ALBA COUNTY COUNCIL

LOCAL AGENDA 21 – LOCAL PLAN FOR SUSTAINABLE DEVELOPMENT FOR ALBA COUNTY

ALBA COUNTY
2007

UNDP Project 0033238

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CONTENTS

Foreword by the Resident Representative of the United Nations Development Programme in Romania

Foreword by the President of the Alba County Council

I. SUSTAINABLE DEVELOPMENT STRATEGY

I.1. Evaluation of the natural capital

1.1. Atmosphere
1.2. Water Resources
1.3. Mineral Resources
1.4 Soil
1.5. Biodiversity and protected areas
1.6. Forests

I.2. Evaluation of anthropic capital

I.2.1. Description
I.2.2. Industry
I.2.3. Agriculture
I.2.4. Trade
I.2.5. Transports
I.2.6. Basic infrastructure
I.2.7. Comunications
I.2.8. Innovation and information technology
I.2.9. Tourism
I.2.10. Waste Management
I.2.11. Financial Services
I.2.12. Physical Planning

I.3. Evaluation of social capital

I.3.1. Population and human development
I.3.2. Poverty and social inclusion
I.3.3. Health
I.3.4. Education
I.3.5. Society and social categories
I.3.6. Sustainable Consumption

1.4 OBJECTIVES

II. LOCAL ACTION PLAN OF ALBA COUNTY

II.1 SPECIFIC OBJECTIVES AND IDENTIFIED PROJECTS

III. PORTFOLIO OF PRIORITY PROJECTS

Foreword by the
United Nations Development Programme Resident Representative in Romania

I'm very pleased to present the overview of the *Local Agenda 21 (LA21)* implementation in Romania during the 2006 – 2007 phase. This document grew out of the needs and ideas of local stakeholders in three new cities and two counties, and sought to strengthen local contributions in setting developing priorities according to European Union accession requirements.

So, we would like to thank these people, citizens, businesses, academics, NGOs and local authorities, not only for their technical assistance, but also for their efforts, energy and enthusiasm which contributed to the creation of this high-quality sustainable development plan.

Local Agenda 21 (LA21) is a UN initiative first adopted at the Earth Summit held in Rio de Janeiro in 1992 as a vehicle for promoting sustainable development at local levels. Ten years later, in Johannesburg in 2002, the second global summit promoted LA21 as the principal instrument to use in achieving the well-being of the world's population. Aimed at local administration, LA21 promotes, through public participation, a real balance between economic growth, social equity, and environmental protection.

The concept of sustainable development calls for a constant re-evaluation of the relationship between man and nature, and solidarity between generations, as the only viable option for long-term development.

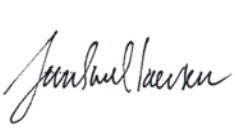
In Romania, UNDP has been actively promoting sustainable development since 2001 by conducting the project "Building Local Capacity to Implement the Local Agenda 21". So far, the project was implemented in **30 cities and two counties**. It first started with nine pilot cities during 2000 – 2002, an additional thirteen cities during 2003 – 2004, and three more cities and one county during 2004 – 2005. During the period 2005 – 2006 the project expanded to three cities and a county. Each year, the project implements LA 21 in a new set of cities, under the coordination of the National Centre for Sustainable Development, UNDP's implementing agency for LA21.

The 2006 – 2007 implementation phase was placed within the national framework of Romania's following specific requirements to secure EU accession. To this end, UNDP Romania signed a Memorandum of Understanding with the Ministry of Development, Public Works and Housing, which set a new approach of the Local Agenda 21 implementation process in Alba Iulia, Alba County, Tulcea, Tulcea County and Falciu.

The result, presented in this document, is a coherent strategy with a concrete action and implementation plan. Both offer a concrete certification that the project can meet the needs of the community and represent an important contribution to sustainable development in Romania.

These good quality local sustainable development plans will improve the future of these communities, which, in turn, will enhance people's lives in the long run. They will also help the Regional and National authorities to pursue coherent policies at all levels which will contribute to the sustainable development of the entire country.

Jan Sorensen



UNDP Resident Representative
UN Resident Coordinator

Foreword by the President of Alba County Council

Since the conference regarding the environment and development organised by the United Nations in Rio de Janeiro in the summer of 1992, the concept of sustainable development has become extremely important in policies throughout the world. This development can be seen as a hope for environmental policies, because an integrated view of economic and social problems illustrates a framework for the placement of environmental issues, if we wish to find an appropriate and acceptable solution for these issues from a social perspective. The most necessary are the changes at economic, social, and political level.

In the social area, there are new demands for the practice and principle of equity, for three reasons. Taking into consideration the fact that this concept of sustainable development comes from the political discussion of development, the distribution of development opportunities is the first to be affected. Secondly, we must consider how well the society will tolerate ecological modernisation – which will not only introduce new opportunities, but also new concerns. And thirdly, "distributed inter-generative equality" comes into play: the interests of future generations must be taken into consideration in the distribution of today's opportunities, which means that society must take into account that the present is nothing but the past of our future, which we can make decisions upon now. Therefore, with respect to the elaboration of objectives and their implementation, there is a need for a new "dialogue culture", which implies the availability of those responsible at political and social levels, the elaboration of aims, as well as implementation steps, together with persons, groups, and involved associations. This means that social and political decision makers need to assume an outstanding responsibility in the implementation of sustainable politics, which will itself lead to structural, institutional, and financial consequences.

Ion DUMITREL
President of **ALBA COUNTY COUNCIL**

Part I. LOCAL STRATEGY FOR SUSTAINABLE DEVELOPMENT – *The evaluation of the potential of the socio-economic system represented in Alba County, for the implementation of the sustainable socio-economic development model*

I.1 EVALUATION OF THE NATURAL CAPITAL

General Data

Alba County is located in the central-western part of the country, and covers a total surface of 6,242 km^2 which represents 2.6 % of Romania's surface.

Principal Relief Structures

The county has varied relief: mountains 52 %, hills 26 % and depression areas and meadows 22 %. The variety of the relief corresponds to a complex geological structure, with a long evolution, which differs from one area to the next, and with tectonic compartmentalisation and a distinct petro graphical association.

Mountains

This includes non-uniforms sectors of the Apuseni Mountains in the south and east, and in a smaller scale, only the northern ends of the Cindrelului and Sebeşului.

Bihorului Mountains

These are the tallest unit in the Apuseni Mountains (Curcubăta 1,849 m); their southern part in the superior Arieşului basin is located in Alba County. The presence of crystalline clay deposits gave these mountains a character of greatness, and the Mesozoic limestone has encouraged the development of a spectacular carstic relief. There are some flat surfaces: Făcăraş between 1500 – 1700, and Mărişel.

Big Mountain

The southern flanks which stretch north past the Arieş Valley are made up of crystalline limestone, with old granite intrusions, bordered with crystalline chalk-stone; the presence of alpine meadows has favoured the development of grazing activities.

Metaliferi Mountains

Stretch in the north-western and southern part of the Ampoi Valley basin, and have a complex formation of flinches with volcanic necks and contours (Detunata 1,258 m, Poeniţa 1,437 m and Fericeaua 1,122 m). The Munceii Vinţului to the south, are composed of flinch rocks with limestone in the form of olistolite (Piatra Tomii, Piatra Varului, limestone in the Small valley).

Trascăului Mountains

Are the largest mountain group in the county, where the strong presence of limestone determined the development of specific relief: karst plateau, isolated massifs, karst ridge, and numerous olisolites.

Şureanu Mountains

Have a south-north orientation, tall heights (Pătru Peak 2,130 m) and have deciduous and evergreen forests, and past the tree line, there are alpine meadows where sheep rearing has been developed, especially in the communes of Şugag and Săsciori.

Cindrelului Mountains

Are made up of crystalline limestone, and have heights between 900 and 2000 m, with large eroded surfaces, covered by meadows.

Hills and Plateaus

The Transylvania Plateau includes two areas: one with gas domes to the east – Cetatea de Baltă, and another with diapirs to the west – Ocna Mureş.

The Secaşelor Plateau, located south of the Târnava Valley, is a less fragmented unit, and has two inclines: east-west, and south-north. The Măhăceni Plateau, located north of the Mureş Valley, is strongly fragmented, with paleogenic and neogenic rocks, and with a structural relief and with frequent slope processes.

Depressions and Corridors

The Mureş corridor is a contact unit, which separates the Apuseni Mountains from the Transylvania Plateau. It has an altitude between 220m at the confluence with the Sebeş, and 270m at the confluence with the Arieş.

There are 8 individual terraces of the Mureş, used in agriculture, which favour the development of settlements.

Between the Apuseni Mountains and the Meridional Carpathian Mountains, there is the Orăştiei corridor, with low altitudes, and the Mureş Valley, asymmetric, stretching east through the Secaş corridor.

The intra-mountainous depressions located in valleys (Abrudului depression, Cîmpeni, Lupşa, Mogoş, Ponor, Sălciua and Trăscău, Almaşului, Zlatna, Ampoi, Ampoiţa) are small erosion basins and have been priorities in the development of settlements.

Caves are well represented in the county through the Scărişoara cave complex in the Bihorului Mountains, which is the largest frozen cave in Romania, with a width of 18-20m, a volume of approximately 75,000 m^3, and over 3,000 years of age, as well as the Huda lui Papară in the Apuseni Mountains, the Vârtop glacier, the Zguraşti glacier, and Pojarul Poliţei.

Gorges and Ravines:

The gorges in the Văii Râmeţului basin house over 47 caves with niches, arcades, turns, structural forms, where one can find Edelweiss and the alpine white carnation, which are protected plants. Furthermore, there are the Arieş Ravine, the Întregalde Gorges, which have Edelweiss at the lowest altitude in the country (590m), the Ampoiţei Gorges, which complete the dowry of the county.

Climate

Alba County is in the temperate-continental climate area. The relief is the most influential factor on the climate through its form, the exposure of slopes, and altitude. Mountains form a natural air barrier, and the Mureş corridor favours the passage of air in both directions; all mountains determine the vertical area of climatic elements.

The Apuseni mountains also influence the phonetization of the air, which takes place on their eastern slope. Humid air masses climb up the mountains and lose their humidity in the mountains, and when coming down, the eastern slopes have a dry and warmer weather.

Air temperature varies between the large relief structures, with higher values on the Mureş or Târnave corridors (multi-annual averages between 8 and 9^0C), and lower temperatures in the mountains (averages of 4^0C at heights of 1,300-1,400 m and 0^0C at heights over 2,000 m).

Atmospheric precipitation is determined by the humidity of the air and atmospheric disturbances.

There are high levels of air humidity, between 75-80 %, which illustrates the western air circulation.

Maximum rain is registered at the end of spring and beginning of summer, with 75-85 mm (78.7 mm Ighiu) and 100 mm in mountainous areas (102.0 mm – Zlatna), and minimum rain is registered at the end of winter (20-30 mm in lower regions, and 45-60 mm in higher ones), during the months of February - March.

The snow layer lasts 30-50 days in the lower areas, and over 150 days at heights over 1,600 m, with an average thickness between 3-7 cm, and 35-40 cm respectively.

Natural Non-Renewable Resources

- Methane accumulated in the domes near the Cetatea de Baltă-Tăuni;
- Mercury at the Ampoiului spring (the only deposit in the country);
- Lead, zinc, copper at Almaşu Mare;
- Gold and silver at Baba-Almaş, Haneş-Barza; Muncăceasca Vest-Stănija; Mormântul, Tisei Valley, Runculeţe, Roşia Montană, Frasin, Conţu;
- Copper at Roşia Poieni, Muncăceasca ;
- Deposits of iron found at Poşaga, Sălciua and Runcu, and mined at Remetea-Colţeşti ;
- Salt at Ocna Mureş ;
- Quartz at Ocna Mureş, Sălciua and Baia de Arieş;
- Deposits of bentonite and clay at Războieni, Ocna Mureş, Ciugud, Sântimbru, Bărăbanţ.

Renewable Resources

- Forests over an area of approximately 208,087 ha;
- Hydro-energy resources on the Sebeş Valley, at Lakes Oaşa and Tău, which feeds the hydro-electric stations at Gâlceag and Şugag.

1.1. Atmosphere

Atmosphere Quality

Background Pollution

Background pollution is the pollution which exists in all areas where there is no direct influence of sources of pollution.

Impact Pollution

Impact pollution is the pollution produced in areas which are under direct impact of sources of pollution.

In the impact pollution monitoring network, measurements are carried out on the air quality in 9 townships in the county: Alba Iulia, Zlatna, Ocna Mureş, Blaj, Aiud, Câmpeni, Abrud, Baia de Arieş, Teiuş.

Monitored indicators:

- Sulphur dioxide: Alba Iulia – 1 point; Zlatna – 1 point;
- Nitrogen dioxide: Alba Iulia – 1 point ; Zlatna – 1 point;
- Ammonia: Alba Iulia – 1 point; Zlatna – 1 point;
- Suspended particles: Alba Iulia – 1 point; Zlatna – 1 point; Ocna Mureş –1 point;
- Fraction of PM_{10} in suspended particles: Alba Iulia – 1 point;
- Sedimented particles: Alba Iulia – 8 points; Zlatna – 3 points; Feneş – 2 points; Ocna Mureş – 2 points, and one point for each of the following: Abrud, Aiud, Blaj, Câmpeni, Baia de Arieş and Teiuş;
- Heavy metals: lead, cadmium, copper, zinc – in suspended particles – Zlatna – 1 point.

Greenhouse Gas Emissions

In accordance with the inventory of air emissions in 2005, the total quantity of greenhouse gasses, namely CO2 , CH4, N2O, was of 1,107,716 tonnes.

The main sources which generate greenhouse gases are:

- Production of electric energy (approx.12 %);
- Production of thermal energy in non-industrial combustion installations (approx. 46 %);
- Industrial processes, namely metallurgy production processes, wood industry, paper, ceramics, washing soda, food industry (approx.30 %);
- Road transportation, approx. 12 %.

Greenhouse gas emissions during 2004-2005 are represented in the table below:

YEAR	Total, of which	CO_2	CH_4	N_2O
2004	1,395,784	1,375,051	18,685	2,048
2005	1,107,716	1,091,503	14,516	1,697

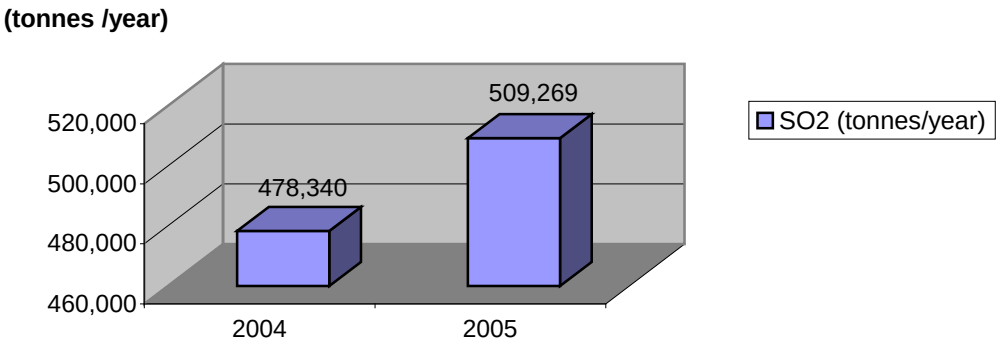
Compared with 2004, the total quantity of greenhouse gases has decreased by approximately 288,068 tonnes.

Causes: termination of the activities of large economic entities: SC AMPELUM Zlatna – non-ferrous metallurgy, SC RESIAL Alba Iulia – brick products, UTEPS Alba Iulia – foundry, SC Ardealul Alba Iulia – foundry, mining at Baia de Arieş, Zlatna, SC MOBIS Sebeş – furniture production, SC Zahăr Teiuş, bread factories, neighbourhood thermal stations in Alba Iulia, Cugir, Sebeş, Zlatna, Ocna Mureş, reduced activity in SC BEGA UPSOM Ocna Mureş (washing liquid production), la SC Metalurgica Aiud – metallurgy, UM Cugir – mechanics, SC Saturn Alba Iulia – metallurgy, SC Stratusmob Blaj – wood industry, SC Pehart Petreşti – paper industry etc.

The quantities of methane used in technological processes and in heat production decreased, so that in 1995 methane consumption was of 711,000 thousand m^3 and in 2005, this fell to 230,000 thousand m^3.

Emissions of Gases with Acidifying Characteristics

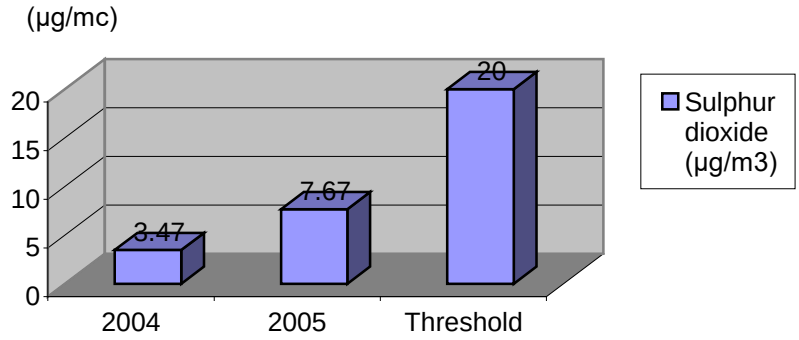
The emission of sulphur dioxide during 2004-2005 is illustrated below:



Emission sources:
- non-industrial combustion installations;
- industrial combustion in processing, production (cast iron and steel);
- road traffic.

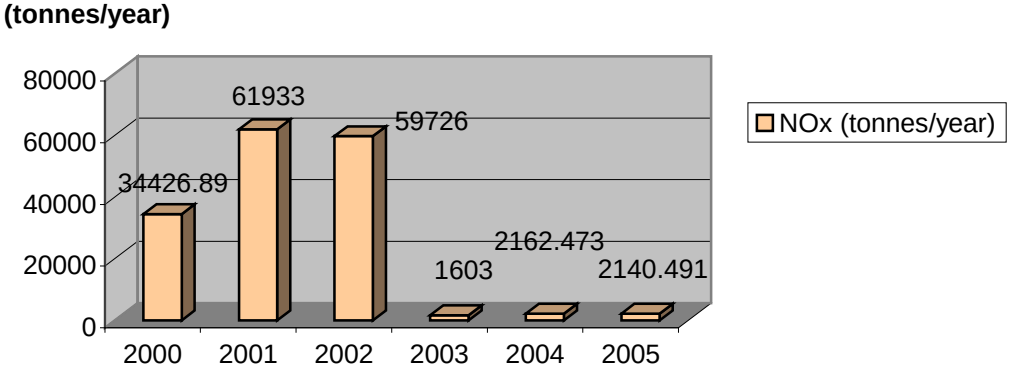
The significant decrease in sulphur dioxide emissions during 2004 and 2005 is due to a reduction in the activity of the industrial sector.

Air Pollution with Sulphur Dioxide



Annual average sulphur dioxide concentrations – Alba Iulia

The recorded values are below the admissible annual concentration for the protection of ecosystems (20µg/m^3), in accordance with Order M.A.P.M 592/2002.
Nitrogen oxide emissions during 2000-2005 is represented below:



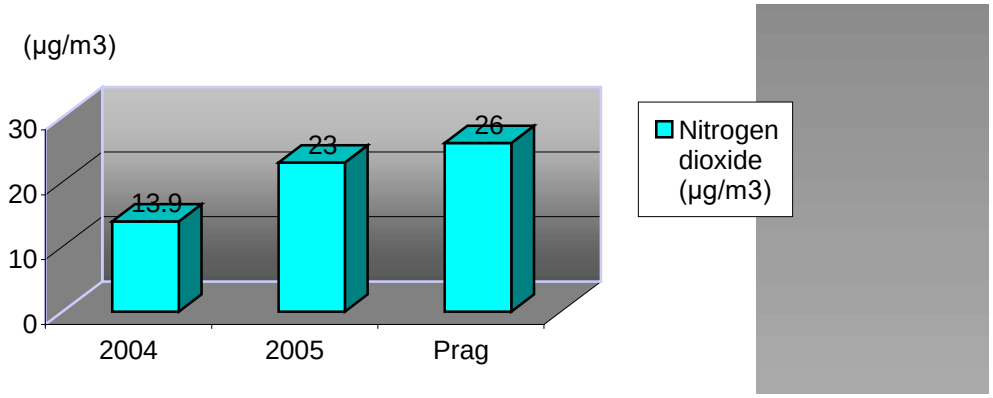
NOx emissions during 2000-2005

Emission sources:
- energy combustion;
- non-industrial combustion installations;
- combustion in the processing industry;
- production processes (cast iron and steel);

- Road traffic.

The significant decrease in nitrogen oxide emissions during 2003-2005 is due to a decrease in industrial activities.

Air Pollution with Nitrogen Oxides



Annual average concentrations – nitrogen dioxide – Alba Iulia

Nitrogen dioxide recorded values are below the admissible annual limits (26 µg/mc) in accordance with Order 592/2002.

Heavy Metal Emissions

Heavy metal emissions (tonnes/year)	**2001**	**2002**	**2003**	**2004**	**2005**
Mercury	0.021	0.0032	0.00079	0.00102	0.00111
Cadmium	0.0494	0.0316	1.307	0.00241	0.00281
Lead	4.858	4.093	8.933	0.2677	0.2796

Emission sources:

- Combustion in the processing industry, production processes (metallurgy);
- Road traffic.

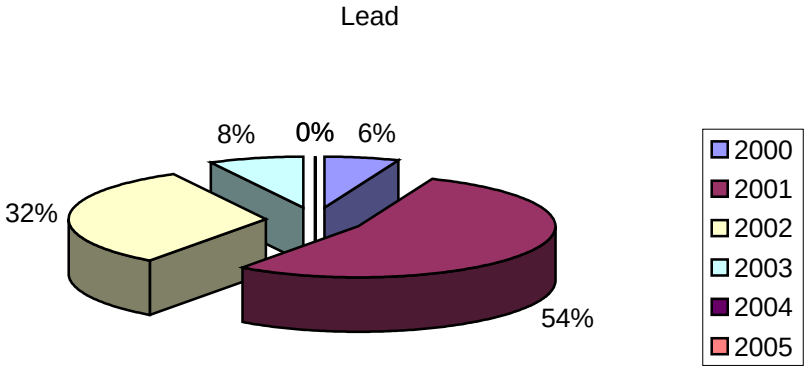
The decrease in heavy metal emissions is due to reduced activity in iron and non-iron metallurgy, and to the increased use of non-leaded gas in transportation.

Air Pollution with Heavy Metals

Zlatna Area

In monitoring air quality, the following are measured: lead, cadmium, and zinc, copper from suspended particles. Measurements are done weekly.

The maximum concentrations for heavy metals in the air, and the frequency of MAC surpassing in accordance with current norms, during 2000-2005:

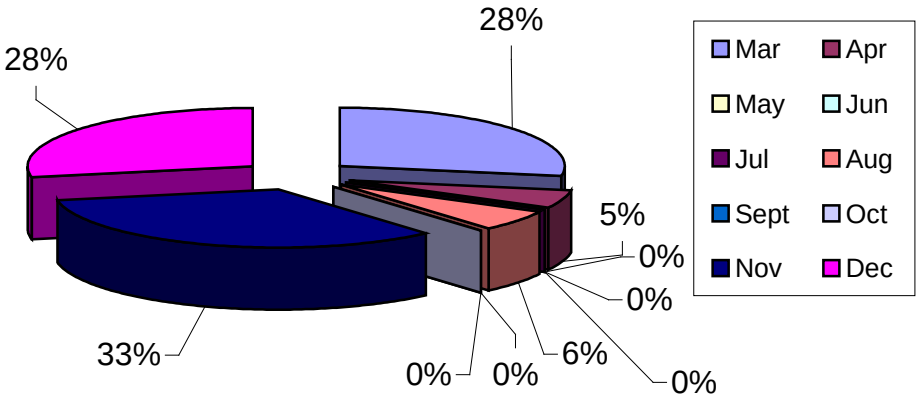


Frequency of MAC surpassing for Pb during 2000-2005

The surpassing of maximum admissible concentrations in 2000, 2001, 2002, 2003 is due to the fact that during this period, the economic entity SC Ampelum SA was active, which was a major source of pollution with acidifying and suspended heavy metal emissions. Since 14 January 2004, when the source of emission ended its activities, emissions fall below the maximum admissible limits.

Air Pollution with Suspended Particles

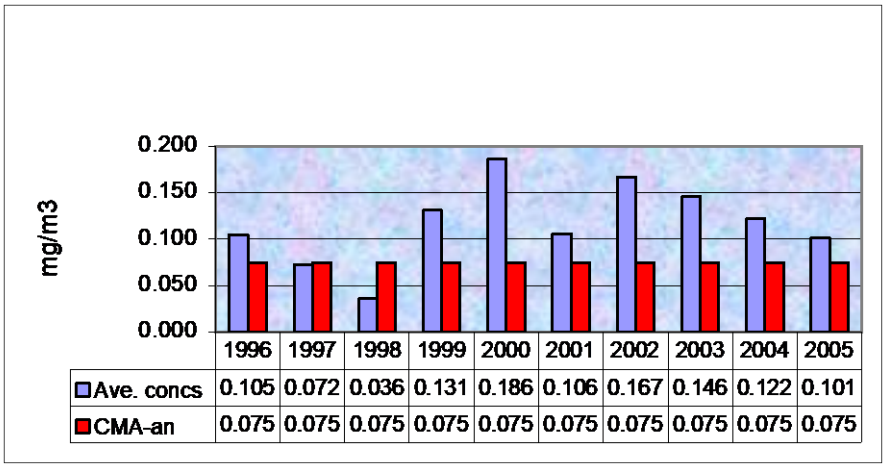
Fraction of PM_{10} from suspended particles:
Observation point: APM Alba branch.
Frequency of observations: daily, at 24-hour intervals.
PM_{10} emissions – in 2005.



Frequency of PM_{10} MAC breaches (+reduction margin for 2005) – Ord. 592/2002: 67µg/m^3

Suspended particles:

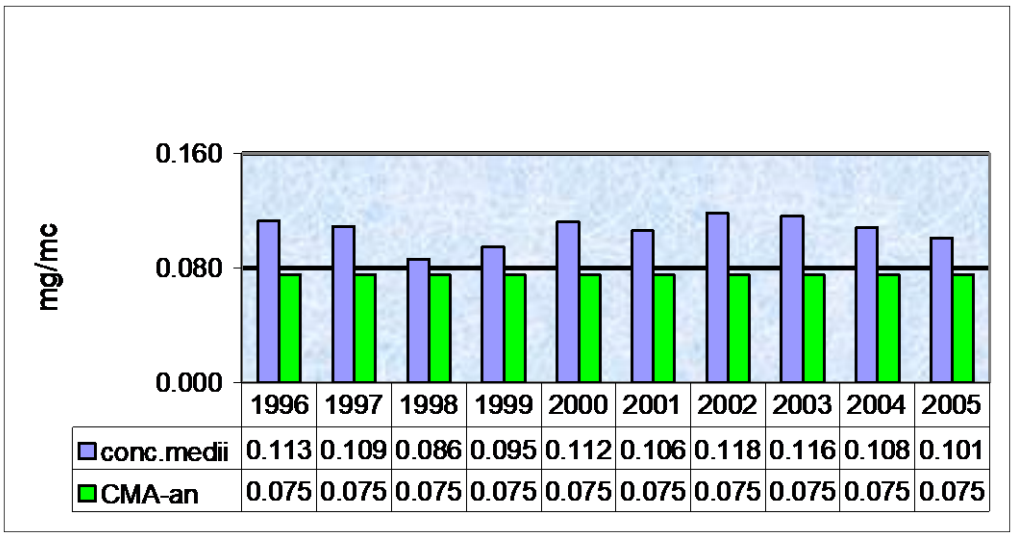
Zlatna
Suspended particle concentrations (monthly averages) during 1996-2005:



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Ave. concs	0.105	0.072	0.036	0.131	0.186	0.106	0.167	0.146	0.122	0.101
CMA-an	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075

The level of atmospheric impurity due to suspended particles has been relatively constant, surpassing the MAC 1.57 times annually.

Ocna Mureş
Suspended particle concentrations (monthly averages) during 1996-2005:



Variation of suspended particles – average values (24h)
1996-2005

The level of atmospheric impurities with suspended particles has been relatively constant, and the MAC has been surpassed approximately 1.6 times annually.

Precipitation

During 2005, the quality of atmospheric precipitation was monitored in the towns of Alba Iulia, Zlatna, Câmpeni, Ocna Mureş and Cugir, through samples collected at meteorological stations. 157 samples were tested. By area, the results are illustrated in the table below.

No.	Observation point	Total quantity 2005 l/m^2	Min PH	Ave PH	Acidic precip. Total precip. %	Average conductiv. µSi/cm
1.	Alba Iulia	674.30	4.50	6.21	19	74.44
2.	Ocna Mureş	667.9	6.70	6.86	0	141.27
3.	Câmpeni	901.4	6.50	6.77	0	85.24
4.	Zlatna	831.7	5.50	6.40	0.08	141.80
5.	Cugir	806.2	5.60	6.57	0	74.95

In the area of Alba Iulia, 19% of precipitation was acid rain (optimal precipitation pH: 5.60).

Maximum concentrations of ions were recorded in the area of Ocna Mureş: chlorides 16.48 mg/l (annual average). The Cl^- ion comes form the salt vapours evaporated from SC BEGA UPSOM and from the food salt evaporation and purification mechanism at SC Salina Ocna Mureş.

Critical Areas for Air Pollution

There are no critical air pollution areas in Alba County.

IDENTIFIED PROBLEMS:

- Insufficient monitoring of the air quality in the county;
- Atmospheric pollution with nitrates and suspended particles caused by economic agents who use old and poor equipment;
- Insufficient monitoring of industrial platforms, where small economic agents are located;
- Atmospheric pollution caused by uncontrolled waste incineration, and the incineration of agricultural remains;
- Atmospheric pollution caused by road traffic, especially in urban areas, caused by a lack of belt roads in urban areas;
- Lack of a map of the industrial areas in the county, which will offer information regarding the combined effects of the emission of pollutants in small areas;
- Need for a noise map for municipalities and towns in Alba County;
- Roads with heavy traffic (D.N. 1, D.J. 1017C, D.N. 74, D.J. 107 B).

1.2 Water Resources

Hydrography and Hydrogeology

Permanent Rivers

The whole hydrographic network of Alba County is a tributary of the Mureş River, which flows from northeast to southwest through wide meadows (sometimes as wide as 2-3km). The average draining slope is small (0.5-0.7 m/km), thus favouring bank erosion. The average reduced slope also favours the flooding of large surface areas in the meadows during flood season. The main tributary rivers are: Arieşul, Aiudul, Galda, Geoagiul, Ampoiul, Tîrnava, Sebeşul, Cugirul.

Semi-permanent Rivers (Torrential)

These rivers form a web on the studied area, and are tributaries of the Mureş River and of its principal tributaries. They determine the morphology and geological structure of the area and are generally active during heavy rain seasons, or when the snow melts. They can serve for transportation, and form accumulations of minerals at the crossing of important rivers.

Lakes

Earthquakes and glacial movements have created groups of glacial lakes, where the Iezerul Şureanu and Iezerul Ighiel were formed.

In the area of the salt massif near the town of Ocna Mureş, salt lakes have been formed (Lake Minelor Romane, Lake 1 Mai, Lake Iosif, Lake Francis, Lake Ferdinand, Lake Ştefania, Lake Nicolae).

For the hydrotechnical installations in the Sebeş Valley, starting with the Oaşa area and reaching the township of Cîlnic, artificial lakes have been created. For the provision of water supply, the following were established: Lake Mihoieşti and Lake Gîrde (on the Arieş River), Lake Feneşasa (on the Feneş River) and Lake Petreşti (in the Sebeş Valley).
Fish farms have been established on the inferior flow of the Văii Mici (com. Sîncel) - Lake lui Stan; in the area of Daia Română and Doştat.

Rivers

According to the Water Analysis, received from the Mureş Department for Water in Târgu Mureş, in the Mureş hydrographical basin in Alba County, the quality monitoring of surface rivers is carried out on 9 rivers, in 17 observation points, of which 12 sections are in operational monitoring and 5 are watched.
The length of river sections in relation to quality:
Of the total 576 km (100 %):

- 126 km of rivers fall under quality class I – 21.87 %;
- 104 km of rivers fall under quality class II – 18.05 %;
- 182 km of rivers fall under quality class III – 31.60 %;
- 82 km of rivers fall under quality class IV – 14.24 %;
- 82 km of rivers fall under quality class V – 14.24 %.

The distribution of controlled river sections between quality classes from a physical / chemical and saprobiological perspective, according to Order 1146/2002 – monthly recordings.

River	Section	Quality class Physical and chemical						Macrozoobenthos	
		RO	GM	RN	Metals	MPAO	Global	Index	Quality class
Mureş	Am. Ocna Mureş	II	II	III	III	II	III	2.12	III
	Mihalţ – bridge	II	III	III	III	I	III	2.49	III
	Am. Alba Iulia	III	II	III	III	I	III	2.11	II
Arieş	Scărişoara	I	I	I	I	I	I	1.61	I
	Upriver from Mohoeşti	I	I	I	I	I	I	1.93	II
	Am. Baia de Arieş	I	III	I	V	II	V	1.91	II

Abrud	Am. cf. Arieş	II	V	II	IV	III	V	Biological depredation	
T-va Mare + Târnave	Am. Blaj	III	II	II	III	I	III	2.24	II
	Mihalţ	III	II	II	III	I	III	2.31	III
T-va Mică	Petrisat	III	III	II	IV	II	IV	2.31	III
Ampoi	Izv. Ampoi	II	I	I	II	I	II	1.78	I
	Bărăbanţ	II	I	I	IV	I	IV	2.10	II
Sebeş	Gâlceag	I	I	I	I	I	I	1.49	I
	Am.ac. Petreşti	II	I	I	I	I	II	1.63	I
	Oarda	II	I	II	I	II	II	1.97	II
Cugir	Râul Mare	I	I	I	I	I	I	1.33	I
	Şibot	II	I	II	I	I	II	1.97	II

Major pollution sources for surface water

The major pollution sources for surface water in the county are the following economic activities: extractive industry, drinking water capture and processing (municipal wastewater purification plants), chemical processing, wood processing industry, metallurgic industry, and machinery construction.

The quantities of noxious substances released into surface waters in the Mureş hydrographical basin, in Alba County, in 2005

Noxious substances Tonnes/year	**Economic activities in Alba County**				
	Extractive industry	**Drinking water capture and processing**	**Chemical processing**	**Wood processing industry**	**Metal / constructio n industry**
Suspensions	1,989.666	1,575.263	1,038.831	619.062	16.936
CBO_5	-	931.044	-	1,065.481	3.991
CCO-Cr	370.983	1,875.848	-	1,538.833	19.018
Ammonia	-	427.855	119.473	39.827	-
Nitrites	-	8.851	-	0.051	-
Nitrates	-	48.861	-	0.693	-
Total nitrates	-	610.938	-	3.876	-
Total phosphates	-	53.681	-	0.267	-
Filtered residues	18,073.807	6,447.784	25,593.094	1,066.812	114.455
Chlorides	198.577	841.169	13,596.982	-	6.364
Sulphites	3,620.623	657.955	640.613	33.469	1.392
Calcium	-	-	4,122.084	-	-
Magnesium	-	-	154.064	-	-
Total ionic iron	294.669	-	-	-	0.155
Manganese	95.497	-	-	-	-
Hexavalent chromium	-	-	-	-	0.120
Total chromium	-	-	-	-	0.120
Copper	66.098	-	-	-	0.008
Zinc	28.208	-	-	-	0.023
Total cyanides	0.017	-	-	-	0
Cadmium	0.002	-	-	-	0
Lead	0.001	-	-	-	-
Detergents	-	8.301	-	0.030	-
Phenols	-	0.164	-	0.105	-
Extracted substances	-	61.492	-	25.624	-

Lakes

During 2005, the Alba Water Management System monitored two accumulation lakes:

Lake Obrejii de Căpâlna (Nedeiu)

Trophic state – according to Ord. 1146/2002: oxygen saturation: ultraoligotrophic; nutrients: total phosphorus: eutrophic; total mineral nitrates: mesotrophic; phytoplankton biomass: oligotrophic; chlorophyll *a*: mesotrophic.

Distribution in the quality classes, according to Order 1146/2002:

- Quality class I for: the oxygen regime, nutrients, general ions, salt levels, toxic organic and metal substances – total concentration;
- Quality class II for metals – dissolved fraction;
- Quality class V – microbiology.

Lake Petreşti

Trophic state – according to Ord. 1146/2002: oxygen saturation: ultraoligotrophic; nutrients: total phosphorus: eutrophic; total mineral nitrates: mesotrophic; phytoplankton biomass: mesotrophic; chlorophyll *a*: mesotrophic.
Distribution in the quality classes, according to Order 1146/2002:

- Quality class I for: the oxygen regime, nutrients, general ions, salt levels, toxic organic and metal substances – total concentration;
- Quality class II for metals – dissolved fraction;
- Quality class V – microbiology.

Critical areas in terms of surface water pollution:

Apuseni Mountains

Permanent heavy metal and non-biodegradable pollution sources are: sterile dumps, sterile decanting devices with active flotation devices or conservation, mine water.

- Arieş River, 58 km, falls under quality class V for metals – total concentration.
- Abrud River, 24 km, falls under quality class V – general ions, salt levels, and under quality class IV for metals – total concentration. Global distribution – quality class V. *Biological depredation has been observed in the river*..

Subterranean Water

Hydrological drilling, by quality category, according to Law 311/2004:

No.	Observation section	Drilling code	Quality category according to Law 311/2004	Surpassed indicators according to Law 311/2004
1	Lunca (Ocna) Mureş	F2	**N**	dissolved iron, manganese, sulphates, total hardness
2	Lunca (Ocna) Mureş	F3	**N**	dissolved iron, sulphates, total hardness
3	Decea	F3	**P -- N**	manganese, total hardness
4	Rădeşti	F3	**N**	manganese, total hardness
5	Mihalţ	F4	**N**	nitrates, manganese, sulphates, total hardness
6	Mihalţ	F7	**N**	conductivity, ammonia, manganese, chlorides, total hardness
7	Alba Iulia	F3	**N**	manganese, sulphates, total hardness
8	Alba Iulia	F5	**N**	dissolved iron, sulphates, total hardness, manganese
9	Jidvei	F1	**N**	manganese, total hardness
10	Jidvei	F2	**N**	ammonia, manganese, total hardness
11	Jidvei	F4	**N**	Manganese, total hardness
12	Blaj	F2	**N**	conductivity, manganese, sodium, chlorides, total hardness
13	Luncani	F1	**N**	total hardness, sulphates
14	Baia de Arieş	F1	**N**	dissolved iron, ammonia, manganese, zinc, sulphates, total hardness, cyanide
15	Baia de Arieş	F2	**N**	ammonia, dissolved iron, manganese, cadmium, total hardness

Pesticide concentrations accumulated in subterranean waters are not observed.

Critical areas for subterranean water quality:

The area of the Târnavelor meadow, and the communes of Roşia de Secaş, Cenade, Pianu, Câlnic, Jidvei, (APM analysis – water in wells) – diffused pollution with nitrates due to uncontrolled fertilisation of agricultural areas, and of uncontrolled deposits of household and animal waste.

Water distribution to the population
Information source: SC CTTA SA Alba, Alba Iulia branch SRL

For the centralised water distribution system, there are 9 surface water sources in the county, and 2 deep sources. Three of the surface sources (33.3%) have no health safety parameters with location restrictions. The accessibility to drinking water in the public system is of 79.82% in urban areas, and 12.86% in rural areas.

According to statistics obtained from the National Statistics Institute, the length of the drinking water distribution network in the county is of 799.7 km.

In Alba Iulia Municipality, the total length of the drinking water distribution network is of 180.4 km, and the distribution for the collection and transportation of wastewater is of 151.5 km, and is old and does not separate rainwater from household wastewater.

The connection of the population to the drinking water distribution network and the quantity of water distributed through the network at municipal level, is illustrated in the table below:

Population connected to the distribution network						
	2000	**2001**	**2002**	**2003**	**2004**	**2005**
No of inhabitants	**51,939**	**52,067**	**52,316**	**52,507**	**53,730**	**53,341**
Building	49,933	49,973	50,098	50,188	51,561	50,939
Yard	2,006	2,114	2,218	2,319	2,169	2,402
Street	0	0	0	0	0	0
Distributed water quantity (m^3)						
Total quantity	**4,896,525**	**3,996,321**	**3,406,210**	**3,230,304**	**3,230,304**	**3,041,536**
Building	4,838,757	3,935,433	3,342,334	3,163,512	3,167,832	2,872,356
Yard	57,768	60,886	63,876	66,792	62,472	69,180
Street	0	0	0	0	0	0

Household and Industrial Wastewater
Volumes and purification degree of wastewater released in 2005:

Information source: Târgu Mureş Romanian Water Department

County economic activity	**Volumes released (millions m^3/year)**					
	No need for purification	**Needs purification**				**Total released**
		Not purified	**Purified**		**Total**	
			Insufficient	**Sufficient**		
Animal farming	-	-	0.104	-	0.104	0.104
Mining industry	-	0.607	10.041	0.951	11.599	11.599
Food industry	-	-	0.492	0.001	0.493	0.493
Textile industry	-	-	0.098	-	0.098	0.098
Wood processing industry	0.269	-	1.980	0.146	2.126	2.395
Chemical processes	3.232	5.574	0.166	-	5.740	8.972
Metallurgy/Machinery construction	1.067	-	0.270	-	0.270	1.337
Drinking water capture and processing	-	1.126	12.806	2.540	16.472	16.472
Constructions	-	-	-	0.105	0.105	0.105
Transportation	-	-	-	0.043	0.043	0.043
Education and healthcare	-	-	0.025	-	0.025	0.025
Total	**4.568**	**7.307**	**25.982**	**3.786**	**37.075**	**41.643**

Of the total volume of released wastewater (41.643 millions m^3/year), 37.075 millions m^3/year are purified (89 %) and 4.568 millions m^3/year (11 %) do not need to be purified. Of the total volume of purified water (37.075 millions m^3/year), 7.307 millions m^3/year are not properly treated (19.7 %), 25.982 millions m^3/year are inadequately treated (70.1 %), and 3.786 millions m^3/year are adequately treated (10.2 %). With regards to

wastewater released into aquatic ecosystems, the contribution by economic activity in the county is highest from the mining industry, which is a major polluting source, releasing heavy metals and non-biodegradable suspension particles. Of the total released wastewater (11.599 millions m^3/year), 0.607 millions m^3/year are not treated (5.2 %), 10.041 millions m^3/year are improperly treated (86. 6 %), and 0.951 millions m^3/year are sufficiently purified (8.20 %).

IDENTIFIED PROBLEMS:
DRINKING WATER QUALITY AND QUANTITY

- Inadequate technical installations for the capture, treatment, collection and distribution of drinking water;
- Inadequate level of safety for drinking water in the centralised system in rural areas (in general), and in mountain areas, with sparse households;
- Poor water quality in areas where water is captured to be treated for drinking purposes, and where there is no relationship between drinking water quality from the source and the existing technology in treatment stations;
- Danger of pollution for water sources due to a lack of regional delimitations;
- Poor drinking water quality-monitoring system, especially in rural areas.

SURFACE WATER POLLUTION

- Degraded sewage systems;
- Pollution in the areas of household and industrial waste deposits;
- Untreated wastewater released into surface waters, due to a lack of sewage systems and treatment equipment in rural areas;
- Incomplete treatment of industrial residual water.

SUBTERRANEAN WATER POLLUTION

- Pollution of subterranean water in the areas of household and industrial waste deposits;
- Diffused pollution of subterranean water in animal farm areas / in areas where animal farms were active (fossil pollution / residential), and due to the inappropriate use of pesticides and fertilisers.

1.3. Mineral Resources

The complex petrographical structure outlined by a mosaic of geological formations leads to the sub-soil of the county having resources which vary in quantity, and which have outstanding value.

The long geological evolution has lead to each step making its mark through numerous genetic types of useable mineral substances.

Neogene magmatism is well represented and of outstanding value, and has been observed in the Apuseni Mountains in three cycles, materialised in the Faţa Băii andesites, in the Roşia Montană, the andesites at Breaza and the basalt at Detunata, and in the sediments in the Transylvania depression, which have salt and natural gas deposits.

In Alba County, there are the following deposits: gold at Baia de Arieş and Roşia Montană; poly-metals at Baia de Arieş, Almaşu Mare; copper: Roşia Poieni, Bucium-Izbita; mineral clay from the hydrothermal alteration of volcanoes at Cârnic (Roşia Montană); salt at Ocna Mureş; concrete at Ciugud and Ocna Mureş; clay at Sântimbru, Războieni and Blaj; methane gas at Cetatea de Baltă-Tăuni; limestone at Poiana Aiudului; marble at Sohodol.

Crystalline formations, sedimentations and magma formations have created a series of usable rocks, such as pegmatite, senonian marble, creatic marble and conglomerates, limestone, dolomite, clay, basalt, dacites, quartz, amphibolites, sand and gravel used as primary materials in constructions and in ceramics, or in the chemical industry. These are spread throughout the entire mountainous area, and are collected in quarries.

Sand and gravel are collected from riverbeds or from the superior terraces of rivers. In addition to these resources, there are other accumulations of useful mineral substances, potentially usable in the future, such as:

◊ Sulphur minerals (Cu, Pb, Zn) in the Ciorii Valley;
◊ Gold deposits;
◊ Clay deposits in the Cârnic and Cetate massifs (Roşia Montană);

◊ Copper sulphides and rare metals in the Bihorului Mountains;
◊ Quartz sands at Lopadea Nouă-Ocna Mureş and quarts at Sălciua, Vadu Moţilor.

1.4 Soil

Soil distribution by usage

Agricultural areas by use at 31.12.2005:

Years	Agricultural area (ha)	Arable area (ha)	Meadows (ha)	Hayfields (ha)	Vineyards (ha)	Orchards (ha)
1990	324,790	132,427	114,228	70,284	5,394	2.457
1995	324,489	131,080	115,373	70,421	5,112	2.503
2000	328,849	132,762	117,437	72,227	4,774	1.649
2001	328,929	132,909	117,649	72,328	4,455	1.588
2002	328,686	132,961	117,455	72,227	4,455	1.588
2003	328,880	131,776	Meadows + hayfields 191,476		4,181	1,408
2004	328,369	132,035	118,645	72,514 Total 191,159	3,818	1.357
2005	328,017	132,827	Meadows + hayfields 190,123		3,539	1,528

Information source: Agriculture and Rural Development Department

Land Distribution by Quality Class

Quality class	Use									
	Agricultural		Arable		Meadows Hayfields		Vineyards		Orchards	
	Surface (ha)	% of total use	Surface (ha)	% of total use	Surface (ha)	% of total use	Surface (ha)	% of total use	Surface (ha)	% of total use
I	16,203	4.93	810	0.60	15,318	8.05	70	1.97	5	0.37
II	50,472	15,38	26,270	19.77	22,977	12.08	1,140	32.21	85	5.56
III	83,015	25.30	42,656	32.11	38,295	20.14	1,041	29.41	743	48.62
IV	101,590	30.97	48,231	36.31	52,261	27.48	918	25.93	460	30.10
V	47,855	14.58	9,760	7.34	37,550	19.75	370	10.45	175	11.45
VI	28,882	8.80	5,100	3.83	23,722	12.47	-	-	60	3.96
Total	**328,017**	**100**	**132,827**	**100**	**190123**	**100**	**3,539**	**100**	**1,528**	**100**

54.36 % of the county's agricultural area falls under categories IV-VI, which shows the need for ecological reconstruction work.

Principal Restrictions for Soil Quality

The table below illustrates agricultural areas, which have been observed by the Pedological and Agro-chemical Studies Office as polluting, by types of pollution – according with COD MESP 1987.

Polluting factor	COD MESP 1987	Affected area (ha)
Excessive soil humidity	28/13	17,950
Soil erosion through water – moderate	20/12	48,163
Soil erosion through water – strong	20/13	23,272
Soil erosion through water – very strong	20/14	33,524
Soil erosion through water – excessive	20/15	9,785
Wind erosion	20/20	Not necessary
Landslides in waves	38/20	25,361
Landslides in steps	38/30	5,971
Running landslides	38/50	755

Excessive skeleton at soil surface	35/4	3,520
Accidental soil saturation at Unirea Ocna Mureş	28/11	135
Soil compaction Primary compaction, crust formation	28/15	40,000 –agricultural production affected: 11-25 %
Humus reserves – very small	144/015	42,622
Humus reserves – small	144/090	133,918
Strong acidity	63/>4.7	35,937
Moderate acidity	63/5.2-5.6	61,230
Phosphorus – very weak	72/002	59,438
Phosphorus –weak	72/006	181,111
Potassium - very weak	73/020	42,526
Potassium –weak	73/053	110,396
Nitrogen – very weak	71/0120	137,232
Nitrogen – weak	71/205-28/03.04	164,812
Micro-element quarries (zinc)	-	-
Chemical pollution	28/03.04	5,503
Damaged soil through excavations	28/01	78
Soil coverage- waste and sterile residues	78/02	383

Agricultural areas are of poor quality, as they are affected by numerous restrictions: erosions, landslides, small humus reserves, and weak representation of nitrates, phosphorus, and potassium.

Accidental Pollution in Alba County, 2005

Date	Environmental factor	Location / pollution source	Phenomena	Cause	Effects	Measures
14.02.2005	**Air**	**Aiud / SC Ardealul SA-**	**Ammonia vapour emissions**	**Ammonia reservoir tear – poor weather conditions**	**Ammonia vapour emissions over a radius of 80-100 m**	**-tear was fixed, liquid NH_3 transported to SC Azomureş Tg. Mureş -monitoring of NH_3 emissions**
10.05.2005	**air**	**Sebeş / SC Kronoşpan SA**	**Atmospheric emissions of approximately one tonne of fine wood fibre, non-toxic**	**Defective dust catcher**	**Fine fibre was deposited over 1/3 of the total area of the town of Sebeş**	**-defect was fixed in 11 minutes -monitoring of particle emissions**
1.07.2005	**water**	**Cugir / SC Santol SA**	**Cyanide emissions**	**Uncontrolled emissions in metal cover basins**	**Fish mortality**	**-neutralisation of emissions in metal cover basins -monitoring of water quality in the Cugir River**

Pressures on Soil Quality

Fertilisers

Quantities of chemical fertilisers (active substances) for the 2005 agricultural year (autumn of 2004 to summer of 2005):

Chemical fertilisers	Agriculture – total	Private sector – total	State sector - total

	Surface (ha)	Quantity (t)	Surface (ha)	Quantity (t)	Surface (ha)	Quantity (t)
Total fertilisers	85,000	4,675	84,750	4,660	250	1
Of which, nitrous fertilisers	45,000	2,725	44,870	2,716	130	9

Phytosanitary Products

The consumption of phytosanitary products in Alba County during 2000 – 2005.

Year	Total pesticide use (active substances - tonnes)				Pesticide per 1ha of treated land (active substances - kg)			
	Total	**Insecticide**	**Fungicide**	**Herbicide**	**Total**	**Insecticide**	**Fungicide**	**Herbicide**
2000	**118.950**	8.026	72.154	38.770	**0.855**	0.058	0.519	0.278
2001	**126.076**	10.167	82.015	33.894	**0.910**	0.073	0.592	0.245
2002	**105.902**	7.282	64.870	33.750	**0.766**	0.054	0.468	0.244
2003	**83.380**	9.816	49.587	23.977	**0.606**	0.072	0.360	0.174
2004	**86.652**	5.201	54.370	27.081	**0.631**	0.038	0.396	0.197
2005	**99.846**	5.850	66.605	27.391	**0.728**	0.043	0.485	0.200

Information source: Agriculture and Rural Development Department – Alba Phytosanitary Unit.

Observations: taken into consideration was registered consumption in both organised agriculture and by individual producers. The total number of hectares of arable land, vineyards, orchards, and hops were taken into consideration as the reference for this consumption. Annually, phytosanitary production was influenced by state budget subventions and by weather conditions.

Soil Pollution caused by the Industrial Sector

In Alba county, pressure on soil quality is primarily the cause of mining activities, of non-iron metallurgy, and of the chemical industry (chlorine and sodium products).

The location of mining units, the surface of waste deposits, decanting ponds, is permanent sources for the natural geo-chemical modification of the soil.

No.	Mining sites	Waste deposits – liquid – decanting ponds – location, area	Solid waste deposits – landfills, location, area
Apuseni area			
1.	Arieşmin branch – Baia de Arieş – economic entity closed down	Brăzeşti –10.7 ha conservation Valea Cuţii –4.8 ha conservation Valea Sartăş –6 ha closed	23 waste dumps at mining route exits 35.5 ha
2.	Roşiamin branch– Roşia Montană	Gura Roşie –23 ha conservation Valea Săliştei - 18.5 ha active	26 waste dumps of which 2 dumps (Valea Verde and Hop) area active 22 ha
3.	SC Cuprumin SA – Abrud	Valea Ştefanca nr.I – 26.1 ha conservation. Valea Şesii –330.8 ha active Valea Ştefanca nr.II – iaz de avarie 50.7 ha	Geamăna –96.3 ha active Cuibaru –116.9 ha active Muntari –46.4 ha active Hădărău –5 ha conservation
4.	C.N.U. SA Măgurele – Arieşeni branch	–	Waste dumps caused by geological works and through mining. Vârciorog – closed down. 3 dumps – Valea Galbena – area of 11.5 ha
5.	Bucium area	Landfills and abandoned liquid waste sites, which belonged to the Bucium state mining site. Surface of approx. 15 ha.	
Zlatna area			

1.	Zlatmin SA branch – economic entity closed down	-No.1 Zlatna – in conservation, located in the township of Podul lui Paul 1.73 ha -No.2 Valea Mică – in conservation, located in the township of Valea Mică 5.6 ha -No.3 Sfârci-Galaţi – closed down, township of Valea Mică 10.2 ha	35 waste dumps located at the entrance of mining sites that are in conservation or closed down – surface of 53 ha.
Industrial Objectives			
1.	SC BEGA UPSOM SA Ocna Mureş	**INDUSTRIAL WASTE DISPOSALS** -3 waste disposals in conservation in Unirea II on the Mureş River, 60.7 ha -1 waste disposal put under the administration of Ocna Mureş town hall, and transformed into a household waste deposit -2 active waste disposals and 1 aquatic deposit in the township of Unirea II on the Mureş River, 99.2ha	-
2.	SC Saturn SA Alba Iulia	-	1 used sand waste deposit and non-regulated remains from the foundry. Located in Bărăbanţ undergoing environmental reconstruction – 4.5 ha
3.	SC Metalurgica SA Aiud	-	Used sand waste dumps – Păgida – from foundries

Soil Quality Monitoring

Monitoring Networks:

- Alba Iulia Municipality: 10 monitoring points
- Municipalities of Aiud, Sebeş, Blaj and the towns of Cugir, Teiuş, Ocna Mureş, Câmpeni, Baia de Arieş and Abrud: 1 monitoring point
- Zlatna: 8 monitoring points. The area was under the direct influence of impurity emissions from SC Ampelum SA – active in copper metallurgy, and in the production of copper sulphate and magnesium. The entity ended its activities on 14 January 2004:

Monitored indicators – heavy metals: lead, copper, zinc, and cadmium, accumulated in the upper soil layers.

The variation interval for heavy metals accumulated in the superior soil layers: Zlatna-Alba Iulia area (35 km of the old Sc Ampelum SA) – during 2005.

Collection area	**Copper mg/kg**			**Zinc mg/kg**			**Lead mg/kg**			**Cadmium mg/kg**		
	min	max	ave	min	max	ave	min	max	ave	min	max	ave
Morilor Valley	69.10	257.8	166.6	135.9	248.6	192	88.3	138.4	95.7	0.01	1.98	0.72
Left bank, Ampoi River	93.17	335	171.5	114.7	541.2	230.4	83.2	128.6	101.4	0.06	2.5	0.71
Right bank, Ampoi River	0.235	235	98.28	10.6	210.3	107.4	0	135.1	75.4	0	1.61	0.48
Pătrângeni 3 km from the source	74.6	210.6	135.9	62.5	220.8	150.2	63.7	157.6	124.2	0.20	0.63	0.32

Galaţi Right bank, Ampoi River	79.22	271.3	175.6	70	203.9	593.8	60.4	499.1	182.9	0.009	0.4	0.23
Feneş 6 km from the source	63.12	129.6	100.8	32.5	190.3	136.3	42.1	99.4	70.0	0.017	0.38	0.19
Ampoiţa	29.20	529.2	175.6	113.2	752.2	415.5	19.3	321.6	148.2	0.016	3.11	0.78
Şard 30 km from the source	20.10	101.8	52.14	70.1	110.9	82.7	6.1	29.5	15.97	0	0.21	0.06
Alba Iulia 35 km from the source	3.68	60.69	36.8	30.8	98.3	73.7	6.32	83.9	22.0	0	0.36	0.36

Conclusions:

Average values of metals accumulated in the soil do not surpass the cautionary level for use according to Ord. 756/97 – monitored areas: right and left banks of the Ampoi River, upstream from the source of pollution.

In the areas of Morilor Valley, Pătrângeni, Galaţi, Feneş, soil samples were collected from gardens – usage (Ord.756/97):

- Morilor Valley (1 km from the source), the caution level for the sensible use was surpassed 2.57 times for copper (of the maximum value); 1.60 times (average value), and for lead: 2.67 times (maximum value); 1.9 times (average value).
- Pătrângeni (3 km from the source), the caution level for the sensible use was surpassed 2.10 times for copper (maximum value); 1.35 times (average value) and for lead: 3.15 times (maximum value); 2.48 times (average value).
- Feneş (6 km from the source), the caution level for the sensible use was surpassed 1.29 times for copper (maximum value) and 1.40 times for lead (maximum value).

Only for zinc and cadmium there are no registered surpassing of the caution levels.

In the Municipalities of Alba Iulia, Blaj, Aiud, Sebeş and the towns of Cugir, Teiuş, Ocna Mureş, Câmpeni, Baia de Arieş and Abrud, heavy metal concentrations accumulated in the upper soil levels did not pass the caution levels, according to Ord.756/1997.

Critical Areas for Soil Pollution / Degradation

Zlatna Area

Pollution sources: SC Ampelum SA, now closed down, and waste deposits for the Zlatmin SA branch (Valea Mică).

Critical areas are located between the townships of Zlatna, Pătrângeni and Valea Mică, an area that was under the direct influence of emissions from SC Ampelum SA until 14 January 2004.

Pollution Effects on Agricultural Soil

Acidic emissions, and acid rain in the area together with the emissions of toxic metal particles, have had a negative impact on the chemical, biological, and physical aspects of the soil. The accumulation of heavy metals lead to the persistence of toxins for a long period, difficult to fix from an agro-chemical perspective. The acidity of the soil caused acid rain to further degrade the organic materials through a change between humid and liquid acids, which form heavy metals with a high degree of solubility, and accessible to the vegetation. The pollutants disturb microorganisms in the soil, which slows the natural humificaiton processes. In conclusion, agricultural land in the area has lost its productive capacity due to the pollution caused by SC Ampelum SA.

Effects of Pollution Emissions on Forests

The total forested area which is affected by drying caused by pollution emissions of the old pollution source - SC Ampelum SA – is of 6,934.9 ha, and is located as follows:

Location	Affected area/ degree of pollution (ha)			
	Weak	Moderate	Strong	Total
Tăuţi	1,405.7	150.3		1,556
Valea Mică	1,225.3		1,773.8	2,999.1
Alba Iulia	2,379.8			2,379.8
Total	5,010.8	150.3	1,773.8	6,934.9

Information source: Forestry Department –Ampoiului Valley, Alba Iulia

The natural regeneration of forests in the areas affected by pollution and acid rain is compromised, with baby trees being susceptible to the toxins in the degraded soil.

Ocna Mureş Area

The main pollution sources in the area are:

- SC GHCL UPSOM SA, through functional ex-filtrations in the waste dump. The final residue contains high quantities of calcium salts, magnesium, potassium, sulphates, and chlorides.
- RA Salina SA, through salt vapours emitted by the installation for salt re-crystallisation, accidental pollutions with oil products.

Environmental Radioactivity

In 2005, all measures from the standard and special work program of the RA laboratory were implemented, with small irregularities recorded, due to electricity cuts or to apparatus malfunctions. A total of 4,668 beta global and external gamma ray analyses were carried out (immediate and delayed). 2,424 environmental samples were collected.

The specific beta global activities that were determined did not illustrate variations in the multi-annual average, and did not surpass caution levels.

Natural radioactive isotope concentrations of radon and thoron (calculated) fell within the limits specific to the county – annual average: 8.60 Bq/m3 for radon, and 0.20 Bq/ m3 for thoron.

Hourly values of the external gamma rays did not surpass the caution levels, with annual averages falling within 0.074 and 0.107 µGy/h.

Activities specific to the monitored environmental factors during 2005 fell within normal levels of radioactivity.

IDENTIFIED PROBLEMS

- Lack of a study at county level of the soil pollution with pesticides, organic substances, and heavy metals;
- Soil pollution with heavy metals in the areas of household waste deposits, industrial waste deposits, and industrial and household wastewater treatment plants;
- Deposits of waste (household and industrial) in non-designated areas;
- Soil pollution caused by uncontrolled use of fertilisers.

1.5. Biodiversity and Protected Areas

Natural habitats, wild flora and fauna

The main types of **natural habitats** (according to Law 462/2001) in Alba County are the following: oligomezotrophic bodies of water with Chara sp. benthic vegetation; Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation; alpine rivers and their banks with herbaceous vegetation; rivers with muddy banks and with Chenopodium rubrum and Bidentis; dry meadows; mountain meadows; thicket with Pinus mugo and Rhododendron hirsutum (Mugo-Rhododendretum hirsuti); semi-natural dry meadows and bushes on limestone (important sites for orchids); forest skirts with tall hydrophile grass in mountain and alpine meadows; low altitude meadows (Alopecurus pratensis, Sangiusorba officinalis); mountain hayfields; active peateries; limestone grottos and limestone sites in mountain and alpine layers (Thlaspietea rotundifolii); rocky limestone slopes with chasmophytic vegetation; grottos not explored by tourism; forested meadows; Luzula-Fagetum forests; Asperula-Fagetum forests; acidophyle forests in alpine mountain layers; mixed forests with Quercus robur, Ulmus laevis, Fraxinus excelsior or Fraxinus angustifolia, near major rivers; forests with Quercus petrae and Carpinus betulus.

In the area of the Şurianu Mountains, the natural vegetation is layered vertically, with differences between slopes facing north and those facing south, and between slopes facing east and west. Starting with the bottom of the mountains up to altitudes of 1,300 – 1,400 m, deciduous forests are prevalent, but from this height up, evergreen forests are prevalent, which sometimes grow as high as altitudes of 1,900 – 2,000m. Beyond the tree line there is sub-alpine and alpine vegetation.

In the Apuseni Mountains, which are slightly taller, alpine meadows can be found only in the Bihorului Mountains, on small areas. The rest is covered with mixed evergreen and deciduous forests, from riverbanks to valleys, and towards the outskirts, especially towards the Trascău massif, there are beech forests. In the valleys there are variations in the vegetation, caused by climate and especially temperature variations.

Plateau areas are covered by deciduous forests, especially durmast forests (Secaşelor Plateau), but these do not cover large areas and are interrupted by agricultural lands.

In the Târnavelor Plateau, there are some beech trees. In this forest-steppe vegetation regime, more frequent on the Secaşelor Plateau, is due to reduced precipitation.

Locally, in areas with weak drainage and phreatic layer close to the surface, there are some swamps with swamp specific vegetation.

Wild Flora and Fauna

In Alba County, there is a set of animal and plant species, which must be protected and conserved, and a set of animal and plant species, which can be capitalised, but only in accordance with the provisions of Law 4621/2001.

Animal species capitalised in the economy:

SPECIES	AJVPS ALBA	AVPS Cerbul Zlatna	AVPS Transylvania Cluj	DS ALBA	TOTAL Specimens
Roe deer / *Capreolus capreolus*	113	4		29	146
Elk / *Cervus elaphus*	16			12	28
Fallow deer / *Dama dama*	6				6
Wild boar / *Sus scrofa*	324	10		100	434
Rabbit / *Lepus europaeus*	950	20		46	1,016
Pheasant / *Phasianus colchicus*	755			48	803
Grey partridge / *Perdix perdix*	360				360
Wood grouse / *Tetrao urogallus*	11			10	21
Lynx / *Lynx lynx*	6	1	2	2	11
Bear / *Ursus arctos*	2		1	2	5
Wolf / *Canis lupus*	12	1	3	3	19

Wildcat / *Felis silvestris*	5	1	1	3	10
Badger / *Meles meles*	220	5		11	236
Fox / *Vulpes vulpes*	692	15		170	877
Pine marten / *Martes martes*	108	2		11	121
Beech marten / *Martes foina*	50	1		7	58
European polecat / *Putorius putorius*	180			9	189
Weasel / *Mustela nivalis*	152			9	161
Muskrat / *Ondrata zibethica*	155			2	157
Hazel grouse / *Tetrastes bonasia*	30				30
Stock dove / *Columba oenas*	780			2	782
Turtle dove / *Streptopelis turtur*	485			5	490
Eurasian collared dove / *Streptopelis decaocta*	755			5	760
Quail / *Coturnix coturnix*	2,170				2,170
European starling / *Sturnus vulgaris*	1,540			130	1,670
Redwing / *Turdus iliacus*	2,155				2,155
Sky lark / *Alauda arvensis*	3,300				3,300
Alpine chough / P*yrrhocorax graculus*	980			190	1,170
Greylag goose / *Anser anser*	95			3	98
White-fronted goose / A*nser albifrons*	105			3	108
Mallard / *Anas platyrhynchos*	2,460			92	2,552
Coot / *Fulica atra*	110			5	115
Moorhen / *Gallinula chloropus*	85				85
Woodcock / *Scolopax rusticola*	270			7	277
Common snipe / *Gallinago gallinago*	140				140
Great cormorant / *Phalacrocorax carbo*	175				175
Grey heron / *Ardea cinerea*	65				65
Lapwing / *Vanellus vanellus*	75				75
Ruff / *Philomachus pugnax*	20				20
Common merganser / *Mergus merganser*	40				40

Natural protected areas (natural conservation areas, national parks, biosphere conservation areas) have the most beautiful landscapes, and house a set of rare flora and fauna, geological and paleological formations, ice caves and caves with limestone formations, etc, of an outstanding value in Romania and in Europe.

The development and publication of research is needed with regards to natural protected areas, and there is a need for a closer collaboration between specialists who study these areas (geographers, geologists, botanists, zoologists, forest specialists, etc.) with local and county councils, and with county tourist agents. This way, there will be a better capitalisation of the natural potential of isolated mountain areas, or near mountain areas, without having a negative impact on the preservation of nature.

Through County Decision 20/1995, 87 natural conservation areas were determined, of which 32 are of national importance and 57 of regional importance, as follows:

Natural conservation areas of **national importance** in Alba County

1. Scărişoara Glacier Cave
2. Vârtop Glacier Cave
3. Pojarul Poliţei Cave
4. Gîrdişoarei Gorge
5. Ordîncuşii Gorge
6. Albacului Gorge
7. Melci Hill
8. Basalt columns at Detunata Goală

9. Craiului – Scăriţa – Belioara Plain
10. Molhaşurile Căpăţînii Swamps
11. Vidolm larice forest
12. Daffodil meadow at Negrileasa
13. Runcului Gorge
14. Poşegii Gorge
15. Huda lui Papară Cave
16. Avenul Vînătările Ponorului
17. Vălişoarei Gorge
18. Rîmeţului Gorge
19. Mănăstirii Gorge
20. Întregalde Gorge
21. Cetii Rock
22. Craivii Rock
23. Ampoiţei Rocks
24. Corbului Rock at Meteş
25. Limestone at Valea Mică
26. Lake Iezerul Ighiel
27. Sloboda secular forest
28. Fossil area in the River Bobii
29. Lake Tăul fără Fund at Băgău
30. Rîpa Roşie at Sebeş
31. Masa Jidovului Rock (Masa Uriaşului)
32. Iezerul Şureanu glacial lake

An additional 6 natural conservation areas of regional importance have been identified and proposed, as well as one biosphere conservation area, so that currently there are 94 natural protected areas. This number illustrates the high natural potential of Alba County, as well as the engagement of specialists and authorities to declare and protect these areas.

Classified by category, the protected areas in Alba County are as follows: 25 complex conservation areas, 5 landscape conservation areas, 28 geological conservation areas, 23 species conservation areas, 2 paleontological conservation areas 10 botanical conservation areas. The majority are located in the Apuseni Mountains (79), followed by the Şureanului Mountains (7), and then by the Secaşelor Plateau (4) and by the Tîrnavelor Plateau (3).

The central-western part of the Apuseni Mountains, which is proposed to be declared a biosphere conservation area, has a wide petrographical and geomorphologic spectrum. Here we find eruptive rocks, limestone, conglomerates, marble, and clay, and each rock has a specific type. There is predominance in certain places of karstified rocks (limestone and dolomites), which have created especially beautiful landscapes, with toothed ridges, sharp slopes, narrow gorges, and numerous caves.

In addition to the beautiful carstic phenomena, there is also a large number of isolated rocks and large mountains, fossil areas, wild thicket, forests and bushes, sprouts of vegetation, etc., most of which are natural protected monuments or different types of natural conservation areas (geological, paleontological, botanical, hydrological). There are 75 of these conservation areas over a small area, which implies connecting them into one area, in order to protect them and manage them more efficiently (fig. 2).

The presence of numerous permanent settlements with unique characteristics (groves, isolated villages) whose inhabitants practice traditional crafts (animal farming, wood collection and artistic wood processing), this justifies the maintenance of this region in an original form by including it in a biosphere conservation area whose status includes the protection of nature and that of specific human activities.

The lists with natural conservation areas with natural protected elements, which belong to the "Munţii Apuseni" biosphere conservation area, can be seen below:

Locations with Important Natural Conservation Areas:

No.		**Category**	**Type**	**Surface - ha -**

I.	Carstic plateau –Vărăşoaia Depression –Biserica Moţului Peak	IV	complex	39.00
II.	Ponorului Citadels	IV	complex	14.90
III.	Carstic complex - Ponorului Valley– Lumea Pierdută	IV	complex	39.00
IV.	Galbenii Valley	IV	complex	70.00
V.	Cave complex at Groapa de la Bârsa – Focul viu	IV	complex	30.00
VI.	Bălileasa Depression	IV	complex	24.00
VII.	Boghi rocks – Obârşia Crişului Pietros	IV	complex	38.40
VIII.	Rădesei Citadel – Izvoarele Someşului Cald	IV	complex	20.00
IX.	Săritoarea Bohodeiului – Obârşia Văii Aleului	IV	complex	32.90
X.	Cârtigatele Peak	IV	botanical	10.00
XI.	Coasta Brăesii –Grăitoare Rock	IV	botanical	6.00
XII.	Ciuria Secular Wood –Firii Valley	IV	botanical	35.00
XIII.	Albe Rocks –Vârfuraşu Cave	IV	complex	14.00
XIV.	Urşilor Cave at Chişcău	IV	speological	4.00
XV.	Nicula Cave	IV	speological	2.00
XVI.	Sighiştelului Valley	IV	complex	420.00
XVII.	Porţile Bihorului Cave	IV	complex	2.00
XVIII.	Groapa Ruginoasă –Seacă Valley	IV	complex	20.40
XIX.	Izbucul Mic Valley and swamps	IV	complex	80.00
XX.	Gârda Seacă Carstic Complex –Vârtop ice cave	IV	complex	20.00
XXI.	Scărişoara ice cave –Ocoale Valley	IV	complex	14.00
XXII.	Ordâncuşii Gorge	IV	complex	10.00
XXIII.	Peretele Dârninii – Izbucul Mătişeşti	IV	complex	5.00
XXIV.	Albacului Gorge	IV	complex	35.00
XXV.	Făgetul Măgurii	IV	forest	6.00
XXVI.	Hoanca Apei	IV	complex	4.00

Conservation Areas and Individual Conservation Natural Elements:

No		**Type**	**Surface – ha –**
• **ALBA COUNTY**			
1.	Vârtop Ice Cave	speologicalal	1.00
2.	Gura Apei Cave	speological	1.50
3.	Huda Orbului Cave	speological	1.00
4.	Coiba Mare Cave	speological	1.00
5.	Coiba Mică Cave	speological	1.00
6.	Hodobana Cave	speological	1.00
7.	Avenul cu două intrări	speological	0.10
8.	Izbucul Tăuzului	speological	0.10
9.	Hoanca Apei Cave	speological	1.00
10.	Cave shaft at Şesuri	speological	0.10
11.	Scărişoara Ice Cave	speological	1.00
12.	Pojarul Poliţei Cave	speological	1.00
13.	Izbucul Poliţei	hydrological	0.10
14.	Izbucul Coteţul Dobreştilor	hydrological	0.10
15.	Zgurăşti Ice Cave	speological	1.00
16.	Poarta lui Ionele Cave	speological	0.10
17.	Peretele Dârninii Cave	speological	1.00
18.	Izbucul Mătişeşti	hydrological	0.10
19.	Albacului Gorge	geological	35.00
20.	Mândruţului Gorge	geological	3.50

21.	Gârdişoarei Gorge	geological	15.00
22.	Avenul de la Tău	speological	0.10
23.	Ordâncuşei Gorge	geological	10.00
24.	Avenul din Hoanca Urzicarului	speological	0.10

IDENTIFIED PROBLEMS:
Biodiversity is threatened by human activities, classified by:

Direct threats: losses or destructions of habitats due to human activities – deforestation, economic activities (mining); excessive grazing in mountain areas; illegal constructions in protected areas; poaching.

Indirect threats: uncontrolled tourism which increases the amount of waste in natural areas, and in rivers and lakes; unorganised camping; uncontrolled camp fires; illegal commerce of rare and endangered plant species (daffodils from the daffodil clearing at Negrileasa).

Protected areas are threatened by: inappropriate management of natural resources; lack of appropriate management for protected areas with an important anthropic impact; conflicts with land owners and owners of forested areas (individual persons, town halls, co-owners, etc) located in protected areas, especially large ones – Apuseni National Park; lack of a coherent and unified system (in accordance with the law) to sign post, manage, and promote protected areas, both natural and built, in Alba County.

1.6. Forests

Forests

Forest - Overview

Forests cover a total area of 203.951 ha. Of this surface, RNP Romsilva manages 153,213 ha. Forested meadows cover a total surface of 5,732 ha, most of which are under the management of local councils. The largest part of forested areas is deciduous forests.

The forests in Alba County are distributed in the three types of relief as follows:
- Meadow – 12 %
- Hill – 56 %
- Mountain – 32 %

Health Levels of the Forests

In 2005, the level of the health of forests in Alba County was good. In order to control the situation, measures were put in place for the removal of infested wood from forests, and preventative measures were amplified. In order to diminish the population of damaging insects, additional measures were put in place for the installation pheromone units, with significant results.

The forested surface on the area of O.S. Valea Ampoiului affected by the emissions of the old S.C. Ampelum Zlatna S.A. is of 6,934.9 ha, and is located as follows:

U.P.	Affected surface / degree of pollution -ha-			
	Weak	Average	Strong	Total
III Tăuţi	1,405.7	150.3		1,558
IV Valea Mică	1,225.3		1,773.8	2,999.1
V Alba Iulia	2,379.8			2,379.8
Total O.S.	5,010.8	150.3	1,773.8	6,934.9

Wood Introduced into the Economy

In accordance with the mode of use, the wood used by D.S.Alba, falls into 4 categories:
- Wood destined for economic entities;
- Wood destined for the population;
- Wood for the own needs of the R.N.P.;

- Wood used for building forest roads from inaccessible basins.

The total amount of wood used for economic purposes was of 70,803 tonnes.

On the area managed by D.S. Alba, deforestation occurred over an area of 18,843 ha, in such a way as to promote the natural regeneration of the forest.

In areas under D.S. Alba Iulia management, all areas are reforested in accordance with the Forestry Code; maximum 2 years after the deforestation took place. In addition, all openings in forests, which do not have a use for the management of forests, are forested to become a part of the productive and protective system for the environment. For this reason, in state owned forests there is no process for forestation, other than that which is currently used – reforestation. In exchange, there are numerous degraded areas owned by others, especially in the eastern part of the county, which are not used and which are ideal for forestation. Although there is no appropriate legislation, the owners of degraded lands show no interest in the forestation of these lands, even if some forestry departments have expressed their willingness to identify improvement parameters, provide technical assistance, and provide the necessary materials.

In 2005, D.S. Alba identified a surface of 9.48 of agricultural land, which was processed as necessary to be transformed through the Government Decision at RNP – ROMSILVA for reforestation.

In 2005, 427 ha were regenerated, of which: 195 ha through reforestation and 232 ha through natural forest regeneration in areas managed by the National Forest Department.

In areas outside of the forested area, reforestation works were carried out over 113 ha, a large part of which with trees sponsored by the Alba Iulia Forestry Department, through structural funds for forestry.

Identified problems

- Ownership law, which returned large forested areas to individuals;
- Excessive cutting of trees in forests by their owners;
- Lack of forest management systems for re-owned land, especially for smaller surfaces.

1.2. STRUCTURE OF THE ECONOMIC SYSTEM

1.2.1 Description

The sustainable development vision for Alba County must include the timely materialisation of policies beneficial to the local community and to the county’s inhabitants, as future European citizens.

Alba County must develop as a European county, with quality standards related to every key area – infrastructure, industry, agriculture, services, human resources, social assistance, etc, and also to be integrated and actively use the existing natural, anthropic, and human capital at the regional level.

Alba County must attract public and private sources in its development.

The Local Strategy for Sustainable Development will support the management of local authorities, and will create a favourable background for attracting public and private investments, which will capitalise on the natural, anthropic, and human resources in the European context of this territorial administrative entity.

In the economy of Alba County, at the end of 2006, there were 18,674 economic operators, of which:

- 396 joint-stock companies
- 10,943 limited liability companies
- 318 general partnerships
- 6942 individual persons and family associations
- 64 cooperative organisations

1.2.2 Industry

An analysis of the industry of Alba County from the point of view of the structure of industrial production, by main industry arms, and by main industrial products, currently outlines[1] the following:

- *The processing industry* makes up 92.8% of the total production structure of Alba County, 6% less than in 2005;
- *Electrical and thermal energy, natural gas, water* make up 5.9 % of the total production structure of Alba County, 0.9% more than in 2005;
- *The mining industry* makes up 1.3 % of the total production structure of Alba County, 0.1% less than in 2005;

Industrial Production Indicators for Alba County[2]

%

	Same month of the previous year = 100													1.I-30.IV.2006 Compared to 1.I-30.IV.2005[1)]
	2005									2006				
	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr[3]	
County total	**127.8**	**123.8**	**124.7**	**102.8**	**117.7**	**104.2**	**114.2**	**110.5**	**96.0**	**104.7**	**110.5**	**135.3**	**136.2**	**12.2**
Mining industry	97.7	94.0	94.8	98.4	97.8	110.2	96.4	96.5	96.2	84.8	84.8	100.4	102.2	93.3
Processing industry	128.9	125.1	126.3	103.1	119.4	104.5	115.2	111.4	96.2	104.8	110.9	136.1	136.7	122.6
Electrical and thermal energy, natural gas, water	106.3	92.6	77.3	92.3	62.0	82.1	82.6	82.2	89.8	112.2	97.8	94.1	110.7	103.2

Source: Alba Regional Statistics Department

The analysis of the processing industry, by main areas of activity, outlines a quasi-majority structure of the wood processing industry (42.3%), followed by the food and beverages industry (16.8%), chemical industry (8.9%), and the leather and shoe industry (7.3%). These statistics outline the dependency and capitalisation of natural resources available in Alba County, as well as the strong representation of activities and products of the light industry.

-% -

Main areas of activity	2006	2005
Processing industry	**100.0**	**100.0**
Wood processing industry	42.3	31.3
Food and beverage industry	16.8	18.1
Chemical industry	8.9	12.0

[1] Temporary analytical reference - 30 April 2006.

[2] Gross series. Industrial production indicators (IPI) represent the development of the industrial production at all levels in the county, while the IPI calculated at national level represent the development of the gross added value to the factor costs, in the industrial activity. These were calculated at the level of each county based on data from the statistical research paper, "Short term indicators in industry" (INDTS).

[3] Provisional data.

Leather and shoe industry	7.3	10.5
Textile, fur, and leather industry	5.9	8.0
Furniture industry and other unclassified production	4.2	3.7
Other non-metal mineral production	3.3	5.0
Metallurgy	3.0	2.4
Machine and equipment industry	2.8	3.1
Textile industry	1.5	2.6
Other areas	4.0	3.3

Source: Alba Regional Statistics Department

Of the main industrial arms, significant **increases** in production were seen in the: wood production industry (+35.8% - entities were responsible for over 42% of the processing industry production), the food and beverages industry (+29.7%), furniture production and other unclassified activities (+28.3%), and metallurgy (+22.1%). Significant **decreases**: other non-metal mineral production (-19.5%), textile and textile production industry (-17.0%), textiles, furs and leather industry (-14.7%) – in these industry areas production decreased in April 2005 compared to April 2004. the massive restructuring of the mining industry at national level has generated consequences regarding the production of non-metallic minerals in Alba County. Practically, in one year, the production of these industrial sub-levels has significantly decreased (by approximately 20%).

According to data from the Alba Regional Statistics Department, the production of the principal industrial products over 4 months in 2006 compared to 2005 has significant increases in the production of: paper (+162.2 %), butter (+69.3 %), meat (+37.5 %), timber (+26.7 %) and enforced steel products (+14.1 %), and has significant decreases in the production of: cheese (-48.3 %), porcelain (-26 %), stockings (-21.7 %) and bread (-20.3 %).

Industrial production by sections and industry arms is as follows:

	Cumulative 01.01-30.04.2006 - Thousands Lei- (RON)	April 2006 - Thousands Lei- (RON)	Cumulative 01.01-30.04 2006 compared to 01.01-30.04 2005 %	April 2006 Compared to:	
				April 2005 %	March 2006 %
COUNTY TOTAL, of which:	**1,220,150**	**331,145**	**122.2**	**136.2**	**99.4**
MINING INDUSTRY	16,579	4,883	93.3	102.2	103.4
Extraction and processing of metal ore	12,679	3,714	104.4	107.6	104.3
Other mining activities	3,900	1,169	79.8	95.6	102.2
PROCESSING INDUSTRY	1,131,830	309,593	122.6	136.7	99.5
Food and drinks industry	190,465	58,348	129.7	126.0	105.8
Textile industry	16,896	3,195	83.0	60.9	63.2
Textiles, leather and fur industry	66,545	13,355	85.3	66.7	79.8
Leather and shoe industry	82,776	17,203	91.8	88.3	80.8
Wood processing industry	478,212	140,303	135.8	162.0	103.7
Paper industry	8,319	2,134	85.1	14.74 times	105.2
Printing, publishing	968	272	93.6	118.8	112.1
Chemical industry	100,964	26,472	94.3	96.8	95.9
Plastic processing industry	1,786	670	43.5	56.6	156.2
Other metal products	37,602	9,948	80.5	75.3	82.5
Metallurgy	33,583	9,235	122.1	112.6	96.8
Metal construction and products	12,140	3,301	73.9	67.4	70.3
Machinery and equipment	31,841	7,137	99.6	86.6	73.0
Machinery and electrical equipment	3,275	1,007	71.1	87.7	91.9
Medical, precision, optical and photographic equipment, clock works	24	7	90.4	103.1	81.7
Road transportation	12,819	4,195	126.2	158.1	116.3
Furniture production and other unclassified activities	47,198	10,925	128.3	134.7	85.8
Waste capture	6,417	1,886	102.8	95.6	88.3
ELECTRICAL AND THERMAL ENERGY, NATURAL GAS, WATER	71,741	16,669	103.2	110.7	91.4
Production, transportation, distribution of electrical and thermal energy, natural gas, and warm water	65,923	15,203	103.3	112.2	91.2
Water capture, treatment, and distribution	5,818	1,466	102.5	94.7	94.7

Source: Alba Regional Statistics Department

The production of principal industrial products/ Monthly activity for trend captures. Compared with the average annual production in 2002 and 2003 by principal production units.

Principal industrial products in Alba County	U.M.	2005									2006			
		Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr[1)]
Concentrated copper	Tonnes	410	470	500	500	500	525	450	415	415	385	385	423	441
Meat	Tonnes	1,055	1,344	1,202	1,281	1,507	1,624	1,579	1,678	1,529	1,463	1,293	1,574	1,532
Meat products	Tonnes	1,461	1,602	1,731	1,692	1,722	1,971	2,100	2,007	1,478	1,114	1,231	1,288	1,335
Stockings and socks	Thousand pairs	1,512	1,512	1,019	950	1,186	1,069	1,294	1,330	1,046	969	1,088	1,399	884
Shoes	Thousand pairs	222	183	214	236	141	213	188	148	116	115	185	241	154
Timber	Mc	49,329	52,320	64,651	77,440	87,819	89,857	85,098	82,703	60,993	62,949	44,668	65,894	68,232
Steel products	Mc	2,230	2,452	2,387	2,255	2,483	2,412	2,263	2,356	2,020	1,410	1,959	2,471	2,132
Paper	Tonnes	2	-	-	-	-	4	15	3	-	581	695	594	671
Sodium carbonate	Tonnes	17,649	18,014	9,232	16,799	8,746	16,760	14,529	11,035	16,594	19,172	13,694	18,876	18,856
Pottery	Thousand lei (RON)	6,525	6,530	5,853	5,498	5,693	5,791	5,317	5,949	4,828	4,681	6,268	6,470	4,623

Source: Alba Regional Statistics Department

Physical production of main industrial products in 2003 and 2004

PRODUCT	UM	2003	2004
Extracted methane gas	thousand m^3	205,689	206,192
Extracted complex ore	tonnes	18,011	320,400
Extracted copper ore	tonnes	1,995,720	210,290
Total meat (including organs)	tonnes	7,938	13,993
Meat products	tonnes	1,231	17,272
Milk	hL	17,880	66,762
Butter	tonnes	648	1,086
Cheese	tonnes	584	857
Bear	thousand hL	618	881
Wool	tonnes	688	425
Stockings	thousand pairs	18,200	16,606
Total shoes	thousand pairs	1,645	2,320
Timber	m^3	20,377	498,060
Wooden board	tonnes	195,893	6,817
Paper	tonnes	7,372	4,967
Sodium carbonate (100 % NA2CO3)	tonnes	185,981	171,150
Detergents (100 % active substance)	tonnes	28	8
Clay shingles and tiles	thousand pcs	125	20
Lime	tonnes	184,502	153,409
Steel products	m^3	15,226	24,538
Raw steel	tonnes	7,922	7,652

Source: Alba Regional Statistics Department

An analysis of the indicators related to the physical production of industrial products in Alba County shows that at the end of 2005, the average meat production increased by 6,055 tonnes compared to 2003 (7,938 tonnes), and meat [products increased by 16,041 tonnes (compared to 1,231). This is due to the expansion of the private sector active in meat production and meat products, as well as to an increase in the number of animals in the county (see *Agriculture* section in this chapter).

Another major chapter of the expanding industrial production is timber production, which at the end of 2005-totalled 650,210 m^3 compared to 498,760 m^3 in 2004 or 20,377 in 2003. The strong forestry potential of Alba County, and the return of large forested areas to private owners, as well as the development of the primary collection and processing sector for wood, has generated a strong increase in timber production in Alba County. Private foreign and internal investments in wood factories at Sebeş, Blaj, Câmpeni, Abrud etc., have allowed for this expansion of productivity. Unfortunately, the collection of wood from the public and private forested areas in Alba County is uncontrolled and excessive, and sometimes illegal, which has multiple negative consequences on environmental factors – relief, climate, and soil, in areas of deforestation.

The production of steel products is a developing industrial sector in Alba County, with production reaching 22,491 m^3 at the end of 2005, compared to 24,538 m^3 in 2004, which was 6,716 m^3 more. The increase in steel production is due to private foreign (Italian capital mostly) and local investments in the sector, and also due to an increase in civil and industrial construction investments in the urban area of Alba County, especially in the municipalities of Alba Iulia, Sebeş, Blaj and Aiud.

While sodium carbonate used to make up a significant portion of industrial production in Alba County, there has been a decrease in its production. In 2005, the total production of sodium carbonate was of 129,538 tonnes, 41,612 tonnes less compared to 2004 and 56,443 tonnes less compared to 2003. The decrease in the production of sodium carbonate is due to a combination of internal and external factors of the main producer in Ocna Mureş: a constant increase in price of prime materials needed in production, methane gas, limestone and coke, a lack of an investment program in reducing production costs by improving technology in the factory, the strengthening of the RON in relation to the Euro and the USD, and the impact of the volume of exports produced by the factory, etc.

Significant economic groups in Alba County

- **Kronospan Group**[4] is one of the *Top 100 Romanian firms by profit* and one of the *Top 100 Romanian firms by sponsorship opportunities.*

One of the world leaders in the production of wooden panes, the company acquired two construction factories (in a 250m Euro deal), built by the Italian company Fratti in Sebeş. One of these is the MDF factory (Medium density fibres), and the second factory makes up 80% of the local production of PAL – plaques of wooden chips – simple (wholesale), and is the only production centre in Romania for non-laminated PAL.

The firm produces PAL products in a variety of 50 colours (panes of MDF, laminated MDF, lacquered MDF, simple MDF); simple E1 PAL; OSB; PAL or MDF support; laminated wooden floor panes for normal or heavy traffic; work areas; post morphing in a variety of 16 colours; wooden panes in 16 colours; adhesive and non-adhesive foil; indoor doors and door panes.

- **Holzindustrie Schweighofer** is one of the *Top 100 Romanian firms by profit* and one of the *Top 100 Romanian firms by sponsorship opportunities.*

In 2003, the Austrian firm chose Sebeş to build a timber factory through a Greenfield investment of 70 million Euros. The entity produces timber for construction and for: industrial processing (stratified plastics, proliferated materials, furniture, steel panels); house construction (shingles, beams, side walls, attics); pre-built homes (components for houses on the Japanese market and construction wood for American homes); the Do-It-Yourself market; constructions (panels for steel items, planks, thin wood); packaging industry.

Capacity of the economic entity[5]:

- Entry capacity: 850,000 m^3
- Production capacity: 450,000 m^3
- Drying capacity: 360,000 m^3
- Plane capacity: 320,000 m^3

- **Transavia –** chicken meat products (processed and semi-processed)[6].

Transavia has facilities for growth, production, and distribution, in accordance with the basic principle in the European White Book regarding Food Safety and in campaigns at European level for the ongoing monitoring of food. Currently, the entity has a growth capacity of 1,700,000 chicks per cycle, with 6.5 cycles in a year. This results in approximately 25,000 tonnes of meat. Transavia

[4] Source of data: company website.
[5] Idem
[6] Idem

Company produces 80 tonnes of chicken meat per day, with a total capacity of 50,000 tonnes per year.

- **Albalact** – milk products, with a processing capacity of 70,000 litres of milk / day and over 250 employees (number increasing), licensed by HACCP.

- **Bergenbier – Intebrew Distilleries**, the beer factory at Blaj, established 12 years ago and employs over 180 citizens of Blaj, with investments into the factory reaching 21.5m Euro during 1994-2005.

- **SEWS – R Alba Iulia** – Japanese capital investment aimed at the production of electrical cables for cars.

- **Apulum and IPEC** Alba Iulia – porcelain production.

- **Ciatti Sebeş** – furniture production for electronic equipment.

- **Savini Sebeş** – bath furniture production.

- **Bosch – Blaj** – an ongoing Greenfield investment of 10m Euro, over 40,000 m^2, for the production of profilated beams.

- **Kaufland and Profi Alba Iulia** – complexes for services for the population (especially food and goods wholesale distribution).

- **Record Alba Iulia, Arieşul Conf Baia de Arieş and Fair Play Alba Iulia** – shoe and clothing production.

- **GHCL UPSOM SA Ocna Mureş** – chloro-sodium products: sodium chloride heavy and light, sodium silicate solid and liquid, sodium bicarbonate for food and chlores.

The analysis of the indicators related to industrial productivity[7] in counties and regions, in 2005 compared to 2004, shows that in the Central Region there was the largest production level in Alba County (14.2%), and the lowest was in Covasna (-4.8%);

- *Main industrial indicators by building types*: the number of active entities and the turnover, average number of employees and spending on salaries, gross investments in corporate responsibility, average turnover per active entity and per employee.

- *Main industrial indicators by size class*: the number of active entities and the turnover, average number of employees, gross investments in corporate responsibility, turnover / number of employees reported in entities with 0-9 employees; 10-49 employees; 50-249 employees, 250 employees and over; total.

The following were taken into consideration:

- Industry: energy and water, road transportation, mainly aimed at the production of goods and equipment (excluding car production), industries aimed at the production of long term goods (excluding car production), agriculture and food industry (excluding mill products,

[7] Indicators for industrial production (IPI) characterise the development of industrial production at all levels in the county, while the IPI calculated at naitonal levels shows the gross value added to the cost factors, created in industrial activities. These were calculated in every county based on data from "Statistical Research Regarding the Industrial Production" (IND) in 2004, and from "Short Term Indicators in Industry" (INDTS) in 2005 – Regional forecast developed by the National Forecast Commission

production of starch and starch products, products for animals), industries aimed at the production of perishable goods, other than agricultural and food products.

- Construction
- Transportation
- Post and telecommunications
- Real estate
- Sale, maintenance, repairs of cars and motors. Retail sale of fuel.
- Wholesale commerce
- Retail commerce
- Market services for the population
- Rentals and services aimed at enterprises, and waste management
- Other activities (agriculture, forestry, pisciculture etc.)

Cugir Industrial Park was built in accordance with Government Order No. 65/2001 regarding the building and functioning of industrial parks, approved and modified by Law No. 490/2002 and by Law No. 31/1990 regarding commercial entities. The commercial entity was established under the authority of the Alba County Council as single shareholder, through Decision No. 100 of 30 September 2002.

The total surface area of the park is of 6.20 ha, of which 2.46 ha is built area, and the rest consists of green spaces, walkways, access ways, and utility networks.

Of the 41 economic agents who are active here, 11 are in the areas of textiles and mechanics, 6 are active in textiles and wood production, 2 are active in mobile telephony, 2 are driving schools and a laundromat, 2 technical consultancy entities, 4 have commercial activities in iron and non-iron materials, and other activities such as: thermal treatments, cleaning activities, waste collection, development of electrical installations, sports activities, with a total number of over 350 employees.

In order to render Cugir Industrial Park activities more efficient and to improve the quality of the services offered by economic agents who are tenants in the park, the Strategy for the Functioning and Development of the "Industrial Park Cugir" SA was established, through its nominalisation as an economic agent which uses utilities, namely its own networks for electrical and water distribution, sewage, and natural gas distribution. Currently, all entities are guaranteed these utilities by S.C. Uzina Mecanică Cugir, and the cost of utilities are very high, as the distribution networks are told, and losses in the network are large. Finance sources for the development of this project include the Alba County Council – through capital contribution – established in December 2006, with a total value of 650,000 RON, and the own funds of the Cugir Industrial Park, and bank loans.

Blaj Industrial Park was built in accordance with Government Order No. 65/2001 regarding the building and functioning of industrial parks, approved and modified by Law No. 490/2002 and by Law No. 31/1990 regarding commercial entities. The commercial entity has 5 founding shareholders: Alba County Council, Blaj Municipality Local Council, Crăciunelu de Jos Local Council, Sîncel Local Council and Valea Lungă Local Council.

The total surface area of the industrial park is of 12 ha. In December 2006, the Zonal Urban Plan was developed and in the same month, the auction was held to determine the documentation and steps for the development of the units, taking into consideration that the area for the commercial entity is Greenfield with opportunities for the quick development of the infrastructure.

AIUD Industrial Park will be built in accordance with Government Order No. 65/2001 regarding the building and functioning of industrial parks, approved and modified by Law No. 490/2002 regarding commercial entities. It will have five founding shareholders, who currently have agreed in principle to participate to the construction of the economic entity.

1.2.3 Agriculture

The rural population represents approximately 42% of the total county population. The population of working age in Alba County was of 85,857 persons in 2004, representing 53.4% of the

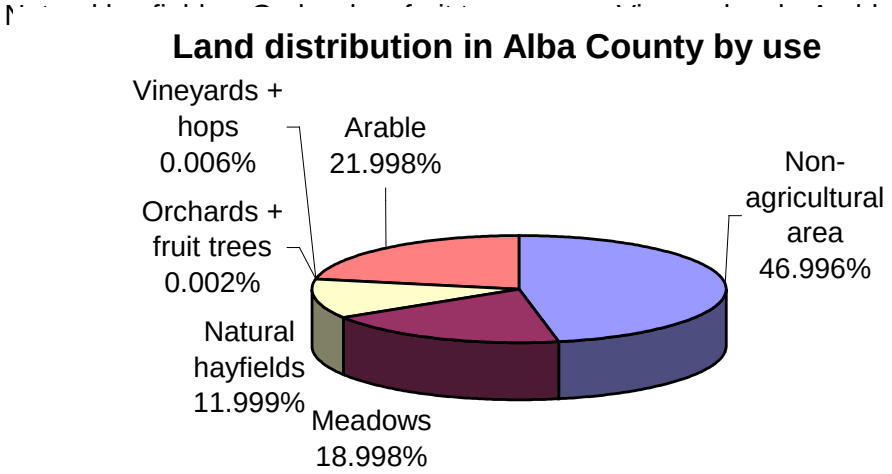
total rural population. In relation to the agricultural surface of the county, the degree of activity of the population is of approximately 26 persons for 100 ha.

The number of those employed in the agriculture and forestry sectors was of 57,200 persons in 2003, which represents 35% of the total number of those employed in rural areas.

In the 92,909 rural households in the county, the workforce is mostly made up of those from peasant families, and sometimes workforce from outside the household is employed, during harvest seasons.

- The land distribution in Alba County, by use, is as follows:

No	LAND DISTRIBUTION	SURFACE -ha-	%
I.	TOTAL COUNTY AREA	624,157	100
	Of which:		
1.	NON-AGRICULTURAL AREA	296,233	47
2.	AGRICULTURAL AREA	327,934	53
	Of which:		
2.1	Meadows	116,923	19
2.2	Natural hayfields	73,796	12
2.3	Orchards + fruit trees	1,215	0.002
2.4	Vineyards + hops	3,502	0.006
2.5	Arable	132,498	22
	Of which irrigated area:		



Studies regarding botanical classes show the following for Alba County:

Category of use	Surface -ha-	Fertility class I	II	III	IV	V
Arable	132,498	866	19,178	36,810	34,194	41,450
Meadows	116,923	41	2,940	19,358	39,501	55,083
Hayfields	73,796	30	1,783	11,496	27,576	32,911
Vineyards + hops	3,502	-	403	1,015	1,012	1,072
Orchards	1,215	-	197	388	379	251
Total agricultural	327,934	937	24,501	69,067	102,662	130,767

This shows that the areas with fertile soils (classes I and II) have a small representation.
With regards to the type of use of the agricultural area of the county, in accordance with OUG No.108/2001, is as follows:

Type of use	Number	Area	Percentage of the total

		– ha –	agricultural area – ha –
Commercial agriculture	543	24,000	7 %
Family agriculture	92,323	304,000	93 %
COUNTY TOTAL	**92,866**	**328,000**	**100 %**

During 2004-2006, the number of agricultural activities had the following development:

Type	2004	2005	2006
Commercial agricultural units	515	485	543
Family agricultural units	92,323	92,323	92,323
TOTAL	**92,838**	**92,808**	**92,866**

This trend is due to state aid, as well as to sustained economic development. The number of agricultural units will increase, as will the land areas managed by these units, which will harm small family agricultural activities.

- **Plant production**

This is a basic component of the county's agriculture, and is the source of products used in human food production, and for animal production. It is also a source of exports, prime materials for the food industry, and a factor, which contributed to the establishment of a pleasant natural environment.
The distribution of cultures in 2004 – 2005 was the following:

No.	**Type**	**2004**	**2005**
1.	Wheat + Rye	24,640	28,030
2.	Barley + Autumn barley	3,875	3,422
3	Spring barley	5,530	5,076
4	Oat	2,447	2,336
5	Corn	44,897	38,450
6	Sunflower	2,185	2,444
7	Soybean	616	641
8	Rape plant	113	80
9	Sugar beet	473	736

Potatoes – Surface, production, and necessary amounts during 2004-2006

Type	**2003**	**2004**	**2005**	**2006**
Surface- ha	8,461	8,079	8,127	7,553
Average production- kg/ha	14,510	18,500	14,500	14,555
Total production -t	122,769	149,462	117,842	109,937
Necessary – county total -t	113,374	106,804	97,369	93,296
Of which:	50,000	44,839	35,352	32,981
Necessary for population consumption -t	37,991	37,728	37,636	37,656
Necessary for seeds-t	25,383	24,237	24,381	22,659
Total necessary -t	113,374	106,804	97,369	93,296
Deficit, Total surplus-t	+9,395	+42,658	+20,473	+16,641

Wheat is planted on approximately 25,132 ha of the county's arable surface, and together with the other straw plants makes up the basic crops of the county. However, this does not provide the minimum necessary for the county.

Type	**2003**	**2004**	**2005**	**2006**
Surface ha	22,740	24,640	28,030	25,132
Average production - kg/ha	2,300	4,500	3,182	2,600
Total production -t	51,681	110,880	89,191	65,343
Of which: for bread-t	41,345	88,704	71,353	52,274

Necessary for population consumption -t	56,283	55,893	55,757	55,787
Necessary for seeds -t	4,943	5,421	6,167	5,529
Total necessary -t	61,226	61,314	61,924	61,316
Total deficit, surplus -t	**-19,881**	**+27,390**	**+9,429**	**-9,042**

Corn

Type	2003	2004	2005	2006
Surface - ha	41,737	44,897	38,450	35,629
Average production- kg/ha	3,100	5,500	4,239	3,836
Total production -t	129,385	246,934	162,990	136,673
Necessary – county total -t	114,904	138,338	96,203	82,847
Of which:	100,000	123,467	81,495	68,187
Necessary for population consumption -t	14,070	13,973	13,939	13,947
Necessary for seeds -t	834	898	769	713
Total necessary-t	114,904	138,338	96,203	82,847
Total deficit, surplus -t	**+14,481**	**+108,596**	**+66,787**	**+53,826**

- **Trees and orchards**

Fruit growing in the county an activity in households, as well as in systems for intensive growth; the fruit tree surface of the county is of 222 ha.

Fruit tree orchards cover a total area of 222 ha in the county. Due to investments and acquisitions through the Sapard programme, and through the technologies used, there is an annual production of 15-20 tonnes / year.

The largest areas are in the townships of Miraslău, Stremţ, Gîrbova, Aiud, Doştat, Daia Română, Cricău, and Benic. In the Apuseni Mountains, there are some fruit types adapted to altitudes, especially apples (Vidreni, Albac Red, Muntoase de Albac). There are strong presences at Abrud, Roşia Montană, Sălciua, Almaşu Mare and Gârda.

- **Viticulture** has a long tradition in Alba County, and is a sector with a strong potential for economic importance, developed as a result of favourable natural conditions for vineyards, especially in the hilly area of Transylvania. Covering a surface area, which makes up 1.5% of the agricultural land of the county, there are four vineyards in the county (Alba Iulia, Aiud, Târnave, Sebeş-Apold). These have distinct agro-pedo-climatic conditions, and produce superior wines with a controlled denomination of origin, which through their bouquet, and the equilibrium between sugars and acidity have brought fame to some grape types such as Feteasca alba, Pinot gris, Muscat otonel, Traminer, Sauvignon, Fetească regală.

- **Technical equipment in agriculture**

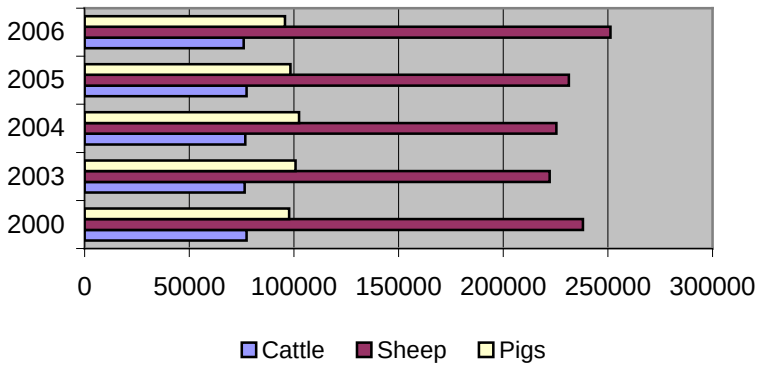
Technical agricultural equipment has significantly improved, and has been acquired through the Sapard, Fida and Fermierul programmes.

Type	2003	2004	2005	2006
Total tractors	3,404	3,580	3,682	3,607
Of which: -up to 45 hp	1,045	1,185	1,207	2,153
- between 46-65 hp	2,134	2,246	2,178	1,170
- over 65 hp	225	149	297	284
Cereal combines with auto-propulsion	641	615	615	584
Ploughs	2,993	2,875	2,997	2,960
Harrow with discs	1,179	1,180	1,208	1,224
Seeders for straw plants	665	688	696	722
Seeders for weeds	656	657	677	686
Machinery for potato planting	56	68	69	74
Machinery for potato harvesting	45	49	53	55
Herbicide machinery	394	383	407	410

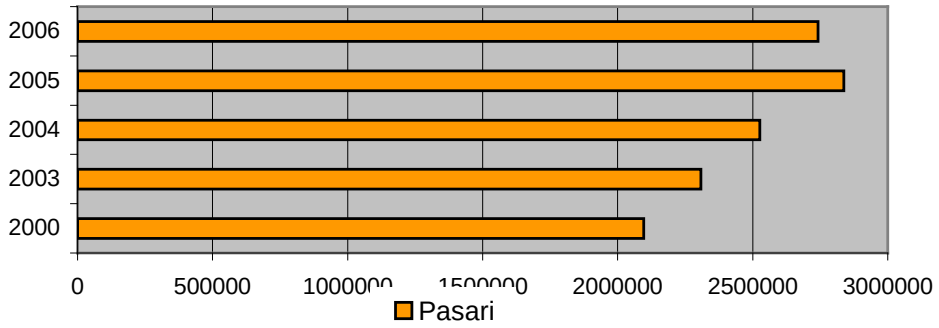
Plant product deposits:

No.	Type	Total depositing capacity – Tone –	Observations
1.	Potato	-	-
2.	Cereals	136,550	49 % of the capacity are silos

The zootechnical sector is well represented at county level due to large areas of meadows and hayfields in mountain areas. The existing units have over 83,000 cattle in 21,000 units, with a total production of approximately 1,200,000 hL of milk.



Type	2000	2003	2004	2005	2006
Cattle	77,430	76,382	76,803	77,356	76,046
Sheep	238,148	222,135	225,434	231,356	251,291
Pigs	97,663	100,749	102,442	98,392	95,658
Birds	2,096,232	2,307,933	2,526,114	2,837,032	2,741,748



Zootechnology is influenced by new production technology, due to changes, mainly, in the structure and size of units, the processing and commercial activity of agricultural production.

Zootechnology entities by type of property (at 31.12.2006):

Type	County total	Of which:			
		Public sector	Private sector	Of which:	
				Commercial entities	Groups of owners
Cattle	76,046	126	75,920	5,162	70,758
Sheep	251,291	65	251,226	2,804	248,422
Pigs	95,658	284	95,374	984	94,390

Birds	2,741,748	290	2,741,458	1,174,032	1,567,426

Opportunities for rural development

- Access to the European agricultural market
- An increase in the operational capacity of local institutions and of de-concentrated local ones for the professional development of farmers in accessing structural funds

I.2.4 Commerce

External Commerce

The county's economic development was strongly supported by the re-launching of exports, after foreign investments in the industry, especially in the wood processing industry.

In the mentioned reference period, county exports exceeded imports by EUR 56,899 thousand (69.8%). The total exports represented 1.7% of all national exports, and imports were 0/8%. Compared to the same period in 2005, exports increased by 15.3% (EUR 18,344 thousand), and imports decreased by 5.7% (EUR -4,891 thousand).

Larger export increases in groups with strong representation (over 3%) in the county in: chemical industrial products (+112.0%), wood, and wood products.

Significant export decreases in groups with strong representation in: textiles and textile articles (-18.3%), stone items, plaster, cement, ceramics (-12.1%).

Total exports over 4 months in 2006 and 2005 in the county and by main industrial production arms:

%

	2006	**2005**
COUNTY TOTAL	**53.4**	**59.1**
Processing industry	**56.7**	**62.0**
Leather and shoe industry	96.5	97.5
Textile, fur, leather industry	93.8	93.1
Furniture production and other non-classified activities	91.4	97.2
Metallurgy	82.0	82.5
Wood processing industry	66.3	86.6
Machinery and equipment industry	65.0	61.0
Other mineral non-iron products	55.3	53.4
Chemical industry	53.9	56.8

Data source: Alba Regional Statistics Department

Exports (FOB) of merchandise
By sections from the Combined Nomenclature (NC)

-EUR thousands-

NC Code		**1.01.-30.04. 2006**		**Exports %**	
		FOB Export EUR thousands	**% compared to 1.01.-30.04. 2005**	**1.01.-30.04. 2006**	**1.01.-30.04. 2005**
	County total, of which:	**138,375**	**115.3**	**100.0**	**100.0**
I	Live animals, animal products	849	99.8	0.6	0.7
II	Plant products	31	15.5 times	*	*
IV	Food products, drinks, tobacco	1,129	607.0	0.8	0.2
V	Mineral products	-	-	-	-
VI	Chemical products	6,061	212.0	4.4	2.4
VII	Plastics, plastic materials, rubber	2,198	147.1	1.6	1.2
VIII	Raw leather, processed leather, and leather products	4,148	110.2	3.0	3.1
IX	Wood and wood articles	49,318	126.3	35.6	32.6
X	Wood paste	392	11.9 times	0.3	*
XI	Textiles	18,682	81.7	13.5	19.1
XII	Foot wear, hats, umbrellas	16,553	104.7	12.0	13.2
XIII	Stone items, plaster, cement, ceramics	5,478	87.9	3.9	5.2
XV	Common metals, metal articles	3,929	139.9	2.8	2.3
XVI	Electrical machinery and equipment	17,781	124.1	12.9	11.9

NC Code		1.01.-30.04. 2006		Exports %	
		FOB Export EUR thousands	% compared to 1.01.-30.04. 2005	1.01.-30.04. 2006	1.01.-30.04. 2005
XVII	Means of transportation	112	94.1	0.1	0.1
XVIII	Optical and photographic instruments and apparatus	642	105.9	0.5	0.5
XX	Various merchandise and products (including furniture)	11,072	122.9	8.0	7.5

* - less than 0.1 %

Note: differences between total county figures and figures by adding sections are due to rounding off of values from EUR to thousand EUR.

Merchandise imports (CIF)
By section from the Combined Nomenclature (NC)

-EUR thousands-

NC Code		1.01.-30.04. 2006		Structure of imports %	
		Imports CIF EUR thousands	% compared to 1.01.-30.04. 2005	1.01.-30.04. 2006	1.01.-30.04. 2005
	County total of which:	**81,476**	**94.3**	**100.0**	**100.0**
I	Live animals, animal products	9,575	127.6	11.7	8.7
II	Plant products	610	219.4	0.7	0.3
III	Animal and vegetable fats and oils	34	47.9	*	0.1
IV	Food products, drinks, tobacco	441	190.9	0.5	0.3
V	Mineral products	1,214	130.4	1.5	1.1
VI	Chemical products	4,181	150.0	5.1	3.2
VII	Plastics, plastic materials, rubber	2,662	95.6	3.3	3.2
VIII	Raw leather, processed leather, and leather products	4,862	115.4	6.0	4.9
IX	Wood and wood articles	6,591	178.4	8.1	4.3
X	Wood paste	4,200	241.7	5.2	2.0
XI	Textiles	15,325	96.0	18.8	18.5
XII	Foot wear, hats, umbrellas	4,054	117.1	5.0	4.0
XIII	Stone items, plaster, cement, ceramics	1,749	110.0	2.2	1.8
XV	Common metals, metal articles	6,336	55.7	7.8	13.2
XVI	Electrical machinery and equipment	13,371	58.5	16.4	26.5
XVII	Means of transportation	4,301	92.9	5.3	5.4
XVIII	Optical and photographic instruments and apparatus	296	77.9	0.4	0.4
XX	Various merchandise and products (including furniture)	1,648	89.3	2.0	2.1
XXII	Other products	25	312.5	*	*

* - less than 0.1%

Data source: Alba Regional Statistics Department

Note: differences between total county figures and figures by adding sections are due to rounding off of values from EUR to thousand EUR.

I.2.5 Transportation

The ongoing reduction of local investments in the building, modernisation and maintenance of public roads after 1989, together with the explosive growth of traffic in some road sectors, lead to a continued and progressive deterioration of public roads in the county.

County transportation for passengers through regular services is carried out by specialised transport operators through the County Programme for Passenger Transportation through Regular Services, which was approved by the County Council. Through the programme established by demands received at Local Councils, there are 110 routes, which, after attribution meetings, cover approximately 85% of the transportation needs of passengers in the county.

Law 92/2007 regarding Local Public Transportation Services brings active modifications, which were established at the prerogative of local authorities, in the area of passenger transportation in the county, through an increased level of coordination and control of activities.

	1990	1995	2000	2001	2002	2003	2004
Number of busses in urban areas	66	106	95	132	152	163	89
Passengers transported – thousands of passengers	17,948	15,146	20,020	20,407	21,867	30,196	29,088

Data source: Alba Regional Statistics Department

I.2.6 Basic Infrastructure

- **Access infrastructure (road and rail)**

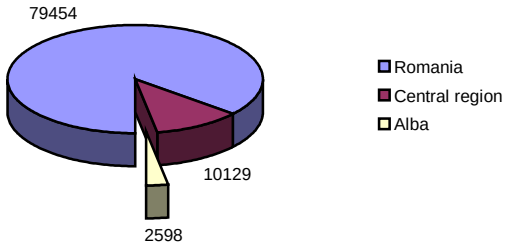
The public road network is made up of 2,598 km, of which modernised roads – 402 km and roads with light road coverings – 574 km. Of all public roads, 419 km are public roads and 369 km are modernised roads, and 37 km are roads with light road coverings. Of all public roads, 2,179 km are county and communal roads, of which 33 km are modernised and 537 km are roads with light road coverings.

The average density of roads in Alba County is of 41.6 km/100 km^2, which is higher than the national average (33.3 km roads/100 km^2).

Length of public roads

/ km

	Length
Romania	79,454
Central region	10,129
Alba	2,598

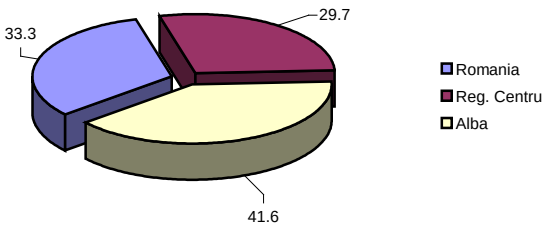


Road density

km/100 km^2

	Density of public roads for 100 km^2 of land
Romania	33.3
Central region	29.7
Alba	41.6

Source: INS, Length of transport roads at the end of 2005



Alba County is crossed by the following European roads: E 81: Satu Mare-Zalău-Cluj Napoca-Alba Iulia-Sibiu-Râmnicu Vâlcea-Piteşti, E 68: Arad-Deva-Alba Iulia-Sibiu-Braşov.

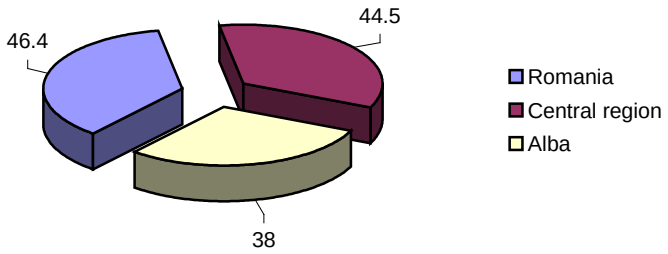
The railroad network has a total length of 237 km, with a density at 1,000 km² of 38.0 km. The main Bucharest-Oradea line passes through Blaj, Teiuş, Aiud; the Bucharest-Arad line passes through Sebeş and Vinţu de Jos. These two lines are linked through the Teiuş-Alba Iulia-Vinţu de Jos railway. From the north, the Războieni railway links the railroad network to Mureş County.

The density of railroads in Alba County is lower than the national average.

km / 1000 kmp

	Railroad density	Railroad density in 1990	Indicators compared to 1990 %
Romania	46.4	47.8	97.07
Central region	44.5	51.7	87.07
Alba	38.0	50.6	75.1

Source: INS, Length of transport roads at the end of 2005



There is no airport in Alba County, and the nearest airports to the capital municipality of the county are: Sibiu (56 km), Cluj Napoca (120 km), Târgu Mureş (161 km). The opening of the new aerodrome at Șibot (20 km from Alba Iulia), which has a runway of 850 m, allows for transportation solutions for airplanes and helicopters with up to 6 passengers.

Network and volume of distributed drinking water

	2000	2001	2002	2003	2004
Townships connected to the drinking water distribution system	87	87	92	92	96
Length of the drinking water distribution system (km)	761.1	767.5	780.2	790	800
Volume of distributed drinking water (thousands of m^3) of which:	46,672	40,448	36,425	33,170	332,085
• For household use	16,106	12,761	11,039	10,206	9,767

Data source: Alba Regional Statistics Department

Sewage network

	2000	2001	2002	2003	2004
Townships with public sewage	11	14	14	15	18
Length of sewage pipes (km)	292.6	297.6	300.3	317	321

Data source: Alba Regional Statistics Department

Expansion and modernisation of public utility networks

km

	2005				2006			
	Trim. I	Trim. II	Trim. III	Trim. IV	Trim. I	Trim. II	Trim. III	Trim. IV
Water distribution	0.3	4.5	4.6	21.5	1.1	3.7	14.8	
Sewage	0.1	2.8	2.2	5.4	0.6	4.8	2.3	
Town roads		2.5	2.7	3.8	1.2	0.5	5.8	
Communal and county roads			0.1	3.2			4.8	
Thermal energy								
Natural gas			0.3	25.8			2.0	

Data source: Alba County Council

Network and volume of distributed natural gas

	2000	2001	2002	2003	2004
Townships with natural gas distribution	78	89	91	102	105
Length of natural gas distribution pipes (km)	1,061.0	1,123.1	1,144.1	1,153.2	1,165
Volume of distributed natural gas (thousands m^3)	358,326	355,908	337,567	349,997	309,927
Of which, for household use	144,911	123,666	105,921	105,900	89,120

Data source: Alba Regional Statistics Department

Town roads and green spaces in municipalities and towns

	2000	2001	2002	2003	2004
TOWN ROADS – km Of which:	838	903	922	926	927
- modernised	309	339	344	351	357
GREEN AREAS-ha	250	250	250	251	251

Data source: Alba Regional Statistics Department

Energy distribution in 2007(10 months)

Mwh

Consumer category	**Large consumers > 100 kw**	**Small consumers <100 kw**	**Household consumers**	**TOTAL**
Distributed energy	**469198**	**91743**	**120972**	**681913**

Data source: SC Electrical Energy Distribution Branch *ELECTRICA DISTRIBUŢIE TRANSILVANIA SUD* SA

Mwh

Consumer category	**Energy distributed**
Consumers who used eligibility rights and have changed electrical energy providers	**379,720**
Captive consumers, with regulated tariffs	**302,193**
TOTAL	**681,913**

Data source: SC Electrical Energy Distribution Branch *ELECTRICA DISTRIBUŢIE TRANSILVANIA SUD* SA

I.2.7 Communications

There are 3 major telecommunications providers in Alba County: Romtelecom, RCS & RDS and UPC.

Romtelecom dominates the telecommunications market in the county, covering 57.4% with 72,000 subscribers to landline telephone services (intra-county, inter-county and international telephone access), digital television (Dolce), and to the data collection services (ISDN) and voice mailboxes (Voces, Voces Pro).

RCS & RDS (cable, digital, and satellite television, telephone services, internet). Communication between towns carried out through fibre optics.

UPC România Alba offers cable television services to 40,000 clients in the county, and access to the Internet and telephones for 3,720 clients.

INTERNET services are offered by the main national providers: RDS-Romania Data Systems, Romtelecom, Vodafone, Orange, Zapp, and Cosmote.

I.2.8 Innovation in information technology

Alba County Council contributes to the introduction of innovative information technology, through the implementation of the EFOG system – Electrical Generator for Development Initiatives.

EFOG is a regional informational development system, developed by Fatimex-Euro Kft Hungary, and is an e-project management system which follows projects in their conception stages, accessing, financing and up to the monitoring and evaluation activities, fully capturing the entire project.

The benefits of using the EFOG system, in local public administrations, are the following:

- Development projects using the EFOG system meet European Union requirements;
- With the system, the entire life cycle of the project is transparent;
- For development projects using the EFOG system, sustainability requirements are met;
- The system helps transform the requirements of the local population into actionable development projects;
- By generating PPP, the system brings together important persons in local societies, thereby creating the opportunity for a more efficient and larger scale collaboration in towns or micro-regions, helping the development of local economies;
- The system helps local economic entities to form coherent development needs;
- The efficient use of national and European resources to fund development;
- Local development initiatives will be developed by local experts, and thus communication, trust, and local practices regarding the development of projects will be introduced in the project development cycle;
- Accelerated project development;
- The EFOG system is user friendly;
- Through the database of viable projects collected in the EFOG system, a development strategy based on projects can be easily and quickly developed, one which meets the objectives in the National Development Plan;
- The use of the EFOG system for projects will result in a project which meets European Union requirements;
- Transparency;
- Sustainability;
- Synergy between elements;
- Subsidisation – the need to take decisions at a level where there is a lack of information for decision making;
- Equal opportunities;
- Use of information technology;
- Outcomes, which meet environmental protection directive requirements.

This new method for information management will contribute to the development of strategy objectives into an institution for the implementation and system management of quality in accordance with the standards of SR EN ISO 9001:2001, an instrument which allows for the systemic planning and management of processes, and their ongoing improvement to meet needs. The implementation of the quality management system allowed for more efficiency, and for the efficient use of available resources, and for the optimisation of the decision making process.

I.2.9 Tourism

The tourism potential of the county is outstanding, as this area is ideal for various types of tourism: mountain climbing and winter sports, rural tourism, cultural explorations, ecotourism and agro-tourism, adventure tourism, hunting and fishing, wine tasting, and gastronomy.

Taking into consideration that more than 50% of the county's area is covered by mountains, and is mostly rural, and then the main types of tourism will be rural tourism, mountain climbing, and winter sports.

Alba County has 90 natural conservation areas, most of which are found in the Apuseni mountains: 30 complex natural conservation areas, 5 landscape conservation areas, 27 geological conservation areas, 22 speological conservation areas, 11 paleontological conservation areas, and 126 natural heritage sites – protected species of flora, mammals, and birds. Alba County is the first in the country when it comes to numbers of natural conservation areas. Furthermore, over one quarter of the Apuseni Natural Park is in Alba County, which is the most inhabited part.

The anthropic potential is also important, as there are three UNESCO heritage sites in Alba County: Dacian Fortress at Căpîlna –Săsciori Commune, Peasant Fortress at Cîlnic –Cîlnic Commune, and the Carolina White Fortress – Alba Iulia, and over 650 class A and B monuments, of national and local importance, of which 101 are class A and over 500 monuments are class B.

UNESCO Heritage Sites

- **ALBA CAROLINA – ALBA IULIA Medieval Fortress**
- **FORTIFICAȚIA BASTIONARĂ**
- **CETATEA CÎLNIC**
- **CETATEA AT CĂPÎLNA**

By category, the tourist accommodation units in the county are as follows:

Category	1 Flower	1 Star	2 Flowers	2 Stars	3 Flowers	3 Stars	4 Flowers	4 Stars	5 Flowers	Total
Total number of units	27	5	77	19	11	6	1	1	2	149
Total number of rooms	93	65	289	382	83	51	10	36	8	1,017
Total number of accommodation spaces	203	125	636	747	166	102	20	72	22	2,093

Data source: MTCT, National Tourism Authority, Judicial Department, Authorisation and Control, data as of 22 July 2006

Alba County has an infrastructure for conferences, reunions, and exhibitions, which are well organised and practical, distributed among its 4 municipalities. The most important towns and tourist resorts have such spaces.

No.	Type	Number of rooms	Number of places
1	Hotels with conference facilities (HFC)	3	260
2.	Conference and exhibition centres (CC/E)	1	480
3	Unconventional locations for conferences (LNC)	30	4,620

Data source: Alba County Council, Technical Department, Department for Tourism and Tourism Infrastructure Evaluation Completed by PATN Tourism, as of 22 July 2006

The tourism infrastructure for conferences, reunions, or exhibitions is distributed by township as follows:

No.	Town	Location	Type of location	Number of rooms	Number of places
1	Alba Iulia	H. Parc	HFC	1	180
		H. Cetate	HFC	1	50
		V. Elisabeta	HFC	1	30
	TOTAL	Syndicates Culture House	CC/E	1	480

	* CC/E – 1 room = 480 places * HFC – 3 rooms = 260 places * LNC – 14 rooms = 2,100 places	Students Culture House	LNC	1 1	430 60
		Puppet Theatre	LNC	1	160
		"1 Decembrie 1918" University	LNC	1 1 1 1	200 200 60 60
		Principilor Palace*	LNC	1	300
		Unirii Hall	LNC	1	60
		Unirii Museum	LNC	1	30
		Chamber of Commerce	LNC	1	40
		ADR Centru	LNC	1	20
		Dacia Cinema	LNC	1	400
		PAEM Hall	LNC	1	60
2	Sebeş	Culture House	LNC	1 1	400 100
3	Aiud	Culture House	LNC	1	200
4	Blaj	Culture House	LNC	1	350
		Theological Institute	LNC	1	150
5	Abrud	Youth Club	LNC	1	60
6	Cîmpeni	Culture House	LNC	1	200
7	Ocna Mureş	Culture House	LNC	1	300
8	Cugir	Working Club	LNC	1 1	400 50
9	Arieşeni	Youth Camp	LNC	1	75
10	Albac	Poiana Verde Pension	LNC	1	50
		Aurora Pension	LNC	1	100
11	Gîrda de Sus		LNC	3 cf PATN	85 Total

Data source: Alba County Council, Technical Department, Department for Tourism and Tourism Infrastructure Evaluation Completed by PATN Tourism, as of 22 July 2006

In terms of leisure areas, there are 4 objectives in Alba County whose characteristics are described in the table below:

No.	Location	Type	Characteristics
1	Pianu Commune	"*Golf Club Paul Tomiţă*" golf course	70 ha enclosed, 9 holes, par 72 for 18 holes, 5830 m men's course, 5092 m ladies' course; extended to 18 holes in 2007.
2	Township of Răhău-Municipiul Sebeş	Hanul "La Mesteceni" – Centre with horseback riding, swimming pool, and field tennis courts	Leisure horseback riding, riding lessons for children and adults, 16 horses, English riding teacher, riding routes along the Frumoasei Valley
3	Arieşeni Commune	Ski slopes	1 homologous slope – 900 m – ski lift 1 non-homologous slope – 450 m
4	Albac Commune	Ski slope	1 non-homologous slope – 400 m

Data source: National Tourism Authority, National Tourism Development Institute, and Alba County Council, Technical Department, Tourism Department

I.2.10 Waste Management

Household waste

Municipal and assimilable waste makes up 3% of all waste produced in the county, and these are managed by the local public administration.

In Alba County, municipal waste is collected in townships by the municipality (Law 139/2002 for the approval of the Emergency Order 87/2001 regarding public sanitation services in townships). Each Local Council must provide this service to the population.

In the county, sanitation services in townships are organised as follows:

- In the 4 municipalities (Alba Iulia, Aiud, Blaj, Sebeş) and in 3 towns (Cugir, Ocna Mureş, Teiuş) activities are concessioned, through contracts established between the public administration and 6 sanitation agents, who cater to these townships and approximately 17 neighbouring communes (50 villages).
- In 4 towns (Abrud, Câmpeni, Baia de Arieş, Zlatna) there are "public sanitation services" organised by town halls.
- In rural areas, the collection of waste from citizens and economic entities is organised only in townships bordering municipalities with sanitation agents who offer their services to the towns.
- In the communes of Cenade, Câlnic, Jidvei, Săliştea, Săşciori, Şugag, Unirea, community sanitation services are organised by the town halls, which each have a tractor and have hired 1-2 persons who collect the waste from citizens and deposit it in non-organised areas, provided by the Local Council.
- In the county, there are two PHARE 2003 projects being implemented – Investment scheme for small waste management projects, to build two "selective waste collection systems and transfer stations" in Aiud and Abrud .

The collection and transportation of municipal waste in the county is organised differently, depending on the size of towns, number of persons receiving the service, and type of ownership.

In the county there are: a sanitation agency for urban townships and for rural areas bordering the urban environment, 6 city halls have organised public sanitation services.

The average indicator for the quantity of waste per citizen and per year, in 2004, was of 390 kg/citizen/year (approximately $1m^3$/citizen/year).

The indicator of the population with access to sanitation services was of 46.5%, of which, 70% in municipalities and towns, and 14% in rural areas.

Municipal waste generated and collected in 2004: 141,835 tonnes.

Municipal and assimilable waste is made up of:

- Household waste: 69,144 tonnes;
- Waste from economic entities: 45,966 tonnes.

Waste from municipal services are made up of:

- Street waste, market waste, waste from green spaces: 6,216 tonnes;

Waste from constructions and demolitions: 20,472 tonnes.

Waste selectively collected: 37 tonnes.

Biodegradable waste

Of the total amount of household waste collected, over 50% is biodegradable waste. This includes:

- biodegradable waste from households;
- biodegradable waste from parks and gardens;
- biodegradable waste from markets;
- mud from purification stations in towns.

For biodegradable waste HG 349/2005 regarding waste deposits, requires a decreased quantity of deposited biodegradable waste, as follows:

- Reduced quantities of biodegradable waste to 75% of all waste produced in 1995 to 2006;
- Reduced quantities of biodegradable waste to 50 % of all waste produced in 1995 to 2009;
- Reduced quantities of biodegradable waste to 35 % of all waste produced in 1995 to 2016.

Solutions for the recuperation / recycling and reduction of biodegradable materials are:

- Composting (aerobic degradation);

- Anaerobic degradation with the production and collection of gas.

There is no separate collection for biodegradable material, but, in rural areas, people reuse these materials in their own households.

Capitalisation of municipal waste

Alba Iulia Municipality City Hall, in collaboration with SC SALPREST Alba, has initiated the selective collection of paper waste and of plastics (PETs). In crowded areas (apartment blocks), 70 special containers were set up for selective collection, and this system is designed to be extended to areas with houses.

In 2005, the following providers have appeared for the capitalisation of PET waste:

- SC Ecoplast SRL Aiud – collected and capitalised 19 t (SC Greentech Buzău)
- SC Cugireana Cugir – collected and capitalised 9,6 t (SC Greentech Buzău)
- SC IPMAT SRL Ocna Mureş – collected and capitalised 13,4 t (SC Greentech Buzău)

The quantity of collected PETs in 2005 was of 48.7 tonnes, of which 42 tonnes were capitalised at SC GREENTECH Buzău.

In 2005, 1,599.4 tonnes of paper waste were collected in Alba County, and 1,559.4 tonnes were capitalised. SC Pehart TEC SA Petreşti has capitalised 4474 tonnes of paper from Alba County (1,108 tonnes) – and from other counties throughout the country.

Metal is separately collected and handed to REMATs by individuals, and metal appears in negligible amounts in waste deposits.

During 2005, through town halls, schools, institutions, economic entities, mass media, campaigns were organised to raise awareness in terms of selective waste collection for paper, plastics, packaging, in order to capitalise them through the SC Pehart TEC SA Petreşti paper factory, who are authorised plastic collectors. For other components of municipal waste there is no selective waste collection (such as for glass or biodegradable materials).

Treatment of municipal waste

There is no treatment of municipal waste before depositing.

Incineration of municipal waste

There is no installation in the county for the incineration of municipal waste.

Mud from the purification of urban wastewater

The urban wastewater at urban treatment stations was of 1,001 tonnes, of which:

- 988 tonnes of mud at urban purification stations;
- 13 tonnes of mud at drinking water treatment stations.

- The dehydration of mud at urban treatment stations is carried out through natural processes, namely through mud drying platforms.
- Urban treatment stations do not have the necessary capacity for treatment, and have old and used installations and technology.
- The quantities of mud are uncertain.
- Mud is not reused for agricultural purposes.
- Dehydrated mud is deposited in urban waste deposits, or is released into bodies of water.

Municipal waste deposits

In each of the 11 urban settlements, there is a household waste deposit. All urban deposits were classified as non-hazardous class b waste deposits, in accordance with HG 349/2005 regarding waste deposits.

All are mixed deposits, where municipal and industrial waste is deposited together – none of the urban waste deposits does not meet the current legal requirements.

According to the activity cessation calendar outlined in Annex 5 of HG 349/2005, municipal waste deposits in Alba County will cease their activity as follows: Câmpeni, Abrud, Baia de Arieş, Zlatna, Sebeş, Teiuş, Blaj and Cugir in 2009. Waste deposits in Aiud, Ocna Mureş and Alba Iulia will be closed in 2013.

In accordance with HG 349/2005 regarding deposits, all non-compliant deposits had a deadline of 31.12.2005 to implement the Level I and II Environmental Survey, namely risk assessments where needed.

For 6 municipal waste deposits (Alba-Iulia, Sebeş, Cugir, Blaj, Zlatna, Baia de Arieş), the survey was implemented, and for the other 5 deposits (Aiud, Câmpeni, Abrud, Ocna-Mureş, Teiuş), the deadline was not met due to the project manager who did not meet the legal terms, or due to financial reasons.

In rural areas, there are waste deposit spaces, which are more or less managed. The deposit places are established through Local Council Decisions.

- In accordance with HG 349/2005 regarding deposits, rural deposits may be closed down and re-included in the natural environment, through a simple procedure, by 16 July 2009. Communes bordering municipalities and towns are serviced by the sanitation services of these towns, but there are some communes which have organised their own sanitation services.

Industrial waste

In 2004, there was a total of 4,256,958 tonnes of industrial waste generated in Alba County, making up 97% of all waste generated in 2004.

The table below illustrates the quantity of waste in Alba County, by main type of waste (including hazardous waste).

Polluting substance	1995 tonnes/year	2000 tonnes/year	2001 tonnes/year	2002 tonnes/year	2003 tonnes/year	2004 tonnes/year
Uncovered waste	4,193,000	110,375	364,068	1,325,000	1,578,940	**1,925,000**
Floating waste **- Of which, hazardous**	2,435,033	1,424,131	2,221,939	2,593,237	2,432,040 95,703	**2,437,685** **50,285**
Ashes	44,780	51,346	78,232	62,221	48,852	**17,282**
Chemical industry waste	668,576	148,034	162,730	176,815	165,600	**56,047**
Wooden waste	19,215	26,681	37,028	43,587	23,068	**38,888**
Metal waste	9215	11,847	22 354	13,553	10,832	**24,783**
- Oils	22	110	134	151	302	**354**
Mud – industrial water treatment plants	10,289	10,368	2,410	1,030	8,959	**12,672**
Other waste	109,968	29,992	6,012	14,125	54,468	**14 ,423**
TOTAL	**7,490,098**	**1,812,884**	**2,894,907**	**4,229,719**	**4,323,061**	**4,526,958**

Collected data shows a decrease in waste generated after 1995, but an annual increase since 2000. The decrease in waste compared to 1995 is due to a reduction in the following economic sectors: mining (closing down of Zlatmin Zlatna, Arieşmin Baia de Arieş Branch), chemical (waste from SC UPSOM) and metallurgy. The increase since 2000 is primarily due to an increased production in the mining sector of SC Cupru Min SA Abrud.

Of waste generated in the county, 97% is production waste: mining (4,372,685 t); ashes and slag from metallurgy (17,282 t); lye from the chemical industry (56,047 t); wood waste (38,888 t); metal waste (24,783 t); mud from industrial treatment centres (12,672 t); packaging (520 t), other waste (14,423 t), whose management is the responsibility of the economic entities who produce the waste.

Of the total quantity of waste, approximately 120,000 tonnes / year were capitalised. Of the industrial types of waste which were capitalised, the most representative were:

- Wood waste;
- Ashes and slag;
- Iron and non-iron metal waste;
- Refraction and capture waste from constructions and demolitions;
- Paper waste.

Modes of capitalisation

- Wooden waste was used as prime material for the creation of PAL and PLF plaques, or burnt in thermal stations or individual fireplaces;
- Paper – through REMAT;
- Metal waste, capitalised through REMAT or in siderurgical plants;
- Ashes and slag, reintroduced in the technological cycle;
- Construction waste used to fill up potholes, fix roads, etc.

Collection and recycling of special types of waste during 2005

Type of waste	UM	Collected	Capitalised	Stock 31.12.2005
-Paper	Tonnes	1,509	1,559	90
-PET	Tonnes	40.6	42	8.2
-Used fuel	Tonnes	117	141	23

-Used tyres	Tonnes	17	130	398
-Used batteries and accumulators	Tonnes	211	202	33
-Wood waste	Tonnes	71,000	72,000	6,000

Hazardous waste

In accordance with Emergency Order No. 78/2000 regarding waste, and of HG 856/2002, which includes the list of Hazardous Waste in statistical questionnaires of economic entities, the following was observed:

Total quantity of hazardous waste: 50.649 t,

Of which:

- Waste caused by the washing and floating of mining with cyanide contents: 50,285 t;
- Used emissions from tool machinery: 136 t;
- Leaded batteries: 10 t;
- Used fuels: 218 t.

The treatment of hazardous waste by neutralising it, is done as follows:

- Waste caused by the washing and floating of mining with cyanide contents are neutralised in a chemical neutralisation plant – control of cyanide concentration is automatic, and waste is deposited in special purpose ponds (Arieşmin Baia de Arieş Mining Branch);
- Used emissions from tool machinery (SC IAMU Blaj ; SC Star Transmission Cugir);
- Leaded batteries are capitalised through REMAT Alba or ROMBAT Bistriţa Năsăud.

Medical waste

The quantity of hazardous medical waste incinerate in hospital crematoria in Alba County (11 crematoria) was of 443.5 tonnes in 2004. Hazardous and sharp waste is burnt in hospital crematoria. The ash and other urban assimilable waste are collected by sanitation agents.

According to the schedule for the graduate closing down of Annex 9 in HG 268/2004, in 2005 in Alba County, the crematorium of the Sebeş Municipal Hospital was closed, and hazardous medical waste from the Sebeş Municipal Hospital will be neutralised at the steriliser, namely incinerated at the Alba Emergency Hospital crematorium.

Mud

Mud produced:

Polluting substance	1995 t/ year	2000 t/ year	2001 t/ year	2002 t/ year	2003 t/year	2004 t/ year
Mud – municipal treatment plants	11,212	5,203	3,322	3,251	1,407	1,001
Mud – industrial treatment plants	10,289	10,368	9,349	6,098	8,959	12,672

The quantity of mud from industrial purification spaces reported in 2004, was of 12,672 tonnes, of which 11,021 tonnes were recycled.

The main industrial activities which produced mud were:

- Beer and malt production – Interbrew Romania –Blaj Branch – remains from washing, yeast, rice seeds, etc, which were used by the population;
- Mud from washing in the food industry.

Industrial waste deposits

In 2004, there were 15 registered functional waste deposits:

- 3 mining deposits, covering 113 ha;
- 2 deposits for ash and slag from metallurgy, covering 7.1 ha;
- 5 decanting ponds, covering 104 ha;
- 3 alkaline deposits, covering 92.1 ha;
- 2 industrial deposits, covering 3.8 ha.

Economic operators in the mining industry in Zlatna, Baia de Arieş, Abrud Roşia Montană (waste dumps and decanting ponds) and in the chemical industry in Ocna Mureş, have access to closed waste deposits, which are in need of modernisation works to render them environmentally friendly, before closing them down.

By 16.07.2009, the inadequate waste deposits of the following entities will have to be closed down: SC Saturn SA Alba Iulia; SC Stratusmob SA Blaj and SC Apulum SA Alba Iulia, and different solutions will be found, such as: the capitalisation of waste and other waste minimisation technologies, building of deposits which meet the current standards.

The waste dumps and decanting ponds in the county are:

Arieşmin Baia de Arieş Branch– decanting pond on the Sartăşului Valley, covering 3.5 ha, where the deposits from washing and mining with cyanide components were deposited, and has been included in the closing down schedule in HG 349/2005 for Deposits for liquid waste in the mining industry (decanting ponds), which has a scheduled closing date of 31.12.2005.

Roşiamin Roşia Montană Branch has met the Environmental Survey level I and II, and the risk evaluation for the decanting pond at Valea Săliştei. The entity also has 17 deposits for mining waste, but only 2 are active, those at Valea Verde and Hop.

SC Cuprumin SA Abrud has completed a *Study for the evaluation of risk levels for the improvement and management of decanting ponds and of waste deposits at the Roşia Poieni Mine* and will conform by December 2011. Investment works are expected in the value of approximately EUR 12m, financed by the World Bank within the Protection Programme for the Tisei basin.

SC Bega UPSOM SA Ocna-Mureş has met Environmental Survey levels I and II, and will cease waste deposits in its 3 ponds No 5, No 6, and emergency, in accordance with HG 349/2005, 31.12.2007. Next steps include the actions for waste deposit cessation.

Impact of industrial and urban waste deposits on the environment

The environment is affected by:

- Uncontrolled industrial and urban waste deposits;
- Polluting agents evacuated into the atmosphere;
- Precipitation water contaminated with polluting agents from the air;
- Transport of particles through wind;
- Infiltration of polluted water into the soil.

Initiatives adopted for the reduced impact of waste on the environment

In terms of urban waste management for the area of Alba Iulia (approx. 300,000 inhabitants) and the Câmpeni area (approx. 70,000 inhabitants), there are proposals for the establishment of "regional environmental landfills". For the remaining townships, "transfer stations" have been proposed, namely: Aiud, Zlatna, Cugir, Sebeş, Abrud, Albac, Baia de Arieş, Teiuş, Ocna Mureş, Blaj.

Steps will be taken towards the establishment of two environmental landfills in Alba County, one of which will serve the isolated area of the Apuseni Mountains.

APM Alba asked the Alba County Council to intervene to the Public Administration Ministry for the distribution of funds for the completion of a feasibility study regarding integrated waste management in Alba County. As such, in 2005, Alba County Council has contracted a feasibility study for integrated waste management.

APM Alba has taken steps with the Alba Public Health Department for the closing down of crematoria in accordance with the closing schedule of thermal treatment stations for hazardous medical waste in accordance with Annex 9 of HG 268/2005.

6 projects regarding waste management and presented to ADR have been agreed, within the PHARE programme – Investment Scheme for Small Waste Management Projects, which primarily aimed at the selective collection and building of transfer stations in the areas of Abrud, Aiud, Ocna Mureş, Blaj, Gârda tourist area in the Apuseni mountains, and Câmpeni. Two stations have been approved for financing, at Aiud and Abrud.

Proposed initiatives in view of the reduction of the impact of waste on the environment from the main economic entities in the county

SC CUPRU MIN SA Abrud

- Function within the projected parameters of the neutralisation station for acid waters;
- Environmental reconstruction works for waste deposit areas which will not be further used;

ROŞIAMIN SA Branch– Roşia Montană

- Monitoring of the implementation of environmental measures at the closed waste deposits and decanting ponds.

SC AMPELUM SA Zlatna

- Land management for the location of waste and field deposits (Ampoi river bank, away from the entity), in order to include it into the economic circuit.

SC METALURGICA SA Aiud

- Partial reuse of used mixtures;
- Reduced networks and discarded material;
- Gas monitoring equipment for thermal treatment ovens and primary heating;
- Collection of used fuel in accordance with HG 662/2001;
- Renewed technology for the industrial waste deposit and building of an environmental landfill;
- Responsibility of management for production processes so that they produce the least amount of waste, and does not surpass the established values.

SC SITINDUSTRIE ROMANIA SA Aiud

- Use of obtaining technology for components, based on the maximum re-circulation of mixtures;
- Development of liquid steel in electrical ovens which will lead to the diminishing of iron mining and therefore in the reduction of pollutants released, from 7-8% of the quantity of liquid steel currently to 4-5%;
- Provision with import resin in containers of 1,000 L, which will be returned to the provider (recyclable packaging).

Tendencies of waste generation

In order to realise the strategic objectives regarding waste management, the measures and actions involved must correlate with European Union waste management requirements.

The objectives, which form the base of waste management in Alba County, are:

- Protection of primary resources and of "sustainable development", especially for non-renewable resources, putting emphasis on secondary prime resources.
- Prevention or avoidance of waste generation, minimise quantities of waste, reduce quantities through reuse, selective collection, recycling or energy capitalisation, treatment and elimination of waste in safe conditions for the environment.
- Mechanical and biological treatment for biodegradable waste for reuse (composting, bio-gas, etc.) and reduced quantity of deposited biodegradable waste by 25% by 2010, through the establishment of two pilot compost stations at Ocna Mureş and Alba Iulia.
- Reduced quantity of packaging waste by reusing at least 35% of packaging waste, through separate collection and through collection points, to reuse this waste as secondary prime materials.
- Responsibility of the producer and of the consumer, so that the cost of waste management can be supported by the generator.
- Expansion of waste collection and transportation services for all urban areas and at least 20% of rural areas by 2007, and by 50% by 2012.
- Sanitation of all uncontrolled waste deposit areas, and closing them down.

The forecast quantities of waste generated, collected, according to the Optimistic Scenario in the Regional Management Plan is as follows:

- Constant population with 2002;
- Area of service coverage increases by 3 % per year (58 % in 2002, and 88 % in 2012);
- Economic growth of 2% annually.

The forecast for waste generation and collection and the quantification of objectives from the PRGD for Alba County is as follows:

Period		**2002**	**2007**	**2010**	**2012**
Generated and collected waste	Tonnes	**145,182**	**214,515**	**244,214**	**265,574**
Separately collected waste	Tonnes	7,141	37,257	40,873	43,445
Recuperated waste and packaging	Tonnes		3,708	8,786	10,644
Reduced biodegradable waste	Tonnes		13,789	28,018	47,336
Waste collected separately (REMAT)	Tonnes	7,141	9,873	12,750	15,445

Eliminated waste	Tonnes	**161,474**	**187,145**	**194,660**	**192,149**

In order to meet regional recycling and recuperation targets for packaging, there is a need for the selective collection and capitalisation of these materials at regional capitalisation entities;

For the reduction of biodegradable waste, two compost stations will be established: in 2007 at Alba Iulia – 10,000 tonnes/year, and at Ocna Mureş – 5,000 tonnes / year; in 2010 at Alba Iulia – 25,000 tonnes/year and at Ocna Mureş – 10,000 tonnes/year. For the elimination of waste two environmental landfills will be built in 2008 at Câmpeni – 250,000 tonnes and in 2011 another 250,000 tonnes; in 2008 Alba Iulia – 500,000 tonnes and in 2011 another 500,000 tonnes. Also, the 8 existing deposits will be closed in 2009, 2 deposits in 2013, and one in 2015. By 2008, 10 crematoria from medical entities will be closed. The alternative to closing down the crematoria: thermal sterilisation, regional authorised incinerators.

Forecast of production waste management

In Alba County, 96% of production waste is generated from the mining industry (4,362,685 tonnes of a total of 4,526,958 tonnes of production waste). The forecast of waste management depends on the mining strategy. There was a decrease of approximately 150,000 tonnes of waste in 2005, by closing down mining activities at Zlatna and Baia de Arieş. The functioning of the Roşia Montană is uncertain, as is the Gold Corporation Roşia Montană investment.

SC Cuprumin Abrud, produces annually approximately 4,000,000 tonnes of waste: 2 million tonnes uncovered, and approximately 2 million tonnes / year of floating waste, and the production capacity has increased in the past to years by 500,000 tonnes annually.

Improved quality of waste management

Industrial waste

Options for producers: prevent the generation and reduce quantities of waste by applying clean technologies and best practices for new investments; reuse waste, recycle and safe energy; reduce the impact of industrial activities and of mining on the soil by using appropriate technologies; identify and restore polluted soils, environmental reconstruction of closed or preserved areas; minimise impact of mining activities on the soil, reduced degree of contamination of waste deposits with heavy metals by renewing the technology and recuperation of the usable substances from waste; implement EU legislation regarding special forms of waste: packaging, batteries and accumulators, tyres, used fuels, used vehicles.

Household waste

Implementation of EU directives with regard to the household waste management system, included in the Regional Plan for integrated waste management for Central Region 7 by: establishing an integrated waste management system at county level. This is work in progress, ordered by Alba County Council as a “Feasibility study regarding the integrated waste management in the county”, which will be the basis of access to European funds; establish two transfer stations at Aiud and Abrud from PHARE funds, which were selected for financing; develop a strategy for solid waste; reduce household waste by 10% by 2010; introduce a selective waste collection for household waste; establish environmental waste deposits for household waste; close down and purify old and used waste deposits.

Hazardous chemical substances and products

Substances regulated by the Montreal Protocol (ODS)

The main industrial activities where ODS is used in the county are: beer production - Interbrew Romania –Blaj work point; meat production: SC Mercado SA, SC Alba Carn SA, SC Transavia SA etc.; snail commercial activities: SC Pomarom SA, entities with cooling equipment and installations, which use ammonia as a cooling agent.

Economic entities which use carbon tetrachloride as a solvent in their cleaning activities do not exist in Alba County. In chemical cleaning facilities perchlorate is used in closed circles.

We have no direct importers and no authorised economic agents who use methyl bromide for soil disinfection.

Producers of solid foam (refrigerators and such) and flexible foam do not exist in the county, only producers of substances for putting out fires: SC Alsting SA Alba. The filling of extinguishers is

carried out with dust particles, which include calcium carbonate and potassium sulphide, which do not fall in ODS categories.

I.2.12 Financial services

Banking

In Alba County, there are 17 branches of banking entities: Romanian Commercial Bank, Carpatica Commercial Bank, Bancpost, Transylvania Bank, Romanian Development Bank, Groupe Société Générale, Raiffeisen Bank, Sanpaolo Imi Bank, C.E.C., ING Bank, OTP Bank, Piraeus Bank, Romexterra Bank, Banca Italo Romena, Unicredit, Alpha Bank, Leumi Bank. There is an automated banking system in all towns in Alba County.

Non-banking services

- Insurance firms: Asirom, Allianz-Tiriac Insurance, Unita, Omniasig, Astra, Asiban, BT Insurance, Ardaf, BCR Insurance, Carpatica Insurance, CECCAR-Romas, Generali Insurance;
- Broker firms: Romidia Real Estate Agency, Geoffreyinvest, SSIF Broker, Carpatica Invest;
- Credit entities: Unirea Credit Cooperative.

I.2.13 Land management

Alba County has the following administrative structure:

- 4 municipalities (Alba Iulia, Aiud, Sebeş and Blaj);
- 7 towns (Abrud, Cugir, Ocna Mureş, Cîmpeni, Zlatna, Teiuş and Baia de Arieş). The majority of towns are in mountain areas, and include a significant number of component townships. Taking this into consideration (i.e.: Alba Iulia – 4: Bărăbanţ, Micești, Pîclișa, Oarda; Aiud – 10: Aiud II, Gîmbaș, Măgina, Pădiga, Ciumbrud, Sîncrai, Gîrbova de Jos, Gîrboviţa; Blaj – 6: Mănărade, Tiur, Spătac, Petrisat, Fliteşti, Deleni Obârşie; Cugir – 7: Călene, Vinerea, Mugeşti, Bucur, Feteni, Bocşitura, Goasele; Câmpeni – 21: Bonceşti, Mihoieşti, Vărşi, Valea Bistrii, Dealu Capsei, Floreşti etc.), the extension of the urban areas is carried out towards suburbs;
- 67 communes (Albac, Almaşu Mare, Arieşeni, Avram Iancu, Berghin, Bistra, Blandiana, Bucerdea Grînoasă, Bucium, Cîlnic, Cenade, Cergău, Ceru Băcăinţi, Cetatea de Baltă, Ciugud, Ciuruleasa, Crăciunelu de Jos, Cricău, Cut, Daia Română, Doştat, Fărău, Galda de Jos, Gîrbova, Gîrda de Sus, Hopîrta, Horea, Ighiu, Intregalde, Jidvei, Livezile, Lopadea Nouă, Lunca Mureşului, Lupşa, Meteş, Mihalţ, Miraslău, Mogoş, Noşlac, Ocoliş, Ohaba, Pianu, Poiana Vadului, Ponor, Poşaga, Râmeţ, Rădeşti, Rimetea, Roşia de Secaş, Roşia Montană, Sălciua, Săliştea, Sîncel, Sîntimbru, Săsciori, Scărişoara, Şibot, Sohodol, Şona, Spring, Stremţ, Şugag, Unirea, Vadu Moţilor, Valea Lungă, Vidra, Vinţu de Jos);
- 716 villages.

The regional administrative distribution of the county, from the perspective of number of municipalities (4), puts it second in the country, after Cuj County (with 5 municipalities), and next to the following counties: Braşov, Harghita, Mureş and Bihor (each with 4 municipalities). The number of villages is the highest in the country, passing by 100 villages Vîlcea County (556) and by 80, Argeş County (576).

Urbanism and land management in Alba County is regulated by urbanism and land management documentation elaborated thus far.

These are:

- CLMP (Alba County Land Management Plan) – Renewed, developed by S.C. PROIECT ALBA S.A., project No. 4406/1999 – approved in 2001:
  - Volume I – Regional functionality, population, and township network
  - Volume II – Regional technical equipment
  - Volume III – Natural and technological risk areas, quality, environmental protection and conservation
  - Volume IV – Protected areas, tourism
  - Volume V – Conclusion – Priorities

General urban plans were developed for all regional administrative units in the county. For the 4 municipalities and 2 towns, GUPs are currently being revised. Of the 67 communes, 4 GUPs have been established in 2005, and 8 GUPs are being revised.

Through the development of tourism, the following urbanism and land management documentations have been developed and approved.

- P.U.Z. Luncile Prigoanei – developed by S.C. BARBIERI CAPITEL S.N.C., 1996;
- P.A.T.Z. Cheile Vălişoarei – developed by S.C. EDITA SRL Cluj Napoca, project no. 10/1997;
- P.A.T.Z. Poiana Galdei – Întregalde – developed by S.C. PROIECT ALBA S.A., project nr. 4334/1997;
- Systemic study of natural conservation areas in Alba County – developed by the Romanian Academy – Bucharest Geography Institute, 1998;
- Land management plan of the hydrographic basin of the Sebeş Valley – developed by the Mining Research and Project Institute Cluj Napoca, project no. 1792/1997;
- P.U.Z. – Bubeşti tourist area – Poiana Vîrtop, Arieşeni Commune – developed by S.C. CAPITEL PROIECT SRL Alba Iulia, project no. 36/2005;
- P.U.Z. – Bubeşti ski area – Poiana Vîrtop, Arieşeni Commune – developed by S.C. CAPITEL PROIECT SRL Alba Iulia, project no. 36/2005;
- P.U.Z. –Poarta Raiului tourist area – Şurianu, Şugag Commune – developed by S.N.C. LĂNCRĂJAN FRANCHINI GHEORGHE CORNELIU – LE Alba Iulia, project no. 150/2005;
- P.A.T. –Sebeş Valley ski area, Alba County – developed by S.C. TRANSCABLU SRL Braşov, project no. 1132/2006.

1.3 SOCIAL CAPITAL

1.3.1 Population and human development

In 2006, the following were registered: 3,324 live births and 4,110 deceased, of which 43 under one year of age, resulting in a negative population growth of 786 persons. During the same period in 2005, the decrease in population due to natural causes was by 998 persons.
In the first eleven months of 2006, there were: 17 still births, 2,374 marriages and 495 divorces.

POPULATION IN TULCEA COUNTY

Indicator	2005		2006	
	No.	%	No.	%
Population of Alba County as of 1 July	379,189	100.0	378,614	100.0
-Urban areas	220,076	58.0	220,317	58.2
-Rural areas	159,113	42.0	158,297	41.8
Density /km^2	60,7	-	60,7	-
Population structure by sex, total	379,189	100.0	378,614	100.0
-Male	187,343	49.4	187,011	49.4
-Female	191,846	50.6	191,603	50.6
Natural movement of the population				
-Live births	3,778	-	3,568	-
-Deaths	4,826	-	4,561	-
Population growth	-1,048	-	-993	-
Internal migration				
-Into the county	3,640	-	*	-
-Out of the county	3,860	-	*	-
Internal migration growth (internal migration balance)	-220	-	*	-
External migration growth				
-Immigrants	1	-	*	-
-Emigrants	146	-	*	-
- Of which, women	101	-	*	-
External migration (external migration balance)	-145	-	*	-
Number of marriages	2,296	-	2,436	-
Number of divorces	563	-	512	-

*Data not yet available

- Number of inhabitants-

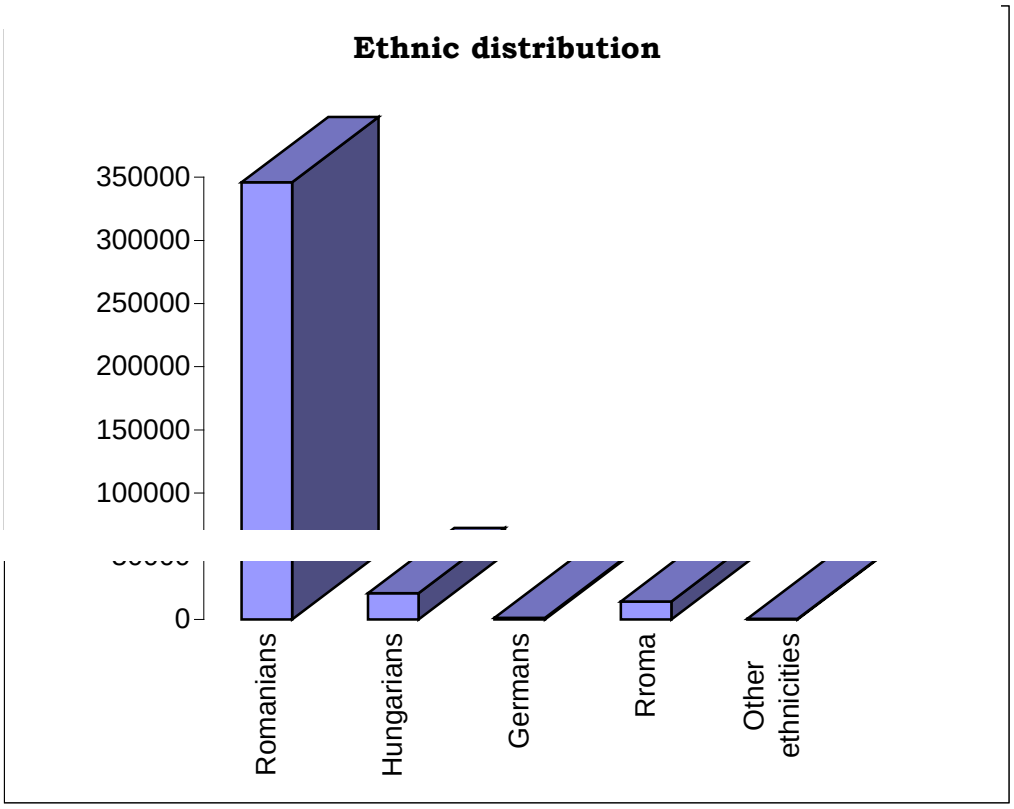
	March 2002 census	1.07.2006
Total inhabitants, of which:	382,747	378,614
- In urban areas	220,123	220,317
- In rural areas	162,624	158,297
- Male	189,658	187,011
- Female	193,098	191,603
Population density (inhabitants/km^2)	61.3	60.7

The population of Romanian ethnicity represented 90.42%, according to data from the 2002 census, and is followed by the population of Hungarian ethnicity (5.40%), and by Rroma (3.74%). The largest Rroma communities are in the towns of Alba Iulia, Aiud, Sebeş, Blaj, Jidvei, Cenade, Teiuş, Cetatea de Baltă, Unirea, and Cîlnic.

Efforts are being made to reduce poverty and social exclusion of the Rroma community, through projects funded by the Community Development Fund, which aim to educate as well as promote the interests of communities, for the development of abilities and reduction of unemployment.

Ethnicities	Number	% Of total
Romanian	346,059	90.42
Hungarian	20,684	5.40
German	1,311	0.34
Rroma	14,306	3.74
Other ethnicities	387	0.10

Source: Alba Regional Statistics Department



In Alba County, there are 133 villages with populations under 50 inhabitants, which according to the 2002 census encompass 3,583 inhabitants, giving an average of 27 inhabitants per village; 7 villages had between 1 and 5 inhabitants, 15 villages had between 6 and 10 inhabitants, and 21 villages had between 11 and 20

inhabitants. In 15 of the other 40 land administrative units, there were 60 villages with a population under 50 according to the 2002 census, as follows:

Territorial administrative unit	Number of villages	Populations at the 2002 census	
		Persons	- Compared to 1966
Blaj	2	8	-206
Cîmpeni	2	69	-200
Cugir	2	74	-31
Zlatna	5	152	-324
Baia de Arieş	1	8	-102
Bistra	14	378	-820
Craciunelu de Jos	3	65	-470
Galda de Jos	3	75	-149
Lupşa	10	217	-828
Meteş	3	60	-101
Mihalţ	1	8	-64
Roşia Montană	2	71	-85
Şona	1	34	-239
Vadu Moţilor	3	131	-159
Vinţu de Jos	8	238	-390

Source: Alba Regional Statistics Department, 2005

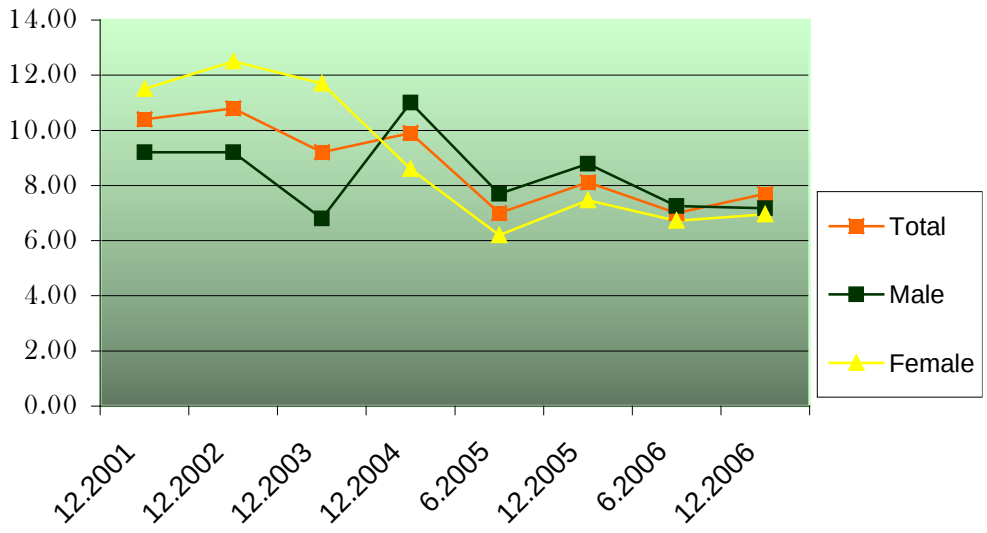
According to data from the March 2002 census, 6 villages had no population (population = 0), as follows:

Village	Commune village belongs to	Population at the 1966 census
Cicard	Lopadea Noua	37
Incesti	Poşaga	51
Doptau	Şona	41
Carpenii de Sus	Şpring	62
Harasti	Vidra	204
Poieni	Vidra	126

Source: Alba Regional Statistics Department, Population and living census, 2002

UNEMPLOYMENT DURING 2001-2006

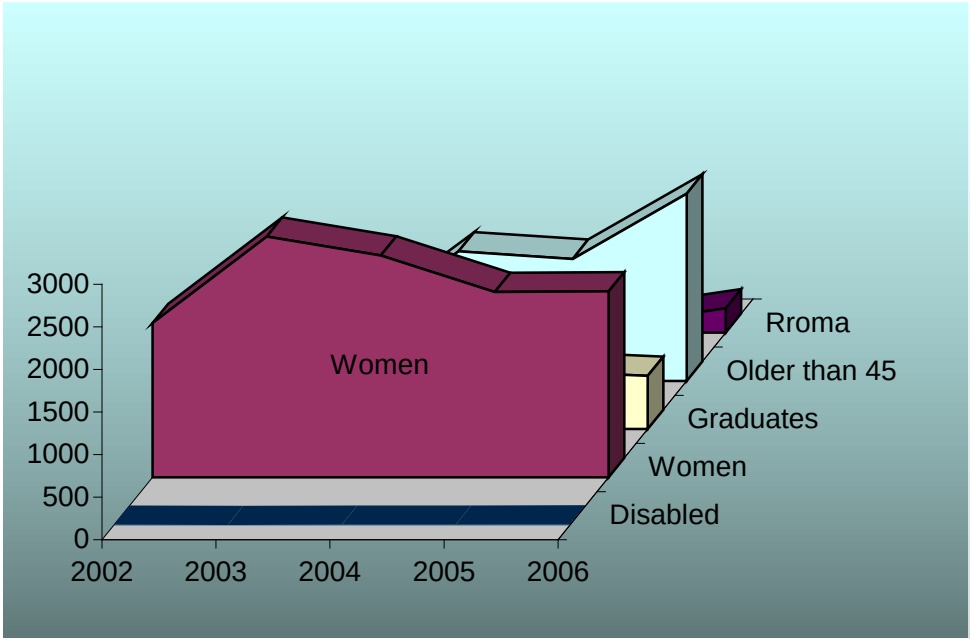
	12.2001	12.2002	12.2003	12.2004	06.2005	12.2005	06.2006	12.2006
Total	10.4	10.8	9.2	9.9	7	8.11	7	7.07
Male	9.2	9.2	6.8	11	7.7	8.79	7.25	7.17
Female	11.5	12.5	11.7	8.6	6.2	7.47	6.72	6.95



The employment of vulnerable persons (such as: disabled persons, women, young graduates, unemployed over the age of 45, Rroma), during 2002-2006:

	2002	2003	2004	2005	2006
Disabled persons	8	3	7	8	10
Women	1,811	2,825	2,605	2,175	2,182
Young graduates	485	583	797	682	625
Older than 45 years	398	526	1,522	1,432	2,199
Rroma	13	44	1	91	286

Data source: Alba County Employment Agency



3.2 POVERTY AND SOCIAL INCLUSION

Existing data does not allow for the study or relevant estimates of local poverty levels. There is a direct correlation between poverty and employment, and the lack of jobs in the area. The lack of permanent employment is most acute in rural areas, where season work dominates.

FACTORS WHICH CONTRIBUTE TO POVERTY IN RURAL AREAS:

- Ageing population: 53.5% of the total population aged over 60 years is found in rural areas; the elderly form 17.33% of the total population (2002 census, men over 65, women over 60);
- Extremely low pensions for ex-members of agricultural cooperatives;
- Difficult access to social services and medical services;
- Poorly developed rural infrastructure;
- An important section of the aged population, who own poorly productive lands, who cannot benefit from the guaranteed minimum income (GMI), and who have no financial or physical resources to farm their land for income.

The township with the highest number of aged persons is the commune of Ohaba (53.5 %).

FACTORS WHICH CONTRIBUTE TO POVERTY IN URBAN AREAS:

- Strong ageing tendency – of the total population aged over 60, 46.3% is in urban areas;
- Small pensions and insufficient incomes to cover daily needs;
- Inadequate living conditions especially for large families;
- Insufficient social housing;
- Very high utility costs.

LICENSED SOCIAL SERVICES PROVIDERS

Name of private providers	No. of licensed services	Name of public providers	No. of licensed services
Alba Iulia organisation for "Community Support"	3	Alba Iulia Social Assistance Public Service	5
Alba Iulia "Help the Children" Association	16	Alba Iulia Home for the Elderly	1
"Trebuie" Sebeş organisation for children and adults with special needs	4	Aiud Municipality City Hall	1
CARITAS – Alba Iulia Roman Catholic Archdiocese	7	Cugir Social Assistance Public Service	5
"Filantropia Ortodoxă" Alba Iulia Association	8	Sebeş Social Assistance Public Service	3
"AS 2001" Alba Iulia Association	4	Sebeş Home for the Elderly	1
"Uşa Speranţei" Tiur-Blaj Association	1	Blaj Home for the Elderly	1
"Caritas Mitropolitan" – Greek-Catholic Blaj Association	10	Alba General Department for Social Assistance and Child Protection	17
Alba Iulia Association for "Counselling and Specialised Assistance"	1	Alba Iulia Romanian Orthodox Archdiocese	3
"Family Home Villa Kunterbunt" Aiud Foundation	1	Pianu Local Council	1
"Kristent" Centre Aiud Philanthropic Society	1		
"Iulia" Aid Association Alba Iulia	1		
"Diakonia" Aid Association Alba Iulia	4		

"Familia 2004" Blaj association for the elderly and children in need	1		
"Montana Moţilor" Association Alba Iulia	1		
"Sfântul Andrei" Association B ărăbanţ	1		

Source: County Accreditation Commission, 1.03.2007

3.3 PUBLIC HEALTH

The healthcare management of the Public Health Authority aims, by operating the healthcare institutions, to align with the public health objectives in the European Union:

- Universal and equal access to a reasonable set of services;
- Choice of options for health consumers and suppliers;
- Efficient use of available resources and cost of services.

These objectives are ideally placed, with a need to establish their priority depending on economic, political, ideological, social factors. Unfortunately, no system can touch all objectives simultaneously, at maximum standards.

NUMBER OF HEALTHCARE ENTITIES

No.	Type	YEAR				
		1999	2000	2001	2002	2006
1	No. of family medicine offices – total		216	240	225	227
Of which: - urban			128	148	138	137
	- rural		88	92	87	90
2	No. of school medical offices (total and urban)	13	13	13	13	14
3	No. of dentist offices – public	70	49	51	36	1
Of which: - urban		65	42	39	23	1
	- rural	5	7	12	13	0
3–a	No. of dentist offices – private	70	67	85	98	91
Of which: - urban		65	64	82	97	87
	- rural	5	3	3	1	4
4	No. of day-care centres (urban)	2	2	2	2	2
5	No. of medical offices in prisons (urban)					1*
6	No. of army medical offices (urban)					1*
7	No. of army dentist offices					3*
8	No. of police, fire-fighter medical offices					3*
9	No. of physiology offices (disp.TBC)	7	7	7	7	7

*according to Law 95/2006 regarding healthcare reform, these are health offices in the MAI unit, Ministry of Justice. Data from ASP Alba is old and unreliable.

HEALTHCARE INDICATORS (GENERAL DATA FOR 2005)

Indicators	Romania	Alba
Infant mortality	15.0	18.5
Indirect maternal mortality	0.1	0.5
Birth rates	10.2	9.9
Surplus	- 1.9	- 2.7

NUMBER OF HEALTHCARE ENTITIES

No.	Type	YEAR				
		2000	2001	2002	2003	2006

1	No. of family medicine offices – total	216	240	225	232	223
Of which: - urban			148	138	143	130
	- rural		92	87	89	93
2	No. of school medical offices (total and urban)	13	13	13	14	14
3	No. of dentist offices – public	49	51	36	41	41
Of which: - urban		42	39	23	29	29
	- rural	7	12	13	12	12
3–a	No. of dentist offices – private	67	85	98	89	
Of which: - urban		64	82	97	86	
	- rural	3	3	1	3	
4	No. of day-care centres (urban)	2	2	2	2	
5	No. of medical offices in prisons (urban)				1	
6	No. of army medical offices (urban)				7	
7	No. of army dentist offices				3	
8	No. of police, fire-fighter medical offices				3	
9	No. of physiology offices (disp.TBC)	7		7	7	7

NUMBER OF MEDICAL CARE CENTRES

No.	**Type**	**YEAR**				
		2000	**2001**	**2002**	**2003**	**2006**
1	Number of hospitals	10	10	10	9	9
2	Number of hospital beds –urban total	2,945	2,953	2,896	2,386	2,479
Of which:						
➢	Internal medicine	411	431	408	352	348
➢	Cardiology	156	146	141	114	127
➢	Professional disorders	10	10	25	25	25
➢	Diabetes and nutrition disorders	28	34	34	33	20
➢	Neurology	178	178	185	148	163
➢	Psychiatry - total	301	311	288	240	252
➢	Neurosurgery	-	-	6	6	5
➢	General surgery	312	285	270	203	199
➢	Infant surgery and orthopaedics	12	12	12	12	-
➢	Plastic and repair surgery – burns	22	22	20	18	18
➢	Eyes ears and throat	63	73	73	48	43
➢	Ophthalmology	52	52	60	59	49
➢	Orthopaedics – trauma	85	93	107	99	99
➢	Urology	18	25	25	25	25
➢	Oncology	10	12	12	17	16
➢	Contagious diseases	175	180	178	153	140
➢	Dermatology - venereology	54	53	53	34	34
➢	Obstetrics / gynaecology	385	383	347	272	247
➢	Neonatal units	118	123	125	108	102
➢	Paediatrics	253	253	251	210	192
➢	Physical therapy	167	142	129	98	115
➢	Anaesthesia, intensive therapy	106	106	106	85	42
➢	Other specialisations:					

-	Pneumoftiziology					99
-	Pneumology					40
-	Rheumatology					6
-	Gastroenterology					18
-	BMF surgery					5

EMERGENCY SERVICES

Type	YEAR				
	2000	2001	2002	2003	2006
County Ambulance Service	1	1	1	1	1
Number of work places (sub-stations)	10	10	10	10	10
Number of functioning ambulances	79	80	99	96	96
Maximum distance travelled by ambulances to the furthest point in Alba County	From the Alba County Ambulance Station				127 Km
	From the ambulance station of the nearest hospital				42 Km
Maximum length of time for the ambulances to reach the furthest point in Alba County	From the county ambulance station				90 min.
	From the ambulance sub-station				40 min.

NUMBER OF PRIVATE MEDICAL ENTITIES

Type	YEAR				
	2000	2001	2002	2003	2006
Pharmacies – total	72	69	73	75	96
Of which: - urban	60	59	61	62	
- Rural	12	10	12	13	
Pharmaceutical work points					39

Source: Alba Public Health Authority

NUMBER OF SOCIAL - MEDICAL –ENTITIES

There is a social-medical unit at Ocna Mureş with a capacity of 30 spaces, and with 30 beds. The unit functions as its own entity on the upper floor of the Ocna Mureş Town Hospital.

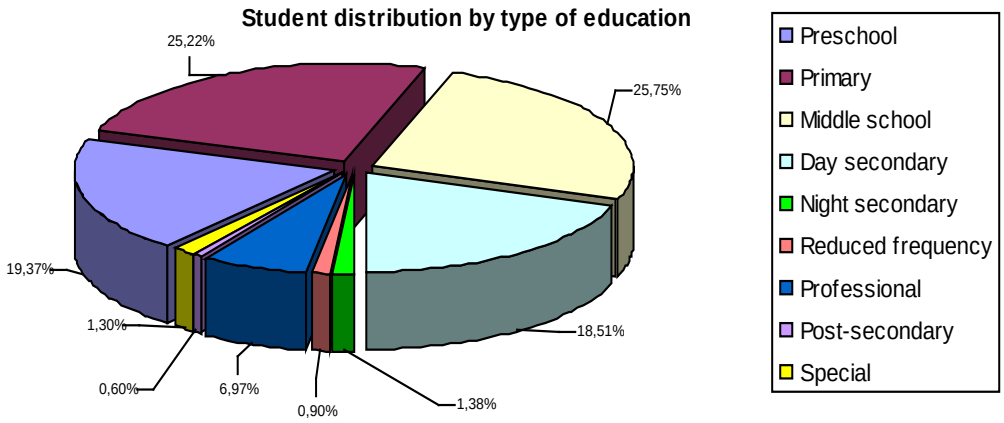
3.4 EDUCATION

EDUCATIONAL SERVICES

In accordance with the governance programme, the major objectives for education aim to provide access to high quality education which allows the graduation into secondary education institutions, the insertion of social-professional services, and the development of partnerships between schools and the community (local public administration, economic entities, civil society), which will allow the beneficiaries to gain key skills established at the European level:

1. Communication in mother tongue;
2. Communication in foreign languages;
3. Competency in mathematics and elementary knowledge of sciences and technology;
4. Competency in using new information and communication technologies;
5. Competency in learning how to learn;
6. Competency in interpersonal relationships and civil involvement;
7. Spirit for taking initiatives and entrepreneurship;
8. Cultural sensibility and artistic expression.

As such, educational services available to the school aged population in the pre-university education system in the county is as follows:



I. MASS EDUCATION

Preschool education

Students – total	Total number of children	Number of groups
Total	**11,754**	**593**
Urban	6,671	317
Rural	5,074	276

Primary education

Total number of students (I - IV)	Of which	
	Urban	**Rural**
15,296	8,302	6,994

Middle school education

Total number of students (V - VIII)	Of which	
	Urban	**Rural**
15,616	9,316	6,300

Secondary education (day)

	Total number of students	No. of classes
Total number of students (IX - XII)	**11,223**	**414**
Urban	11,144	410
Rural	79	4
Technological high school (XIIth grade, progressive track)	**894**	**38**
Urban	894	38
Rural	0	0

Night high school

	Total number of students	No. of classes
Total number of students (IX - XIII)	**835**	**32**
Urban	835	32
Rural	0	0

Reduced frequency education

	Total number of students	No. of classes
Total number of students (IX - XIII)	**543**	**21**
Urban	543	21
Rural	0	0

In order to support youth who did not graduate from the mandatory school education system, ISJ Alba has organised the "Second Chance" programme for primary and secondary school education in four schools: "P. P. Aron" Blaj school with classes I-VIII, "I. M. Moldovan" Blaj school with classes I-VIII, Sebeş sports high school, Bălcaciu school with classes I-VIII, where 112 beneficiaries were enrolled, aged between 16 and 57 years.

Professional education

Type	Classes	Total students	Of which			
			Urban		Rural	
			Classes	Students	Classes	Students
Arts and Crafts School (ŞAM)	**117**	**2,857**	116	2.839	1	18
Completion year (XIth grade)	**58**	**1,367**	58	1.367	0	0

Post-secondary education

Type	Classes	total students	Of which			
			Urban		Rural	
			Classes	Students	Classes	Students
Post-secondary school (taxed or by contract)	**15**	**361**	15	361	0	0

Special attention has been placed on students with special educational needs (SEN) in mass education entities, as well as on children and students who attend alternative educational programmes in their homes, with an adapted curriculum and who benefit from counselling from teachers. The special attention accorded to these categories of pre-school and school aged children is reflected in the SEN component of the PHARE-RO 2003 project, "Access to education for disadvantaged groups" – "Together for a high quality education", through which educational, cultural, and healthcare activities have been organised, also to involve parents in educational activities. The project activities have been implemented in the following schools: "P.P.Aron" Blaj, "I. M. Moldovan" Blaj, School No. 3 Sebeş, Sebeş Sports High school, GPN Veza, GPN Iclod, GPN Izvoarele. The complexity of the educational process of SEN children has led ISJ Alba to implement a resource centre for inclusive education at "I. M. Clain" Blaj National Collegiate, where under the guidance of four specialised teachers, there are counselling and educational activities for students, parents, and teachers.

Psychopedagogical assistance

The objectives of psychopedagogical assistance are:

- Prevention and cure of school leaving and of antisocial behaviour.
- Improved physical comfort, improved self-image.
- Knowledge and self-knowledge of the psycho-intellectual potential, aptitudes and interests, aspirations and value system.
- Development of the decision-making capacity in view of professional orientation.
- Formation of communication competencies, participation, motivation, teamwork, solving of conflicts.

These activities take place through the County Centre (CJAPP) and School Offices for psychopedagogical assistance, and through speech therapy offices. CJAPP offers methodological guidance and coordination for emergency psychopedagogical offices in the county, organised in a network.

	Entities/ standards		Entities			
Type	No. of entities	No. of standards	Rural	Urban	Preschool	School
County Centre for Psychopedagogical Assistance	**1**	**4.5**	0	1	0	0
Psychopedagogical assistance office	**26**	**23**	2	24	1	25
Speech therapy office	**12**	**10**	0	12	0	12

II. SPECIAL EDUCATION

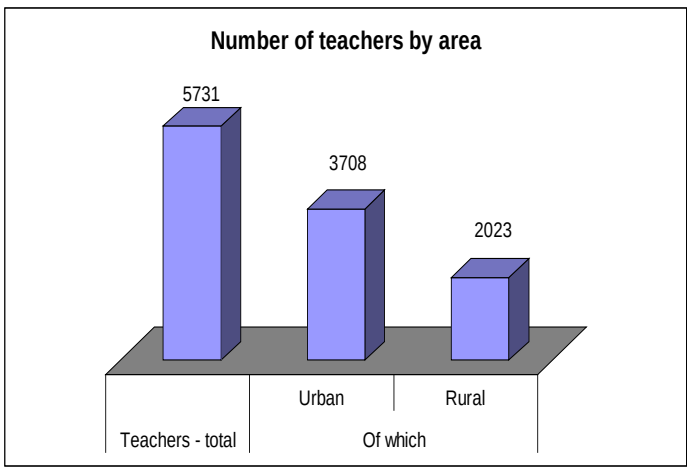
In detail, general specialised education is as follows:

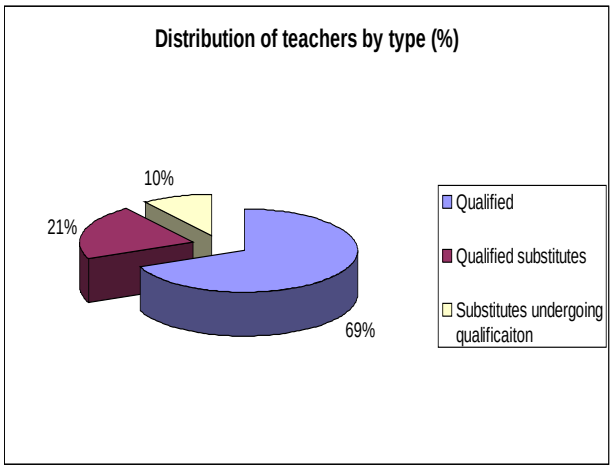
Type	No. of class groups	Students – Total	Of which			
			Urban		Rural	
			Class groups	No. of students	Class groups	No. of students
Preschool education	**4**	**31**	4	31	0	0
Primary education (I - IV)	**19**	**181**	19	181	0	0
Middle school education (V-VIII)	**37**	**359**	37	359	0	0
Special Ş.A.M.						
Year I	**9**	**97**	9	97	0	0
Year II	**6**	**50**	6	50	0	0
Completion year	**5**	**39**	5	39	0	0
Year IV – professional education	**4**	**39**	4	39	0	0

III. TEACHERS

Teachers – total	Of which		Of which		
	Urban	Rural	Qualified	Qualified substitutes	Substitutes undergoing qualifications
5,731	3,708	2,023	3,930	1,226	575

The number of teachers involved in the instructive-educational process, in postings or teachers in state educational units, has increased to **5,731** compared to **5,250** in the previous academic year. This can be seen in detail below:





Also through the PHARE programme - "Access to education for disadvantaged groups" – "Together for a high quality education", we have hired, through local partnerships, seven school mediators and increased the number of teachers for SEN children from seven to nine.

Source: County School Inspectorate

HIGHER EDUCATION

1 DECEMBRIE 1918 UNIVERSITY ALBA IULIA

The current structure of the University includes 26 specialisations, organised in four faculties: Faculty of History and Philology, Faculty of Science, Faculty of Law and Social Sciences, Faculty of Orthodox Theology.

The university educates approximately 7,000 students, in three types of education: day education, distance education, and reduced frequency education.

A central objective of the University is the *combination of the educational process with scientific research*, and the establishment of mixed research facilities, between professors and students. Research projects and cultural activities are carried out with 11 universities and research centres in Europe and the USA.

During 2000 – 2002, the *Research Base with Multiple Users* (RBMU) was established in systemic archaeology, information, which has specific research equipment of top standards. In 2004, RBMU was accredited by CNCSIS as Systemic Archaeology Research Institute, being awarded as a research *centre of excellence*.

3.5 SOCIETIES AND ROLE OF DIFFERENT SOCIAL CATEGORIES

The spatial organisation of Alba County from the perspective of the built environment takes into consideration well established scientific norms and social criteria, aiming at an "interaction" between the habitat (living, public constructions, built space) and the individual of a specific social category.

The pragmatic scope of the sustainable development of the county is the architecture and the framework for social life, for the expression of people's lifestyles, to ensure places for complex social activities, taking into account need, legislation, opportunities and social contexts against the requirements of European integration.

Qualitative mutations in terms of living, through an increased cultural function of living spaces, will determine changes on lifestyles at economic, social, and family levels. At the same time, new areas of interest are included in the issue of public construction, from the point of view of social life, such as – social housing for the elderly, for youth, for other disadvantaged categories, or the improvement of quality and standards of already existing public constructions.

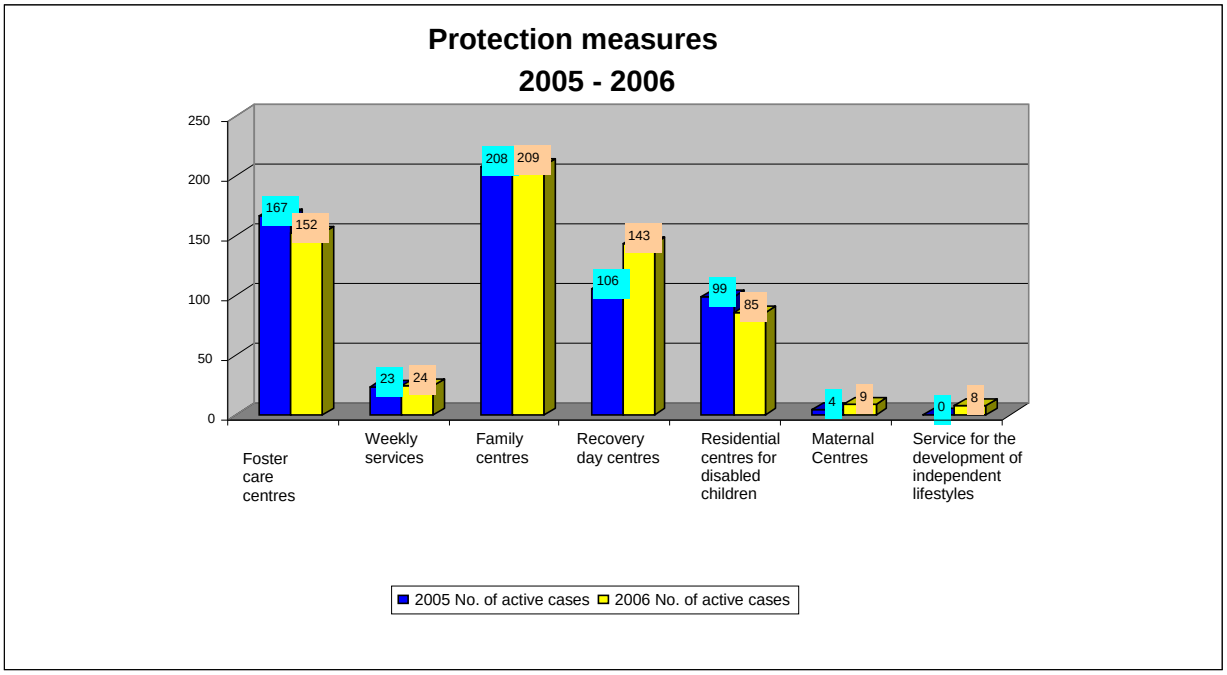
CHILD PROTECTION SYSTEM

At the end of 2006, in SPS centres in the county a total of 630 children benefitted from state protection services, of which: 152 children in foster homes, 209 children in family centres, 143 in day recovery centres, 24 in weekly services, 85 in centres for disabled children, 9 children and 8 mothers in maternal centres, and 8 youth in the service for the development of independent life.

CENTRES/SPS SERVICES

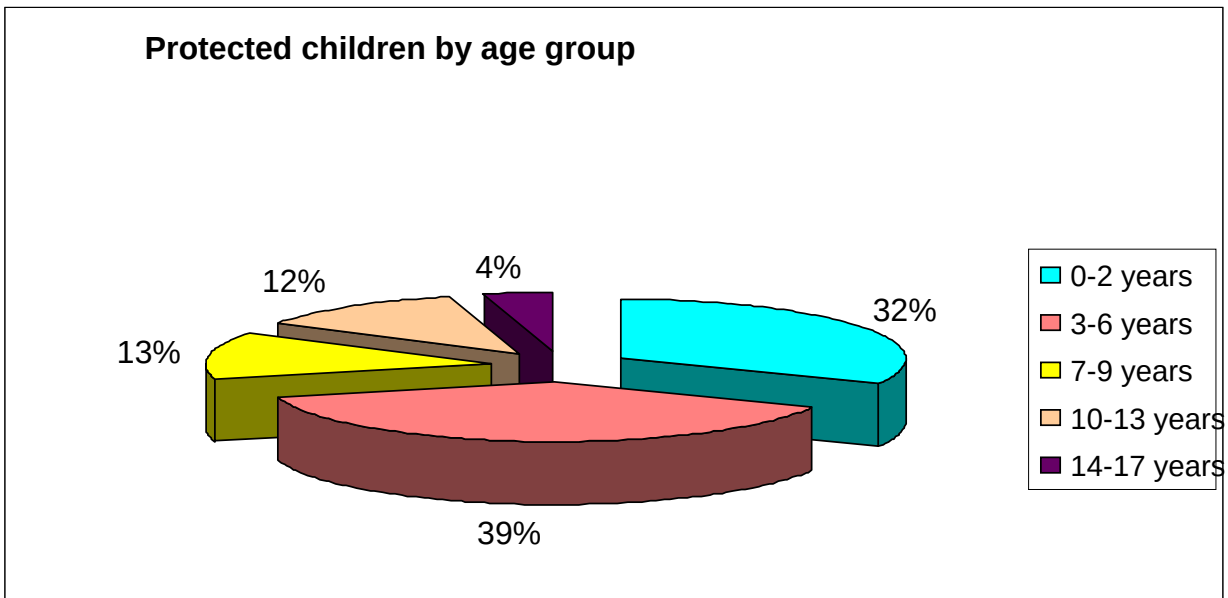
Centres / SPS services	December 2005		November 2006	
	NO. OF ENTITIES	NO. OF ACTIVE CASES	NO. OF ENTITIES	NO. OF ACTIVE CASES
Foster care centres	3	167	3	152
Weekly services	1	23	2	24
Family centres	20	208	21	209
Recovery day centres	3	106	6	143
Residential centres for disabled children	5	64	6	85
Maternal centres	1	4	2	9

Service for teens	1	35	1	8
TOTAL	**34**	**607**	**41**	**630**



PLACEMENTS WITH FAMILIES / PERSONS, INCLUDING RELATIVES UP TO IVTH DEGREE

The number of children benefitting from special protection measures – placement with families / persons, including with 4th degree relatives, is of 569, lower than last year's number of 591 children. The decrease in children in foster family placements is due to the emphasis placed on the responsibility of the biological family to raise its own children, and the involvement of the extended family for help. The number of protected children by professionals employed by the SPS and OPA is of 298, maintaining a constant level, compared to last year's figures of 314 children. The relatively high number of protected children is explained by the fact that the current legislation forbids the protection of children between 0-2 years of age in placement centres, and recommends their placement in foster families.



In the records of DGASPC Alba, there are 110 protected children in family homes belonging to authorised private organisations.

With the help of authorised private organisations, and under cooperation conventions, there is a recuperation and rehabilitation process for children with multiple disabilities in a day-care centre in the towns of Alba Iulia and Sebeş.

In 2006, the Alba Commission for the Protection of Children looked at 3,754 cases regarding special protection measures – placement with families, family centres, weekly services, licensed by amp, and 2,238 cases regarding disabled children.

After analysing the cases, the following were released:

- 506 decisions regarding special protection measures;
- 25 decisions awarding help for institutionalisation;
- 2,163 disability certificates for children;
- 1,367 school and professional orientation certificates.

For 203 children, special protection measures (placement, emergency placement, tutelage) were ordered by courts, due to the fact that in these situations there was no parent consent with regards to the proposed protective measures.

SOCIAL AND PROFESSIONAL INTEGRATION OF YOUTH

At the end of the 2005-2006 academic year, at DGASPC Alba, there were 34 graduates of the professional education, 3 graduates of secondary education, and 1 graduate of university education. The identified solutions for these were the following: 14 youth were registered with their biological family, 5 youth remained within the Râmeţ Monastery, choosing a religious life, 1 youth started her own family, 4 youth are continuing their studies, and 14 youth remained in the protection system, looking for a job.

COUNTY SOCIAL PROTECTION FOR ADULTS

Within the Alba Social Assistance and Child Protection Department, the protection of adults in disadvantaged situations falls within three sections:

- Protection of adults in residential environments, within institutions in the structure of the Alba Social Assistance and Child Protection Department;
- Intervention for solving emergency situations;
- Financial aid and necessary facilities for disabled persons in accordance with O.U. No. 102/1999 regarding special protection and inclusion into the work force of disabled persons, with the corresponding modifications and completions.

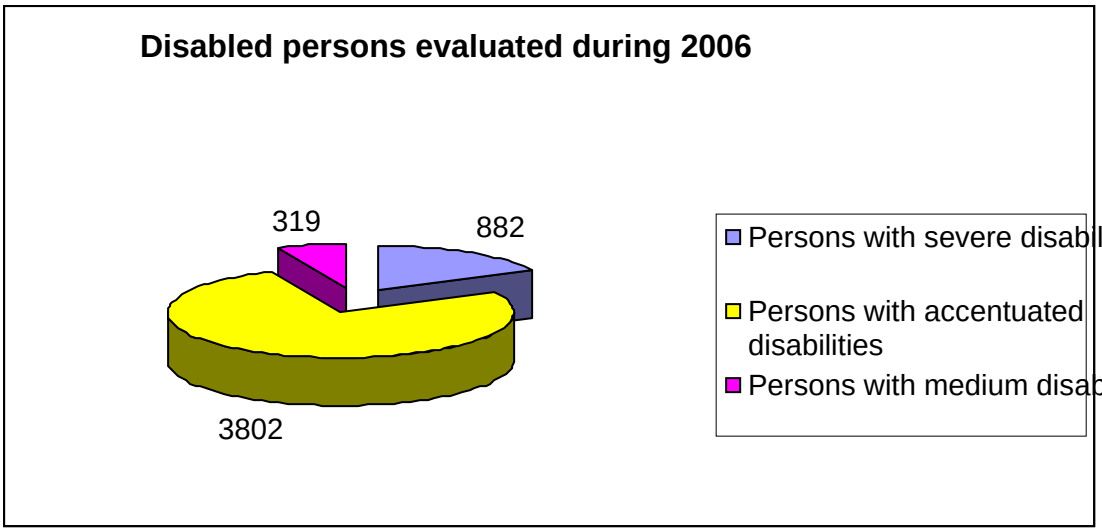
NUMBER OF INSTITUTIONALISED PERSONS WITHIN CENTRES IN THE ALBA SOCIAL ASSISTANCE AND CHILD PROTECTION DEPARTMENT

Name of institution	Number of beneficiaries
Neuro-physical recuperation and rehabilitation centre at Galda de Jos	372
Gârbova care and assistance centre	50
Abrud care and assistance centre	110
Gârbova family centre for the elderly	8
TOTAL	**540**

The activities of the Commission for the Evaluation of Disabled Adults specialises in the evaluation and re-evaluation of all adults with disabilities in Alba County. In this respect, in 2006 there were 5,578 persons evaluated, of which 575 persons did not fall under any category of disability. The 5,003 remaining disabled persons were distributed, according to the law, between the following categories:

- 882 persons with severe disabilities;

- 3,802 persons with accentuated disabilities;
- 319 persons with medium disabilities.



Source: Alba General Department for Social Assistance and Child Protection

JUVENILE DELINQUENCY AND COMMUNITY SAFETY

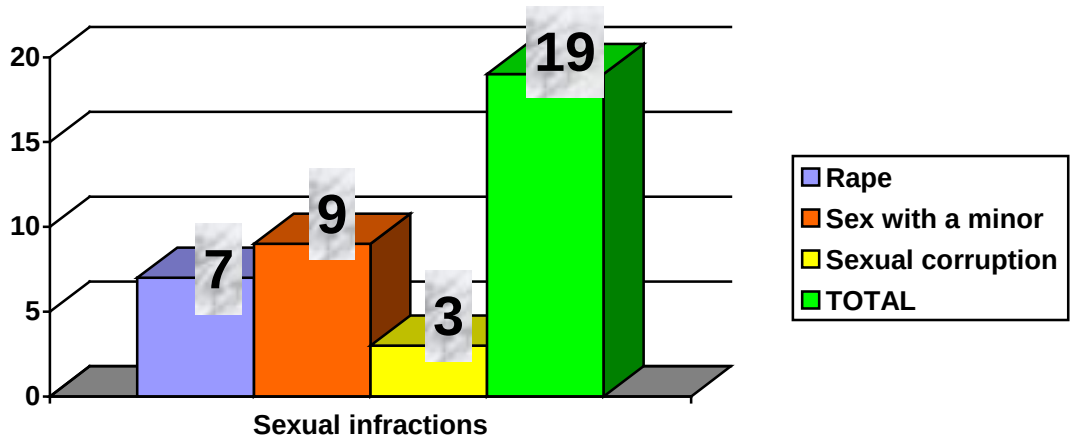
Juvenile delinquency falls is equivalent to numerous denominations: children with behavioural disturbances (medical terminology); non-adapted youth (sociological terminology); "problem-children" (psycho-pedagogical terminology); delinquent minors (legal terminology), etc. All these terms refer to minors who, one way or another, are in conflict with the moral and legal norms of the community where they live. Normal behaviour is represented by acceptable social behaviour, compatible with the cultural aspects of the society where the minor belongs.

There is an increase in infractions carried out by youth in groups, who, at night or during the day, and in different areas, act with violence upon persons who are believed to have money or valuable goods. Sometimes theft carried out by minors ends with getting small amounts of money or invaluable goods, but there is extreme force used against the victims. Thefts take place more or less in urban areas on streets, rather than in buildings or in rural areas, sometimes with the participation of adult criminals.

The Alba County Police Inspectorate permanently monitors infractions where minors are involved both as victims and as criminals, and carry out criminology investigations by different type of infraction. In this respect, criminology research for the first half of 2006 shows the following conclusions:

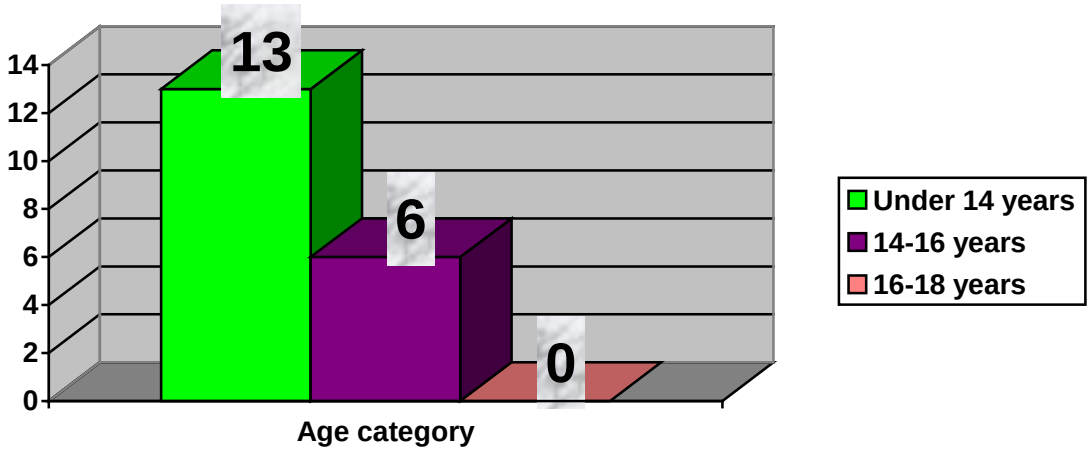
- Half of sexual offenders with minors are also minors.

Solved sexual infractions with victims who are minors



- Or the 19 victims, 15 were female and 4 were male.
- Regarding the age of victims, 13 were younger than 14 years of age, 6 victims were between 14-16 years of age, and there were no victims between 16-18 years of age.

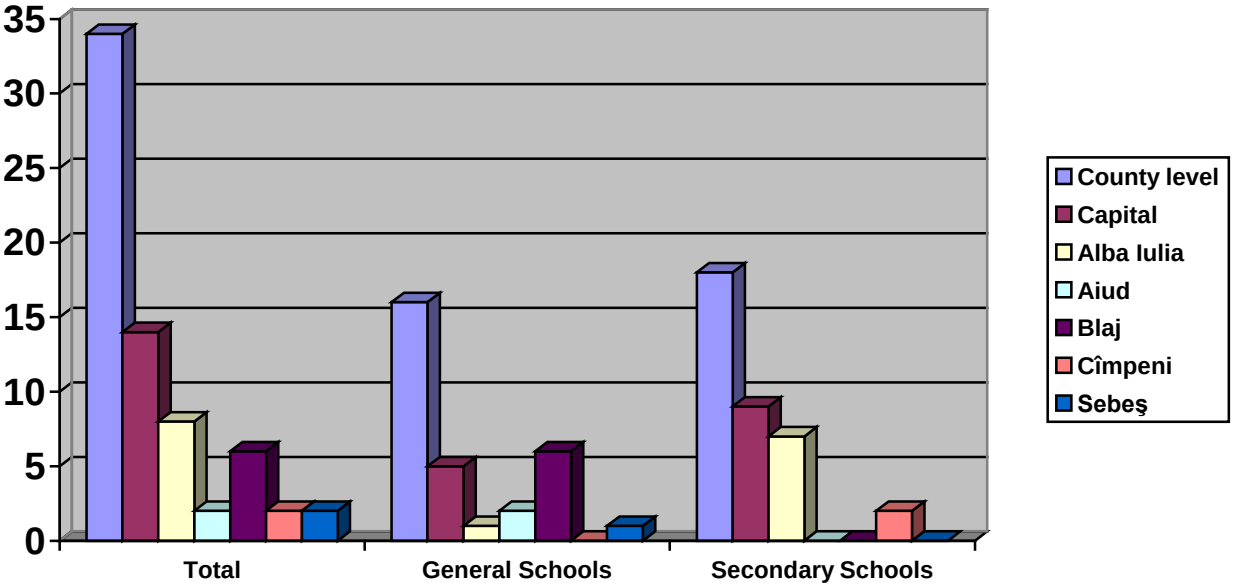
Victims by age category



INFRACTIONS COMMITTED BY STUDENTS

- Of 16 auto thefts, minors aged between 15 and 18 years carried out 2.
- With regard to infractions within and outside schools, committed by 37 individuals, 32 were students. It is worrying that of the total number of those committing crimes, 13 were students in general schools, who are not yet 14 years of age and have no penal responsibility, which can allow them to commit more crime.

Infractions committed by students by types of education and area



Source: County Police Inspectorate

The prevention and fighting of juvenile delinquency requires the scientific research of this phenomenon, a permanent improvement of the legal sanctioning framework for the deviant behaviour of minors, and the development of a unified and coherent system to prevent this behaviour.

3.6 SUSTAINABLE CONSUMPTION

Sustainability principles involve three dimensions – ecology, economy, and the social sphere. Economic development and social harmony cannot be possible over the long term, unless they are in a well-established environment, which puts nature in a vital position. However, production and ecological consumption are

elements, which cannot be realised unless the consumer can afford them, and if the consumer and the production meet acceptable social norms.

Sustainable consumption is an area of activity extremely stratified and interdisciplinary. The change in the behaviour of consumers is a process, which involves the participation of a large number of social groups. Other than private farms (which is the largest consumer group), there are authorities, the economy, educational institutions, NGOs, and many others. Therefore, authorities must create positive conditions, and the process itself must be implemented through the initiative and support of different consumers.

30-40% of environmental problems are directly or indirectly based on the predominant consumption models. These models are extremely important from the local to the global level. There are no available principles for future consumption. The particular decisions of consumers are a constructive element of modern day society, which is democratic and plural. Decisions are and will always be strongly influenced by conditions, such as – political decisions, prices, available technology, income and income distribution, social norms and principles which guide various social groups, as well as the influence exercised through advertising and marketing.

To lead a sustainable lifestyle means to lead a healthy lifestyle, tolerant and in partnership with others, to recognise the value of goods and to savour them, to consume with pleasure and put a high price on quality. It involves the awareness of the community and of individuals as part of the same whole, in partnership and autonomy. This is why we need top policies and basic actions. Taking action together we can build sustainable economic, production, and consumption structures.

In Alba County there have been no studies – consumption models – or studies regarding the quality of life of the population of Alba County or of different social groups. As a consequence, we use the indicators generated by the Alba Regional Statistics Department.

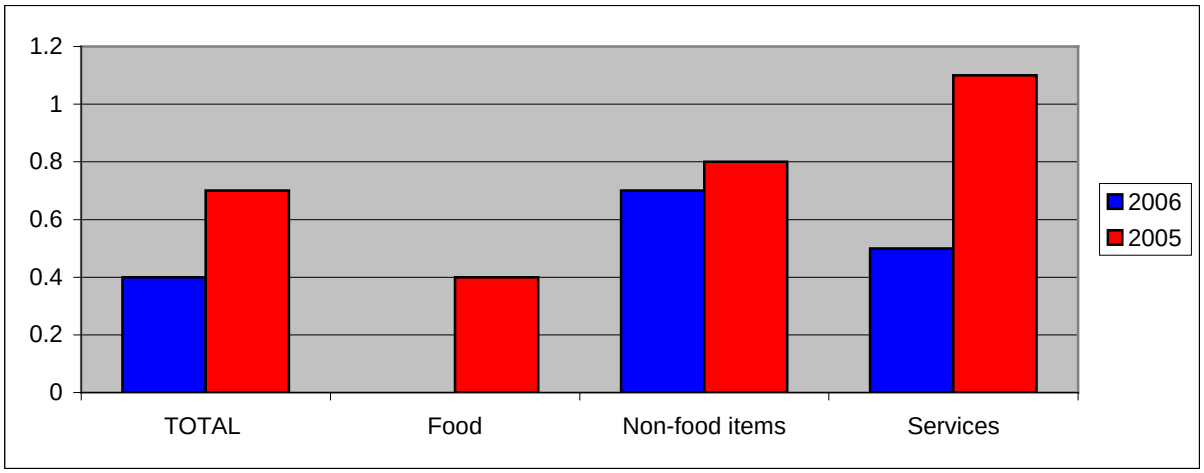
See annex 1: " Natural resource management and strategies for lifestyles in rural areas – Alba County"

CONSUMPTION PRICES AND AVERAGE INFLATION RATE

-% –

	November 2006 compared to:				Average monthly inflation rate, during 11-30 Nov.	
	Oct.	Dec.	Nov.	Oct.		
	2006	2005	2005	1990	2006	2005
TOTAL	101.09	104.10	104.67	284290.90	0.4	0.7
Foods	101.29	99.92	100.99	218499.42	0.0	0.4
Non-food items	101.23	107.40	107.58	300258.60	0.7	0.8
Services	100.30	105.62	105.94	505115.42	0.5	1.1

Average monthly inflation rate during January – November 2006



LOCAL AGENDA 21 VISION – SOCIAL COMPONENT

In 2013, Alba County will become a prosperous community, cohesive, and attractive for investors, with multiple opportunities for development and spiritual completion, connected to the European value system.

Its inhabitants will enjoy a high living standard, with non-discriminatory access to information and social services of high quality.

The responsible involvement of the community and partnership activities will be the basis of our development!

In this respect, Alba County Council:

- Identifies groups and communities affected by poverty and social exclusion;
- Raises awareness among decision makers and the public with regards to serious social problems in the county;
- Establishes priorities to fight poverty and promote social inclusion in Alba County;
- Elaborates the Local Agenda 21 in line with identified priorities and monitors their implementation;
- Facilitates strategic partnerships between its member institutions in order to optimally use all resources at community level.

LIST OF KEY ISSUES

No.	Key issues
1	Reduced incomes (decreased capacity to generate income) for agricultural households and for beneficiaries of social services.
2	Limited number of jobs for youth exiting institutionalised environments, for Rroma, long term unemployed persons, persons over 45 years of age, seasonal workers, and part time employees.
3	Inadequate professional qualifications to meet the demands of the labour market (youth, unemployed, workers made redundant).
4	Insufficient support (consultancy and financing) for the unemployed to start their own businesses.
5	Low level of education and professional development of the Rroma population.
6	Lack / insufficient professional counselling and small number of psycho-pedagogical offices in schools, and specialised counsellors.
7	Increased risk of school leaving (due to low number of social scholarships and low family income).
8	Inadequate conditions for educational activities in schools (teaching material).
9	Lack of access to utilities for households in rural areas (electricity, roads, water distribution, sewage, landfills, etc.).
10	Lack / insufficient land in public areas for building social homes.
11	Insufficient financing for studies to attract finances (i.e. infrastructure projects).
12	Limited access (long distances) to medical services for disabled persons and for pregnant women (especially in rural areas).
13	Limited access to medical services for poor persons outside the social assistance system, for those with chronic illnesses, for the elderly who are partially / totally dependent (with no carers, small pensions, with no personal assistant).
14	No access to free medical services and treatment for some youth (inadequate number of medical offices).
15	Unhealthy lifestyle for groups at risk (i.e. youth, teens).
16	No services, programmes, responsibilities for the recovery of victims of infractions (abused children, domestic violence victims).
17	Insufficient recovery services in homes, in residential centres, and in day centres for disabled persons, and persons in alcoholic detoxification programmes.
18	Lack of services for the social re-integration of persons in prisons and juvenile delinquents.
19	Insufficient institutional capacity for the management of problems related to poverty and social exclusion in Alba County.

SWOT ANALSIS – ENVIRONMENT
Strengths

Geo-strategic location

- The county is located in Romania's central region, and has direct connections to 8 counties in 4 development regions;
- Geographical location at the intersection of main road access ways (roads E 81 and E 86), and main railroads which help the movement of goods, services, persons, and information.

Natural / environmental framework

- The relief of the Apuseni Mountains brings an important element of tourism, hydromechanics, and forestry;
- The hydrographic network of the Mureş and Tîrnave basins which favours the development of agriculture;
- Natural biodiversity with conservation areas in valuable regions (natural conservation areas and monuments) – Apuseni Mountains;
- Spectacular mountain attractions, which favour the development of mountain oriented tourism in all its forms;
- Rich mineral resources, especially gold, silver, copper;
- Varied ecosystems, habitats, and animal and plant wildlife in protected environments;
- Strong basis for agriculture, especially through the use of arable land and meadows;
- An integral county waste management strategy is under development.

Population and workforce

- Civilised population, educated in work ethics and order;
- Relative concentration of nationalities (Romanian, Hungarian, German, Rroma) with cultural interfaces and numerous traditions and customs;
- Rich and diverse natural and cultural tourism potential;
- Good tourist accommodation facilities;
- Basic social and educational infrastructures in towns;
- University centre – Alba Iulia;
- Traditional arts and crafts around the processing of natural resources – wood, clay, leather, etc.;
- Production infrastructure;
- Increase in the number of SMEs and small enterprises;
- Numerous work resources qualified in many areas (agriculture and industry – especially light and chemical industry).

Infrastructure

- There are two road transport routes which cross Alba County as European roads, E68 and E 81, which provide connections to the main international routes. The rail network allows connections to the main towns in the county;
- Relatively well developed natural gas distribution network;
- Relatively well developed electrical networks;
- Modern telecommunications and mobile telephony networks with large coverage.

Industry

- Natural potential which favours the development of industrial activities (i.e.: project for gold and silver mining at Roşia Montană, wood processing at Sebeş, Câmpeni or Blaj, calcinated soda production at Ocna Mureş, bird farming at Sîntimbru, milk processing at Alba Iulia);
- Foreign investments in production entities and services (some over EUR 250m);
- Traditional arts and crafts around the processing of natural resources – wood, clay, leather, etc.;
- Production infrastructure, linked to utilities;

- Increase in the number of SMEs and small enterprises;

Tourism

- Natural and anthropic resources (historical and cultural) conducive to the economic development of Alba County through tourism;
- Multiple tourism opportunities;
- Access to tourist attractions in the county;
- High ethnographic and cultural potential;
- High potential for the establishment of new tourist resort towns.

Weaknesses

Geo-strategic location

- Difficult access to some human settlements in the Apuseni Mountains area, due to relief;
- Reduced opportunities for including infrastructure in areas with difficult access.

Environment

- Major pollution problems caused by past or present human industrial activity (Zlatna, Ocna Mureş, Sebeş, Abrud, Alba Iulia, Roşia Montană, Baia de Arieş, Blaj);
- Pollution caused by toxins and particles due to an increase in road traffic in Alba Iulia and Sebeş;
- Inadequate protection against floods and landslides (Tîrnavelor Valley, mountain and pre-mountain areas);
- Large scale and uncontrolled deforestation;
- Old and / or insufficient household treatment plants in urban and rural areas;
- Problems with the collection, sorting, management, and capitalisation of household and industrial waste.

Population and workforce

- Increased migration, especially of the young population, regardless of level of education;
- Negative population growth and ageing population;
- Migration in both urban/rural and rural/urban directions can lead to demographic instability;
- No educational and health infrastructure in some isolated mountain villages;
- Educational problems for poor sectors of the population, especially for Rroma: an increase in the number of institutionalised children;
- Lack of audits and evaluation of educational needs (initialisation, qualification, re-qualification, multiple qualifications, specialisations) for adults, especially for these who were active in the mining industry, in the army, in metallurgy, chemistry, etc.;
- Lack of a lifelong educational culture;
- Educational supply and labour market demands are not correlated;
- No tourist information network at county level;
- No qualified staff to provide high quality tourism services;

- No programmes and financial resources for heritage protection;
- No quality certification for local products to meet European standards;
- Consultancy services in the business sector are weak;
- Heavy emigration of specialists and qualified persons;
- Development and research services, technological transfer and innovation are declining and do not have enough staff;
- Development and research services, technological transfer and innovation in economic enterprises are weakly developed or non-existent;
- Weakly developed collaboration between academic research and the economic sector.

Infrastructure

- The drinking water distribution, sewage, and wastewater treatment infrastructure is old and inadequate, and weakly developed in rural areas;
- Rural settlements with no electricity;
- The national, county, and local roads need modernisation works;
- Limited access infrastructure for some rural settlements, especially in mountain areas.

Industry

- Rural mono-industrial towns and settlements for mining in mountain areas (Abrud, Zlatna, Baia de Arieș, Cîmpeni, Bucium, Almaș, Poșaga, Sohodol, Bistra, Sălciua, Lupșa, etc.);
- Numerous enterprises have qualified staff, but old equipment for the most part, as well as poor marketing and management;
- Major problems for the restructuring / closing down of the mining industry (all mines in Alba County are affected by this);
- Problems caused by metallurgy (Aiud, Zlatna, Cugir) and by the chemical industry (Ocna Mureș);
- Mono-industrial centres such as Abrud, Zlatna, Aiud have weak opportunities for industrial diversification; there are high levels of unemployment, much higher than the national average, as well as a high degree of poverty.
- Difficult reconversion of the military industry (Cugir);
- Limited entrepreneurship.

Tourism

- Weak tourist access infrastructure and poorly signposted tourist sites;
- Weak accommodation and services, especially in urban areas;
- Inadequate tourism promotion at county, regional, national, and international levels;
- Inadequate services related to tourism (information centres, mountain rescue, mountain guides, equipment rental, etc.);
- No professional tourist organisations;
- Small number of tourist resort towns;
- Lack of promotion of the tourist potential, which attracts weak investments in tourism and related services;
- The existing tourist services are only used during the summer season, although there is high potential for the practice of winter sports.

Opportunities

Geo-strategic location

- Advantageous location of the county in relation to European investment protects for transit roads for goods and persons (Pan-European Channel IV).

Environment

- The natural environment, fauna and relief structures encourage the multi-faceted development of tourism;
- European Union and Romanian Government programmes for the reconstruction and protection / conservation of environmental factors;
- EU Solidarity Fund and other international funds allow for reconstructions after floods.

Population and workforce

- Close connections between the local population and persons who have emigrated abroad to the European Union, which contributes to cultural and economic exchanges;
- Best practice examples regarding NGO involvement by supporting communities and providing assistance to poor communities;
- High degree of culture – schools with strong traditions in urban centres, especially in Alba Iulia, Blaj, Aiud, Sebeş;
- Cooperative relationships between "1 Decembrie 1918" University Alba Iulia and other social partners allows for an integrated socio-economic and community development;
- Development of agro-tourism as a labour market sector and employing the work force from rural areas – especially from the Apuseni Mountain area;
- Large number of qualified professional education providers;
- Interest shown by a German consortium for the regional involvement in professional education.

Infrastructure

- Expansion and modernisation of mobile telephone, internet, and banking services, and of the online payment system and ATMs;
- EU programmes for infrastructure financing – European Fund for Regional Development, Cohesion Fund, LEADER.

Industry

- Large number of foreign investors in the county, which can attract more investors;
- Investment project for the exploration of gold and silver deposits at Roşia Montană – local economic development, jobs, development of economic activities and related services;
- Due to their area of activity, some enterprises may re-enter the market with some interventions (textiles, ceramics, construction materials);
- The establishment of a business centre in Alba Iulia – Regional Business Centre.

Tourism

- Economic capitalisation of the natural and anthropic opportunities in Alba County;

- Involvement of local authorities for the implementation and / or restoration of tourist resort and spa towns – Arieşeni, Albac, Ocna Mureş.

Threats

Environment

- Financing source for the integrated waste management project at county level;
- Environmental imbalance caused by multiple air, water, and soil pollution;
- The mining project for gold and silver at Roşia Montană;
- Pollution of water caused by a lack of / limited number of treatment and purification stations;
- Landslide, crumbling, and flooding risks caused by a change in climate and inadequate deforestation, with repercussions on the natural and anthropic environment.

Population and workforce

- An increase in the ageing population / reduced birth rates, which will increase in the following areas: Podişul Secaşelor, Podişul Tîrnavelor, hill area along the Mureş superior and the majority of isolated rural settlements in mountain areas;
- Socio-economic instability causes an increase in poverty and in the marginalisation of disadvantaged groups, and of those at risk of social exclusion;
- Unsustainable and volatile development of the economy, and slow restructuring and privatisation process, chronic structural inequalities with a direct impact on the distribution of resources for development;
- Townships with predominantly Rroma population, with weak development potential and high poverty.

Infrastructure

- High number of floods and landslides, together with the constant erosion of soil in some rural and urban areas has led to significant deterioration of the transportation, gas, and energy distribution infrastructure;
- Lack of financing sources for ongoing investments in the necessary infrastructure and in services.

SWOT Analysis - Agriculture

STRENGTHS	WEAKNESSES
• Favourable pedo-climatic conditions for agriculture; • Favourable conditions for animal farming; • Well-organised institutional system (DADR, OJCA etc.); • Local leaders in wine making and in milk products.	• Current legislation does not encourage legal agricultural practices which keep evidenced accounts; • Economic agents active in agriculture do not practice business plan development and marketing • The agricultural financing system is difficult to access (internal, external); • Ageing workforce in agriculture.
OPPORTUNITIES	**THREATS**
• Improvement works for agricultural soil; • Capital investment in agricultural technology: machinery and agricultural equipment for field crops and animal farming, and for the depositing of agricultural products; • Intensive educational courses for agricultural process workers.	• Decrease in population in some agricultural regions; • Loss of some animal species caused by a lack of conformity with EU demands and standards; • Pollution of rivers due to mining activities; • Environmental impacts caused by waste management.

SWOT Analysis - TOURISM

Strengths

- High diversification of tourism opportunities: natural parks and forests with varied flora and fauna, mountains, caves, non-contaminated rural areas, fishing and hunting, cultural attractions, conference and exhibition facilities, leisure areas;
- Local folklore and traditions, gastronomy based on local organic products;
- Number and importance of religious sanctuaries (spiritual tourism);
- Agro-touristic pensions;
- Cultural and historical attractions in the county;
- Large number of natural parks.

Weaknesses

- Tourism infrastructure with reduced standards, reduced number of accommodation spaces, poorly developed basic infrastructure;
- Relatively small number of tourist and cultural events;
- Limited experience in tourism services; very few tour operators for Alba County;
- Inadequate education entities specialising in tourism;
- Insufficient promotion of handmade products (including: weak distribution, weak visibility to tourists).

Opportunities

- Very good opportunities for mountain tourism (recreational tourism);
- Good opportunities for the development of rural tourism in isolated areas;
- Opportunity to use the natural park and protected areas as tourist resources, at the same time protecting the environment (ecotourism);
- Increased interest in agro-tourism;
- Financing (European Union, Romanian Government, others);

- Development of regional tourist products;
- Establishment of tourist information centres, countywide.

Threats

- No tourism strategy;
- No traditional products specific to Alba County;
- Inadequate promotion of tourism compared to other counties;
- Poorly developed system for the collection of statistical information;
- Weak management and marketing culture among economic entities active in tourism.

1.3 OBJECTIVES
STRATEGIC PRINCIPLES – ENVIRONMENT

PREVENTION Principle – aims at the prevention of degradation and pollution, not only to clean up after this has taken place.
PRECAUTION Principle – "If in doubt, don't do it!"
POLLUTER PAYS Principle – the author of the potential environmental degradation is responsible for its prevention, and an already existing author is responsible for stopping the degradation and for the decontamination of the environment.
COOPERATION Principle – cooperation with all participants to the process, as early as possible.
ACTIONS WITHIN THE ECOSYSTEM Principle – taking action within the capacity support limits of the local ecosystems, establishing limits within which the population may use or exploit a resource without diminishing it.

ENVIRONMENTAL PRINCIPLES STIPULATED IN CHAPTER 22 ENVIRONMENT, NEGOCIATED WITH THE EUROPEAN UNION

- Protection and preservation of nature and biological diversity;
- Development and management of protected areas;
- Protection against natural disasters and accidents;
- Firm application of environmental legislation to the normative system, standards and regulations of the European Union;
- Development of sustainable management of water resources, urban and industrial waste management;
- Consolidation of industrial capacities and the formation of necessary competencies;
- Facilitation and stimulation of the dialogue between authorities and civil society regarding the strategy, policies, programmes and decisions regarding the environment and the socio-economic development of the community;
- Preservation and development of the human capital in matters of the environment, and the improvement of the educational, habit-forming, and informational system in order to ensure the environmental education of the population.

CRITERIA FOR THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT OBJECTIVES

In order to be able to measure the progress of the achievement of objectives proposed for the achievement of sustainable development at local level, it is necessary to establish a set of indicators to be followed. Their registered values and tendencies will constitute a real "dashboard" for community leaders, allowing and facilitating decision making to meet the needs of current situations.

The chosen indicators measure and guide the sustainability of a community, indicating positive results, signalling any negative symptoms. The indicators help with the interpretations of information and data available which refer to tendencies, problem areas, and available resources.

The indicators will be chosen according to the sector they represent, and to the objectives whose achievement they measure.

Environmental indicators analyse the effect of human activity on the environment, and the impact of these activities on public health, quality of life, and the integration of ecosystems.

Socio-economic indicators warn any uncontrolled economic growths and of the need to use resources without generating a shortage of these resources in the future.

The achievement of sustainable development objectives will take into consideration the following criteria:

Criteria	**Social** – social aspects –	**Economic** – economic aspects –	**Environmental** – environmental aspects –
Cohesion and	Increased social	Increased number of	Increased

solidarity of citizens	cohesion of citizens	jobs	environmental awareness of the citizens
County power	Increased social stability in the county	Increased economic power of the community	Balance between industrial development and environmental protection (reduced pollution, urban restoration)
Sustainable development	Minimal social problems	Minimal economic problems	Minimal environmental problems
Qualitative development	Alignment to European principles and standards	Alignment to European principles and standards	Alignment to European principles and standards

STRATEGIC DEVELOPMENT DIRECTIONS – Directions for action for the implementation of the sustainable socio-economic development model in accordance with the EU Sustainable Development Strategy

Natural capital

- Improved air quality;
- Sustainable water resource management;
- Protection and preservation of nature, biodiversity, forests, and soils;
- Adequate management of urban, industrial, toxic, and hazardous waste;
- Protection against natural disasters and environmental accidents;
- Improved public health in direct relation with improved environmental factors;
- Relation, management, and equipment of county land – natural environment, impact of anthropic activities;
- Improved local institutional system.

Environmental factors – Air

Clean air in urban areas

- Highly performing technologies and installations in industrial activities and those which fall under Council Directive No. 2001/80/CE and 1999/13/CE;
- Economic system based on renewable energy;
- Highly performing auto park;
- Protective workshops in all urban areas;
- Industrial platforms outside urban areas;
- Integrated waste management depositing system.

Highly performing system for monitoring of air quality

- Auto-monitoring system for economic entities;
- Monitoring system to meet European standards for air quality in all townships in the county;
- Air quality monitoring system in protected natural areas and in biodiversity conservation areas;
- Monitoring system for the emission of volatile organic compounds (VOC);
- External posters for public information regarding air quality;
- Sustainable management of air quality (industrial regional maps, acoustic maps for urban centres, sustainable management of forests, as the main factor for atmospheric purification, integrated road traffic management system, rings and green spaces in urban areas).

Environmental factors – Water

Good quality drinking water

- Good quality drinking water for all citizens in the county;
- Highly performing drinking water treatment plants;
- Public monitoring and information system regarding water destined for human consumption.

Quality of surface and subterranean water

- Division system sewage – modernisation of existing sewage networks;
- Division system sewage – new sewage networks in regions with no sewage;
- Modern purification stations for all townships in the county;
- Modern purification stations for industrial wastewater;
- Impermeable deposits for waste from agricultural farms and system for the use of fertilizers, to meet the Agricultural Best Practice Code;
- RRR (recuperation, recycling, reuse) for industrial waste either created or deposited;
- Secure pesticide waste deposits to ensure public health and environmental protection;
- Limit values for the emission of priority / hazardous substances in accordance with Directive 76/464/CEE;
- Agricultural best practice code in accordance with Directive 91/676/CEE.

Sustainable water management

- Optimised rapport between water resources and consumption;
- Regulation of water courses, accumulations, and energy generation;
- Metered drinking and industrial water consumption, and of wastewater;
- Highly performing technologies and installations in industrial activities.

Biodiversity, forests, and soil conservation

Sustainable management of natural protected areas

- Management plan for all protected areas in the county;
- Natura 2000 network at county level.

Projection and conservation of natural habitats and of flora and fauna species

- Inventory to meet European standards for natural habitats, and for wild flora and fauna species;
- Identification and declaration of new protected areas;
- Environmental reconstruction of deteriorated ecosystems and habitats.

Sustainable management of forests

- Coherent forest management for all forested areas, independent of type of ownership;
- Deforestation in accordance with European legislation, independent of type of ownership;
- Conservation and expansion of forest protection – around some new protected areas, roads, watercourses, and green rings of urban areas, agricultural areas.

Sustainable management of soils

- Renewed pedological map;
- Map for the identification of areas prone to landslides;
- Adequate soil for organic agriculture;
- Optimal rapport between animal farms and grazing areas.

Waste management

Integrated management of urban and assimilated waste;

- Selective collection system at the source;
- Waste collection and transportation system in all townships in the county;

- Complex transfer stations;
- Environmental regional deposits;
- Environmental reconstruction of areas which were affected by waste deposits;
- Highly performing urban sanitation system;
- Civic awareness regarding waste management.

Integrated management of industrial, toxic, and hazardous waste

- "Clean technologies" for activities which generate waste, in order to decrease quantities of waste;
- Installation for the elimination of toxic and hospital waste;
- Technologies based on substances, which do not impact the ozone layer.

Management of recyclable waste

- Technical-economic mechanism for the capitalisation of waste and recuperation of energy;
- County system for the collection and transportation of recyclable waste;
- Opportunities for the capitalisation of waste selectively collected at the source, and at transfer stations.

Protection against natural disasters and environmental accidents

Management of natural risks

- Natural danger identification maps for landslides, floods through river flow reversals, and torrential rains;
- Monitoring and warning hydrothermal system;
- Secure landslides;
- Hydrotechnical installations, regularisation, and dams and accumulation lakes to combat torrential water flows and floods along watercourses.

Management of industrial and anthropic environmental accidents

- Management plan for disasters for accidents in economic entities with high risk impacts on the environment, according to EU Directive – SEVESO II;
- Disaster management plan – prevention and protection measures for forested and mountainous areas.

Integrated management of the quality of environmental factors with an impact on public health

- Map of risk areas for public health;
- Informational system regarding public health in relation with environmental factors: air, water, waste;
- Population information mechanisms and support in the decision making process for authorities.

Recommendations regarding the relationship between the management and equipment of the county territory and the natural environment, and the impact of anthropic activities

- Urban and land management plans in accordance with environmental policies;
- Balanced socio-economic structure;
- Improved institutional system;
- Functional institutional framework;
- Environmental management in development policies of the county authorities.

PRIORITY ENVIRONMENTAL PROBLEMS IN ALBA COUNTY

THE SELECTION OF PRIORITY PROBLEMS AND THE SYNTHESIS OF SELECTED ENVIRONMENTAL PROBLEMS / ASPECTS

For the analysis and establishing of the hierarchy of environmental problems in Alba County, three main principles were taken into account, namely:

- the number of identified environmental problems / aspects;
- the average points of problems allocated to one category of issues;
- the severity of the identified environmental problems / aspects.

Based on the evaluation of environmental quality and of existing polluting sources, the following hierarchical list of environmental problems was produced:

LIST OF ENVIRONMENTAL PROBLEMS HIERARCHY AND PRIORITISATION

PROBLEM	Problem code	Hierarchy score	Prioritisation score
1. Quality and quantity of drinking water	**PM-01**	**33.40**	**149.40**
No guarantee of meeting the qualitative and quantitative needs for drinking water of the urban population.	PM-01-01	33	**128**
No centralised drinking water distribution systems for the rural population.	PM-01-02	30	141
Insufficient quality monitoring of water from wells and other drinking water sources (springs, etc.).	PM-01-03	38	171
No adequate management to guarantee the provision of good quality drinking water.	PM-01-04	31	139
Lack of obeying the current legislation in protection areas for the capture of drinking water.	PM-01-05	35	168
2. Pollution of surface water – household and industrial water	**PM-02**	**37.80**	**156.66**
Pollution of surface water due to a lack of treatment systems (sewage and purification plants) for household water in urban areas.	PM-02-01	43	170
Pollution of surface water due to a lack of treatment systems (sewage and purification plants) for household water in rural areas.	PM-02-02	44	177
Insufficient purification of household wastewater from purification stations.	PM-02-03	40	168
Inadequate treatment of industrial wastewater generated through the activities of economic entities (including water polluted with priority / priority hazardous substances).	PM-02-04	40	164
Pollution of receiving water courses due to the flow of water from the mining industry (ponds and water from mines).	PM-02-05	42	166
Pollution of receiving courses of water due to water flow with inorganic salt contents.	PM-02-06	34	129

Pollution of water courses with waste from wood processing installations.	PM-02-07	35	180
Pollution of surface water due to the flow of wastewater from riverbank exploitation.	PM-02-08	21	94
Pollution of surface water due to the flow of wastewater from other economic entities.	PM-02-09	41	162
3. Soil and subterranean water pollution	**PM-03**	**32.42**	**147.00**
Historic soil and subterranean pollution in the Zlatna area, due to atmospheric emissions from SC Ampelum SA (SO_2, metal particles) and of waste deposits from the Zlatmin SA Zlatna Branch.	PM-03-01	33	128
Subterranean water and soil pollution due to mining activities (ponds, dumps) and to the chemical industry – production of chloro-sodium products.	PM-03-02	30	141
Soil and subterranean water pollution due to urban waste deposits.	PM-03-03	38	171
Soil and subterranean water pollution due to salt mining activities (SNS-SA Bucharest –Salina Ocna Mureș Branch).	PM-03-04	31	139
Soil and subterranean water pollution with nitrates due to the uncontrolled use of organic and chemical fertilisers in agriculture.	PM-03-05	35	168
Soil and subterranean water pollution due to the uncontrolled use of pesticides in agriculture.	PM-03-06	30	141
Soil and subterranean water pollution due to fuel deposits from economic entities, distribution stations.	PM-03-07	30	141
4. Atmospheric pollution	**PM-04**	**30.85**	**127.00**
Atmospheric pollution caused by emissions from economic entities – industries, IPPC installations, and other installations / activities.	PM-04-01	35	144
Atmospheric pollution caused by emissions of volatile organic compounds from the use of organic solvents in activities and installations of economic entities.	PM-04-02	35	144
Atmospheric pollution caused by emissions of volatile organic compounds from the depositing of fuel and their distribution to terminals and stations for fuel distribution.	PM-04-03	33	133
Atmospheric pollution caused by emissions from road traffic.	PM-04-04	33	133
Atmospheric pollution caused by emissions from agriculture, animal farming, bird farming, etc.	PM-04-05	19	78
Atmospheric pollution caused by emissions from urban waste deposits	PM-04-06	28	124

(household).			
Atmospheric pollution caused by emissions of greenhouse gases (CO_2).	PM-04-07	33	133
5. Waste management	**PM-05**	**36.33**	**162.25**
Environmental pollution caused by inadequate household and industrial waste management in urban areas.	PM-05-01	42	158
Environmental pollution caused by inadequate household and industrial waste management in rural areas.	PM-05-02	43	172
Environmental pollution caused by the inadequate management of medical waste.	PM-05-03	40	170
Environmental pollution caused by the inadequate management of packaging and of packaging waste.	PM-05-04	29	121
Environmental pollution caused by the inadequate management of waste from electrical equipment, electronics, and old vehicles.	PM-05-05	36	143
Environmental pollution caused by the inadequate management of pesticide waste.	PM-05-06	35	147
Environmental pollution caused by the inadequate management of used oil and tyres.	PM-05-07	34	129
Environmental pollution caused by the inadequate management of asbestos.	PM-05-08	34	129
Environmental pollution caused by the inadequate management of waste from metal industry activities.	PM-05-09	34	129
6. Transportation	**PM-06**	**27.66**	**100.66**
Inadequate technical infrastructure of the road network.	PM-06-01	28	94
Poor transportation due to a lack of belt roads for transit road traffic in the municipalities of Sebeş, Blaj, Aiud, and the town of Teiuş.	PM-06-02	32	115
Degradation of the urban environment due to a lack of parking spaces.	PM-06-03	23	93
7. Agriculture and rural development	**PM-07**	**29.33**	**143.33**
Uncontrolled use of fertilisers (natural and chemical) and pesticides in agriculture.	PM-07-01	39	196
Danger caused by the growth and sale of genetically modified organisms, with an impact on public health.	PM-07-02	30	156
No interest in the promotion of rural products on the internal and external market.	PM-07-03	19	78
8. Dangers posed by natural disasters / phenomena	**PM-08**	**33.71**	**141.28**
Dangers posed by natural disasters or phenomena (fires, earthquakes, floods, etc.).	PM-08-01	39	173
Emergency situation responses.	PM-08-02	40	161
	PM-08-03	35	144

Dangers posed by natural and anthropic phenomena in areas of active industrial waste deposits.			
Dangers posed by natural and anthropic phenomena in areas of inactive industrial waste deposits.	PM-08-04	42	176
Dangers posed by deformations of the surfaces of underground salt deposits (SNS-SA Bucharest –Salina Ocna Mureş Branch).	PM-08-05	19	78
Dangers posed by deposits of fuel placed in residential areas (distribution stations).	PM-08-06	28	124
Dangers posed by major accidents involving hazardous substances.	PM-08-07	33	133
9. Degradation of the natural and built environment, of artistic, historic monuments, and archaeological sites	**PM-09**	**30.00**	**153.00**
Insufficient protection measures for some natural habitats.	PM-09-01	30	170
Deterioration of artistic and historic monuments, and of archaeological sites due to environmental pollution.	PM-09-02	30	136
10. Tourism and leisure	**PM-10**	**25.50**	**116.00**
No hygienic / sanitary structures for waste management and for areas to prepare food in open areas in leisure and tourist areas.	PM-10-01	31	138
Non-organised and non-environmentally friendly tourism.	PM-10-02	23	105
No local and regional strategies for the development of tourism.	PM-10-03	23	105
Deterioration of the natural environment due to weekend tourism, which leads to the building of cottages near protected areas and unorganised camping.	PM-10-04	25	116
11. Environmental urbanisation	**PM-11**	**30.50**	**129.50**
Diminishing and degradation of green spaces in urban areas.	PM-11-01	31	108
Noise pollution through vibrations in urban areas.	PM-11-02	31	138
Economic agents active in areas with inadequate sound protection.	PM-11-03	30	136
Urban environment deterioration due to a lack of parking spaces.	PM-11-04	30	136
12. Public health	**PM-12**	**29.00**	**145.00**
Insufficient studies aimed at improved public health in relation with the environment, and a lack of population awareness regarding the effects of pollution on environmental factors and on public health.	PM-12-01	29	145
13. Environmental education	**PM-13**	**26.00**	**130.50**
Lack of knowledge of environmental legislation, rights, obligations and responsibilities of individuals, community groups, authorities, etc.	PM-13-01	27	145
Low level of collaboration between	PM-13-02	25	116

environmental authorities, community leaders, NGOs, educational institutions, which does not help the environmental awareness of the population.			
14. Strengthened capacity of the Environmental Protection Agency (EPA)	**PM-14**	**25.00**	**108.50**
No accreditation of the laboratory for principal pollution indicators and of management certification at EPA.	PM-14-01	29	116
Improved human resource management and professional development.	PM-14-02	21	101
15. Legislative aspects	**PM-15**	**24.00**	**112.00**
Insufficient awareness of the management of commercial entities, institutions, economic agents, etc, with regards to the preservation of the natural environment.	PM-15-01	24	112

1.3 STRATEGIC PRINCIPLES

- ✓ **Projects established in the Local Action Plan must support the achievement of objectives in the Local Agenda 21;**
- ✓ **The achievement of sustainable development must reflect changes in all aspects of life (economic, social, cultural, architectural, environmental);**
- ✓ **The Local Action Plan must be correlated with economic – financial forecasts at local, county, regional, and national levels;**
- ✓ **The evaluation of financial resources and funds;**
- ✓ **Principle of involving all interested factors and emphasise the need for public-private partnerships;**
- ✓ **Alignment of public authority regulation with those of partners involved in the implementation of projects;**
- ✓ **Detailed financial projection, public awareness, consideration of rights, obligations, and opportunities of individuals in the community, as well as the involvement of the population in all that is related to the community;**
- ✓ **The involvement of the public authority in the local development through a real / realistic financial projection in order to secure investments established in the Local Action Plan;**
- ✓ **A high degree of citizen involvement in everything related to the community, and a deep process for public awareness and for ensuring rights, obligations, and opportunities of the individual in the community;**
- ✓ **Efficient management of sustainable development, an efficient decision making process, direction and achievement of the institutional capacity needed for a sustainable socio-economic development process / community needs in accordance with the EU Sustainable Development Strategy.**

ANTROPHIC CAPITAL OBJECTIVES

General objective – increased competitiveness of the economy in Alba County.

Specific objectives – Industry:

- Stimulate highly performing economic activities;
- Align the quality of Romanian products with European and international standards, to increase exports;
- Modernisation and diversification of industrial activities;
- Increase and development of SMEs;
- Creation of jobs in the wood processing, food, and light industries;
- Promotion of industrial products on internal and external markets;
- Consultancy services for the production sector;
- Reduced energy consumption through more efficient use of conventional energy;
- Increased performance of the workforce;
- Stimulate entrepreneurial activities;
- Develop an infrastructure to support economic activities (innovation centres, for the transfer of technology, industrial parks, consultancy centres);
- Support for research, transfer of technology, and development of information business networks;
- Stimulate the development of activities which use local resources in rural areas.

Specific objectives – Business environment:

- Promote projects aimed at the development of business infrastructure, which will contribute to the economic growth of towns in the county;
- Urban regeneration and development: essential for the increase of tourism, conservation and revitalisation of towns and communes;
- Finalisation and development of industrial parks at Blaj and Aiud;
- Increased role for SMEs in the global economic activity.

Specific objectives – Agriculture:

- Improved access to the market and increased competitiveness for agricultural products with specific objectives;
- Improved infrastructure for rural development;
- Rural economic development;
- Human resources development.

Specific objectives – Tourism:

- Capture tourism potential of the county through promotion and marketing;
- Sustainable financial investments in tourism, which will provide an income for the locals and will help the development of settlements with tourism potential;
- Ease of access in tourist areas through the modernisation of transportation;
- Modernisation of existing tourist capacities and structures;
- Increased quality of tourist services;
- Professional development of those working in tourism;
- Improved awareness and promotion of tourism.

Specific objectives – Commerce:

- Expansion of existing commercial entities and increased quality of services in commerce, in line with the increased employment rate in this economic sector;
- Development of a commercial network, by including towns in the programme, which will lead to the development of the commerce infrastructure.

Specific objectives – Transportation:

- Complete medium term works for:
  - National roads;
  - County roads;
  - Commune roads.
- Complete long term works for:
  - National roads;
  - County roads;
  - Commune roads.

- Restoration and development of the physical infrastructure in the county to facilitate investments, promote economic growth, and create sustainable jobs;
- Facilitate access to industrial and tourist areas and to isolated areas of the county;
- Encourage the use of public transportation, to reduce the impact of road traffic on the environment;
- Create a rental centre for bicycles in towns.

OBJECTIVES – SOCIAL

PROMOTE SOCIAL COHESION AND DEVELOPMENT

- Promote social cohesion through equal opportunities to education;
- Encourage economic activities in rural areas;
- Increase investments in education and healthcare, as factors of social development;
- Increase development opportunities for disadvantaged groups through equal social opportunities;
- Avoid excessive social polarisation;
- Encourage access of youth to adult life;
- Access to social housing;
- Access to utilities for disadvantaged persons.

ELIMINATE SOCIAL EXCLUSION AND PROMOTE SOCIAL INCLUSION

- Reduce school abandonment among students with special needs and those from poor families by 10% by 2008;
- Increase the inclusion of Rroma children into the education and professional development system by 10% by 2008;
- Access to primary university education;
- Assistance for persons at high risk and access to emergency social services for persons in difficult situations;
- Social reinsertion for 5% of persons released from detention from the Aiud Penitentiary during 2007-2013;
- Access to social assistance services;
- Social and medical assistance for the elderly;
- Promote access to social assistance services;
- Eradicate the lack of legal identification;
- Reduce the number of infractions and of those committing crime;
- Anti-crime education for the population, especially for minors and youth;
- Fight discrimination and risk factors, which lead to youth marginalisation and social exclusion.

DEVELOPMENT AND DIVERSIFICATION OF THE INTEGRATED SERVICES NETWORK FOR MARGINALISED PERSONS, DISABLED, AND PERSONS AT RISK IN ALBA COUNTY

- Development of alternative family-type services;
- Expansion of the home services network in rural areas;
- Prevention of institutionalisation for 15% of all persons at risk by 2008;
- Recuperation and prevention of institutionalisation and de-institutionalisation of at least 10% of disabled persons by 2008;
- Establishment of regional multi-functional social centres for persons in need (youth from instructions, elderly, disabled);
- Development of integrated services in at least 4 county towns for delinquent children, victims of abuse and domestic violence between 2007 – 2013.

IMPROVED ACCESS TO MEDICAL SERVICES AND THE PROMOTION OF HEALTHY LIFESTYLES AND ATTITUDES

- Quick response to health impacts of global warming;
- Reduce the impact of transmitted diseases (HIV, tuberculosis, sexually transmitted diseases, nosocomial infections), and of chronic illnesses; concentrate on preventative actions and ensure basic services for communities at risk;
- Promote health by acting upon the factors with negative health impacts;
- Shift the emphasis towards preventative healthcare services and an increase in health education levels of the population in order to promote healthy habits;
- Identify flexible methods for the distribution of medical services in isolated and poor areas;

- Development and extension of an integrated community medical assistance network;
- Information, education, and communication campaigns regarding the impact of drinking water on health;
- Monitoring of public water sources.

IMPROVED SUPPORT FOR UNEMPLOYED PERSONS BY STIMULATING EMPLOYMENT (INFORMATION AND PROFESSIONAL COUNSELLING, PROFESSIONAL DEVELOPMENT, CREATION OF JOBS)

- Long term employment for those who find difficulty in finding employment, especially for those aged over 45 years, unemployed persons supporting families, Rroma, persons in rural areas, youth after institutionalisation, etc.
- Subscribe 10% of those looking for jobs to professional development courses.
- Support 2,000 unemployed persons by including them in information and professional counselling programmes.

IMPROVED KNOWLEDGE AND DEVELOPMENT OF THE SCIENTIFIC HERITAGE IN PRIORITY RESEARCH AREAS

- Development of fundamental and applied research in financial management and economic analysis;
- Research in accounting and finance – banking, and aligning this research with European Union norms;
- Research in management and marketing for economic entities;
- Research in the integration of Romania into the European Union;
- Development of fundamental and applied scientific research in history and archaeology;
- Development of fundamental and applied scientific research in exact sciences;
- Improved understanding of law;
- Improved understanding of philology.

DEVELOPED AND IMPROVED QUALITATIVE AND OPERATIONAL STRUCTURE OF THE SCIENTIFIC RESEARCH SYSTEM

- Development, attracting, and promoting research staff to meet the needs of the European integration;
- Improved organisational structure, adequate financing and developed scientific research infrastructure;
- Capitalise on the competence and potential of the existing research;
- Improved national and international recognition of research results.

ACTIVE INVOLVEMENT OF YOUTH AND ADULTS IN PROGRAMMES AND ACTIONS IN SPORTS, CULTURE, HEALTH, TOURISM, THE ENVIRONMENT, AND IN THE IMPLEMENTATION OF SPECIAL PROMOTION AND POPULARISATION PROJECTS OF THE IMAGE OF ALBA COUNTY NATIONALLY AND ABROAD

- Activities for the diversification of cultural life through the recognition, promotion and development of local actions, as well as through the capitalisation of the local specificities by revitalising traditional crafts;
- Initiation of special programmes for the inclusion of museums and public collections in cultural exhibitions which will improve interest;
- Promote partnerships, organise regional, county, inter-county and national sports events, and educational activities for youth to meet their needs;
- Establish association agreements with institutions for the prevention and fighting of drug use and trafficking among youth.

COMPLETION OF THE BASIC EDUCATION BY THE SCHOOL POPULATION

- Organisation and implementation of activities with students in the basic education system to minimise school drop-out rates, and involve them in activities specific to their age and to the community, as well as in the completion of basic education;
- Register youth in the "Second Chance" programme, and community representatives, who have not completed the mandatory education in order to involve them in active life;
- Education of teachers in order to promote inclusive educational principles and to ensure a friendly, tolerant, and open school environment;
- Promotion of education projects and partnerships to allow the implementation of inclusive best practices and extend this to other school units in the county.

Part II. LOCAL ACTION PLAN

II.1 GENERAL OBJECTIVES AND IDENTIFIED PROJECTS

- Sustainable management of the Natural Capital of Alba County;
- Increased economic competitiveness of Alba County;
- Basic infrastructure and population access to this infrastructure;
- Promote social cohesion and development.

II.2 GENERAL OBJECTIVES AND IDENTIFIED PROJECTS

INDUSTRY, BUSINESS ENVIRONMENT, INNOVATION

No.	Specific Objectives	Financing	Project Title / Action	Estimated Project Value EUR	Time Period	Beneficiaries	Indicators
1	Development of structures to support business	POR Axis 1 Domain B	Necessary business infrastructure through the establishment of industrial parks at Zlatna and Aiud.		2008-2013	-Local public administration authorities (LC, CC); -Commercial entities.	-No. of industrial parks established.
		POR Axis 4 Domain 4.2	Restoration of abandoned industrial sites for environmental clean-up, attracting investors, and regenerate and develop the local economy (Cugir, Aiud, Zlatna, Abrud, Baia de Arieş).		2008-2013	-Local public administration authorities (LC, CC); -Commercial entities.	-No. of restoration sites; -No. of entities in sites -monitoring of pollution level; -No. of jobs created.
		POR Axis 4 Domain 4.1	Multi-functional centre for industrial activities, conferences, business meetings, exhibitions.		2008-2013	-Local public administration authorities (LC, CC); -Commercial entities.	-Multifunctional centre; -No. of types of activities; -No. of participants; -No. of exhibitions; -No. of visitors.

2	Support for the implementation of European standards	POR Axis1 Domain1.1	Support the establishment and accreditation of laboratories for analyses, tests, benchmarks.		2008-2013	-Local public administration authorities (LC, CC); -Commercial entities.	-No. of established laboratories; -No. of accredited laboratories.
		POR Axis 1 Domain1.1	Support SMEs in the implementation and certification of quality management systems (ISO 9001), of the environment (EMAS) and voluntary certification (ISO 14001).		2008-2013	-SMEs.	-No. of certified SMEs; -No. of initialisations.
		POR Axis 1 Domain1.1	Promote ecological labelling of products and services.		2008-2013	-Commercial entities.	-No. of ecological labels for products; -No. of ecological labels for services.
3	Support enterprises in business development	POR Axis 3 Domain3.2	Support for the business process / launching of crafts.		2008-2013	-Commercial entities.	-No. of businesses helped; -No. of crafts launched.
		POR Axis 1 Domain 1.3	Support the inclusion of enterprises in supply chains and clusters through informational and awareness programmes on the economic benefits of such systems.		2008-2013	-County Council; -County business environment.	-No. of thematic meetings; -No. of informed firms; -No. of information requests.

4	Increase the research – development capacity and improved access to the CDI	POR Axis 2 Domain2.1	Support for the establishment of a technology transfer office which will connect county firms to provide new technological knowledge through licensing exams and research – development.		2008-2013	-County Council; - *1 Decembrie 1918* University Alba Iulia; -Chamber of Commerce, Industry, and Agriculture.	-Established partnerships; -No. of firms benefitting from innovations.
		POR Axis 2 Domain2.3	Support the establishment of individual research departments in companies in the wood, porcelain, food, chemical, or textile industry.		2008-2013	-County Council; - *1 Decembrie 1918* University Alba Iulia; -County business environment.	-No. of meetings; -No. of organisational models developed; -No. of established departments.
5	Development of in formation technology and communications in the public and private sectors	POR Axis 3 Domain3.3	Support e-businesses for improved communication inside and outside the firm, and for the efficient management of resources and clients for better access to the marketplace.		2008-2013	-County business environment.	-No. of informed firms; -No. of users.
6	Reduced energy use		Energy efficiency by saving energy in heritage buildings under the management of the County Council.		2008-2013	-County Council.	-% reduction of energy consumption.
		POR Axis 4 Domain4.1	Support investments in the acquisition of installations and equipments for the improvement of thermal efficiency, which will lead to energy savings.		2008-2013	-County business environment.	-% reduction of energy consumption.

AGRICULTURE

No.	Specific Objectives	Financing	Project Title / Action	Estimated Project Value EUR	Time Period	Beneficiaries	Indicators

1	Promote traditional resources and obtain trademarks	Alba County Council Attracted sources	Market for agricultural food products promoting traditional products specific to the county.	200/year	Annually 2008-2013	-Agricultural producers; -Population of the county.	-No. of participating agricultural producers; -No. of traditional brands produced; -No. of traditional product brands in production.
2	Transformation of sustenance households into agricultural farms aimed at the market economy	PNDR Axis 1 Measure 141	Support newly established agricultural farms in the development of business plans.	100	2008-2013	-Agricultural producers; -Population of the county.	-No. of newly established farms.
3	Development of agriculture through the provision of modern equipment, diversified crops and acquisition of purebred animal	PNDR Axis 1 Measure 143	Support agricultural entities in the county in the modernisation and diversification of activities (new technology, introduction of medicinal plants, expansion of crops, acquisition of purebred animals).	180	2008-2013	-Agricultural producers; -Population of the county.	-No. of modernised entities; -No. of equipment acquired; -No. of new crops; -No. of purebred animals acquired.
4	Development of connected profit-generating activities for agricultural	PNDR Axis 1 Measure 123	Establishment of two centres for the collection and sale of agricultural products through associations of agricultural producers (microregions of Sebeş Valley and Apuseni Mountains).	200	2008-2013	-Agricultural producers; -Population of the county.	-No. of meetings with potential beneficiaries; -No. of centres established;

	producers						-No. of associated producers.
5	Support associative agricultural forms	PNDR Axis 1 Measure 142	Establishment of producer groups in the agricultural sector.	55	2008-2013	-Agricultural producers; -Population of the county.	-No. of established agricultural producer groups; -No. of agricultural producers grouped; -No. of participants to educational activities.

TOURISM

No.	Specific Objectives	Financing	Project Title / Action	Estimated Project Value EUR	Time Period	Beneficiaries	Indicators
1	Develop accommodation units and improve tourist structures	POR Axis 5 Domain 5.2	Prepare tourist points for tourist activities (geological formations, caves, salt mines, mines, lakes) with lighting systems, heating, ventilation, and toilets;		2008-2013	-County Council; -Local councils; -County business environment.	-No. of upgraded points; -No. of visitors % increase to local budgets.
2	Improved tourist attractions and development of cultural tourism		Tour routes in the county to include castles, fortresses, museums, and religious and natural complexes.		2008-2013	-County Council; -Local councils.	-No. of tourist routes; - No. of visitors.
		POR Axis 5 Domain 5.2	*Aurului Route* in the Apuseni Mountains. Construction and restoration of the access road to: Bucium gold museum, Baia de Arieş mining museum, Roşia Montană mining museum and Roman galleries;		2008-2013	-County Council; -Local councils.	-No. of restored structures; - No. of visitors.

			Restoration of the *Mocăniţa Turistică* train.		2008-2013	-County Council; -Local councils.	-No. of passengers; -Turnover of tour operators; -No. of jobs created.
		POR Axis 5 Domain 5.1	Restoration and capitalisation of UNESCO heritage sites (Fortresses of Capâlna and Câlnic).		2008-2013	-County Council; -Local councils.	- No. of visitors; -No. of jobs for citizen management.
		POR Axis 5 Domain 5.1	Restoration of the Avram Iancu museum and traditional saxon architecture.		2008-2013	-County Council; -Local councils.	- No. of visitors.
3	Active tourism and the capitalisation of the natural and cultural heritage	POR Axis 5 Domain 5.2	Investments in sky areas for the promotion of the Bubeşti-Vârtop tourist areas.		2008-2013	-Alba County Council; - Arieşeni Local Council.	-No. of tourists; -No. of investing firms; -No. of accommodation places;
		POR Axis 5 Domain 5.2	Capitalisation and promotion of the natural potential of the Aiud Valley and the Trascău Depression.		2008-2013	-Alba County Council; -Livezile Local Council; - Rîmetea Local Council.	-No. of tourists; -No. of investing firms; -No. of accommodation places;
		POR Axis 5 Domain 5.2	Capitalisation and development potential of the Şugag- Poarta Raiului ski area.		2008-2013	-Alba County Council; - Şugag Local Council.	-No. of tourists; -No. of investing firms; -No. of accommodation places;

INFRASTRUCTURE

No.	Specific Objectives	Financing	Project Title / Action	Estimated Project Value EUR	Time Period	Beneficiaries	Indicators
1	Connection to	POS	National road DN 1/E 81-DN 7/E 68 Cluj		2008-2103	-Population of the	-No. of km;

	the European and national transport routes	Transportation	Napoca-Sibiu, with the connected work; National road 14 B Teiuş-Târgu Mureş, with the connected work; European road TEN-IV, Arad-Braşov; National road DN 74-DN 75 Alba Iulia-Câmpeni branching towards Oradea and Câmpia Turzii, with the connected work.			county; -Economic environment.	-No. of works.
		POR Axis 2	Express road Turda-Sebeş; County road 107 A Alba Iulia-Simeria towards the national road; County road 106 E part of the national road DN 67 C towards Sibiu County; DJ 107 A, Alba Iulia-Simeria, Hunedoara County Leisure airport at Vinţu de Jos; County road network 106 K, Blaj-Sebeş.		2008-2013	-Population of the county; -Economic environment.	-No. of km; -No of works.
2	Increased mobility between administrative county regions and access to tourist areas.	POR Axis 2	County road network 106 K, Blaj-Sebeş; County road network 107, Alba Iulia-Cetatea de Baltă; County road DJ 107 I Abrud-Aiud, and between the eastern communes of the county, with priority for 107 D-107 G-107 V, Ocna Mureş-Gheja/Luduş-Jidvei; County road 107 M with access to Valea Aiudului; County road 704, Şibot-Cugir-Luncile Prigoanei-Valea Mare; County road 762, connecting DN 75-Mihoeşti-Dealul Crişului-Baia de Criş (Hunedoara County).	120.000	2008-2013	-Population of the county; -Economic environment.	-No. of km; -No of works. -No. of enterprises created due to improved access.
3	Improved road traffic safety on county roads.	POR Axis 2	Monitoring of county road traffic on the DJ 107 network; Monitoring of county road traffic at intersection points between local roads, and belt roads.	1.000	2008-2013	-Population of the county; -Economic environment.	-No. of categories of motor vehicles; -No. of vehicles.
4	Development of the transportation	POR Axis 2	Establishment of an internodal county transportation plan.	150	2008-2013	-Population of the county; -Economic	-Transportation plan; -No. of

	system.					environment.	beneficiaries; -No. of road improvement proposals.

ENVIRONMENT

No.	Specific Objectives	Financing	Project Title / Action	Estimated Project Value EUR	Time Period	Beneficiaries	Indicators
1	Promotion of biodiversity and nature conservation	POS Environment Axis 4	Identification, mapping, and initiation of a Natura 2000 area; Introduce these areas into County Land Management Plans; Introduce posters for Natura 2000 site information; Prepare management plans for natural protected areas in the PN1 project; Prepare monitoring plans for protected areas, including security services and prevention of forest fires and floods; Outline meadows with High Natural Value for the maintenance of PNDR, Measure 214, sub-measure 2: Extensive management of meadows; Increase protected forests in accordance with PNDR, Measure 221; Build and furnish a Natura 2000 information centre, including the acquisition of laboratory equipment and monitoring of natural habitats; Build tunnels in areas where transportation infrastructure does not allow for the migration of fauna, and fence transport routes for the prevention of accidents, as per EU standards; Education and institutional capacity for the management organisms of the Natura 2000 sites and other projects; Preparation of informational and publishing material for protected areas and Natura 2000 sites.	900 per site	2008-2103	- Alba County Council.	-No. of sites

2	Cleaning and capitalisation of sites contaminated by human industrial activity	POS Environment Axis 2	Removal of industrial waste in areas where industrial activities have stopped; Demolition of existing structures which are no longer operational; Restoration of public utility infrastructure; Stop pollution by cleaning up waste collection ponds.	200/ ha			-No. of sites.
3	Risk protection and prevention	POS Environment Axis 5	Build and restore areas for retention, green fences, irrigation channels, deviation curves; Regulate the flow of water from the Mureş and Arieş; Develop a danger and risk map for floods, outline plans and measures, including public education measures.	5,000			
4	Construction and restoration of areas for retention, green fences, irrigation channels, deviation curves Regulate water flow from the Mureş and Arieş PR3 – Develop a danger and risk map for floods, outline plans and measures, including public education measures	POS Environment Axis 3	Improved equipment in urban thermal stations and of metered systems; Restoration of ash waste deposits which do not meet standards; Restoration of the warm water distribution network and of the thermal distribution network; Acquisition of equipment for the production of renewable energy for the public.	20,000			-2 urban systems.

SOCIAL

No.	Specific Objectives	Financing	Project Title / Action	Estimated Project Value EUR	Time Period	Beneficiaries	Indicators

1	Establishment of a community service system based on sustainable development principles	POR Axis 3 Domain 3.2 and POSDRU Axis 3 Domain 3.3 Axis 6 Domain 6.1,6.2,6.3	Integrated social services for the disabled.	4,000	2008-2013	-Target group in Alba Iulia, Aiud, Blaj, Sebeş, Abrud, Cugir, Zlatna.	-5 established multifunctional centres for disabled persons, with 7 industrial – social workshops.
2	Development of social economy through the capitalisation of natural resources.	POSDRU Axis 3 Domain 3.3 Axis 6 Domain6.1, 6.2, 6.3 FADR Axis 3	Microregional integrated project: Pădurea – Participating resource for community development – research / living standards, sustenance households, sustainable consumption development.	2,000	2008-2013	-Target group in 2 microregions – Apuseni Mountains and Sebeş Valley.	-No. of services; -No. of jobs; -% reduction in school abandonment.
3	Development of an alternative home care system for the elderly	Structural funds	*Integrated social services* for the elderly, an alternative to institutionalisation.	2,000	2009-2013	- Target group in 7 microregions in Alba County: Alba Iulia, Abrud, Aiud, Blaj, Cugir, Sebeş and Zlatna.	-% reduction in institutionalise d elderly.
4	Establishment of a professional public school for home care	State budget – MMSSF; Structural funds; Bosch (Training partner for the Eichholz Arnsberg /D professional college)	Complex mentoring / European certificate activities.		2008-2009	-trained youth.	-% youth trained for the are of children, elderly, disabled.

Part III. PORTFOLIO OF PRIORITY PROJECTS

- ***County centre for the sterilisation of medical waste which can be neutralised***

General objective:
Ensure the adequate management of hospital waste in the county (in accordance with Directive 91/689/CEE, and of the Environmental Protection Law 137/1995 – with its modifications – and of Order 219/2002 of the MSF regarding the management of medical waste).

Specific objectives:

- Eliminate risks caused by the current inadequate practice of the elimination of this type of waste;
- Eliminate sources of atmospheric pollutants (hospital crematoria) in the surrounding environment.

Description

In Alba County there are 300 medical entities, of which 9 are hospitals. In the two new hospitals, there are crematoria for the elimination of waste: old burning ovens with a capacity of 300-500 kg per day, which do not meet the national or European standards for environmental protection, and have no gas treatment facilities, and the toxic emissions (dioxides and phenols) are not controlled. We propose the implementation of a collection, treatment and elimination system for hospital waste to meet the current regulation for environmental protection.
Location of investment: Alba County.
Project cost: approximately EUR 800 thousand.
Financing: State budget or private investments.
Institutional aspects:
Partnerships:

- Alba County Council;
- Alba Public Health Department.

Beneficiaries: local community and county public authorities.

- ***Integrated waste management in Alba County***

Specific objectives:

- The establishment of a selective waste collection, transportation / transfer, and treatment system;
- Closing down and clean-up of existing waste deposits;
- Controlled facilities for waste elimination;
- Treatment facilities for specific waste (biodegradable waste, etc.)

Description:

The project will establish 9 transfer stations in Alba County, and one environmental landfill in the Alba area. Also, it will close down waste deposits, which do not meet current standards in the county. The project will include only urban waste and waste produced by economic agents which are assimilable to urban waste. Industrial waste is not within the scope of this project.
Location of investment: Alba County.
Project cost: EUR 32,272.30 thousand.
Financing: State budget or private investments.
Institutional aspects:
Partnerships:

- Alba County Council;
- Councils of municipalities, towns, and communes in Alba County.

Beneficiaries: local community and county public authorities.

- ***Modernisation of the road infrastructure in Alba County***

- County road network 106K, Blaj-Sebeş;
- County road network 107, Alba Iulia-Cetatea de Baltă;
- DJ 107I Abrud-Aiud, and between the eastern communes of the county, with priority placed on 107D-107G-107V, Ocna Mureş-Gheja/Luduş-Jidvei;
- County road 107M with access to the Aiud Valley;

- County road 704, Şibot-Cugir-Luncile Prigoanei-Valea Mare;
- County road 762, connecting DN 75-Mihoeşti-Dealul Crişului-Baia de Criş (Hunedoara County).

Specific objectives: Increased mobility between regional administrative entities of the county, and access to tourist areas.
Location of investment: Alba County.
Financing: POR Axis 2 – Domain 2.1.
Institutional aspects:
Partnerships:

- Alba County Council;
- Local councils.

Beneficiaries: local community and the business environment.

- ***Integrated social services for the disabled***

General objective: An increase in social inclusion for disabled persons in Alba County
Specific objectives:

- Development of public-private partnerships in social integration of adults with disabilities in at least 7 microregions of the county, based on social economic opportunities;
- Improved information, counselling, and professional preparation services for children and youth with disabilities in 7 microregions in the county;
- Ongoing professional development of specialists who work with disabled persons in the project's target area.

Description:

The targeted entities are made up of an associative structure with the aim of offering income-generating activities to target groups of disabled persons. Social centres with multifunctional use will be sustained, and will be co-financed. The project is based on the recognition of the need for an early intervention, and on the need to ensure the continuity of services for disabled persons in Alba County, on the need to offer them the necessary help to lead independent lives, in accordance to their own and their family's needs.
Location of investment: 7 microregions in Alba County (Alba Iulia, Aiud, Abrud, Blaj, Cugir, Sebeş and Zlatna).
Project cost (estimated): EUR 4,000 thousand.
Financing: POR Axis 3 – Domain 3.2; POSDRU Axis 3 – Domain 3.3; Axis 6 – Domain 6.1, 6.2, 6.3.
Institutional aspects:
Partnerships:

- Alba County Council;
- Local councils of Alba Iulia, Aiud, Abrud, Blaj, Cugir, Sebeş and Zlatna;
- Private social services providers;
- Joint-stock companies such as *Social Industry.*

Beneficiaries:

- Disabled persons and their families;
- Local community and public authorities.

- ***Forests – Participative resource for community development***

General objective: An increase in the degree of social inclusion for persons in two microregions –Apuseni Mountains and Sebeş Valley

Specific objectives:

- Forest seen as a key resource for the improvement of living conditions, for sustainable development and for the strengthening of habitats;
- Development of private-public partnerships for social integration in 2 microregions in the county, according to social economy opportunities;
- Development of income strategies.

Description:

- Development of social economy activities for the capitalisation of natural resources – forests;
- Increased capacity for self-support for unemployed persons and for self-supporting households;
- Increased inclusion of the school population into the educational system and improved quality of educational activities.

Investment location: 2 microregions in Alba County - Apuseni Mountains and Sebeş Valley.
Project cost (estimated): EUR 2,000 thousand.
Financing:

-POSDRU Axis 3 – Domain 3.3; Axis 6- Domain 6.1, 6.2, 6.3;
-FADR Axis 3 (Improved quality of life in rural areas and diversified rural economy).

Institutional aspects:
Partnerships:

- Alba County Council;
- Local councils in the 2 microregions;
- Agriculture and Rural Development Department;
- Business environment.

Beneficiaries:

- County and local community and public authorities.