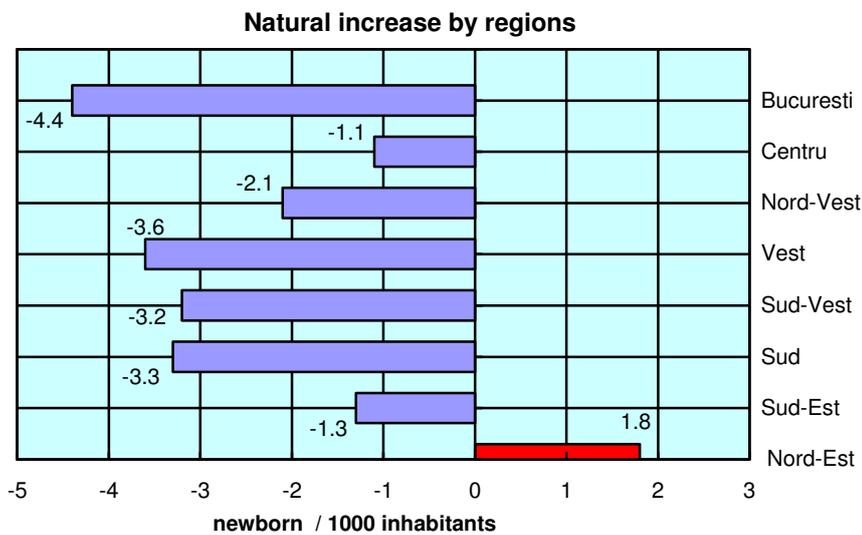
The region has an average density of the population of 1151.5 inhabitants / sq.km in the urban environment and 61.5% inhabitants /sq.km in the rural environment, with an average density of 103.3 inhabitants / sq.km, thus ranging above the country average (95.7 inhabitants / sq.km).

Ethnically, the North-East Region is one of the most homogenous areas in the country; Romanians represent 98% of the total population, as against the 89.4% national average.

In four of the six counties more than 92% of the population is Orthodox; only in Bacau and Neamt there is a significant number of Roman-Catholics (10% and 17% of the county population, respectively).

In order to deliver an evaluation of the demographic characteristics of the region in more detail, a number of ratios were considered: population by age groups, natural increase and infant mortality (Annex I, table 2.3 and 2.4 and Annex II, table 1.10). Overall, noticeable is that the region shows a younger population than the national average.

The natural increase in the North-East Region is 1.8 / 1000 inhabitants, being the only region that records an increase; the comparison to the other regions is given in Annex I, table 2.5.



The structure by gender and age groups of the population overall, by regions, points out a balanced distribution of the population in the North-East Region (Annex II, table 1.10).

Of the total amount, the weight of young population between 15 and 34 years old is representative (32.1%), but also noticeable is a high percentage of the aged population, 65 years old and more, the latter being scored by 12.5% of the total population (the Botosani county records the maximum figure – 14.6%).

Even though the increase at national level records negative values, the counties composing the region are characterised by positive trends of the living ratios, both in the urban, and in the rural environment, which fact is counterbalanced by a rate of infant mortality higher by 4.3% than the country average.

The school population included in all the levels of education during the 1997/1998 school year was 809,173 people (17.43% of the total per country), exceeding from this point of view the figures recorded in all the regions.

Thousand pupils

Crt. No.	Region	Total	Pre-school	Primary and gymnasium	High school	Vocational and apprenticeship	Post-high school and foremen	Tertiary
1.	North-East	809,2	114,9	477,6	112,9	48,2	12,8	42,6
2.	South-East	582,6	77,8	344,2	96,0	33,1	10,5	20,9
3.	South	633,0	86,9	382,0	108,1	32,4	10,9	12,5
4.	South-West	473,1	67,7	265,9	87,1	21,6	11,4	19,2
5.	West	423,0	57,8	222,8	69,9	21,1	7,2	44,1
6.	North-West	614,0	94,9	326,7	96,2	33,5	11,5	51,1
7.	Centre	562,2	85,3	299,7	97,8	33,7	11,7	33,8
8.	Bucharest	546,1	37,9	240,7	97,8	23,4	9,9	136,3
9.	Romania	4643,3	623,5	2559,7	765,9	247,2	86,3	360,6

Source: NSC – Statistical Yearbook of Romania, 1998

Pre-university education is represented by schools and high schools of such profiles as general culture, industrial, economic, agricultural, sanitary, pedagogical and fine arts, where 590,583 pupils are attending (15.5% of the population of the region).

The North-East Region has available ten prestigious state tertiary education institutes, where 42,000 students are learning, in three university centres (Iasi, Bacau, and Suceava). Tertiary education has seen an important development after 1989. Even if the technical tertiary education has recorded a continuous decrease in the demand, the other tertiary education institutions showed an increased demand, particularly for those of economic, pedagogical, medical & pharmaceutical and legal profile. New specialisation sections were established, such as: civil engineering in English and French, environment engineering, mechatronics, biochemical engineering, rural mountainology.

In terms of general level of education, taking in consideration the increase of expenditures in the area of post-high school and tertiary education, as well as the high decrease of inclusion of the population of schooling age into the lower levels of education, a drop in the education capital for future generations is noticed.

The region has available personnel with a vast experience (15-20 years of service) in the industrial sector and especially in the manufacturing industry, financial and banking activities, insurance, movable assets transactions, education and social assistance, as more than 30% of the total active population is employed in these sectors.

Young people with secondary and tertiary education, having recently graduated, are employed particularly in sectors like: industry, agriculture, construction, hotels and restaurants, public administration.

In the 25-34 year old population sector, the distribution by economic activities focuses on the mining and manufacturing industry, construction, movable assets transactions, health and social assistance.

By its average number of employees, amounting to 766,885, the region covers 13.7% at national level, shared among industry (43.9%) and manufacturing (37.6%), 15,257 employees being concerned in forestry, forest exploitation and hunting economy, which are typical sectors of the region (Annex II, table 2.2).

2.5. Conclusions

The North-East Region has the largest number of inhabitants, scoring 3,785,530 inhabitants (that is 16.7% of the total population of the country). The rural environment concentrates most of the population in the region (55.7%); the 44.3% remainder of the urban population is strongly polarised into the large towns.

In terms of ethnicity, the population in the North-East Region shows a high degree of homogeneity (98.4% Romanians), most of them Orthodox, with a balanced distribution by genders.

The region has available a complex network providing education at all levels; the level of literacy is 96.3%. Tertiary education is strongly represented in the three centres of Bacau, Iasi and Suceava, where most of the research and development activity runs.

The region has personnel with a vast experience (15-20 years of service) in the industrial sector, especially in manufacturing industry, financial activities, banking, insurance, movable assets transactions, education and social assistance; more than 30% of the total active population is employed in these sectors.

3. Economic Structure

The geographical and historical conditions have determined a serious social and economic gap in the North-East Region. The economic feature of the '60s was agriculture prevalence, the standard of living being very low.

In the 1965-1985 period the region was subject to compelled industrialisation, aimed at restoration of the economic condition by purchasing producing capacities of an up-to-date design, at developed countries standards, which determined the setting up of an industrial culture, labour force qualification and a large number of specialists being trained.

Industrial development was not appropriate though (as a concept), because it was planned in a too diversified way and without taking in consideration the natural, energy, environment resources, etc.

The inappropriate management due to the reticence in implementing the quality standard system for the production and products, the enterprise development strategy, the marketing rules in promoting the products, alongside the loss in sales markets and drop in the level of competitiveness of the products due to the lack of resources for maintaining the investment have caused a sharp decrease in the industry after 1989, with serious implications for the development of the region concerning all the other sectors.

3.1. Economic Analysis by Sectors of Activity (Primary, Secondary, Tertiary)

Activity in the Primary Sector

The region has available an important agricultural and forest potential:

County	Agricultural area	Forests
Bacău	48,0	42,2
Botoşani	77,8	11,5
Iaşi	68,6	17,9
Neamţ	48,2	44,1
Suceava	40,9	53,4
Vaslui	72,8	15,8

The counties with the largest agricultural area in the region are Botosani (77.8%) and Vaslui (72.8%), which include more than 50% of the population employed in agriculture. The largest forest areas are in the counties of Suceava (53.4%) and Neamt (44.1%), which sum up more than 10,000 employees in sylviculture, forest exploitation and hunting economy.

- **Agriculture**

Agriculture is the widest spread activity over Romania's territory, as in Moldavia it enjoys propitious conditions for development. As a specialised human activity, agriculture includes not only the production area, but also parts of the agricultural goods and services distribution required meeting the overall needs of the population.

Although the North-East Region includes a large area of agricultural land, this resource cannot be capitalised, as the productivity is low for all types of crops, owing to the influence of the following factors:

- the varied topography of the region
- the quality of the land, its sharp diversification, the alternation of soil categories, their division as compared to other units: the Romanian Plain, the Western Plain or the Transylvanian Plateau.
- agricultural land is worked on small plots (1-3 ha), due to the division of the land fund, as a result of privatisation of the land under Law No. 18/1991.
- low level of mechanisation, considering that a profitable exploitation is achieved on plots of at least 50 ha per tractor.
- aged labour force (more than 28% of the rural population is more than 60 years old), while young people migrate towards the urban centres
- high level of poverty of the owners, who face many difficulties in crop production and animal breeding
- lack of a high performance management in the field
- lack of support from the state for agriculture
- lack of capital for agriculture restructuring and updating
- lack of jobs in other sectors that could absorb the labour force in excess from agriculture.

The hilly tilting topography of the region (about 50%) is subject to erosion and earth glide, in this way large areas being affected, as follows: in the Botosani county more than 150,000 ha under degradation, in the Vaslui county more than 89,000 ha representing land divided into wide valleys, the Suceava county showing 85,114 ha affected by earth glides, in the Bacau county, on the left side of Siret River, about 46,000 ha under degradation, while in the Neamt county – 68,000 ha in the same condition.

The works aimed at fighting erosion can only be undertaken on too small areas of the land under degradation, due to the high costs and insufficient equipment (Annex I, table 3.1).

The excessive division of the land and the one third cut in the agricultural machinery and tractors base have prevented the agricultural potential of the North-East Region from being capitalised, which fact has a direct influence on agricultural production and the incomes of the population. In terms of agricultural works mechanisation, an average of 105 ha are covered by one tractor, which involves low outputs per hectare, with high expenditures incurred for the mechanised agricultural work per hectare.

The agricultural machinery and tractors base in the state and private sector in the North-East Region were looking as follows in 1997 (pcs.):

Counties / Agricultural machinery	Bacău	Botoşani	Iaşi	Neamţ	Suceava	Vaslui	North-East region
Agricultural tractors	2613 2203	2800 1772	3557 2099	2199 1848	3358 2407	3697 2110	18224 12439
Tractor ploughs	1847 1610	2101 1453	2180 1383	1671 1456	2494 1783	2592 1515	12885 9200
Mechanical cultivators	260 189	1193 872	522 264	248 189	386 145	575 271	3184 1930
Mechanical sowers	872 736	1215 742	1180 639	778 659	637 337	1350 752	6032 3865
Sprinkling / dustring machinery	156 81	98 24	344 66	133 103	235 71	249 62	1215 407
Self-propelling combines	517 409	844 413	697 310	465 411	604 273	757 309	3884 2125

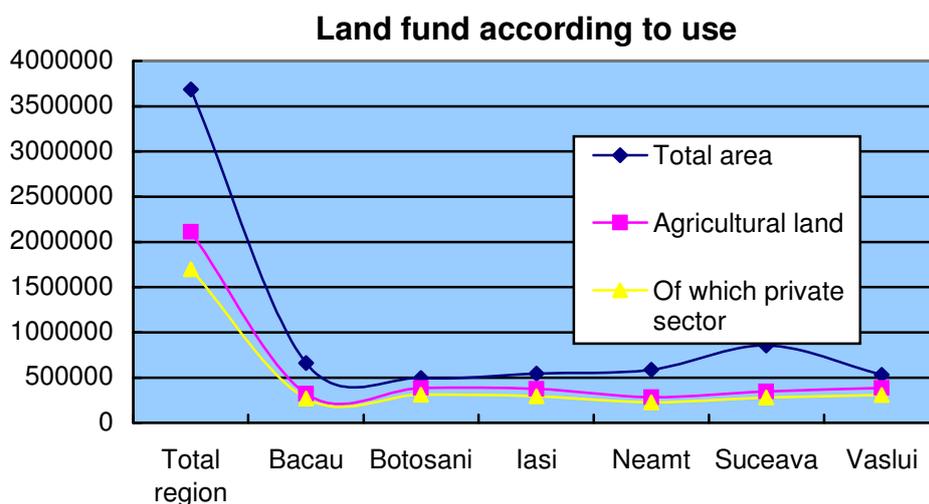
Straw and hay	140	358	237	161	155	403	1454
packing press	98	117	53	107	17	139	531
Arable area per	70	104	70	77	53	74	74
physical tractor	80	148	108	88	71	118	100

Source: NCS – Statistical Yearbook of Romania, 1998

The disparity between the arable area owned by the private producers (89%) and the precarious technical equipment is significant as compared to the area owned by state agricultural companies, that have a suitable agricultural base, but there are no accurate data as concerns the level of wear and tear of the latter.

In what follows we present a diagram of the land fund included in the North-East Region, according to its use (Annex I, table 3.2).

The overall level of agricultural production has recorded low outputs per hectare for the main crops, thus the North-East Region being rated 8th in the national hierarchy.



By expressing the agricultural production in 1997 as percentages against the previous year (1996), some types of crops have recorded rises and other ones low outputs, as a result of the influence from environment factors and technological ones (Annex I, tables 3.3. and 3.4.).

Due to the destruction of supply and pumping equipment for irrigation systems over the region, the areas fit out with irrigation equipment represent 135,441 ha (Bacau 20,920 ha, Botosani 20,234 ha, Iasi 50,433 ha, Neamt 10,414 ha, Suceava 3,778 ha, Vaslui 29,662 ha), while the areas actually irrigated are smaller.

As the fodder crops are mostly depending on fertilisers and irrigation, the livestock is diminished by more than 30%; the data reported point out that more than 90% of the number of livestock are under private ownership, while the state sector, which used to have an industrial animal breeding system, is actually destroyed nowadays, due to the shutting down of most of the poultry breeding sites, fatteners and farms (Annex I, table 3.5).

The private agriculture sector is characterised by an excessive division of the land, due to the restoration of property rights under Law No. 18/1991, thus areas between 1 and 3 ha becoming the property of each owner. Of the total agricultural area in the private sector, the level of association of land owners ranges between 3 and 5% in the Bacau county, 10.8% in the Botosani county, 7.5% in the Neamt county and 9% in the Suceava county.

The total agricultural output of the region in 1997, amounting to 13,178,694 mil ROL, represents 16.78% of Romania's total production per a corresponding area of 14.26%; the least contribution is from the counties of Vaslui and Botosani.

In this respect, the reported data concerning cultivated areas for main crops exploitation are representative (Annex I, table 3.6).

- **Forestry**

Forest exploitations have a considerable contribution, by the high wood volume produced in the North-East Region and by the large afforested areas existing (Suceava 456,579 ha, Bacau 279,535 ha, Neamt 260,314 ha); they supply 22.03% of the total wood volume in Romania.

Due to the lack of investment programmes and poor retechnologisation of the wood industry and furniture manufacturing, instead of exporting finished products, that would contribute the productivity and revival of this economic sector, large amounts of raw materials are being exported (timber and cut wood), which will lead, in the near future, to an unreasonable exploitation of the forest fund and a degradation of the environment – a situation reported in 1998 by pointing out the wood volume exploited:

Wood volume circulated in the economy in 1997 (th c.m):

Counties	TOTAL	Coniferous	Beech	Oak	Various hard species	Various soft species
Bacău	672,5	275,4	269,6	19,2	66,0	42,3
Botoşani	125,2	1,6	24,9	26,6	49,1	23,0
Iaşi	193,8	1,6	32,6	16,6	71,2	71,8
Neamţ	804,2	466,6	241,4	10,3	46,4	39,5
Suceava	1265,7	1006,9	203,6	7,0	33,6	14,6
Vaslui	135,4	0,3	15,5	29,7	53,2	36,7
Total Region	3196,8	1752,4	787,6	109,4	319,5	227,9

Source: NSC – Statistical Yearbook of Romania, 1998

As noticeable, the Suceava county has contributed the highest share of the wood volume circulated in the economy in 1997, i.e. 1,267.5 th c.m. (39.5% of the total per region), the Bacau county 672.5 th c.m. (21%), the Iasi county 193.8 th c.m. (6%) and the Neamt county 80.24% th c.m. (2.5%).

The North-East Region includes more than 1500 ha of forest reservations for the preservation of fauna and flora, as well as monuments of nature typical to the mountain sector; the most important are:

- Bacau county – the forest reservations of Padurea Slanic and Targu Ocna (Oriental pine)
- Iasi county – Valea lui David (floral reservation, 5 km away from Iasi), Padurea Uricani (8 km away from Iasi, a reservation including a very nice oak and common oak forest) and the Dealu Mare forest, near Deleni, with century old beech woods

- Neamt county – Copper Woods (located 30 km away from Piatra Neamt – a forest reservation with century old common oaks), Silver Forest (a reservation with century old birch trees), Padurea Gosmanu (forest reservation with spruce fir, fir tree and century old beech trees of an impressive size) and the Ceahlau National Park
- Suceava county – century old woods at Slatioara (includes 300-400 years old specimens of spruce fir, beech and fir tree).

- **Mining industry**

It is represented over the region in the counties of Bacau, Suceava, Neamt, where the main underground resources range, and it shows the same descending economic trend as the other sectors.

Significant in this respect is the coal mining sector. Due to the relatively low heating power, the difficulties in exploitation, the obsolete technologies and inefficient organisation structures, restructuring operations were required in the areas of Comanesti-Bacau and Bucovina-Suceava, that have generated redundancies of about 50% of the number of employees.

The absence of sound programmes for labour force reconversion may cause serious degradation of the social condition and standard of living in these areas.

<p>The activity in the secondary sector faced a dramatic drop during the 1990-1999 period.</p>

Although it includes the highest percentage of employed population (60.2% of the total employed population), the turnover represents only 51.68 % of the total turnover derived in 1998 by the economy of the region.

The change from an economic development based on compelled and energy-intensive industrialisation to one operating according to market economy rules was abrupt, without preliminary preparation.

The industrial output has dropped by more than 50%, due to the following:

- The low capacity of adaptation to the modifications occurring in the structure of the home and foreign markets
- Poor management quality
- Strong decapitalisation due to inflation rise, sharp devaluation of the national currency, low investment, etc.
- Slow rate of privatisation and restructuring
- Unsteady and incoherent legislative framework, that did not stimulate foreign and home capital investment.

The chambers of commerce and industry have made constant efforts to promote at national and international level the most profitable enterprises, organising for this purpose a selection of the top ten enterprises, along with contracting fairs and specialised exhibitions.

The construction sector is well represented at regional level. The industrial building sites have proven their experience in the framework of broad projects, such as the industrial sites in Iasi, Piatra Neamt-Savinesti or Onesti-Borzesti, the hydro-technical work involved in the dam at Bicaz-Neamt, or the building of dwellings, commercial centres, hospitals, education institutions, etc.

This sector was subject to a strong economic regress after 1989 too, which resulted in the diminution by more than 50% of the personnel employed. The lack of up-to-date, efficient materials, multifunctional working materials, cumulated with the drop in the orders due to the general economic decline have led to a massive reduction of the construction and land planning activity.

This phenomenon was the more sharpened by the emigration of specialists and skilled personnel towards better paid jobs.

The activity in the tertiary sector can be characterised at regional level by:

- Positive dynamics during 1995-1999
- Faster adaptation to the market economy requirements, as the activities do not imply complex long-term strategies.

Although the above holds 42.98% of the total turnover in the region, for a weight of the population employed of 32.7%, it cannot be deemed as satisfactory, because:

- There is a strong concentration in the developed centres of the region (Iasi and Bacau municipalities), while in the rest of the territory it has a very low weight
- It is focusing on commerce and restaurant activities, and the services supplied directly to the population are insufficient and of poor quality
- Tourism services are not capitalised at the level of the existing potential
- The advisory services are insufficiently promoted
- The health and social assistance services are much below European standards.

The activities concerned in ware and passenger transport have followed two baselines during recent years:

- Railway transport is still under state ownership and was subject to restructuring at the level of regional subsidiaries, to update the existing infrastructure
- Road transport has particularly developed in the private sector, as ware and passenger transport companies were established and organised in an up-to-date and efficient manner.

3.2. Economic Analysis by Sectors, Branches and Distribution in the Territory

One of the ratios that can provide information as concerns the economic status of the North-East Region is the participation in the gross domestic product (GDP):

Regional gross domestic product

- bil. ROL -

Sector	Romania	NE Region	%
Agriculture	13.941,3	2.359,1	16,9
Sylviculture, forest exploitation, pisciculture	328,0	79,4	24,2
Industry	23.711,3	2.936,5	12,38
Construction	4.755,1	533,5	11,21
Commerce	7.570,2	937,9	12,38
Transport and storage	4.567,8	525,6	11,5
Mail and telecommunication	1.008,8	97,4	9,6
Finance, banking and insurance	3.588,1	400,8	11,1
Real estate and other services	3.452,6	338,4	9,8
Public administration	2.691,8	427,8	15,9
Education	1.853,9	316,3	17,6
Health and social assistance	1.304,6	210,5	16,13
Total gross domestic product	72.135,5	9.565,5	13,2
Gross domestic product per inhabitant (ROL)	3.180.444	2.527.505	79,4

Source: NSC – Statistical Yearbook of Romania, 1998

For a population representing 16.7% of the total population of the country, only the contribution to the GDP from agriculture (16.9%), forestry (24.2%) and education (17.06%) is above the average, all the other economic sectors having a weight below the country average.

In these circumstances, the gross domestic product per inhabitant represents 79.4% of the country average, the region being rated last from this point of view. The distribution of active units in the industry, construction, commerce, services (Annex I, table 3.7) points out the following:

- Poor representation at country level, in terms of total number of active companies (1.1% are companies concerned in commerce and restaurants, and 93.2% of them have less than 10 employees)
- Direct services to the population have the poorest contribution
- Significant growth in the number of private companies in the education and health sectors during recent years

Within the North-East Region there are economic disparities between counties (Annex I, table 3.8). The above data point out the uneven level of development inside the region, as each of the Iasi and Bacau counties have higher values than the Botosani and Vaslui counties taken together as concerns the efficiency ratios presented.

Tourism

Tourism represents an important economic sector, with an insufficiently developed potential, as compared to its importance and its contribution to the GDP in countries like Spain, Greece, Great Britain, Italy, where, by a suitable and constant strategy for tourism development, focused on exploitation of specific regional assets, this sector of the industrial activity has produced important economic revenues.

In this context, after 1989 Romania records shy attempts to develop tourism; the first steps were aimed at establishing ownership over the existing material base (hotels, motels, etc.) according to the market principles.

Due to the appropriate conditions it has available, to the beauty of the sites, the purity of the air, water, and mountain areas in the counties of Bacau, Neamt and Suceava, as well as those in the surroundings of Iasi, the North-East Region holds a potential worth comparing to the picturesque scenery in the French Alps, Switzerland, the Rhine Valley, and the Upper Danube, or Northern Italy. Along with the picturesque side of the region, its attractiveness is completed by the well known Romanian hospitality, folk traditions, customs and specifically Romanian cuisine, the traditional wine tasting in the vineyards of Cotnari and Husi.

The activity in this field can be structured in the following way:

- **Religious tourism**

The population of historical Moldavia, prevalingly Orthodox, has treasured and enriched all the religious sites standing as testimonies of the spiritual past, cultural traditions and specific customs of the community.

In the entire North-East Region these buildings are in a larger number and more beautiful than anywhere in the country, many of them having joined the international tourism circuit (more than 50 churches and monasteries have been assigned the title of historical monuments). Many of the churches and monasteries in the region date back from the 15th-16th centuries, a glorious period in the past of the Romanian people as to assertion of its independence and integrity. The founder of most of them is Stephen the Great, who reigned during 1457-1504.

- the Metropolitan Cathedral in Iasi (1840-1880), the greatest Orthodox religious site in the country
- the Neamt Monastery (1407) – Neamt – with a 600 years old library
- the Agapia Monastery (1642-1647) – Neamt – painted in 1858 by Nicolae Grigorescu
- the Voronet Monastery (1488) – Suceava – called the Sixtin Chapel of the East
- the Putna Monastery (1466) – Suceava – necropolis of Stephen the Great and his descendants.

Referring the paintings covering the walls of the monasteries of Voronet, Humor, Moldovita and Sucevita, the preface published by UNESCO dedicated to artistic values of the world specifies that “only in a single area of Romania, in Northern Moldavia or Bucovina, one can find this kind of paintings, that are unique over the world”.

- **Cultural and historical tourism**

For the same purpose of preserving the spiritual treasures of its people, the population of the region can take pride in the several museums, memorial houses, mansions, inns and royal courts, palaces, all turned into sources of culture and spiritual wealth for the present and future generations of visitors.

- the monuments at Oituz and Marasesti, dedicated to the memory of martyrs in the first world war;
- the memorial houses of George Bacovia – Bacau, Mihai Eminescu – Ipotesti (8 km away from Botosani), George Enescu – commune of George Enescu, Botosani, Nicolae Iorga – Botosani, Ion Creanga – Humulesti, Neamt
- the Palace of Culture in Iasi (1906-1925), the palace of Alexandru Ioan Cuza (1811) – Ruginoasa, Iasi, the Sturdza Castle (1752) – Miclauseni, Iasi, the Rossetti-Roznovanu (1831) – Iasi

- the Neamt Fortress (1395) – Targu Neamt, the Tower of Stephen the Great, 20 m high (1499) – Piatra Neamt, the Dacian Fortress Batca Doamnei, with walls 3 m thick – Piatra Neamt, the Palace of the Knez (17th century) – Neamt, the royal fortress of Suceava (14th century) – Suceava, the Royal Inn (17th century) – Suceava.

- **Hunting tourism**

The region includes a rich hunting potential, due to the wide forest areas and to the existing fauna. The forest and fauna reservations (see chapter 3.1.1. – Activity in the primary sector) shelter many rare species.

- **Leisure tourism and spas**

The Slanic-Moldova spa (“the Pearl of Moldavia”) includes more than 20 mineral water springs. The resort has available equipment for internal treatment with mineral water, respiratory therapy, warm bath treatment with mineral water, kineto-therapy basins, electro- and hydrotherapy equipment.

The Durau-Neamt resort provides a soft, invigorating, stimulating sub-alpine climate; in the December-April period the snow layer has a constant thickness of 50 cm.

The Bicz resort can also be called the “Bicz harbour”, for its location on the side of the Izvorul Muntelui lake, and it represents the starting point for leisure rides (by small ships, motorboats).

The Vatra Dornei spa provides mineral water treatment, medicinal mud wrapping up, physio-therapeutical services.

The Campulung Moldovenesc resort is located at a height of 630 m, in splendid scenery, with a stimulating mountain bio-climate, and is the starting point for trips in the Rarau Massif.

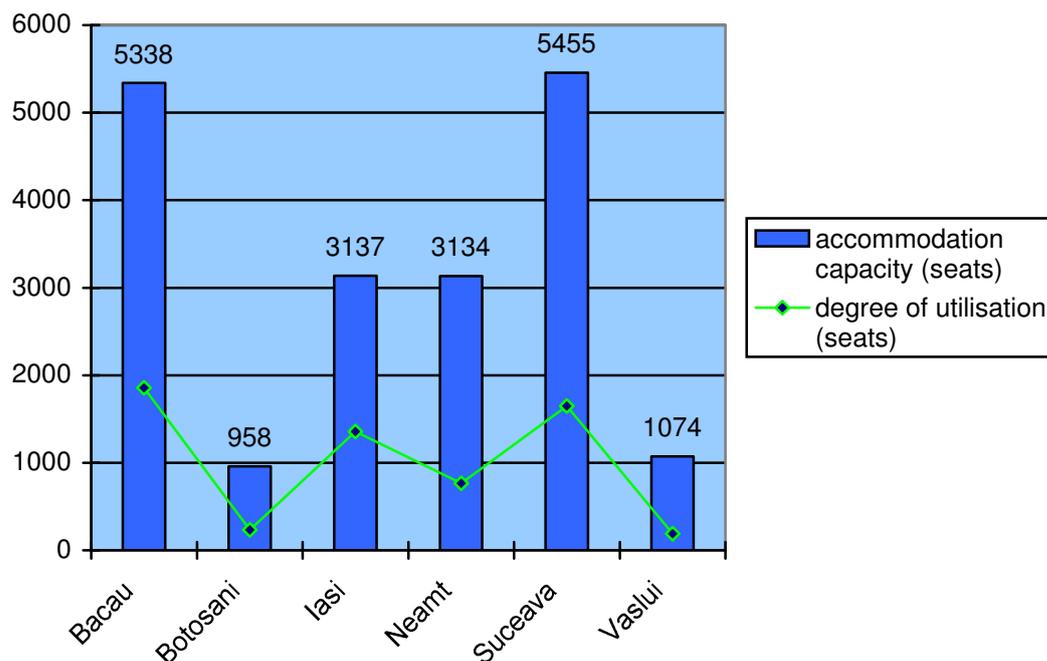
- **Winter sports**

The services supplied by the Slanic-Moldova, Durau and Campulung Moldovenesc resorts are available to tourists.

- **Fishing**

This is practised on such lakes as Balatau (Bacau), Stanca-Cotesti (Botosani), Ciric (Iasi), Izvorul Muntelui (Neamt), and mountain springs.

The accommodation capacity for tourists in the region, as compared to the country level, representing 6.63% (Annex I, table 3.9), corroborated with the fact that the utilisation index represents 31.7% (as against 37.7% which is the country average) shows high capabilities and a developed, but insufficiently exploited infrastructure.



The updating of accommodation capacities, which became private property in an extent higher than 85%, the capitalisation of areas with tourism potential and of treatment sites by a suitable promotional activity can result in an increase of tourist circulation, with positive effects on the economic dynamics.

An important component of tourism in the region is rural tourism, which is analysed in chapter 6 – “Rural development”.

3.3. Description of Key Enterprises in the Region

Even in the case of an industrial decline in the region, the turnover and number of employees have a high weight in enterprises with a state majority capital, having more than 250 employees. They operate almost exclusively in the large municipalities (Iași, Bacău, Piatra Neamț, Suceava, and Botoșani).

By scopes, the representative enterprises referred to are as follows:

- **engineering, plant and machinery industry:** SC Fortus SA Iași, SC Aerostar SA Bacău, SC Uton SA Onești, SC Electrocontact SA Botoșani, SC Mecanica Ceahlău SA Piatra Neamț;
- **chemistry, chemical fibre and medicines:** SC Carom SA Onești, SC Chimcomplex SA Borzești, SC Antibiotice SA Iași, SC Fibrex SA Săvinești, SC Moldosin SA Vaslui;
- **oil processing industry:** SC Rafo SA Onesti
- **food industry:** Agricola Internațional Bacău, SC Pambac SA Bacău, SC Agribac SA Bacău, SC Unirea SA Iași, SC Vascovin SA Vaslui, SC Dorna SA Vatra Dornei, SAB Rădăuți SA Rădăuți;
- **wood, cellulose and paper manufacturing industry:** SC Letea SA Bacău, Bacău, SC Pamex SA Piatra Neamț,, SC Dumbrava SA Fălticeni, SC Mobilextra SA Câmpulung Moldovenesc, SC Petrocart SA Piatra Neamț;
- **light industry (spinning mills, knitwear, garments, footwear):** SC Stofe SA Buhuși, SC Siretul SA Pașcani, SC Iasitex SA Iași, SC Moldova Tricotaje SA Iași, RIFIL Săvinești, SC Ema SA Piatra Neamț, SC Romalfa SA Câmpulung Moldovenesc, SC Firmelbo SA Botoșani.

The provisions of the Romanian legislation, which are not in the favour of potential strategic investors, have promoted a high fiscality, concomitantly with low performance interests on loans, and have thus generated the “financial blockage” phenomenon.

A privatisation of the state capital companies without coherent programmes and the excessive bureaucracy in developing these activities, cumulated with the inappropriate management from the main shareholders (POF, SOF), who, by their representatives, did not make proof of knowledge and interest in economic growth, have gradually resulted in loss of sales markets, decrease in the competitiveness of the products supplied on the market and technological limitation, which was the reason for shutting down many productive units and for the occurrence of an impressive number of unemployed.

These phenomena can be alleviated, provided that an appropriate strategy is implemented, based on a satisfactory infrastructure, to plan, in the long run, the elimination of the industries not being able to support financially on their own the maintenance and relaunching of production, by stimulating the restructuring of industries having real possibilities for development by a retechnologisation, especially in the first stage, of those depending on home resources (furniture manufactures, engineering enterprises, textile manufactures, food industry, etc.).

The research and development sector and innovation implementation will have to be supported in order to get it involved in the technology transfer, implementation of new industrial activities based on the existing industrial infrastructure.

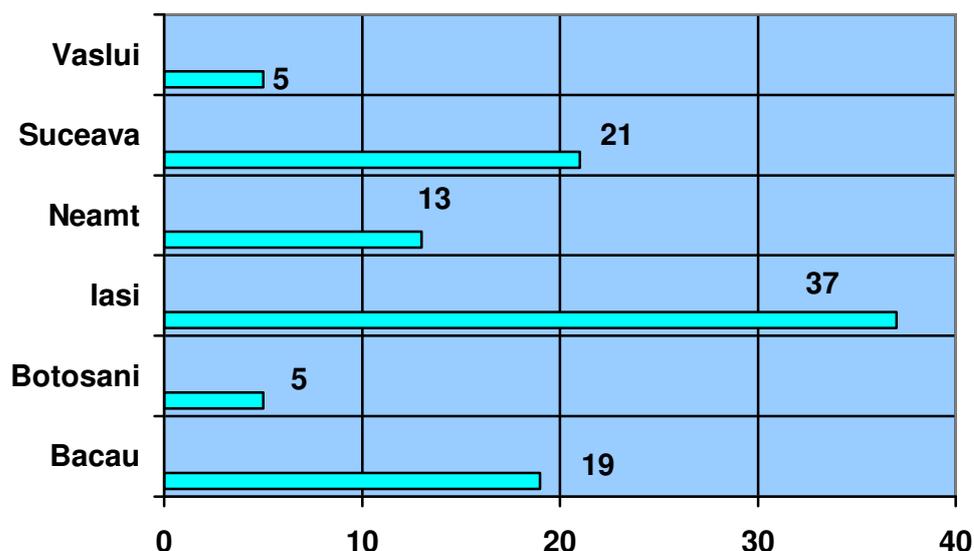
Once the large companies were divided into viable small and medium companies operating independently, the effort should be focused towards training entrepreneurs, as well as stimulating the collaboration between them, at regional and inter-regional level.

Part of the companies specified have enjoyed, during the past period (1996-1999), coherent programmes and foreign capital infusion, experiencing an important economic relaunch:

- **AEROSTAR Bacău** – a joint Romanian-Israelian company - aeronautics
- **ANTIBIOTICE Iasi** – a joint company in the medicine area
- **AGRICOLA INTERNATIONAL Bacau** – a joint Romanian-German company, holding type, established 1992, operating in the food and drink sector
- **MASINI UNELTE Bacau** – a joint Romanian-American company concerned in the engineering sector
- **DORNA Suceava** – private company with Italian capital – mineral water bottling
- **RIFIL Neamt** – Romanian-Italian company – in knitwear.

At the end of 1997 the total value of foreign capital investment was 133,662.7 mil USD; there was an uneven distribution within the region, the maximum weight belonging to the Iasi county (37%), while the counties of Vaslui and Botosani taken together hold 10% (Annex I, table 3.10).

Foreign capital subscribed in foreign currency (%)



This represents another reason to promote a balanced policy for the development of the region and to approach an efficient strategy to eliminate the poverty poles (Vaslui and Botosani) and economic imbalances.

3.3. Analysis of the Small and Medium Enterprise Sector (SMEs)

Small and medium enterprises represent an important segment of the economy of the region, absorbing part of the number of employees (39.83%). They generally have a higher flexibility, are more responsive to the market requirements, more innovative in the ability to respond the consumer demands, improving the competitors' environment, enhancing the organisational culture and creating the conditions for social stability.

Although the commerce activity covers most of the SMEs in the economic structure, during recent years a drop in its weight is noticed, in the favour of industry and construction.

Status of SMEs (% of total in the region)

County	No. of employees (th people)	Turnover	Profit
Total per region	39,83	39,68	39,25
Bacău	32,17	43,2	42,18
Botoşani	52,2	75,5	68,9
Iaşi	43,0	53,9	54,1
Neamţ	24,1	16,0	21,6
Suceava	24,6	22,61	20,61
Vaslui	15,0	13,75	19,35

Source: County Statistics Directorates – 31.12.1998

SMEs hold 39.68% of the turnover and 39.25% of the total gross profit per region, for a corresponding employed population of 39.83%.

Even in the circumstances where the partnership with the European Union support SME development at institutional level, the results derived were not above the national economy average. SMEs are further facing an underdeveloped capital market that is not focused on the real requirements of the economy, lack of public and private funds to stimulate the development of services and the high risk of investment in the circumstances of fiscal legislation unsteadiness.

The poor quality of the products (especially food) and their selling for higher prices than the Western ones, taking in consideration the level of salary incomes, has resulted in a continuous decrease in sales due to the drop in the purchase power of the population.

Added to all these aspects is the phenomenon of concentration of the SMEs in the developed urban centres (Iasi, Bacau, Piatra Neamt) and the slow development in the other areas of the region, concomitantly with a difficult collaboration with the large companies having state majority capital as concerns contract binding for supply of services complementary to the activities developed by the latter.

Encouraging the development and strengthening of businesses represents the essential condition for overcoming the underdevelopment stage in the North-East Region.

In this respect, the support for SMEs establishment and growth will have a considerable weight in the development strategy of the region, particularly in respect of those that can capitalise the natural and human capital and protect the environment (agriculture, food and agriculture industries, tourism, information technology, service supply).

3.4. Modifications and Trends in the Economic Environment of the Region. Conclusions.

The analysis of the economic dynamics of the region during 1990-1999 leads to the conclusion that the general trend is diminution in both main sectors – industry and agriculture.

As concerns agriculture, the following can be concluded:

- a) existence of major deficiencies as concerns financing the production and agricultural investment**
- b) low technical endowment with mechanical equipment in agriculture, the private producers have no possibility to exploit in a reasonable way the existing technical base (accelerated degradation) and the existing land fund, so a subsistence agriculture is being practised**
- c) at regional level, more than 82% of the agricultural production is derived from the individual households of the peasants. For this reason it is required to give a new pattern to the agricultural support strategy, starting from the fact that it is practised on a permanent basis.**

The transition to the market economy had a slow start, determined both by the situation inherited, and the concept, and the low speed in the completion of the economic reform.

Throughout this period of time the large industrial enterprises with a state majority capital went on operating, having as main management objective maintaining them in operation by deriving “0 profit” or as low losses as possible (SC Melana SA Săvinești, SC Fibrex SA Săvinești, SC Moldosin SA Vaslui, SC Sofert SA Bacău, SC Mecanica SA Botoșani, SC Pergodur SA Piatra Neamț, SC Vastex SA Vaslui, SC Chimcomplex SA Borzești, SC Fortus SA Iași, SC MES SA Suceava, etc).

The market economy has amended this concept, as many of these companies went bankrupt and generated a large number of unemployed alongside high indebtedness.

3.5. Conclusions

For the economical relaunch of the region, the development strategy will take in consideration the capitalisation of the developed industrial infrastructure existing in almost all the industries (engineering, chemistry, petro-chemistry, food industry, textile, medicines, wood processing, tourism, etc.) and the well qualified personnel existing in these industries.

A good example will be represented from this point of view by the enterprises having private majority capital, which, already going upwards, can be considered as models for the economic relaunch.

It will also be aimed at supporting SMEs established by the decentralisation of large companies with a majority of state capital, by establishing new SMEs in the production area and supplying direct services to the population, as well as centres and activities raising the management capabilities of the leaders and home investors.

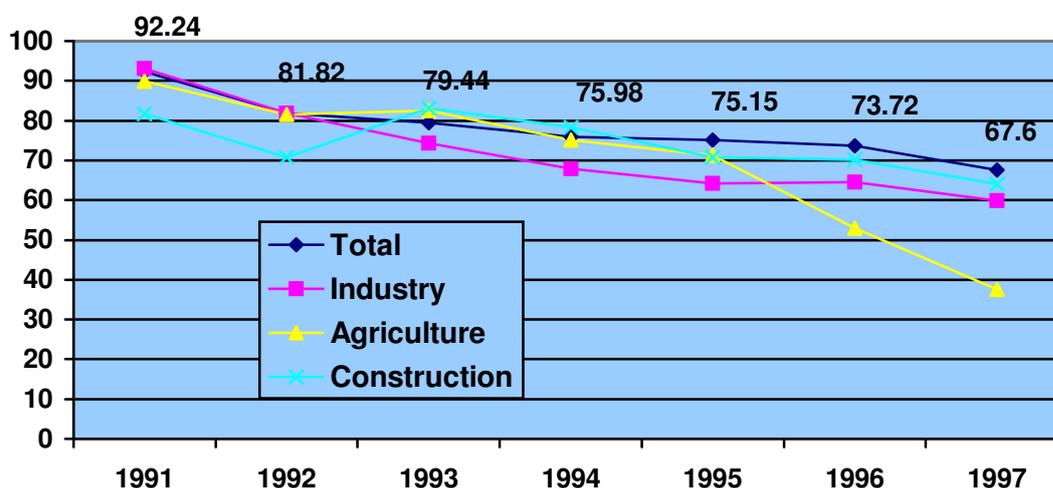
4. Labour Market

Structure of the Labour Force

At the beginning of 1998 the active population of the North-East region was 1,443,700 people, representing 37.9% of the total population of the region (47.05% women and 52.95% men), and 16% of the total active population of the country (Annex II, table 2.1, 2.2.).

During the past decade a continuous decreasing trend occurred in the weight of active population, at regional level. This is a consequence of the economic decline phenomenon that has sharpened, as many of the enterprises having a state majority capital, that were mobilising the largest number of employees, were in the middle of a restructuring process, which induced, along with the cutting of a number of activities, large redundancies.

Evolution of number of employees in the region (th people)



As concerns the active population employed by activities of the national economy, the North-East region records a superiority as compared the average national level, in: agriculture (by 8.76%), forestry (by 0.24%), hotel and restaurant activity (by 0.19%). At the same time there are sectors where the total average per region is lower than the national average: industry (by 4.06%), construction (by 0.93%), commerce (by 1.65%), transport and storage (by 1.22%), mail and telecommunication (by 0.11%), financial activities, banking and insurance (by 0.26%) and real estate transactions (by 0.88%) – Annex II, table 2.3.

Noticeable is that at regional level the rural environment mobilises the largest part of the active population (55.92), accounted for by the occurrence of a large number of private entrepreneurs once the law on restoring the property over agricultural land is put into practice (Annex I, table 4.1).

The largest number of employees is recorded in the Bacau and Iasi counties, with 180,300 and 177,200 respectively; just opposite stands the Vaslui county, with 85,600 (18.6% of its total population).

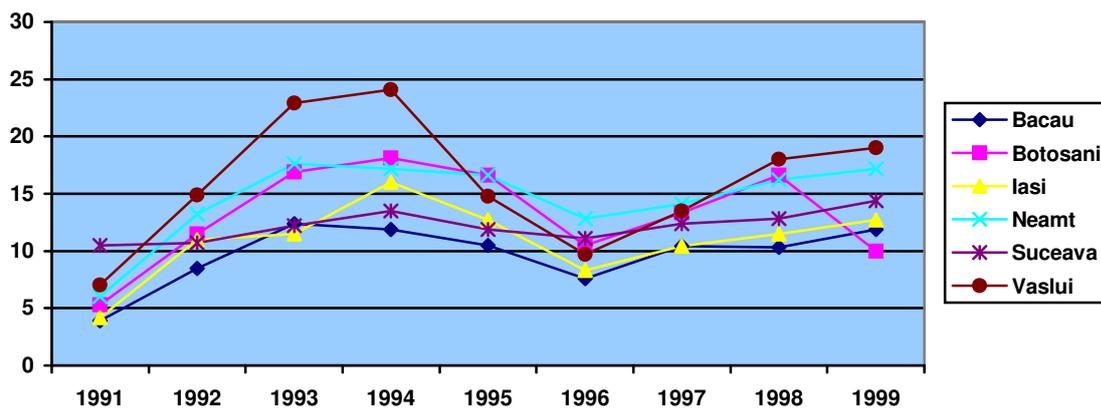
Unemployment Structure

The North-East region is facing special problems as concerns unemployment. The evolution during the last decade has indicated a continuous growth in the number of unemployed, concomitantly with the sharpening of the incapacity of adaptation of the companies having state majority capital to the requirements of an economy based on demand and supply. In the circumstances of acute lack of funds required for retechnologisation and investment, many managers have chosen to increase labour productivity by making personnel redundant.

This brought about the situation existing in the region, which shows serious problems particularly in the areas having a monoindustrial structure (the counties of Botosani and Vaslui, the mining areas in the Bacau and Suceava counties).

Thus, while the unemployment country average is 9.2%, in the North-East Region all the counties exceed the “limit” of 12% (the minimum value for the counties of Iasi and Bacau), and the Neamt and Vaslui counties reach the “performance” of 17.2% and 19% respectively. Moreover, this phenomenon is accompanied by an increase in the number of unemployed not enjoying any unemployment allowance because of legal time runout, although they did not get reemployed. This is an aspect encountered in the counties where the massive redundancies occurred in 1993-1995, thus confirming that the economic decrease trend has become chronic.

Evolution of unemployment rate in the region



By gender, 54.88% of the unemployed are men, and 45.12% women; most affected by unemployment is the 15-34 age group (Annex I, table 4.2 and table 4.3). By personnel categories and level of education, 54.9% of the total unemployed are workers, 13.25% people with secondary education, 9.17% are unskilled people, and 1.49% people with tertiary education (Annex II, table 2.9).

The counties of Bacau and Botosani record the highest level of unemployment among workers (64.67% and 61.93% of total unemployed, respectively); at the opposite pole range the counties of Iasi and Neamt (49.46% and 37.12%).

The lowest level of unemployed among the people with tertiary education is recorded in the counties of Neamt and Vaslui (0.65% and 1.07% respectively).

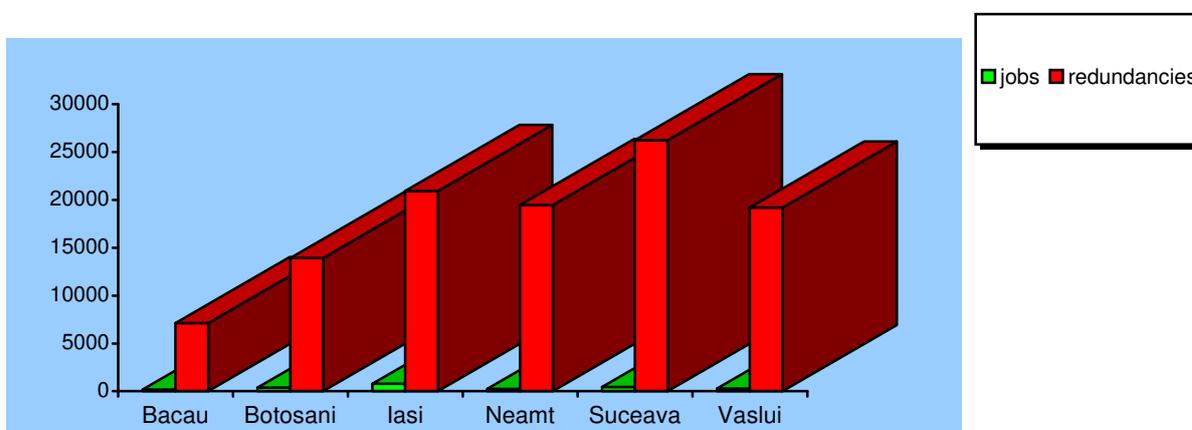
There are two disadvantaged areas declared in the region, i.e. the mining areas of Comanesti-Bacau and Bucovina-Suceava, where the commercial companies enjoy, according to GEO No. 24/30.09.1998 (and updated on 15.01.1999), some fiscal facilities and so could contribute the decrease in the number of unemployed and the improvement of labour force situation in the area.

Labour Force Redundancies, New Jobs Created

During recent years in the North-East region the labour market was also subject to pressures resulting from the increase in labour force supply, as well as due to the action of factors typical to the transition period. As a consequence of the restructuring and privatisation process, the economic decline and the application of Ordinances No. 9/1997 and 22/1997, a number of 211, 068 people were made redundant in the North-East Region during the past two years. (Annex I, table 4.4).

To alleviate the effects of unemployment, the imbalance between labour demand and supply, a number of measures were promoted, such as: creating new jobs, training and retraining the redundant people, granting the compensating salaries in one tranche.

Status of newly created jobs as compared to the number of redundancies



The status by counties of the jobs newly created as at 1st January 1998 in the North-East region is shown in Annex I, table 4.5.

The regional development strategy is focused on the development of small and medium enterprises, that can create, provided there is appropriate support, an increasing number of jobs.

Income Level by Sectors

By analysing the statistical data relating the situation of average monthly earnings by activities in the national economy as at the 1st January 1998 (Annex I, table 4.6), noticeable is that in some sectors where state corporations prevail (energy, transport and telecommunication), as well as in the finance-banking institutions, the average level of the employees is much higher than the average per economy, while in the state institutions it is much below the average. Concomitantly, the incomes in agriculture have kept a very low level, which is a result of the conditions for agriculture practice in the North-East Region.

Existing Infrastructure for Education

The education infrastructure includes 5,489 units (2,317 kindergartens, 2,784 elementary schools and gymnasia, 172 highschoools, 116 vocational schools, 66 post-highschools, 24 foremen schools, and 10 tertiary education institutions), where 40,559 teaching staff are employed.

Just opposite to the economic infrastructure, and in the highest extent to the social one, the education infrastructure shows a particular potential for the sustainable development of the region. From a geographical point of view, the overwhelming weight of the education infrastructure is concentrated in the Iasi county.

In the university centres of Iasi, Bacau and Suceava humanistic or post-highschool technical education institutions were developed in recent years, as well as new sections where from specialists in the areas requested nowadays on the labour force graduate: microsoft, economic management, marketing, industrial evaluation, office management, etc.

In the Iasi municipality there is an Agronomical Institute, that provides training to the specialists required in all agricultural sectors.

In 1994 the Inter-Disciplinary Territorial Commission for Research and Development Moldova I Iasi has undertaken an evaluation of the research and development potential of the region. It was demonstrated that 10 universities, 52 research institutes and 8 subsidiaries or joint sections of research and development units are operational.

In the gymnasium education, there was focus on vocational training and building practical skills in pupils. It is required to conceive an educational system stimulating and selecting the vocational skills of young people. At the level of Vocational Training Agencies, retraining courses for the unemployed were organised, in order to meet the supply of trades forwarded by the economic entities.

At the level of county Chambers of Commerce there are activities dedicated to the SMEs for the development of business management and marketing knowledge.

Comparison to the Labour Force Trends on the National Market

The labour force available, including women between 16 and 57 years and men between 16 and 62 years, as well as the active people below and above this age, was amounting to 1,443,700 people in the North-East Region at the beginning of 1998, that is 16% of the total population employed, thus rating the region as first at national level.

Noticeable is the inter-sectoral mobility, i.e. redistribution of the population employed from the secondary sector and its reorientation towards the primary and tertiary sectors. This trend will continue in the next years too, having as main characteristics the increase in the weight of the tertiary sector, to cover the demand for services in the urban environment and especially in the rural environment, where the latter are poorly developed.

The same phenomenon is noticed at national level, but with more moderate intensities. The demand for labour force is focusing on the youth sector, its highest weight in the total population employed is being held by the 15-34 year old group (43.38%) - a trend noticed at national level too (43.2%); the weight of the other groups decreases with the increase in age.

Most of the total population employed, as concerns professional structure, both at regional level, and at country level, is represented by employees (67.70% at regional level, and 79.89% at country level). The self-employed are next (25.81% and 14.70% respectively), then the members of cooperative associations (3.10% and 2.91% respectively), unpaid family workers (3.07% and 2.12% respectively), and employers (0.19% and 0.31% respectively).

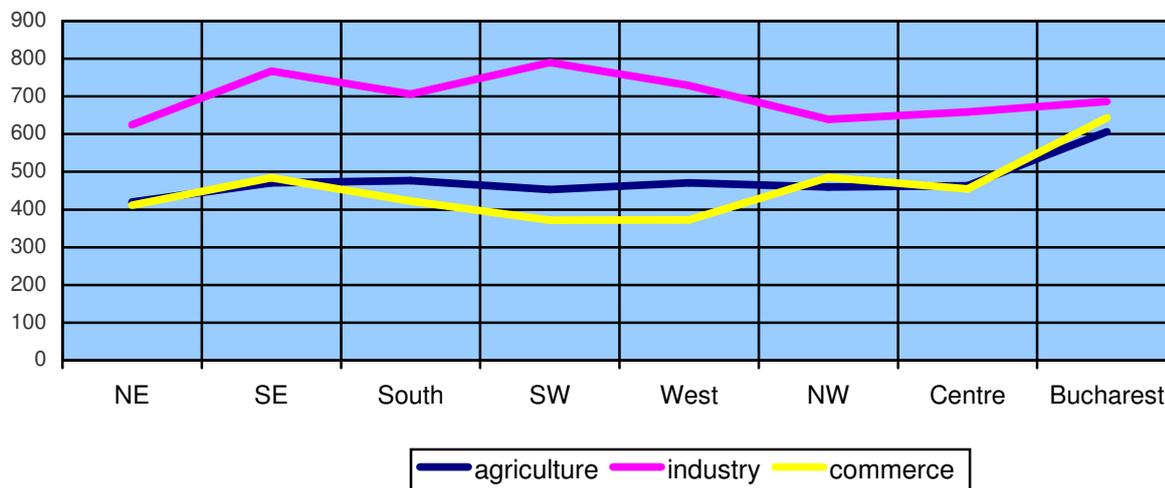
As at 1st January 1998 the unemployment rate was 12.2%, as against 8.9% per country. The rating of this region as first at national level in relation to this ratio is justified, if taken in consideration is the fact that three of the counties of the North-East Region (Botosani, Neamt, Vaslui) have a very high unemployment rate (13.3%, 14.8% and 13.5%).

By personnel categories and level of education, the most affected by unemployment are workers (53.27%), as against 31.98% unskilled people, 13.27% people with secondary education and 1.48% people with tertiary education.

The reasons for the unemployment rate at regional level being very high and for the trends occurring in the evolution of unemployment, by age categories, gender, trades and environments, are mainly determined by the economic structure, which is prevalingly based on an industry of low competitiveness.

As concerns the level of income by sectors, the statistical data show a comparative inferiority as against the national status (Annex I, table 4.7 and figure below):

Average monthly earnings by activities of the economy (th ROL)



4.1. Conclusions

The active population in the North-East Region represents 16% of the total active population of the country, the highest weight being held by men. The rural environment mobilises most of the active population.

As a consequence of the restructuring and privatisation process, economic decline and application of GO 9/97 and 22/97, 20,000 people were made redundant during the past two years. Concomitantly, about 2500 jobs were created.

By personnel categories, mostly affected by unemployment are workers and unskilled people.

It is noticed that the population employed in the secondary sector is being redistributed over the primary and tertiary sectors, which phenomenon is estimated to develop during the next years, in accordance with the evolution of the said sectors.

It is necessarily required to formulate a strategy to employ / train labour force with an experience below eight years, in order to render useful the young people with secondary and tertiary education who cannot assert themselves at local level.

5. PHYSICAL INFRASTRUCTURE

The physical infrastructure represents one of the basic components of the economy in the North-East Region. Its endowment must be correlated with the present requirements. The level of overall development of the region depends on its future development.

Infrastructure is the sum-up of all the elements of the technical and material base by means of which, among the component communities, all the flows and transfers of material, human resources, services and information develop in due time.

These elements are described by the following components:

- Roadway and railway transport, as well as other kind of transport (airways, waterways, etc.)
- Telecommunication services, television, radio, etc.
- Dwelling utilities and structure
- Social infrastructure.

The railway network scores a medium level as compared to the national one, in terms of technical endowment and sections length, geographical conditions and location that impose limitations (Annex II, table 3.2. and Map III).

Three line sections (360 km, of which 191 electrified) cross the county of Bacau, alongstream the main rivers:

- main line Bucharest-Suceava (trending south-northwards), along the Siret river
- Adjud-Ciceu line, with the Comanesti-Moinesti extension along the Trotus river
- The Bacau-Bicaz line, that follows the Bistrita river.

In the Botosani county the main railway lines (Veresti-Botosani and Dorohoi-Iasi) are older than 100 years. On the Harlau-Botosani and Saveni-Darabani sectors the finishing work has been stopped for nine years.

In the Iasi municipality, Iasi county, the administrative headquarters of the Iasi State Railway Corporation is located, operating on the entire territory of the North-East Region. The most important railway sections are: Harlau-Cotnari-Iasi, Pascani-Targu Frumos-Iasi-Ungheni and Iasi-Albita (checking and cross-border points).

The railway sectors crossing the Vaslui county are:

- Tecuci-Barlad-Crasna-Albita, which is part of the 6th thoroughfare Faurei-Vaslui-Iasi
- Buhaesti-Roman, Crasna-Husi, Barlad-Galata, Zorleni-Falciu (checking and cross-border point).

In the Neamt county the railway network is poorly developed. The 144 km represent the Bicaz-Piatra Neamt-Bacau and the Targu Neamt-Pascani sections.

The most important railway sectors in the Suceava county (449 km, of which 203 km electrified) are:

- Vatra Dornei-Campulung Moldovenesc-Gura Humorului-Suceava, with the Vama-Moldovita branch
- Suceava-Dornesti-Radauti-Siret (checking and cross-border point), with the branches of Vicovu de Jos-Putna and Dornesti-Siret.

The modifications concern continuous updating of the existing network by turning up double lines into simple ones. In the Iasi county it is aimed at building a rapid railway between Iasi and Chisinau, electrifying the railway thoroughfare 600 Marasesti-Iasi-Ungheni.

The public road network in the North-East Region is presented in Map II and the following table:

Road categories in the North-East Region (km)

	Total public roads (km)	Updated roads	Light road cover	National roads	Total county and commune roads	Road density / 100 km of territory
Bacău	2303	495	558	445	1858	34,5
Botoşani	1919	318	401	410	1509	34,8
Iaşi	2338	417	406	348	1990	38,5
Neamţ	1809	457	448	408	1401	42,7
Suceava	2330	658	628	483	1847	30,7
Vaslui	2098	333	403	382	1716	27,2
NE Reg.	12797	2678	2844	2476	10321	39,5
Romania	73161	17813	20787	14683	58478	30,7
%	17,49	15,0	13,68	16,86	17,64	-

Source: NSC – Statistical Yearbook of Romania, 1998

The data presented lead to the conclusion that the road network of the Botosani county is located, in terms of viability, below the minimum limit as against the other counties.

The Botosani county is the only one having county roads in the form of impassable dirt tracks (18.7% of the total), closed, as the 35 existing bridges require consolidation work to provide the steadiness and safety of circulation.

In the Neamt county 409 km of national roads and 591 km of county and commune roads were updated. The counties of Suceava and Bacau hold the first places in the region as concerns the length of updated roads (658 km and 495 km respectively). The development programme of the Suceava county provides as main objectives to build the Bacau-Siret highway segment and to declare the Siret free zone.

In the Bacau county there is at least one connection of updated roads between all the towns, and only seven commune centres are still not linked to asphalted roads. The objectives of the development programme provide for modernisation of the Bistrita Bridge (on the European road E85) and of the Batca Doamnei adduction, 53 km long, to supply drinking water to the Bacau municipality and the localities on the way.

In the development programme for the Vaslui county it is provided to build the Focsani-Albita highway and the express road Bacau-Vaslui-Crasna (National Land Planning Project), as well as to achieve navigable ways on the Prut rivers and create harbours).

The most important road thoroughfare crossing the Bacau county on 81.5 km is the national road DN 2 (E 85), connecting the South to the North of the country and which was included in the national programme for highways.

The region has three checking and cross-border points on the road: Siret-Suceava, Albita-Vaslui and Ungheni-Iasi.

Due to the deficit in endowment and to the low density of the network, noticed is an increase in the wear and tear level caused by the intensive exploitation of roadways between county capitals and the development poles of the region, with ramifications towards the state cross-border points, the towns of the region and the neighbouring regions.

It is required to modernise the road infrastructure in correlation with the present requirements and the standards in force, at European level, and the projects for land planning in the North-East Region.

The air transport in the region is supported by the specific infrastructure.

The Suceava airport locates on the Salcia commune's territory, approximately 15 km East of Suceava and 40 km away from Botosani, the access being provided through the national road DN 29. The Suceava county also has available 5 heliports.

In the Iasi county the following structure occurs:

- Airport
- Utility airbase.

The airport in the Iasi municipality is the oldest in Romania, having been established in 1932. It locates 8 km away from Iasi, at a height of 120 m and is dedicated to internal air traffic, and only accidentally to international passenger flights, with short courier planes. The airport has available a passenger's air-station, technical unit, guiding and traffic control tower, electrical and thermal network, water system, utilities, access roads.

In 1998 the number of flights was amounting to 6000: 1600 commercial ones, of which 60 international, having carried 70,000 passengers.

The utilitarian airbase has 30 years experience in the area and is concerned in utility and sanitary flights.

The Bacau airport, locating 6.5 km South of the Bacau municipality, provides the infrastructure required to perform under perfect security conditions flights of airships up to 400 tons, by organising internal and international flights and providing services for air operations in a 12 hour or 24 hour programme of operation, but working only occasionally, as there is no permanent traffic.

The telecommunication network has enjoyed important investment infusion during the past years, by the replacement of automatic and manual telephone systems by digital ones, as well as the cable network with optical fiber, which contributes an increase in the amount of traffic and the quality of broadcasting in the Bacau, Neamt, Iasi and Botosani counties. The number of telephone subscriptions has raised, as the total number per region is 487, 541 subscribers, representing 14.45% of the national amount (Annex II, table 3.2.).

The Bacau Telecommunication Directorate represents the area centre for the North-East Region, as here are the only analysis and decision elements for the telephone network in the region, processing connections in the national and international network.

For year 1999 the Programme for the modernisation and development of telephone networks in the Bacau county includes eight communes and the town of Darmanesti, which will allow the county to range closer to the level of the most developed countries as concerns telecommunication services.

In the North-East region also two mobile telephony networks operate, which coverage has exceeded 50% in the two years since the start-up of the activity.

The utilities and dwelling structure in the region range below the standard of a civilised living, the endowment concerned being below the level of the requirements; relevant in this respect are the data on drinking water consumption, representing less than 20% of the national average. This situation is generated by low investment and insufficient endowment; the same low levels are scored by the water, gas supply network, and the sewerage and cleaning system for waste water.

Network and amount of drinking water distributed in the North-East Region

	Commercial localities	Length of simple network (km)	Drinking water distributed (th c.m.)	Domestic consumption (th c.m.)
<i>Bacău</i>	28	592	49909	34283
Botoşani	64	641	22525	13193
Iaşi	25	747	72783	50121
Neamţ	76	596	35260	27682
Suceava	37	676	43965	21745
Vaslui	77	600	18077	14682
NE Region	307	3852	242505	161706
Romania	2803	35287	2025620	1291213
%	10,95	10,92	11,97	12,52

Source: NSC – Statistical Yearbook of Romania, 1998

The data above shown rate the North-East Region as 10th over the country, in terms of number of localities connected, length of existing network and drinking water consumption.

Public sewerage network of the North-East Region

	Localities having public sewerage systems	
	Total localities	Municipalities and towns
<i>Bacău</i>	26	8
Botoşani	19	4
Iaşi	12	4
Neamţ	13	4
Suceava	19	8
Vaslui	12	4
NE region	101	32
Romania	619	261
%	16,31	12,26

Source: NSC – Statistical Yearbook of Romania, 1998

Of the 495 administrative-territorial units in the region, only 20% are connected to the public sewerage network.

The amount of natural gas distributed in the North-East Region

	Km of natural gas pipelines	Natural gas amount (th c.m.)	Domestic consumption (th c.m.)
<i>Bacău</i>	501	682.236	
Botoşani	97	103.383	
Iaşi	392,6	337.795	
Neamţ	194	403.514	
Suceava	144	120.440	
Vaslui	88	23.260	
NE Region	1416,6	1.666.628	627.899
Romania	18017,4	14.257.685	6.099.591
%	7,86	11,68	10,29

Source: NSC, Statistical Yearbook of Romania, 1998.

In the Botosani county the drinking water consumption is reduced by 50.2% as against the national average; in this county water is supplied only to 18% of the number of rural localities, while sewerage, central heating or natural gas are missing almost 100%.

From the ratios concerning dwellings and their endowment with equipment and utilities, resulting is that the Botosani county ranges below the country average and much below the level of the other counties in the North-East Region. Only 28% of the total dwellings are endowed with bathrooms in this county (47% at national level) and only 30% are connected to the water supply network (54% is the national level).

	No. of dwellings per 1000 inhabitants	Habitable area / dwelling	Habitable area / inhabitant	No. of habitable rooms per dwelling
Romania	345	34,1	11,8	2,47
Botoşani	345	28,8	9,9	2,23
Bacău	324	33,6	10,9	2,45
Iaşi	307	30,9	9,5	2,32
Suceava	313	33,6	10,6	2,31

Source: County Development Profiles

In 1996-1997 not even one dwelling built from public funds was put in operation, and thus the acute crisis existing at the level of categories of young families with modest incomes has sharpened the more.

In these circumstances, although the dwelling fund of the region records modifications in a positive sense, as pointed out by the dynamics of dwelling building, the endowment with **technical and urban equipment** is in deficit, overworked, showing wear and tear and ranges below national standards.

The dwelling fund is still insufficient: 322.2 dwellings / 1000 inhabitants as against the national average of 345 dwellings / 1000 inhabitants; the habitable area in a dwelling is 31.7 sq.m per dwelling.

There are two strong centres in the region concerned in medical assistance: Iasi and Bacau, which hold important state and private medical institutions, as well as the Medicine Faculty, that provides graduates specialised in all the areas of medicine. Acknowledged are in the country and abroad the Endocrinology, Cardiopathy, Orthopaedic and Stomatology Clinics.

The counties of Neamt and Bacau in the North-East Region were among the first ones having applied the “family doctor” system.

The Iasi municipality is endowed with urban passenger transport by tram, trolleybus and bus. The municipalities that are capitals of the Iasi, Suceava and Piatra Neamt counties are endowed with a trolleybus transport network.

Conclusions:

Taking in consideration the elements making up the North-East Region’s infrastructure, we can conclude the following:

- **The railway network shows a medium level as compared to the national one, but has possibilities for development in the near future, by investment programmes providing another perspective on the region through better accessibility.**
- **The road network is insufficient, with an advanced degree of wear and tear and cannot meet the requests of the high traffic. In these circumstances it is required to correlate the future development projects with programmes aimed at improving the road network in the entire region**
- **The dwelling infrastructure is insufficient as concern endowment; the existing one cannot meet the requests, and these aspects supply the image of a poorly developed area having unsuitable living conditions for the population. Given this situation, it is necessary to connect the localities to the drinking water, sewerage, and natural gas network, and to collect domestic waste by means of full-sized financing projects and completion of the ones in progress, that will contribute a rise in the living standard of the North-East Region.**

6. Rural Development

6.1. Rural Economy and Social Environment Characteristics

The rural environment in the North-East region, at the end of the 20th century, shows in the present social and economic context a number of elements contributing the definition of features typical to the territories of the 463 communes and 2,421 villages in the villages of Bacau, Botosani, Iasi, Neamt, Suceava, Vaslui.

Ruralism was based on two reasons:

- one pertaining to ancient tradition, as our ancestors were part of a people of villagers
- the other one relating the needs of the population to retire during invasions into safe places in the woods and mountains, in small groups.

Villages have thus become the illustration of our people's ties to nature, determined by specific activities, such as animal breeding and land tillage.

The North-East Regional Development Agency plans to assess the rural potential by outlining the profile of the region, as a prerequisite for the future trends and developments, that will generate the lines of action for rural development.

Adopting an approach according to the prevailing form of topography, we can characterise the rural settlement types and specific activities in the following way:

- a) plain area**
- b) hilly agricultural area**
- c) mountainous agricultural area.**

- a) the plain area – showing cluster-type villages, with economic functions of an agricultural character, concerned in cereals and fruit/wine growing
- b) the hilly agricultural area – showing scattered villages, on one side and the other of the roads, with gardens and orchards, vineyards among the groups of houses. As to economic function, the focus is on fruit/wine growing and animal breeding; it currently acquires much more complex functions (forestry, manufacturing industry, even mining), which has changed the aspect and perspectives for development
- c) the mountain area - showing scattered villages in the mountains, with isolated households or small groups of houses; many of the isolated ones are not connected to public utilities: electricity, gas and water supply network.

We can characterise the rural environment by identifying:

- a) the situation occurring in the rural environment on the basis of relevant ratios
- b) the potential actors at regional and local level who can play a key role in implementing the rural development policy
- d) solutions for specific development projects.

The rural environment in the North-East region has a specific component of the scenery, namely the rural population holding 55.6% of the total population of the region.

Due to the natural conditions, particularly divided land, with slopes of various degrees of tilting, plateaus and flat terrain only on river valleys, the productive potential of the arable land is low.

Although the North-East region covers a large area of agricultural land, this resource cannot be capitalised, as the productivity is low for all kinds of crops, due to the influence of the following factors:

- the variety of the topography in the region
- the quality of the terrain, with a sharp diversification, alternation of soil categories, the latter's division, as compared to other units: the Romanian Plain, the Western Plain, or the Transylvanian Plateau.
- the agricultural land is exploited on small plots (1-3 ha), due to the division of land fund, as a result of the transfer of private property over the areas by Law No. 18/1991
- the low level of mechanisation, knowing that a profitable exploitation can only be achieved on plots of at least 50 ha / tractor; as concerns mechanisation of agricultural works, the Botosani county is rated last over the county, as 104.2 ha arable ground are corresponding to one tractor
- labour force is aged (more than 28% of the rural population is more than 60 years old), and young people migrate towards urban centres.

The communes in the mountain area of the Suceava county (more than 50% of the total area of the county is mountainous) are disadvantaged, due to the natural conditions of their location: high altitude, low temperatures, short vegetation cycles, low fertility of the agricultural land, low efficiency of agricultural work, isolation, inefficient communication ways.

Due to the natural conditions (particularly divided land, with slopes of various tilting degrees, plateaus and flat terrain only on the waterways), the productive potential of arable land in the Vaslui county is low.

In the Botosani county, although the agricultural area represents 77.8% of the area of the county, this resource cannot be capitalised; the productivity is very low due to the hilly and tilting topography in proportion of 75%.

The hilly and tilting topography of the region (about 55%) is subject to erosion and earth glide, thus large areas being affected, as follows: Botosani county, more than 150,000 ha under degradation, Vaslui county more than 89,000 ha, having a terrain divided into large valleys, Suceava county with 85,114 ha affected by earth glide, Bacau county, on the left side of the Siret river, with about 46,000 ha under degradation, Neamt county – with 68,700 ha.

The works fighting erosion of the land are undertaken on reduced areas as compared to the ones subject to degradation, due to the high costs and insufficient equipment (Annex I, table 6.1).

Excessive plotting of the land and the one third cut in the agricultural machinery and tractors base resulted in the impossibility to capitalise the agricultural potential of the North-East region, which fact has a direct influence on agricultural output and incomes of the population.

Private agriculture is characterised by an excessive division of the land, due to the transfer of ownership under Law No. 18/1991; following the latter, areas ranging between 1 and 3 ha came into the possession of each owner. Of the total agricultural area in the private sector, the level of association of land owners ranges between 305% in the Bacau county, 10.8% in the Botosani county, 7.5% in the Neamt county and 9% in the Suceava county.

Other data concerning the status of agriculture are presented in chapter 3.1. Activity in the primary sector.

6.2. Public Endowment (Social Infrastructure), Heritage, Tourism and Rural Tourism, Cultural Issues

Two main features have a major impact on the level of development of the rural environment (production, rural market, efficiency and economic performance in agriculture). The first one is represented by the cyclical nature of the production, determined by natural and biological factors. The second one is represented by unsteadiness of production and revenues, determined by the specific features of the rural environment and rural economy (Annex II, table 1.15, 1.16).

This overall situation is completed by the characteristics of the rural environment – determining slower economic growth processes in the North-East region – represented by the social heritage infrastructure. The total population in the rural environment is 2.105,973 inhabitants with a density of 102.7 inhabitants /sq.km.

The social and economic structure of the people employed in the rural environment, at the 1997 level, points out that the highest weight was in the education area (26-28%), of the total people employed, followed by agriculture – 25% - and industry – 12-15%, and the poorest representation is the medical assistance's, below 1%.

Structure of population employed, by age groups and activities (%)

Sector	15-24 years	25-34 years	35-49 years	50-64 years	65 years and more
Agriculture	17,2	13,0	19,0	28,5	22,3
Sylviculture, forest exploitation and hunting economy	10,0	27,9	48,2	13,9	-

Source: NSC – Statistical Yearbook of Romania, 1998

This is a relevant ratio, as it points out the labour force aging, which is an issue directly related to the working capacity of the population in the rural environment.

In the Botosani, Vaslui and Suceava counties elementary schools are insufficient in number, medical dispensaries are located only in the commune centres, and there are large distances to the nearest big towns (10-25 km and even 32 km in Vaslui and Botosani or in the mountain area of Suceava – more than 35 km).

The road network in the rural environment is inappropriate, and is included in the exploitation categories III and IV (Annex I, table 6.11).

The level of electrification in the rural environment ranges between 95 and 98%, as there are isolated houses with no connection.

The level of connection to the telephone network is below 25%, thus discrepancies being recorded as against communes having direct connections and hundreds of subscribers, as for instance: Suceava county has 11,397 subscribers (20 subscriptions / 1000 inhabitants), Neamt county has 7,930 subscribers in the rural environment (13.55 telephone subscriptions / 1000 inhabitants), Botosani county has 9,905 subscribers in the rural environment (3.5 telephone subscriptions / 1000 inhabitants) and Vaslui – 8.475 subscribers (3 telephone subscriptions / 1000 inhabitants).

The medical assistance system in the rural environment looks as follows:

County	No. of commune dispensaries	No. of doctors	No. of beds in medical units in the rural environment	No. of pharmacies	No. of small pharmacies
Botoșani	100	68	794	16	7
Iași	85	85	5564	9	85
Neamț	91	85	490	30	90
Suceava	7	11	230	45	36
Vaslui	68	43	398	10	12

Rural Tourism

Law No. 145/31.12.1994 approving GO No. 62/24.08.1994 on setting facilities for the development of rural tourism system in the mountain area promotes private initiative by authorizing peasant farmsteads to supply touristic services as pension houses or agro-touristic farms.

The geographical location, the natural beauty and, last but not least, the historical monuments of a national and international value create the prerequisites for deriving an important economic input from the rural tourism area.

The touristic potential is mainly concentrated in the Suceava, Neamt, Bacau and Iasi counties. In this respect the Suceava county is standing out, as its ethnographical and folklore base points out the inhabitants' talent and sensitiveness to beauty:

- Tara Dornelor – work, customs, costumes
- Marginea (10 km away from Radauti) – black ceramics centre
- Dorma – outside decoration
- Ciocanesti (22 km away from Vatra Dornei) – hand-made carpets,
- Cacica – ceramics centre
- Vama – furrier's trade
- Fundul Moldovei – folk instruments, wood handicraft
- Carlibaba – costumes, woven ware
- Arbore – rugs and towels.

In Mihaileni and Catamarasti Deal (Botosani) traditional ceramics is produced and in the Vorona commune well-known are the producers of folk masks.

Iasi, as an ancient centre in Moldova, treasures a rich range of traditions and cultural aspects, which feature nowadays as memorial houses, churches, monasteries, written documents, a multitude of ethnical and folklore profiles resulting in a wide range of traditions still acting in some places by means of fairs and festivals, etc.

The potential assessment pertains to the heritage, along with the natural scenery and the anthropic elements, which are considered as distinct, independent groups of assets in the county.

The Iasi county is located at the intersect of three important geo-morphological sub-units: the southern part of the Moldavian Plain, the south-eastern extremity of the Suceava Plateau and the northern half of the Central Moldavian Plateau. The topography does not show particularly spectacular elements, except for the area of Cucuteni-Baiceni, that shows crevasses generated by surface water erosion, limy terrain formations, mineral water, etc. There are well known historical sites here, dating back from the Cucutenian period. Acknowledged as very attractive are the following areas: the Repedea hill, South of Iasi, the Catalina hill near Cotnari, the Motca hill and the side area at Ruginoasa, with an attractive opening to the Siret Valley.

In the Neamt county, due to its geographical position, the variety of natural conditions, historical monuments of a national and international value, as well as the local hospitality, experiences an increasing dynamics as to rural tourism in the hilly and mountain areas of Neamt during recent years.

Artistic and traditional folk events throughout the year bring to the attention of the wide public the live, authentic spirit of the Moldavian territories, through the folk costumes, songs and dances, ancient customs. Also artistic events and sports competitions contribute the attractiveness of the area.

- international fine art festival – Tescani (Bacau)
- international folklore festival “Moldavian Rose” (Iasi)
- “winter customs and traditions” festival (Iasi)
- “Ceahlaul” international folklore festival (Neamt)
- “Arcanul” international folklore festival (Suceava)
- “old Romanian ring dance” (Vaslui)

Besides these special elements of attraction, rural tourism has a particular accommodation and food supply, ranging from chalets and countryside pension houses to accommodation facilities with three star standards of endowment.

Rural tourism can be practised throughout the year and completed by fishing and hunting, mountaineering activities.

6.3. Conclusions

We are showing below the problems the rural environment has to face, by analyzing the following kinds of characteristics:

- physic-geographical
- demographically
- economic
- dwelling standards
- technical endowment
- social infrastructure and related services
- quality of environment factors.

We can conclude that the major limitations of the present agricultural and rural system are:

- a) division of land property – having immediate effects on the decrease of physical output, with high costs – and the lack of a strategy for agricultural exploitation (self-consumption prevailing in most of the cases)**
- b) as there is a high amount of labour force in excess from the other sectors of the economy, agriculture will be able to cover about 40% of the active population. Thus the low level of qualification of the population in agriculture will be alleviated, as well as the closed economic system of a natural type in the private farmsteads**
- c) insufficient support and lack of facilities supplied to entrepreneurs wishing to run rural tourism activities**
- d) low public endowment as concerns the road network (and its state), the drinking water supply network, the natural gas network, the telephony, the electricity supply (98% electrification), the medical assistance, which implies a different stage of development as against the urban environment.**

7. The environment

7.1. General Description of Environmental Problems

Sustainable development implies the provision of an optimum balance between economic growth and preservation / reconstruction of the natural scenery, to ensure a harmonious development able to meet both present requirements, and future ones.

This output is not met in the North-East Region, as a consequence of the existence of oversized production capacities, obsolete technologies with a high degree of wear and tear, lack or insufficiency of financial means to purchase environment protection equipment, as well as a kind of management generally aiming to derive immediate and direct profit.

The present legislation context, although lacking technical norms and specific regulations for the rural environment and facing non-correlation between environment regulations, still provides the general framework required reconsidering environment issues from the sustainable development perspective.

The main environment problems at regional level are:

- Industrial and domestic waste management
- Deforestation, favouring earth glide
- Soil erosion phenomena
- Drinking water (sources, technical state, tapping, distribution layout, treatment systems)
- Local pollution caused by economic activities (industrial and agricultural) and urban concentrations.

Ratios for Assessment of the Level of Degradation of Environment Factors: Air, Water, Soil, Flora, Fauna

The quality of the environmental factors is outlined by specific ratios, which are monitored through the laboratories of the County Agencies for Environment Protection and Water Management Systems.

The monitoring network existing at county level was expanded as concerns the number of sections and has improved its activity in various ways, including expansion of the range of ratios analysed.

Some counties (Bacau, Neamt) have enjoyed technical and financial assistance through collaborations between the Ministry of Water, Forest and Environment Protection and the counterpart ministries in The Netherlands and Denmark. These collaborations have operated in the territory by means of environment protection agencies and have materialised by the elaboration of the “Local Action Plan for Environment Protection” at the level of the county involved.

As a general assessment, the trend during recent years was to reduce the level of concentration of various pollutants, first as a consequence of the drop in the economic activity or the cessation of the latter in the case of some economic entities and in a lower extent as a consequence of updating or investment in the area.

Air

The main air pollutants, according to the data supplied by the Statistical Yearbook of Romania, 1998, are depositable powders (the Vaslui municipality, scoring a 87% frequency of the concentration above the maximum limit accepted, the Barlad municipality with 68%, the Iasi municipality with 31.03%, the Piatra Neamt with 16.8%, the Bicaz town with 41.7% and the Tasca commune with 74.7% in the Neamt county), suspension powders (with heavy metal content, in the Tarnita area – Suceava county), suspension sulfates (Savinesti area – Neamt county, with a 20.8% yearly frequency of values in excess, the Piatra Neamt municipality, with 16.8%), ammonia (Savinesti-Roznov, Iasi municipality, Bacau municipality), methyl-mercaptan (Suceava municipality), chlorine, hydrogen sulfide and hydrochloric acid (Onesti – Bacau county), acid rainfall occurrence (due to the Preparation Plant in Tarnita - Suceava county: in the Ostra checkpoint the frequency of acid rainfalls has increased from 7% to 21% during 1994-1998, while in the Cacica commune acid rainfalls with frequencies ranging between 27% and 40% were recorded in 1996-1998).

Rainfalls in the Savinesti-Roznov area have a high content of NH_4 (the maximum value is 35.5 mg/l), NO_2 4.7mg/l and SO_4^{2-} 41mg/l (year 1998).

Water

a. Ground (phreatic) water is affected by the presence of the ammonium ion, ammonia, nitrites and nitrates, and organic substance, in the Neamt county – downstream the Piatra Neamt municipality up to Costisa, owing to the Savinesti-Roznov chemical plant; in the Cracaul Alb and Cracaul Negru area the phreatic water is also polluted by nitrites. The phreatic layer in the Solonet brook area, Suceava county, is polluted by chlorides and show a high content of lime. In the Vaslui county the quality of ground water was subject to degradation over the towns and communes located near the polluting economic sites, and exceptional values in excess were recorded in organic substance and nitrates due to the pollution in the animal breeding sector and chemical treatment of the soil.

b. Surface water

According to the data in the Statistical Yearbook of Romania, 1998, the total length monitored on rivers in the Siret and Prut hydrographical basins is 4135 km and 1586 km respectively, of which, by quality categories, the weights are as follows:

The qualitative weight of water in the Siret and Prut hydrographical basins (Statistical Yearbook of Romania, 1998)

	Categ. I (%)	Categ. II (%)	Categ. III (%)	Over the limits of categ. III (degradation, %)
Siret hydrographical basin	62,3	24,2	4,1	9,4
Prut hydrographical basin	13,5	46,4	19,1	21,0

Surface water shows:

- Organic load over the maximum accepted limits on certain sections (Bistrita – downstream of Piatra Neamt, up to the confluence with Siret; Siret, Prut, Bahlui, Bahluet, Jijia) as a result of overflows of insufficiently cleaned water from the town systems, animal breeding sites and illegal waste dumps on the side of waterways

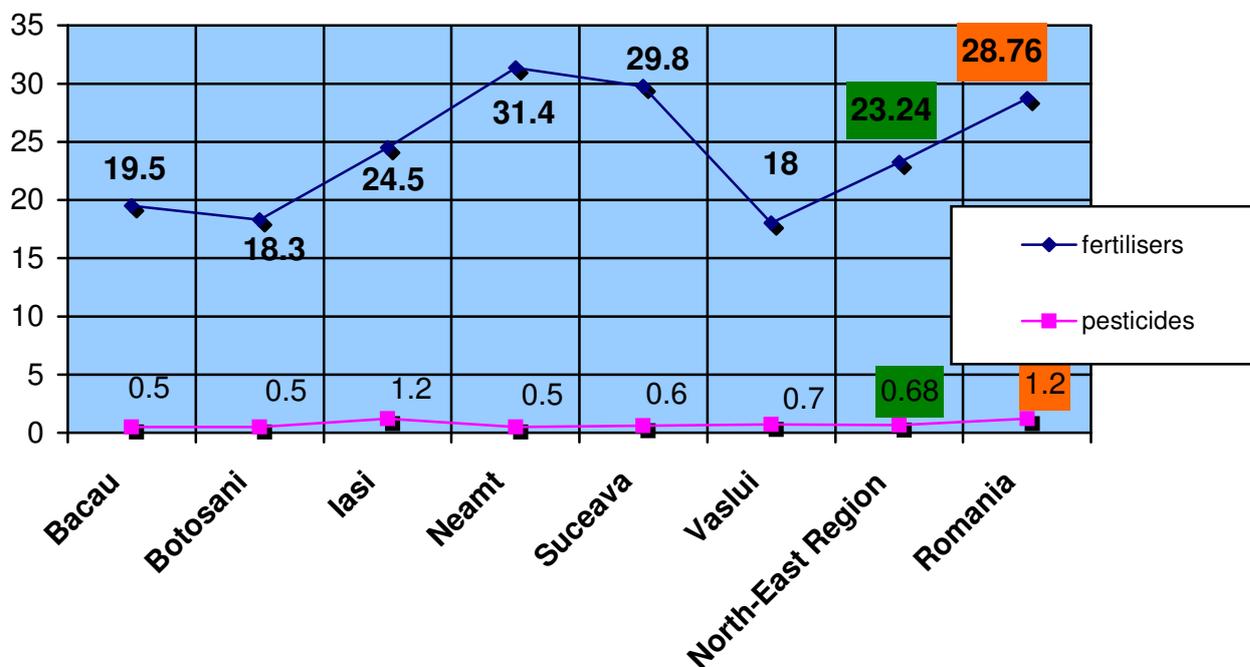
- Heavy metals and uranium contents – the Botusana brook (mining workings for manganese – Vatra Dornei, copper – Lesul Ursului, radioactive ore – Crucea, Ostra, sulphur – Calimani, which also involves a high acidity of the Neagra Sarului brook, which pH ranges between 2.65 and 2.77, according to the tests made by APM Suceava in 1998)
- Content of ammonium, ammonia, nitrites, nitrates – as a result of animal breeding activities and chemical treatment of soil (Iasi, Vaslui, Botosani, Neamt counties, affecting the rivers of Bistrita, Moldova, Siret, Prut directly and through their affluents), as well as due to the activities in industrial areas (the Savinesti-Roznov chemical plant).
- Content of phenol, petroleum products, pesticides – the Trotus river (Bacau county), phosphorus (the Bistrita and Siret rivers).

Soil

Soil degradation is owed to the following phenomena.

- Earth glide
- Floods generated by abundant rainfall
- Surface and deep erosion
- Excess of moisture
- Physical degradation (e.g. in the Bacau county – Zemes, Lucacesti, Buhusi, Podu Turcului, Livezi, Corbasca)
- Salinisation
- Alkalinisation (Tasca-Bicaz, Neamt county)
- Acidisation (the northern part of the Vaslui county, in Suceava county – Saru Dornei, in the Neamt county – Savinesti)
- Illegal waste dumping (domestic, industrial – including sawdust)
- Waste dumping in town and industrial heaps overwhelmed in storing capacity and not properly arranged. For example, only in the Suceava county, in the Calimani Mountains, there are about 200 ha of unconsolidated waste dumps as a result of the mining activity in the area
- Chemical pollution with:
 - Petroleum products (Bacau county – the Comanesti basin)

Soil concentration of chemical fertilisers and pesticides (kg/ha)



- Heavy metals – in the areas neighbouring CETs (Iasi) and industrial areas (SC Petrotub SA Roman – Neamt county, Bacau county, and the mining activities for uranium, sulphur, copper, manganese – Suceava county)
- Pesticides (Bacau, Iasi, Botosani counties)

The status of soil concentration in fertilisers and pesticides in the North-East region, the component counties and the comparison to the national level is presented in the next diagram.

Noticeable is that the North-East region ranges below the country average as concerns the content in chemical fertilisers and scores about 50% of the national average as to pesticide content in the soil.

Flora and Fauna

Although the question of serious effects on vegetation and fauna, the higher level of pollution in the former period of time has caused a reduction in the amount of species (waterways of Vasluiet and Barlad, Vaslui county) and in underwater floristic associations (the Barlad valley – Delea, Vaslui county), which species are about to disappear from the fauna range (swallows, sand-martins, capercaillies – Bacau county, wild cats, chamois, black vulture, mountain eagle, hucks, ure oxes – Neamt county) and from the flora (Papucul Doamnei, variegated tullip – Bacau county, edelweiss, yellow gentian, Sangele Voinicului, Bulbucii de Munte, Crucea Voinicului, spring adonis, pasque flower, angelica – Neamt county).

In the North-East region there are two national parks: Ceahlau (17,391 ha) and Bicz-Chei-Hasmas (6,026 ha) and many natural reservations: floristic, forest, landscape, paleontological, geological, aquatic, faunistic, dendrological parks and monuments of nature.

The areas covered by forests affected by the drying phenomenon are quantified in the following table:

Forests affected (%)

County	Not affected	Light	Medium	Serious	Dry
Bacău	68,78	23,61	5,74	0,77	1,10
Botoşani	76,37	19,24	4,18	0,05	0,16
Iaşi	32,88	43,52	22,47	0,79	0,34
Neamţ	53,47	24,78	19,42	1,88	0,45
Suceava	69,50	21,20	8,90	0,31	0,09
Vaslui	73,62	15,88	7,32	1,28	1,90
Total per region	63,68	23,96	11,20	0,83	0,53
Romania	57,2	25,99	14,66	1,38	0,77 -0,46 coniferous -0,86 leafy

Source: National Report on Human Development, 1998 (the data refer to year 1996)

In the Suceava county, the Calimani Mountains, the presence of acid pollutants in the atmosphere has caused the young plants to fade, as well as chlorosis and necrosis in trees and shrubs, affecting the forest fund on an area of about 1500 ha, with a yearly rate of drying of 0.5-3%, at 1-2 km distance to the source and losses in growth ranging from 20% to 50% during the past 20 years.

7.2. Major Sources of Air, Water, Soil Pollution, Emission, Leakage, Contamination

Air

The mining workings in Calimani affects a considerable area by noxious emission of sulphur dioxide, hydrogen sulphide, sulphuric acid and sulphate aerosols, with a direct negative impact, as well as by acid rainfalls in the Vatra Dornei-Calimani area.

Other major sources of air pollution are represented by the SC Chimcomplex SA Borzesti (hydrochloric acid and chlorine emission), SC Sofert SA Bacau (ammonia and sulphuric acid), SC Rafo SA Onesti (hydrogen sulphide and sulphur dioxide), the Savinesti-Roznov chemical plant (ammonia, sulphur dioxide and trioxide), SC Moldocim SA Bicaz-Tasca (sedimentable powders), SC Petrotub SA Roman (nitric oxides, carbon oxide and dioxide, sulphur dioxide, metallic powders, acid vapours), CET I-Iasi, CETI-Holboca, SC Fortus SA Iasi, CET Botosani, and generally the industrial or town thermal power plants operating on liquid or solid fuel basis.

Water

Residual water in towns and communes, insufficiently cleaned or totally uncleaned, exhausted into surface water or by infiltration into the phreatic layer represents an important source of degradation of this environment factor, which characteristics shows over the entire region.

As concerns industrial sources, worthy of mentioning are: SC Chimcomplex SA Bacău (chlorides), SC Rafo SA Oneşti (petroleum products), SC Comtom SA, SC Fortus SA Iaşi, SC Antibiotice SA Iaşi, Tomeşti (Războieni farms – organic content), Săvineşti-Roznov chemical plant (ammonium ion), mining workings in the Suceava county (Crucea, Ostra, Călimani, Leşu Ursului, Vatra Dornei – with emission of heavy metals and acid pH).

Soil

The major soil pollution sources are represented by the exploitation works for oil (Zemes-Bacau), mining (Ostra, Crucea – radioactive barren matter depositions, Fund Moldovei, Brosteni – copper barren matter, the Calimani mining site – sulphur, all mining sites in the Suceava county, CET II Holboca – ash, slag), SC FORtus SA Iasi (foundry sands), SC Antibiotice SA Iasi, SC Terom SA Iasi (dumps, mud), the animal breeding farms in Razboieni – dejection, SC Petrotub SA Romani (petroleum residues, foundry sands, oily sunder).

A special problem is represented by domestic and industrial waste resulting in the more and more increasing amounts, which are taken over in the old town and commune waste dumps, but which affect also other areas by illegal storage.

7.3. Water Treatment Systems and Solid Waste Management

As a regional feature, both the capacities of the residual water system, and the capacities of the waste dumps are insufficient as against the requirements.

The weight of the amount required as against the existing situation ranges at about 30% for the cleaning systems, and the investment required for the biological and chemical cleaning stage, where appropriate, is even higher, and is about 40% for the waste dumps.

As concerns the existing endowment and the way to exploit it, only the urban localities and the main rural localities are equipped with a centralised water supply and sewerage system, and the number of cleaning systems is even lower, as many of them operate inappropriately, as a consequence of:

- Insufficient capacity
- Unsatisfactory endowment
- Unsuitable exploitation.

As a result, the wastewater insufficiently cleaned or not cleaned is discharged into surface waterways or infiltrated in the underground, thus affecting the latter's quality. In this respect worthy of mentioning are the counties of Vaslui, Botosani, Iasi and Neamt.

The waste management systems are insufficient and most of them are not located and arranged suitably, which fact determines a negative impact on all the environment factors, as well as discomfort in people. It can actually be stated that there is no waste dump in the region arranged according to ecological principles.

7.4. Comparative Evaluation as against the Requirements at National Level in the Environment Protection Sector. Conclusions

The North-East Region does not face very serious pollution phenomena, as it is still a “clean” region.

At regional level, the main environment problems are related to:

- Bad management of industrial and domestic waste (unselective collection, low degree of recapitalisation and/or treatment of waste, unsuitable storage as concerns location and arrangement of waste dumps, existence of sawdust dumps on the side of waterways, along railways)
- Deforestation, with implications in the sharpening of earth glides
- Soil erosion phenomena, which mainly affects the eastern part of the region
- Drinking water (quantity, quality, supply)
- Local or areal pollution caused by:
 - Industrial activities with impact on air, water, soil
 - Mining workings (coal, radioactive ore, sulphur, copper, manganese), with impact on air, water, soil, vegetation
 - Traffic (insufficiency or non-existence of road ways avoiding town areas) with impact on air, and level of noise
 - Urban agglomeration, with impact on air (thermal power plants on liquid fuel basis), water (cleaning systems of an insufficient capacity) and soil (waste)
 - Animal breeding farms, with impact on water and soil.

The fact that the main polluting companies are limiting their activity, allowing for small and medium enterprises to take over, which are more flexible, with higher possibilities for a sustainable approach of their development, according to the legislative provisions in force, has created the prerequisites for focusing on environment quality also.

Some counties within the region have enjoyed programmes and projects with foreign co-financing in the area of environment protection.

Thus projects in various stages are running, aimed at updating the water supply systems (Iasi county), modernisation, retechnologisation and development of town cleaning systems (Iasi, Piatra Neamt, Roman), for a selective collection of waste and establishment of an ecological waste dump (Piatra Neamt), reduction of the risks implied by industry (the Bacau-Onesti area and the Savinesti chemical platform – SC Fibrex SA), alleviation of powder emission (SC Moldocim SA Bicaz – the Tasca manufacture), bio-diversity preservation and ecological reconstruction of the Ceahlau National Park, a demonstrative project concerned in utilisation of sawdust generated by wood cutting systems (on the Bicaz and Damuc river valleys), the CREDO programme concerned in cross-border co-operation for the monitorisation of the Prut and Siret rivers (Botosani county).

As concerns the impact of anthropic activity on the environment, we deem that the specific training which is developed in an institutional framework (kindergartens, schools) does not cover all the environment topics and only includes a share of the population.

In this respect, there is absolute need for sensitisation and a better information and education of the entire population according to the principle of environment protection and preservation, both at present, and for the future generations.

8. SUBREGIONAL DISPARITIES IN THE NORTH-EAST REGION

Besides the overall characteristics of the region, there are also subregions that can be identified within the North-East Region, which either point out internal disparities arising from specific problems, or can represent “development poles”, provided that the existing opportunities and assets existing get capitalised.

8.1. Areas with difficulties

In order to lay out specific development programmes for given issues (industry, agriculture, unemployment, environment, infrastructure), we have defined as priority areas the following sub-regions, for which we have also pointed out the typical problems:

- The large poverty area including the southern part of the Iasi county, the south-eastern one of the Neamt county, the eastern part of the Bacau county and the Vaslui county;
- Areas facing industrial decline and high unemployment rate, including the municipalities of Piatra Neamt, Roman, Tîrgu Neamţ, Suceava, Falticeni, Radauti, Vaslui, Negresti, Husi, Buhusi, Darmanesti, Moinesti, Comanesti, Pascani, Hirlau, Tîrgu Neamţ, Botosani, and Dorohoi with the adjacent industrial sites;
- The isolated rural areas having a poorly developed infrastructure, spread among the counties as follows:
 - The rural area covering the intersect between the Bacau, Vaslui, Iasi and Neamt counties and also the west side of Vaslui county;
 - Areas including isolated groups of localities in Suceava county:
 - Izvoarele Sucevei, Brodina, Ulna
 - Şarul Dornei, Panaci, Poiana Stampei
 - Dolhasca, Dolhesti, Manoleasa, Forăşti
 - Grănieşti, Samoştea, Zvoriştea
 - The mountain area of north-west side of Bacau county;
 - The strip neighbouring the border between the Botosani and Iasi counties, and also the north-east part of Botosani county;
 - An area locating in the south-eastern extremity of the Iasi county, continued in the north-eastern part of the Vaslui county, on the side of the Prut river.
- The areas affected by earth glide and erosion phenomena:
 - In the Botosani county these areas are located in the central and south-south eastern area, within a perimeter delimited by the Ungureni, Trusesti, Flamanzi, Lunca, Albesti and Stefanesti communes
 - In the Neamt county:
 - In the northern part of the county, near the Pipirig commune
 - On both sides of the Bicaz artificial lake
 - In the northern part of the Piatra Neamt municipality, over the Gircina commune
 - Over the Faurei commune

- In the Iasi county, over the Pircovaci and Strunga communes
 - In the Vaslui county, in the basin covering the tributaries of Barlad river and in the Elan river basin, in east zone of the county;
 - In central and north side of Bacau county were identified 13 zones exposed to potential earth glides;
 - In Suceava county over localities:
 - Ulma, Brodina, Straja, Vicovu de Sus
 - Vadu Moldovei, Forasti, Draguseni, Boroaia
- The areas affected by floods, in the Bistrita river basin – over the Borca, Costisa, Podoleni localities, in the Jijia and Siret river meadows, in the Prut river meadows – downstream of the Stanca-Costesti dam, in Bacau county in the basins of Trotus, Siret, Tazlau, Bistrita, Zeletin rivers;
- The areas showing deficit in water supply (as concerns specific infrastructure and supply sources – quantity and quality of the water), including the municipalities of Bacau and Iasi. There is also true that the majority of rural localities have not centralized water supplies.

8.2. Areas with specific opportunities

On the other hand, we have also prioritised other areas, which can represent attraction poles due to their resources, opportunities and prerequisites for development and the ones worth being supported in this respect. The following areas are part of this category:

- ❖ The area having an industrial infrastructure that is not utilised or is insufficiently utilised, with prerequisites for direct investment, which includes the county capitals, and the Roman, Targu Neamt, Pascani, Targu Frumos, Husi, Dorohoi and Buhusi localities.
- ❖ The area of tradition in small industry practice, locating in the perimeter delimited by the localities of Targu Neamt, Falticeni and Pascani, and also in south and west side of Bacau county in which are developed activities in the garments, knitwear, pottery, artisan craftsmanship sectors
- ❖ The area with tradition in wood exploitation and processing, locating in the forestry basins in the Vatra Dornei, Campulung Moldovenesc, Bicz – Bistrita valley, Trotus valley and Tazlau valley area.
- ❖ The area of tradition in hydrocarbon reservoirs exploitation (Comanesti basin)
- ❖ The area having mineral water resources, treatment and/or leisure facilities, over the localities of Slanic Moldova, Targu Ocna, Vatra Dornei, Baltatesti, Oglinzi, Negulesti, Tosorog, Strunga, Iasi.
- ❖ The area with animal breeding potential (due to the natural conditions, experience, abilities and tradition of the inhabitants for this kind of activity), which includes the northern half of the Botosani county, the north-eastern and central-western part of the Suceava county, and also the west side of Bacau and Neamt counties;

- ❖ The area appropriate for mountain tourism, located in the Neamt county (Ceahlau Massif) and in the Suceava county (Rarau Massif), and also in Bacau county (Nemira Mountains)
- ❖ The area suitable for cultural and religious tourism, located in the northern part of the Neamt county, the northern and eastern part of the Suceava county, and the Iasi municipality, and also some areas in Bacau county;
- ❖ The area having piscicultural facilities, in the Botosani county - its central-southern part, in the Neamt county, between the localities of Pietra Neamt and Roman, in south-eastern and eastern part of Bacau county, in the south and south-east of Suceava county, as well as in Vaslui and Iasi counties, areas spread in all county territory;
- ❖ The area corresponding to the Bistrita and Siret hydrographic basins, including a chain of artificial lakes, which is not sufficiently capitalised, as there are opportunities for conducting activities concerned in water supply, pisciculture, tourism, irrigation, etc.

We take this opportunity to point out that, among the urban centres in the North-Eastern Region there are disparities as to the response to economic restructuring, materialised by the obviously different stage and dynamics in meeting the objectives of the transition. Worthy of mentioning is the following localities, which are part of those with a positive response to the market economy requirements, to the benefit of the communities concerned: Bacau, Onesti, Iasi and Suceava.

Also the temporal and spatial dynamics of some of the areas identified above should be stressed out, as this is a dynamics requiring that the decision for implementing specific measures be substantiated on a rigorous analysis undertaken at the respective time over the area concerned.

9. ANNEX I

Table 1.1 Air temperature

County	Yearly average °C	Average temperature in January, °C	Average temperature in July, °C	Absolute highs, °C	Absolute lows, °C	Yearly average number of frosty days
Bacău	2 (mountain)- 9	(-7) - (-4)	12 -20	40,8	- 32,5	123
Botoșani	8 - 9	(-4,5) -(- 3,5)	19 - 20,5	39,4	- 32,5	120-130
Iași	9	(-4) - (-3)	20 - 21	40	-30	118 -120
Neamț	2 (mountain) -8,5	(-8) -(- 3)	8(mountain)- 20	39,6	-33,2	125 - 130
Suceava	2 (mountain)- 8	(- 10) -(- 4)	10 - 18	39,4	- 37,2	115- 118
Vaslui	8 -9	(- 4,5) - (-3)	19 -21	40,6	- 32	117

Source: Statistical Yearbook of Romania, 1998

Table 1.2 Rainfalls and snowfalls

County	Yearly average amounts, mm	Average amounts in July, mm	Average amounts in January, mm	Snow layer, cm
Bacău	600 -800	60 – 100	30 - 60	60- 70 (mount.)
Botoșani	500 - 600	60 – 80	30	10-15
Iași	500 - 550	60	30 -40	60 -100
Neamț	550 - 1000	90 – 140	30 -170	25 -100 (mount.)
Suceava	600 -1400	70 – 140	40- 100	40 - 160(mount.)
Vaslui	450 - 600	50 – 60	30	10 -15

Source: Statistical Yearbook of Romania, 1998

Table 1.3 Human development ratios

	Life expectation at birth (years) 1994-1996	Level of literacy of adult population (%) 1995	Gross rate of school coverage at all levels (%) 1996/1997	Life expectation ratio	Education ratio
ROMÂNIA	69,1	97,0	62,0	0,734	0,853
Bacău	69,0	96,9	57,0	0,733	0,836
Botoșani	67,7	95,3	54,9	0,712	0,818
Iași	68,6	97,1	67,4	0,727	0,872
Neamț	69,8	97,6	55,6	0,747	0,836
Suceava	69,9	97,9	56,2	0,749	0,840
Vaslui	69,0	95,9	55,6	0,733	0,825
URBAN	69,8	99,0	78,1	0,747	0,920
RURAL	68,0	94,7	40,6	0,717	0,767

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Ratios showing disparities between genders in human development

	Life expectation at birth (years) 1994-1996		Gross rate of education coverage at all levels (%) School year 1996/1997	
	Women	Men	Women	Men
ROMÂNIA	73,1	65,3	62,5	61,6
Bacău	72,6	65,7	58,0	56,0
Botoșani	72,3	63,6	57,0	53,1
Iași	72,4	65,2	69,4	65,5
Neamț	73,5	66,4	56,6	54,5
Suceava	73,8	66,3	56,8	55,7
Vaslui	72,5	65,7	57,7	53,7
URBAN	73,8	66,1	78,6	77,6
RURAL	72,3	64,1	40,4	40,7

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Privation and limiting factors for human development

	Unemployment rate (%) 1996	Unemployment rate for women (%) 1996	Weight of unemployed not enjoying unemployment allowance, in total number of unemployed (%) 1996	Children 7-14 years old not included in the education system (%) School year 1996/1997
ROMANIA	6,6	7,5	29,8	5,6
Bacău	7,6	7,7	18,2	5,2
Botoșani	10,5	9,6	29,8	2,6
Iași	8,9	8,4	37,8	3,4
Neamț	13,1	13,3	54,6	4,9
Suceava	11,1	12,4	39,5	4,7
Vaslui	9,7	8,8	134,4	3,5
URBAN	-	-	-	4,9
RURAL	-	-	-	6,7

(continued)

	Weight of adult population without secondary and tertiary education (%) 1992	Infant mortality rate (per1000 born alive) 1996	Maternal mortality rate (per 100000 born) 1996	Weight of population without electricity (%) 1992	Weight of population without water supply (%) 1992
ROMÂNIA	24,6	22,3	40,8	2,0	45,6
Bacău	25,9	24,9	54,8	3,8	52,5
Botoșani	36,4	30,5	-	5,2	66,0
Iași	26,6	30,5	29,4	1,6	52,0
Neamț	26,2	22,2	30,0	3,4	57,2
Suceava	23,0	22,3	31,0	2,6	66,7
Vaslui	33,9	35,3	15,8	6,2	66,5
URBAN	12,5	18,5	43,2	0,4	12,3
RURAL	38,4	25,6	38,8	4,0	84,3

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Health

	Infant mortality rate (per 1.000 born alive) 1996	Maternal mortality rate (per 100.000 born) 1996	Mortality rate acc. to reasons (per 100.000 inhabitants) 1996		New cases of illness by infectious and parasitic diseases (per 100.000 inhabitants) 1996	
			Circulatory system diseases	Tumours	In dispensaries	In polyclinics
ROMANIA	22,3	40,8	786,0	170,3	3038,9	1197,8
Bacău	24,9	54,8	619,7	144,0	4770,5	1090,6
Botoşani	30,5	-	835,6	200,8	3148,4	1448,1
Iaşi	30,5	29,4	568,0	145,3	3177,1	1591,1
Neamţ	22,2	30,0	633,8	145,4	2039,0	511,0
Suceava	22,3	31,0	647,1	143,6	4581,2	733,9
Vaslui	35,3	15,8	757,0	131,6	1243,3	193,7
URBAN	18,5	43,2	536,5	163,2	-	-
RURAL	25,6	38,8	1084,1	178,7	-	-

(continued)

	TBC cases (per 100.000 inhabitants) 1996	Population covered by		Beds in hospitals (per 1.000 inhabitants) 1996	Consultations per inhabitant in dispensaries 1996
		One physician 1996	One sanitary staff 1996		
ROMÂNIA	98,6	552	177	7,6	2,7
Bacău	113,9	906	202	5,2	1,9
Botoşani	74,3	809	183	8,2	1,6
Iaşi	111,2	353	135	10,4	2,9
Neamţ	105,7	827	204	5,7	2,5
Suceava	95,1	896	226	6,7	3,1
Vaslui	89,0	1120	216	7,1	1,4
URBAN	-	368	113	12,4	-
RURAL	-	1417	568	1,7	-

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Education

	Gross rate of schooling coverage (%)			Level of pre-schooling coverage (%) 1996/1997
	All levels 1996/1997	Elementary school and gymnasium 1996/1997	Secondary school 1996/1997	
ROMÂNIA	62,0	94,4	69,1	60,4
Bacău	57,0	94,9	62,1	66,8
Botoşani	54,9	97,5	55,5	62,7
Iaşi	67,4	96,6	58,9	54,9
Neamţ	55,6	95,1	61,7	61,0
Suceava	56,2	95,3	59,2	62,0
Vaslui	55,6	96,5	58,7	57,8
URBAN	78,1	95,1	108,1	57,6
RURAL	40,6	93,3	14,1	63,4

(continued)

	Rate of graduation to secondary school (%) 1996/1997	Number of pupils covered by one teaching staff in the following levels of education		
		primary 1996/1997	secondary 1996/1997	High-school 1996/1997
ROMANIA	94,8	19,6	11,0	12,3
Bacău	91,7	20,9	11,2	12,2
Botoșani	81,6	16,9	10,9	13,8
Iași	92,5	18,8	11,7	10,4
Neamț	97,5	19,4	10,2	14,4
Suceava	89,9	17,4	11,4	11,2
Vaslui	91,2	20,3	10,8	13,8
URBAN	134,1	21,9	12,7	12,3
RURAL	26,4	17,1	9,1	11,9

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Culture and communication

	Subscriptions per 1.000 inhabitants		Subscriptions to libraries (per 1000 inhabitants) 1996	No. of books lent by libraries (per 1000 inhabitants) 1996	Audience in cinemas (per 1.000 inhabitants) 1996
	Radio	TV			
ROMÂNIA	184,6	182,4	257	3376	559
Bacău	197,3	151,9	266	3495	457
Botoșani	153,1	133,7	226	3419	569
Iași	176,0	153,2	317	7055	771
Neamț	196,0	166,7	234	3431	381
Suceava	130,3	129,1	246	3559	457
Vaslui	119,3	159,3	256	3868	378
URBAN	215,3	228,1	325	4702	984
RURAL	147,3	126,5	176	1762	42

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Human potential of women

County	Gross rate of coverage in high school education (%) 1996	Life expectation at birth (years) 1994-1996	Fertility rate (‰)1996	Maternal mortality rate (per 100.000 born)1996
Bacău	52,7	72,6	47,1	54,8
Botoșani	48,4	72,3	54,0	-
Iași	47,4	72,4	48,7	29,4
Neamț	46,1	73,5	44,0	30,0
Suceava	49,3	73,8	54,0	31,0
Vaslui	48,3	72,5	55,5	15,8

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Table 2.1. Criminality rate at the level of the North-East Region (No. of people convicted per 100.000 inhabitants):

County	1992	1993	1994	1995	1996	1997
Bacău	358	432	464	560	517	571
Botoşani	245	344	468	576	499	521
Iaşi	266	297	399	415	427	468
Neamţ	286	368	345	357	398	385
Suceava	275	360	338	361	476	560
Vaslui	334	428	508	533	604	529
NE Region	294	371	420	467	486	505
Romania	303	366	421	448	460	496

Source: NSC – Statistical Yearbook of Romania, 1998

Table 2.2. Professional structure of active population as at 1st January 1998

County	Total	Employers	Self-employed	Employees	Members of co-operative organisations	Unpaid family workers	Other
Bacău	100,0	2,70	21,98	69,14	0,94	2,63	2,61
Botoşani	100,0	0,15	30,81	54,05	7,56	1,66	5,77
Iaşi	100,0	0,12	19,86	69,40	3,76	2,43	4,43
Neamţ	100,0	0,27	17,17	70,23	3,07	2,73	6,53
Suceava	100,0	0,10	22,76	64,24	0,88	4,91	12,02
Vaslui	100,0	0,14	34,34	56,7	3,11	1,54	4,17
Total region	100,0	0,58	24,38	63,86	3,22	2,55	5,41
România	100,0	0,29	13,57	76,92	2,79	1,96	4,47

Source: NSC – Statistical Yearbook of Romania, 1998

Table 2.3. Natural increase in the North-East Development Region

Crt. No.	County	Natural increase %
1.	Bacău	1,8
2.	Botoşani	0
3.	Iaşi	2,6
4.	Neamţ	0,5
5.	Suceava	2,8
6.	Vaslui	2,1
7,	NE region	1,6
8.	Romania	-1,9

Source: NSC – Statistical Yearbook of Romania, 1998

Table 2.4 Infant mortality rate in the NE Development Region

Crt. No.	County	Infant mortality/1.000 new-born
1.	Bacău	24,2
2.	Botoşani	33,1
3.	Iaşi	28,1
4.	Neamţ	24,8
5.	Suceava	23,5
6.	Vaslui	25,4
7.	NE Region	26,5

Source: NSC – Statistical Yearbook of Romania, 1998

Table 2.5 Natural increase and infant mortality in a comparison by regions

Region	Natural increase %	Infant mortality/1.000 new-born
South-East	-1,3	22,5
South	-3,3	23,2
South-West	-3,2	21,1
West	-3,6	21,3
North-West	-2,1	21,8
Centre	-1,1	18,2
Bucharest	-4,4	14,9
North-East	1,6	26,5
Romania	-1,9	22,0

Source: NSC – Statistical Yearbook of Romania, 1998

Table 3.1 Value of agricultural services (1997 – million ROL in current prices)

Counties	Total	Mechanisation services	Land reclamation services	Reproduction and selection services
Bacău	27.808	22.720	3.028	2.060
Botoşani	36.701	31.786	2.523	2.392
Iaşi	38.806	31.210	5.094	2.502
Neamţ	22.671	19.992	888	1.791
Suceava	14.971	9.987	2.693	2.291
Vaslui	38.455	32.295	4.549	1.611
NE Region	179.412	147.990	18.775	12.647
% pe țară	13,0	14,1	6,98	18,7

Table 3.2 Land fund according to use as at 1st January 1998 – thousand hectares

County	Bacău	Botoșani	Iași	Neamț	Suceava	Vaslui	NE Region
Total area	662,0	498,5	547,5	589,6	855,3	531,8	3684,9
Area for agricultural purposes	324,3	387,7	377,4	284,1	349,5	387,2	2110,5
Of which private sector	269,7	312,1	295,5	227,5	283,4	309,9	1698,3
Arable	183,8	291,6	249,2	170,3	177,8	274,5	1347,4
Pastures	187,7	75,7	86,8	69,6	93,4	85,6	499,0
Hay fields	41,0	14,3	19,9	40,0	74,7	5,0	195,2
Vineyards	7,8	2,8	12,5	1,0	-	17,6	41,9
Orchards	3,7	3,1	8,8	3,1	3,4	4,3	26,7
Forests	279,5	57,2	99,0	260,3	456,5	84,2	1236,9
Water	147,3	13,8	13,6	10,3	13,6	9,4	75,8
Other areas	43,4	39,6	57,4	34,7	35,6	50,8	261,7
Total irrigated	20,9	20,3	51,7	10,5	3,7	29,9	137,3
Agricultural irrigated	20,9	20,2	50,4	10,4	3,7	29,6	135,4
Arable - irrigated	19,7	19,7	42,1	10,4	3,5	29,1	124,8

Table 3.3 Agricultural output in 1997 as against 1996 (%)

County	Total		Vegetal		Animal	
		Private sector	Total	Private sector	Total	Private sector
Bacău	108,4	108,8	113,9	114,7	101,6	101,9
Botoșani	122,5	115,3	140,6	126,6	99,3	100,5
Iași	99,7	104,4	107,9	116,6	89,5	94,5
Neamț	99,8	102,7	102	103,5	96,5	101,3
Suceava	98,6	98,7	102,1	101,2	94,1	95,5
Vaslui	111,8	111,9	130	128,5	87,7	90,8
NE Region	106,8	106,96	116,08	114,35	94,78	97,41

Table 3.4 Agricultural output in 1997 (th ROL in current prices)

County	Total		Vegetal		Animal	
		Private sector	Total	Private sector	Total	Private sector
Bacău	2.450.691	2.405.520	1.448318	1.410104	1.002373	995.416
Botoșani	2.192.650	2.048.121	1.361986	1.263062	830.664	785.059
Iași	2.363.198	2.179.917	1.421023	1.349747	942.175	830.170
Neamț	1.784.215	1.710.013	1.073955	1.036819	710.260	673.194
Suceava	2.756.213	2.679.161	1.536348	1.495426	1.219865	1.183.735
Vaslui	1.631.727	1.509.613	1.068709	971.155	563.018	538.458
NE Region	13.178.694	12.532345	7.910339	7.526313	5.268355	5.006.032

Table 3.5 Livestock in 1998

(th heads)

County	CATTLE		SWINE		SHEEP	
	Total	Cows, buffalo and cows, heifers	Total	Reproduction sows	Total	Sheep and ewes
Bacău, of which:	110	60	168	10	185	139
- private sector :	107	59	166	10	181	137
Botoşani, of which:	97	62	97	3	358	289
- private sector :	95	60	93	2	351	283
Iaşi, of which:	123	62	185	17	406	308
- private sector :	109	57	107	7	384	295
Neamţ, of which :	100	60	121	8	230	178
- private sector :	95	58	78	4	225	175
Suceava, of which:	170	108	114	8	239	186
- private sector :	167	107	110	7	238	185
Vaslui, of which :	69	41	85	5	240	194
- private sector :	62	38	77	4	224	183
Total NE Region	669	393	770	51	1.658	1.294
- private sector :	635	379	631	36	1.603	1.258

(continued)

County	Goats Total	Horses Total	POULTRY		Bees Th families
			Total	Adult layers	
Bacău, of which:	26	19	3.104	1.141	26
- private sector :	26	19	3.103	1.139	26
Botoşani, of which:	3	37	1.834	1.234	15
- private sector:	3	37	1.474	1.119	13
Iaşi, of which :	6	44	2.180	1.219	20
- private sector :	6	43	1.755	1.089	19
Neamţ, of which:	4	19	1.088	641	14
- private sector :	4	18	1.087	641	13
Suceava, of which:	4	36	1.627	943	14
- private sector :	4	35	1.348	866	14
Vaslui, of which :	7	24	1.055	784	19
- private sector :	7	23	1.055	784	16
Total NE Region	50	179	10.888	5.962	108
- private sector :	50	175	9.822	5.638	101

Table 3.6 Cultivated area exploited for main crops (1997 – th ha)

Counties	Bc	Bt	Is	Nt	Sv	Vs	NE Region	Rom	%
Total cultivated area	182,2 174,0	281,1 250,8	243 224	169,0 158,2	177,6 168,7	264,3 238,5	1317,52 1214,48	9059,8 7391,9	14,5 16,4
Cereals for grains	126,4 121,9	187,2 172,6	171,9 161,8	108,8 102,9	79,62 75,47	203,2 187,5	877,40 822,28	6319,76 5279,06	13,8 15,5
Wheat and rye	24,21 21,91	50,8 43,9	47,03 42,68	33,6 30,41	26,54 24,22	67,26 60,43	249,5 223,6	2424,39 1904,61	10,2 11,7
Corn	96,94 95,3	112,9 110,7	113,2 110,8	57,53 56,36	34,71 34,21	120,8 116,7	536,39 524,19	3037,74 2816,38	17,6 18,6
Oily plants	2,98 2,55	30,3 21,63	13,18 11,27	3,13 2,69	1,29 1,18	25,28 20,96	76,196 60,315	871,513 592,283	8,7 10,1
Sunflower	2,91 2,51	25,88 19,73	12,01 10,78	2,21 2,19	1,29 1,18	24,43 20,80	68,748 57,212	780,746 574,180	8,8 9,9
Plants for other industrial purposes	3,58 3,21	11,41 10,81	8,69 8,58	6,92 6,41	8,21 7,62	4,88 4,26	43,802 40,917	147,433 130,911	29,7 31,2
Sugar beet	3,58 3,21	11,26 10,67	8,41 8,31	6,85 6,34	8,29 7,62	4,40 3,79	42,816 39,967	128,770 112,977	33,2 35,3
Potatoes	6,07 5,78	9,67 9,24	7,66 7,47	10,07 9,39	26,71 25,76	2,51 2,47	62,725 60,124	255,020 245,277	24,5 24,5
Autumn potatoes	5,58 5,32	8,23 7,81	7,02 6,84	9,37 8,73	26,12 25,17	2,12 2,08	58,472 55,965	222,932 214,343	26,2 26,1
Vegetables	5,85 5,72	6,38 6,36	7,43 7,35	4,6 4,52	6,57 6,54	3,99 3,78	34,856 34,307	208,259 195,465	16,7 17,5
Fodder plants	36,2 34,1	29,59 25,03	30,74 25,04	33,38 30,92	53,37 50,84	21,51 17,70	204,8 183,6	1113,00 854,56	18,4 21,4
Old and new perennials	28,9 27,6	19,16 16,15	13,89 10,82	24,58 23,17	41,07 39,86	12,25 9,51	139,9 127,2	701,122 568,697	19,9 22,3
Annual for hay and green matter	4,94 4,7	7,47 7,08	13,16 12,48	5,39 5,1	5,03 4,68	6,86 6,59	42,88 40,66	285,967 224,912	15,0 18,0

Table 3.7 Local active units in industry, commerce and services - 31.12.1997

Sector	Total	0-9 employees	10-49 employees	50-249 employees	250 employees and more
Total units	38555(12,0%)	34325	2912	931	387
Extractive industry	51(10,75%)	12	12	11	16
Electrical and thermal energy	49(12%)	2	3	11	33
Manufacturing	5286(14,2%)	3818	875	367	226
Construction	947(13,5%)	445	272	179	51
Retail commerce	27446(12%)	25891	1353	182	20
Hotels and restaurants	1303(12,68%)	1117	149	33	4
Transport and storage	996(8,6%)	830	67	83	16
Mail and telecommunication	62(9,6%)	24	19	10	9
Real estate, rentals and services supplied to enterprises	1053(8,4%)	928	85	33	7
Education	85(15,3%)	73	11	1	-
Health and social assistance	342(9,3%)	334	8	-	-
Other activities in community, social and personal services	935(14,0%)	851	58	21	5

Source: NSC – Statistical Yearbook of Romania, 1998

Table 3.8 Economic status declared by counties as at 31.12.1998.

County	No. of employees	Turnover (mil ROL)	Net profit (mil ROL)
Total region			
- total:	416.106	49.290.174	1.615.198
-smells:	165.749	19.559.243	634.304
Bacău			
-total	128.243	14.391.856	343.724
-smells	41.268	6.219.474	144.987
Botoşani			
-total	45.706	3.900.665	108.641
-smells	23.837	2.944.492	74.859
Iaşi			
-total	123.040	13.303.373	514.365
-smells	53.828	7.140.048	278.544
Neamţ			
-total	87.142	8.891.355	331.604
-smells	21.019	1.425.837	71.741
Suceava			
-total	77.808	7.002.283	90.741
-smells	19.133	1.583.535	17.561
Vaslui			
-total	24.267	1.800.642	90.741
-smells	3.664	245.857	17.561

County statistical directorates 31.12.1998

Table 3.9 Accommodation capacities and utilisation indices

County	Accommodation capacity (No. of seats)	Utilisation indices (%)
Total region	19.096	31,7
Bacău	5.338	34,8
Botoşani	958	24,4
Iaşi	3.137	43,3
Neamţ	3.134	24,4
Suceava	5.455	30,2
Vaslui	1.074	17,8

Source: NSC – Statistical Yearbook of Romania, 1998

Table 3.10 Foreign capital participation in the companies of the region

County	No. of companies with foreign capital participation	Total value of capital subscribed (mil. ROL)	Value of capital subscribed in foreign currency (th USD)	% foreign capital of total region
Bacău	442	190.541,2	25.195,4	19,0
Botoşani	119	30057,4	13.017	5,0
Iaşi	879	254.500,6	54.133,3	37,0
Neamţ	309	102.799,6	14.956,4	13,0
Suceava	486	302.714,5	21.529,4	21,0
Vaslui	115,0	27.509,4	4.830,8	5,0
Total region	2350	908.122,7	133.662,7	100,0

County statistical directorates 31.12.1998

Table 4.1 Distribution of active population by urban and rural environments

Crt. No.	County	Active population (number of people)			Active population (% of total county)	
		Total	Urban	Rural	Urban	Rural
1.	Bacău	280.400	138.237	142.163	49,3	50,7
2.	Botoșani	173.900	67.647	106.253	38,9	61,1
3.	Iași	306.400	158.408	147.992	51,7	48,3
4.	Neamț	227.100	96.063	131.037	42,3	57,7
5.	Suceava	279.200	104.142	175.058	37,3	62,7
6.	Vaslui	176.700	71.917	104.783	40,7	59,3
	Total region	1.443700	636.414	807.286	44,08	55,92
	România	9.022700	5.088803	3.933897	56,4	43,6

Source: NSC – Statistical Yearbook of Romania, 1998

Table 4. 2 Structure of unemployed by gender as at 1st January 1998

County	Number of unemployed					
	Total		Men		Women	
	Number	Percentage	Number	Percentage	Number	Percentage
Bacău	32.462	100	18.509	57,01	13.953	42,99
Botoșani	26.653	100	15.351	57,59	11.302	42,41
Iași	35.555	100	19.600	55,12	15.955	44,88
Neamț	39.312	100	19.823	50,42	19.489	49,58
Suceava	39.431	100	20.291	51,45	19.140	48,55
Vaslui	27.587	100	16.752	60,72	10.835	39,28
NE Region	201.000	100	110.326	54,88	90.674	45,12
Romania	881.435	100	452.815	51,37	428.620	48,63

Source: NSC – Statistical Yearbook of Romania, 1998

Table 4.3 Structure of unemployed by age groups

County	Total		15-34 years		35-49 years		50-64 years	
	No.	%	No.	%	No.	%	No.	%
Bacău	32.462	100	27.041	83,3	4.188	12,9	1.233	3,8
Botoșani	26.653	100	22.762	85,4	2.985	11,2	906	3,4
Iași	35.555	100	30.861	86,8	3.733	10,5	961	2,7
Neamț	39.312	100	33.022	84,0	4.835	12,3	1.455	3,7
Suceava	39.431	100	33.437	84,8	4.771	12,1	1.223	3,1
Vaslui	27.587	100	23.090	83,7	3.421	12,4	1.076	3,9
NE Region	201.000	100	17.0213	84,68	23.933	11,9	6.854	3,42
Romania	881.435	100	523.572	59,4	282059	32,0	75804	8,6

Source: NSC – Statistical Yearbook of Romania, 1998

Table 4.4 Redundancies in the region during 1997-1998:

County	Redundancies	
	1997	1998
Bacău	6.641	7.119
Botoșani	16.626	13.914
Iași	25.325	20.922
Neamț	17.146	19.450
Suceava	24.761	26.220
Vaslui	14.682	18.192
NE Region	105.181	105.187

Source: County agencies for professional training and retraining

Table 4.5 Newly created jobs in 1998

County	New jobs created
Bacău	385
Botoşani	369
Iaşi	768
Neamţ	242
Suceava	451
Vaslui	282
NE Region	2497

Source: County agencies for professional training and retraining

Table 4.6 Average monthly earnings by activities of the national economy in the region

Th ROL

County	Bacău	Botoşani	Iaşi	Neamţ	Suceava	Vaslui	NE Region
Total	627,49	490,96	573,39	581,69	542,18	533,18	569,58
Agriculture	444,49	419,38	612,28	399,41	429,06	385,08	420,35
Forestry	612,28	574,08	505,69	568,94	533,45	511,29	552,13
Industry, of which:	729,72	479,96	612,56	617,30	584,09	589,60	624,77
Extractive	729,72	479,96	612,56	617,30	584,09	589,60	624,77
Manufacturing	883,20	479,48	593,84	837,55	768,44	-	839,10
Energy	1162,83	891,49	992,91	877,52	1063,00	849,76	1003,9
Construction	608,91	521,44	566,72	555,99	601,73	472,51	571,39
Commerce	424,21	353,93	452,27	419,55	358,67	448,56	411,89
Hotels	287,74	347,00	419,35	337,17	288,80	193,07	308,53
Transport	639,52	556,39	746,74	627,18	596,74	654,65	654,80
Mail	878,74	875,40	883,38	890,01	775,78	879,84	860,41
Financial activities	1324,45	1352,75	1379,89	1422,44	1346,08	1367,4	1362,6
Real estate	615,47	506,29	571,20	551,12	545,96	567,71	560,03
Public administration	615,17	490,81	583,53	654,29	558,18	573,10	579,38
Education	524,87	512,45	517,63	564,45	526,64	467,48	520,57
Health	425,00	497,49	461,650	529,90	417,54	437,74	458,38
Other activities	401,97	445,88	491,90	541,93	469,38	455,12	458,24

Census of Romanian population, 1992

Table 4.7 Average monthly earnings by economic activities
Th ROL /employee

Region	Total economy	Agriculture	Forestry	Industry	Construction	Commerce
Total	632,08	469,68	573,42	693,43	617,10	459,49
NE	569,58	420,35	552,13	624,77	571,39	411,89
SE	657,32	470,91	525,11	767,06	649,98	484,64
S	624,96	476,78	598,98	706,37	579,27	422,40
SW	652,69	453,27	629,81	790,10	587,31	371,95
W	610,68	470,78	622,90	728,66	638,32	372,41
NW	605,22	459,92	580,41	639,14	603,27	485,42
Centre	609,49	463,26	543,57	658,82	581,30	454,26
Bucharest	724,41	606,11	620,75	686,76	707,80	643,37

continued

Hotels and restaurants	Transport and storage	Mail and telecommunication	Finance/banking and insurance activities	Real estate and other services
412,33	772,90	905,34	1.482,93	681,98
308,53	654,8	860,41	1.362,65	560,03
383,94	858,98	880,51	1.345,12	607,20
313,64	736,11	842,06	1.322,04	702,92
371,50	733,60	847,6	1.349,65	618,55
305,69	769,16	858,18	1.319,16	547,89
392,99	749,80	908,87	1.314,62	617,055
489,142	717,448	806,53	1.363,12	603,87
761,37	839,96	1.166,96	1.922,22	777,63

Source: NSC – Statistical Yearbook of Romania, 1998

Table 6.1 Road network in the rural environment of the region (km)

County	Total	National road	County road	Commune road
Bacău	2.277	444,8	812,2	1.020
Botoşani	1.919	410	736,5	772,5
Iaşi	2.345	351	908	1.086
Neamţ	3.994,5	1.081	679	685,5
Suceava	5.674	309	1.152	4.213
Vaslui	2.098	382	570	1.146

10. ANNEX II

1.1 Administrative structure of the region

Crt.No.	Component counties	No. of municipalities	No. of towns	No. of communes	Total number of basic administrative units
	Total region	15	17	463	495
1.	Bacău	2	6	79	87
2.	Botoşani	2	2	68	72
3.	Iaşi	2	2	85	89
4.	Neamţ	2	2	70	74
5.	Suceava	4	4	90	98
6.	Vaslui	3	1	71	75

1.2 Classification of municipalities and towns according to the number of inhabitants – population as at 1st January 1999

Crt. No.	Component counties	Size groups (inhabitants)			
		Less than 20.000	20.000-49.999	50.000-99.999	100.000 and more
	Total region	13	10	4	5
1.	Bacău	3	3	1	1
2.	Botoşani	2	1	-	1
3.	Iaşi	2	1	-	1
4.	Neamţ	1	1	1	1
5.	Suceava	4	3	-	1
6.	Vaslui	1	1	2	-

1.3 Classification of urban population according to the size of municipalities and towns – population as at 1st january 1998

Crt. No.	Component counties	Size groups (inhabitants)			
		Less than 20.000	20.000-49.999	50.000-99.999	100.000 and more
	Total region				
1.	Bacău	33773	73612	60633	209235
2.	Botoşani	20687	35298	-	128591
3.	Iaşi	26023	45898	-	348489
4.	Neamţ				
5.	Suceava	49321	87230	-	118162
6.	Vaslui	10481	33320	157703	-

1.4 Classification of communes according to number of inhabitants – population as at 1st January 1999

Crt. No.	Component counties	Size groups (inhabitants)				
		Less than 1.000	1.000-1.999	2.000-4.999	5.000-9.999	10.000 and more
	Total region	-	20	277	148	11
1.	Bacău	-	5	42	29	3
2.	Botoşani	-	1	49	17	1
3.	Iaşi	-	7	48	26	4
4.	Neamţ	-	-	41	28	1
5.	Suceava	-	1	48	32	2
6.	Vaslui	-	6	49	16	-

1.5 Classification of rural population according to size of the communes – population as at 1st January 1999

Crt. No.	Component counties	Size groups				
		Less than 1.000	1.000-1.999	2.000-4.999	5.000-9.999	10.000 and more
	Total region	-	35116	988981	969938	123961
1.	Bacău	-	9232	148369	182843	31763
2.	Botoşani	-	1914	163058	100761	11819
3.	Iaşi	-	12175	179917	173180	45600
4.	Neamţ	-	-	146567	186319	11362
5.	Suceava	-	1869	172049	252724	23417
6.	Vaslui	-	9926	179021	74111	-

1.6 Total population of the region and distribution by residence environments – as at 1st January 1998

Crt. No.	County	Number of inhabitants			Percentage of the total		Population density – inh / sq.km	
		Total population	Urban population	Rural population	Urban	Rural	Urban	Rural
	Total region	3807455	1672238	2129217	43,48	56,51	1151,50	61,5
1.	Bacău	750747	378068	372679	50,38	49,62	566,00	63,0
2.	Botoşani	462128	184576	277552	39,90	60,10	709,90	58,7
3.	Iaşi	831282	420410	410872	50,60	49,40	1898,00	78,0
4.	Neamţ	584954	238207	346747	40,81	59,19	2314,00	60,0
5.	Suceava	713782	255473	458309	35,89	64,20	435,85	57,8
6.	Vaslui	464562	201504	263058	43,40	56,60	985,00	51,0

1.7 Evolution of the population in the region, by environments (number of inhabitants, during 1992-1997)

Crt. No.	County	1992	1993	1994	1995	1996	1997	1998	1999
	Total region								
	- total population	3756602	3770694	3778157	3784564	3788157	3785530	3799063	3807455
	- urban population	1647298	1660754	1668663	1676498	1676091	1679557	1677121	1672238
	- rural population	2109304	2109940	2109494	2108066	2112066	2105973	2121942	2129217
1.	Bacău								
	- total population	737512	741119	742901	744162	745463	746131	748894	750747
	- urban population	371305	373663	374747	376114	376782	377886	377273	378068
	- rural population	366207	367456	368154	368053	368681	358245	371681	372679
2.	Botoșani								
	- total population	463218	463250	463183	462792	461793	460115	461889	468128
	- urban population	181283	182667	183835	185073	184991	185256	184794	184577
	- rural population	281925	280583	279348	277719	284232	274859	277095	2747552
3.	Iași								
	- total population	811647	812488	815368	818345	822573	822735	828476	831282
	- urban population	409128	409934	412353	415581	418831	420723	419757	420410
	- rural population	402519	403054	403015	402764	403742	403012	408719	410872
4.	Neamț								
	- total population	578420	583252	584312	585955	584780	583141	584801	584954
	- urban population	234551	237951	239210	240633	238905	238893	238663	238207
	- rural population	343869	345301	345102	345322	345875	344248	346138	346747
5.	Suceava								
	- total population	704431	706409	708571	709604	710845	711568	712618	713782
	- urban population	250482	253547	254730	255086	254392	254743	254450	255473
	- rural population	453949	453862	453871	454518	456453	456825	458168	458309
6.	Vaslui								
	- total population	461374	464176	463822	463701	462703	460840	462385	464562
	- urban population	200549	202992	203788	204011	202190	202056	202184	201504
	- rural population	239622	261184	260044	259690	260513	258784	260201	263058

1.8 Population dynamics during 1992-1998

Crt. No.	County	1993	1994	1995	1996	1997	1998	1999
	Total region							
	- total population	100,4	100,6	100,7	100,8	100,8	101,1	101,4
	- urban population	100,8	101,3	101,8	101,9	101,9	101,8	101,5
	- rural population	100,0	100,0	100,0	100,0	100,0	100,6	100,09
1.	Bacău							
	- total population	100,6	100,9	101,1	101,3	101,4	101,7	102
	- urban population	100,7	100,9	100,3	101,5	101,8	101,6	101,8
	- rural population	100,7	100,9	100,9	101,0	101,1	101,9	102,1
2.	Botoșani							
	- total population	100,0	100,0	99,9	99,7	99,3	99,7	99,8
	- urban population	100,8	101,4	102,1	102,0	102,0	101,9	101,8
	- rural population	99,5	99,1	98,5	100,8	97,5	98,3	98,4
3.	Iași							
	- total population	100,1	100,4	100,8	101,4	101,5	101,8	107,5
	- urban population	98,6	99,1	100,2	101,0	101,3	101,6	101,3
	- rural population	101,6	101,8	101,4	101,8	101,6	102,1	103,6
4.	Neamț							
	- total population	100,83	101,0	101,3	101,0	100,8	101,1	101,1
	- urban population	101,54	102,0	102,6	101,8	101,8	101,8	100,6
	- rural population	100,48	100,4	100,3	100,4	100,6	100,7	100,8
5.	Suceava							
	- total population	100,3	100,6	100,7	100,9	101,0	101,1	101,3
	- urban population	101,2	101,7	101,8	101,6	101,7	101,6	102,0
	- rural population	100,0	100,0	100,1	100,5	100,6	100,9	101,0
6.	Vaslui							
	- total population	100,6	100,5	100,5	100,3	99,9	100,2	100,6
	- urban population	101,2	101,6	101,7	100,8	100,8	100,8	100,5
	- rural population	109,0	108,5	108,4	108,7	108,0	108,6	109,8

1.9 Structure of population by gender – population as at 1st January 1998

Crt. No.	County	Number of inhabitants			Percentage of the total	
		Total	Male	Female	Male	Female
	Total region					
	- total population	3807455	1883115	1924340	49,5	50,5
	- urban population	1672238	815658	856580	40,8	51,2
	- rural population	2129217	1067457	1067760	50,1	49,9
1.	Bacău					
	- total population	750747	373248	377499	49,7	50,3
	- urban population	378068	184682	193907	48,8	51,2
	- rural population	372679	188686	183592	50,7	49,3
2.	Botoșani					
	- total population	462128	226543	235585	49,0	51,0
	- urban population	184576	89896	94680	48,7	51,3
	- rural population	277552	136647	140905	49,3	50,7
3.	Iași					
	- total population	831282	412174	419108	49,6	50,4
	- urban population	420410	203601	216809	48,4	51,6
	- rural population	410872	208573	202299	50,8	49,2
4.	Neamț					
	- total population	584954	288967	295977	49,4	50,6
	- urban population	238207	115394	122813	48,4	51,6
	- rural population	346747	173573	173174	50,9	49,1
5.	Suceava					
	- total population	711568	351208	360360	49,4	50,6
	- urban population	254743	123554	131189	48,5	51,5
	- rural population	456875	227654	229171	49,8	50,2
6.	Vaslui					
	- total population	464562	230975	233587	49,7	50,3
	- urban population	201504	98591	102913	48,9	51,1
	- rural population	263058	132384	130674	50,3	49,7

1.10 Structure of population by age groups (percentage) – population as at 1st January 1998

Crt. No.	County	Total population	Age groups				
			0-14 years	15-34 years	35-49 years	50-64 years	65 years and more
	Total region	100,0	21,8	32,1	18,7	14,9	12,5
1.	Bacău	100,0	21,08	32,6	19,9	15,01	11,4
2.	Botoșani	100,0	21,6	30,5	17,7	15,6	14,6
3.	Iași	100,0	21,5	34,9	19,0	13,6	11,0
4.	Neamț	100,0	20,3	31,8	19,6	15,9	12,4
5.	Suceava	100,0	22,7	31,8	18,6	14,7	12,2
6.	Vaslui	100,0	22,6	31,5	17,8	14,7	13,4

1.11 Ethnical structure of the population (percentage) – population according to 1992 census

Crt. No	County	Total population	Nationalities					
			Romanians	Hungarians	Ukrainians	Lippovan-Russians	Romanies	Other nationalities
	Total region	100,0	98,4	0,1	0,26	0,1	0,7	0,34
1.	Bacău	100,0	98,0	0,6	-	-	1,1	0,3
2.	Botoșani	100,0	99,0	-	-	0,2	0,4	0,4
3.	Iași	100,0	98,7	-	-	0,3	0,7	0,3
4.	Neamț	100,0	99,0	0,1	-	0,1	0,7	0,1
5.	Suceava	100,0	96,6	-	1,4	-	0,7	1,3
6.	Vaslui	100,0	99,37	-	-	-	0,56	0,07

1.12 Inter-county migratory movement (in 1997)

Crt. No.	County	In-coming (No. of people)			Out-going (No. of people)			Balance (current migration)			Net migration rate (‰)		
		Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
	Total region												
1.	Bacău	8848	3845	5003	8768	4187	4581	80	-342	422	0,1	-0,9	1,14
2.	Botoşani	7332	1903	5429	7411	2425	4936	-79	-522	433	-0,17	-2,81	1,61
3.	Iaşi	12909	4197	8712	11818	3975	7843	+1091	+222	+869	+1,32	0,52	2,15
4.	Neamţ	5817	2237	3580	6140	2512	3628	-323	-275	-48	-0,8	-1,0	-0,6
5.	Suceava	3901	1296	2605	5587	2125	3462	1686	525	1161	2,37	0,74	1,63
6.	Vaslui	8689	2401	6288	9254	2875	6379	-565	-474	-91	1,2	1	0,2

1.13 Structure of school population in secondary education level (highschool, vocational and apprenticeship, post-highschool, foremen), data from 1997:

Crt. No.	County	Total	High school education			Vocational and apprenticeship			Post-highschool Education	Apprenticeship education
			Theoretical	Normal school	Technical	Total	Professional	Apprenticeship		
	Total region	100,0	36,8	1,74	26,46	27,7	17,45	10,25	6,4	0,9
1.	Bacău	100,0	35,2	2,4	27,2	25,6	15,0	10,6	6,6	3,0
2.	Botoşani	100,0	36,6	2,1	26,3	27,9	15,2	12,6	6,8	0,3
3.	Iaşi	100,0	24,5	1,4	37,2	28,7	19,0	9,7	7,8	0,4
4.	Neamţ	100,0	35,6	0,9	25,0	32,8	18,9	13,9	3,3	2,4
5.	Suceava	100,0	63,6	2,19	1,2	26,7	22,75	4,0	5,8	0,46
6.	Vaslui	100,0	25,5	1,5	41,7	2	17,3	10,7	3,2	0,1

1.14 Structure of population more than 12 years old according to the form of education graduated (according to 1992 population census):

Crt. No	County	Total	No.schooling	Primary school	Gymnasium	High school	Vocational school	Apprenticeship	Post-high school	Tertiary education
	Total region									
	- total	100,0	4,4	28,1	33,2	14,9	14,4	1,1	0,33	3,57
	-urban	100,0	1,3	15,3	26,6	25,4	19,5	2,2	1,2	7,2
	-rural	100,0	6,8	37,3	35,7	7,7	10,8	0,6	0,16	0,7
1.	Bacău	100,0								
	-total	100,0	4,2	25,5	34,1	15,2	15,2	1,6	0,3	3,9
	-urban	100,0	1,5	15,8	29,5	23,6	18,8	2,7	0,7	7,0
	-rural	100,0	6,9	34,7	38,3	6,9	11,6	0,4	0,1	0,7
2.	Botoșani	100,0								
	-total	100,0	6,4	33,23	30,9	13,1	12,6	0,8	0,4	2,5
	-urban	100,0	1,6	16,2	28,5	20,6	20,8	1,6	1,0	5,6
	-rural	100,0	9,2	42,8	32,2	8,1	8,1	0,3	0,1	0,7
3.	Iași	100,0								
	-total	100,0	3,8	27,0	28,2	18,6	15,3	1,2	0,4	5,5
	-urban	100,0	1,1	14,4	21,2	29,2	18,5	2,8	2,7	10,0
	-rural	100,0	6,9	40,0	30,8	7,4	12,0	1,9	0,3	0,7
4.	Neamț	100,0								
	-total	100,0	3,6	26,6	35,1	14,0	15,6	1,2	0,3	3,6
	-urban	100,0	1,6	14,9	27,4	24,3	20,5	2,0	1,4	7,8
	-rural	100,0	5,2	34,0	39,6	7,3	12,7	0,3	0,2	0,8
5.	Suceava	100,0								
	-total	100,0	3,1	24,1	39,1	14,6	14,5	1,0	0,3	3,3
	-urban	100,0	0,7	13,6	26,8	26,7	19,2	2,1	0,7	7,8
	-rural	100,0	4,4	29,6	42,3	8,1	12,0	0,3	0,1	0,8
6.	Vaslui	100,0								
	-total	100,0	5,5	32,0	31,7	13,9	13,1	1,0	0,3	2,5
	-urban	100,0	1,5	17,0	26,0	28,2	19,4	2,1	0,6	5,2
	-rural	100,0	8,5	42,5	31,1	8,4	8,6	0,2	0,1	0,6

1.15 Provision of services to population – sanitary services (in 1997)

Crt.No.	County	No. of hospital beds / 1000 inhabitants	No. of inhabitants / physician			Infant mortality rate (No. of deaths under 1 year of age/1000 born alive)
			Total	Urban	Rural	
	Total region	7,0	853,0	534	2021	26,5
1.	Bacău	5,0	985,6	380	1754	24,2
2.	Botoșani	7,9	787,4	463	2253	33,1
3.	Iași	10,4	333,6	195	1284	28,1
4.	Neamț	6,3	842,0	863	1926	24,8
5.	Suceava	6,2	941,2	435	2561	23,5
6.	Vaslui	6,8	1229,8	870	2350	25,4

1.16 Provision of services to the population – number of pupils enrolled per teaching staff, by forms of education (in 1997):

Crt. No	County	Primary education	Gymnasium	Highschool	Vocational and apprenticeship	Post-highschool	Foremen school
	Total region	18,95	11,73	11,48	33,81	19,88	254,57
1.	Bacău	22,00	11,76	11,54	28,78	162,00	956,00
2.	Botoșani	16,80	11,12	13,18	40,36	16,62	46,00
3.	Iași	18,40	12,67	10,20	27,15	15,88	146,00
4.	Neamț	19,24	11,04	13,24	31,41	136,7	69,00
5.	Suceava	17,75	11,66	10,20	58,10	11,19	140,00
6.	Vaslui	19,83	11,72	13,13	39,37	11,42	11,00

Labour force

Evolution of unemployment rate during 1991-1999

Crt. No.	County	1991	1992	1993	1994	1995	1996	1997	1998	1999
	Total region	6,18	11,62	15,58	16,81	13,85	10,00	12,2	14,23	14,2
1.	Bacău	3,9	8,47	12,4	11,9	10,5	7,6	10,4	10,3	11,9
2.	Botoşani	5,3	11,5	16,9	18,1	16,6	10,5	13,3	16,6	10,0
3.	Iaşi	4,2	11,0	11,5	16,1	12,7	8,3	10,4	11,5	12,7
4.	Neamţ	-	13,2	17,6	17,2	16,6	12,8	14,8	16,2	17,2
5.	Suceava	10,5	10,7	12,2	13,5	11,9	11,1	12,4	12,8	14,4
6.	Vaslui	7,0	14,9	22,9	24,1	14,8	9,7	13,5	18,0	19,0

Employed population by activities of the national economy (1997)
(number of people)

Economic activities	Total region	Bacau county	Botosani county	Iasi county	Neamt county	Suceava county	Vaslui county
Total economy	1443,7	280,4	173,9	306,4	227,1	279,2	176,7
Agriculture	658,1	88,4	99,6	126,6	108,9	141,0	93,6
Sylviculture, forest exploitation, hunting economy	13,3	2,1	0,8	1,2	3,8	4,3	1,1
Industry	333,3	83,7	29,5	71,6	55,3	54,7	38,5
- of which extractive industry	17,6	13,1	0,5	0,2	0,4	3,4	-
- of which manufacturing - of which	288,2	64,1	26,4	64,6	50,2	46,7	36,2
- of which electrical, thermal energy, gas and water	27,5	6,5	2,6	6,8	4,7	4,6	2,3
Construction	57,0	20,6	4,3	12,2	8,0	7,2	4,7
Commerce	104,4	22,2	13,4	22,3	13,5	20,3	12,7
Hotels and restaurants	23,6	12,3	0,7	2,8	3,0	3,5	1,3
Transport and storage	47,3	11,5	3,0	13,1	5,4	11,1	3,2
Mail and telecommunication	14,3	3,0	1,6	3,4	1,9	2,8	1,6
Financial, banking and insurance activities	8,0	1,6	1,0	1,6	1,1	1,8	0,9
Real estate, other services	19,1	2,9	1,8	6,0	4,1	2,6	1,7

*) For breakdown, see CAEN divisions according to Statistical Yearbook, table 14.1.1, pag. 465

Structure of employed population by activities of the national economy (in 1997)

Economic activities	Total region	Bacau county	Botosani county	Iasi county	Neamt county	Suceava county	Vaslui county
Total economy	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Agriculture	45,58	31,52	57,27	41,31	47,95	50,5	52,97
Forestry, forest exploitation, hunting economy	0,92	0,74	0,46	0,39	1,67	1,54	0,62
Industry	23,08	29,85	16,96	23,36	24,35	19,59	21,78
- of which extractive industry	5,28	15,65	1,7	0,28	0,72	6,22	-
- of which manufacturing - of which*	86,47	76,58	89,49	90,22	90,78	85,37	94,03
- of which electrical, thermal energy, gas and water	8,25	7,77	8,81	9,5	8,5	8,41	5,97
Construction	3,94	7,34	2,47	3,98	3,52	2,57	2,65
Commerce	7,23	7,91	7,7	7,27	5,94	7,27	7,18
Hotels and restaurants	1,63	4,38	0,4	0,91	14,32	1,25	0,73
Transport and storage	3,27	4,10	1,72	4,27	2,37	3,97	1,81
Mail and telecommunication	0,99	1,07	0,92	1,11	0,83	1,00	0,9
Finance, banking and insurance activities	0,55	0,57	0,57	0,52	0,48	0,64	0,5
Real estate, other services	1,32	1,03	1,03	1,95	1,80	0,93	0,96

Number of employees by activities of the national economy (in 1997)

Economic activities	Total region	Bacau county	Botosani county	Iasi county	Neamt county	Suceava county	Vaslui county
Total economy	766885	180378	72906	177258	116113	134592	85638
Agriculture	30,595	40,19	3226	9697	3820	2802	7031
Forestry, forest exploitation, hunting economy	15257	2625	765	1473	3195	6041	1158
Industry	336875	87512	30019	70112	56374	55078	37780
- of which extractive industry	20886	14040	516	159	587	5584	-
- of which manufacturing - of which*	288482	66916	26943	63174	51068	44895	35486
- of which electrical, thermal energy, gas and water	27507	6556	2560	6779	4719	4599	2294
Construction	50649	17035	4374	10243	7435	6844	4718

Commerce	78520	16944	9934	17554	9890	14558	9640
Hotels and restaurants	16469	5856	616	2470	2713	3142	1672
Transport and storage	41793	9991	2449	12117	4327	10349	2560
Mail and telecommunication	11554	3062	1559	3258	1800	2821	1593
Finance, banking, insurance activities	8326	1651	1047	1606	1201	1856	965
Real estate, other services	11815	1128	1091	3830	3226	1736	804

*) For breakdown, see CAEN divisions according to Statistical Yearbook, table 14.1.1, pag. 465

Structure of employed population by activities of the national economy (in 1997)

Economic activities	Total region	Bacau county	Botosani county	Iasi county	Neamt county	Suceava county	Vaslui county
Total economy	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Agriculture	3,98	2,22	4,42	5,47	3,28	2,08	8,21
Forestry, forest exploitation, hunting economy	1,98	1,45	1,04	0,83	2,75	4,48	1,35
Industry	43,92	48,51	41,17	39,55	48,55	40,92	44,11
- of which extractive industry	6,19	16,04	1,71	0,22	1,04	0,13	-
- of which manufacturing	85,63	76,41	89,75	90,1	90,58	81,51	93,92
- of which*							
- of which electrical, thermal energy, gas and water	8,16	7,49	8,52	9,66	8,37	8,34	6,07
Construction	6,6	9,44	5,99	5,77	6,4	5,08	5,5
Commerce	10,23	9,39	9,9	9,9	8,51	10,81	11,25
Hotels and restaurants	2,14	3,24	0,8	1,39	2,33	2,33	1,95
Transport and storage	5,44	5,53	3,35	6,83	3,72	7,68	2,98
Mail and telecommunication	1,5	1,69	2,13	1,83	1,55	2,09	1,86
Finance, banking and insurance activities	1,08	0,91	1,43	0,9	1,03	1,37	1,12
Real estate, other services	1,54	0,62	1,49	2,16	2,477	1,28	0,93

*) For breakdown, see CAEN divisions according to Statistical Yearbook, table 14.1.1, pag. 465

Evolution of weight of employed population in total population during 1990-1997

(total population=100)

Crt. No.	County	1990	1991	1992	1993	1994	1995	1996	1997
	Total region	44,58	44,2	42,61	40,94	40,82	39,19	39,6	38,17
1.	Bacău	45,0	45,0	44,93	38,98	38,15	38,4	39,65	37,58
2.	Botoșani	44,8	44,0	43,0	42,3	40,3	37,8	39,1	37,79
3.	Iași	44,2	45,0	42,4	41,5	42,2	41,6	40,2	37,19
4.	Neamț	46,3	45,9	44,9	41,7	41,7	40,1	40,5	38,94
5.	Suceava	43,52	42,13	39,86	41,71	42,79	40,07	39,99	39,23
6.	Vaslui	43,7	44,2	40,6	39,5	39,8	37,2	38,2	38,34

Evolution of number of employees during 1990-1997, by activity sectors

(employees in 1990=100)

Crt. No.	County	1991	1992	1993	1994	1995	1996	1997
	Total region							
	- total	92,24	81,82	79,44	75,98	75,15	73,72	67,6
	- in industry	93,08	81,84	74,29	67,92	64,28	64,59	59,89
	- in agriculture	89,89	81,58	82,46	75,19	71,3	52,95	37,64
	- in construction	81,7	70,79	83,12	78,38	70,79	70,17	64,05
1.	Bacău							
	- total	92,56	82,4	83,0	78,8	79,55	81,7	74,94
	- in industry	93,16	87,3	85,56	78,6	72,4	77,38	71,26
	- in agriculture	88,97	66,9	71,1	53,6	64,3	44,7	27,7
	- in construction	77,1	75,0	75,5	68,1	79,2	80,76	73,4
2.	Botoșani							
	- total	94,8	83,2	82,9	73,2	73,3	71,5	65,7
	- in industry	98,3	85,4	74,4	62,4	60,7	63,2	57,8
	- in agriculture	91,4	79,5	83,8	77,0	63,2	46,1	27,3
	- in construction	73,9	59,4	84,1	94,2	71,0	65,2	63,8
3.	Iași							
	- total	94,7	86,9	82,0	80,3	84,0	80,4	71,0
	- in industry	94,6	81,8	77,9	71,1	65,8	67,7	62,0
	- in agriculture	90,1	90,7	95,5	85,4	89,9	70,6	49,8
	- in construction	85,4	79,7	93,7	69,2	75,5	75,9	58,8

4.	Neamț							
	- total	88,1	80,6	76,4	74,2	73,4	70,3	59,1
	- in industry	91,5	82,7	67,8	67,9	67,4	60,0	54,6
	- in agriculture	83,6	86,8	87,3	99,9	93,9	55,6	45,0
	- in construction	88,5	67,1	98,0	68,6	68,5	71,8	61,0
5.	Suceava							
	- total	91,20	80,84	77,29	77,11	71,7	69,25	66,30
	- in industry	90,73	81,75	75,33	67,43	61,03	60,06	55,52
	- in agriculture	89,18	76,09	66,98	58,66	53,31	44,13	28,39
	- in construction	91,24	81,35	76,97	69,23	64,58	56,69	52,03
6.	Vaslui							
	- total	92,1	77,0	75,1	72,3	69,0	69,2	68,6
	- in industry	90,2	72,1	64,8	60,1	58,4	59,2	58,2
	- in agriculture	96,1	89,5	90,1	76,6	63,2	56,6	47,7
	- in construction	74,1	62,2	70,5	101,0	74,0	70,7	75,3

Number of unemployed recorded as at 31 Dec. 1997

Crt. No.	County	Number of unemployed	- of which benefiting by			Unemployed not being paid allowance	Unemployment rate
			Unemployment allowance	Professional integration allowance	Supporting allowance		
	Total region						
	-total	201000	57516	23491	55800	64193	12,2
	-men	110326	35669	11539	30004	33114	12,6
	-women	90674	21847	11952	25796	31079	11,7
1.	Bacău						
	-total	32463	11436	4403	9047	7576	10,4
	-men	18509	7237	2221	5289	3762	11,1
	-women	13953	4199	2182	3758	3814	9,7
2.	Botoșani						
	-total	26653	7755	3127	7537	8234	13,3
	-men	15351	4916	1705	4294	4436	16,5
	-women	11302	2839	1422	3243	3798	11,3

3.	Iași						
	-total	35555	8799	4575	10131	12050	10,4
	-men	19600	5050	2415	5144	6991	10,5
	-women	15955	3749	2160	4987	5059	9,7
4.	Neamț						
	-total	39312	9147	3772	9190	17203	14,8
	-men	19823	5269	1708	4556	8290	14,2
	-women	19849	3878	2064	4634	8913	15,3
5.	Suceava						
	-total	39431	11124	4461	10794	15052	12,4
	-men	20291	7362	2038	5409	5482	12,9
	-women	19140	3762	2423	5385	7570	12,7
6.	Vaslui						
	-total	27587	9255	3153	9101	6078	13,5
	-men	16752	5835	1452	5312	4153	15,2
	-women	10835	3420	1701	3789	1925	10,9

Structure of unemployed recorded by personnel categories and level of education as at 31st Dec. 1997

Crt. No.	County	Total	Unskilled people	Labourers	Other personnel categories	
					Secondary education	Tertiary education
	Total region					
	-total unemployed	100,0	9,17	54,09	13,25	1,49
	-with unemployment allowance	100,0	-	79,09	15,66	5,10
	-with professional integration allowance	100,0	-	61,26	35,78	2,96
	-with support allowance	100,0	-	82,62	16,54	1,46
	-without any allowance	100,0	32,66	49,91	15,93	1,50
1.	Bacău					
	-total unemployed	100,0	14,38	64,67	9,87	2,12
	-with unemployment allowance	100,0	-	80,04	16,52	3,43
	-with professional integration allowance	100,0	-	87,87	8,15	3,98
	-with support allowance	100,0	-	88,10	10,54	1,36
	-without any allowance	100,0	61,64	38,36	-	-

2.	Botoșani					
	-total unemployed	100,0	6,07	61,93	5,39	1,79
	-with unemployment allowance	100,0	-	86,27	8,91	4,81
	-with professional integration allowance	100,0	-	90,0	8,28	1,72
	-with support allowance	100,0	-	92,89	6,46	0,65
	-without any allowance	100,0	19,64	43,46	36,80	0,10
3.	Iași					
	-total unemployed	100,0	3,31	49,46	15,29	1,37
	-with unemployment allowance	100,0	-	77,22	19,52	3,26
	-with professional integration allowance	100,0	-	58,58	37,77	3,65
	-with support allowance	100,0	-	80,10	19,54	0,36
	-without any allowance	100,0	9,77	90,03	0,2	-
4.	Neamț					
	-total unemployed	100,0	16,33	37,12	18,47	0,65
	-with unemployment allowance	100,0	-	81,23	17,34	14,33
	-with professional integration allowance	100,0	-	0,48	97,88	1,64
	-with support allowance	100,0	-	77,73	21,61	0,66
	-without any allowance	100,0	37,32	12,30	48,82	1,56
5.	Suceava					
	-total unemployed	100,0	0,19	57,06	7,91	1,93
	-with unemployment allowance	100,0	-	86,36	10,41	3,23
	-with professional integration allowance	100,0	-	73,80	21,68	4,52
	-with support allowance	100,0	-	88,93	9,22	1,85
	-without any allowance	100,0	0,57	82,35	9,75	7,33
6.	Vaslui					
	-total unemployed	100,0	14,77	54,33	22,56	1,07
	-with unemployment allowance	100,0	-	76,30	21,85	1,85
	-with professional integration allowance	100,0	-	56,83	40,92	2,25
	-with support allowance	100,0	-	64,41	32,00	0,59
	-without any allowance	100,0	67,03	32,98	-	-

Infrastructure – list of indicators

1. Transport

Public roads

- density/100 sq.km (in 1997)	-----	38,5
% updated (in 1997)	-----	16,6

Public roads

No. crt.	County	Density/100kmp(1997)	% modernized1997)
1.	Bacău	34,8	22,3
2.	Botoșani	38,5	16,6
3.	Iași	42,7	7,6
4.	Neamț	30,7	55,0
5.	Suceava	27,2	33,0
6.	Vaslui	39,5	15,9

Railways

- density/100sq.km (in 1997)	-----	3,2
-% electrified (in 1997)	-----	-
-% two-way railways (in 1997)	-----	-

Railways

No. crt	County	Density/1000kmp (1997)	% electrified (1997)	% two-way railways (1997)
1.	Bacău	34,1	84,5	48,7
2.	Botoșani	31,9	-	-
3.	Iași	52,8	46,7	48,5
4.	Neamț	22,7	34,3	20,2
5.	Suceava	51,9	45,5	17,8
6.	Vaslui	47,0	-	22,8

2. Telecommunication

Telephone subscriptions	-----	44.793
- No./1000 inhabitants (in 1997)	-----	97

No. crt.	County	Telephone subscription	N0./1000 inhabitants (1997)
1.	Bacău	131421	143,6
2.	Botoşani	44796	97,0
3.	Iaşi	132860	135,0
4.	Neamţ	68742	117,5
5.	Suceava	72648	96,0
6.	Vaslui	37077	79,7

3. Energy network

3.1 Natural gas supply network	-----	3
- % localities connected to network (in 1997)	-----	4,2
- % dwellings connected to network (in 1997)	-----	23

No. crt.	County	% localities connected to network (1997)	% dwellings connected to network (1997)
1.	Bacău	96.2	97,5
2.	Botoşani	94.8	97,7
3.	Iaşi	98.4	95,7
4.	Neamţ	96.6	96,0
5.	Suceava	97.4	98,0
6.	Vaslui	93.8	98,7

4. Drinking water network

No. of localities with drinking water systems (in 1997) ----- 64
Weight of dwellings with drinking water systems (as per census) ----- 30,3

No.crt.	County	No. of localities with drinking water systems (in 1997)	Weight of dwellings with drinking water systems (as per census)
1.	Bacău	15	17,9
2.	Botoşani	64	30,3
3.	Iaşi	25	48,6
4.	Neamţ	44	42,0
5.	Suceava	37	29,0
6.	Vaslui	77	29,2

5. Environment protection

No. of localities with sewerage system (in 1997) ----- 19
Weight of dwellings with sewerage systems (as per census) ----- 29,6

No. crt.	County	No. of localities with sewerage system (in 1997)	Weight of dwellings with sewerage systems (as per census)
1.	Bacău	26	38,6
2.	Botoşani	19	29,6
3.	Iaşi	12	47,9
4.	Neamţ	16	42,3
5.	Suceava	19	26,3
6.	Vaslui	12	29,2

11. MAPS