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# **SECTION I**

## **REGIONAL SOCIO-ECONOMICAL ANALYSIS**

### **1. Main characteristics of the region**

The region covers the NE part of the country and according to the tradition, it is a part of the old historical region of Moldavia.

Geographically, the region is neighbouring Ukraine in the north, the Galați and Vrancea counties in the South (SE Region), the Republic of Moldova in the East, and the counties of Maramureș and Bistrița-Nasaud (NV Region), as well as the Mureș, Harghita and Covasna counties (Centre Region).

Having a rich historical, cultural and spiritual background, the region combines in a natural way the traditional with the modern and the past with the present, its potential being used in development of infrastructure, rural areas, tourism and human resources.

#### **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 plateaus and plains cover 40%. This last form of relief covers more than 70% in the counties of Botosani, Vaslui and Iasi 70%.

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, Giumalau, 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.

#### **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.

#### **Hydrology**

The region is traversed by 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.

### **Natural resources of the region**

The region has available the following underground resources:

- 1) *Manganese*: Dadu, Ciocănești-Oarța, Vatra Dornei, Iacobeni, Șaru Dornei, Broșteni;
- 2) *base metal sulphides*: Cârlibaba, Fundu Moldovei, Valea Corbului, Gemenea, Leșul Ursului;
- 3) *sparkling mineral water*: Neagra Șarului, Șaru Dornei, Vatra Dornei, Poiana Negrii, Dorna Căndreni, Poiana Stampei, Coșna, Oglinzi, Băltățești;
- 4) *sulphur and iron-bearing mineral water*: Strunga, Nicolina Iași- Iași county, Brânceni, Murgești, Pungești, Gura Morii - Vaslui county, Băile Slănic, Moinești, Târgu Ocna, Poiana Sărată, Sărata-Bacău -Bacău county;
- 5) *construction materials*:
  - - *limestone*: Pojorâta, Câmpulung Moldovenesc, Botuș- Suceava county, Bicaz Chei - Neamț county, Bărbătești, Costești, Ipatele, Păun, Schitu Duca, Deleni, Strunga – Iași county, Darabani, Ștefănești, Lipcenii – Botoșani county, and in Vaslui it is prevailingly 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*: Tarcău – Neamț county, Coșula, Tudora, Hudești – Botoșani county ; in Vaslui sandstones and sands occur on the riversides; they are also encountered in Ghimes, Faget and East of the Slanic Moldova area – Bacău county, Solca Plătinoasa – Iași county, Doabra-com. Frasin;
    - *gypsum*: Miorcani, Darabani - Botoșani county, Perchiu Onești – Bacău county;
    - *quartz sands* : Miorcani and Alba Dudești;
    - *construction sands*: Hudești - Botoșani county, Lespezi – Iași county, Cornățel, Urechești Gârleni, and Orbenii–Bacău county;
- 6) *Peat*: Poiana Stampei – Suceava county, Dersca – Botoșani county;
- 7) *Salt*: Cacica – Suceava county, Moinești, Sărata, Târgu Ocna – Bacău county.
- 8) *Sulphur deposits* in the Caliman Massif;
- 9) *Gil shale deposits* in Tazlău-Neamț;
- 10) *Natural gas* in Tazlău-Oituz - Bacău county, Tazlău, Roman – Neamț county, Todirești and Frasin.

### **Administrative Units, region components (counties, towns, cities, and villages)**

The NE Region is composed from six counties (Bacau, Botosani, Iasi, Neamt, Suceava and Vaslui), which totals an area of 36.850 km<sup>2</sup> and a population of 3.836.835 inhabitants, occupying, from this point of view on the first place among the eight regions of the country.

As stretching, the region covers 15,46% from country surface, the flattest counties being Suceava with a total surface of 8.553 km<sup>2</sup> and Bacau, with 6.621 km<sup>2</sup>.

Territorial administrative units (Source: NCS-Statistical Yearbook of Romania, 2002)

COUNTY	Total Surface (km <sup>2</sup> )	Number of inhabitants (at 1st July 2001)	Number of municipalities	Number of cities	Number of villages
BACĂU	6,621	754,788	3	5	79
BOTOȘANI	4,986	465,438	2	2	68
IAȘI	5,476	840,929	2	2	85
NEĂMȚ	5,896	587,448	2	2	70
SUCEAVA	8,553	719,134	5	3	90
VASLUI	5,318	467,901	3	1	71
<b>REGION TOTAL</b>	<b>36,850</b>	<b>3,835,638</b>	<b>17</b>	<b>15</b>	<b>463</b>

### Main centres of the region (positioning, accessibility, distances)

- **Main urban centres of the region**

The Bacau county is located in the eastern half of the country in the middle basin of Siret and Trotus. His location has contributed to the development of the area especially from being beneficiary of the advantages given by the European road that cross the county. Cities like Targu Ocna and Trotus have been developed thanks to the natural resources (mountains of salt). The health resort Slanic Moldova obtained an international fame thanks to the healing waters rich in salt. The County residence Bacau, was the headquarter of a catholic bishopric, status obtained through a patent from Pope Bonifacius the 9th. Wide ranges of enterprises from the industrial sector, business infrastructure, banking services, as well as public and private Institutes are concentrated also in Bacau.

The county Botosani is located in the north extremity of Romania, between the superior watercourses of the rivers Siret at the West and Prut at the East.

The city Botosani has appeared at a favourable commercial crossroad, which has assured it an early prosperity. It is specially recognized for giving Romanian culture some of its greatest genies: Mihai Eminescu, George Enescu and Nicolae Iorga.

The Iasi county is located in the central-eastern part Moldavia, in the middle basins of the Prut and Siret rivers, owning as surface the second place in Romania after county Prahova, with 5,476 sqkm.

Iasi, being also called the capital of historical Moldavia, is the biggest city in the region (321,580 inhabitants) being an important university centre with its seven higher education institutions. Iasi is also the location of an important research-development core for the industrial sector, represented by most of its branches. It shelters the greatest Orthodox creed house in Romania – the Metropolitan Cathedral (1840-1880). With the occasions of celebrating 2000 years of Christianity, the city Iasi had been nominated as being one of the 5 European cities mean for international pilgrimage.

The Neamt county is located in the central-northern part of Moldavia, in the basins of the rivers Bistrita, Siret and Moldova.

The County Residence Piatra-Neamt, historically attested in 1392 under the name of Craciun's Stone, situated near the Massif Ceahlaul, this true „Moldavia's Olympus”, cannot be considered only a turistic crossroad but also an important turistical and industrial objective, possessing historical and architectural monuments.

The county Suceava is located in the north part of Moldavia, in the superior basins of the rivers Siret and Bistrita.

From a world celebrity are enjoying the churches with outer picture from Suceava. They were included on the UNESCO World Heritage List, alongside Putna and Probota.

The Suceava city was advantaged from the fact that here has been functioned the main customs of the country having the role of storehouse. Through this the city has the advantage to be the mediator for the commerce with oriental products with Poland and Hungary.

The Vaslui county is located in the eastern part of Romania, on the middle course of the Barlad river.

Vaslui, so rich in history, is less represented by monuments. Those who existed didn't have a chance in against the time hostilities. The natural rich, which brought the renown of these places, is represented by the vineyards (the remarkable wines of Husi). Also here, through a long time experienced purifying system of wine, very good brandies are obtained.

Roadways and railways 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:

- Bucureşti-Suceava-Siret (border checkpoint) –E85 international road;
- Oradea-Cluj Napoca-Bistrita-Suceava-Botosani-Stefanesti-Rep. Moldova
- Bacău – Braşov – Piteşti E577 international road (which make the link with E70 international road Craiova – Vidin - Scopje);
- Bucureşti-Bârlad – Albiţa - Chişinău - E581 international road which traverse Vaslui county.

Railway main lines with the following routes:

- Bucureşti – Bacău – Suceava – Siret – Ucraina - thoroughfare 500
- Bucureşti - Iaşi – Ungheni - Republica Moldova – thoroughfare 600.

Air transport in the region is provided through the following airports:

- Bacau – Bacau county – internal and international
- Iasi – Iasi county – internal and international.
- Suceava –Suceava county (utilitarian flights)

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

	Bacău	Botoşani	Iaşi	Piatra-Neamţ	Suceava	Vaslui	<b>Bucuresti</b>
<b>Bacău</b>	-	193	130	58	151	83	<b>294</b>
<b>Botoşani</b>	193	-	125	145	42	258	<b>499</b>
<b>Iaşi</b>	130	187	-	139	145	71	<b>430</b>
<b>Piatra-Neamţ</b>	58	145	139	-	103	129	<b>354</b>
<b>Suceava</b>	151	42	145	103	-	216	<b>457</b>
<b>Vaslui</b>	83	258	71	129	216	-	<b>359</b>

Source: NCS – Statistical Yearbook of Romania, 2002

Having a total area of 36,850 sq.km and a number of 3,836,835 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).

## 2. Socio-economical framework

### 2.1 Socio-economical General Development

#### 2.1.1 Economical context of the region

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.

Though, the 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 available in the region.

The GDP situation compared with the others regions and also with national level is presented in the table below:

The regional and country GDP evolution in billions lei current prices  
In accordance with SEC methodology 1995

	1998	1999	2000
<b>North East GDP</b>	50,385.4	68,522.3	96,348.4
<b>North East GDP (millions USD)</b>	5,677	4,469	4,442
<b>Regional GDP growing rate NE (%)</b>	-	-21.30	-0.6
<b>National GDP</b>	373,798.2	545,730.2	803,773.1
<b>National GDP (millions USD)</b>	42,118	35,594	37,054
<b>National GDP growing rate</b>	-	-15.50	4.1

Source: NCS – Statistical Yearbook of Romania, 2002

*Observation: GDP growing rate has been calculated on the basis of PIB expressed in USD using an average annual exchange course USD-ROL communicated by RNB (Romanian National Bank).*

It can be inferred that the period 1998-1999 is marked by recess at both regional and national level, period in which the liberalization effects of the exchange currency and also of losing resulted from the reorganization process started in year 1997 have been noticed.

In 1999, the North-East Region confronts itself with an economical decrease bigger with 50% than the national one. 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.

The economical decrease in the year 2000 (0.6%) was much lower compared with the previous year, but in the same time at the national level has been registered an economical increase of 4.1%.

## 2.1.2 GDP/Inhabitant Comparisons

GDP/ inhabitant is one of the relevant index concerning the economic situation in the North-East Region, index which is not influent able by differences between Region's population.

The table below presents the north-east regional GDP in the year 2000 compared with the national and the others regions GDP. From data analysis we can see that the North-East region has the lowest GDP/inhabitant, representing 70% from the registered national value, meaning that the North-East region is the poorest one.

### Regional GDP in the year 2000 in billions lei current prices In accordance with SEC methodology 1995

	Year	National	North-East	South-East	South	South-West	West	North-West	Centre	Bucuresti
<b>GDP</b>	2000	803,773	96,348	92,868	98,070	74,888	75,267	95,009	101,775	168,791
<b>GDP / inhabitant (thousands lei)</b>		35,826	25,067	31,852	29,207	30,009	36,767	33,313	38,386	74,082
<b>GDP / inhabitant (percentage)</b>		100	70.00	88.90	81.50	83.80	102.60	93.00	107.10	206.80

Source: NCS – Statistical Yearbook of Romania, 2001

The biggest gap is registering when comparing the NE regional GDP with the Bucuresti Ilfov's one, representing less than a third from the last. The North-East Region find itself between the group of the poorest development regions from which the following regions belong: South Muntenia, South- West and North- West, these ones registering values under GDP national average.

### Compared situation of regional GDP and sectorial added value against the national one (billions lei) in accordance with SEC methodology 1995

(The growing rate has been calculated using the expression in USD on the basis of the annual USD-ROL exchange course communicated by NBR)

	1998	1999	2000	1999/1998 %	2001/1999 %
<b>NE Total</b>	50,385	68,522	96,348	-21.3	-0.6
<b>Industry</b>	13,576	15,956	25,577	-32.0	13.3
<b>Agriculture</b>	9,381	12,570	15,404	-22.4	-13.4
<b>Construction</b>	2,192	2,512	4,370	-33.7	23.0
<b>Transport</b>	2,822	4,021	6,000	-17.5	5.5
<b>Trade</b>	5,770	8,416	10,124	-15.6	-15.0
<b>Others</b>	16,644	25,047	34,873	-12.9	-1.6
<b>Total Romania</b>	373,798	545,730	803,773	-15.5	4.1
<b>Industry</b>	98.213	135,344	219,480	-20.2	14.6

<b>Agriculture</b>	52,212	70,456	85,101	-21.9	-14.6
<b>Construction</b>	19,029	27,377	39,287	-16.7	1.4
<b>Transport</b>	23,862	33,983	50,048	-17.6	4.1
<b>Trade</b>	50,403	74,599	101,407	-14.3	-3.9
<b>Others</b>	130,079	203,971	308,450	-9.2	6.9

Source: NCS – Statistical Yearbook of Romania, 2002

At the level of sectoral *Gross Added Value* it can be noticed that in the year 1999 compared with 1998 all sectors have registered decreases both at regional and national level. Bigger decreases have been registered especially in industry -32% (compared with -20.2% at the national level), construction – 33.7% (compared with -16.7% at the national level).

In the year 2000 compared with 1999 a decrease at the agriculture level has been reported at both regional and national level due the climacteric factors in the year 2000. Surprisingly are the increase of the construction sector in the region with 23% compared with the national value of 1.4%, the abrupt decrease of commerce -15% compared with -3.9% at the national level and the decrease from the „others services” with -1.6% compared with the increase of 6.9% at the national level. The situation in the construction sector can be explained through the increase registered by civil construction in year 2000, in the same time a decrease of acquisitioned products being reported in the trade sector.

### 2.1.3 Sectoral GDP structure and labour productivity.

One of the indexes that can give relevant information about the economical situation of the region is represented by the *participation at the make up of the GDP*.

**Compared situation between regions regarding participation at the make up of the GDP in accordance with 1995 SEC methodology**

2000	Total	North-East	South-East	South	South-West	West	North-West	Centre	Bucuresti
Agriculture	85,101	15,404	12,832	13,192	10,089	8,488	12,656	11,252	1,187
Forestry exploitation and hunting economy, fishery and pisciculture.	3,914	1,073	267	422	306	578	454	789	24
Industry	219,480	25,577	25,548	30,733	24,698	20,738	23,728	33,535	34,500
Construction	39,287	4,370	5,648	4,484	4,131	3,961	3,928	4,168	8,598
Commerce	101,407	10,124	11,084	10,697	7,269	8,473	10,769	12,581	30,409
Transport and storage	50,048	6,000	6,319	6,409	4,280	5,901	6,627	6,032	8,480
Post and telecommunications	30,306	2,871	2,889	2,526	1,727	2,356	2,865	2,846	12,227
Financial, banking and assurance activities.	12,364	1,049	1,039	1,027	722	834	1,179	1,294	5,219
Immovable agreements and other services.	104,379	9,474	9,278	9,359	6,885	9,503	14,138	10,354	35,389
Public administration	34,600	3,881	3,637	4,267	3,435	3,079	3,570	3,388	9,096
Education	23,260	4,012	2,536	2,734	2,412	2,164	3,380	2,985	3,037
Health and social care	15,765	2,409	1,963	1,898	1,623	1,532	2,087	1,943	2,310
Banking (PISB)	-8,584	-1,028	-990	-1,046	-806	-806	-1,018	-1,087	-1,794
Regional Gross value added (RGVA)	711,325	85,216	82,051	86,701	66,769	66,801	84,363	90,081	148,681
Product tax	88,063	10,550	10,158	10,734	8,266	8,270	10,444	11,152	18,407
Customs	9,052	1,084	1,044	1,103	850	850	1,074	1,146	1,892
Subvention on product	-4,667	-502	-385	-468	-996	-654	-870	-604	-189
Regional GDP - total	803,773	96,348	92,868	98,071	74,889	75,268	95,010	101,775	168,792
Regional and national GDP / inhabitant (lei)	2,318,871	25,067,937	31,852,822	29,207,409	30,009,565	36,767,039	33,313,431	38,386,449	74,082,426

Source: NCS – Statistical Yearbook of Romania, 2001

**Compared situation of productivity between regional and national level in the 1998-2000 period  
In accordance with SEC methodology 1995  
Source: NCS – Statistical Yearbook of Romania, 2001**

Regional Level	1998			1999		
	GVA	Occupied population	Productivity billions lei / occupied person	GVA	Occupied population	Productivity billions lei / occupied person
Industry	13,575	307,900	4.41%	15,956	284,700	5.60%
Agriculture	9,380.7	655,700	1.43%	12,570	686,200	1.83%
Constructions	2,192	48,800	4.49^	2,511	42,800	5.87%
Transport	2,822.1	39,000	7.24%	4,021	31,600	12.72%
National Level	GVA	Occupied population	Productivity billions lei / occupied person	GVA	Occupied population	Productivity billions lei / occupied person
Industry	98,213	2,316,900	4.24%	135,344	2,054,000	6.59%
Agriculture	52,212	3,295,600	1.58%	70,456	3,418,900	2.06%
Constructions	19,029	391,000	4.87%	27,377	338,400	8.09%
Transport	23,862	361,200	6.61%	33,983	309,800	10.97%

BAV – Brute added value

Regional Level	2000		
	GVA	Occupied Population	Productivity billions lei / occupied person
Industry	25,577	269,700	9.48
Agriculture	15,404	710,300	2.17
Constructions	4,370	47,000	9.30
Transport	6,000	33,900	17.70
National Level	GVA	Occupied Population	Productivity billions lei / occupied person
Industry	219,480	2,004,100	10.95
Agriculture	85,101	3,522,500	2.42
Constructions	39,287	353,300	11.12
Transport	50,048	325,900	15.36

GVA – gross value added

From the tables above and the one from previous section it can be noticed that, at the level of 2000 services has the biggest contribution at the forming of regional GDP (45.50%), followed by industry (30.00%) and agriculture (18.10%).

After last year (1998) of the recess period, follows a relaunching with growing's at the level of all sectors, with light inferior values under the national average.

We can conclude on the basis of our analysis that for the presented period of time (1998-2000), in all the activity sectors the registered productivity / occupied person is lower than the national value, except transport sector. Pleasing is the continuous annual growing of labour productivity in the region in all activity sectors.

**Key issues in the context of general socio-economical development:**

-the GDP / inhabitant has the lowest value from all the regions, representing 70% from the national value.

-In the year 2000, the GDP has registered a decrease in real terms of 0.6%, against the national real increase of 4.1%.

-the working productivity was inferior on all activity sectors (exception making transports) then the national one.

## 2.2 Bussiness environment

Small and medium enterprises make up an important segment of the region's economy, absorbing at the level of 2001 a great part of the employees, which activate in firms (37.70%). If we take in consideration and the employees working in micro-enterprises we obtain a total weight of 52.20%. Generally, they have a bigger flexibility, are more receptive at the market needs, more innovative and skilful at answering to the consumers requirements, improving competition environment, amplifying organisational culture and creating the social stability conditions.

### Firms repartition in NE Region, and that participation at Turnover and Gross Investments in the 2000-2001 period

Size Number of employee		0 - 9		10 - 49		50 - 249		Over 249		Total	
		2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Number of units	Number of units	31,666	32,007	3,721	3,845	994	1,045	307	302	36,688	37,199
Turnover	Billion lei current prices	18,989	31,354	29,200	35,519	21,887	36,906	48,300	75,686	118,376	179,465
Turnover	Mil. EURO	875	1,078	1,346	1,222	1,008	1,269	2,226	2,604	5,457	6,175
Personnel	Number of persons	64,575	71,493	76,450	74,802	105,209	110,623	241,195	235,421	487,429	492,339
Gross investments	Billion lei current prices	1,152	2,044	2,321	2,947	2,647	3,812	8,245	12,521	14,365	21,324
Gross investments	Mil. EURO	50.95	8.65	83.59	54.98	119.73	107.71	1196.41	1300.15	1450.68	1471.49
% nr. of Units in NE region.	%	86.30	86.00	10.10	10.30	2.70	2.80	0.80	0.80	100	100
% Turnover in NE region.	%	16.00	17.50	24.70	19.80	18.50	20.60	40.80	42.20	100	100
% employees in NE region.	%	13.20	14.50	15.70	15.20	21.60	22.50	49.50	47.80	100	100
% gross investments in NE region.	%	8.02	9.59	16.16	13.82	18.43	17.88	57.40	58.72	100.00	100.00

Source: NCS – Statistical Yearbook of Romania 2001/2002

In the 1998-2000 period the numbers of SME' s in the region has continuously decreased as consequence of economical recess of 1997-1999 period, arriving from 38674 (1998) units to 36688 (2000) units. In 2001 simultaneous with the economical relaunch an increase of SME's number has been reported (37199 units). At the level of 2001 the biggest amount is owned by micro-enterprises with 86.00%, followed by SME' s with 13.10%. Although they represent 0.8% of the total number of the region's firms, the large enterprises contribute with 42.20% from the total turnover and own 47.80% from the total employees. Regarding gross investments the biggest weight is also owned by large enterprises with a weight of 58.72%.

Comparing the 2000-2001 period we can notice the increase of the Turnover and employees at the level of micro, medium and large enterprises and decreases at the level of small enterprises. Even in the conditions of an industrial decline in the region in the 1996-1999 period, the Turnovers and the employees number have a raised weight within the framework of the enterprises with major public capital with over 250 employees.

**Repartition of the local active units on activity sectors in 2001 and units' weights on the total sector** (Source: NCS – Statistical Yearbook of Romania 2002)

Number of units Activities (CAEN sections)	TOTAL	Size classes, after number of employees				Units weight on enlargement classes in total sector (%)		
		0-9	10-49	50-249	>250	0-9	10-249	>250
<b>Region North-East Total</b>	<b>37,199</b>	32,007	3,845	1,045	302	86.04	13.15	0.81
Extractive Industry	61	25	14	12	10	40.98	42.62	16.39
Processing Industry	6,068	4,057	1,281	543	187	66.86	30.06	3.08
Power and heat, gas and water	51	3	8	16	24	5.88	47.06	47.06
Constructions	1,450	896	352	175	27	61.79	36.34	1.86
Trade, car services and goods	23,770	21,960	1,656	145	9	92.39	7.58	0.04
Hotels and restaurants	1,250	1,077	139	34	0	86.16	13.84	0.00
Transport and storage	1,311	1,133	112	42	24	86.42	11.75	1.83
Post and telecommunications	150	99	32	6	13	66.00	25.33	8.67
Immovable agreements, renting, services	1,957	1,736	168	47	6	88.71	10.99	0.31
Education	71	60	11	0	0	84.51	15.49	0.00
Health and social care	395	382	13	0	0	96.71	3.29	0.00
Community, social and personal services	665	579	59	25	2	87.07	12.63	0.30
<b>Total Romania</b>	<b>317,555</b>	275,410	31,573	8,166	2,406	86.73	12.51	0.76
Extractive Industry	550	192	148	82	128	34.91	41.82	23.27
Processing Industry	43,839	29,536	9,230	3,782	1,291	67.37	29.68	2.94
Power and heat, gas and water	465	72	81	143	169	15.48	48.17	36.34
Constructions	14,796	10,087	3,189	1,286	234	68.17	30.24	1.58
Trade, car services and goods	195,640	180,892	13,315	1,329	104	92.46	7.49	0.05
Hotels and restaurants	10,568	9,080	1,327	226	25	85.92	14.70	0.24
Transport and storage	14,733	12,748	1,340	431	214	86.53	12.02	1.45
Post and telecommunications	1,442	1,049	244	56	93	72.75	20.80	6.45
Immovable agreements, renting, services	24,347	21,609	2,036	588	114	88.75	10.78	0.47
Education	643	575	62	6	0	89.42	10.58	0.00
Health and social care	4,069	3,920	135	13	1	96.34	3.64	0.02
Community, social and personal services	6,463	5,650	556	224	33	87.42	12.07	0.51

At the level of 2001 in the NE region the weight of micro enterprises in the total active units represent the majority with 86.04% (very close to the national value), followed by SME's with 13.15% (against the national value of 12.51%).

On each activity sector the SME's, as number of active units own the majority, exception making the sectors of power and extractive industry. In commerce can be found a number of 92.39% from the total units, in the sector of hotels and restaurants 86.16%, and in the transport sector 86.42%.

Looking at the SME's, on activity sectors, these own great weights in the domains of Power and heat, gas and water (47.06%), extractive industry (42.62%).

## Repartition of the local active units on activity sectors in 2001 and repartition on type of enlargement classes

Number of units Activities (CAEN sections)	TOTAL	Size classes, after number of employees				Units weight from a sector on total enlargement class		
		0-9	10-49	50-249	>250	0-9	10-249	>250
<b>Region North-East Total</b>	<b>37,199</b>	32,007	3,845	1,045	302	100.00	100.00	100.00
Extractive Industry	61	25	14	12	10	0.08	0.53	3.31
Processing Industry	6,068	4,057	1,281	543	187	12.68	37.30	61.92
Power and heat, gas and water	51	3	8	16	24	0.01	0.49	7.95
Constructions	1,450	896	352	175	27	2.80	10.78	8.94
Trade, car services and goods	23,770	21,960	1,656	145	9	68.61	36.83	2.98
Hotels and restaurants	1,250	1,077	139	34	0	3.36	3.54	0.00
Transport and storage	1,311	1,133	112	42	24	3.54	3.15	7.95
Post and telecommunications	150	99	32	6	13	0.31	0.78	4.30
Immovable agreements, renting, services	1,957	1,736	168	47	6	5.42	4.40	1.99
Education	71	60	11	0	0	0.19	0.22	0.00
Health and social care	395	382	13	0	0	1.19	0.27	0.00
Community, social and personal services	665	579	59	25	2	1.81	1.72	0.66
<b>Total Romania</b>	<b>317,555</b>	275,410	31,573	8,166	2,406	100.00	100.00	100.00
Extractive Industry	550	192	148	82	128	0.07	0.58	5.32
Processing Industry	43,839	29,536	9,230	3,782	1,291	10.72	32.74	53.66
Power and heat, gas and water	465	72	81	143	169	0.03	0.56	7.02
Constructions	14,796	10,087	3,189	1,286	234	3.66	11.26	9.73
Trade, car services and goods	195,640	180,892	13,315	1,329	104	65.68	36.85	4.32
Hotels and restaurants	10,568	9,080	1,327	226	25	3.30	3.91	1.04
Transport and storage	14,733	12,748	1,340	431	214	4.63	4.46	8.89
Post and telecommunications	1,442	1,049	244	56	93	0.38	0.75	3.87
Immovable agreements, renting, services	24,347	21,609	2,036	588	114	7.85	6.60	4.74
Education	643	575	62	6	0	0.21	0.17	0.00
Health and social care	4,069	3,920	135	13	1	1.42	0.37	0.04
Community, social and personal services	6,463	5,650	556	224	33	2.05	1.96	1.37

(Source: NCS – Statistical Yearbook of Romania 2002)

At the level of 2001 it can be noticed that the majority of the active micro enterprises from the region can be found in Trade, car services and goods with 68.61% (against 65.68% at the national level), followed by Processing industry with 12.68%. At the other pole, we can notice that in the sector of Hotels and restaurants activate 3.36% from the total number of micro enterprises, in Transport 3.54%, and in the Processing industry 12.68% of those.

From the SME's the great amount activate in the domains of Processing industry with 37.30% (against 32.74% at the national level), followed by Trade with 32.74% (36.85% at the national level) and construction with 10.78%. The sector of Hotels and restaurants is represented by a weight of 3.54% from the total SME's and the sector of Transports by a weight of 3.15%.

The great weight of the large enterprises activate in the sector of Processing Industry with a weight of 61.92%.

**Gross Investments of the active economic units divided on activities and enlargement classes**

<i>billions lei current prices</i>	<b>Total</b>	<b>of which: on enlargement classes and activity sectors.</b>			
		0-9	10-49	50-249	>250
		Percentages %			
<b>Total at the National Level</b>	2,023,021	17.95	20.94	20.75	40.36
Extractive Industry	46,274	1.50	3.17	6.02	89.32
Processing Industry	632,026	4.27	11.66	21.63	62.44
Power and heat, gas and water	141,873	0.07	0.37	6.27	93.29
Constructions	122,300	7.52	18.30	39.51	34.67
Trade, car repairing and goods	811,058	36.43	33.87	19.82	9.88
Hotels and restaurants	21,505	17.21	22.43	27.99	32.37
Transport and storage	104,937	7.98	16.37	22.91	52.74
Post and telecommunications	60,240	3.09	4.16	9.06	83.70
Immovable agreements, renting, services	64,369	22.61	37.06	29.37	10.96
Community, social and personal services	18,439	11.97	13.07	42.54	32.41
<b>Total level of North-East Region:</b>	179,465	17.47	19.79	20.56	42.17
Extractive Industry	3,483	0.80	3.62	11.11	84.47
Processing Industry	70,372	4.63	11.47	20.41	63.49
Power and heat, gas and water	12,841	0.02	0.22	3.31	96.46
Constructions	11,088	9.79	17.06	43.30	29.84
Trade, car repairing and goods	64,932	37.79	35.03	18.38	8.79
Hotels and restaurants	1,943	26.25	39.42	34.33	0.00
Transport and storage	8,039	4.96	8.78	39.56	46.70
Post and telecommunications	4,333	22.29	6.85	5.29	65.57
Immovable agreements, renting, services	1,644	30.90	39.60	27.74	1.76
Community, social and personal services	790	7.59	29.62	57.97	4.81

Source: NCS – Statistical Yearbook of Romania 2002

More relevant information can be obtained analysing the contribution of the active units on enlargement classes and on activity sectors at the regional turnover. It can be noticed that the greatest contribution at the regional turnover is realized by large enterprises with 42.17% from the regional turnover, followed by SME's with 40.35% and in a smaller measure by micro enterprises with 17.47%.

The micro enterprises bring their greatest contribution in the Trade sector with 37.79% (close to the national value), Immovable agreements (30.90%) and hotels and restaurants with 26.25%.

The SME's have the greatest weight in the sector of Hotels and restaurants with 73.75% (bigger value than the national value which is 50.42%), Immovable agreements 67.34%, construction with 60.36%, trade with 53.41%.

The large enterprises contribute at the regional turnover of each activity sector (exception making Hotels), in some of them owning the greatest weight: Extractive industry, Processing industry, and Power sector.

#### **Key issues in the business environment:**

-the contribution at the regional turnover realized by the SME's in the domain of processing industry with a weight of 31.88% is insufficient, being lower than the national value -33.29%.

-small contribution of SME's at the turnover from the Post and telecommunications sector – 12.14%.

## **2.3 Economical structure of the activity sectors**

### **2.3.1 Agriculture and forestry**

From the following table it can be noticed that agriculture contribute at the 2001 year level with 19.87% in the regional GDP, a higher value than the national one which has a weight of 13.96%.

The regional contribution at the total agricultural production at national level is 18.10%. Analysing the contribution at the RGVA (Regional Gross Value Added), agriculture contribute at regional level with 18.08%, which represent a superior value than the national one of 11.96%.

In forestry, Forest exploitations and hunting economy, fishery and pisciculture, the contribution at the RGVA has a weight of 1.26%, higher than the national value (0.55%).

This sector knows a similar evolution with the national one in the period 1998-2000, registering a recess period in 2000 because of climacteric unfavourable conditions during that year.

The amount of occupied population in agriculture at the regional level in 2001 is very high (49.80%), higher than the national one (40.4). From total occupied population in agriculture at the national level, 20.2% belong to the NE region.

The amount of population occupied in Forestry, at the level of year 2001 in the region is 0.7%, superior to the national value of 0.5%.

With all that the numbers of employees in the year 2001 is just about 2.6% in this sector from total employees.

**Agriculture contribution at GDP expressed in billions lei current prices, in accordance with SEC methodology 1995.**

Agriculture contribution in GDP	1998	1999	2000	Annual growing rate		% sector/ PIB 2001
				%1999/1998	%2000/1999	
North-East Region	9,380	12,569	15,403			
North-East Region Mil.USD	1,057	820	710	-22.42	-13.41	16.00
Romania	52,212	70,456	85,100			
Mil. USD	5,883	4,595	3,923	-21.89	-14.62	10.60

Source: NCS – Statistical Yearbook of Romania 2002

At the level of year 2000 the contribution of agriculture at the regional GDP is with 16% higher than the national value (10.60%). However, the sector contribution has registered a continuously decrease in the period 1998-2000 especially due unfavourable climacteric conditions and although due low productivity registered in this domain.

**Compared situation between NE Region and others region at the level of year 2000 concerning the value of agricultural production.  
In accordance with SEC methodology 1995**

Agriculture	Total	North-East	South-East	South	South-Vest	Vest	North-West	Centre	Bucuresti
Billions lei	85,100	15,403	12,832	13,192	10,089	8,488	12,655	11,252	1,187
Weight	100	18.10	15.08	15.50	11.86	9.97	14.87	13.22	1.39

Source: NCS – Statistical Yearbook of Romania 2002

It can be inferred that at the level of year 2000, the north-east region contribute to the value of the national agriculture production with the greatest weight (18.10%) expressing still the agricultural character of the regional economy. At the other pole we can find the Bucuresti- Ilfov region with only 1.39%.

**The distribution of agricultural surfaces and forests in the year 2001 – ha**

Territorial unit	Total surface (sqkm)	Agricultural surface (%)	Forests (%)
<b>Romania</b>	<b>23,839,071</b>	<b>14,852,341</b>	<b>6,605,690</b>
<b>North -East Region</b>	<b>3,684,983</b>	<b>2,130,720</b>	<b>1,232,070</b>
Bacău	6,621	323,478	279,048
Botoşani	4,986	392,860	57,194
Iaşi	5,476	380,810	99,022
Neamţ	5,896	283,803	261,330
Suceava	8,553	349,131	456,579
Vaslui	5,318	400,538	78,897

Source: NCS – Statistical Yearbook of Romania 2002

The North – East region own 14.30% from the total agricultural surface of he country and 18.70% from the surface covered by forests. Taking in consideration the counties surfaces, from the following table it can be inferred that the counties with the most stretched agriculture fields are Vaslui, Botosani and Iasi and those with the most stretched wooded surfaces are Suceava, Bacau and Neamt.

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.

## Agriculture

Although the North-East Region includes a large area of agricultural land - 14.30% from the total agricultural surface of the country, 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 similar surface units in the country.
- 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 and the 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 capital for agriculture restructuring and updating
- soil instability and erosion, numerous soil sliding

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.

Land fund according to use as at 31 December 2000-thousands hectares

County	Bacău	Botoșani	Iași	Neamț	Suceava	Vaslui	NE Region
Total area	662.0	498.5	547.5	589.6	855.3	531.8	3,684.9
Area for agricultural purposes	323.5	392.7	380.6	283.7	349.5	402.2	2,132.4
Of which: private sector	320.1	388.1	371.5	277.5	340.3	397.3	2,095.2
Arable	184.6	297.8	351.6	170.3	178.4	283.9	1,366.9
Pastures	87.6	75.6	88.1	69.2	93.7	90.3	504.7
Hay fields	40.2	14.2	20.3	40.1	74.0	7.3	196.3
Vineyards	7.6	2.0	12.1	1.0	-	16.4	39.3
Orchards	3.4	2.9	8.4	2.9	3.2	3.9	25.0
Forests	226.5	57.2	96.8	260.4	434.8	70.4	1,186.4
Water	14.6	13.8	12.7	10.3	13.6	8.2	73.4
Other areas	57.2	34.8	57.1	35.0	57.3	50.9	292.5
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

Source: NCS – Statistical Yearbook of Romania 2001

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.

## Animal breeding sector

Regarding the evolution of animal breeding sector in the region, from the data analysis presented in the following table a significant growth of the cattle and also of the numbers of bees families can be noticed, but also a reduction of the swine's number. The sheep, horses and poultry contingencies didn't suffer significant variations in the 1998-2001 period.

### Livestock evolution in the North East region - period 1998 - 2001 (thousands heads)

		2001	2000	1999	1998
Cattle	Total	636	653	664	664
	Of which: for reproduction	394	395	384	382
Swine	Total	609	660	726	780
	Of which: for reproduction	41	39	41	51
Sheep	Total	1,406	1,453	1,543	1,577
	Of which: for reproduction	1,154	1,144	1,212	1,233
Horses	Total	206	203	196	187
Poultry	Total	11,630	11,124	10,869	11,306
	Of which: adult layers	7,143	7,007	6,609	6,425
Bees	Total (thousands families)	129	106	106	104

Source: NCS – Statistical Yearbook of Romania 1999/2002

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.

Regarding the number of animals, the counties that are presenting a good situation are:

- at cattle: county Suceava with 114.000 heads
- at swine: county Bacău with 154.000 heads
- at sheep: county Iasi with 336.000 heads.

## 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 279,048 ha, Neamt 261,330 ha), supplying in the year 2001, 26.30% 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.

### Wood volume circulated in the economy in 2001 (thousands c.m):

Territorial unit	Total	Coniferous	Beech	Oak	Various hard species	Various soft species
Romania	13,410	4,915	4,260	1,287	1,673	1,273
<b>1. North-East</b>	<b>3,521</b>	<b>1,852</b>	<b>909</b>	<b>114</b>	<b>349</b>	<b>296</b>
Bacău	694	237	328	24	60	44
Botoşani	128	1	21	23	47	36

Iași	251	3.4	32	25	89	101
Neamț	854	480	274	17	50	33
Suceava	1,433	1,130	229	19	47	16
Vaslui	160	0	22	15	56	69

Source: NCS – Statistical Yearbook of Romania 2002.

As noticeable, the Suceava county has contributed the highest share of the wood volume circulated in the economy in 2001, respectively 1,433 thousands c.m, at the opposite pole being the Botosani County with only 128 thousands c.m.

The North-East Region includes more than 1,500 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 –David’s Valley (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 (locating 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).

#### Key issues in agriculture and forestry:

-The weight of occupied population in agriculture is too high, representing 49.80% from the total occupied population. From the total occupied population in agriculture in Romania, a 20.2% is from the NE region.

-Agricultural exploitation is done on small plots, of 1-3 ha.

-Low grade of association – 8% for the fields and 3% in animal breeding.

### 2.3.2 Industry

The value of industrial production in the period 1998-2001, expressed in billions lei current prices in accordance with SEC methodology 1995.

Industry contribution at GDP	1998	1999	2000	Annual growing rate		% sector/ GDP 2000
				1999/1998	2000/1999	
				North East	13,575	
North East (Mil. USD)	1,530	1,041	1,179			
Romania	98,212	135,343	219,479	-20.23	14.63	27.30
Romania (Mil. USD)	11,066	8,827	10,118			

Source: NCS – Statistical Yearbook of Romania 2002.

Compared situation of North East region against the others regions at the level of the year 2000

Industry	Total	North-East	South-East	South	South-West	West	North-West	Centre	Bucuresti
Billions lei	219,479	25,577	25,547	30,733	24,697	20,738	23,728	33,535	34,499
Weight	100	11.65	11.64	14.00	11.25	9.45	10.81	15.28	15.72

Source: NCS – Statistical Yearbook of Romania 2002.

It can be noticed that at the level of 2000, the North – East region contributed at the level of the national industrial production with 11.65%. The weight of industry contribution at regional GDP is 26.50%, value that is close to the sector contribution in the national value (27.30%).

The weight of occupied population in this sector at the regional level, in year 2001, is about 20.00%, lower than the national one 23.60%.

After the industrial decline in 1999, similar with the national tendency an industry relaunching happened in the year 2000.

The industrial output has dropped in the 1990 -1999 period due the following factors:

- the low capacity of adaptation to the modifications occurring in the structure of the home and foreign markets
- strong undercapitalisation due to inflation rise, sharp devaluation of the national currency, low investments volume, etc.
- slow rate of privatisation and restructuring
- unsteady and incoherent legislative framework, that did not stimulate foreign and home capital investment.

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

### **Banking sector in the North – East region**

At the regional level the following commercial Banks are active in the majority of the cities, offering banking services to juridical and physical persons:

- Romanian Commercial Bank
- Romanian Development Bank
- Post Bank
- Transylvania Bank
- Commercial Bank Ion Tiriac
- Raiffeissen Bank
- CEC

The credit programs with UE co-financing mean for the SME's in the region are:

- PHARE ESC 2000 Programme – credit line for SME's in total value of 8.1 Millions EURO mean for 4 regions, of which North East, with a PHARE contribution of maximum 20% from the project value – unrolled by the Romanian Commercial Bank;
- BERD Programme – SME Finance Facility in total value of 75 millions EURO, launched in 1999;
- BERD Programme – Trade Facilities which offers support to the importers and exporters which make transactions in the BERD operational area;
- PHARE Funds for productive investments until 500.000 representing a maximum of 85% from the investment value, given for a period of 1-6 years and unrolled through the Commercial Bank Ion Tiriac.
- The Fund of Rural Credit Guarantee (F.R.C.G) guarantee until 70% from the credit granted by the bank for Food Industry and Agriculture – carried on through the Romanian Commercial Bank.
- Credits for micro enterprises and SME's from PHARE sources with at least 20% Romanian capital, in total maximum value of 500.000 EURO, granted for a period of 6 years and representing a maximum of 85% from the investment value.
- Capital credits from BERD, granted for SME's with an annual turnover until 2 millions EURO for financing needs of working capital for production, trade or services in a total maximum value of 125.000 EURO, granted for maximum 1 year.

## 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 (Iasi, Bacau, Piatra Neamt, Suceava, and Botosani).

In the North-East region the success firms mentioned in the Firms Top (publication edited by the Chambers of Commerce and Industry) activate in the following sectors:

- engineering, plant and machinery industry
- food industry;
- wood, cellulose and paper manufacturing industry, furniture;
- light industry (spinning mills, knitwear, garments, footwear)
- medicines;
- tourism;
- transports;

The provisions of the Romanian legislation, which are not in the favour of potential strategic investors, have promoted a high fiscal level concomitantly with low performance interests on loans, and thus have 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, 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.

Part of the companies specified have enjoyed, during the past period (1996-2000) coherent programmes and foreign capital infusion, experiencing an important economic relaunch:

- AEROSTAR Bacău – a joint Romanian-Israeli company - aeronautics
- ANTIBIOTICE Iasi – a joint company realized with an international consortium – medicines
- AGRICOLA INTERNATIONAL Bacau – a joint Romanian-German company, holding type, established 1992, operating in the food and drink sector
- WORLD MACHINERY WORKS 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.

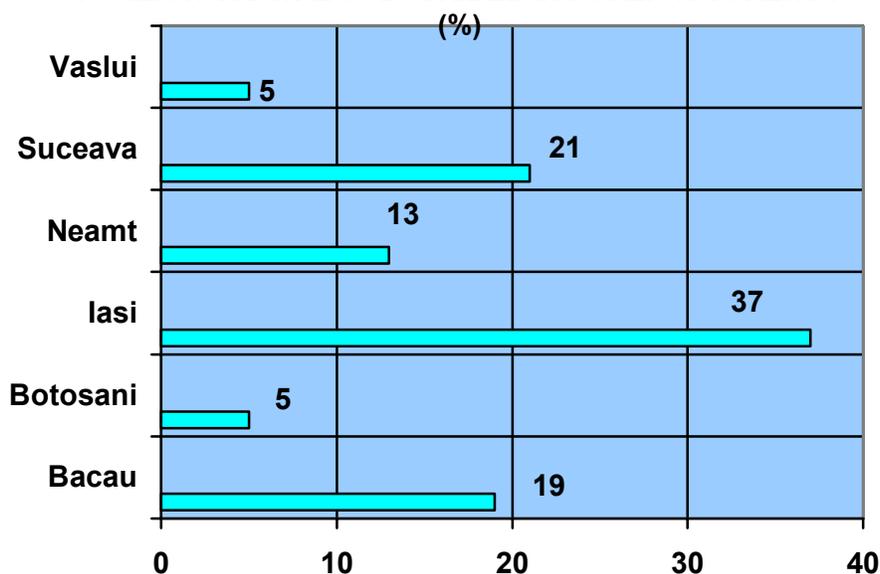
### Foreign capital participation in the region's firms

County	No enterprises with foreign capital	Total value of subscribed capital (thousands lei)	Total value of subscribed capital in foreign currency (thousands USD)	% foreign capital in the region
<b>Bacău</b>	442	190,541.2	25,195.4	19,0
<b>Botoşani</b>	119	30,057.4	13,017.0	5,0
<b>Iaşi</b>	879	254,500.6	54,133.3	37,0
<b>Neamţ</b>	309	102,799.6	14,956.4	13,0
<b>Suceava</b>	486	302,714.5	21,529.4	21,0
<b>Vaslui</b>	115	27,509.4	4,830.8	5,0
<b>Region total</b>	2,350	908,122.7	13,362.7	100,0

*Statistical counties departments at 31.12.1999*

At the end of 1999 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%.

### FOREIGN CAPITAL SUBSCRIBED IN FOREIGN CURRENCY



#### Key issues in industry:

-low weight of foreign investments in Botosani and Vaslui county, each of those counties having under 5% from the total foreign investments invested in the NE Region.

#### 2.3.3 Services

The following table presents the evolution registered in the regional Services sector in the period 1998-2000 against the national level and a compared situation of the NE region against the other regions at the level of year 2000.

A decrease tendency can be noticed both at regional and national level in the analysed period of time, with the mention that in the region the lowering rate has decreased from year to year.

#### Contribution of the services sector to the GDP expressed in billions lei current prices in accordance with SEC methodology 1995.

Contribution of services to the GDP	1998	1999	2000	Annual growing rate		% sector/ PIB 2000
				1999/1998	2000/1999	
North-East	27,062	39,433	54,295			
North-East (Mil. USD)	3,049	2,572	2,503	-15.60	-2.7	56.40
Romania	221,814	337,582	495,281			
Romania (Mil. USD)	24,993	22,018	17,043	-11.90	-22.60	61.60

Source: NCS – Statistical Yearbook of Romania, 2002.

**Compared situation of the region against the others regions at the level of 2000 in the domain of services in accordance with SEC methodology 1995**

Units	Total	North-East	South-East	South	South-West	West	North-West	Centre	Bucuresti
<b>Construction</b>									
Billions lei	39,287	4,369	5,648	4,483	4,130	3,960	3,927	4,168	8,598
Weight %	100	11.12	14.38	11.41	10.51	10.08	10.00	10.61	21.89
<b>Trade (hotels and restaurants included)</b>									
Billions lei	101,406	10,124	11,084	10,696	7,269	8,473	10,769	12,580	30,409
Weight %	100	9.98	10.93	10.55	7.17	8.36	10.62	12.41	29.99
<b>Transports</b>									
Billions lei	50,047	6,000	6,318	6,409	4,279	5,901	6,627	6,032	8,479
Weight %	100	11.99	12.62	12.81	8.55	11.79	13.24	12.05	16.94
<b>Post and telecommunications</b>									
Billions lei	30,305	2,871	2,888	2,525	1,726	2,355	2,864	2,846	12,226
Weight %	100	9.47	9.53	8.33	5.70	7.77	9.45	9.39	40.34
<b>Financing, banking and assurance activities</b>									
Billions lei	12,363	1,049	1,039	1,026	721	834	1,179	1,294	5,219
Weight %	100	8.48	8.40	8.30	5.83	6.75	9.54	10.47	42.21
<b>Immovable agreements and other services</b>									
Billions lei	104,378	9,473	9,278	9,359	6,884	9,502	14,137	10,354	35,388
Weight %	100	9.08	8.89	8.97	6.60	9.10	13.54	9.92	33.90
<b>Public administration</b>									
Billions lei	34,599	3,880	3,637	4,266	3,434	3,078	3,570	3,388	9,095
Weight %	100	11.21	10.51	12.33	9.93	8.90	10.32	9.79	26.29
<b>Education</b>									
Billions lei	23,260	4,011	2,536	2,734	2,412	2,164	3,379	2,985	3,036
Weight %	100	17.24	10.90	11.75	10.37	9.30	14.53	12.83	13.05
<b>Health and social care</b>									
Billions lei	15,764	2,409	1,963	1,898	1,623	1,532	2,087	1,942	2,309
Weight %	100	15.28	12.45	12.04	10.30	9.72	13.24	12.32	14.65

Source: NCS – Statistical Yearbook of Romania, 2002.

In construction and transports the region contributes at the national total close to the national average, in the same time trade, post, telecommunications and Financing, banking having inferior values.

In public services of education and health the participation at the national value on each mentioned subsector is higher then the national average and assure the most important contribution (17.24%, 15.28%).

The weight of occupied population in services against region total is 29.60%, value that is extremely low when reported with the weight owned of this sector in UE regions.

This sector is characterized by:

- 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
- focusing on commerce and restaurant activities, and the services supplied directly to the population are insufficient and of poor quality
- tourism services that are not capitalised at the level of the existing potential
- the advisory services that are insufficiently promoted
- the health and social assistance services that are under the quality standards.

The activities concerned to ware and passenger transport have followed two baselines:

- 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.

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.

Along with the picturesque side of the region, the well-known Romanian hospitality, folk traditions, customs and specifically Romanian cuisine, the traditional wine tasting in the vineyards of Cotnari and Husi complete its attractiveness.

Detailed information concerning tourisms can be found in the Chapter 6.

#### **Service's key issues:**

- low degree of occupied population in this sector: 29.60%
- low weight of realized value in the region in the sector of trade (including hotels and restaurants) from the national total value: 9.98%.
- low weight of realized value in the region in the sectors of post and telecommunications from the total national value: 9.47%.

## 2.4 The situation of the physical infrastructure

The infrastructure is the sum of the technical-material base elements, within the components are produced all the exchanges and transfers of the resources: materials, human resources, services and information in the proper 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.

### 2.4.1 Transport infrastructure

#### Railways infrastructure

The railways 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. So, the Percentage of the railways regional network in the total length of national railways network is about 13.7% at the end of the year 2001, with a small decrease related to the year 1999 (13.72%).

Regarding the railways network density for the North – East Region, this thing is shown in the table below, with the data at national level and the same kind of data for the other regions. It can be observed that the railways network density for 1000 sq. km, in the region is 40.9, under the national average, which are 46.2.

Region	The total surface of the region (sq. km)	The total length of the railways network (km)				The railways network density for 1000 sq. km surface at 2000, December, 31-th
		1998	1999	2000	2001	
North – East	1,505	1,507	1,506	1,506	1,505	40.9
South – East	1,326	1,327	1,329	1,329	1,326	37.2
South	1,671	1,699	1,699	1,699	1,671	49.3
South – West	983	1,001	1,001	1,001	983	34.3
West	2,010	2,010	2,011	2,011	2,010	62.8
North – West	1,659	1,645	1,645	1,645	1,659	48.2
Centre	1,534	1,470	1,470	1,470	1,534	43.1
Bucharest	322	322	354	3,54	322	194.4
Romania	11,010	10,981	11,015	11,015	11,010	46.2

Source: Romania's Statistics Yearbook 1999, 2000, 2001, 2002

The region is crossed by the 2 of the 8 main railways:

- București – Bacău – Suceava – Siret to Ukraine- main railway 500;
- București - Iași – Ungheni to Republic of Moldova – main railway 600.

#### The public road network infrastructure

North - some Pan-European roads cross East Region, as it follows:

- București-Suceava-Siret (checking and cross-border point) – international road E85, with the ramifications from Suceava to Budapest, on international road E576, which is a part of the IX Pan – European lane;
- Bacău – Brașov – Pitești international road E577 (which makes the connection with the international road E70 Craiova – Vidin - Skopje);
- București-Bârlad – Albița - Chișinău - international road E581, which cross Vaslui County.

The table from below shows the situation for the national, county and communal roads from all regions of Romania (31.12.2001), from which could be outlined that both the density of the public roads, county and communal for 100 sq. km surface and their percentage in the total length of roads infrastructure is positioning the North - East Region at superior levels in comparison with the national averages.

The comparative situation between regions, for public roads network in 2001

Region	Public roads Total (km)	Density of public roads on 100 sq. km surface	National roads (km)		Density of public national roads on 100 sq. km surface	County and communal roads (km)		Density of public county and communal roads on 100 sq. km surface
			Total	Percentage in total public roads (%)		Total	Percentage in total public roads (%)	
<b>North-East</b>	13,358	36.2	2,605	19.53	7.07	10,753	80.47	29.14
<b>South-East</b>	10,568	29,6	1,721	16.30	4.82	8,847	83.70	24.75
<b>South</b>	11,827	34,3	2,506	21.17	7.26	9,321	78.83	27.04
<b>South-West</b>	10,162	34,8	1,944	19.13	6.65	8,218	80.87	28.13
<b>West</b>	10,211	31,9	1,881	18.48	5.87	8,330	81.52	25.90
<b>North-West</b>	11,418	33,4	1,942	16.79	5.69	9,476	83.21	28.17
<b>Centre</b>	10,105	29,6	2,027	20.25	5.94	8,078	79.75	23.42
<b>Bucharest</b>	843	46.3	196	23.91	10.82	647	76.09	34.43
<b>Romania</b>	78,492	32,9	14,822	18.89	6.22	63,670	81.11	26.70

Source: Romania's Statistics Yearbook 2002

The table from below shows the situation for roads infrastructure, within the North-East Region, between 1998-2001, on kind of roads:

Situation of the roads in NE Region		Total length (km)							
		1998	Variation related to last year %	1999	Variation related to last year %	2000	Variation related to last year %	2001	Variation related to last year %
Public roads	total, from which:	12793	-0,03	12833	0,31	13346	4,00	13358	0,09
	- modernized	2716	1,42	2719	0,11	3023	11,18	3084	2,02
	- with soft covering	2823	-0,74	2827	0,14	2588	-8,45	2522	-2,55
	from which: - density on 100 sq. km surface	34,7	0,02	34,8	0,01	36,2	1,40		
National roads	total, from which:	2476	0,00	2475	-0,04	2607	5,33	2605	-0,08
	- modernized	2252	0,09	2248	-0,18	2323	3,34	2301	-0,95
	- with soft covering	182	-1,09	185	1,65	242	30,81	262	8,26
County and communal roads	total, from which:	10317	-0,04	10358	0,40	10739	3,68	10753	0,13
	- modernized	464	8,41	471	1,51	700	48,62	783	11,86
	- with soft covering	2641	-0,73	2642	0,04	2346	-11,20	2260	-3,67
Percentage of the modernized roads in the total public roads length %		21,23	0,30	21,19	-0,04	22,65	1,46	23,09	0,44
Percentage of the roads with soft covering in the total public roads length %		22,07	-0,17	22,03	-0,04	19,39	-2,64	18,88	-0,51

Source: Romania's Statistics Yearbook 1999, 2000, 2001, 2002

It can be observed that in the period 1998-2001 there are no big changes in the roads infrastructure of the North – East Region, the variations from one year to the other (with “-”, are figured the decreases) being not so spectacular, with the exception of some isolated situations.

The main aspect is the Percentage of the modernized roads in the total public roads length of the region, which is only 23.09% at 2000, December, 31-th. If it is added to this percent other 18.88%, representing the percentage of the roads with soft covering at the same time it will result that almost 58% from the roads infrastructure of the North – East Region is under the acceptable standard. Besides this, from the total roads length, modernised or with soft covering, almost 50% have a strong ageing, caused by the intensive exploitation of roads between the residential cities of the counties and the development poles from the region, with ramifications to cross-border points, to the cities of the region and to the borderer regions and this will give an unpleasant imagine of the North-East Region.

## **Air transport infrastructure**

The air transport that the region benefits on are sustained by a specific infrastructure, constituted by three airports that serve internal courses and, occasionally external flights, the regular courses ensuring the communication with the country capital, Bucharest.

Those three airports are situated in Bacau, Iasi and Suceava.

The Bacau Airport is situated to 6.5 km South from the Bacau Municipality and assures the necessary infrastructure for the flights of the aircrafts with less than 400 tones weight in security conditions, for internal and external flights. The airport assures services for air-operations within a program of 12 and 24 hours, serving 7 foreign routes on Germany and Italy destination.

The Iasi Airport is the oldest in Romania, it was built up in the year 1932, it is situated at 8 km North from Iasi City, at an altitude of 120 m and it is destined to internal and partly external air-traffic for passengers, short courier flights.

The airport has an air-station for passengers, technical office, control tower, traffic control, electric and thermal network, water supply, utilities and access roads.

In the year of 1998 have been made 6,000 flights: 1,600 commercial flights and 60 of them were foreign and transported 70,000 passengers.

Suceava Airport is situated in Salcea commune, 15 km East from Suceava City and 40 km from Botosani City, the access being assured on the National Road 29. This airport is destined to internal traffic of passengers with short courier flights.

Unfortunately the existing infrastructure doesn't allow to any of the three airports to make current external flights. So, it is necessary to modernize and to develop the infrastructure of at least one of the airports and its endowment in order to correspond for all the requests of any modern airport and to make internal and external courses of passengers and goods.

Suceava County has 5 heliports and in Iasi there is a utilitarian airport with a 30 years of experience and its activity objectives are utilitarian and medical flights.

### **Key issues of the physical infrastructure:**

- The absence of an European road corridor on the East-West direction;
- The low level of modernised roads in the region: 41.97% from the total length of these roads;
- The impossibility of both international airports from the region to regularly have external flights.

### **2.4.2 Utility infrastructure**

The utility infrastructure includes: water supply services, sewerage and waste water treatment, methane gas distribution network, heating supply system and electric energy supply network.

#### **Water supply services**

The network and the volume of the drinking water distributed in North - East Region in 2001 is shown in the next table:

County	Connected localities		Simple network's length (km)	Distributed drinking water		Domestic use consumption	
	Total	Of which Municipalities		(thousands m <sup>3</sup> )	%	(thousands m <sup>3</sup> )	%
Bacău	60	8	754	44,645	24.52	30,977	26.78
Botoşani	66	4	695	15,245	8.37	8,277	7.16
Iaşi	28	4	957	61,175	33.61	36,290	31.38
Neamţ	84	4	679	21,635	11.88	16,494	14.26
Suceava	46	8	660	24,852	13.65	11,872	10.26
Vaslui	73	4	707	14,488	7.96	11,755	10.16
NE Region	357	32	4,452	182,040	100.00	115,665	100.00
<b>Romania</b>				1,530,241		988,359	

Source: Romania's Statistics Yearbook 2002

In the North-East Region, the volume of distributed drinking water represents 11.90% from the national value, which is under the national average, but taking into account that is the region with the highest population, the value is very low. The domestic consumption represents 11.70% from the total value at national level.

The following table presents the number of localities on regions that have drinking water networks. For a comparison between regions we included the percentage of the localities number that have a water supply network within the total number of localities in that region.

The comparative situation between regions for the number of localities connected to water supply networks

Region	Number of localities connected to potable water					
	1998	Percentage in total localities of the region %	1999	Percentage in total localities of the region %	2000	Percentage in total localities of the region %
<b>North-East</b>	310	12.52	324	13.08	344	13.89
<b>South-East</b>	520	34.95	536	36.02	568	38.17
<b>South</b>	448	21.61	454	21.90	454	21.90
<b>South-West</b>	293	13.87	299	14.16	299	14.16
<b>West</b>	260	18.96	281	20.50	269	19.62
<b>North-West</b>	736	39.61	729	39.24	731	39.34
<b>Centre</b>	313	16.71	343	18.31	342	18.26
<b>Bucharest</b>	31	29.52	31	29.52	22	20.95
<b>Romania</b>	<b>2,911</b>	<b>21.79</b>	<b>2,997</b>	<b>22.44</b>	<b>3,029</b>	<b>22.68</b>

Source: Romania's Statistics Yearbook 1999 - 2001

From the data presented above it is obvious that at the end of the year of 2000, the percentage of the number of localities that have drinking water supply networks put the North-East Region on the last place, with 13.89% comparing with 22.68%, which is the average for the country, but also in comparison with the other regions. The number of new localities that connected to the drinking water networks in North-East Region, within the years 1998-2001, have increased but in a slow motion and that's why the difference between the percentage of the connected localities at the end of year 1998 and those connected at the end of the year 2000 was only about 1.37%.

The table below presents the drinking water network in the period between the years 1998-2001 on each region and at national level.

The comparative situation between regions for water supply networks

Simple total length of drinking water distribution network (km)						
Region	1998	Variation % related to previous year	1999	Variation % related to previous year	2000	Variation % related to previous year
North – East	4,000	3.84	4,154	3.85	4,346	4.62
South – East	6,378	4.95	6,660	4.42	6,902	3.63
South	6,034	1.57	6,208	2.88	6,299	1.47
South – West	2,960	3.06	2,993	1.11	3,053	2.00
West	4,314	3.73	4,436	2.83	4,575	3.13
North - West	6,481	4.58	6,292	-4.36	6,311	0.30
Centre	4,335	4.74	4,515	4.15	4,573	1.28
Bucharest	2,106	2.73	2,159	2.52	2,179	0.93
<b>Romania</b>	<b>36,608</b>	<b>3.74</b>	<b>37,417</b>	<b>2.21</b>	<b>38,238</b>	<b>2.19</b>

Source: Romania's Statistics Yearbook 1999 - 2001

The simple total length of the drinking water distribution network has registered a slow increase in the entire country because there weren't many localities to benefit by the new potable water networks in the period between 1998-2001.

In the following table we present a comparison of the water volume, distributed to all the consumers, including the domestic ones, as well as the percentage of the volume for the domestic use in the total volume of the drinking water distributed.

The comparative situation between regions regarding the volume of distributed drinking water

Region	Volume of the drinking water distributed for consumers (thousands m <sup>3</sup> )							
	1998	Variation % related to previous year	1999	Variation % related to previous year	2000	Variation % related to previous year	2001	Variation % related to previous year
North-East	236,303	-2.56	217,065	-8.14	214,964	-0.97	182,040	-15.32
South-East	288,803	-4.46	262,164	-9.22	236,605	-9.75		
South	229,905	-1.86	219,264	-4.63	205,691	-6.19		
South-West	155,306	1.79	146,413	-5.73	136,940	-6.47		
West	207,627	1.38	183,472	-11.63	176,156	-3.99		
North-West	254,085	-6.09	223,821	-11.91	195,561	-12.63		
Centre	266,847	0.40	242,474	-9.13	214,063	-11.72		
Bucharest	360,672	2.22	354,160	-1.81	320,369	-9.54		
<b>Romania</b>	<b>1,999,548</b>	<b>-1.29</b>	<b>1,848,833</b>	<b>-7.54</b>	<b>1,700,349</b>	<b>-8.03</b>		
From which for domestic use (thousands m <sup>3</sup> )								
North-East	161,609	-0.06	137,185	-15.11	130,802	-4.65	115,665	-11.57
South-East	200,052	-5.13	189,580	-5.23	181,142	-4.45		
South	182,735	5.67	173,184	-5.23	165,824	-4.25		
South-West	103,110	1.17	106,034	2.84	97,981	-7.59		
West	136,554	-1.34	111,409	-18.41	102,024	-8.42		
North-West	173,280	-0.57	166,237	-4.06	140,612	-15.41		
Centre	157,620	3.57	145,204	-7.88	127,587	-12.13		
Bucharest	182,221	2.24	179,133	-1.69	159,817	-10.78		
<b>Romania</b>	<b>1,297,181</b>	<b>0.46</b>	<b>1,207,966</b>	<b>-6.88</b>	<b>1,105,789</b>	<b>-8.46</b>		
The percentage of domestic use in the total volume of the distributed drinking water (%)								
North-East	68.39		63.20		60.85		63.54	
South-East	69.27		72.31		76.56			

<b>South</b>	79.48		78.98		80.62			
<b>South-West</b>	66.39		72.42		71.55			
<b>West</b>	65.77		60.72		57.92			
<b>North-West</b>	68.20		74.27		71.90			
<b>Centre</b>	59.07		59.88		59.60			
<b>Bucharest</b>	50.52		50.58		49.89			
<b>Romania</b>	<b>64.87</b>		<b>65.34</b>		<b>65.03</b>			

Source: Romania's Statistics Yearbook 1999 – 2002

From the table results the total drinking water consumption is decreasing in the entire country, including in North-East Region. The percentage for domestic drinking water consumption distributed in North-East Region is very low, about of 63% from the average value in the country. It is observing that the decrease in the region for the year 2001 is very drastic, with about 11.57%. This fact could be explained both because of the water measurement equipments used by the population in the last years for the domestic consumption of drinking water and of the consumptions related to the existing standard of living.

Situation of the density of distribution network and of drinking water  
in the country's regions at 31<sup>st</sup> of December 2000

Region	The total surface (km <sup>2</sup> )	Population	The total length of potable water network (km)	Km of potable water network/ 1000 inhabitants	Km of network / 100sq. km surface	Consumption of drinking water on inhabitant (m <sup>3</sup> /inhabitant)	
						Total	Domestic use
<b>North - East</b>	36,850	3,823,492	4,346	1.14	11.79	56.22	
<b>South - East</b>	35,762	2,934,319	6,902	2.35	19.30	80.63	61.73
<b>South</b>	34,453	3,465,468	6,299	1.82	18.28	59.35	47.85
<b>South - West</b>	29,212	2,399,831	3,053	1.27	10.45	57.06	40.83
<b>West</b>	32,034	2,041,129	4,575	2.24	14.28	86.30	49.98
<b>North - West</b>	34,159	2,844,042	6,311	2.22	18.48	68.76	49.44
<b>Centre</b>	34,100	2,642,242	4,573	1.73	13.41	81.02	48.29
<b>Bucharest</b>	1,821	2,284,682	2,179	0.95	119.66	140.22	69.95
<b>Romania</b>	<b>238,391</b>	<b>22,435,205</b>	<b>38,238</b>	<b>1.70</b>	<b>15.98</b>	<b>75.79</b>	<b>49.29</b>

Source: Romania's Statistics Yearbook 2001

From the data presented above results that the density of drinking water network at national level is of 15.98 km network/100 sq. km and in North-East Region is registered one of the lowest value: 11.19 km network/100 sq. km. Also, in North-East Region, for 1000 inhabitants there are only 1.14 km of potable water network, in comparison with the average in the country that is 1.70 km of network. The consumption of drinking water on inhabitant from the North-East Region has registered one of the lowest values, both for the distributed volume (56.22 m<sup>3</sup>/ inhabitant) and for the domestic consumption (34.21 m<sup>3</sup>/ inhabitant). These values are under the international standards and prove the poor development level of these utilities, especially in North-East Region.

We mention that the only drinking water supply from the ground water is that from the Timisesti source, which partially supply the inhabitants' needs from Iasi municipality. The other towns from the North-East Region have supplies from surface waters that are cleaned in water treatment stations. Unfortunately, the water supply systems from the North-East Region cannot serve all consumers (domestic and industrial) in 24 hours per day conditions. The pipe system for the drinking water supply is out of use and doesn't satisfy the population's consumption needs from the North-East Region. On the other side, the water treatment stations are also very

old and out of service and could not process the needs of drinking water of all the consumers from entire region.

### Sewerage system

The sewerage network of the North – East Region is expressed by the number of localities that have sewerage system and by the total length of the sewerage network from the North – East Region comparing with other regions.

The comparative situation between regions regarding the public sewerage

Region	Number of localities with sewerage systems							
	1998	Percentage from the number of region's localities %	1999	Percentage from the number of region's localities %	2000	Percentage from the number of region's localities %	2001	Percentage from the number of region's localities %
North–East	104	4.20	110	4.44	128	5.17	131	5.29
South–East	75	5.04	79	5.31	83	5.58		
South	95	4.58	95	4.58	93	4.49		
South–West	54	2.56	56	2.65	56	2.65		
West	73	5.32	74	5.40	80	5.84		
North–West	108	5.81	106	5.71	106	5.71		
Centre	104	5.55	110	5.87	108	5.77		
Bucharest	23	21.90	24	22.85	20	19.05		
<b>Romania</b>	<b>636</b>	<b>4.76</b>	<b>654</b>	<b>4.90</b>	<b>674</b>	<b>5.05</b>		

Source: Romania's Statistics Yearbook 1999, 2000, 2001, 2002

It can be observed the rising, year after year, for the number of localities with the sewerage network, but if we will compare the number of localities with the water supply network (357) with the number of localities with the sewerage network (131) it can be observed a big gap, meaning that more than half of them don't have sewerage system, which involve the environment's pollution.

The length of the sewerage network						
Region	1998	Variation in comparison with the previous year %	1999	Variation in comparison with the previous year %	2000	Variation in comparison with the previous year %
North–East	2,527	9.16	2,382	-5.74	2,446	2.69
South–East	2,319	0.56	2,337	0.78	2,357	0.86
South	1,913	2.57	1,923	0.52	1,980	2.96
South–West	1,399	8.79	1,327	-5.15	1,342	1.13
West	1,899	1.61	1,978	4.16	2,006	1.42
North–West	2,052	1.03	2,074	1.07	2,178	5.01
Centre	2,134	1.96	2,206	3.37	2,166	-1.81
Bucharest	1,769	1.84	1,853	4.75	1,873	1.08
<b>Romania</b>	<b>16,012</b>	<b>3.29</b>	<b>16,080</b>	<b>0.43</b>	<b>16,348</b>	<b>1.67</b>

Source: Romania's Statistics Yearbook 1999, 2000, 2001, 2002

From the data presented in the table results that the length of the sewerage network from the North – East Region registered no increase required by the necessity of the new sewerage network but surprisingly a decrease with 66.4 km of network, because of the obsolescence of some very old pipes.

It has to be specified that regarding the waste water treatment plants these are functioning only in the municipalities and the cities of the region, but they are under-dimensioned and could not process all the quantity of waste water.

The situation of the density for the sewerage network from the North – East Region in comparison with other regions of the country

Region	Sewerage network at 2000, December, 31-th				
	Total surface (sq. km)	Population	Total length of sewerage network (km)	Km sewerage network / 1000 inhabitants	Km sewerage network / 100 sq. km surface
North–East	36,850	3,823,492	2,446	0.63	6.64
South–East	35,762	2,934,319	2,357	0.80	6.59
South	34,453	3,465,468	1,980	0.57	5.75
South–West	29,212	2,399,831	1,342	0.55	4.59
West	32,034	2,041,129	2,006	0.98	6.26
North–West	34,159	2,844,042	2,178	0.76	6.38
Centre	34,100	2,642,242	2,166	0.81	6.35
Bucharest	1,821	2,284,682	1,873	0.81	102.86
<b>Romania</b>	<b>238,391</b>	<b>22,435,205</b>	<b>16,348</b>	<b>0.73</b>	<b>6.86</b>

Source: Romania's Statistics Yearbook 2001

From the data presented in the table results that the density of the sewerage network from the North – East Region is a little lower than the national average, 6.64 Km network / 100 sq. km surface in comparison with 6.68 Km network / 100 sq. km surface. Also, it can be observed that in the North – East Region for 1000 inhabitants there is only 0.63 km of sewerage network in comparison with 0.73 km of sewerage network, which is the national average.

At the end of the year 2001 from the North – East Region has a total length of the public sewerage network of 2,461 Km, which represents 14.80% from the total length at national level. Density of network is 0.64 km for 1000 inhabitants and 6.67 Km network / 100 sq. km surface.

In the region there are 2,363 of green lands, situated in the municipalities and towns area, which represents 11.70% from the total at national level.

### The network and the volume of the natural gas distributed in NE Region

The system for the natural gas distribution in the North – East Region can be analysed looking to the next indicators:

<b>Number of localities connected to the natural gas network</b>						
Region	1998	Percentage from the number of region's localities %	1999	Percentage from the number of region's localities %	2000	Percentage from the number of region's localities %
North–East	55	2.22	56	2.26	57	2.30
South–East	28	1.88	35	2.35	38	2.55
South	116	5.60	128	6.17	128	6.17
South–West	41	1.94	42	1.99	38	1.80
West	65	4.74	67	4.89	75	5.47
North–West	153	8.23	168	9.04	173	9.31
Centre	453	24.19	489	26.11	504	26.91
Bucharest	4	3.81	8	7.62	8	7.62

<b>Romania</b>	<b>915</b>	<b>6.85</b>	<b>993</b>	<b>7.43</b>	<b>1021</b>	<b>7.64</b>
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Source: Romania's Statistics Yearbook 1999, 2000, 2001

It could be observed a small increase for the number of the localities connected to the natural gas network, during the period 1998 –2000.

In the year 2001, the number of the localities from the region, connected to the natural gas network are 60, including 22 municipalities and towns.  
The length of the natural gas network and the evolution in the period 1998-2001 is presented in the table below, for the North-East Region in comparison with the other regions of the country:

The comparative situation between regions regarding the length of the natural gas network (Km)

Region	1998	Variation in comparison with the previous year %	1999	Variation in comparison with the previous year %	2000	Variation in comparison with the previous year %	2001	Variation in comparison with the previous year %
<b>North-East</b>	1,548	9.43	1,651	6.65	1,774	7.45	1,928	8.68
<b>South-East</b>	947	23.94	1,017	7.39	1,093	7.47	1,165	6.59
<b>South</b>	2,642	7.53	2,843	7.61	2,894	1.79	3,054	5.53
<b>South-West</b>	1,184	9.50	1,305	10.22	1,368	4.83	1,523	11.33
<b>West</b>	1,786	3.52	1,898	6.27	2,165	14.07	3,531	63.09
<b>North-West</b>	2,831	8.25	3,013	6.43	3,205	6.37	3,412	6.46
<b>Centre</b>	6,264	7.86	6,259	-0.08	6,546	4.59	6,627	1.24
<b>Bucharest</b>	2,242	4.17	2,345	4.59	2,553	8.87	2,711	6.19
<b>Romania</b>	<b>19,444</b>	<b>7.92</b>	<b>20,331</b>	<b>4.56</b>	<b>21,598</b>	<b>6.23</b>	<b>23,951</b>	<b>10.89</b>

Source: Romania's Statistics Yearbook 1999, 2000, 2001, 2002

It could be observed during the period 1998 – 2001 an increase of the natural gas network's total length.

The density of the natural gas network, the volume of the natural gas distributed in each region and the domestic consumption on inhabitant for the North-East Region in comparison with the other regions of the country, at 2000, December, 31-th:

Region	The natural gas network at 2000, December, 31-th							
	Total surface (sq. km)	Population	Total length of natural gas network (km)	Km natural gas network / 1000 inhabitants	Km natural gas network / 100 sq. km surface	Natural gas consumption (thousands m <sup>3</sup> )		Home consumption on inhabitant (m <sup>3</sup> )
						total	from which home use	
<b>North-East</b>	36,850	3,823,492	1,774	0.46	4.81	949,145	362,662	94.85
<b>South-East</b>	35,762	2,934,319	1,093	0.37	3.06	594,849	260,837	88.89
<b>South</b>	34,453	3,465,468	2,894	0.84	8.40	1,188,959	391,249	112.90
<b>South-West</b>	29,212	2,399,831	1,368	0.57	4.68	660,935	248,464	103.53
<b>West</b>	32,034	2,041,129	2,165	1.06	6.76	524,103	252,090	123.51
<b>North-West</b>	34,159	2,844,042	3,205	1.13	9.38	1,185,363	690,482	242.78
<b>Centre</b>	34,100	2,642,242	6,546	2.48	19.20	2,627,451	1,083,700	410.14
<b>Bucharest</b>	1,821	2,284,682	2,553	1.12	140.20	1,462,876	452,574	198.09
<b>Romania</b>	<b>238,391</b>	<b>22,435,205</b>	<b>21,598</b>	<b>0.96</b>	<b>9.06</b>	<b>9,193,681</b>	<b>3,742,058</b>	<b>166.79</b>

Source: Romania's Statistics Yearbook 2001

If we will analyse the North-East Region in comparison with the other regions of the country it can be observed that the natural gas network in this region is one with the poorest development in the country, with only 0.46 km of network for 1000 inhabitants, in comparison with 0.96 km of network for 1000 inhabitants, which is the national average, even if we make a calculation related to the regions' surface, the things are the same, that means 4.81 Km network / 100 sq. km surface in the North-East Region, in comparison with 9.06 Km network / 100 sq. km surface, which is the national average.

Regarding the volume of the natural gas distributed, this region has a better position in comparison with other regions, but the percentage of the distributed natural gas' volume in the national distributed volume is only 10.32%, when the percentage of the North-East Region's population in the Romanian's population is about 17%. Also, the consumption of the natural gas on inhabitant, for domestic use, as we can see from the chart: North-East Region (94.85 m<sup>3</sup> / inhabitant / year) and the national average (166.79 m<sup>3</sup> / inhabitant / year), because of the undeveloped infrastructure in this domain and of the low level of the population's buying capacity.

### Services of thermal energy (heating) supply

For the things related to the thermal energy supply, it is important to make the assignation that in all country the heating plants have been designed to supply heating for a whole town, no matter if is small or big (with the exception of very big cities as Bucharest), so because of the big losses through the network, such a system is not very profitable, neither efficient, which is creating a lot of complaints from the beneficiaries, especially during the winter period. It came as an alternative to this service the apartment heating system, for those people that have necessary money for this.

But, for most of the people, the solution should be the acquisition and installation of some centralised district plants or block heating plants and the replacement of the older installations for the heating supply with new ones, with higher performance on technical side, which will reduce how much is possible the expenses with the heating supply to beneficiaries. This involves, unfortunately, big financing resources, which have been not identified till this moment.

On the other way, we have to observe that in the rural area, with the exception of some localities, there is no need for the heating supply system.

The evolution of the number of localities that have thermal energy system (hot water and heating) in the North – East Region, in comparison with other regions

Region	1998		1999		2000		2001	
	total	from which municipalities and towns						
North–East	41	31	38	31	36	31	32	28
South–East	31	27	29	26	28	25	28	25
South	50	38	49	38	44	37	43	10
South–West	40	27	34	26	32	24	28	22
West	42	33	35	33	31	30	32	28
North–West	42	30	37	26	31	24	24	19
Centre	58	46	56	45	53	43	49	42
Bucharest	2	2	2	2	4	3	3	3
<b>Romania</b>	<b>306</b>	<b>234</b>	<b>280</b>	<b>227</b>	<b>259</b>	<b>217</b>	<b>239</b>	<b>202</b>

Source: Romania's Statistics Yearbook 1999, 2000, 2001, 2002

It can be observed a continuous decrease of the localities connected to the thermal energy distribution networks, both in the region and in all country's regions.

The main cause is the bad management of these systems after 1990, which have involved as a unique solution to install the block or apartment heating systems and this tendency will also continue in the next period.

Regarding the total number of localities from the North - East Region that have centralised thermal energy supply system, the situation is presented below:

	<b>Localities that have thermal energy distribution</b>	
	<b>Total localities</b>	<b>Municipalities and towns</b>
<b>Bacău</b>	9	8
<b>Botoşani</b>	5	4
<b>Iaşi</b>	4	4
<b>Neamţ</b>	7	4
<b>Suceava</b>	8	8
<b>Vaslui</b>	3	3
<b>N-E Region</b>	36	31
<b>Romania</b>	259	217
<b>% RNE/Romania</b>	13.90	14.28

*Source: Romania's Statistics Yearbook 2001*

It can be observed that concerning the total number of localities from the North - East Region that have centralised thermal energy supply system, the situation is good for the NE Region, meaning that is above the national average, but as we have commented above, the thermal energy plants, which produce and distribute the thermal agent and are directly subordinated to the Local Councils, could not produce and supply the thermal energy for a convenient ratio quality/price to all the beneficiaries of this kind of service. So, soon this issue will become a big social issue if there will not found the financial resources for the rehabilitation and the modernization of thermal energy supply system in the North-East localities, which already have this system and where are living almost of the half of the population from the most populated region of Romania.

#### **Key issues for the utilities infrastructure:**

- The potable water network is inadequately dimensioned related to the region's surface and population for the year 2001:
  - km potable water network / 100 sq. km surface: 11.79 compared with 15.98 at national level;
  - km potable water network / 1000 inhabitants: 1.14 compared with 1.70;
- The sewerage network is inadequately dimensioned related to the region's surface and population for the year 2001:
  - km sewerage network / 1000 inhabitants: 0.64 compared with 0.73 at national level;
  - from 357 localities connected to the potable water network only 131 are connected to the sewerage network;
- The natural gas network is inadequately dimensioned related to the region's surface and population for the year 2000:
  - km natural gas network /1000 inhabitants: 0.46 compared with 0.96 at national level;
  - km natural gas network /100 sq. km surface: 4.81 compared with 9.06 at national level;

## **2.5 Educational and health infrastructure**

### **2.5.1. Educational infrastructure**

The essential factor for developing a national economy or a region, it is strongly represented by human capital. Although it is difficult to quantify and represent a controversial concept, human capital can include human resource with a particular level of education.

Number of scholar units on education levels from NER

Number of scholar units	Absolute value in school year 1998/1999		Increase rate in school year 1999/2000		Increase rate in school year 2000/2001		Increase rate in school year 2001/2002
	Romania	NER	Romania	NER	Romania	NER	NER
Kindergarten	12,760	2,512	0.56	0.8	-21.44	-43.92	0.63
Elementary schools (primary and middle)	13,795	2,777	-4.65	-2.52	-3.38	-5.02	-1.4
High school	1,315	173	1.9	1.16	2.01	6.86	1.07
Trades and apprentices school	800	115	-87.88	-76.52	-4.12	3.7	0
Post-High school	461	78	-81.13	-79.49	19.54	-6.25	13.33
Masters school	167	14	-	-	-	-	-
<b>Total</b>	<b>29,298</b>	<b>5,669</b>					

Source: Romania's Statistic Yearbook 1999, 2000, 2001, 2002

It can be seen that the number of educational units from the region represents 19,35% from the total educational units number at national level. This aspect confirms that the region has the biggest surface and population from these 8 regions for development.

About kindergartens, elementary schools and high schools, in the region there is the same trend with the national trend and approximately with the same rate (exception is the school year 2000/2001 for kindergartens, where the decrement was double comparison with national level, and for high schools the region growth was three times higher). The region had registered contrary trends in comparison with national level in the school year 2000/2001, for professional and post-high schools.

School population from region at all education's level in comparison with Romania

Number of pupils enlist in school on category educational units	Absolute value in school year 1998/1999		Increase rate in school year 1999/2000		Increase rate in school year 2000/2001		Increase rate in school year 2001/2002
	Romania	NER	Romania	NER	Romania	NER	NER
Kindergarten	624,778	118,760	-1.35	0.68	-0.86	-1.96	2.5
Elementary schools (primary and middle)	2,556,930	480,040	-2.3	-1.31	-3.47	-2.26	-4.5

<b>High school</b>	718,017	105,718	-3.29	-1.7	-0.93	-0.69	3.93
<b>Trades and apprentices school</b>	227,585	45,985	-2.35	-2.47	7.79	6.17	-33.84
<b>Post-High school</b>	82,802	14,268	1.76	2.89	-13.21	-21.17	-15.73
<b>Masters school</b>	13,332	1,602	-21.66	-28.96	-13.94	-41.65	-28.31
<b>Total</b>	4,223,444	766,373					

*Source: Romania's Statistic Yearbook 1999, 2000, 2001, 2002*

The NE Region has 18,14% in total pupils at national level, situation explained because the region is the biggest in the country as surface, number of people, school people and the biggest fertility rate, which is 51.6, in comparison with the next one, with 41.1 and the national average, which is 40.3. The evolution of pupils' number on units of education category has the same trend as the national level.

A comparison situation of educational units number (kindergartens, elementary schools, high schools, trades and apprentices schools, post-high school and masters schools) at national and regional level can be observed in the following table:

Territorial unit	Number of educational units for school year 2000/2001					
	Kindergartens	Elementary schools	High schools	Trades and apprentices schools	Post-high school	Masters schools
<b>North-East</b>	1,420	2,571	187	28	15	1
<b>South-East</b>	1,375	1,450	180	10	20	1
<b>South</b>	1,780	1,965	176	10	9	-
<b>South-West</b>	1,361	1,610	149	6	13	-
<b>West</b>	944	1,239	150	7	8	-
<b>North- West</b>	1,278	1,943	199	17	16	-
<b>Centre</b>	1,627	1,629	208	10	14	-
<b>Bucharest</b>	295	302	118	5	9	-
<b>Romania</b>	<b>10,080</b>	<b>12,709</b>	<b>1,367</b>	<b>93</b>	<b>104</b>	<b>2</b>

*Source: Romania's Statistic Yearbook 2001*

Comparison with other regions, in school year 2000/2001, NE Region has the biggest number of elementary schools, trades and apprentices schools, and for other types of educational units the region situate in a middle level.

The NE Region has the biggest number of pupils enlisted in educational units in school year 2000/2001, with the exception of schools of masters.

Region	Number of pupils enlisted in educational units for school year 2000/2001					
	Kindergartens	Elementary schools	High schools	Trades and apprentices schools	Post-high school	Masters schools
<b>North-East</b>	117,226	463,045	103,206	47,615	11,573	664
<b>South-East</b>	76,197	321,973	87,884	31,330	8,088	1,166
<b>South</b>	85,403	367,548	93,887	33,271	9,327	1,868
<b>South-West</b>	67,392	255,777	77,649	23,312	7,586	1,451
<b>West</b>	54,286	213,309	61,669	20,442	7,185	733
<b>North- West</b>	90,210	310,353	90,501	31,629	11,065	854

<b>Centre</b>	83,107	278,961	83,487	29,706	10,759	1,383
<b>Bucharest</b>	37,215	200,539	89,606	22,245	7,546	869
<b>Romania</b>	<b>611,036</b>	<b>2,411,505</b>	<b>687,919</b>	<b>239,550</b>	<b>73,129</b>	<b>8,988</b>

*Source: Romania's Statistic Yearbook 2001*

County/Region	Kindergartens	Elementary schools	High schools	Trades and apprentices schools	Post-high school	Masters schools
		Primary and middle				
Bacău	89	538	32	8	2	1
Botoşani	357	373	27	1	2	-
Iaşi	456	479	44	5	6	-
Neamţ	81	374	30	7	3	-
Suceava	65	383	37	3	1	-
Vaslui	372	424	17	4	1	-
<b>North-East</b>	1,420	2,571	187	28	15	1
<b>ROMÂNIA</b>	10,080	12,709	1,367	93	104	3
%	14.08	20.23	13.68	30.10	14.42	33.33

*Source: Romania's Statistic Yearbook 2001*

At county level, the first three counties that have about 60% from the total number of schools in the region are the following three university centres: Bacau, Suceava and Iasi, with 21%, 18% and 18%, situation explained because the concentration of students in these university centres, but also these counties have the biggest school population comparison with the other three counties in the region.

The NE Region have all kind of education forms, the number of pupils enlist in pre-university education in school year 2000/2001 in NE Region is 808,275 pupils, approximate 20% in all region population, and in the university education from these three university centre learn 64,496 students. If we discuss about the educational infrastructure property form at NER level, we can say that private education is very low developed, especially at the pre-university level.

For a better image about school population from NER, we will present in the following table the pupils/students number enlisted in NER in school year 1999/2000, according with Statistic Yearbook 2001:

***School population from all levels education, in the school year 2000/2001 in NER***

County/Region	Pre-university	Elementary			High school	Trades and Apprentices	Post-high school and Masters	Superior	Total
		Primary	Middle	Special					
Bacău	23,546	41,628	47,279	778	20,242	8,711	2,775	6,595	151,554
Botoşani	14,727	25,309	30,566	979	12,180	4,873	1,254	375	90,263
Iaşi	23,428	44,621	55,441	1,605	23,903	11,097	3,779	50,376	214,250
Neamţ	15,820	30,790	35,957	777	15,891	8,218	1,648	316	109,417
Suceava	24,722	41,113	45,601	1,721	18,540	8,386	2,425	71,84	149,692
Vaslui	14,983	26,027	32,015	838	12,450	6,330	356	100	93,099
<b>North-East</b>	117226	209488	246859	6698	103206	47615	12237	64946	808275
<b>ROMÂNIA</b>	611036	1077251	1299449	34805	687919	239550	82117	533152	4565279
%	19.18	19.44	19.00	19.24	15.00	19.87	15.00	12.18	17.70

*Source: Romania's Statistic Yearbook 2001*

This data demonstrate that exist an educational tradition in region and a continue preoccupation for education the future generation even if in present the educational infrastructure has some problems and the most important are: absence of adequate spaces for education process, absence of the endowments, which are connected with the labour force market changes, absence of cooperation with industrial environment and what is very important – the non-correlation between the education process and the demands of labour force market, exactly the absence of human resource training strategies in the region.

After 1989 recorded a growth of the demands for the following profiles: economic, medical-pharmacy, judicial and in this time the technical and professional education recorded a fall like all Romanian industry couldn't organize and keep track on labour force market demands although was introduced new jobs or specialization forms in areas like information technology, biochemical engineering, environment engineering, agro-mountain science, tourism, marketing and management, civil engineering, etc, with possibility for some profiles to be study in a international language like English or France.

Although the region have an experience personal in the education and training of the human resources and with a good potential in number of enlisted persons in different educational forms, another problem for NER is the young people migration in more developed regions or in other countries, because the jobs demand in region is very low in some areas comparison with other regions where is a better offer and payment for the same activities.

Unfortunately, we don't have statistics data about the number of classrooms from the schools in NER to make a comparison between our region and other regions about the pupils number that study in a classroom.

Comparison situation of libraries on region

Region	Number of libraries						
	1998	1999		2000		2001	
		Total	Variation comparing with precedent year	Total	Variation comparing with precedent year	Total	Variation comparing with precedent year
North-East	2,700	2,688	-0.44	2,661	-1.00	2,590	-2.67
South-East	1,616	1,623	0.43	1,578	-2.77		
South	2,269	2,266	-0.13	2,219	-2.07		
South-West	1,539	1,493	-2.99	1,460	-2.21		
West	1,303	1,296	-0.54	1,225	-5.48		
North- West	2,064	2,033	-1.50	2,021	-0.59		
Centre	1,890	1,900	0.53	1,806	-4.95		
Bucharest	440	486	10.45	452	-7.00		
<b>Romania</b>	<b>13,821</b>	<b>13,785</b>	<b>-0.26</b>	<b>13,422</b>	<b>-2.63</b>		

Source: Romania's Statistic Yearbook 2001

In 2001, the number of the libraries, in NE Region was 2,590, falling with 2,67% in comparison with precedent year. We can observe that the trend in 2000/1999 was decreasing at national level and for every region, but the decreasing rate in NER was lower than the other regions.

The more libraries at NER level are localized also in the same three university centres, but this thing is absolutely normal if we take in account the population at these counties, but especially the students concentration from the region or of the students from other regions, which are interested in these university centres for training and education.

About the number of libraries in NER, it can be said that is a satisfactory number, but the problem in this area is like in education sector, the bad situation of some buildings and the precarious endowment with IT systems, which can make easier the work in this area.

## 2.5.2 Health infrastructure

The system of health protection is described by the difficult transition from the centralized system and limited opinions' freedom for the local autonomy, privatisation and competition. The reform in the last years tried to fundamentally change the health system in order to rebuild unitary the legislation and organization, to introduce the Health Social Insurances and to diversify the financial resources mechanism in the same time with the transfer of health services towards mobile assistance.

It was pursued the privatisation encouragement in different ways, the introduction of the competition between providers and the decentralization of the health system by the increasing of the local authorities involvement, of the professional associations, of financing institutions, of the communities, etc.

The hospitals financing is made about 90% using services contracts between hospitals' administration and Health Insurance County Office of each county. On the base of Governmental Ordinance no. 124/1999 it was achieved the privatisation of primary medical assistance in 100% in both urban and rural environment, as well as 70% for the ambulatory assistance.

The actual health infrastructure is presented in the following tables.

At national level North - East Region is on the first place with the number of sanitary units (hospitals, clinics, tuberculosis sanatoriums, pharmacies. etc), exceeding with 28% the country average (319 sanitary units/region). This statistic refers only to sanitary units in public property. In present, in the North-East Region, as in the entire country, there are private medical units, but their number is pretty small (except the pharmacies and medical offices).

This looks good, but as the education infrastructure as well, there is a precarious estate in the health system like some hospitals that are about to not receive the function authorization. The technical endowments are obsolescence and out of time. These observances are valid for the public sanitary service infrastructure, especially for all the hospitals in the region that hardly survive without modernizing, endowments at European standards.

The best position for this domain, in the North - East Region has Iasi County, the big number of medical units diversified on specializations (neuro-surgery, infectious diseases, emergencies, psychiatry, etc), because of the numerous population in this county and of the fact that Iasi is an university town. In Iasi there is also functioning a university hospital and different research centres for this domain.

The number of medical units in public property in year 2000

County/ Region	Hospitals	Clinics	Medical offices	Health centres	Tuberculosis Sanatoria	Balneo- sanatoria	Prophyl actic	Nursery
<b>Bacau</b>	8	3	23	1	0	1	0	13
<b>Botosani</b>	10	0	21	3	1	0	1	1
<b>Iasi</b>	22	4	2	3	0	0	2	13
<b>Neamt</b>	5	2	16	2	1	0	0	14
<b>Suceava</b>	9	2	35	4	0	0	1	3
<b>Vaslui</b>	9	1	30	1	0	0	0	4
<b>North-East</b>	63	12	127	14	2	1	4	48
<b>TOTAL</b>	436	90	908	91	91	14	11	358
<b>%</b>	14.35	13.33	13.98	15.39	2.20	7.14	36.36	13.40

*Source: Romania's Statistic Yearbook 2001*

The Northeast region has 14.35% from the entire medical units in the public property. At the county level, most of the medical units are in Iasi, Bacau and Vaslui.

The evolution of sanitary unites in public property

Sanitary unites	Absolute values in 1998		Increase rate in 1999		Increase rate in 2000		Increase Rate in 2001
	Romania	North-East region	Romania	North-East region	Romania	North-East region	North-East region
<b>Hospitals</b>	414	61	2.66	3.28	3.29	0.00	0.00
<b>Clinics</b>	478	63	-36.61	-31.75	-70.29	-72.09	-25.00
<b>Medical dispensaries</b>	4945	774	-75.05	-72.22	-26.72	-40.93	-59.84
<b>Health centres</b>	94	14	-5.32	0.00	2.25	0.00	0.00
<b>Tuberculoses sanatoria</b>	13	2	7.69	0.00	0.00	0.00	0.00
<b>Prophylactic</b>	14	4	-7.14	0.00	-15.38	0.00	0.00
<b>Nurseries</b>	425	52	-8.71	-5.77	-7.73	-2.04	0.00

Source: Romania's Statistic Yearbooks 1999 - 2001

In the region the number of clinics decreased during the period 1998-2001, with a rhythm almost identical as the national number of clinics. The bad thing is that the number of medical offices is decreasing with a higher rate year after year. There is no variation for the other type of units. The North - East Region was placed within the first regions in the country, at the end of the year 2000, for number of hospital beds and doctors. In the period 1998-2000 there is an opposite evolution towards the national trend.

At region level there is a continuous decrease of the number of beds in hospitals, while the number of doctors, pharmacists and medium qualified staff is registering an increasing rate.

	Absolute values in 1998		Increase rate in 1999		Increase rate in 2000	
	Romania	North-East Region	Romania	North-East Region	Romania	North-East Region
<b>Number of hospital beds</b>	164,526	26,535	-0.22	-0.35	1.62	-1.83
<b>Number of doctors</b>	41,310	5,750	4.03	2.56	-1.41	4.99
<b>Dentists</b>	5,367	861	-1.89	-2.09	-5.58	-3.91
<b>Pharmacists</b>	1,642	245	-2.68	-1.63	-0.63	8.71
<b>Medium qualified staff</b>	117,719	18,858	-3.14	-17.73	-3.37	14.18

Source: Romania's Statistic Yearbook 2001

Number of beds and doctors in hospitals at December 31<sup>st</sup>, 2000

County / Region	Beds in hospitals	Doctors
<b>Bacau</b>	3,790	875
<b>Botosani</b>	3,614	557
<b>Iasi</b>	8,137	2,779
<b>Neamt</b>	3,150	716
<b>Suceava</b>	4,112	811
<b>Vaslui</b>	3,148	453
<b>North-East</b>	25,951	6,191
<b>Romania</b>	166,817	42,371
<b>%</b>	15.55	14.61

*Source: Romania's Statistic Yearbook 2001*

At county level, Iassy County exceeds the average of the region, the values of these two indicators are the double and sometimes the triple of the other counties (Vaslui, Botosani).

## 2.6 Social services

The social services from the North - East development region are strongly affected by the dominant characteristics of the transition period, but is important that here is the biggest population comparative with the other regions and it also has the lowest GDP per capita.

First, the demand for these services had grown more and more in the latest years, because of massive deprivations in the economy, but also because of the incapacity of the economical agents to absorb the young labour force. Second, the big demand is due to the high level of population's poverty, especially in the case of some under-privileged social category like: the elderly people, the people with chronic diseases or different handicaps. A consequence of this poverty level is the increasing of the number of cases when parents give their children to the social centres in the region. These children need complex and very expensive social assistance.

On the other hand the social service offering is extremely low at North - East development region level due to the general poverty of local budgets that are contributing for some years to finance these services. There are also numerous NGOs that are involved in social activities, especially in the area of children and elderly people protection. In this way, there are orphanages and asylums financed by religious organisations.

The counties with the worse situation are Botosani and Vaslui and they are on the first place at unemployment rate and population's poverty level.

Medical units	Absolute values in 1998		Increase rate in 1999		Increase rate in 2000		Increase rate in 2001
	Romania	North-East Region	Romania	North-East Region	Romania	North-East Region	North-East Region
Expenses for social protection of the unemployed people (millions ROL)	5,332,475	921,373	55.47	42.38	12.58	-8.28	9.00
Number of social canteens	154	29	-8.41	0.00	25.53	6.90	

*Source: Romania's Statistic Yearbook 1999 - 2001*

In 2001, the number of social canteens in the region is 31 units, representing 16.20 of the total units existing at the national level. The provided capacity by those units is 10,696 inhabitants, representing 22.80% of the total capacity existed at the national level.

Social protection expenses in North-East Region have registered a contradictory evolution comparative with the national level. If in the years 1999 and 2001 the expenses have increased, in the year 2000 they have decreased although at national level they have increased. The good thing is that the number of social canteens in the region has increased.

The distribution on each county of the expenses for social protection is shown below:

Expenses for unemployment social service:

County/Region	Total expenses for employment social protection (millions ROL)	The balance of social protection expenses on each county, within the region (%)
Bacău	305,235	23.30
Botoşani	144,216	11.00

<b>Iași</b>	216,681	16.50
<b>Neamț</b>	237,893	18.10
<b>Suceava</b>	195,644	14.90
<b>Vaslui</b>	211,875	16.20
Nord-Est	1,311,544	100.00
Romania	9,404,370	
%	13.90	

**Source: Romania's Statistic Yearbook 2001**

Although Vaslui and Botosani have the biggest poverty level, the social expenses were the smaller in 2000, in comparison with the other counties in the region. Although Bacau County is more developed, with the lowest unemployment rate, it had the higher level of social expenses.

Another part of the social services is the social canteens, which function in every county of the region. They have daily free meals for the poor people, for those who have no subsistence income, also with no home.

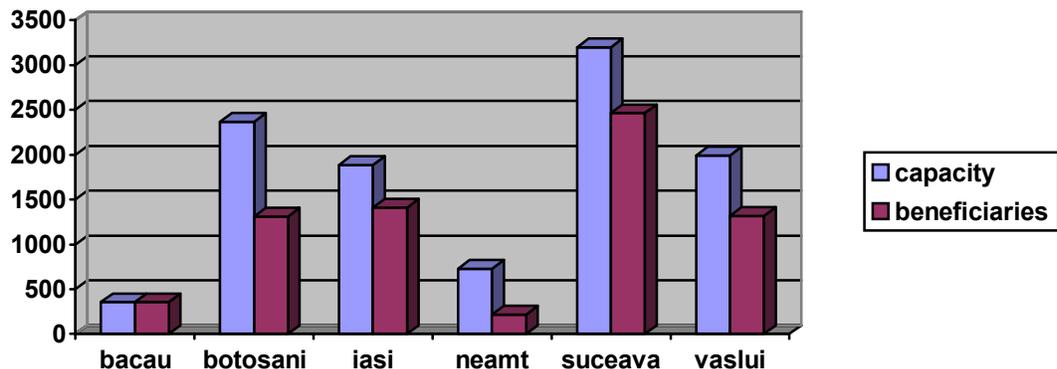
At the North-East Region the situation is as it follows:

Number of social eating-houses in year 2000

County/Region	Number of canteens	Capacity (places)	No. of beneficiaries
Bacau	3	1,226	920
Botoșani	7	275	1,070
Iași	5	2,938	1,620
Neamț	5	697	624
Suceava	7	3,260	2,423
Vaslui	4	2,300	1,221
Northeast	31	10,696	7,878
Romania	177	46,860	37,083
%	16,20	22,80	21,20

**Source: Romania's Statistic Yearbook 2001**

At county level, the highest percent of the beneficiaries was registered in Suceava (34.80%).



The capacity and the number of beneficiaries at County level

## 2.7 Research and development, technological transfer and IT infrastructure

Science, technology and innovation are strategic fields that provide the technological progress of a country and, as a consequence, development sustainability and economic competitiveness.

In North East Region, the level of performance of the R&D and innovation system is dependent on the characteristics of the transition from a centralised economy towards a market-oriented economy. The main general characteristics of the research-development-innovation sector are:

- financing the sector up to 80% from the state budget, the funds being enough to ensure only its survival;
  - a continuous migration of the specialists in this sector to other sectors or even to other countries;
  - research activities are often carried out without coordination between academic environment, research institutes and economic environment; 87% of RDI activities being carried out in research institutes and only 13% in business companies;
  - the efficiency of RDI activities is very low, as only 12% of their results are implemented in industry;
  - innovation and technological transfer are in an early stage because of the lack of infrastructure for dissemination, transfer and valorisation of the RDI results;
  - decrease of the funds allocated every year for the sector;
  - low interest of the economical-industrial operators in what concerns the achievements of RDI, attitude due to the insufficiency of financial resources;
- Lack of communication between parties and therefore of partnerships to allow the development of the sector.
- Weak development of transport and utilities infrastructure makes the region unattractive for possible inward investors.

NE region is on the last position against the other regions of the country because of the lack of interest showed by economical agents in the region for RDI, TT and IT, the lack of financial resources allocated for these fields and, perhaps, because of the dynamism and complexity of these activities.

But, the dynamism and complexity of this new field based on large scale use of innovation results, technological transfer, fast and modern communication, information processing methods diversity, it's what lead to a new type of society, known as "informational society". The technological background of this new concept of informational society is based on three elements: communication technology, information technology and multimedia production area for informational content. The interference of these components brought out new services and applications (mobile phone networks, computer networks such as Intranet and Internet, etc.).

Thus, RDI, TT and IT are economic sectors that provide support for the development of other sectors, open new horizons for the increase of competitiveness of the economical agents and last but not least, help the improvement of employment.

Considering that the North-East Region has an unexploited human resource potential and, on the other hand, few big cities – county capitals – have an infrastructure starting base (airports, universities, utilities, available spaces), we can estimate that, through specific measures of intervention, the RDI, TT, IT sectors in the region will record a re-launch and development through specific investments that will have a great impact on general economical development of the NER.

The main directions in RDI development are:

- Elaborating, launching, financing and monitoring of national programs for research-development and innovation;
- Creating and developing a stimulating framework for RDI activities, according to EU principles, criteria and procedures;

- EU integration and the integration of research-development field in EU and international circuit.

In present, many RDI programs are developing at national level, from which we recall:

- The National Plan For Development- Research And Innovation whose first purpose is creating new development and innovation sources for economy and society, answering some concrete orders or international integration requirements of science-technology system from Romania and leading to generation of direct economical effects on short or medium term.

- The National Programme of Development-Research “Horizon 2000”-whose purpose consists in supporting and development of the existent research-development potential, for the development research in domains and directions of general interest and/or strategic importance for economy and society

- The Grant Programme for Scientific Research whose purpose consists in the widening of the existent scientific patrimony through stimulation of research on excellence and, also, developing the human potential for and through research.

Several measures were taken, at national and regional level, for creating and developing new institutional structures in RDI field.

The main activities initiated, in full deployment now, concerning this aspect are:

- The establishment of national institutes of research & development and strategic branches of national economy and public interest domains following the effects of the evaluation on the methodology approved by the Government Decision no. 135/1996;
- In major educational institutes activities of development-research, design, consultancy, or expertise are organized, within departments, desks or own unities of scientific research, including also collaboration with educational and research institutes from the country or from abroad;
- Supporting the development of “excellence centres” - nuclear and research networks whose activity should reach a quality level approved on European/international level (in conformity with the international standards in the field) through the RELANSIN programme in the framework of the national plan for development research and innovation. The action was started on the basis of competition at the end of the year 2000;
- The development of innovation infrastructure through the RELANSIN programme from the National Plan which pursues the creation and/or development of technological/scientific parks, innovation and business centres (BIC/TIC), technological transfer centres, technological information centres, centres of human resources development in RDI field, offices of relation with industry, others (centres for public utility services in the environmental fields or health care domains, etc.)

At present, in North-East region, there are a few Research-Development Institutes and some companies, which carry out a Development-Research activity.

The infrastructure of scientific research, technological development and innovation in NE region

<b>Territorial unit</b>	<b>Number of institutes</b>	<b>(%)</b>	<b>RD Institutes</b>	<b>Tertiary education institutions</b>	<b>Medical units</b>	<b>Agriculture research units</b>	<b>Companies</b>
<b>North-Romania</b>	<b>70</b>	<b>11,0</b>	<b>16</b>	<b>13</b>	<b>-</b>	<b>17</b>	<b>24</b>
	601	100,0	272	52	10	87	180

Source: Romanian Statistic Yearbook, 2001

There are 70 researches – development units in the region representing 11% of the total number at national level. It can be noticed that those created in tertiary education units represents a quarter of those created at national level.

From these 70 units we enumerate:

Institutes:

- The National Institute of Research & Development For Technical Physics - IFT Iasi;
- The National Institute of Inventions Iasi
- Suceava Institute for Research and Forest Arrangements, Cîmpulung Moldovenesc
- Genetic Vegetal Resources Bank, Suceava
- Tree Research and Production Unit, Fălticeni, Suceava

Companies (also into research):

- S.C. Aerostar S.A., Bacău;
- S.C. Caom S.A., Pașcani;
- S.C. Impex Romcatel S.A., Iași;
- Tehno – Util, Suceava;
- Tehnoton, Iași;
- Ceproplast –Centre for research, design, production, engineering plastic material, Iasi

Thus, in the university of Bacau 4 such centers are focused on the following fields: technological and managerial engineering, chemistry and engineering of natural and synthesis products and of environmental protection, protection and well good of biological resources, mechanical engineering.

Concerning the technological transfer, this was mostly achieved in North-East region by the privatisation of the enterprises and being purchased by the private foreigner companies that brought new production technologies, thus obtaining products of higher quality at reasonable prices and with an increasing productivity. However, this modality had applicability in only few enterprises due to lack of attractiveness of most of them. The insufficient technological development is a major constraint for enterprises, particularly for SME's, which don't have enough financial resources for the innovation process.

A positive thing for NER in RDI field is the deployment of PARTNER Thematic Network program, with the purpose of supporting the regions with regional innovation strategy projects. Through this project, in which RDA is a partner, the following results are to be obtained:

- methodological support for regions of the candidate countries, which design regional innovation strategy projects;
- exchange of information, experience and good practice;
- increasing of awareness on the importance of regional innovation strategies;
- cooperation bonds between Member States of the EU, Candidate Countries, Newly Independent States and Mediterranean Regions

this project is located in regions of member states in EU and of candidate states. RDA North-East is a member of this network and will participate according to the projects and activities included in the Regional Innovation Strategy of each new associated countries, each project being developed considering the specific issues of every state.

In the same area of innovative development, but also as regards the academic cooperation with industrial environment, the N-E Regional Development Agency is partner in another programme. It is called SAIL (Strengthening Academic and Industrial Links) Network and its objective is to facilitate the exchange of knowledge and experience at transnational level concerning academic and industrial cooperation between regions and it is located in Development Regions from the following states: Germany, Crete, Island, Spain, Great Britain, Sweden, Romania, Northern Ireland, Cyprus, Poland, Israel.

Through this program, at the NE region level, these results are to be achieved:

- promotion of innovative development, providing information regarding the opportunities for enhancing transnational partnership, developing experience exchange activities, including the exchange of personnel, study visits;

-including industrial and academic cooperation on the political agenda of the regions in the network;

-dissemination of the information through a web site, a newsletter and two conferences.

Development of the informational side, in the Romanian society of transition, represents a basic element for the modernization and efficiency of each activity field. In the North-East development region, the last years have brought a very good development of the informational society, through the improvement of communication network and the increasing of number of companies who offer informational services.

This development had, in the last time, a development rate higher then in any other branches.

Thus, an increase has been noticed in the number of companies, hardware and software suppliers as well as data base processors.

In Iasi county, such companies are as follows:

- Hardware and IT consultancy suppliers: Quartz Matrix, RTD, Radix, Flamingo, Computer House, Infoservice, Autotehnic, Sercom, Q-net, Omega;
- Software and IT consultancy suppliers: Matrix, RTD, Radix, Quartz, Avicena, TH Invest;
- Data base processors: Matrix, TGH Investment.

The companies from **Botosani county**, that are hardware and software providers, are: S.C. Petar Computers, Sierra Computers, Elsaco, Quattro, Complay. There's also a data base processor, called Informational Services Company.

In **Suceava county**, Assist, Warpnet, Asieta, Mics, Dotnet are hardware providers and Assist, Warpnet Iiruc and Information Processing Centre are data and databases processors.

As a general rule, these firms are Internet and e-mail providers. Besides these companies, a remarkable progress has been established by Connex through X-net service, which offers their clients free Internet access through satellite Satellite-intermediated networks offer higher quality and information transfer rate than cable networks.

Cable television recorded a significant development in the last years with the appearance of numerous companies that provide this service. Some are: Somax TV Botosani, TVS Saveni (Botosani county); Telemach and Tele M Sat (Neamt county); M-Bit, RCS, Telecablu (Iasi county); Agapia and Megaconstruct (Suceava county).

### 3. POPULATION, HUMAN RESOURCES AND LABOUR MARKET

#### 3.1 Population and human resources evolution

In January 1st 1998, total population of North-East region was 3,785,530 inhabitants, representing 16.7% of total country population, reaching, by July 1st 2001, 3,836,835 inhabitants. From this point of view, North-East is rated first in the country.

The population of the region is concentrated in 32 urban centres, and 463 communes. The percentage of urban population against the total is 43.5%, which is below the national average, whilst the rural population is 56.5%. Here is the comparative situation between the regions:

Region	Romania	1 – NE	2 - SE	3 - S	4 - SW	5 - W	6 - NW	7 - Centre	8 - Bucharest
Urban (%)	54,6	43,5	56,8	41,6	45,3	62,2	52,6	60,3	88,8
Rural (%)	45,4	56,5	43,2	58,4	54,7	37,8	47,4	39,7	11,2

Source: Romania Statistic Yearbook, 2002

#### Evolution of population, on gender and residence

Population, on gender and residence (persons)					(Population increase ratio)		
Indicator	1998	1999	2000	2001	1999/1998	2000/1999	2001/2000
Romania	22502803	22458022	22435205	22408393	-0,19	-0,10	-0.12
Urban, of which:	12347886	12302729	12244598	12243748	-0,36	-0,47	-0.01
Women	6376752	6359021	6336750	6340211	-0,27	-0,35	0.05
Rural, of which:	10154917	10155293	10190607	10164645	0,003	0,34	-0.25
Women	5113941	5114472	5129601	5118692	0,01	0,29	-0.21
NE Region	3801874	3813123	3823492	3835638	0,29	0,27	0.32
Urban, of which:	1677767	1672419	1663685	1665702	-0,31	-0,52	0.12
Women	861893	859395	855697	856969	-0,28	-0,43	0.15

Rural, of which:	2124107	2140704	2159807	2169936	0,78	0,89	0.47
Women	1058510	1066479	1075191	1080525	0,75	0,81	0.50

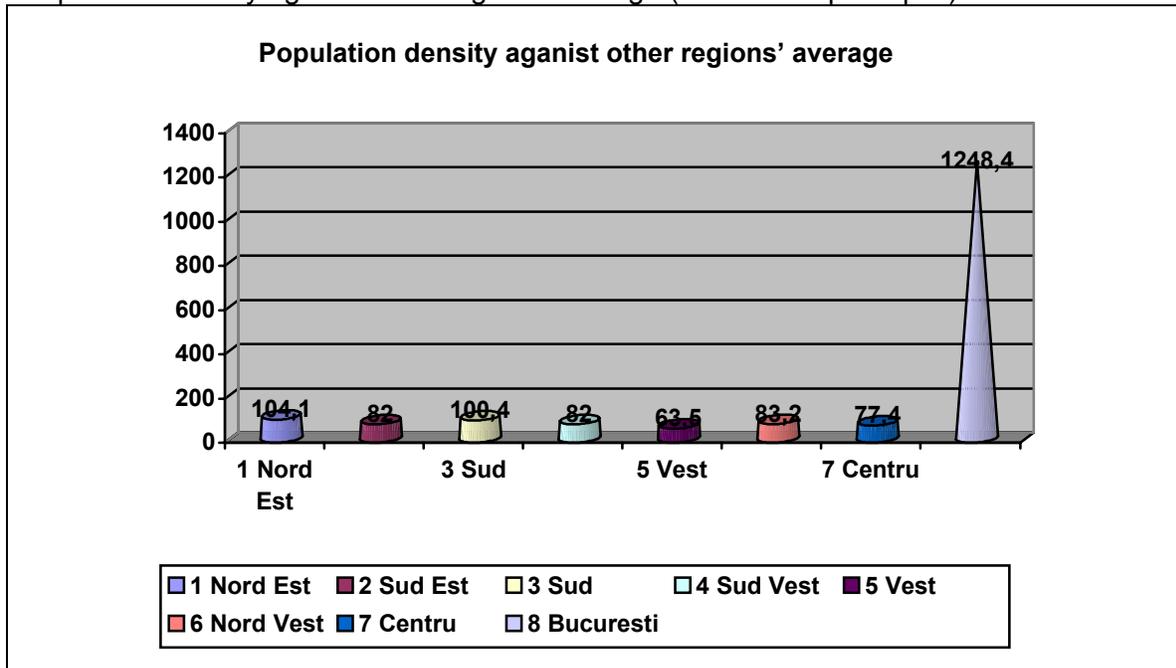
Source: Romanian Statistic Yearbook, 1998-2002

The data presented in the table above show a decrease of the total population at national level, during the period 1998-2001, as well as the decrease of the urban population. The main reasons are both the decrease of the number of population and the migration towards the rural environment.

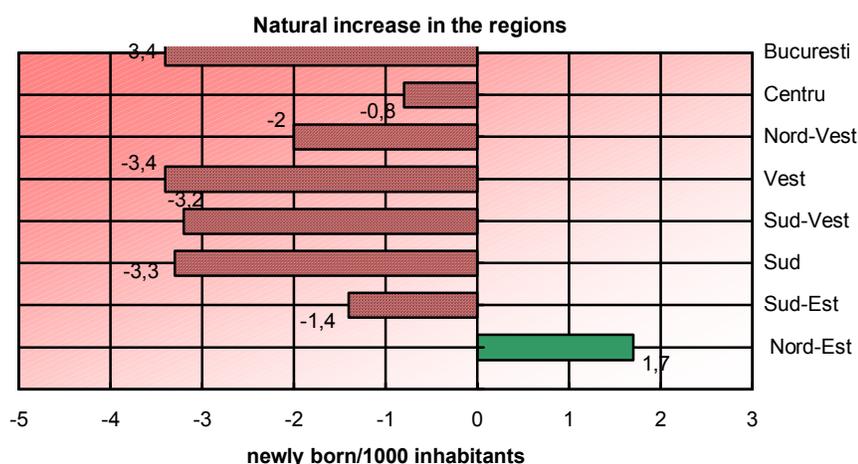
At regional level, one can notice an increase in the number of population, during 1998-2001. The evolution at urban-rural level is surprising, though. During the period 1998-2000, a decrease of the urban population has been recorded, whilst the year 2001 is the milestone for its increase. As regards the evolution of the women, the trend follows the same direction as the trend of the rural population. The urban population is concentrated in the most developed urban centres. The migration of the population from urban areas towards rural appears as a necessity for a part of the population to ensure subsistence conditions, while massive redundancies have been made in the industrial sector (mainly located in the urban areas), correlated with the putting into practice of the law on restoring the property over agricultural land.

The region has an average population density of 756.4 inhabitants per sqkm in urban areas and 61.8 inhabitants per sqkm in rural areas, with an average of 104.1 inhabitants per sqkm. These figures place the region above the country average (94.0 inhabitants per sqkm).

Population density against other regions' average (inhabitants per sqkm)



The natural increase in the North-East Region is 1.7 / 1000 inhabitants, being the only region that records an increase.



Source: Romania Statistic Yearbook, 2002

However, the rate of infant mortality in our region is the highest in the country, reaching 22.8 infant deaths per 1000 inhabitants, while the national average is 18.4. This could be explained by the high level of poverty, especially in rural areas, and by the insufficient education regarding health, minimum hygiene conditions etc.

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, 48.6% out of total population are men and 51.4% women. Of the total amount, the weight of young population between 15 and 34 years old is representative (33.56%), but also noticeable is a high percentage of the aged population, 65 years old and more, the latter being scored by 13.04% of the total population.

#### Structure of population on age groups (%) – population at July 1<sup>st</sup> 2001

Territorial unit	Population total	Age groups				
		0-14 Years	15-34 years	35-49 years	50-64 years	Over 65 years
<b>Region total</b>	100.0	20.56	33.50	18.00	14.90	13.04
<b>Romania</b>	100.0	18.27	32.37	19.93	16.12	12.50

Source: Romanian Statistical Yearbook, 2002

According to Human Development National Report, 1998, North-East region is above the national average as regards life expectancy and literacy level (the percentage of persons over 15 years having attended or graduated the school or knowing to read and write without graduating, against the total population over 15 years), and 3.4% below as regards gross educational inclusion ratio (percentage of pupils enlisted in an education form, belonging or not to the age group appropriate for that level, against the total population from that age group). According to human development index, North-East region holds the last position in Romania:

Territorial unit	Life expectancy at birth (years) 1997-	Level of literacy of adult population % 1999	Gross educational ratio 1999/2000	Human Development Index (HDI) 1999

	1999			
ROMÂNIA	69,7	97,1	64,9	0,759
1- NORTH-EAST REGION	70,1	97,0	61,5	0,738
2 – SOUTH-EAST REGION	69,6	97,0	60,8	0,752
3 – SOUTH REGION	69,6	95,2	59,8	0,740
4 – SOUTH-WEST REGION	69,6	95,7	63,6	0,748
5 – WEST REGION	69,2	97,8	68,8	0,763
6 – NORTH-WEST REGION	68,7	97,3	65,7	0,747
7 – CENTER REGION	70,1	98,5	62,9	0,762
8 – BUCHAREST REGION	71,5	98,9	84,7	0,831

Source: Human Development National Report, 1999

In order to provide a complete image of the region in terms of population and human resources, we analysed the substitution ratio between population within age groups 15-24 and 55-65 years, displayed as follows:

Territorial unit	Population within age group		Substitution ratio Column 2 / column 3 x 100
	15 –24 years	55 – 65 years	
<b>Total Region</b>	655645	367581	<b>178,4</b>
<b>Romania</b>	3680716	2355066	<b>156.3</b>

Source: Romanian Statistical Yearbook, 2001

The substitution ratio level shows that the population of the region is young but also shows that, unless adequate employment policies are applied, the unemployment rate would reach a significantly higher level.

Substitution ratio	Measure unit	1998	1999	2000
Romania	%	156,14	156,29	156,3
NE Region	%	171,78	173,4	178,4

Source: Romanian Statistical Yearbook, 1999-2001

In North-East Region, the population pressure on labour market is above the national average and it is also increasing, compared to the national figures, which show a constant trend.

The medium life duration is 67.77 for men and 74.81 years for women, figures that are close to the national average.

As concerns 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% Romas, 0.1% Lippovan-Russians, and 0.6% other nationalities.

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%.

### 3.2 Structural Analysis on labour market and employment opportunities

#### Labour force structure

At the end of 2001, the active employed population of the region was 1.401.800 persons, representing 36.5% out of total regional population and 16.4% of total national active population.

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.

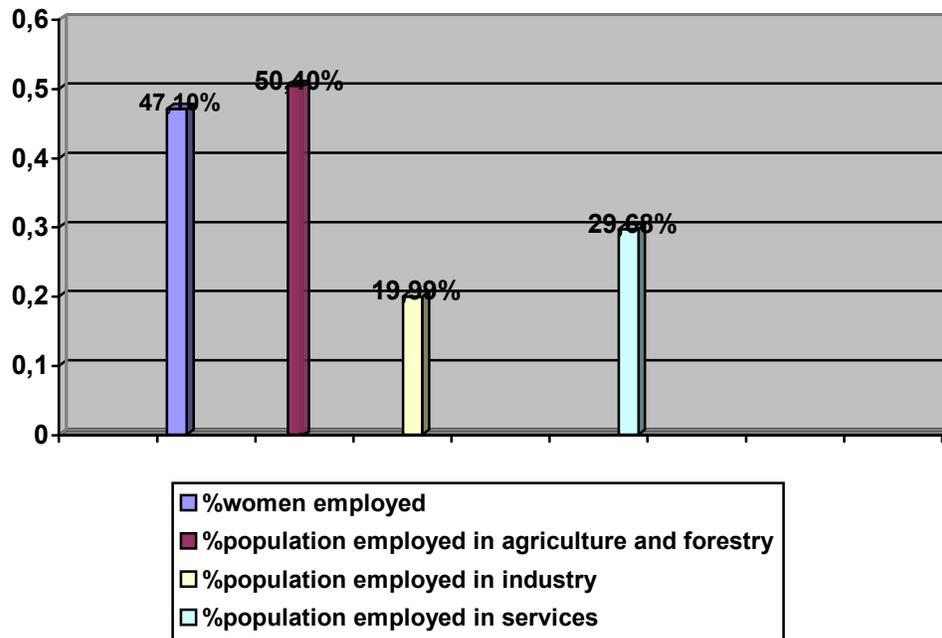
Employed population increase ratio during 1998-2001, on key-sectors

Employed population increase ratio	1998 (thou persons)	1999/ 1998 (%)	2000/1999 (%)	2001/ 2000 (%)
<b>Romania</b>	8812,6	-4,46	2,49	-0,80
<b>Region</b>	1406,1	-1,62	1,86	-0,52
<b>Total Industry RNE</b>	307,9	-7,53	-5,27	3,89
<b>Total Agriculture RNE</b>	667,3	4,44	1,92	-3,39
<b>Total Constructions RNE</b>	48,8	-12,29	9,81	-6,38
<b>Total Services RNE</b>	382,1	-6,05	-20,45	-0,76

Source: Romanian Statistical Yearbook, 1999-2002

At regional level a decrease of the employed population is noticed; exception is the year 2000. The decrease of the employed population in agriculture can be interpreted as a positive aspect, as they orientation of the population towards other sectors of activity is necessary, but what is worrying is continuous decrease of the employed population in the services sector – keeping into account the fact that this is the sector where the majority of the population should be employed in. It is also noticeable that the industrial sector records an increase in terms of employed population in 2001, being the only “increasing” sector in 2001.

The chart below shows the situation of employed population in key-sectors of national economy as well as the percentage of women employed at 31.12.2001:



46.8% of the total active and employed population are women, North-East Region finding itself above the national average from that point of view.

The sector that employs the highest percentage of population is agriculture and forestry (50.40%), followed by services sector with 29.60%.

Region	Women in total employed population (%)
North-East	47.10%
South-East	45.30%
South	45.30%
South-West	<b>47.91%</b>
Vest	46.40%
North-West	47.20%
Centre	44.80%
Bucuresti	47.00%

Source: Romanian Statistical Yearbook, 2001

Noticeable is the inter-sectorial mobility, i.e. redistribution of the population employed from the secondary sector and its reorientation towards the primary and tertiary sectors. The same phenomenon is noticed at national level, but with more moderate intensities.

Territorial unit		Bacau	Botosani	Iasi	Neamt	Suceava	Vaslui	NE Region	Romania
Active employed population (%) urban/rural)	Urban	49,3	38,9	51,7	42,3	37,3	40,7	44,08	56,4
	Rural	50,7	61,1	48,3	57,7	62,7	59,3	55,92	43,6

Source: Romanian Statistical Yearbook, 2001

Noticeable is that at regional level the rural environment mobilises the largest part of the active population (55.92%), contrary to the national situation (43.6% in rural areas). All counties

record superiority in what concerns the employed population in rural areas, exception being made by Iasi county.

The total number of employees in 2001 is 636,000 representing 13.80% of the total national figure. The largest number of employees is recorded in Iasi county, 167,738, followed by Bacau with 140,800 and Suceava with 105,019; just opposite stands the Vaslui county, with 65,592 and Botosani with 58,381 employees.

The employed population broken down on age groups shows that the highest score is recorded by the „medium” group, 35-49 years, meaning 28.1% (decreasing percentage against last year’s figure 28.8%), followed by 25-34 years group (24.9%; also decreasing).

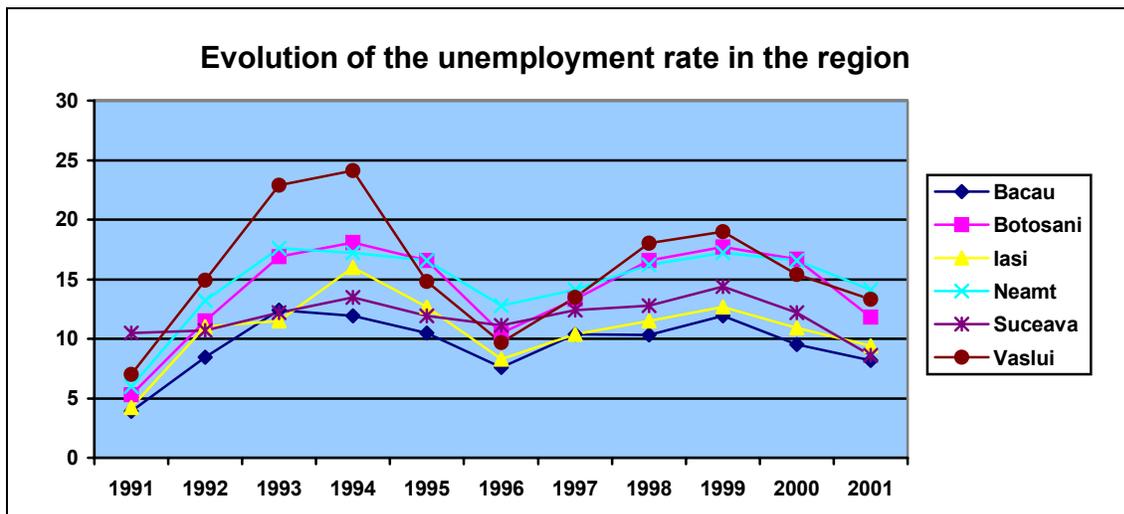
Noticeable is the high rate of employed population over 65 years old (coming from rural areas, mainly) – 14.20%, and the rate of the ones below 24 years – 13%.

### 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 rate is 8.8 %, at 31<sup>st</sup> of December 2001, in the North-East Region the rate is 10.6%, a minimum value of 8.2% being recorded in Bacau, and a maximum one in Neamt, of 14.1%. Moreover, this phenomenon is accompanied by an increase in the number of unemployed not enjoying any unemployment allowance because the entry into force of the Law 416 on Minimum guaranteed income, aspect encountered in the counties where the massive redundancies occurred in 1993-1995, thus confirming that the economic decrease trend has become chronically.



Analysing the evolution of the unemployment rate in NE Region during 1991-2001, one can notice two cycles of increase-decrease, with a turning point in the year 1996.

The unemployment rate is above the national average and the highest in the country, as shown in the table below. A positive aspect is the unemployment rate for women, which is inferior to the total rate.

Unemployment rate in the regions in the period 1998-2000 (total and for women)

	1998	1999	2000
Romania, of which	10,4	11,8	10,5
women	10,4	11,6	10,1
NE Region, of which	13,9	14,9	13,2
women	12,9	14,2	12,3
SE Region, of which	11,7	13,2	11,4-
women	12,0	13,1	11,3
S Region, of which	10,1	11,8	10,4
women	9,8	10,9	9,7
SV Region, of which	10,9	11,7	11,6-
women	10,8	11,3	10,8
V Region, of which	10,6	12,6	10,4
women	11,2	12,5	10,4
NV Region, of which	8,8	10,0	8,5
women	8,9	9,5	7,9
Centre Region, of which	10,2	11,0	10,3
women	10,5	11,3	10,7
Bucuresti Region, of which	4,9	6,9	5,8
women	6,1	7,9	6,7

By gender, 54.51% of the unemployed are men, and 45.49% women; most affected by unemployment is the 15-34 age group.

By personnel categories and level of education, 74.7% of the total unemployed are workers, 12.8% people with secondary education, and 2.51% people with tertiary education.

Out of the total number of unpaid unemployed, 81.10% are workers, 17.90% with secondary education and 1% with tertiary education.

Out of the 166,303 registered unemployed at 31.12.2001, 70% are recipients of different types of financial support (unemployment benefits, allowance for vocational integration, support allowance and compensatory payments) and 30% are unpaid.

#### **Key – problems:**

- High employment rate in agriculture – 49.80% out of total employed population, in 2001;
- Low employment rate in services – 29.60% out of total employed population, in 2001;
- High unemployment rate compared to the national average – 10.6%, reaching 14.1% in Neamt county, in 2001;
- The highest infant mortality rate in the country: 22.8 deaths per 1000 born alive.

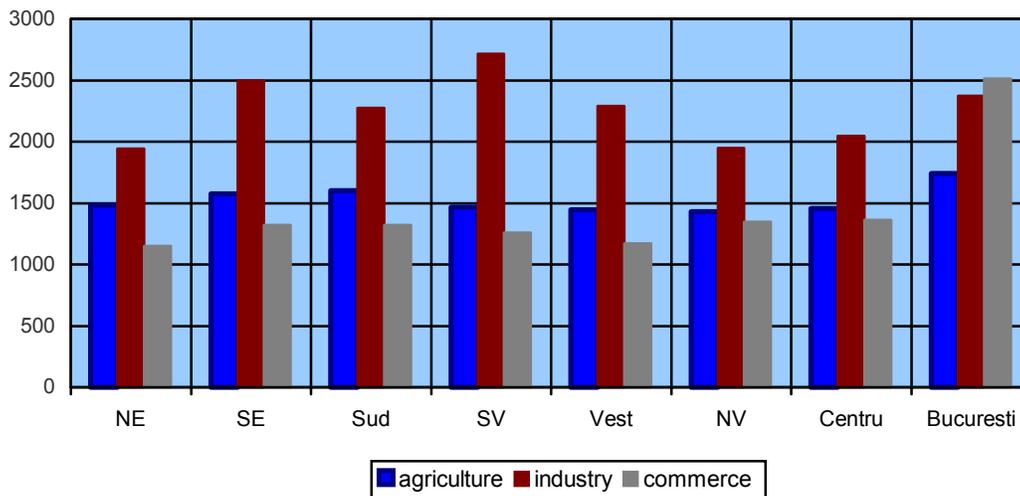
## Income Level by Sectors

By analysing the statistical data relating the situation of average monthly earnings by activities in the national economy as at the 31<sup>st</sup> of December 2000, 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 salaries is much higher than the average per economy, while in the state institutions it is much below the average (in mining industry and energy, the salary is about 3.2-3.3 millions ROL, telecommunications 3 million, finance-banking institutions 4.5 million; education-health 1.7-2 million). Concomitantly, the incomes in agriculture have kept a very low level (1.4 million), which is a result of the conditions for agriculture practice in the North-East Region, and the monthly average income in commerce and tourism is around 1.1 million.

Statistical data place NE Region on the last position in the country in that respect, as shown in the table below:

Net average salary income in economy

### Monthly average income, on economical activities (thou ROL)



Territorial unit	1998	1999/1998	2000/1999
<b>Romania</b>	1042274	46,11	40,46
<b>NE</b>	942822	40,23	39,96
<b>SE</b>	1083628	39,32	43,65
<b>S</b>	1036189	42,19	40,95
<b>SV</b>	1093336	40,63	47,24
<b>V</b>	970956	52,02	38,34
<b>NV</b>	950956	46,37	37,32
<b>CENTRU</b>	988380	43,91	38,68
<b>BUCURESTI</b>	1252420	64,18	33,82

Source: Romanian Statistical Yearbook, 2001

The level of the net average salary in NE Region is still the lowest. However, its higher increase (in percentage) during the last year is noticed, close to the national value.

## 4. Environment

### 4.1 General description of environmental matters

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 provides most of the general framework required reconsidering environment issues from the sustainable development perspective.

### 4.2 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.

Another positive factor, with long term advantages is the implementation of complex programmes on environment in the framework of ISPA for Iasi Municipality (Upgrading the water and wastewater system in Iasi, **total budget: 51.378.000 euro**, ISPA contribution: 38.533.500 euro, which is to be ended by the end of 2006) and Piatra-Neamt Municipality (Waste Management Programme, total budget 13.846.000 euro, ISPA contribution 10.384.500 euro and Rehabilitation and refurbishment of water supply network, sewerage and wastewater system, total budget 29.000.000 euro, ISPA contribution 24.650.000 euro).

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 upgrading or investment in the area.

### AIR

The main air pollutants, according to the data supplied by the Statistical Yearbook of Romania are: depositable powders, suspension powders, ammonia, methyl-mercaptan, hydrochloric acid, and acid rainfall. Most of the areas recorded as critical zones as far as air

pollution is concerned are those nearby the great industrial pollutants or those being in the way of important atmospheric currents.

In the table below we can find the values exceeding the maximum admissible concentration of the main air pollutants, in 2000 and the localities where such exceeding of the maximum admissible concentration have been recorded:

Localities with exceeding of the maximum admissible concentration of air pollutants (2000):

County, locality and pollutant	M.U.	Variation				frequency of exceeding the maximum admissible concentration
		Maximum concentration		Average annual concentration		
		Min.	Max.	Min.	Max.	
<b>BACĂU County</b>						
<b>Bacău Municipality</b>						
Ammonia	mg /m <sup>3</sup>	0,09	0,19	0,03	0,04	0,33
<b>Onești Municipality</b>						
Sulphured hydrogen	μgr /m <sup>3</sup>	7,80	10,50	1,49	1,51	0,31
<b>Botoșani County</b>	No exceeding of the maximum admissible concentration has been recorded.					
<b>Iași County</b>						
<b>Iași Municipality</b>						
depositable powders	g/m <sup>2</sup>	6,28	125,98	2,65	48,43	42,86
<b>Jud. Neamț</b>						
<b>Piatra Neamț Municipality</b>						
depositable powders	g/m <sup>2</sup>	-	30,93	-	15,57	50,00
<b>Roman Municipality</b>						
Suspension powders	mg /m <sup>3</sup>	-	0,68	-	0,19	67,00
depositable powders	g/m <sup>2</sup>	-	32,69	-	15,42	33,33
<b>Săvinești</b>						
Suspension sulphates	μgr /m <sup>3</sup>	-	40,60	-	6,00	10,92
<b>Tașca</b>						
Suspension powders	mg /m <sup>3</sup>	0,25	0,26	0,11	0,12	12,26
<b>Suceava County</b>						
<b>Suceava Municipality</b>						
Methyl-mercaptan	μgr /m <sup>3</sup>	6,80	17,83	0,25	5,50	29,53
<b>Verrești</b>						
depositable powders	g/m <sup>2</sup>					
<b>Vaslui County</b>						
<b>Vaslui Municipality</b>						
depositable powders	g/m <sup>2</sup>	24,60	29,40	21,10	24,50	100,00
<b>Bârlad Municipality</b>						
depositable powders	g/m <sup>2</sup>	25,70	28,30	22,50	24,30	100,00
<b>Huși Municipality</b>						
depositable powders	g/m <sup>2</sup>	24,50	25,80	21,70	22,00	100,00
<b>Negrești</b>						
depositable powders	g/m <sup>2</sup>	25,00	25,60	21,70	22,00	100,00

Source: Romanian Statistic Yearbook 2001 – data are at the level of year 2000

For a clearer image on the air pollution degree, we present below the critical zones, as far as air pollution is concerned, in 2001, according to the County Environment Reports at the end of the year.

Critical zones in what concerns air pollution

- Suceava Municipality – mercaptans  
 - Iași Municipality – Depositible powders  
 - Bacău Municipality - SO<sub>2</sub> and NH<sub>3</sub>  
 Vaslui, Neamț and Botoșani counties have not recorded such zones in 2001  
**AIR - CONCLUSIONS**

- The main areas affected by air pollution are the ones nearby industrial sites, in the urban areas; thus the counties with the highest frequencies of exceeding the air pollutants concentration are Bacau, Suceava and Iasi.

- Maximum concentrations of the main air pollutants are dependant on the production cycle of the big enterprises as well as of the human negligence or incompetence (accidental pollutions)

- As a general aspect, one can notice a decrease of air pollution during the last years, due to the endowment with high performance equipment of the Inspectorates for Environment Protection as well as to the correct application of the law at county level, and also due to purchasing of non-polluting technologies by the companies considered the “big pollutants”.

Localities with exceeding of the maximum admissible concentration of air pollutants (1997):

County, locality and pollutant	M.U.	Variation				frequency of exceeding the maximum admissible concentration
		Maximum concentration		Average annual concentration		
		min.	max.	min.	max.	
<b>BACĂU County</b>						
<b>Bacău Municipality</b>						
Ammonia	mg /m <sup>3</sup>	91,00	106,00	35,00	40,00	0,50
<b>Onești Municipality</b>						
Hydrochloric acid	mg /m <sup>3</sup>	113,00	322,00	22,00	30,00	2,00
Chlorine	μgr. /m <sup>3</sup>	20,00	57,00	6,50	12,50	1,80
Sulphured hydrogen	μgr. /m <sup>3</sup>	7,50	14,00	4,20	5,10	2,60
<b>Botoșani County</b>						
<b>Botoșani Municipality</b>						
depositable powders	mg /m <sup>2</sup>	14,46	18,67	5,86	9,79	2,70
<b>Iași County</b>						
<b>Iași Municipality</b>						
Ammonia	mg /m <sup>3</sup>	0,08	0,41	0,02	0,05	6,56
depositable powders	mg /m <sup>2</sup>	5,50	98,29	3,15	49,70	31,03
<b>Neamț County</b>						
<b>Piatra Neamț Municipality</b>						
Suspension sulphates	mg /m <sup>3</sup>	-	0,06	-	0,01	20,80
depositable powders	mg /m <sup>2</sup>	13,23	57,00	5,64	28,33	12,30
<b>Săvinești</b>						
Suspension sulphates	mg /m <sup>3</sup>	17,20	78,90	2,90	9,80	16,80
Ammonia	mg /m <sup>3</sup>	0,12	0,33	0,03	0,07	8,40
depositable powders	g /m <sup>2</sup>	-	28,53	-	10,12	9,10
<b>Bicaz</b>						
depositable powders	g /m <sup>2</sup>	13,41	53,24	8,25	27,83	41,70
<b>Tășca</b>						
Suspension powders	mg /m <sup>3</sup>	0,25	0,32	0,11	0,12	11,60
depositable powders	g /m <sup>2</sup>	46,79	160,50	21,29	70,73	74,70
<b>Suceava County</b>						
<b>Suceava Municipality</b>						
Methyl mercaptan	mg /m <sup>3</sup>	4,60	13,60	0,20	0,50	18,15
depositable powders	g /m <sup>2</sup>	9,65	33,33	6,46	18,00	8,77
<b>Vaslui County</b>						
<b>Bârlad Municipality</b>						

deposable powders	g /m <sup>2</sup>	17,80	25,00	14,80	21,50	68,00
<b>Vaslui Municipality</b>						
deposable powders	g /m <sup>2</sup>	16,80	26,40	16,10	25,70	87,00

Source: Romanian Statistic Yearbook 1998.

Localities with exceeding of the maximum admissible concentration of air pollutants (1998):

County, locality and pollutant	M.U.	Variation				frequency of exceeding the maximum admissible concentration
		Maximum concentration		Average annual concentration		
		min.	max.	min.	max.	
<b>BACĂU County</b>						
<b>Bacău Municipality</b>						
Ammonia	mg /m <sup>3</sup>	0,10	0,13	0,06	0,07	0,90
<b>Onești Municipality</b>						
Hydrochloric acid	mg /m <sup>3</sup>	0,03	0,12	0,01	0,02	0,21
Chlorine	μgr. /m <sup>3</sup>	26,00	64,00	2,60	8,10	0,31
Sulphured hydrogen	μgr. /m <sup>3</sup>	10,00	12,00	3,70	5,00	1,96
<b>Botoșani County</b>						
<b>Dorohoi Municipality</b>						
deposable powders	g/m <sup>2</sup>	-	17,71	-	7,02	8,33
<b>Iași County</b>						
<b>Iași Municipality</b>						
Ammonia	μgr /m <sup>3</sup>	41,00	174,00	23,10	51,80	0,68
deposable powders	g/m <sup>2</sup>	18,30	75,59	3,09	55,47	35,19
<b>Neamț County</b>						
<b>Piatra Neamț Municipality</b>						
Suspension sulphates	μgr /m <sup>3</sup>	34,90	97,00	4,80	7,80	8,60
Ammonia	μgr /m <sup>3</sup>	99,00	245,00	18,30	50,40	3,40
NO <sub>2</sub>	mg / m <sup>3</sup>	0,07	0,24	0,02	0,03	1,70
deposable powders	g/m <sup>2</sup>	7,68	52,11	5,32	29,29	19,30
<b>Săvinești</b>						
Suspension sulphates						
Ammonia						
deposable powders						
<b>Bicaz</b>						
deposable powders	g/m <sup>2</sup>	14,31	21,76	5,24	10,89	8,33
<b>Tășca</b>						
Suspension powders	mg /m <sup>3</sup>	0,17	0,22	0,10	0,12	3,71
deposable powders	g/m <sup>2</sup>	15,27	46,00	7,50	17,98	17,07
<b>Suceava County</b>						
<b>Suceava Municipality</b>						
Suspension sulphates	μgr /m <sup>3</sup>	27,78	76,40	5,14	8,58	16,00
Methyl mercaptan	μgr /m <sup>3</sup>	3,81	6,51	0,07	0,15	10,70
deposable powders	g/m <sup>2</sup>	7,64	33,63	5,02	15,55	12,50
<b>Frasin</b>						
deposable powders	g/m <sup>2</sup>	-	18,94	-	4,06	8,33
<b>Ostra</b>						
deposable powders	g/m <sup>2</sup>	-	24,12	-	4,70	8,33
<b>Vaslui County</b>						
<b>Bârlad Municipality</b>						
deposable powders	g/m <sup>2</sup>	18,50	28,70	16,76	24,33	78,0
<b>Vaslui Municipality</b>						
deposable powders	g/m <sup>2</sup>	17,50	30,70	16,49	26,07	89,00
<b>Negrești</b>						
deposable powders	g/m <sup>2</sup>	17,20	19,60	16,53	18,11	60,00

<b>Huși</b>						
deposable powders	g/m <sup>2</sup>	18,10	21,10	16,88	19,02	79,00

Source: Romanian Statistic Yearbook 1999.

Localities with exceeding of the maximum admissible concentration of air pollutants (1999):

County, locality and pollutant	M.U.	Variation				frequency of exceeding the maximum admissible concentration
		Maximum concentration		Average annual concentration		
		min.	max.	min.	max.	
<b>BACĂU County</b>						
<b>Bacău Municipality</b>						
Ammonia	mg /m <sup>3</sup>	0,09	0,13	0,03	0,03	0,35
<b>Onești Municipality</b>						
Phenols	μgr. /m <sup>3</sup>	34,00	36,00	10,50	13,90	1,66
Hydrochloric acid	mg /m <sup>3</sup>	93,00	100,00	11,46	40,00	0,10
<b>Buhuși</b>						
Ammonia	mg /m <sup>3</sup>	0,16	0,37	0,09	0,20	10,64
<b>Comănești</b>						
Ammonia	mg /m <sup>3</sup>	0,12	0,63	0,07	0,21	20,45
<b>Moinești</b>						
Ammonia	mg /m <sup>3</sup>	0,12	0,52	0,11	0,21	10,53
Phenols	μgr. /m <sup>3</sup>	34,00	36,00	10,50	13,90	1,66
<b>Târgu Ocna</b>						
Ammonia	mg /m <sup>3</sup>	0,17	0,51	0,10	0,20	15,79
deposable powders	g/m <sup>2</sup>	-	18,21	-	3,29	7,69
<b>Botoșani County</b>						
<b>Botoșani Municipality</b>						
deposable powders	mg /m <sup>3</sup>	-	0,10	-	0,02	0,29
<b>Iași County</b>						
<b>Iași Municipality</b>						
Ammonia	μgr. /m <sup>3</sup>	0,10	0,20	0,03	0,05	1,04
deposable powders	g/m <sup>2</sup>	7,62	87,17	4,73	39,27	50,00
<b>Neamț County</b>						
<b>Piatra Neamț Municipality</b>						
deposable powders	g/m <sup>2</sup>	9,75	31,64	4,98	17,15	10,50
<b>Săvinești</b>						
Suspension sulphates	μgr. /m <sup>3</sup>	-	43,70	-	5,20	7,80
Ammonia	mg /m <sup>3</sup>	0,13	0,19	0,02	0,04	2,00
NO <sub>2</sub>	mg /m <sup>3</sup>	0,05	0,24	0,01	0,03	0,50
<b>Tașca</b>						
Suspension powders	mg. /m <sup>3</sup>	0,15	0,18	0,10	0,11	2,80
deposable powders	g/m <sup>2</sup>	9,15	27,65	4,45	10,65	3,95
<b>Suceava County</b>						
<b>Suceava Municipality</b>						
Ammonia	mg /m <sup>3</sup>	0,09	0,12	0,02	0,03	0,32
Suspension sulphates	μgr. /m <sup>3</sup>	-	23,80	-	6,95	9,77
Methyl mercaptan	μgr. /m <sup>3</sup>	2,13	4,23	0,04	0,11	5,62
deposable powders	g/m <sup>2</sup>	10,50	23,90	4,59	11,69	6,06
<b>Verești</b>						
deposable powders	g/m <sup>2</sup>	-	17,57	-	6,38	8,23
<b>Jud. Vaslui</b>						
<b>Bârlad Municipality</b>						
deposable powders	g/m <sup>2</sup>	21,80	34,00	19,23	27,36	90,91
<b>Vaslui Municipality</b>						
deposable powders	g/m <sup>2</sup>	19,90	32,30	17,78	24,69	95,83

<b>Negrești</b>						
deposable powders	g/m <sup>2</sup>	19,80	24,30	18,23	21,21	93,75
<b>Huși</b>						
deposable powders	g/m <sup>2</sup>	22,20	22,70	18,93	20,82	91,67

Source: Romanian Statistic Yearbook 2000

## WATER

As in the case of air pollution, regarding the surface and ground waters the main responsible organizations are the great industrial companies. But, in addition to them there are other factors as: human factor, which, in the case of water pollution can have a negative role greater than in the case of air pollution (in this case it can be mentioned the human negligence, ignorance and wickedness – deliberate discharge of very dangerous chemical compounds as: poisons, pesticides, organic compounds or simply refuse).

According the Statistical Yearbook of Romania, the evaluation of surface water quality consist in the measurement of the bacteriological, biological and physical-chemical parameters in order to assess how they respect the standard values. In each checkpoint it verified the water quality regarding its content in organic and toxic matters and various and germs. According the standard there are 4 categories of quality: I, II, III and water that exceeds the limits of the 3<sup>rd</sup> category, taking into account its use:

- **Category I** – represents the water used to feed the centralized units of breeding, the units in food industry as for other activities that need water of the drinking water quality;
- **Category II** – represents the water used for the reproduction and the development natural piscicultural fund in plain waters as the feed water for piscicultural farms, for some industrial technological processes and for other activities that require the 2<sup>nd</sup> category water;
- **Category III** – represents the water used to feed the irrigation systems, the hydro-electric power stations, the cooling air systems, the washing systems as other units that require water of the 3<sup>rd</sup> category;
- **Water that exceeds the limits of the 3<sup>rd</sup> category** – is not useful for public consumption and is a threat for public health ant the environment.

The quality of surface water in the North-East Region (km).

Year	SIRET					PRUT				
	Total	Cat.I	Cat.II	Cat.III	>Cat.III	Total	Cat.I	Cat.II	Cat.III	>Cat.III
1997	4135	2587	995	169	384	1586	214	736	302	334
1998	4135	2540	1119	77	399	1588	431	490	111	556
1999	4135	2377	1320	70	368	1588	550	371	313	354
2000	4135	2369	1235	199	332	1588	356	615	216	401

Source: Statistical Yearbook of Romania, 1998,1999,2000, 2001 editions.

Between 1998-2001 there were not significant modifications regarding water quality in Siret and Prut rivers. Between 1997-2000, on the Prut river it was registered an increase with 142 km for the 1<sup>st</sup> category and with 20 km for 1<sup>st</sup> and 2<sup>nd</sup> category and on the Siret river a decrease with 218 km for the 1<sup>st</sup> and the 2<sup>nd</sup> category. In the period of 1998-2001 were not registered any important changes related to the quality of water from the geographic area of Siret and Prut. It is alarming the increase with 67 km of 3<sup>rd</sup> category on Prut river. Regarding the ground water pollution it can be affected by the human activities and by natural causes (due to the ground layers that it traverses and that can be contaminated with radioactive and other toxic substances).

## CRITICAL AREAS FOR SURFACE AND GROUND WATER POLLUTION

Suceava County:

- Suceava river (3 km portion in line) – pollution with organic matters, sulphides, phenols, colour and foaming phenomenon due to lignin and specific organic compounds;
- Neagra Sarului rivulet – pollution with metals with an acid pH due to the mining industry in Calimani Mountains;
- Suceava town – the phreatic water in the industrial area due to the polluting compounds specific for the cellulose and paper industry.

**Vaslui County:**

- Vasluiet river before the water treatment plant in Vaslui and to the confluence with Barlad river is included in the degraded category, presenting frequent exceeding of solved oxygen and of CCO-Mn.
- Bârlad river- exceeding of CCO-Mn, CBO5,  $\text{NH}_4^+$ ,  $\text{NO}_3^-$ , P, in the portion of line before Negresti and Barlad.

**Iași County:**

- Bahlui river – critical situation in portion of line Harlau-Jijia due to the evacuation of insufficient treated water in the water treatment plant in Iasi; there are high levels for the solved oxygen, CCO-Mn, ammonia, CBO5.
- Jijia river – at the entrance the county (com. Andrieșeni) represents the degraded category, according the indicators for oxygen (CCO-Mn, CBO5) and for the 2<sup>nd</sup> category for the fix residue, due to the polluting sources in Botosani county. After the confluence with Bahlui river it increases the concentration in ammonia and organic matters corresponding to the degraded category.

**Bacău County:**

- Siret river (pollution agent – Bacău Sud industrial zone) –discharging of: specific polluting compounds specific for the cellulose and paper industry, chemical fertilizers and wastewater.
- Trotuș river (Borzești – Onești industrial zone) – polluting compounds specific for the rubber and pesticide industry, discharging of derivatives matters in oil industry, waste water.
- Phreatic water in the area of SC RAFO Onesti (pollution with solved and pellicular oil compounds.
- Phreatic water in the area of SC CAROM SA Onesti (inside and outside the plant - pollution in the line of transport pipe lines through Jevreni water treatment station).
- Pollution with phenols and organic compounds.
- Phreatic water in the area of SC Rafinaria SA Darmanesti- pollution wit oil compounds, danger for domestic water supply.
- Phreatic water in the area of S.C. Sofert S.A. Bacau – pollution with sulphates, ammonia and phosphates; danger for Bistrita river.
- Phreatic water in the area of S.N.P. Petrom S.A. - Moinești Branch and S.C. Conpet S.A. - Moinești Branch– danger of pollution with crude oil and gasoline.

**Neamț County:**

- Phreatic water before the chemical industrial area Savinesti, respectively Roznov, Zanesti, Podoleni and Costisa human settlements- pollution of the ground water with ammonia, nitrates and organic compounds that modify the quality of water making it unable for drinking.

**Botoșani County:**

The critical areas concerning the surface and ground water pollution are the rivers before the discharge points of wastewaters provided by the human settlements.

*CONCLUSIONS for WATER indicator:*

-The surface water quality was kept constant for the last 4 years. There were small fluctuations on the three quality groups. However it must be mentioned the increase with approximately 67 km of 3<sup>rd</sup> category on Prut river.

-the water pollution is due to the great industrial polluting units but in the same time it must be considered the bad state and the reduced capacity of wastewater treatment plants.

-In the same time the surface and ground water quality is negative influenced by the great number of damages in the great part of great plants in the Region which are still in function or

which are intended to be closed. The damages are the causes of destroying the biodiversity and the natural equilibrium.

- The North-East Region water of surface presents:

- a) Organic content;
- b) Ammonia, nitrates, nitrites, phenols, oil compounds, pesticides, cooper, phosphates content etc.
- c) Some rivers have a great content in heavy metals and natural uranium due to the natural conditions in the area.

## SOIL

### CRITICAL AREAS FOR SOIL POLLUTION.

#### Suceava County:

- Călimani area –Pollution due to the noxa from the sulphured rocks oxidation, on a surface of over 240 ha and due to the presence of barren deposits and sedimentation basins (108 ha).
- Falticeni Municipality – area of heavy cyanide concentration

Main constraints for soil quality in Suceava County:

- humidity excess– 21264 ha
- humidity excess – 6373 ha
- heavy acidity lands – 12815 ha
- surface erosion - 13714 ha
- deep erosion - 1080 ha
- active earth glides - 5006 ha
- heavy and medium acidity soils– 107.792 ha
- low and very low concentration of mobile phosphorus– 67.733 ha
- low concentration of mobile potasium81.117 ha
- low concentration of nitrogen 58.393 ha
- low and very low concentration of humus- 28.598 ha

\* **The same surface can be subject to several constraints.**

*Areas affected by earth glides and erosion phenomena:*

1. within the following localities:

- Ulma, Brodina, Straja, Vicovu de Sus
- Vadu Moldovei, Forăști, Drăgușeni, Boroaia
- Vulturesti, Todiresti, Graniceri.

*Areas affected by other destructive factors:*

2. acidulation – Șaru Dornei

#### VASLUI County

- Vaslui County has the largest arable area affected by erosion – 232.630 ha.

- Areas that need ecological rehabilitation

- Within and around the buildings of the following companies: GOSCOMLOC HUSI, RAGCL Barlad, Negresti Waste Management Company;
- industrial waste dump from SC RULMENTI SA Barlad;
- wethers from SC AVICOM SA Vaslui.

Main constraints for the quality of the soil:

- degraded soils with moisture excess - 16.641 ha

- acid soil - 2.127 ha (north of the county)
- salted soils 2723 ha
- sandy soils 11.930 ha
- soils affected by erosion 232.630 ha of which affected by:
  - surface erosion = 203.987 ha;
  - deep erosion = 28.643 ha.
    1. soils affected by earth glide 21.062 ha

\* **The same surface can be subject to several constraints.**

## **IAȘI County**

- The Țuțora-Holboca-Tomești triangle – major polluters such as CET II Iași, Tomesti waste dump, Iasi wastewater treatment plant, closeness to the industrial area of Iasi city, the clay quarry of SC CERAMICA SA and SC COMTOM SA Tomești.

Main soil quality constraints:

9. strong and excessive surface erosion - 7855,5 ha
10. Deep erosion - 1927 ha
11. active and semi-active earth glides - 26015 ha
12. Soils with moisture excess - 7038 ha
13. soils affected by saltiness - 7231 ha

\* **The same surface can be subject to several constraints.**

Main areas affected by earth glide and erosion phenomena:

- Pîrcovaci and Strunga communes

## **BACAU County**

### Critical areas for soil pollution

- Magura Park from Tg.Ocna town - Uncontrollable dissolving of the salt ore by the springs in the area, leading to landslides.  
 - Area of the Zemes oil drill – oil pollution  
 - S.N.P. Petrom - Moinesti branch and S.C. Conpet S.A. – Moinesti branch area – critical points (oil pollution) due to leaks from damaged oil pipes.

Main soil quality constraints:

- soil with surface erosion - 200413 ha
- soil with deep erosion - 10078 ha
- land affected by glide and break-down - 32728 ha
- lands affected by acidulation - 80419 ha out of which, affected by heavy acidulation - 31522 ha.
- land affected by settlement - 102815 ha
- land affected by puddles - 40998 ha
- land affected by floods- 13201 ha
- land with low and very low humus reserve - 141300 ha
- land with low and very low nitrogen supply - 233853 ha
- land with low and very low mobile phosphorus supply - 152321 ha
- land affected by saltiness - 4537 ha
- land affected by heavy pollution - 324 ha

**\* The same surface can be subject to several constraints.**

*Areas affected by land glides and erosion:*

3. 13 areas affected by glides have been identified, located in the central and north side;

*Areas affected by floods:*

- the basins of the Trotuș, Siret, Tazlău, Bistrița, Zeletin rivers; *Areas affected by other destructive factors:*
  1. physical degradation: Zemeș, Lucăcești, Buhuși, Podu Turcului, Livezi, Corbasca;

## **NEAMȚ County**

In Neamt County there are no critical areas as far as soil pollution is concerned.

*Areas affected by earth glides and erosion:*

- in north of the county, close to Pípirig commune
- both borders of the Bicaz accumulation lake
- up north from Piatra Neamt Municipality, within Garcina commune
- within Faurei Commune

*Areas affected by other destructive factors*

- alkalizing (Tașca-Bicaz, Neamț county);
- acidulation -Săvinești;

## **BOTOȘANI County**

Critical areas for soil pollution are the ones represented by the household and industrial waste deposits from urban areas (13 ha) as well as rural areas.

Main constraints for the quality of the soil:

1. soil erosion affects - 159.447 ha
2. soil affected by heavy erosion - 8640 ha
3. earth glide - 58909,2 ha
4. active earth glide - 35738 ha
5. moisture excess of phreatic nature - 49483,7 ha
6. heavy-medium acid soil -23170,9 ha
7. very poor nitrogen concentration soil, for a total surface of - 98182 ha
8. low and very low mobile phosphorus concentration soil, for a total surface of - 172800 ha
9. good potassium supply for agriculture soil - 27490 ha

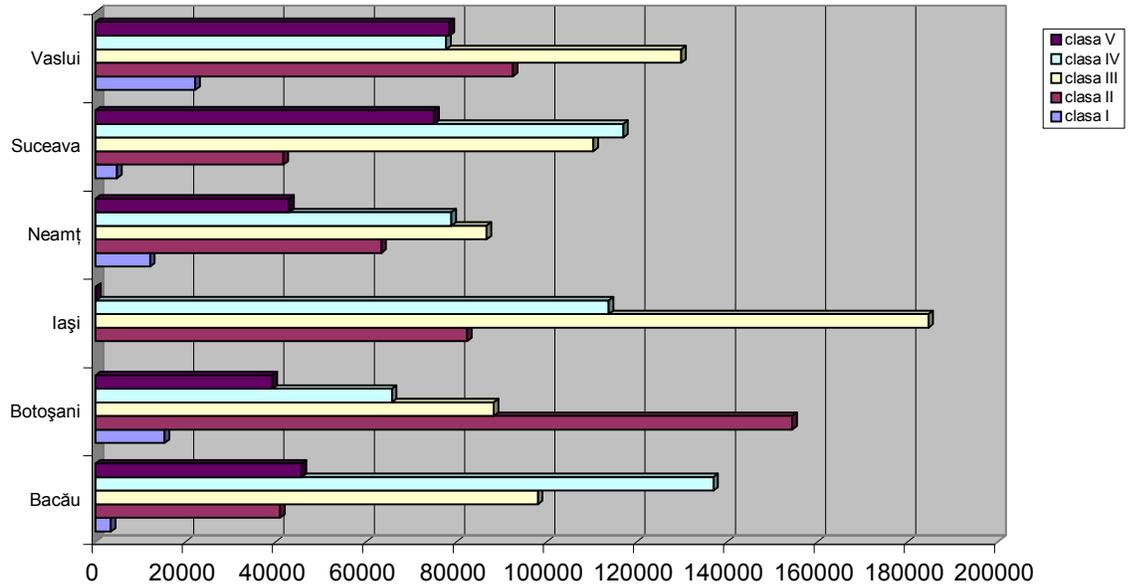
**\* The same surface can be subject to several constraints**

*Areas affected by earth glides and erosion phenomena:*

- these areas are located in the central and southern side, within the perimeter bordered by Ungureni, Trușești, Flămînzi, Lunca, Albești and Stefănești commune;

As far as soil quality is concerned, from the standpoint of its use in agriculture, the situation is displayed in the chart below:

The land, according to suitability classes:



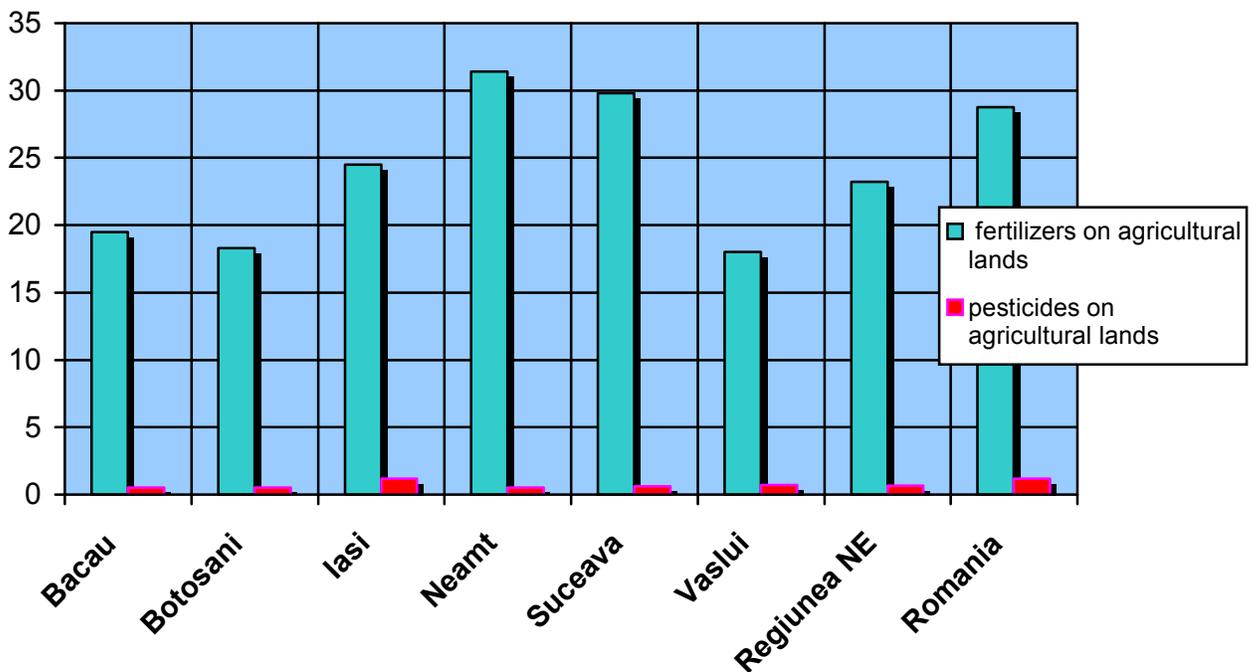
Source: Romanian Statistical Yearbook 1998-2001

Analysing the chart, we can notice that the main weight is the one of the lands from the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> class. A special situation is in Vaslui County where the total surface affected by natural degradation phenomena is 70.5% of the total agricultural land of the county.

The concentration of fertilizers and pesticides in the soil in the North East Region, its counties and in Romania is shown in the chart below:

One can notice that the North–East Region is below the country average as far as

Concentration of fertilizers and pesticides in the soil(kg/ha)



fertilisers are concerned, and 50% of the national average regarding pesticides.

### *CONCLUSIONS indicator SOIL*

- the region's soil is characterised by some factors specific to the type of climate in this area, with major differences of temperature between day and night as well as from one season to another. Thus, very large soil surfaces are affected by erosion, earth glide, moisture excess of phreatic nature, acidulation.

- also on extended areas it can be noticed a lack of essential elements, characteristic components of the soil such as: nitrogen, mobile phosphorus, potassium etc.

- These two aspects together with intended or accidental pollution due to the human factor make region's land be more difficult to exploit for agricultural purposes in comparison to other regions.

- The main air and water pollutant is industry. The old equipment of processing and filtering the industrial residual waste leads to highly toxic residual waste. The lack of adequate means of destruction and recycling/deposit of the industrial waste leads to its deposit on the riverbanks or directly on the land. (The Metadet – Falticeni accident).

- It is worth mentioning the fact that during the last 5 years, a great amount of works concerning regenerating large soil land surfaces has been carried out, especially in Vaslui County – which is affected by natural degradation on 71% of the total agricultural land. A good sign can be considered the endowment of the County Agriculture Directorates with high performance equipment for measuring the chemical features of the soil, which will lead to easier identification and solving of the future problems.

- North–East Region is belowing the country average as far as fertilisers are concerned, and 50% of the national average regarding pesticides.

## **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 goats, chamois, black vulture, mountain eagle, hucks, ure oxes – Neamt county) and from the flora (Papucul Doamnei, variegated tulip – 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 (%)

<b>Territorial unit</b>	<b>Not affected</b>	<b>Light</b>	<b>Medium</b>	<b>Serious</b>	<b>Dry</b>
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
<b>Total per region</b>	<b>63,68</b>	<b>23,96</b>	<b>11,20</b>	<b>0,83</b>	<b>0,53</b>

Romania	65,6	21,7	11,4	0,8	0,5
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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.

#### **4.3 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), SC LETEA SA Bacău, the CET I-Iasi, CETI-Holboca, SC Fortus SA Iasi, CET Botosani, SC Ambro SA Suceava 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 Onești (petroleum products), SC LETEA SA Bacău, SC SOFERT SA Bacău, SC Comtom SA, SC Fortus SA Iași, SC Antibiotice SA Iași, Tomești (Războieni farms – organic content), Săvinești-Roznov chemical plant (ammonium ion), mining workings in the Suceava county (Crucea, Ostra, Călimani, Leșu 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 deposits, 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 (mud dumps), 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.

## 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.

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 the entire environment factors, as well as discomfort in people. In 2000 an ecological waste dump in Piatra Neamt has been put in function, on a project co-funded by the Danish Environment Agency.

### 4.4 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. In spite of that, some factors with negative impact on the environment can be listed:

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)
- Former state-owned enterprises producing or using extremely toxic chemical agents as well as the choice of some unfit technical solutions and low experience of the personnel involved, lead to environment pollution with extremely toxic substances (cyanide – the Falticeni incident).
- Deforestation, with implications in the sharpening of earth glides
- Soil erosion phenomena, which mainly affects the eastern part of the region
- Local or area 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.

Some positive signals concerning the environment are recorded:

- decrease in the activity of the big industrial polluters and their gradual replacement with SMEs, much more flexible and in a better position to approach the sustainable development, according to the present law, especially the one concerning the environment.

- The existence of financing programmes and the collaboration with EU Member States on environmental matters.

- Specific training in kindergarten and schools. The negative side of this is that the target group is quite narrow and the topics to be introduced don't cover all the environment matters.

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, Suceava, 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 monitoring of the Prut and Siret rivers (Botosani county).

**Key – problems:**

- Insufficient capacity of waste water treatment plants (70% of what is necessary) and of the solid waste deposit dumps (60% of what is necessary);
- Constant air pollution, especially in the big cities and around the industrial sites, with frequent exceeding of the maximum values of the environment monitoring indicators.

## 5. RURAL AREAS AND THEIR ACTIVITIES

### 5.1. General description of the rural areas

NE Region rural area presents, within the actual socio-economical context, elements that contribute to particularising the area of the 463 communes and 2.445 villages from the six counties: Bacău, Botoşani, Iaşi, Neamţ, Suceava, Vaslui.

The *commune* is the administrative base unit on which rural politic is implemented. In this regard, the communal authorities are partners of the county and regional authorities. In the rural zone of the Region there are 463 communes and 2.445 villages, there are living 2.159.807 inhabitants, which is 56,5% from Region population. Population is distributed equally on sexes. In Suceava and Botosani there is the biggest percentage of rural inhabitants (over 60%).

Administrative composition of rural zones in 2000

Territorial units	Number communes	Number villages
NE Region	463	2445
Bacău	79	490
Botoşani	68	336
Iaşi	85	420
Neamţ	70	347
Suceava	90	396
Vaslui	71	456

Source: Romanian Statistical Yearbook 2001

Through the rural causes there are the historical ones (the withdrawal of the human communities in areas with difficult accession of the invaders), the laic-religious ones (keeping on traditions and popular believes), the economical ones – the living standard of some social categories (rural migration).

From the point of view of prevalent size of relief, the rural types of settlements and specific activities are as it follows:

- plain areas – characterised by cluster-type houses, with economical functions and agricultural-cereal and trees-viticulture character.
- hill and hillock agricultural areas – characterised by scattered houses along the roads, with gardens and orchards, vineyards between houses groups. As economical function, the accent is on trees-vineyards and animal breeding. There are also more complex economic activities such as primary and superior wood processing and even mining.
- mountain area – characterised by scattered houses in mountains, with isolated settlements or small groups of houses from which the majority doesn't have public utilities connection: electricity, gas and water supply network.

Basis economic rural activities are: agriculture (cereal crops, potato and white beet crops – in almost all counties, vineyards –in Vaslui, Bacău and Iaşi, fruit growing - Iaşi, Suceava and Neamţ), wood exploitation and processing – Suceava, Neamt, Bacau and rural tourism –in Suceava and Neamt.

### 5.2 Key sectors

#### 5.2.1. Agriculture

The total area of the region is about 3685,1 thousands hectares, from which 2132,4 thousands ha represent the agricultural one divided by use categories.

From the juridical status there are two kinds of agriculture exploitation sectors: the private sector and the stat one.

The private sector in agriculture is born from implementation of the Landed fund Law. The system of thinking and its application and also the delay of it generated disturbing factors, such as:

- division of agricultural exploitation;
- lack of correspondingly application of the Landed fund Law with the born of the land market (the last one appearing with a big delay in 1998 – Law 54/1998 concerning juridical circulation of the lands);
- lack of the appropriate means for agricultural works together with the land property rights.

Total land area by use on Dec 31 2000. ha

County	Bacău	Botoşani	Iaşi	Neamţ	Suceava	Vaslui	NE region
Total area	662,1	498,6	547,6	589,6	855,4	531,8	3685,1
Agricultural area	323,6	392,7	380,7	283,7	349,5	402,2	2132,4
Of which: Private sector	320,0	388,2	371,6	277,6	340,4	397,4	2095,2
Arable	184,7	297,8	251,6	170,4	178,5	284,0	1367
Pastures	87,6	75,7	88,2	69,2	93,7	90,4	504,8
Hayfields	40,2	14,3	20,4	40,1	74,0	7,4	196,4
Vineyards	7,6	2,0	12,2	1,1	-	16,5	39,4
Orchards	3,5	2,9	8,4	2,9	3,3	3,9	24,9
Forests	266,6	57,2	96,9	260,5	434,8	70,5	1186,5
Waters	14,6	13,8	12,8	10,3	13,7	8,2	73,4
Other areas	57,2	34,8	57,2	35,1	57,4	50,9	292,6

Source: Romanian Statistical Yearbook 2001

It can be noticed that there is a great potential in the Region in comparison with rural population percentage and demographical density.

In 2001 year the NE Region the value of agriculture production for goods and services represents 17,20% of national agriculture production.

This situation is a conjunction one. It is striking in those years when climate factors (drought, frozen and hard times in gathering the harvest – insufficient mechanised auto-park, lack of funds) affect some of the country regions in which vegetal agricultural production is based on cereal crops.

The tables below present the situation of the cultivated surfaces in the region, vegetal agricultural production and medium production per hectare for the main crops.

Evolution of vegetal agricultural production 1998-2001 regional/national

Category	Production 1998(tones)		1999/1998(%)		2000/1999(%)		2001/2000
	Romania	NE Region	Romania	NE Region	Romania	NE Region	NE Region
<b>Cereals grains</b>	15452719	2295326	10,25	-0,01	-38,50	-37,66	
<b>Wheat and rye</b>	5207911	512618	-10,08	-31,60	-4,83	-17,69	
<b>Barley and two-row barley</b>	1238001	94678	-17,72	-9,81	-14,88	-27,45	
<b>Oats</b>	362137	71291	7,57	8,28	-37,41	-36,34	
<b>Maize grains</b>	8623370	1613866	26,80	10,40	-55,21	-42,15	
<b>Leguminous crops for beans</b>	72497	21788	5,87	5,46	-51,89	-52,09	
<b>Peas</b>	24382	3528	10,78	-12,78	-47,58	-33,83	

Bean	46856	18213	1,79	8,97	-54,29	-54,83
Flax fibre	735	230	-6,12	-65,22	27,68	68,75
Hemp fibre	11137	363	-34,06	-80,72	-80,96	-7,14
Sun flower	1073316	83894	21,20	29,92	-44,59	-36,33
Soya beans	20082	9652	-8,67	-0,90	-62,12	-34,22
Sugar beet	2361359	694161	-40,07	-42,51	-52,87	-19,86
Potatoes	3319150	827032	19,22	20,06	-12,31	-5,22
Autumn potatoes	2952839	785313	19,14	19,21	-10,98	-3,65
Vegetables	2819134	438976	8,16	12,80	-17,10	-12,63
Tomatoes	677517	72091	4,59	19,71	-11,28	-8,96
Dry onion	365162	72367	9,82	12,48	-26,12	-20,66
Cabbage	837824	136513	5,67	3,49	-17,34	-10,41
Water melons and melons	68962	45049	23,72	34,13	-37,75	-34,59
Old and new perennials	12331426	2937102	9,55	9,17	-31,81	-21,27
Annuals for hay and green fodder	3773666	609122	14,86	33,95	-34,47	-20,00
Plants used for silage	1145649	176902	-10,26	-6,90	-53,62	-48,56
Fodder tubers	1119479	385634	4,92	15,76	-31,84	-28,11

Source: Romanian Statistical Yearbook 1999-2001

As it was presented in agriculture sub-chapter, in 2000 year there is a negative trend of agricultural production in majority types of crops because of climatically factors from that period.

Evolution of medium production (kg/ha) of the main crops

Category	Production 1998(tonne)		1999/1998(%)		2000/1999(%)		2001/2000(%)
	Romania	NE Region	Romania	NE Region	Romania	NE Region	NE Region
Wheat and rye	2.561	2.578	8,40	-3,65	-17,87	-29,19	63,33
Barley and two-row barley	2.394	1.919	2,38	4,01	-14,12	-27,76	78,85
Oats	1.588	1.691	-1,13	-2,01	-33,12	-34,22	48,62
Maize grains	2.756	2.839	31,60	11,03	-55,80	-43,34	55,71
Peas	1.737	1.751	-0,40	-19,02	-37,46	-17,56	45,85
Bean	1.046	1.160	1,72	0,69	-45,49	-39,81	61,59
Hemp fibre	3.600	4.714	62,14	-42,89	-55,41	60,96	
Sunflower	1.115	1.115	11,48	22,51	-33,95	-31,70	32,80
Soya beans	1.364	1.062	34,75	36,63	-67,68	-37,08	57,28
Sugar beet	20.045	16.736	7,80	10,95	-36,19	-21,52	23,95
Potatoes	12.642	13.145	14,17	12,90	-15,14	-6,84	1,14

<b>Autumn potatoes</b>	12.837	13.371	14,86	12,88	-13,97	-6,25	0,81
<b>Tomatoes</b>	13.801	12.120	5,75	12,05	-12,19	-9,40	4,40
<b>Dry onion</b>	10.036	9.485	7,20	8,41	-25,74	-23,29	28,17
<b>Cabbage</b>	18.905	21.097	4,12	-3,27	-15,87	-6,38	5,54
<b>Water melons and melons</b>	15.510	16.821	9,84	22,83	-32,57	-34,86	-
<b>Lucerne</b>	20.900	23.284	10,08	3,67	-31,23	-21,04	12,70
<b>Clover</b>	18.551	21.203	10,11	4,55	-28,24	-21,34	-1,03

Source: Romanian Statistical Yearbook 1999-2001

Annual variation of the cultivated surface with the main crops (%)

Category	Production 1998(tones)		1999/1998(%)		2000/1999(%)		2001/2000(%)
	Romania	NE Region	Romania	NE Region	Romania	NE Region	NE Region
<b>Cereal grains</b>	5.920.583	860.302	-9,29	-7,58	5,30	4,11	7,71
<b>Wheat and rye</b>	2.033.401	198.869	-17,04	-29,04	15,85	16,26	44,15
<b>Barley and two-row barley</b>	517.213	49.329	-19,66	-13,29	-0,88	0,45	-3,99
<b>Oats</b>	228.068	42.162	8,82	10,47	-6,40	-3,21	-64,02
<b>Maize grains</b>	3.128.915	568.525	-3,69	-0,73	1,19	1,99	-0,43
<b>Leguminous crops for beans</b>	44.739	9.527	3,07	3,33	-10,34	-2,44	-0,44
<b>Peas</b>	14.033	2.015	11,29	7,69	-16,21	-19,72	-16,76
<b>Bean</b>	29.159	7.465	-3,62	0,99	-6,74	3,29	3,65
<b>Flax fibre</b>	3.408	137	-53,35	-62,77	-42,96	66,67	-65,88
<b>Hemp fibre</b>	1.156.097	87.971	7,63	5,24	-14,22	-7,66	7,57
<b>Sunflower</b>	962.150	75.231	8,40	4,07	-15,94	-5,04	11,55
<b>Soya beans</b>	147.267	9.088	-32,23	-27,49	17,20	4,55	-26,81
<b>Sugar beet</b>	136.345	42.723	-39,51	-46,74	-21,28	1,80	-22,11
<b>Potatoes</b>	117.800	41.478	-44,41	-48,18	-26,13	2,12	-22,11
<b>Autumn potatoes</b>	261.344	62.916	4,74	6,10	3,27	1,82	-1,47
<b>Vegetables</b>	229.026	58.732	4,12	5,60	3,37	2,67	-2,20
<b>Tomatoes</b>	223.185	36.987	4,42	10,60	0,41	0,37	0,99
<b>Dry onion</b>	47.687	5.772	-0,31	8,77	0,19	0,51	3,38
<b>Cabbage</b>	36.387	7.630	2,45	3,75	-0,52	3,42	-0,04
<b>Water melons and melons</b>	37.402	6.214	3,74	6,15	1,93	-1,70	7,79
<b>Old and new</b>	44.425	2.677	11,31	9,04	-6,59	0,27	-10,35

perennials							
Annuals for hay and green fodder	1.128.687	209.093	2,59	11,04	-6,45	-2,43	-4,52
Plants used for silage	693.622	142.841	2,06	6,40	-3,64	-1,05	1,98
Fodder tubers	302.601	42.408	15,15	37,23	-10,88	-0,34	-18,29

Source: Romanian Statistical Yearbook 1999-2001

From the data just presented it follows that the NE Region's contribution to the agricultural production is proportional with its surface and its population and its production on one hectare is bigger than national average.

At regional level, the main agricultural crops (growing) – in exploitation system- are: cereals crops for grains (maize, wheat and ryes), potato crops, white beet crops and perennial herbs (alfalfa and trefoil).

Registered values for vegetal crops can be bigger if there weren't factors such as:

- quality of the land, with significant diversification, alternation of soil categories, their fragmentation compared to other land units: Romanian Plain, West Plain or Transylvanian Plateau;
- division in small plots on individual owners for which, in generally, the bills for agricultural works are impossible.
- Unfavourable climacterically conditions;
- reduced use of fertilizers;
- low level of mechanisation in works because for the owners is more profitable to work manually or by help of their animals. The monetary value for mechanised processing is 4 EURO/ ha.

### Zootechnical sector

Animal breeding has a great importance (in 2001) due to its percentage of 18,70% from national zootechnical sector. In these conditions, at animal census (2001 year) the Region presents such a situation.

- 445 thousands bovines
- 39 thousands swine
- 1151 thousands sheep
- 7141 thousands egg laying and adult fowls

It must be mentioned that in the Region there are just a few zootechnical farms and animal breeding is present mostly in personal farms and used for a minimum decent living.

After 1989, livestock has decreased mostly at national level.

The descending trend on the livestock of bovines, sheeps and (she) goats is due to: great number of slaughters because of eliminating the Production Cooperatives and lack of necessary number of places to live in the private farms, to a precarious health of its (infected with tuberculosis and leucosis), to the swine livestock reduction because of the loss/reduction of growing fat activity complexes which without financing has been eliminated.

Another important aspect is that concerning zootechnical medium production which is extremely far away to technological-genetic progress in west-european countries. Comparing with EU member stats, almost all species and categories of animals have inferior medium output.

Another problem is the insufficient capacity of the Region in processing of row materials from agriculture, in promoting and selling by using marketing specific techniques in winning purpose of a stable market segments and in generally a larger open market. If we make references to processing capacity of vegetal, fruit growing, vineyards and zootechnical

production, the Region has actually a sufficient potential (can be bigger by accessing SAPARD programme); there is a deficiency in the products promotion and implementing marketing strategies in selling the products, especially because of the great quantity of imports of food products from other countries/regions.

### 5.2.2. Forestry

Forestry represents for the Region both a tradition activity and a major source of incomes, most of the wood volume being exported.

In the first '90 years there was an uncontrolled export of stumps and timbers, but forestry registered in the last two years a legally tendency alignment (due to intensified controls), wood primary exploitation being replaced with secondary/superior exploitation. So, in the NE Region there are hundreds of firms whose main activity is wood exploitation and processing, majority for furniture, toys, stratified parquet and wood joining. Wood and wood-products are in generally exported to west –european countries (attractiveness of the low prices due to the cheap labour force) such as: Germany, Austria, Italy, Holland, Sweden.

The NE Region represents the biggest wood supplier circulated in economy, as demonstrated by national statistics (22% from total wood volume).

Suceava, Neamț and Bacău counties are the most developed in the forestry sector. There is the greatest wood volume circulated in the Region and also the greatest number of employed population in domain.

Wood volume circulated in the Regions in 2001 (thou m<sup>3</sup>):

Thou m<sup>3</sup> – volume brut

Region	TOTAL
NORTH-EAST	3521.9
SOUTH-EAST	990
SOUTH	1488.6
SOUTH –WEST	1164.0
WEST	1656.5
NORTH-WEST	1523.6
CENTER	2985.4
BUCHAREST	80.3

Source: Romanian Statistical Yearbook 2002

It's obvious that the Region provides the biggest wood volume circulated.

In total wood volume, resinous are on the first place with 1852.9 thou mc- that is 52.60% -, then beech with 909.3 thou mc –that is 25.80%. Smaller percentages have oak essences (3.2%) and various strong and soft species.

### 5.2.3. Rural tourism

The two characteristics that are defining rural tourism are:

- owned production capitalization through agro-tourist farms;
- traditional values promotion.

Actually this kind of tourism is only in an incipient/ organizational phase. Hilly and mountain areas present the best potential because of the quality of the air and water and a rare landscape.

Due to climate conditions and the nature of the relief forms, the hilly and mountain areas have frequently difficulties in agriculture-vegetal exploitation and the development of rural tourism near by animal breeding represents an important step in their economic development.

Their main problems aren't the investors facilities, but the precarious conditions of physical infrastructure which is an indispensable element in its capitalizing. So, most of the localities are confronting big problems not only in large infrastructure (difficult access to some areas, hard practicable roads), but also in utilities infrastructure: lack of gas, electricity, water supply, sewerages, etc.

Although, there are also favourable optimistic factors in its development, such as:

- big density of population and of number of houses in this kind of area in comparison with others hilly and mountain areas;
- its beauty and a special quality of the air;
- existing a varied fauna and flora with many species in disappearance; existing of the two natural parks;
- historical monuments with national/international value;
- the special quality of the ecological products obtained in the area.

### 5.3. Population and the Labour force

In the rural area, in 2001 year, are living 2.171.838 inhabitants, 1.090.308 men and 1.081.530 women; there is a relative lack of balance on age's structure, being evident the aging process.

Population structure on sexes and types of medium on 31 December 2001 (thou persons)

Territorial Unit	Rural			
	Both sexes		Masculine	Feminine
	Absolute	%		
North-East	2171838	100.00	1090308	1081530
Bacău	380359	17.51	192463	187896
Botoşani	282808	13.02	139536	143272
Iaşi	421889	19.43	214436	207453
Neamţ	351499	16.18	175726	175773
Suceava	466736	21.49	232634	234102
Vaslui	268547	12.36	135513	133034

Source: Romanian Statistical Yearbook 2002

At regional level, in the rural area there is 55% of the labour force of the Region from which 51% is in agriculture and forestry. This big rate of rural area activity is due to the presence of agriculture as a prevailing branch with a low degree of technology.

Although, the labour force is quantity sufficient being reported on economic activities in the rural area, it is an unqualified one; hat is because of a poor professional and educational training system and also dues to the fact that most of rural population doesn't attend such a school.

By studying employed structures on ages and on prevalent activities (in totality assimilated to the rural area economy), there is great number of population over 50 years. This aging process appeared when descending the big number of major persons migration from the last 30 years and get bigger when limiting the number of births in the last 8-9 years.

The low value of the incomes in agriculture and the lack of other no-agriculture activities don't stimulate young persons to remain in the rural areas, so the oldest had to work alone their lands. That is the motivation for which more than majority of people are over 50 years old – almost  $\frac{3}{4}$  from 50-64 years old inhabitants are still actives, but after 65 years old they still work the land. So, on the labour force market there are very many old persons.

Employed structure's population on aged and activities in national economy, in year 2000  
*percentages*

Region	Total Employed population	15-24 years	25-34 years	35-49 years	50-64 years	65 years and over
Agriculture	100	14,3	17,7	16,9	27,0	24,1
Forestry	100	12,1	56,8	17,3	13,8	-

Source: Romanian Statistical Yearbook 2001

## 5.4 Infrastructure and public services

The main problem of economic development stand stilling of the rural areas in the Region is not the specific characteristics of rural areas economy, but the bad state/lack of its infrastructure. This fact has immediate consequences with a main role in socio-economic development of the rural areas, such as:

- impossibility in attracting investors;
- impossibility in capitalizing natural riches and existing cultural-historical establishments through development of some activity sectors as it is rural tourism;
- descending quality of life

All these finalized by stand stilling of economic development of the rural areas and also, by appearance of some socio-economic problems areas within the area.

### 5.4.1. Infrastructure.

The transport and utilities physical infrastructure's condition is a precarious one, being physically and morally surpassed. Besides, we can hardly speak about the infrastructure existence in some rural areas. Taking into account the fact that infrastructure is the key-element for economic activities, it concludes that investments in infrastructure have the first priority in remedying the balances and stimulating the long time development of the Region. In this sense, it's very important that rural areas accessed a SAPARD program that regards infrastructure rehabilitation, but diversification of collecting and processing the agro-vegetal production and animal breeding capacities.

#### Transport infrastructure (roads net)

Rural area transport infrastructure is an inadequate one being registered in the 3rd and 4th degree of exploitation.

At regional level, the length of the county and communal modernized roads is extremely short (approximately 6,5% from the total roads length).

Vaslui and Suceava have the biggest part of the modernized county and communal roads with 223km, respectively 174km. In the opposite part there are Botosani (55 km) and Neamt (58km).

Road's condition becomes harder because of the lack of funds, quality of rehabilitation works, unobservant transport laws and climacterically conditions with snowy winter and extremely descending temperature.

Public roads at 31<sup>st</sup> of December 2000

County	Total	National Road	County and communal roads	From which: Modernized	Light asphalt pavement
<b>NE Region</b>	13346	2607	10739	700	2346
<b>Bacău</b>	2454	431	2023	94	550
<b>Botoșani</b>	2108	418	1690	55	309
<b>Iași</b>	2368	343	2025	96	398
<b>Neamț</b>	1810	407	1403	58	441
<b>Suceava</b>	2465	629	1836	174	493
<b>Vaslui</b>	2141	379	1762	223	155

Source: Romanian Statistical Yearbook 2001 (situation for 2000 year)

### Utilities infrastructure

Also, the utilities infrastructure is poor. The human establishment majority from the mountain are aren't connected to gas, electricity and drinking water network, mostly because of the hardness of the works, its implicit big costs and because of the scattered hoses style.

In many of these areas the telecommunication infrastructure is effectively inexistent.

Statistics in utilities infrastructure (water supply, sewerage, gas) in rural areas aren't conclusive because of the incompetence of administrative structures of localities mentioned in statistics.

Statistic data, in regards electricity connecting of rural areas localities, presents a double value (4%) electricity connected population, the medium value at national level being of 2%, principally because of theirs mountainous location.

### Water supply network.

From data presented below, proximately 60% of Region population doesn't have connection to the water supply network and according with national data, 90% of unconnected population lives in rural areas.

#### Unconnected population to the water supply network

Region	Unconnected population to the water supply network (%)
<b>NORTH-EAST</b>	59,2
<b>SOUTH-EAST</b>	45,8
<b>SOUTH</b>	61,2
<b>SOUTH -WEST</b>	61,0
<b>WEST</b>	29,3
<b>NORTH-WEST</b>	44,9
<b>CENTER</b>	31,9
<b>BUCHAREST</b>	14,6
<b>Romania</b>	45,6

Source: NARD Report 2001-2002

Also, it can be mentioned that the public network of drinking water distribution is hardly sufficient for public utility necessities of rural population from the point of view of numbers of population and of percentage of connected rural localities.

On this regard, rural population is depended on obtaining drinking water from other sources (fountains, springs), which isn't proper, all the time, affecting health population and increasing morbidity through infectious and parasitical diseases.

### **Public sewerage network.**

Sewerage public network presents high degree degradation and together with the same condition of water supply network constitute factors for starting infectious centres.

In Bacau, Suceava and Botosani counties there are the biggest percentage of localities recorded to the public sewerage network. An adverse situation it has been found in Vaslui and Iasi.

### **Electricity distribution network**

Concerning electricity distribution network in rural areas there is a very weak developed one, being present only in some big communes of the Region.

### **Natural gases network**

Within the Region, localities connected to the network are in generally the towns and rural localities along the gas main line. In Vaslui and Suceava there are executing works for bringing the main lines and localities gas supply.

## **5.4.2. Public services.**

### **Educational system**

The main factor in the national development of an economy/ a region is the human capital. Although hardly quantified, it is a disputed concept, human capital including human resources with a specific educational level.

Statistics analysis shows a delay in educational system between the rural and the urban areas of the Region. So:

- a. almost 7% of population doesn't attended school;
- b. only 37% of rural population has a primary school degree;
- c. only 35% of rural population has a gymnasium degree;
- d. only 8% of rural population has a high school degree;
- e. only 0,7% of rural population has attended a vocational school.

The critical actual situation is due to some intern and extern rural factors such as:

- human mentality (using children in agriculture works to the prejudice of school which can be observed by the segment of 15-24 years within occupied population in agriculture (14,3%) and forestry (12,1%);
- lack of high schools in rural areas
- substitution of the lack of teachers by „pseudo –teachers”
- lack of material possibilities of families for sustaining their children in schools;
- insufficient governmental funds allocated for education and insufficient subventions for rural areas families with small incomes (the budgetary allocation for minors is 4 Euro/month, that means the equivalent of 6-7 notebooks);
- the educational infrastructure condition and the lack of a proper endowment.

This last factor has on first a quantitative insufficiency. So, schools are insufficient in the entire Region, the critical ones situations being present in BT, SV and VS counties. Concerning this subject there has to be mentioned the lack of the libraries in rural areas, with a decisive role in educational process.

The qualitative aspect of educational physical infrastructure presents a high degree of physical and moral wear with important repercussions on teaching process and quality of life by depriving them of element are conditions of security and comfort.

So:

- impossibility of using drinking water because of the high degree of impurities ( creating infectious centres)
- lack of the heat in the lecture rooms;
- insecurity for the resistance structure of the school –buildings;
- insalubrities of the toilets.

These are only a few harmful factors for the educational process.

Another negative factor registered is the low percentage of the agriculture education at regional level. The agricultural profile graduates has an insignificant percentage, very much sub-dimensioned in comparison with the importance of agriculture in the Region economy.

### Health system

Concerning sanitary services in rural areas, it can be catalogued as precarious ones, being too much inferior in comparison with the urban ones. In the majority of the communes there are only primary sanitary services,

There is a low degree of medical services provided by the qualified personnel, the number of doctors being relatively small in comparison with the number of inhabitants. So there are quit 2.021 inhabitants/ doctor, the medium value being of 5-6 percentages bigger in the urban area.

Services endowment for population – sanitary services in 1997 (rural area)

County	No. Inhabitants/ doctor
<b>Total Region</b>	2021
<b>Bacău</b>	1754
<b>Botoşani</b>	2253
<b>Iaşi</b>	1284
<b>Neamţ</b>	1926
<b>Suceava</b>	2561
<b>Vaslui</b>	2350

Source: Romanian Statistical Yearbook 1998 (situation for 1997 year)

The number of medical surgeries is also a very small one, being present only in communal centres. In Suceava county it is a special case of existing only 7 medical surgeries.

The rural inhabitants has to ask for special services to the towns medical services, in the most cases, the distances to the closest town being generally very big (10-25 km and even 32 km, in Vaslui and Botosani or in the mountain area of Suceava -35 km) and in serious cases, urgent assistances is almost impossible.

In the rural areas there is a low quality of medical services because of the low degree of endowment in buildings and obsoleted/ inexistent medical apparatus.

Because of this low quality of medical assistance, a rural area inhabitant has a 2 years lower life expectation than an urban inhabitant.

The rural area's infantile mortality reaches a very big rate being over 30% bigger than in urban area. Almost the entire rural areas of the NE-Region present a very high degree of infantile mortality (over 270/oo)

### 5.5. Cultural and architectural patrimony

In the NE Region's rural areas there are many churches, monasteries (Varatec, Putna, Voroneţ, Agapia, Moldoviţa, Suceviţa, etc.), museums, memorial houses, manor houses, inns and princely courts. Most of these are unique in the entire world by theirs beauty.

The rural areas keep on traditions, trades and ancient customs, where the skills and beauty attraction materialize in real piece of work – ceramics, manual weaved carpets, sheepskin coating, textures, popular instruments, masks.

The Region's counties keep up a reach treasure of cultural and folklore traditions by memorial houses, churches, monasteries, written documents, a lot of ethno-folklore profiles, live –traditions which are manifesting by fairs and patrons of churches, etc.

Art manifestations and popular traditionally festivities along the year remind the people the lively and genuine spirit of Moldavia area by popular costumes, songs and dances, ancient customs – plastic art festivals, the folklore and traditional ones.

## **5.6. Equality of Opportunities in the rural areas**

The equality of opportunities in the rural areas doesn't seem to be a very known and respected concept. It is due to ancient conceptions, which persist in the rural areas, and to little attention of '89 after-December governments on this problem. So, in rural areas, the woman is just carrier of family heirs which gives birth and educates them, couldn't have the opportunity of having her own career in life, to be an active factor in village's development.

Because of the inexistence in statistics of such data, these affirmations can be illustrated by women representation in the local public administration. So, in the NE Region, in this compartment level women are represented by only 2%. This fact emphasizes two striking aspects:

1. women exclusion from decisional offices;
2. women acceptance and their renouncing at international right of the sexes equalities

This fact has two causes:

- a. the alignment's delay to international legislation concerning the equalities of opportunities respect and hard penalization of deviations (at local level) where it's necessary;
- b. low degree of the equality of opportunities concept promotion.

### **Key problems in rural development:**

- ✓ Great weight of population in the rural area 56.60% at the level of year 2001.
- ✓ Great weight of population occupied in agriculture representing 49.80% from the total occupied population – year 2001.
- ✓ Small size of agricultural exploitations 1-3 ha.
- ✓ Low grade of association (8% for fields and 3% in animal breeding).
- ✓ The transport, utility and communications infrastructure are adverse both quantitative and qualitative.

## 6. The tourism

Because of its favourable conditions, the landscapes, the purity of the air, of the water, the mountain areas from Bacau, Neamt and Suceava counties, as well as the inestimable cultural and religious existent patrimony, the NE Region owns a high tourist potential which can be compared with other in the country/ outside. Besides these, there are also the well known hospitality, the popular customs, the Moldavian gastronomy, the traditional wine tasting from Cotnari and Husi vineyards offering by all these the local colour in attraction of the tourists.

The capacity and the activity of tourism accommodation at 31.07.2000/2001:

Region	Accommodation Capacity		Arrivals (thousands)	Staying overnight (thou)	Accommodated tourists (thou)	Indices of the functioning capacity (%)	Medium duration of accommodation (nights/tourist)
	Existing (places)	Functioning (thou places-days)					
Situation in 2000							
Total	280005	50197	4920	17647	4920	35,2	3.59
1.North-Est	17745	4624	543	1468	543	31,7	2.70
2.South-Est	134061	12182	981	5452	981	44,8	5.56
3.South	22433	6025	552	1741	552	28,9	3.15
4.South-West	15295	3736	327	1591	327	42,6	4.87
5.West	21740	5176	569	1878	569	36,3	3.30
6.North-west	25547	6564	560	1961	560	29,9	3.50
7.Center	35325	9149	868	2560	868	28,0	2.95
8.Bucharest	7929	2741	520	996	520	36,3	1.92
Situation in 2001							
Total	277047	51882	4875	18122		34.90	
<b>1.North-Est</b>	16971	4651	535	1406		30.20	
<b>2.South-Est</b>	132053	13230	994	5602		42.30	
3.South	21321	6027	546	1759		29.20	
4.South-West	15326	3885	338	1745		44.90	
5.West	22298	5235	541	1933		36.90	
6.North-west	25197	6647	<b>596</b>	<b>2118</b>		<b>31.90</b>	
7.Center	<b>34648</b>	<b>9201</b>	<b>837</b>	<b>2591</b>		<b>28.20</b>	
8.Bucharest	<b>9233</b>	<b>3006</b>	<b>488</b>	<b>968</b>		<b>32.20</b>	

Source: Romanian Statistical Yearbook 2001/2002

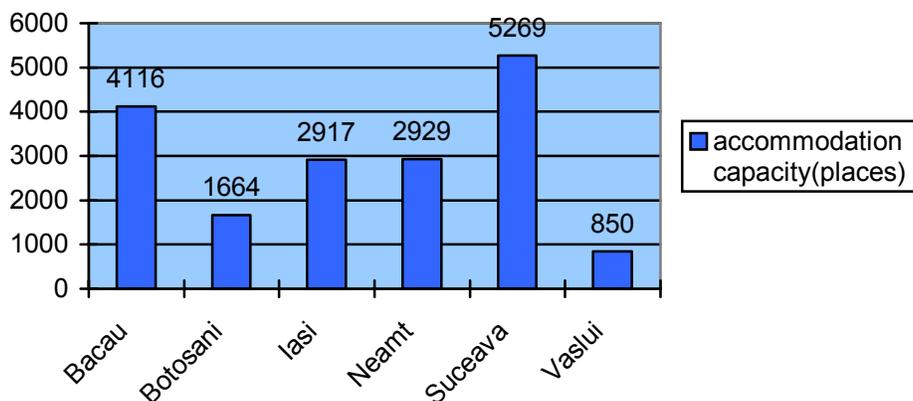
Following the table above, it can be observed that in the NE Region the using indicator of the capacity in function decreased from 31.7% in 2000 year to 30.2% in 2001. This is because of the decreasing number of the overnight accommodations (from 1468 thou in 2000 to 1406 thou in 2001) and of the increasing accommodation capacity (from 4624 places in 2000 to 4651 places in 2001).

The situation at national level has the same trend with the regional one. The medium duration of overnights accommodations is 2,70nights/tourist in 2000, but the values are inferior to the regional/national ones, excepting Bucharest-Ilfov which has the smallest value, that is of 1,83 nights/tourist. On the first place is obviously the South-East Region with 5,30 nights/tourist (that is because of the seaside).

The accommodation capacities' modernisation (the private properties are bigger than 85%), the capitalisation of the tourist potential areas and of treatment bases by an adequate

promotion (campaign) determinate an increasing of tourist circuit with positive effects on the economic dynamic.

In the graphic below it is presented the situation of the accommodation capacity (places) in the NE Region, on counties.



It's obvious that Suceava is the county with the biggest accommodation capacity, in fact a normal situation because of the special tourist relief in the area and because of the entrepreneurial spirit of its inhabitants, in the opposite site there is Vaslui county.

Structures of tourists' reception with functions of tourists' accommodation (for 2000 and 2001 years)

	Region	Total	Hotels	Road - houses	Huts	Camping sites	Villas	Students camps	Tourist pensions	Agro-tourist pensions
2000	<b>Total</b>	3121	943	23	161	140	1066	172	361	240
	<b>North-East</b>	250	81	2	13	17	38	21	46	28
	<b>South-East</b>	1028	346	3	5	59	527	27	51	8
	<b>South</b>	321	95	4	26	5	105	25	38	19
	<b>South-West</b>	162	67	3	6	12	48	13	1	-
	<b>West</b>	259	88	7	27	12	65	26	27	4
	<b>North-West</b>	292	99	2	25	15	66	27	24	34
	<b>Centre</b>	742	128	2	59	18	212	33	143	146
	<b>Buchar est</b>	67	39	-	-	2	5	-	20	1
2001	<b>Total</b>	3266	968	18	158	132	1016	168	437	343
	<b>North-East</b>	262	81	2	13	16	38	21	52	32
	<b>South-East</b>	1047	350	3	5	57	530	27	53	19
	<b>South</b>	336	101	4	25	5	89	23	56	29
	<b>South-West</b>	164	63		7	10	51	12	19	1
	<b>West</b>	305	93	6	26	11	67	26	37	33

□	<b>North-West</b>	322	105	1	25	15	68	22	29	57
	<b>Centre</b>	744	136	2	57	16	168	32	160	171
	<b>Buchar est</b>	86	39	-	-	2	5	5	31	1

Source: Romanian Statistical Yearbook 2001/2002

It's obvious that, for almost all types of tourist units, the NE Region is situated a little under the national value; through a data's deeper analysis and excepting the South –East Region (because of its seaside area which covers the biggest percentage of the accommodation capacity), it finds that the NE Region is at national medium value and a little over it.

It finds also between 2000-2001 the development of the tourist and agrotourist pensions while the other forms register a stagnated trend

### **The tourism forms developed in the Region**

- **Cultural tourism**, of knowing and informing sustains by historical values and architecture. In this area it can be included:
  - museums tourism sustained by several museums (art, history, ethnography, folklore, technique, etc.), memorial houses owned by significant culture, art and science people, fortresses, princely court, etc;

It can be mentioned:

- Casa Rosseti-Tescanu House (Bacau county) built in 1898 by Tescanu family where lived the great musician George Enescu (in this building it was conceived "Oedipus").
- Memorial house „Mihai Eminescu” from Ipotesti transformed in museum since 1950; there are furniture and others old objects owned by the family
- Memorial museum „ George Enescu” from Dorohoi where are exposed the personal objects of the artist;
- Cultural Palace from Iasi built in 1906-1925 years is situated on the old ruins of the medieval princely court. The Palace contains four big museums: Moldavia History museum, Moldavia Ethnography Museum, Art Museum and Science and Technique Museum.
- Roznovanu Palace built in Wien neoclassic style where, nowadays there is the building of the Local Council.
- National Theatre „Vasile Alecsandri” built between 1894-1896 is fully ornamented in baroque style has one of the most beautiful spectacle hall from the country with a capacity over 1000 places.
- The old University of Iasi is an old palace, which was a princely court and served as a first picture gallery of the country.
- The University from Copou is well known because of the monumental hall of marble known as “Lost steps hall” decorated with paintings in fresco by Sabin Balasa;
- The Central Library of the Iasi University is a building with Doric columns and its cupola, which watch over Copou foot.
- The Princely Inn is one of the oldest civil building of Suceava city where is the ethnographic and popular art sections of the County Museum of Suceava.
- The Suceava Princely Court built when was ruling Petru I Musatinul has in its neighbours The Bucovina Village Museum that contains a valuable collection of traditional buildings from XVII-XX centuries.
- Memorial House „Ion Creanga” from Humulesti (Neamt) village contains a series of personal objects of the great teller.
- The Neamt Fortress, which was built by Petru, I Musatinul between 1674-1391 resisted along times to the Austro-Hungarian and polish sieges.
- The Museum Complex “Ciprian Porumbescu” from Stupca (Suceava) where there are three objectives: the grave of the great musician, the Memorial House and Ciprian Porumbescu Museum

- Memorial Museum „Emil Racovita” from Suranesti (Vaslui) is the house where was born the great explorer and contains his school documents and his correspondence with different personalities.

-The History Museum “Dimitrie Cantemir” where it can be found the archaeological collection with pieces from Palaeolithic to medieval period, ethnographic collection, plastic art collection: Gheorghe Tattarescu, Dan Hatmanu, Octavian Angheluta.

- ethnographic tourism through popular manifestations (“The rose of Moldavia” International festival of folklore - Strunga (Iasi); “Winter traditional customs” Festival (Iasi); popular handicrafts fairs (“Cucuteni 5000”- Iasi); “Ceahlau” International festival of folklore (Neamt); “Arcanul” International festival of folklore (Suceava); “Old ages hora” International festival (Vaslui);
- art tourism (festivals, theatrical seasons and tours, vernishing days, etc.) - Tescani International festival of plastic art (Bacau);

➤ **Clerical tourism** – The big number of churches and monasteries within the Region contributes to the development of the clerical tourism, existing the possibility of pilgrimages through a tourist route creation along the existing cult and spiritual locations.

It can be mentioned:

- ✓ Bacau county: The Churches and the Princely Court (1491) from Bacau town, Rachitoasa Monastery, Borzesti church well known because of its bows system specific to the Moldavian style (It was built by Stefan the Great), Casin Monastery church, Tazlau monastery (“The born of the Virgin”) built in 1496 while was ruling Stefan the Great.
- ✓ Botosani county: St. Nicolas Church founded by Stefan the Great in 1497 (with combination between gothic and Byzantine elements), Sfantul Gheorghe and Uspenia churches, the Vorona monastery complex with three churches which constitutes an important folkloric area, Cosula Monastery well known because of its intern and extern oil paintings.
- ✓ Iasi town and its surroundings (monasteries: Galata, Cetatuia, Frumoasa, Golia, Barnova, Piatra Sfanta, Hlincea, Dobrovat, Hadambu, churches: Trei Ierarhi, Mitropolitan Cathedral, Barnovschi);
- ✓ Neamt county: Neamt Monastery known as “ The God’s raise” built in 1497 (Stefan the Great was ruling was a recognized cultural place, Agapia Monastery was painted in 1858 by Nicolae Grigorescu and it contains a museum with religious art pieces from XVI-XIX centuries, Varatec monastery, built in 1785 by Olimpiada nun, has the tradition that many girl from nobility here became nuns, Secu monastery where it can be found the grave of Nestor Ureche, Sihastria monastery – an old place of monks, Sihla – a small convent, Horaita monastery’s church with a strange form, with a 8 towers roof, Bistrita monastery where it’s the grave of Alexandru cel Bun – the ruler
- ✓ Suceava county: Voronet monastery founded by Stefan cel Mare in 1488 with paintings dating from that time. It’s fame is because of the inimitable blue background exterior painting known in the entire world as “Voronet’ blue”, Humor church (“ Jesus’ mother asleep”) with it’s famous painting about “post judgement”, Moldovita monastery – it’s walls of 6 meters high- built by Petru Rares after 1532 with famous exterior painting, Sucevita monastery – with the most remarkable defence system from the Moldavian monasteries and the most complex painting themes with 7 overleapt registers- being the “will” of the exterior Moldavian painting; Dragomirna monastery with an exaggerate high comparing it’s width, in fact existing two churches separated by cable moulding belt. In Putna monastery there is the grave of the ruler Stefan the Great, built between 1466- 1470 with the reason to become the dynasty’ necropolis. The church was included on the UNESCO’s monuments list.
- ✓ Vaslui county: the Saint John’s church built in 1490 (When was ruling Stefan the Great) is a palm triconc edifice with not real (seeming) stone façade, Saints Peter and Pavel’ Episcopal Church with interior paintings realized by Gheorghe Tatarascu.

- **Scientific tourism** by participation on scientific communication sessions, international courses (specially in Iasi, Bacau and Suceava) is stimulated by natural and archaeological reservation: flower reservation - Stanca-Stefanesti, Ripiceni, Tudora;
- Balneo- therapeutically tourism –the mineral springs from Slanic Moldova and Targu Ocna (Bacau), balneo - climacterically (health) resorts from Campulung Moldovenesc and Vatra Dornei (Suceava), salt mine from Targu Ocna (Bacau);
- Amusement tourism – sustained by a generous relief:
  - ✓ Bacau county: Trotus valley with a succession of gorges and depression basins, the Uz's valley and gorge, accumulation lake from Uz glade, Bistrita valley with the accumulation lakes succession. There are also natural reservations such as: Runc-Racova secular forest, White River forest reservation.
  - ✓ Botosani county: Costesti Rock reservation characterized by geological and flower complexity and Dealu Mare – Tutora natural reservation of yew trees.
  - ✓ Iasi county: Dealu Repedea's paleontological reservation, Valea Lunga botanic reservation where is protected the white acacia, "Fanetele from David's Valley" flower and fauna reservation;
  - ✓ Neamt county: Bicaz's Keys, Mountain' spring accumulation lake, Ceahlau mountain, "Copper Forest" forest reservation, the "Silver forest", Grumazesti' dendrologic park, Neamt Hunter's urus reservation, Duruitoarea cascade, the paleontological reservations from the surroundings of Piatra Neamt;
  - ✓ Suceava county: Calimani mountain relief with it's volcanic complex, the "12<sup>th</sup> apostles" with it's ruin form rocks, the national park of 15 300 ha, the Rarau mountain with it's karst and residual relief, the Giumalau secular forest, the Golden Bistrita's gorge, the Moldova's superior valley, the Radauti natural reservation constituted by the Radauti swamp, the Pojorata's paleontologic reservation and spruce fir's secular forest;
  - ✓ Vaslui county: forest reservations from: Balteni, Badeana, Seaca Movileni; the palentologic reservation from Manzati, the " Cineritele from Nutasca-Ruseni" geologic reservation.
- Transit tourism (work/ affairs/ personal interest) stimulated also by movement from/to Moldavia Republic;
- Agro-tourism – the rural development tourism, specially agro-tourism, presents many opportunities because of the existing landscapes with no pollution in the rural areas and also, recreation opportunities and cultural and historical potential.

Tourism keys problems:

- Relatively reduced index of using the accommodation capacity in service (30.20%) compared with other regions and with the national level (34.90%) – year 2001.
- The lowest average period of staying from all regions (2.7 nights / tourist), inferior to the national level (3.59 nights / tourist) in year 2000.

## 7. Intra-regional disparities

The NE Region is situated on the last place concerning the GDP / inhabitant (79.5% from the national average in 1998), so it is the least developed region in the country. The poorest areas are: the south of Iasi County, the south-east part of Neamt County, the east part of Bacau County and the entire Vaslui County.

Approximate value of GDP at county level (billion ROL currency in 1998)

	Bacau	Botosani	Iasi	Neamt	Suceava	Vaslui
<b>Agriculture</b>	1,398	1,645	1,980	1,747	2,266	1,278
<b>Industry</b>	3,430	1,272	3,115	2,196	2,080	1,461
<b>Constructions</b>	729	141	702	359	327	136
<b>Transport</b>	224	144	844	413	602	180
<b>Others</b>	4,271	1,787	5,703	2,888	3,712	2,653
<b>County GDP</b>	10,053	4,989	12,345	7,603	8,986	5,707
<b>County GDP/inhabitant (lei 1998)</b>	<b>13,318,590</b>	<b>10,719,534</b>	<b>14,658,876</b>	<b>12,941,695</b>	<b>12,494,966</b>	<b>12,197,220</b>

The estimated and systematized calculations from the table below proves that the biggest value of GDP/inhabitant is registered in Iasi with 14,658,876 ROL/inhabitant in 1998, followed by Bacau with 13,318,590 ROL/inhabitant.

Neamt, Suceava and Vaslui counties are at a certain distance, but with proximate values and Botosani County on the last place with the smallest GDP value (30% of Bacau County registered value).

### THE MAIN INDICATORS IN ECONOMIC CHARACTERIZATION OF THE COUNTIES REGION 1 NORTH-EAST

INDICATORS	Year	Counties					
		Bacău	Botoșani	Iași	Neamț	Suceava	Vaslui
<b>I. GENERAL DEMOGRAPHIC CHARACTERISTICS</b>							
I.1. Percentage of total county population in the total regional population on 1 <sup>st</sup> of July (%)	1999	19.6	12.1	21.8	15.3	18.7	12.1
	2000	19.7	12.1	21.9	15.3	18.8	12.2
	2001	20	12.1	22	15.3	19	12.2
I.2. Percentage of total urban population in total population on 1 <sup>st</sup> of July (%)	1999	50.2	39.7	50.3	40.6	35.6	43.2
	2000	49.8	39.3	49.9	40.3	35.3	42.7
	2001	49.6	39.2	50.1	40.2	35.1	42.6
I.3. Infantile mortality rate (at 1000 live-births)	1999	22	20.3	21.6	21.5	15.7	25.3
	2000	28.3	26.8	22.5	23.9	16.7	21.2
	2001	21.9	27.4	25.5	23.3	17.4	21.8
I.4. Average life expectancy in the period 1998-2000 (years)	1999	70.39	69.97	70.93	70.64	71.55	70.96
<b>II. HUMAN RESOURCES AND EMPLOYMENT</b>							
II.1. Average of civil active population in total population at the end of the year (%)	1999	32	37.8	37.1	37.3	38.2	35.8
	2000	33.2	37.8	38	38.3	38.1	35.9
	2001	33.5	36.9	37.6	38	37.7	35.4
II.2. Number of employees at 1000 inhabitants	1999	320	378	371	373	382	358
	2000	332	378	380	383	381	359
	2001	335	369	376	380	377	354

II.3. Average of employees in agriculture and forestry from total employees in economy (%)	1999	39.4	60.1	42.9	53.3	55.2	57.7
	2000	39	62.2	43	53.8	57.7	59.5
	2001	37.6	61.8	42.6	53.1	56.7	52.4
II.4. Average of employees in industry from total employees in economy (%)	1999	27.9	15.8	20.7	20.1	17.2	20.5
	2000	26.4	14.1	20.7	18.3	15.4	17.8
	2001	28	15.2	20.3	20.3	15.8	18.2
II.5. Average of employees in constructions from total employees in economy (%)	1999	5	1.5	3.9	2.6	2.5	1.9
	2000	4.8	2.2	4.1	3.2	3	1.8
	2001	5.3	1.5	4	2.9	2.2	1.5
II.6. Average of employees on services from total employees in economy (%)	1999	27.7	22.6	32.5	24	25.1	19.9
	2000	29.8	21.5	32.2	24.7	23.9	20.9
	2001	29.1	21.5	33.1	23.7	25.3	27.9
<b>III. UNEMPLOYMENT</b>							
III.1. Unemployment rate on December 31-th (%)	1999	13.2	17.7	12.3	17.8	13.5	17.5
	2000	9.5	16.7	10.9	16.6	12.2	15.4
	2001	8.2	11.8	9.4	14.1	8.6	13.3
III.2. Female unemployment rate on December 31-th (%)	1999	12.7	15.3	11.7	17.4	14.3	14.9
	2000	8.4	14.1	10.1	16.9	12.4	12.8
	2001	7.9	8.9	9.2	13.5	8.4	10
III.3. Average of unpaid unemployed from the total registered unemployed on December 31 (%)	1999	7.3	34.6	31.4	40	36.6	16.2
	2000	12.7	42.1	32.5	50.2	36.1	12.2
	2001	20.1	29.1	39.7	42.1	28.2	11
<b>IV. INFRASTRUCTURE</b>							
IV.1. Density of public roads per 100 sq. km of territory	1999	34.8	39.2	42.7	30.6	27.2	39.5
	2000	37.1	42.3	43.2	30.7	28.8	40.3
IV.2. Average of modernized public roads in public roads - total on December 31-th (%)	1999	21.5	17.9	17.7	24.9	28.9	16.1
	2000	21.3	18.1	17.3	25	28.3	25.8
	2001	23.1	17.9	17.5	25	29	25.8
IV.3. Average of localities supplied with potable water installations (%)	1999	-	-	-	-	-	-
	2000	62.1	59.7	29.2	54.1	35.7	50.7
IV.4. Average of localities with public sewerage installations on December 31-th (%)	1999	29.9	26.4	13.5	17.6	28.6	16
	2000	52.9	26.4	13.5	17.6	28.6	15
	2001	55.2	26.4	13.5	17.6	28.6	15
<b>V. SMALL AND MEDIUM ENTERPRISES</b>							
VI.1 SME' s number/1000 inhabitants, in 2000 year		13.1	8.7	14.8	12.7	11.4	8.4
<b>VI.2. SME' s average with drawn up balance sheet in total SME' s by activity of national economy, in 2000, from which:</b>							
VI.2.1. Industry (%)		10.5	11.5	9.3	21.8	14.7	10.5
VI.2.2. Agriculture (%)		1.4	4.4	1	1.4	1.5	3.3
VI.2.3. Constructions (%)		2.3	2.8	2.2	2.8	2.1	2.6
VI.2.4. Trade (%)		71.1	68.9	70.8	61.2	67.9	71.4
VI.2.5. Services (%)		14.7	12.4	16.7	12.7	13.7	12.2
<b>VI.3. SME' s average with drawn up balance sheet in total SME' s by size class in 2000, from which:</b>							
VI.3.1. Micro enterprises (0-9 employees) (%)		92.6	90.9	92.4	90.2	92.2	90.2
VI.3.2. Small enterprises (10-49 employees) (%)		5.9	7.5	6.4	8.2	6.5	8.1
VI.3.3. Medium enterprises (50-249 employees) (%)		1.5	1.6	1.2	1.7	1.2	1.7
VI.4. Average of SMEs with private capital realizing		2.3	0.9	3	1.6	2.1	0.8

gross profit in total SMEs, in 2000 (%)						
VI.5. Repartition of total incomes of the SMEs with private capital, in 2000 (%)	2.6	1	2.6	1.6	1.8	0.8
VI.6. Repartition of export incomes realized by the SMEs with private capital, in 2000 (%)	2.1	0.4	2	1	1.4	0.3

*Data sources: INS, CCIRB, ARD, APAPS.*

- **Demographic Characteristics**

It can be observed that Iasi is the most populated county and, in the same time, Vaslui and Botosani counties have the smallest population from the region, the main cause being the migration from the poor-developed areas to those more developed. Looking to the evolution, Bacau, Iasi and Suceava have registered an increase of the population and the other counties registered a constant level.

The region has a high percentage of rural population (56.5%) in comparison to the national average (45.4%). More than this, in Suceava County, the percentage of rural population is about 64.90%, at the opposite position are the counties Bacau (50.4%) and Iasi (49.9%). In Bacau County the urban population is concentrated in Bacau municipality and the other 7 towns, in Iasi County this population is mainly concentrated in the County residence (42% from the total population). As an alarming evolution is the increase of the rural population for the period 1999-2001, for all 6 counties, in the detriment of the urban one, fact that is highlighting the migration from urban to rural in the last period.

It is surprising, amongst the economic development of the area, the high level of children mortality in Bacau County (28.3/1000 in the year 2000), which is superior to the region's average and also to the national average. Looking to the evolution, it can be observed that there are counties where this indicator is increasing - Botosani, Iasi and Suceava. The life's expectancy average is 70.78 years at the regional level, closed to the national average (70.53ani). At county level, the life's expectation average is closed to the national average.

- **Human resources and the labour force occupancy**

Looking to the evolution, it has been registered a decrease of the percentage for the total occupied population in Botosani and Suceava counties, an increase in Bacau County and contradictory evolution in the other counties.

Predominantly is the percentage for the occupied population in the agriculture and forestry at regional level (51.2%), which is superior to the national average. At county level, the highest level for the indicator is in Botosani County (agriculture) and Suceava (forestry). For Suceava County this could be a positive thing, but for Botosani County this is a negative thing, causing also a low level for the economic development. At the opposite pole, the lowest rate for the occupied population in the agriculture and forestry is in Bacau County (37.6%). Looking to the evolution, only in Bacau County it has been registered a decrease of the occupied population in the agriculture and contradictory evolution in the other counties.

In industry, the highest percentage for the occupied population it has been registered in Bacau County (28%), an almost double value than in other counties of the region. It can be remarked the oscillatory evolution in all counties during the period of analysis.

In the constructions domain there are only two remarks, regarding the counties Bacau (5.3%) and Iasi (4%).

In the services sector, only Bacau County (29.1%) it is closed to the national average, the other counties registering values under this. Only Vaslui County had an increase for the occupied population in the services sector, during the period 1999-2001, in the other counties registering contradictory evolutions.

- **The unemployment**

The unemployment is registering values superior to the national average. Only Bacau County has an inferior value (8.2%) related to this, in the same time Neamt (14.1%) and Vaslui (13.3%) counties have very high and alarming rates. Also, it can be observed that the women' unemployment is lower than the unemployment rate in each county of the region and have continuous decreasing values during the period of analysis.

- **Infrastructure**

Related to infrastructure, the disparities are becoming more deep, both between the region's counties but also between some of counties and the national average. While Bacau County has the highest percentage for the localities with water supply and sewerage networks, superior than other counties and also to the national average, Iasi, Neamt and Vaslui counties have the lower rate for the sewerage network and Iasi and Suceava counties have the lower rate for the water supply network. With the exception of Bacau County where have been registered an increasing number of the localities with sewerage network, during the period 1999-2001, in the other counties this number remain constant.

Regarding the percentage of modernised public roads, Neamt and Suceava counties have closer values to the national average, but Botosani and Iasi counties are at the opposite pole.

- **SMEs Sector**

Regarding the number of the SMEs for 1000 inhabitants, all the region's counties have registered at 31-th of Dec.2002 inferior values than the national average (17.5/1000). Botosani and Vaslui counties have the lowest values, respectively 8.7/1000 and 8.4/1000. Regarding the distribution on sectors for the SMEs, in all the region's counties are predominantly the firms in the commerce sector, with higher rates than the national average (65.7%), with the exception of Neamt County. At the opposite pole is the services sector, with lower rates than the national average (18.4%) and closer values for each county and to the national average (1.7%), with the exception of Botosani and Vaslui counties, predominantly rural, determining higher rates for this. In the constructions sector neither are intra-regional or county-national disparities.

Regarding the SMEs with private-owned capital, the contribution to the total incomes and from export is especially provided by Bacau and Iasi counties and in a small part by Botosani and Vaslui counties.

In the North - East Region there are target – communities, which could be the focus of some programmes for the diminishing of the socio-economic intra-regional disparities, coming up to the communal level.

- *Areas registering industrial decline and high level of unemployment, which include next localities: Roman, Suceava, Fălticeni, Rădăuți, Vaslui, Negrești, Huși, Buhuși, Dărmănești, Moinești, Comănești, Pașcani, Hîrlău, Țirgu Frumos, Țirgu Neamț, Botoșani and Dorohoi, with their industrial platforms;*

1. *Areas with isolated rural zones, with poor-developed infrastructure, within different counties, as it follows:*
2. *The rural area that covers the confluence region between Bacău, Vaslui, Iași and Neamț counties, which is continued with the western side of Vaslui County;*
3. *The area along Botoșani and Iași counties' common border;*
4. *The area located in the South-East of Iași County, which is continued in the North-East of Vaslui County, on the right waterside of Prut river;*
5. *Areas covering isolated groups of localities from Suceava County;*

6. Izvoarele Sucevei, Brodina, Ulma;
7. Șarul Dornei, Panaci, Poiana Stampei;
8. Dolhasca, Dolhești, Manolea, Forăști;
9. Grămești, Samoștea, Zvoriștea.

10. *The area of the zones with landfalls and erosions phenomena:*

11. in Botoșani County these areas are located in the central side and South-South-East, in the perimeter delimited by the communes Ungureni, Trușești, Flămânzi, Lunca, Albești and Ștefănești;
12. in Neamț County:
13. in the North of the county, next to Pîpirig commune;
14. on both watersides of the accumulation lake from Bicăz;
15. in the North of Piatra Neamț municipality, on the territory of Gîrcina commune;
16. on the territory of Făurei commune.

17. in Iași County, on the territory of Pîrcovaci and Strunga communes;
18. in Vaslui County, in the basin of the effluents of Bîrlad river and the basin of Elan river, the South-East area of the county;
19. in Bacău County have been identified 13 areas, exposed to the landfalls, located in the central and North side;
20. in Suceava County, on the territory of localities:
21. Ulma, Brodina, Straja, Vicovu de Sus;
22. Vadu Moldovei, Forăști, Drăgușeni, Boroaia.

23. *The area of the zones affected by water floods, in the basin of Bistrița river – next to the localities Borca, Costișa, Podoleni, in the Jijia meadow, in Prut river's meadow – downstream from the accumulation at Stîncă-Costești, also in Bacău County, in the basins of Trotuș, Siret, Tazlău, Bistrița, Zeletin rivers;*

24. *The area of the zones with deficit of water supplies (regarding the specific infrastructure and the water's supply sources – water's quantity and quality), which includes Bacău and Iași municipalities. From this point of view, it can be told that almost all of rural localities don't have centralised potable water supply network.*

## 8. The Equality of the opportunities

The domain of equality opportunities' promotion into the social life for both genders is an essential demand for the Romanian society, being considered as a basic component for the attention to the respect of the fundamental human rights. So, the stimulation in the equal way for the women' and men' contribution to the durable development and the society's progress had taken an increasing importance in Romania.

To ensure a real equality and a partnership between women and men in the Romanian society it is necessary to enact some:

- Politics with priority on the equal distribution of the authority and responsibilities in the work and society, in the family life, also a more equitable participation in the decisions making process in the economical, political and social life;
- The tools for intervention and actions programmes in order to allowed to the women the ensuring of their existence' means and economical resources, for living, by themselves, the equitable distribution of the familial responsibilities for women and men and also to eliminate the obstacles of legal, political or about mentality nature regarding the ensuring of a real equality chances and an adequate participation of the women to the public life and the decisions making process.

These requirements could be also founded in the "Report of plenary Committee of the 21<sup>st</sup> Extraordinary Session of UNO General Meeting 1999".

„The governments must ensure the respect, protection and the promotion of the fundamental women' rights, by the elaboration and implementation of specific politics and legislations to this domain. It is necessary the coordination and the harmonisation of the measures that are regarding the promotion and the assurance of the equality and equity between men and women, in a systematic way and in all the domains”.

The available information from different sectors is insufficient to offer a large image of the actual situation of the women and men from Romania, but also from each region of development.

But, beside these things, in the North – East Region could be delimited some milestones:

- The life expectancy for men is lower than for women (the situation is the same at the country level, according to the Publication "Women and men in Romania", edited by the National Commission of Statistics and UNDP- United Nations Development Programme in the year 2000).
- The life expectancy in the rural area is lower than in the urban area.
- The rate of school integration at all levels is different for the rural area and the urban area, this indicator depending on the poverty level for sub-regions and the presence of the cultural areas (for example, Iași County is above the national average, whereas the other counties are below).

It is interesting to remark that the indicator is highlighting a bigger interest to study for women than for men, in the urban area and sensible smaller in the rural area.

According to the publication mentioned above it results that the percentage of the people with University degree in the women' total number had increased between the years 1992-1999 from 70.2% to 75.9%, and in the men' total number had increased from 80.9% to 85%, with the difference of 10 percents in the favour of men. This reflects an increase of the school education's level, but also a diminishing of the educational gap between genders regarding the people that have University degree.

The table with the population's structure by genders is highlighting the majority of women population at the regional level (50.5% women in comparison with 49.5% men), at county level, but in the rural area it can be observed the decrease of women's number related to the men's number, with the exception of the next counties: Botoşani (49.3% women in comparison with 50.7% men) and Suceava (49.8% women in comparison with 50.2% men).

## Conclusions

It can be observed the migration of the women from the rural area to the urban area, because of the next factors:

- Lower level of living's conditions;
- Lower access to education;
- Discriminatory mentalities more accentuated in the rural area.

Also, it can be remarked that in the rural area the women older than 60 years have already more than 27% from the women's total population. In the year 2000, at 100 women under 15 years from the rural area there were 120 women older than 60 years, and for comparison, to 100 men under 15 years there were only 86 elderly people.

Regarding the unemployment indicators it can be observed that the number of unemployed women at regional level is lower than the number of unemployed men, as it can be seen in the next table:

### The structure of unemployed people, by genders, in the North - East Region

Number of unemployed people					
Total		Men		Women	
Number	Percent	Number	Percent	Number	Percent
0	1	2	3 (2/0*100)	4	5 (4/0*100)
213,608	100	116,439	54.51	97,169	45.49

*Source: Romania's Statistics Yearbook, 2001*

This situation has many causes, as it follows:

- High number of entrepreneurs that are working with women in the textile and garment industry;
- Bigger number of women that work as medical personnel with medium and high education's level than the number of men.
- Enterprises that have absorbed the labour force preponderantly masculine as metallurgic enterprises or for the mechanical processing have stopped their activity or have reduced the personnel's number, generating a big number of unemployed men.

Regarding the distribution of the University graduates on domains, it can be remarked that:

- In the academic, medico-pharmaceutics, economic, legal and artistic domains the percentage of women is higher than of the men;
- In the agriculture and technical domains, the percentage of men is higher than of the women.

In the education domain, the percentage of women is as it follows:

- Pre-school domain – 99.8%;
- Primary and middle domain – 75.3%;
- High-school domain – 62.4%;
- Vocational domain - 50.9%;
- Academic domain - 39.02%.

In the transgression domain it can be observed an increase of the number for the incriminated people from the women population. Besides this, the proportion between men and women remain at 14% for women and 86% for men.

The statistics for the persons with definitive condemnations, being in the jail, shows 3.4% are women and 96.6% are men.

Even if then legal framework is specifying and guaranteeing the women' right to access any function related to their background, the women presence in Parliament and Senate was extremely low after 1989, but it can be remarked a small increase. The same phenomena can be observed at County and Local Councils level.

In the entrepreneurship domain it can be remarked a real affirmation of the women, a lot of successful businesses being managed by women.

In the Romanian NGOs women' presence at the execution level is also sensibly higher than the men' presence, which is highlighting their stronger involvement. Besides these, in the management functions in NGOs, at President level, the percentage is only 11.8% for women and at the second level: coordinator, director, vice-president the percentage is 32.9%.

Also, in the mass-media domain, it can be remarked the absence of the women in the administration or in the management decisions.

*(The data are obtained from the Publication "Women and men in Romania", edited by the National Commission of Statistics and UNDP - United Nations Development Programme in the year 2000)*