B O R S E C

BORSEC

CITY HALL

LOCAL AGENDA 21–

LOCAL PLAN FOR SUSTAINABLE DEVELOPMENT OF THE CITY OF BORSEC

BORSEC

2005

Topliței St., No. 1, 535300, Harghita County

Tel: +40 266 337001

Fax: +40 266 337007

E-mail: primaria@primaria-borsec.ro

Calea Septembrie no. 13, Room 7.212, Sector 5, Bucharest

Tel: +40 21 4103200/2521

E-mail: office@sdnp.ro

This document was issued with the financial support of the United Nations Development Programme and Borsec City Hall.

Technical expertise was provided by the National Centre for Sustainable Development.

Grafică şi tipar: EXCLUS PROD

Local Steering Committee:

Vaida Valentin Alexandru	Mayor of Borsec, chairman
Farkas Aladár	Local Council
Lăzăroiu Florin Răducu	S.C. Romaqua Group S.A.
Dan Mihăilă	Borsec Forest Office
Nistor Gabriela	Physician
Kovács Iulia	General School Borsec
Patka Sándor	Pro-Borsec Foundation
Bara Márton	Borsec Tourist Association
Abos Gábor	Inspectorate for Environmental Protection Harghita

Consultancy from the National Centre for Sustainable Development – CNDD:

Călin Georgescu	Project Manager
George Romanca	Local Area Manager for Borsec and Mureş counties
Radu Vadineanu	Local Area Manager for Braşov and Bistrița
Tania Mihu	SDNP Consultant, Programme – Project Co-ordinator
Dan Apostol	Editorial, Publishing and Encyclopaedic Consultant
Carmen Năstase	Financial Co-ordinator
Adrian Voinea	IT Specialist

Co-ordinator from Romaqua Group S.A.:

Alexandru Pătruți, Mineral Resources Manager

Blvd. Bucureştii Noi no. 52, 012363, Sector1, Bucharest

Tel: +40 21 6687457

Fax: +40 21 2244253

E-mail: box.borsec@romaqua.ro

Local Office:

Roman Edmond, S.C. Romaqua Group S.A.

Patka Róbert Alexandru, Borsec Mayoralty

Str. Topliței no. 1, 535300, Harghita County

Tel: +40 266 337001

Fax: +40 266 337007

Email: primaria@primaria-borsec.ro

Work Groups:

Social:

Szőcs Ágnes	Borsec Mayoralty
Nistor Gabriela	Physician
Ballai Zsuzsanna	General School Borsec
Balázs Tibor	Religion

Economic:

Patka Enikő	Borsec Mayoralty
Bara Ildikó	S.C. Romaqua Group S.A.
Fazakas Lajos	Borsec Forest Office
Lukács Magdalena	Tourism and SMEs

Environment:

Fokt Paula	Borsec Mayoralty
Rădeanu Nicolae	S.C. Romaqua Group S.A.
Butnaru Ioan	Borsec Forest Office
Farkas Aladár	Local Council

CONTENTS

Foreword by the United Nations Development Programme Resident Representative in Romania

Local Agenda 21 (LA21) was developed and adopted at the Earth Summit held in Rio de Janeiro in 1992 as a vehicle for promoting sustainable development. 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.

The United Nations Development Programme (UNDP) Office in Romania actively promotes sustainable development through its support to the project "Building Local Capacity to Implement the Local Agenda 21 in Romania." The project was implemented in nine pilot cities during 2000–2002, in an additional thirteen cities, during 2003–2004 and in additional three cities and one county, during 2004-2005. The project covers a new set of cities every year, under the coordination of the National Centre for Sustainable Development, UNDP's implementing agency for LA21.

This has been a unique participatory process, stimulating the energy of citizens, businesses, academics, NGOs, and local authorities. They all rose to this challenge and their collective efforts contributed towards drafting this document. This report grew out of local needs and ideas and is a tribute to their efforts, energy and enthusiasm. Whether by giving information, offering technical assistance or through their participation, the whole community has made an enormous contribution to its success.

The result 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. I congratulate and thank all those who have contributed to its success.

Soknan Han Jung
UNDP Resident Representative
UN Resident Coordinator

Foreword by the Mayor of Borsec

The city of Borsec was officially proclaimed a spa in 1953 and has been famous for the curative and therapeutic qualities of its mineral water resources since the first half of the eighteenth century.

Borsec has all the necessary facilities for bathing and recreational tourism due to being located in an extremely beautiful depression with coniferous forests and having an atmosphere rich in ozone and a favourable microclimate. It is also well known for bottling and selling mineral water.

Administration of the natural wealth given to us by God is a great responsibility in terms of preserving and enhancing of this wealth.

By creating and implementing a development strategy for the locality, we are doing what is necessary in establishing a consensus between our projects and the lives of our inhabitants and the preservation of our inheritance.

Being included in the Local Agenda 21 programme was a great opportunity for our city, and for this I would like to thank Her Excellency: Soknan Han Jung, the UNDP resident representative and the Sustainable Development National Centre.

I would also like to thank to S.C. Romaqua Group S.A., who co-financed the project, as well as all the others who participated in this achievement, including our colleagues from the Local Steering Committee, the work groups and the secretariat.

It is now incumbent upon us to implement the Sustainable Development Local Plan in order to make the city of Borsec becomes what it once was – a star among the spas of Europe!

Vaida Valentin Alexandru
Mayor of Borsec

I. PART I - STRATEGY

I.1. GENERAL PRESENTATION

I.1.1. Location

The city of Borsec lies at 46 ^{0} 58 ^{00} of northern latitude and 25 ^{0} 34 ^{00} of eastern longitude in the north-eastern part of Harghita County in the Eastern Carpathian Mountains.

The depression in which this community is situated at the intersection of the Giurgeului, Bistriței and Călimanilor mountains is at an altitude of between 850 and 950 m.

The Borsec Depression was formed in relatively recent geological times, in the Neozoic period, and is characterised by a series of crystal rocks, schists and limestone which form the south-eastern slope of the depression.

I.1.2. Territorial relations

The earliest important road is that between Borsec and Toplița, which dates back to 1882-1887, when the paved road was built.

There is a motorway to Piatra Neamț in Moldavia, which passes through the Tulgheş Pass and runs past the accumulation lake in Bicaz.

Rail connections are available at the Toplița railway station on the Braşov-Ciceu-Deda-Dej-Baia Mare corridor, 26 km from Borsec. The Borsec–Toplița road, which crosses the Creanga Massif, is extremely picturesque.

The locality of Borsec has two different areas: the primary settlement, situated on national road DN 15 (Toplița-Borsec-Tg.Neamț) at the junction with secondary road DJ 128 (Borsec-Ditrău); and the spa itself, situated to the north of the primary settlement.

The city of Borsec was officially proclaimed a spa in 1953 and is connected to the road network by national road DN 15 Toplița–Piatra–Neamț, which feeds into the European road E 578 Braşov–Miercurea-Ciuc-Tg-Mureş.

The city of Borsec is located 130 km from the county capitals Miercurea Ciuc, Tîrgu Mureş and Piatra Neamț, and approximately 200 km from Cluj, Sfântu Gheorghe, Braşov, Bacău and Iaşi.

I.1.3. Relief

The depression is formed of two distinct parts from a morphological point of view: the lower south-western part at an altitude of 800 m; and the higher north-eastern part, 80-100 m above the lower part.

The surrounding area is generally of medium height round with wide lobate mountains and karst relief in accordance with the geological structure. The basin proper zone has near plane surfaces and with marsh areas due to the impervious marl rocks.

The travertine areas in the north-eastern part of the depression developed as patches, best represented by the one kilometre square area between Valea Vinului to the south, Valea Usturoi to the north and the Borviz brook to the east. The travertine areas are flat, with small karst depressions (dolinas). The southern part of these deposits feature steep cliffs of up to 100 m along Valea Vinului, and the area is typical of karst areas, with numerous grottoes and caves etc.

I.1.4. Climate

Borsec has a sub-alpine depression climate due to its geographical position.

It has a yearly average temperature of $+5^{0}$ C, with minimum average temperatures of between -5^{0} C and -7^{0} C in January and 15^{0} C in July.

Humidity varies between 79 and 86% in summer and 86 and 90% in winter, with the exception of the last few years due to the drought.

The limited variation in yearly temperature, gentle wind, pure air and abundance of ozone are the main positive characteristics of the Borsec climate. These are accompanied by a tonic mountain-type bioclimate with mainly negative air ionisation, which permits treatment programmes of alternating physiotherapeutic agents, sun and ionised air baths.

I.1.5. Flora

The flora of the Borsecului depression is diverse. Most of its territory is covered by forest. Some areas feature other forms of vegetation, owing to the specific geographical and climatic conditions, such as alpine pasture at high altitude and marsh vegetation alongside watercourses.

The forests are 95% covered by conifers, among which small groups of deciduous trees can still be found, such as the small old beech forest on the Făgetului heights. Spruce is most common among the conifers. Due to advantageous natural conditions, spruce trees reach extraordinary ages and dimensions. Trees of 32-34 m are frequent; some even reach even 50 m in height and 1 m in diameter. Besides spruce, poplars are also to be found, but only up to an altitude of 1000 m and mainly on the eastern and western slopes; wild strawberries also reach a noteworthy age and size. In terms of deciduous trees, birch and maple trees can be found, among other types. There are also three varieties of shrub, as well as the dwarf willow.

The existence of dwarf birch (*Betula humilis*) is one of nature's curiosities; it is a relic and has been declared a monument of nature, and only few trees of this species still exist in Europe. Scholars and specialists participating in the International Botany Congress in Borsec in 1934 discovered the existence of this species.

In the forests and clearings there is a species of Carpathian-type flowers, such as "the cock's leg" and "anemona hepatica". The orchid family is represented by some 20 species, including "lady's slipper", different kinds of decorative flowers (*Orchis sp.*), 3-4 varieties of lily, wild pelargonium, 2-3 varieties of lily of the valley etc. A variety of *Cypripedium calceolus* grows in the vicinity of the Bear Cave and on the walls near the main spring. Six varieties of wild carnations can be found in the lower areas, and there is a multitude of small and yellow flowers (*Ranunculus sp.*). The "whirl of the earth" also grows in Borsec, which have leaves spreading at their base and a tall stem of 50-70 cm with big red, bell-shaped flowers. Another plant that has been identified on the Făgetului heights is the "Voinicerul", a dwarf conifer.

I.1.6. Fauna

The forests of the Borsec depression contain many species of wild animal: bear, carpathian deer, wild boar, roe deer, wolves, foxes, lynxes, martens, squirrels, field rabbits, among others. There is also a wide range of bird life, including predators – the most remarkable of which being the eagle, which is small in size, but extremely greedy.

The air in the depression is full of birds, such as jackdaws, kestrels and harriers, and, in the forests, chaffinches, tits, nightingales and sparrows. Best known among woodpeckers is the negraica, which nests in old spruce trees.

The rich flora and fauna of the Borsec depression attract many hunters and fishermen. Hunters hunt hazel hens, capercaillies and the rare birch cock, while fisherman fish the brooks of the depression mainly for trout and grayling.

I.1.7. History

I.1.7.1. Short history

Legend tells of a sick shepherd who led his flock to these parts with conifer and beech forests and stopped to rest on the bank of a brook. The water of the brook was crystal clear and ice cold. It was later discovered to be a sparkling water source, called "borviz" by the locals it. The shepherd remained in the region until winter came, when he left for his home healed and with no signs of the illness he had been suffering from for many years.

The depression was first saw human inhabitation at the end of eighteenth century, between 1769 and 1773, when the first farmsteads began to appear and the famed healing power of the mineral waters began to spread.

Demographic expansion came simultaneously with the construction of the glass-manufacturing factory required for the bottling of the water. An Austrian entrepreneur, Zimmethausen Antal, who destroyed his health and spent his fortune in the process of leasing the lands on which Borsec is located today, built the factory in 1804-1806.

Zimmethausen Antal, today considered the founder of the city, brought with him specialist workers from the

Czech Republic, Poland, Silesia and Bavaria to build and maintain the factory. This explains the great number of families in the region with names such as Fokt, Eigel, Schiller, Krammer, Kamenytzky and others.

Before glass bottles were made, the mineral water was stored in wooden barrels and transported on ox driven carts. The water was praised in Budapest and Vienna.

By 1819 the qualities of travertine for use in construction had become known and exploitation began and continues today.

In 1857 Pávai Vajna Elek discovered coal deposits (lignite) in the basin of Tinoavelor and began mining operations 1879.

Throughout, the main occupation was the exploitation and processing of wood, with the communes of Ditrău, Lăzarea and Remetea being owners of forests at that time.

However, it was mineral water that remained the most important resource owing to its power to treat and even heal diseases that could not be healed otherwise in those times.

The qualities of the waters have been studied over the centuries by many physicians and specialists, beginning in the sixteenth century when the Italian doctor Bucella prescribed Prince Sigismund Bathory a cure “using the water from a spring in Borsec”.

This was followed by the studies and lectures of Dr. Krantz in Vienna, who, in 1770, described the qualities of these waters. In 1793, Dr. Neustadler made his scientific exposé on the Borsec waters in a medical review published in Sibiu.

At the same time, the beneficial effects of bathing in these waters was discovered despite a temperature of the spring waters of only 11 ^{0}C.

In the middle of the nineteenth century the first baths were built. The best known of which are “Lobogó”, “Lázár” and “Sáros”. The preoccupation for infrastructure increased: villas were built, roads and paths were renovated, public lighting (initially using sheep tallow) was introduced and construction of the road towards Toplița over the Creanga massif was carried out – all of which was promoted by the engineer Baross Gábor.

Tourism in the spa officially began in 1918, when the first bathing company appeared, whose main task was to remove the scares of the First World War by reconstructing infrastructure. A change for the better was seen in the interwar period at which time the vast majority of the villas were built (in the traditional style with exquisite wooden lattices).

The development of the spa was confirmed by the International Balneology Congress, which took place there in 1937 and was attended by representatives of many countries with a tradition in the field.

The communist regime introduced major changes to bathing tourism. The villas, baths and restaurants all became state property, including the assets of the Local Balneal Enterprise (I.L.B.Borsec) – a state enterprise for the management of tourism activity that was later to change its name to the Balneo-Climatic Enterprise (I.B.C. Borsec).

Over time, the villas were transformed such that they could also function in the cold season: running water and sewers were installed, resulting in an increased level of comfort. These changes also had negative consequences in terms of the early degradation of buildings due to inadequate insulation (the majority of the buildings were made of wood).

Throughout its history, hundreds of thousands of tourists have visited Borsec, where they have found recreational and rest facilities, as well as healing for the many illnesses they suffered from.

After the revolution of December 1989 the Borsec spa rapidly deteriorated due to legislative deficiencies, poorly managed privatisation and the lack of a coherent administration. Over the last two or three years, however, Borsec appears to have regained its place among well-known spas.

I.1.7.2. Mineral water bottling – PAST AND PRESENT

The mineral waters of Borsec are famous for their particular qualities. They began to be exploited as a resource more than four centuries ago.

In 1773 professor Krantz Heinrich carried out a survey of the effects on illness of treatment at all the health resorts in the empire on the order of the Austrian Archduke. At that time the most important springs were those of Principal and Lobogo (lost in 1926). A

year later, in 1774, L. Wagner published a survey of Borsec and its mineral waters in the review "*Akademische Dissertat"* in Vienna.

In 1825, the first physician of the spa, Dr. Scheint Daniel, published the work "The healing springs of Borsec". In 1863, J. Mayer and Dr. Neustadter in 1873, initiated the construction of the first bathing establishment to study the therapeutic effects of the mineral waters, and in 1893 the review

"*Siebenburgische Quartalschrieft*" classified the illnesses that could be treated by the mineral waters of Borsec.

A group of Viennese physicians first analysed the water at the Main Spring in 1803. The water was also analysed in 1820 by Pataky Samuel, and once more by a group from the Medical Faculty of Vienna and in 1841 by Peter Schnell and Gottlieb Stenner. Dr. Than Karoly produced a further detailed survey in 1873, while in 1890 Dr. Hanko Vilmos verified the chemistry of the Manin Spring and the Republica Spring, confirming the observation of Dr. Szilvassy Janos as to the similarity of the two springs.

The surveying of the chemical composition of the springs re-started in 1927, after the renewal of the collection, simultaneously by three university laboratories in Bucharest, Cluj and Budapest.

The last chemical analyses performed by local and foreign laboratories confirmed the stability of the composition of the mineral waters in Borsec.

The bottling of mineral waters became industrially effective in 1804-1806 when Zimmethausen Antal built a glass factory in Lower Borsec to produce the packing necessary for the transportation of the waters. Bottling was performed at the spring until the autumn, working day and night, as related in the writings of Ötvös Ágoston (1834), and the overall daily capacity reached 5,000 bottles. These were loaded onto carts covered with mats (to prevent breakages) and sent to Western Europe.

The great poet Vasile Alexandri (1844) described the beauty of the landscape in the area and praised the quality of the waters, also mentioning the way they were bottled and transported.

In 1855 the first heated hall was built meaning that activity could continue in the cold season, and as a result production increased. At the beginning of the twentieth century, the tilt carts were replaced by trucks.

Competitive bottling machinery of the "Oelhafer" type was introduced, the best available for its times, and production increased to over 20,000 bottles a day, which also saw exports expand in Egypt and America, not to mention the European market.

The quality of these waters has been acknowledged internationally and has won prizes at many world exhibitions – in Paris 1878, Berlin (silver medal) and Triest 1882, Budapest 1885 – as well as the honourary title of "*The Queen of Mineral Waters*", which was granted by the Emperor Franz Iozef.

The two world wars also swept over these parts, though fortunately without damaging the mineral waters sources and their commercialisation, albeit there was a heavy fall in production.

This was followed by nationalisation and the effects of the socialist economy. The factory was re-named "Apemin" Borsec and developed rapidly thanks to modern high-capacity machinery; a viaduct was built and the narrow railway was extended to facilitate transportation to Toplița, where the water was loaded into railway wagons.

The period after December 1989 saw few changes in the development of the factory, which is now called "The Queen of Mineral Waters".

After privatisation in 1998, SC Comchim SA Bucureşti became the owner of the factory leading to the founding of S.C. Romaqua Group SA. A major capital infusion lead to investment and modernisation, including latest generation machinery and bottling in PET-type packing and the start of non-sparkling water production.

The water of Borsec was awarded the golden medal in the 2004 Waters Festival in Berkeley Springs (USA) as recognition of its merits.

All these achievements, as well as the international recognition, compel present and future generations to preserve the integrity and quality of their mineral water resources without which Borsec would be a mere memory.

I.1.8. Natural resources

I.1.8.1. Mineral water

The mineral waters are the most important mineral resource in the Borsec depression. Their high carbon dioxide content and large flow quantities enable commercialisation of the springs for bathing cures, as well as in the beverages industry.

Origins

The springs are related to the Pliocen basin of Borsec. The deposits from this basin contain epizonal crystalline foundation rocks, which overlap with patches of sedimentary rock (limestone dolomitic, triasic) covered in conglomerate deposits and sandstone, clay and clay marls. The quartenary formations come in the form of peat and travertine deposits. The water in the crystalline rocks circulates, accumulates and mineralises, passing through the cracks in the massive crystalline rocks and those in the lithological contact surfaces. The mineralisation of these waters depends on the different dynamics of the water activity. The mineral water accumulation in the dolomitic limestone massifs in Borsec, for example, is characterised by the appearance of springs with strong flows and high mineralisation. The presence of carbon dioxide, decisive in maintaining the chemical balance between the compounds of calcium, magnesium and sodium bicarbonates, is related to the mofetic halo of the Harghita-Călimani chain.

The depression springs appear in two groups: the northern group, which is the most important with the line of springs originating from the crystalline limestone strip (springs 1, 2, 3, 5, 6); and the southern group with the line of springs stationed in limestone tufa (springs 10, 11, and 15).

The most important springs are springs 1 and 2. Both appear on cracks from dolomitic limestone and are collected in copper bells and brought to the surface and to distributors by means of ascension pipelines. The resulting carbogaseous-bicarbonated water is bottled.

The mineral waters of Borsec have been characterised as mixed bicarbonated, calcic, magnesium, sodic, hipotone, non-feruginous waters with a low iron content. This diversity in natural chemical components affords the mineral waters curative qualities not found with other mineral waters in Romania.

Balneotherapy

Internal treatment

The mineral water in Borsec has a pleasant, thirst quenching taste. The carbon dioxide dissolved in great quantities produces hyperaemia of the gastric mucous membrane, activates hydrochloric acid secretion, stimulates appetite, favours digestion and stimulates the contractility of the heart, acting by reflex on the vasomotor centres. It also activates the secretion of the pancreas and kidneys, performing a diuretic action, stimulates the peristaltic and gastric motility, and activates gastric secretion, thereby sustaining the normal functioning of all organs. It neutralises acidity in hyper-secretion, is beneficial to digestion and nutritional exchanges. It also suppresses gastric secretion in hyper-secretion and activates gastric secretion in hiposecretion caused by sodium imbalance.

It has a beneficial role in urinary illnesses, especially in uric lithiasis, by dissolving the sand and uric acid and oxalates concretions. It stimulates diuresis, decreases urinary acidity and enhances blood pH. Besides the large, mechanic rinsing of the urinary tracts, it enhances the solubility of uric acid. This mineral water has beneficial effects for chronic cystitis, pyelitis and urethritis.

The springs of Borsec have beneficial effects for internal cures:

- In digestive tract and annexe gland diseases: hypo- or normoacid chronic gastritis, dyspepsia, mild enteritis, enterocolitis and fermentation colitis.
- In chronic hepatitis, posthepatitis diseases, biliary path diseases, sequelae after biliary diseases.
- In nutrition diseases: type II, compensated and balanced diabetes, gout and uric diathesis.
- In endocrine disorders: mild hyperthyroidism.
- In kidney and urinary tract diseases: chronic nephritis without renal insufficiency, pyelitis, pyelinephritis, chronic cystitis, acid urinary lithiasis and sequelae after urinary diseases.

External treatment

In heart and vascular diseases these waters help in cases of chronic myocarditis, without cardiac insufficiency, compensated valvulopathy, coronary

insufficiency with mild attacks, essential arterial hypertension, incipient obliterant arteriopathy and sequelae after trombophlebitis.

I.1.8.2. Peat

Peat can be found in the wet zones of Lower Borsec, which are formed on a clay layer on the right hand bank of the Usturoi brook. The thickness of the peat layer in some parts exceeds 10 m. They have the following chemical composition, according to the ministry of health:

- water: 869.46 g/dmc
- volatile substances through calcination: 109.72 g/dmc
- mineral substances: 20.82 g/dmc
- vegetal-mineral silt.

The therapeutic qualities of the peat are used in treating rheumatic diseases.

I.1.8.3. Lignite

Lignite has been intermittently exploited since the previous century, primarily to supply local needs. Borsec lignite is of a high quality and has a caloric rating of between 4000 and 5000 kcal/kg and an ash content of 15-17 %. Production currently is delivered to (far away) heating plants (CET) in Braşov and Oradea.

I.1.8.4. Talc

Reserves of talcky schist can be found in the Borsec depression in the valley of Hanczkel brook, which were exploited until 1954. Small quantities of good quality talc are found in the nests located on the contact line between the crystalline schists and the metamorphosed dolomitic limestone.

I.1.8.5. Wood

Although many parts of the forests are classified as protected forests, resinous wood is still an important raw material for the economy of the Borsec depression. The pastures and natural hayfields have contributed to the development of animal farming as a basic trade, especially for inhabitants in the Lower Borsec region where arable land is limited and climatic conditions are favourable only to potato and fodder plant cultivation.

I.1.9. Environmental factors

I.1.9.1. Surface water

The Vinului brook is polluted by the wastewater discharged from the wastewater treatment plant, both in terms of the suspension quality indicator and CBO5 and limits set out in Water Administration License no.1/1995 issued by the Romanian Waters are exceeded.

The lack of a sewage network in areas with running water also contributes to the pollution of the main surface water collector – Vinul Mare – and reduces the quality of the mineral waters.

I.1.9.2. Air

There is noticeable pollution in terms of sedimentary powders in the central area of the city during the summer season. By analysing the composition of the sedimentary powders and comparing them with the stipulated soil values, excesses are seen to exist of lead, cadmium, nickel and chrome, indicating their origins from road traffic.

I.1.9.3. Soil

Samples collected in the green pre-urban zones and in the Botanical Reservation show the values stipulated by M.A.P.P.M. Order no. 756/1997 to have been exceeded for soils in terms of lead, copper, zinc, cadmium, chrome and nickel. Again the most significant source of this pollution is road traffic.

I.1.9.4. Noise

Measured using the Lech system, noise values exceed the values stipulated by STAS 10009/1988 and H. M. Order no. 536/1996 in the centre of the city and beside the roads with heavy traffic in the direction of S.C. ROMAQUA GROUP S.A. and on national road DN15.

I.1.10. Protected natural areas

According to Law no. 5/2000 and County Council Decision no. 13/1995, the following protected natural areas were established within the administrative territory of the city:

- The karst zone “SCAUNUL ROTUND” (The Round Chair) is the most important travertine deposit in the country, having the karst formations and dolinas the “Stalactite Cave”, “Bear Grotto” and “Ice Cave”. The area has a surface area of 70 ha.
- The Botanic Reservation “HÁRMASLIGET” is a swampy glade of around 2 ha situated in the spa area. It is home to rare species, such as the dwarf birch (*Betula humilis*), a relice of the ice age.
- Hydro-geological protection perimeters were established according to H.G. no. 101/1997 pertaining to the hydro-mineral deposits, fresh water and therapeutic silt sources in Borsec. There is a sanitary protection perimeter with strict administration for springs 1 and 2 only and for the F4 drilling.
- A sanitary protection perimeter for the watering place was established by the Health Ministry through the National Institute for Recovery, Physical Medicine and Balneo-climatology according to the Romania Government Order no.109/2000.

I.1.11. Town landscape of Borsec

The city of Borsec is a mountain town with a distinct personality owing mainly to its location in a two-level inter-mountain depression, the Lower Borsec and the Upper Borsec, but also to the different functions of the two components of the city.

Generally, Borsec’s composition is well defined and its housing areas, green areas, bathing areas, road infrastructure and city functions are harmonised with its natural surroundings and specific character.

There is a general zoning to the city, established according to functional and economic requirements, which induces a feeling of order and permits easy orientation, identification and access to historical and architectural monuments and natural sites. The town ensemble clearly illustrates the function of the city, its relief variations and dominant nature. Upper Borsec is typical of a mountain spa which achieved renown over its hundreds of years of existence. The relief and climatic conditions, the available construction materials, the landscape and the mineral water springs all influenced the city’s position. These factors also determined the route, direction and breadth of roads and paths, as well the positioning of important buildings and green areas and the density of the built environment and its architecture.

At the same time, valuable natural elements, specific varied relief forms (the Stalactite Cave, the Bear Grotto and the Ice Cave) generate points of interest, stimulating cultural and aesthetic perception.

An important factor in the visual perception of the spas is the illumination equipment which produces fine artistic effects that vary according to hour and season and the spa and natural position of Borsec.

The forked street system (e.g. “7 Springs” Blvd and Carpați St.) ensures connections between the buildings and the main areas of the spa and contributes to the street planning and to overall variation.

Although the spa is a spontaneous formation, established in stages, it can be viewed as a homogenous ensemble, a composition in which every element of the city – e.g. roads, paths, villas, green areas or springs – is a constituent element of the overall idea of spa.

The “7 Springs” boulevard is the main axis that connects and brings together the built areas and the open areas, while imposing their ordered juxtaposition. Along this axis, the view focuses on the buildings bordering it and the majestic natural elements and mineral water springs indicating the direction towards the Central Park which contains the main springs in the spa. Historical and architectural monuments in this area stimulate the interest of the visitor and lead the way to the area of natural and architectural beauty.

The varied forms of the land have been maintained and exploited by constructing buildings that have acquired a dominant character within the urban composition, completing the value of the visual perception of space and landscape.

Strengths:

- favourable geographical location (within a radius of 120 km there are three county capitals, while there are five county capitals within 200 km);

- road access (situated on the route connecting Transylvania and Moldavia);
- tourism potential;
- subalpine climate;
- temperature favourable to land cures;
- varied flora offering relaxing ambience;
- rich fauna attractive to hunters;
- international reputation of the spa;
- the main natural resource – mineral water – is pure and internationally recognised;
- relaxing environment on mountain route;
- protected natural areas ensure hydro-mineral deposit conservation, as well as the opportunity to organise trips;
- harmonious blending of landscape and architecture;
- pure natural food (milk, meat, among others);
- forest fruits (raspberries, bilberries, wild strawberries):
- a great variety of edible mushrooms;
- medicinal plants.

Weaknesses:

- there is no direct access to railway network (the road to the railway station is 25 km long);
- the majority of the mountain routes are not accessible by motorcars;
- vegetation destroyed in some zones by forest exploitation;
- the noise level exceeding the admissible limits alongside the national road;
- the slow forestation of deforested areas;
- the desolate aspect of abandoned villas;
- lack of advertising.

I.2. ECONOMY

I.2.1. Infrastructure

I.2.1.1. Road network

The road network has a total length of 40 km, of which 11 km are asphalted.

In 1995, the intensity of traffic in transit areas of Borsec was classed as medium, as follows:

- DN 15 Toplița- Borsec-Tulgheş – 1,815 standard vehicles / day;
- DJ 128 Borsec-Ditrău (DN 12) – only traffic related to the local wood industry.

These public roads outside the built area ensure communication between regions and localities and have a clear tourist nature. The level of traffic has determined the need for their modernisation in order to ensure the smooth flow and safety of traffic. Crossing Borsec requires larger facilities on the DN 15, such as local junctions and neighbouring courtyard access and cross roads.

Parking is chaotic on the streets, and parking spaces are insufficient and inadequately set up. The existing roads have third and fourth category road ratings, with two lanes and one lane respectively. Within the spa area the traffic is for local access and the road network is satisfactory in terms of capacity, but has insufficient parking and pedestrian facilities. The secondary traffic network comprises local access with one or two lanes that generally connect to the main roads.

The roads DN 15 and DJ 128 are third category roads according to Law 43, with two lanes. The transit portions of these roads, the cross roads and lateral access points do not provide sufficient traffic flow, capacity or safety.

Beside the roads, paths and tourist routes also exist in the spa and have a length of around10 km, the vast majority of which being outside the built-up area and leading to various sights (the Bear Grotto, the Ice Cave) and Bükkhavas zone.

There are four parking areas in the city:

- at the entrance to the locality, near the “PETROM” petrol station, with a surface area of 500 square metres and for use by heavy vehicles;
- at the INFO-TOURISM office, with the surface area of 200 square metres and for use by public transport vehicles and motor cars; there is also a smaller facility in the vicinity;
- near the centre of the spa, with a surface area of 300 square metres;
- near the CAMPING, with a surface area of 50 square metres.

These parking areas provide space for 150-180 vehicles and are asphalt-covered areas with no further facilities.

I.2.1.2. Water supply, sewage network and wasterwatwer treatment plant

At present, all services for drinking water supply, wastewater transport through the centralised sewage network and wastewater treatment in the city water treatment plant are provided by the company ROMAQUA PREST S.A.

DRINKING WATER

The water available sources are:

- Collection source “7 Springs”, which collects from the coastal springs into two drains that then flows into a collection facility. Water is sent through the pumping station to three storage tanks. The distribution network for this source uses steel and cast iron pipelines with an overall length of 18.6 km and supplies drinking water to the spa area.
- The collection from the springs in Hanczkel brook valley uses 17 collection points at wells and 4 reinforced concrete collection chambers. Water is treated with gaseous chlorine in the chlorinating station. The distribution network is made of zinc-coated steel, it is 2.075 km in length and supplies Lower Borsec.
- Collection from the Bistricioara brook in Valea Seacă was introduced to meet the full water requirements of Borsec and to provide water to the communes of Corbu and Tulgheş. The collection point is in restoration and currently does not function.
- At present, the water supply in Borsec comes from the two underground sources with a flow of Q- 15 l/s.

SEWAGE NETWORK AND THE TREATMENT STATION

Wastewater discharge in Borsec uses the domestic water discharge network to which, however, only 60-70% of the city are connected.

The network is made of concrete pipelines, 11.986 km in length, which transport household wastewater to the water treatment station 1.2 km outside of the town on the right hand bank of Vinului brook. The sewage network was built in the 1950s and is in an advanced state of disrepair due to its location (under the road transport routes) and the chemical corrosion of the underground waters.

The city’s pluvial network only has a divisor system in the spa zone. The collected waters are discharged in the Usturoi brook. The poor state of the sewage system is a potential source of pollution for the mineral waters in the spa. Most of the pluvial waters are collected by gutters on side of roads and are discharged into the rivers, where they finally meet the receptor at the Vinului brook.

The water treatment station has a mechanical stage only, comprising:

- 2 metal gridirons;
- one decanter;
- silt layers.

The Vinului brook is the receptor of the wastewater. The treated wastewater exceeds the admissible values for ammonium, oil ether extractible substances and occasionally phosphorus.

I.2.1.3. Household and industrial refuse disposal

Household refuse is collected, transported and disposed of 5 km outside the urban area, upstream of the DN 15 towards Toplița. The waste disposal site is approximately 3 ha in size and is bordered on one side by a curtain of pine trees. Disposal reaches 2,000 cubic meters of waste per year. The disposal site does not pollute the soil thanks to its waterproof clay foundation. However, the site is not adequately equipped, lacking a water supply, rinsing ramp, systems for collecting and treating the levigat and a facility for sorting. Refuse collection uses waste containers and is not selective.

I.2.1.4. Heating

The city of Borsec does not have a gas network. Most buildings are heated by solid fuel (wood). Central heating systems are not common.

I.2.1.5. Teleohony

The locality has an automated digital telephone exchange and three fixed emission-reception stations

for GSM system mobile communications (Orange, Connex and Zapp).

I.2.1.6. Green areas

The green areas within the locality earmarked for building are formed by:

- open access green areas (squares, parks, green areas within the housing complexes, planted borders, gardens and leisure areas) with a total surface area of 106,400 square metres, of which:
  - 75,900 square metres are within spa S1;
  - 30,500 square metres are within the urban area S2.
- limited access green areas (green areas within social, cultural and education institutions, and
- factories and cemeteries) with a surface of 3,000 square metres within the urban area.
- special status green areas (protected plantations and utility functions) beside main roads and paths.

Beside these green areas, there are agricultural lands within the built area (hayfields), situated both in Upper Borsec and in the spa zone, which contribute to improving environmental conditions.

The green areas in the pre-urban territory, which are formed by forested areas and hayfields and pasture, form a natural park-type green belt around the city. This green belt reduces wind and sudden temperature changes and helps purify the air and improve the overall climate conditions.

I.2.1.7. Residential area

The residential area is made up of a strip along the DN 15 and DJ 128 as well as the local access roads.

Four-storey blocks of flats form the central nucleus of the city. Houses are maintained in conditions ranging from very good to good and medium. The medium level is dominant. This situation is determined by the following factors:

- the age of the housing facilities;
- the mixed materials from which the buildings are made;
- the unfavourable nature of the land;
- the small depth of foundations;
- the unfavourable conditions for foundations.

A major drawback in the area of housing is the lack of heating facilities and the lack of maintenance and consolidation works and works to improve comfort standards. Of all buildings:

- 41.7 % are in a very good or good state;
- 46.9 % are in a medium state;
- 10.3 % are in a bad state; and
- 1.1 % unsuitable for habitation.

Most houses are built of brick on natural stone or concrete foundations and have tiled roofs. An average of 3 houses are built each a year.

I.2.1.8. Architectural heritage

1. The Wooden Orthodox Church, built 1847 (formerly Catholic, then Greek-Catholic, later Orthodox).

2. The springs no. 3 (Boldizsár), no. 5 (László), no. 6 (Lázár), no. 10 (Kossuth) and no. 11 (Petőfi).

3. The Ancient spring (Ősforrás) from the beginning of the twentieth century.

4. Villa no. 51 (Emil), built 1936.

5. Villa no. 53 (Doru), built 1936.

6. Villa no. 60, built 1880 (Vasalopol).

7. Villa no. 56 (Barbu), built 1896.

8. The Old Electric Plant, built at the end of the nineteenth century.

9. Villa no. 14, built 1933-1935 (Szentkovits).

I.2.1.8. Urban distorical areas

1. 7 Springs Boulevard:
   a. Villas no.17 (Bernstein), 19 (Stoica), 20 (Heiter), 71 (Budapest) (baths buildings from the beginning of the twentieth century).
   b. The Culture Hall (Spielman).
   c. The Făget Restaurant (Rózsakert).
   d. Springs 3, 5 and 6.
   e. Synagogue.
   f. Mélik Boarding House, built 1845.
   g. Remény Hotel, built 1883.
2. Carpați Street:

a. Villas no.15 (Nefelejts) and 23 (Csilla), and bathing buildings from the beginning of the twentieth century.

I.2.2. Economy

I.2.2.1. Bottling of mineral waters

Commercial bottling of mineral water first started in 1806 and has continued up to present times, with only short periods of stagnation during the two world wars.

The tradition was continued by Regina Apelor Minerale Borsec S.A. and by Romaqua Group S.A.-Borsec at present.

The bottling technology has been modernised and now uses up-to-date machinery. In 1998 Regina Apelor Minerale Borsec S.A. entered into a joint venture with Comchim S.A. of Bucharest, which saw them build two complete production lines using injection and forming equipment for PET preforms made by the German company Krupp Corpoplast and bottling equipment produced by the Italian company Sasib Beverage.

In 2001 two new production facilities came into operation, including a third complete PET bottling line that brought together PET preform injection technology (made by Netstal of Switzerland), PET blowing technology and bottling technology (both made by Krones of Germany). The modernisation process continued by starting the first production line for the PET bottling of natural non-sparkling mineral water.

As the leader on the Romanian market, ROMAQUA was the first company to bottle natural mineral water in Romania. The company received international recognition for the quality of its management, ISO 9001. It was also awarded numerous diplomas and medals, including the Golden Mark and Platinum Mark (for non-sparkling water); ROMAQUA is a listed company with entirely private capital. In 2003 the development of production capacities continued with a bottling line for 0.25 l and 0.75 l bottles. All this means more jobs for the inhabitants of Borsec. The factory currently has 569 employees. The company ROMAQUA GROUP SA BORSEC is ranked among the top three companies of the county by turnover (980,000 million lei).

I.2.2.2. Extractive industry

Large-scale extractive industry has developed in the region to capitalise on the richness of the subsoil.

This includes the travertine quarry, where exploitation began in 1819 and from which the travertine plates were derived for the Press Hall, Parliament Hall and the metro stations in Bucharest etc. The exploitation of travertine was later ceased to protect the hydrothermal deposits and avoid exhausting the reserves.

Not far from this quarry, complex calcium and magnesium carbonate was extracted and used in concentrated fodder for animals.

At the entrance to the municipality of Toplița, not far from the national road, there is a coal mine which previously had some 400 employees. Due to the restructuring in the mining industry, it now has 115 employees.

A quota of 36,000 tonnes per year can be exploited from the existing geological reserves of 1,700,000 tonnes. The lignite has a calorific factor of 3,600-4,000 kcal per kg (selected coal) and an average delivered value to beneficiaries (CET Bacău and Braşov) of 2,600 kcal per kg. Due to obsolete equipment and the current situation, the future of the mine is uncertain.

I.2.2.3. Tourism

The spa of Borsec began developing during the second half of the nineteenth century. From 1850 on, villas began to be built in the vicinity of the springs. The accommodation capacity was low as the management tended to rely on high prices for a small number of tourists. Most of the villas had no facilities for the cold season, meaning that the spa was visited only in summer. The lack of bathing equipment and a consultation room limited the status of Borsec to that of a rest resort, and not a treatment spa. The number of visitors per year was of over 400 during the period 1856-1863. This fell to 275-330 during the period 1864-1866, climbing again, however, to over 500 during the 1868-1874 period.

After 1874 the number of tourists began to increase, reaching 1,155 in 1883. The two world wars caused wide-ranging damage to the baths and their repair began only in 1948. As of this year, the baths and the villas of Borsec became the property of the ministry of health. This ministry contributed to the refurbishing of

the spa, equipping the villas, baths and clubs with all that they required, and the number of tourists visiting the spa rose to a yearly 14,000.

Between 1918, when Balneal Enterprise Borsec was established, and 2001, when the baths stopped being used, the spa focused on the treatment of cardiovascular illnesses, digestive tract diseases, hepato-biliary diseases and neurasthenia. Treatment by physical balneo-climatic agents and recovery facilities were provided at the bathing polyclinic using 12 specialist consultation rooms. To these were added the emergency room, the reanimation room and the dental consultation room with a dental and clinical laboratory. The polyclinic served both sanatorium and ambulatory patients from all over the country, and even from abroad. It provided complex individualised bathing treatments all year round.

	1988			1998			2003		
	No.	Places	Tourists	No.	Places	Tourists	No.	Places	Tourists
Hotels	-	-	-	1	68	1,501	3	119	1,400
Camping	76	152	350	60	120	200	72	150	180
Villas	70	2,690	18,620	12	332	1,507	11	257	565
Total	146	2,842	18,970	73	520	3,208	86	526	2,145

The Borsec spa had the following facilities:

- ***The Central Pavilion*** (central villa), with accommodation for 120 people and bathing facilities with 70 tubs, changing and rest rooms, an indoor swimming-pool with heated carbo-gaseous water with a capacity of 20-25 persons. Other hydrotherapy equipment was also installed, such as haldbad baths, brushing baths, underwater showers and kinetic-therapeutic baths.

- ***The Polyclinic*** had facilities for bathing with medicinal plants, plant bathing associated with massage, Scottish shower, affussions, massage shower, alternate baths for hands and feet, bottom baths, paraffin packing, aqua vibromassage, dry massage, dry brushing, galvanic baths, partial and general light baths, solux, ultraviolet rays, aerosols and physio-therapeutic treatments (galvanising, faradising, ionogalvanising, ultrashort rays, diadinamics and magnetodiaflux).

- ***The Medical Physical Teaching Hall*** was equipped with apparatus for medical gymnastics.

The polyclinics had a cardiovascular recovery consultation room for 20 patients at once.

In general, therapy was centred on the recovery of patients so as to reduce the number of days of temporary work incapacity through complex individualised bathing treatment and land cures (walking, outdoor aesthetic-climatism on sports grounds, medical gymnastics and indoor swimming pool, all with medical supervision).

Unfortunately, poor management by S.C.A.T. Borsec S.A. led to a reduction in the quality of services offered to tourists. From 1990 on, the number of tourists coming to Borsec began to decease due to the poor state of the spa.

This sudden decrease was due to the lack of proper financial resources needed to modernise the spa and a lack of interest in attracting tourists.

At the same time, privatisation procedures for the spa began, as well as the restitution of the nationalised villas to their former owners and the selling of assets. Following the cancelation of bathing treatment provided by S.C.A.T. Borsec S.A., tourist services continued to be provided by private entrepreneurs in terms of accommodation and restaurant/food services. Villas, restaurants and hotels were built and the villas bought in 1995 from the state continued to operate. At present, there is a private bathing consultation room for bathing physiotherapy and medical recovery.

The main goal of Borsec Local Council is to relaunch activity in the spa by granting facilities to local and foreign investors to buy land in the built area for the construction of villas. This will have a positive impact on the improvement of accommodation, will use

surplus of mineral water from the existing springs (Boldizsár, László and Petőfi) and create other possibilities to utilise the carbo-gaseous baths.

Purchasing villas is also possible.

The rebirth of the spa would reduce unemployment and poverty and restore the old standards of the social and economic life of Borsec.

A major problem appeared in respect of certain land. S.C.A.T. Borsec S.A. tried to acquire the land through the courts, contreveing Government Decision 834 / 1991 in the process. The company then sold the land with its due assets (24) to 4 different companies. The local council attacked this move in the courts, arguing that the land had been its property since 1950. Decree 92 reinstated the local council as the owner of the

land. This was followed by a sale of shares to companies and individuals that had bought assets in 1995 and the renting of land to individuals or companies intending to build villas and accommodation facilities to develop tourism.

I.2.3. Private sector

Only 54 of the 84 companies and joint-stock companies registered at the Chamber of Commerce are actually active.

SME distribution by field of activity in Borsec is as follows:

- trade 74%
- wood processing 12%
- construction 5%
- transport 5%
- tourism 3%

Number of persons deriving revenues from authorised activities (family associations, self-employed) by field of activity is as follows:

- trade 8
- professionals 16
- tourism 2

Tourism features weakly here, though it should be important given the natural assets of the area.

To re-launch tourism through facilitating investment the local council has begun encouraging public-private partnerships in the form of grants, associations, space and land for rent from the locality's estate.

As a result, 43 contracts have been sealed in various fields – medical services, telecommunications, tourism, wood processing.

In 2003, commercial space began to be sold under Law 550 / 2002, with each buyer being offered the option of buying in instalments.

Strengths:

- the road network is well placed, allowing for access by car to all the areas of the city;
- water supply available for entire spa;
- sewerage system covers some 90% of the city, and the remaining areas can be connected to the system;
- existence of land-line and mobile telephone networks;
- urban areas are not overcrowded;
- green areas are plentiful;
- the city is well known;
- winter sports opportunities;
- landscape and fresh air offer relaxation;
- tourist facilities available during all seasons;
- possibility for excursions to neighbouring areas (the Bicaz gorge, the monasteries of Neamț);
- opportunities to invest in tourism;
- easy access by car within the spa in any season.

Weaknesses:

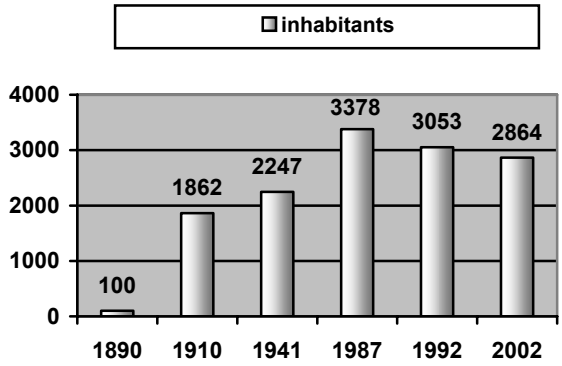
- old tourist infrastructure almost completely out of order, due to poor management;
- treatment facilities are currently useless;
- many villas are desolate;
- lack of leisure and entertainment parks;
- lack of developed tourist services, in comparison with the past;
- very low connection rate to sewage system in Lower Borsec (approx. 30%);
- wastewater treatment plant with mechanical stage only represents a potential source of pollution downstream of the locality;
- business polarisation – mineral water is by far most important business activity in the area to the detriment of other fields;

- lack of capital;
- architectural heritage is in an advanced state of disrepair;
- waste disposal site for domestic refuse does not meet ecological standards;
- drinking water network of the city needs rehabilitating due to state of disrepair.

I.3. Socisl environment

I.3.1. Structure and dynamics of the population

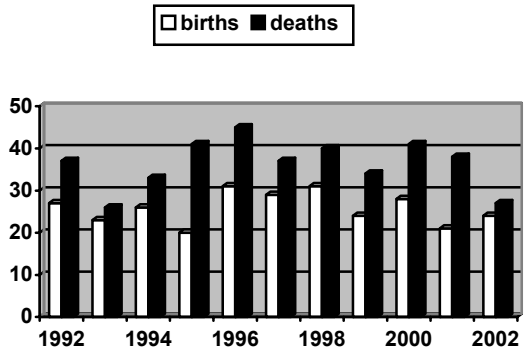
As can be seen in the diagram below, the population dynamics of Borsec witnessed an upward trend up until 1987; thereafter, and especially after 1989, de-population of the area began.



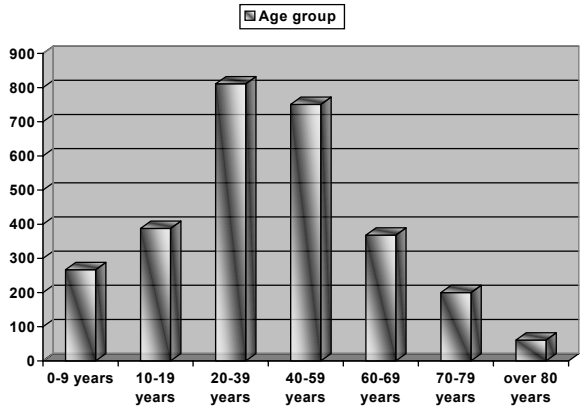
There are two reasons behind this:

- The birth and death rates:

The number of live births in the diagram below gradually decreases as compared with deaths, negatively effecting natural growth in Borsec



This decrease in the birth rate can be seen in the population's age structure:



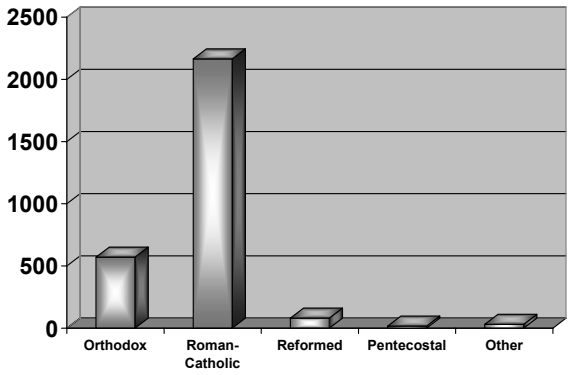
The percentage for women is 52%, compared with

48 % for men.

Emigration, which represents almost 6 % of the total due to precarious economic situation after 1989 and lack of expectations.

Country	No. of emigrants
Hungary	124

Germany	24
Canada	5
France	4
Israel	3
USA	2
Kuwait	2
Slovakia	1
Brazil	1
TOTAL	166



I.3.2. Ethnicmand religious structure

The population structure by ethnicity as well as religion, according to the 2002 census, reflects a balanced composition: 78% of inhabitants are Hungarian, 21% Romanians and 1% of other ethnicity. In Borsec all ethnicities co-exist in an atmosphere of peace and understanding, leading normal lives in a free community, free of ethnic tension.

The religious structure is somewhat richer, containing several co-existing religions and denominations, as follows:

I.3.3. Social assistance

The social assistance services of the city of Borsec are as follows:

The authority for guardianship and social assistance, which operates within the local council. According to Law 416 / 2001 (pertaining to the minimum guaranteed income), poor families and single persons are entitled to a minimum guaranteed income as a form of social assistance. This minimum guaranteed income is granted in the form of monthly social relief. The same department is also responsible for emergency relief, whereby it grants allowances for the newly born, residential heating support, state allowances and supplemental allowances.

- According to Law 119/1997 (pertaining to supplemental allowance for families with children), a total of 93 demands were submitted. After verification, the files were sent to the General Office for Labour and Social Solidarity of Harghita for processing.
- Personal assistants of persons with severe handicaps are employed through the local council on individual employment contracts. Personal assistants benefit from yearly paid leave and social and health insurance according to the legal dispositions pertaining to individual employment contracts. Eleven handicapped persons of first degree invalidity had been registered by the end of 2003, of which 3 were children.
- The department for guardianship and social assistance from the local council, which operates in co-operation with the Caritas organisation, the centre for home medical care and social assistance.

The following services are provided by Caritas, the centre for home medical care and social assistance:

a) Medical care – dressings; injections, cateterism, enema, medicinal baths, blood pressure verification, medical massage, vibro-massage, inhalation, patient care for patients with mental disorders.

b) Basic care – patient hygiene, bathing, dressing/undressing, help in feeding, cooking, patient surveillance.

At present the number of staff trained in providing social services number 2, serving a number of 73 beneficiaries.

I.3.4. Child protection

		2002	2003
SOCIAL RELIEF	Submitted applications	30	6
	Approved applications	24	6
	Paid sums	114,563,000	98,718,000
EMERGENCY SUPPORT	Submitted applications	2	--
	Approved applications	2	--
	Paid sums	10,000,000	--
RESIDENTIAL HEATING SUBSIDY	Submitted demands	67	55
	Paid sum	17,500,000	19,250,000
ALLOWANCES FOR NEWLY BORN	Submitted demands	24	16
	Paid sum	33,600,000	22,400,000
STATE GRANTED CHILD ALLOWANCES	Number of demands	27	20

- There are currently 11 minors in family placement. Family placement is a legal modality in which a family is entitled to receive, care for, raise and educate one or more children. On acquiring this entitlement, the families receive a certificate and documentation. The families are periodically checked for the way in which they are caring for, raising and educating the minors placed in their care.
- At present, four minors of the city are placed in minor protection centres. For their upbringing and education the Borsec Local Council contributes a

monthly 5,160,000 lei under an agreement concluded with the county council.

- During 2001-2003 the authorities for guardianship and social assistance made 85 social vistis to families entrusted with minors. These were served the purpose of obtaining the social grant, in any case of divorce and at the request of the police for different enquiries

I.3.5. Civil society

I.3.5.1. Pro Borsec foundation

The Pro Borsec foundation was established on 16 December 1996. It is a non-profit and non-political organisation. Its main objectives are:

- supporting cultural activities;
- supporting publications and local mass-media;
- training;
- providing facilities and grants for training;
- organising and supporting social, cultural and sporting events, as well as events celebrating the major accomplishments of Borsec;
- supporting the development of tourism in the area.

Important accomplishments:

- daily newspaper “Források”;
- yearly “creative” camp with artists from across the county, Romania and Hungary;
- co-organiser of “The Days of Borsec” cultural festival with participants from the locality, neighbouring localities and twinned localities in Hungary;
- publishing of various books over recent years – “Nyüszkölés a feredőn, s a nagy víz martyán”(“Bathing in the baths of Borsec”), “Barangolás a múltban”, the album “Borszék és Maroshévíz korabeli képeslapok fényében” (“Borsec and Toplița in old postcards”), “Domus Historia” (“The history of the Roman-Catholic Parish”), “The history of Borsec in images”;
- supporting the campaign “The most beautiful park in the city”, with participants from among the pupils of the general school with prizes paid for and awarded by the foundation;
- financial support of the Culture Hall in the locality;
- Organising festivals for St. Nicholas’ Day and at Christmas, and the giving of gifts to children and pupils of the locality;
- supporting the town brass band by financing training for the conductor, his salary, the repair of musical instruments and purchase of uniforms for band members;
- giving gifts to pupils in the city on Children’s day;
- supporting pupils at the vocational school of Borsec that come from other localities on scholarships;
- providing transport and food for pupils participating in the festival of Christmas games and customs (Betlehemezők);
- participating in the 2003 New Year Eve street party.

I.3.5.2. School association Borsec

A non-profit organisation, was established in 2003 to organise charitable activities award scholarships to pupils. It also

- finances trips, school camps, school olympics, cultural, sporting and tourist activities;
- awards pupils extra marks in extra-curricula activities;
- helps improve school equipment;

The association derives its income through donations, sponsorship, membership fees etc.

It currently has 25 members.

I.3.5.3. Youth Forum in Borsec

The Borsec Youth Forum is a non-governmental and non-profit permanent organisation which aims to support and co-ordinate youth activities in the city.

It has the following priorities:

- facilitating cultural-entertainment and sporting activities by organising shows for youth, cultural exchanges with other youth forums and associations in Romania and abroad, symposium contests and presentations on days of celebration (Days of Borsec, Saint Nicholas, Christmas, Easter, Lovers’ Day, Halloween, 1 December etc.) and activities related to environmental protection;

- establishing a co-ordination, advisory and guidance office for youth to provide information on jobs, discuss professional and family issues and publish an information booklet detailing school, college and university admission exams.

Anyone willing to participate in Youth Forum activities, whether financially or in terms of moral support, is welcome to become a member of the organisation.

The Youth Forum is funded through membership fees, rent from the sports facilities, advertising rights, publications, sponsorship, donation and other legal sources of income.

I.3.5.4. Skiing association

This non-profit organisation was established by veteran local skiers. It aims to support skiing activities of all forms according to strategy set out by the Romanian Skiing Federation, promote good relations with other organisations in Romania and abroad, and fair-play and honesty.

The Borsec Skiing Association has the following objectives:

- development of ski facilities by installing pistes with ski lifts;
- providing the association with the necessary materials to organise skiing competitions;
- organising ski lessons;
- co-operating with other associations in Romania and abroad;
- creating, producing and distributing promotional leaflets, booklets and video materials to increase the popularity of winter sports.

The initial capital of the association was derived through equal share contributions by the associates. To this are added members' fees, interest payments and dividends from placements, sponsorship, local budget resources, income from authorised activities and other legal forms of income.

I.3.5.5. Tourism association

The Tourism Association was established in 2000 and officially registered in 2002. Its main goal is to promote tourism.

The association has tried to support and extend tourism services by setting up an info-tourism office, producing leaflets and launching an Internet site to inform tourists of accommodation and leisure facilities in the spa and neighbouring localities.

At present, the spa has accommodation places for around 500 people in hotels, villas, camp sites and private houses. It also has 6 restaurants.

When it was established the association had 18 members, the majority of which were private firms or private person that provide tourist services. It now has 16 members.

Events organised by the Tourism Association include the "Snow Festival", openings of tourist facilities, exhibitions and meetings.

I.3.6. Education and culture

I.3.6.1. Education

The city has a kindergarten and a general school, in both Romanian and Hungarian languages. In the school year 1999-2000, a vocational course for waiters and chefs was established. In the school year 2004-2005 this was complemented by a further course for waiters and salesmen, and humanities evening classes.

Number of pupils, 1995-2002.

YEAR	PRE-SCHOOL	SCHOOL
1995-1996	128	298
1996-1997	102	277
1997-1998	101	299
1998-1999	91	296
1999-2000	95	315
2000-2001	95	314
2001-2002	99	329

School year 2003-2004: number of pupils:

- Pre-school : 121 pupils (Romanian department 34; Hungarian department 87)
- Classes I – IV: 106 pupils (Romanian department 33; Hungarian department 73)
- Classes V – VIII: 141 pupils (Romanian department 27; Hungarian department 114)
- Vocational school: 13 pupils (Hungarian department)
- Humanities class: 15 pupils (Hungarian department)

Various children's associations function within the school: Scouts, Green Hearts, the pottery association.

The teaching staff are permanently on the move and the staff composition changes nearly every year due to those leaving the educational sector, mainly because of the low salaries, and the influx of newly-qualified or trainee teaches, who enrol for long-distance higher education courses.

During the school year 2003-2004, the structure of teaching staff was as follows:

- total teaching staff 27
- qualified teaching staff 22
- non-qualified teaching staff 3
- trainee teaching staff 2
- non-teaching staff 8

Various associations function within the school:

Association name	No. of pupils	Activities
Scouts	50	Meetings, camps, competitions
Green Hearts	80	Environmental protection (water, flora, fauna)
Pottery	50	Developing aesthetic skills
"De Angelis" Children's Choir	30	Participation in shows around the county and abroad
Popular Art School	30	Training of pupils to play different musical instruments and participation in various shows in the city.

The school has 22 classrooms. Six of these have been fully modernised (new furniture, parquet flooring, new cupboards and shelves); others are to be modernised over the coming years at a rate of 2-3 classrooms per year.

The IT classroom is equipped with ten 486-type PCs.

Modernisation in previous years involved replacing the windows and three doors with Thermopane. A printer and photocopier are also available.

The sports hall has a bathroom (lavatory, shower), but requires renovation.

The school has its own liquid fuel heating station.

I.3.6.2. Culture

In 2004 Borsec hosted the following cultural events:

-January The "Snow Festivities" carnival

February Lovers' Day

	The Lőrinc Paul Cup (Ski contest)
-March	Celebration of the events of March 1848
-June	The opening of the tourist season
	The "Days of Harghita" festival
-July	Workshop Borsec – creative camp
	The meeting of regional brass bands
-August	The "Days of Borsec" festival
	Saint Stephan's festival
-October	Celebration of the events of 6 October 1849
-December	Saint Nicholas
	The Christmas Tree

Funding for these cultural events come from various projects, local sponsors and the county or local council.

There are two culture halls in the city: the Culture Hall on "7 Springs" boulevard, which has a library with around 36,000 volumes, and the Culture Hall on Topliței street, with some 6,000 volumes. The latter culture hall has a rehearsal room for the brass band and a performance hall. The entire building is in an advanced state of disrepair.

Name	Year Established	No. of members	Activities
Brass band	1926	36	meetings; camps
Cantum Novum Chorus	1930	30	meetings; local events
Popular dance and cheerleader company	2004	22	local events

The city is home to several traditional bands, though various new groups are also being created, mainly by young people and school pupils.

There are also some other musical groups (e.g. Nagy Duo, Galaxis) and modern dance formations (e.g. Yoyo), which participate in various shows and events of the city.

I.3.6.2. Sport and leisure

Sporting activities were first practiced formally after 1918-1920.

Football is the main and most popular sport in the city. The city has had a sports association since 1920. Besides football, skiing, skating, bowling, lawn tennis and chess are also sports practised. The former spa manager, Vaster, built the current football field in 1925 and later modernised it in 1930. The current sports and leisure facilities do not meet the today's needs. Until only recently, there was a sportsgrounds in Nadăşa, a natural skating rink, swimming pool, bowling hall and lawn tennis court. Today, however, these have ceased functioning.

I.3.7. Public health

Borsec has at its disposal a family consultation room, a physiotherapy room, an emergency centre, a Home Medical Care and Social Assistance Centre and a pharmacy. The opening of a dental clinic at the Home Centre is in the works.

The drop in state and private health funding has greatly influenced the health situation in Borsec. The psychological strain of unemployment, social insecurity, low living standards and the slow pace of reform in the health system have also proved detrimental. By European standards, health is in critical state in Borsec owing to the harsh conditions that prevailed before the 1989 Revolution and the subsequent problems of transition.

The health indicators show a descending birth rate:

1992	10.149 ‰
1993	8.024 ‰
2002	8.729 ‰
2003	8.030 ‰

While the death rate has displayed an upward trend:

1992	8.988 ‰
1993	7.716 ‰
2002	10.824 ‰
2003	10.474 ‰

These indicators display negative natural growth.

The notable preponderance of deaths is caused by cardio-vascular diseases, diseases of the digestive tract, and euplastic accidents and diseases.

The death rate by type of disease is as in the following:

Cardio-vascular diseases:

1992	2,985.07 $^{0}/_{0000}$
1993	3,194.02 $^{0}/_{0000}$
2002	9,713.48 $^{0}/_{0000}$
2003	10,342.41 $^{0}/_{0000}$

Diabetes:

1992	417.904 $^{0}/_{0000}$
1993	524.669 $^{0}/_{0000}$
2002	1,958.04 $^{0}/_{0000}$
2003	2,202.79 $^{0}/_{0000}$

Neoplastic diseases:

1992	805.97 $^{0}/_{0000}$
1993	956.79 $^{0}/_{0000}$
2002	1,608.39 $^{0}/_{0000}$
2003	1,748.25 $^{0}/_{0000}$

The population's choice of lifestyle, ignoring or ignorant of the risk of cardio-vascular diseases, is the main culprit in this distribution. It is also affected by inefficiency in the preventative health care subsystem and the lack of modern diagnostic and treatment technologies.

One of the positive aspects relating to health in Borsec is the absence over the last 10 years of professionally induced diseases thanks to the lack of toxic exhaust fumes and pollution sources in the region.

Another positive factor is the low number of hyperthyroid cases thanks to the beneficial effects of the environment in the region

The establishing of the Home Medical Care and Social Assistance Centre was a welcome development, improving access to medical services for the disabled and sufferers of chronic invalidity and related illnesses.

In terms of hygiene in schools, beside problems related to refraction and bad posture, the high incidence of rickets is also major issue. Approximately 15% of pre-school children and pupils of primary school age have contracted rickets due to bad nutrition and the low number of sunny days in the region.

One of the most important medical issues in Borsec is the restoration of permanent health services, given that the closest hospital is in Toplița, 26 km from Borsec. The establishing of a family planning consultation room is another priority which will help promote contraceptive use.

I.3.8. Public order

Over the last three years, public order offences and legal infringements were discouraged by increasing police activity and promoting better co-operation with local administration authorities and the general public.

Public order and safety improved was by the continuous physical and psychological training of the police force, instilling the idea of the policeman as not being above of the law and as the public servant of the citizens. From a statistical point of view, the city of Borsec has the lowest rate of offending in the whole of Harghita thanks to the prevention and education measures taken by the local and central administration authorities. The enhanced training of policemen was made possible by the reforms carried out with the aid of the ministry of administration and internal affairs.

Civic education programmes were also run to promote the prevention of offences and thus make Borsec a safer city. The Romanian Gendarmerie work side-by-side with the police to ensure public order and a climate of public safety.

Strengths:

- trained work force;

- public safety and order;
- healthy environment;
- rich cultural life, including choir, brass band, artistic groups;
- local radio station and newspaper;
- high level of education;
- satisfactory level of social assistance;
- organised civil society;
- satisfactory educational standards;
- satisfactory health standards.

Weaknesses:

- lack of interest in preserving traditions;
- lack of jobs;
- youth migration;
- lack of housing;
- lack of hospital;
- lack of high school education.

II.1. GENERAL OBJECTIVES

The city's general development objectives for the medium and long term are as follows:

a. Development of basic infrastructure;

b. Relaunching tourism, especially bathing;

c. Improving economic potential;

d. Improving quality of life;

e. Increase the cultural and educational level;

f. Urban regeneration;

g. Protection and conservation of biodiversity and the natural habitat.

In creating this development strategy comprising the existential aspects of life in our city, the following issues were taken into account:

- Flexibility – adaptability to current changes;
- Opportunities for the private sector – presenting possibilities for direct investment or public-private partnerships;
- Raising living standards – new jobs creation and development of tourist services leading to rising living standards;
- Improvement of the social environment – promoting the construction of social housing, identification of those in need of social assistance and finding ways to help them;
- Protection and preservation of biodiversity and the natural habitat.

This stresses the necessity of continuing with the development of tourism by presenting the history of the city and its business opportunities. The objective of the strategy is to revitalise the reputation of the once famous city in order to solve at least part of the city's problems.

It also takes into account the importance of tourism and water bottling, which are leading sectors in the economy of the city.

II.2. MEASURES TO STRENGTHEN INSTITUTIONAL CAPACITY

The mayoralty of the Borsec, as a promoter of the principles of sustainable development and a public administrator of a city on its way to European integration, needs to strengthen its institutional capacity, both in terms of decision making and decision implementation. The creation of the development strategy is a new role for public administration.

To accomplish the objectives of the Local Action Plan, the mayoralty as a public authority must conceive actions to attract financial resources, mobilise human resources and re-analyse the administrative framework for assigning responsibility.

II.2.1. Method of achieving the objectives

In implementing the sustainable development strategy, the mayoralty and the local council must:

- improve management in the local administration, including planning and book-keeping;
- improve the mechanism of establishing the local budget;
- plan and develop the investment mechanism of the city;
- sustain the development of public-private partnerships;
- facilitate the development of the local economy;
- ensure better representation of citizen interests in decision-making processes.

The required measures in accomplishing the goals of the citizen-oriented administration and ensuring real transparency are as follows:

- creation of mechanisms for citizen consultation in order to increase the number of services provided and ease information collection on the quality of services;
- utilisation of information technology and communication for both services providers and citizens;
- increasing quality, implying a change in the way of thinking in relation to addressing community problems to a flexible, result-oriented way of thinking;
- integration of services to make services more accessible, consolidated and based on citizen needs and expectations. The establishing of the "single desk" requires several stages and must be preceded by simpler integration solutions (information services by telephone, Internet portal).

The planning of public policy and the programming and allotting of resources must be carried out transparently to allow participants to contribute to this process.

II.2.2. Management of human resources

In enhancing institutional capacity, increasing the training level for the human resources working in the public administration is very important. This is achieved through training courses organised by the ministry for public administration, through the National Centre for Continuous Formation, and deals with:

- strategies for the development of administrative-territorial divisions;
- organising town planning and territorial arrangement;
- public relations and the mass-media;
- management of projects of regional development financed by the EU;
- public acquisitions;
- setting up and operating local public services.

Another important issue is the effective utilisation of human resources as well as increasing professional responsibility and independence. These could be achieved by:

- updating internal regulations for the organisation and functions of personnel;
- permanent updating of employee job records with clear definitions of the field of activity for each employee;
- awareness of the importance of each employee position;
- improvement of co-operation between different mayoralties.

II.2.3. Finacial forecast

The general budget of the locality reflects a compromise between the needs of the community and its capacity to satisfy those needs. This requires a complex distribution of the limited financial resources and the effective use of funds obtained from own or attracted sources.

ANNEXES

ACCOUNT BALANCE

	2000	2001	2002	2003	2004

Fixed means, land and inventory items	1,348,456	1,885,138	16,062,682	119,547,999	123,083,393
Currency means, discounts, expenditure and materials	273,915	1,037,441	1,387,017	4,515,114	7,892,028
Means of local budget	34,322	290,436	501,363	796,566	3,810,626
Local budget reserves	34,322	290,436	501,363	796,566	3,810,626
Local budget expenditure					
Budgets of institutions	239,593	747,005	885,654	3,718,548	4,081,402
Currency reserves	76,009	124,259	192,060	1,087,200	1,481,757
Reserves of public institutions	43,705	74,131	125,472	1,019,147	1,407,961
Reserves from the public destination means	32,304	50,128	66,588	68,053	73,796
Currency means and other values	20,124	154,847	28,668	58,385	25,517
Discounts and debtors	21,246	163,427	201,430	2,127,114	2,243,674
Local budget expenditure					
Materials	122,214	304,472	463,496	445,849	330,454
TOTAL ASSETS	**1,622,371**	**2,922,579**	**17,449,699**	**124,063,113**	**130,975,421**
Funds	1,348,456	1,885,138	16,062,682	113,569,660	120,267,654
Income from budget financing, discounts and other sources	273,915	1,037,441	1,387,017	10,493,453	10,707,767
Local budget sources	34,322	290,436	501,363	796,566	3,810,626
Budgets of institutions	239,593	747,005	885,654	9,696,887	6,897,141
Financing of institutions	140,220	501,491	539,213	6,485,413	3,048,404
Extra-budgetary incomes	39,873	75,749	146,355	965,740	1,588,230
Discounts, creditors and other sources	59,500	169,765	200,086	2,245,734	2,260,507
Special destination means and bank credits					
Special destination means					
Bank credits					
TOTAL LIABILITIES	**1,622,371**	**2,922,579**	**17,449,699**	**124,063,113**	**130,975,421**

COUNCIL

Row no.		2000	2001	2002	2003	2004	PROVISIONS 2005
	GENERAL INCOME OF THE LOCALITY	**3,991,960**	**9,073,502**	**11,213,364**	**21,609,619**	**26,135,416**	**29,390,474**
1	**Own income – Budget**	**3,603,618**	**8,609,441**	**10,508,032**	**13,625,671**	**18,702,297**	**22,353,914**
2	Own income	1,263,672	2,006,787	2,913,545	4,183,575	12,656,446	16,007,810
3	Current income	986,403	2,001,930	2,907,498	3,958,139	5,595,717	8,271,919
4	Fiscal income	725,709	1,147,745	1,803,037	3,034,202	3,612,911	6,875,919
28	Non-fiscal income	260,694	854,185	1,104,461	923,937	1,982,806	1,396,000
49	Income from capital	277,269	4,857	6,047	9,081	910,667	1,606,000
	Special destination income				216,355		
55	Drawings from the state budget	2,261,720	6,407,369	7,594,487	9,442,096	12,195,913	12,475,995
67	Subsidies	78,226	195,285				
85	Loans						
1	**Extra-budgetary income**	**388,342**	**464,061**	**705,332**	**7,983,948**	**3,063,583**	**3,510,200**
1	**Income from outside the local budget**					**4,369,536**	**3,526,360**
1	**Income from external non-reimbursable funds**						
	GENERAL EXPENDITURE OF THE LOCALITY	**4,013,525**	**8,781,163**	**10,974,923**	**20,399,541**	**17,861,080**	**29,390,474**
89	**Total expenditure – local budget**	**3,617,373**	**8,353,327**	**10,297,105**	**13,330,469**	**15,175,937**	**22,353,914**
90	Current expenditure	3,456,780	8,313,148	9,626,307	12,938,691	14,358,223	20,223,914
125	Capital expenditure	160,593	40,179	670,798	299,224	817,714	1,630,000
145	Reserves						500,000
148	I. General public services	1,299,556	2,014,087	2,349,282	3,369,828	3,522,838	4,293,445
161	III. Social-Cultural Expenditure	916,879	3,893,997	4,805,055	5,850,619	7,246,112	8,139,449
293	IV. Services and public development, housing, environment, water	1,272,269	2,279,412	2,942,027	3,868,436	3,582,873	3,504,420
320	V. Environment and water						1,788,200
340	VI. Economic activities	188,182		29,010	33,436	637,302	3,990,000
404	VII. Other activities	128,669	154,200	157,881	89,565	126,182	138,400

432	XI. Transfers		11,631	13,850	26,031	60,630	
476	XV. Reserve fund						500,000
	XVI. Special destination expenditure				92,554		
482	XVII. Surplus/ Deficit	-13,755	256,114	210,927	295,202	3,526,360	
10	**Expenditure – total extra-budgetary**	**396,152**	**427,836**	**677,818**	**7,069,072**	**2,126,233**	**3,510,200**
	Surplus/ deficit	-7,810	36,225	27,514	914,876	937,350	
5	**Expenditure from outside the local budget**					**558,910**	**3,526,360**
	Surplus/ deficit					3,810,626	
2	**Expenditure from external non-reimbursable funds**						
	Surplus/ deficit						

II.3. Specific objectives and identified projects

II.3.1. Technical and public utility equipment

No.	Specific Objectives	Financing	Estimated value	Duration	Partnership	Monitoring, assessment
1.	Extension and rehabilitation of drinking water network	Sources attracted to local budget	$2.5 million	2 years	Public Private	Mayoralty Financing body
2.	Collection from the “Bujdosó” water source to increase drinking water flow	Sources attracted to local budget	$0.9 million	1 year	Public Private	Mayoralty Financing body
3.	Extension and rehabilitation of household sewage network	Sources attracted to local budget	$3.5 million	2 years	Public Private	Mayoralty Financing body
4.	Development and modernisation of wastewater treatment plant	Sources attracted to local budget	$6.5 million	1 year	Public Private	Mayoralty Financing body
5.	Extension of the electricity network	S.C. ELECTRICA S.A.	164.8 billion lei	2 years	Public Private	Mayoralty Financing body
6.	Rehabilitation and extension of public lighting system	Sources attracted to local budget		1 year	Public Private	Mayoralty Financing body

7.	Creation of ecological refuse landfill	Sources attracted to local budget	$1.5 million	2 years	Public Private	Mayoralty Financing body
8.	Connection to national natural gas network	Sources attracted to local budget		3 years	Public Private	Mayoralty Financing body

II.3.2. Traffic network

No.	Specific Objectives	Financing	Estimated value	Duration	Partnership	Monitoring, assessment
1.	Creation of alternative route of around 1 km for DN 15	Sources attracted to local budget		2 years	Public Private	Mayoralty Financing body
2.	Renovation of crossroads, markings and signs	Sources attracted to local budget		2 years	Public Private	Mayoralty Financing body
3.	Renovation of pedestrian paths	Sources attracted to local budget		1 year	Public Private	Mayoralty Financing body
4.	Renovation of road from quarry (the second access road to the spa)	Sources attracted to local budget		2 years	Public Private	Mayoralty Financing body
5.	Development of pedestrian paths (including tourist routes)	Sources attracted to local budget		2 years	Public Private	Mayoralty Financing body

II.3.3. Rel elaunching bathing toueism

No.	Specific Objectives	Financing	Estimated value	Duration	Partnership	Monitoring, assessment
1.	Construction of treatment facility	Attracted sources	€12 million	2 years	Public Private	Mayoralty Financing body
2.	Diversification of leisure services	Sources attracted to local budget		4 years	Public Private	Mayoralty Financing body
3.	Support of tourism related services	Sources attracted to local budget		5 years	Public Private	Mayoralty Financing body

4.	Development of leisure infrastructure: indoor swimming pool, recreational lake, skating rink, ski pistes with ski-lift, funicular railway	Attracted sources		5 years	Public Private	Mayoralty Financing body

II.3.4. Potential economic growth

No.	Specific Objectives	Financing	Estimated value	Duration	Partnership	Monitoring, assessment
1.	Stimulation of biotechnology supported agriculture	Attracted sources		5 years	Public Private	Mayoralty DGAIA Financing body
2.	Creation of modern agri-food market	Sources attracted to local budget		1 year	Public Private	Mayoralty Financing body
3.	Local processing of forest fruits, mushrooms, medicinal plants	Attracted sources		2 years	Public Private	Mayoralty Financing body
4.	Support of local initiatives	Sources attracted to local budget			Public Private	Mayoralty Financing body
5.	Relaunching of tourism	Attracted sources		10 years	Public Private	Mayoralty Financing entity

II.3.5. Quality of life

No.	Specific Objectives	Financing	Estimated value	Duration	Partnership	Monitoring, assessment
1.	Establishing permanent medical care centre	Sources attracted to local budget		2 years	Public Private	Mayoralty Financing body DJSP
2.	Creation of home for the elderly	Sources attracted to local budget		2 years	Public Private	Mayoralty Financing body DJSP
3.	Creation of nursery	Sources attracted to local		1 year	Public	Mayoralty

		budget			Private	Financing body
4.	Creation of pharmacy in Lower Borsec	Sources attracted to local budget		1 year	Public Private	Mayoralty Financing body DJSP
5.	Development of public transport	Sources attracted to local budget		2 years	Public Private	Mayoralty Financing body
6.	Construction of social housing and for youth	Attracted sources		3 years	Public Private ANL	Mayoralty Financing body ANL

II.3.6. Education and culture

No.	Specific Objectives	Financing	Estimated value	Duration	Partnership	Monitoring, assessment
1.	Development of school group specialised in public nutrition and tourism	Sources attracted to local budget			Public Private	Mayoralty Financing body I.J.Şc.HR
2.	Establishment of kindergarten with extended hours (according to demographic needs)	Sources attracted to local budget			Public Private	Mayoralty Financing body I.J.Şc.HR
3.	Modernising/establishing of areas for cultural and artistic events	Sources attracted to local budget		2 years	Public Private	Mayoralty Financing body
4.	Construction of multi-function sports hall equipped with modern apparatus	Sources attracted to local budget		1 year	Public Private	Mayoralty Financing body
5.	Supporting and promoting traditional events	Sources attracted to local budget			Public Private	Mayoralty Financing body
6.	Founding of City Museum	Sources attracted to local budget			Public Private	Mayoralty Financing body

II.3.7. Urban regeneration

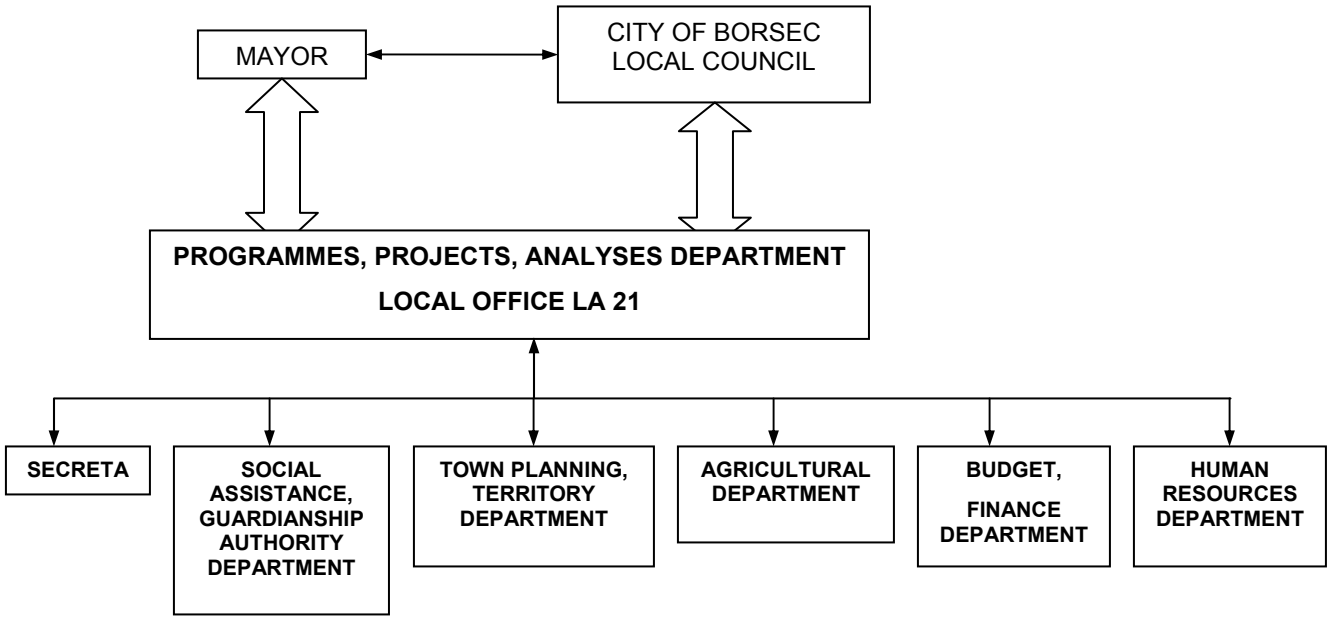
No.	Specific Objectives	Financing	Estimated value	Duration	Partnership	Monitoring, assessment
1.	Inclusion of spa area as UNESCO cultural and	Sources attracted to		2 years	Public	Mayoralty

	architectural heritage site	local budget			Private	Financing body
2.	Restoration of historical spa centre and rehabilitation of heritage buildings	Attracted sources		2 years	Public Private	Mayoralty Financing body
3.	Creation of new parking facilities and rehabilitation of existing facilities	Sources attracted to local budget		3 years	Public Private	Mayoralty Financing body
4.	Delimitation of functional areas	Local budget		1 year	Public	Mayoralty
5.	Improving traffic flow in the spa	Local budget		2 years	Public	Mayoralty

II.3.8. Enviroment priorities

No.	Specific Objectives	Financing	Estimated value	Duration	Partnership	Monitoring, assessment
1.	Ecologisation of household waste disposal site	Attracted sources		3 years	Public Private	Mayoralty Financing body
2.	Revitalisation of forest fund	Sources attracted to local budget DS. HR			Public Private	Mayoralty Financing body DS HR
3.	Establishing hunting park	Attracted sources		2 years	Public Private	Mayoralty Financing body
4.	Establishing weather station	Attracted sources			Public ANMH	Mayoralty ANMH

II.4. INSTITUTIONAL STRUCTURES FOR MONITORING AND ASSESSMENT



Monitoring implementation of the identified projects requires a coherent approach by the local administration in terms of the way in which projects are performed and their effects on the life of community.

Relevant and effective indicators have been established to measure the achievements based on an understanding of sustainable development as a long process involving a changing of perceptions of the environment, beneficial effects for economic development, the conservation of resources and protection of communities and ecosystems.

This approach, in which physical indicators are integrated into parameters involving lifestyle, allows for monitoring of the way in which economic development takes place in tandem with the preservation of natural assets and social welfare to be performed correctly.

The criteria were chosen according to:

- sensitivity to change;
- data reliability;
- relevance;
- expressiveness;
- quantifiability;
- ease of understanding and interpretation.

After taking these criteria into account, the following indicators resulted:

Field	Indicators	Institutions involved – data sources

Socio-Economic Indicators		
Population	Total population	The County Office for Statistics (DJS)
	Structure of population by age group, sex	DJS
	Total households	Agricultural department
Ethnic structure	Ethnic Hungarian population (% of total)	DJS
	Ethnic Romanian population (% of total)	DJS
	Other ethnicities (% of total)	DJS
Religious structure	Religious structure of population	DJS
Housing	Condition and level of comfort of housing	Town planning department
	Population living in rented housing	Tax and fee department
Architectural heritage	Churches, villas, springs	Town planning department
	Urban historical areas	Town planning department
Tourism	Number of tourists	Commercial tour companies
	Bathing procedures performed at treatment facilities	Commercial tour companies
Labour market	Number of unemployed	AJOFM
	Unemployment rate	AJOFM
	Active population rate	AJOFM
	Average income of population	AJOFM
Investment	Volume of investment by field of activity	Chamber of Commerce
	Volume of foreign investment	Chamber of Commerce
	Number of newly created jobs	AJOFM
Economic activities	Number of registered firms	Chamber of Commerce
	Distribution by field of activity for SMEs (%)	Borsec Public Finances Agency
	Persons with income from authorised activities	Borsec Mayoralty
Social Assistance	Number of persons granted social support	Guardianship authority, social assistance department

	Number of families granted heating subsidies	Guardianship authority, social assistance department
	Number of minors in family placement	Guardianship authority, social assistance department
Health	Birth rate	Family consultation room
	Death rate (caused by disease)	Family consultation room
Public order	Rate of criminal and minor offences	Police
Education		
Education	Number of educational units	The County School Inspectorate (IJS)
	Teaching staff structure	IJS
	Number of pre-school and school pupils	IJS
Extra-school activities	Number of associations and number of children attending	Borsec General School Board
Culture, leisure		
Culture and leisure	Number of cultural institutions	Mayoralty
	Programme of cultural events	
	Number of associations, foundations supporting cultural events	
Environmental indicators		
Air quality and noise levels	Period in which pollution by sedimental powder exceeds the maximum admissible levels at its origin	Inspectorate for Environmental Protection (IPM)
	Noise level measured in Lech (STAS 1,0009/1988	IPM
Water	Drinking water flow supplying city needs (l/s)	Romaqua Prest SA
	Yearly consumption per inhabitant (m^3)	Romaqua Prest SA
	Houses connected to the drinking water network (%)	Romaqua Prest SA
	Houses connected to the sewage network (%)	Romaqua Prest SA
	Length of the drinking water network and sewage network (km)	Town planning and territory department
Mineral deposits	Chemical composition of peat (g/dm^2)	Health Ministry
	Lignite quality Kcal/kg	SNC Ploieşti
Waste management	Quantity of waste deposited at disposal site (m^3/year)	Mayoralty

	Dimension of disposal ramp (ha) and the filling ratio	Town planning and territory department
Utilisation of lands	Green areas, public parks (ha)	Town planning and territory department
	Distribution of land utilisation, arable, hayfield, adequate for building (ha)	Agricultural department
	Density of population (inhabitants/km²)	Agricultural department
Transport	Number of motor cars registered in the locality	Tax and fee department
Energy	Yearly electricity consumption per inhabitant	S.C. ELECTRICA S.A.
	Electricity consumption for public lighting	Mayoralty
Climate	Humidity (%)	IPM
	Number of rainy days (yearly average)	IPM
	Number of sunny days (yearly average)	IPM

PRIORITY PROJECTS

III.1. Relaunching tourism the spa

- General information: revitalisation of the spa is closely connected with establishing a treatment facility provides bathing procedures that utilise the Borsec mineral water. This project proposes the creation of a bathing complex, multifunctional if possible, to provide treatment and leisure facilities;
- Financing source: the project will be accomplished through public-private partnership: the Local Council by leasing the land required for the investment, the partner setting up the facility through its own resources;
- Estimated value of project: €12 million;
- Duration: 2 years from the start of investment.

At the same time, connected services are also required:

- Services to be established (developed):
  - rental of sports equipment and material (skis, sleds, skates, balls, chess boards etc.);
  - hair dressing;
  - manicure-pedicure;
  - manufacturing and sale of handicrafts;
  - creation of race course;
  - transport by carriage and sled;
  - beauty parlour (gym, natural therapy);
  - tourism info-office;
  - casino (gambling hall, roulette);
  - indoor swimming pool;
  - recreational lake;
  - skating rink;
  - ski pistes with ski-lift, funicular railway;
  - golf course.
- Financing source: public-private partnership;

These programmes are long term projects, requiring the involvement of the local authority in attracting financial resources and granting facilities to investors.

The local authority will play a major role in promoting the investment programmes granted by the European Union to Romania relevant to this sector.

III.2. Development of basic infrastructure

III.2.1. Increasing flow in the water supply network

- General information: increasing the flow in the water supply network has become necessary, especially with the development of tourism and the related activities. This is one of the main requirements for the development of the locality. The project is feasible thanks to the water source in the vicinity of the collecting point;
- Financing source: public-private partnership and attraction of non-reimbursable financing sources;
- Estimated value of project: $0.9 million;
- Duration: 1 year from the beginning of the financing.

III.2.2. Extension and rehabilitation of the drinking water network

- General information: the supply network, which has been in service of over 30 years, requires urgent rehabilitation to ensure proper functioning. Its extension and **the increase in supply flow** are also required for the setting up of new tourist facilities;
- Financing source : public-private partnership and attraction of non-reimbursable financing sources;
- Estimated value of project: $2.5 million;
- Duration: 2 years from the start of financing.

III.2.3. E xtension and rehabililation of the sewage network

- General information: the existing sewage network is too small and in an advanced state of disrepair (due to the acidic characteristics of the soil). Increasing capacity is necessary to allow for the connection of new tourist sites as well as Lower Borsec;
- Financing source: public-private partnership and attraction of non-reimbursable financing sources;
- Estimated value of project: $3.5 million;
- Duration: 2 years from the start of financing

III.2.4. Development and modernisation of the wasterwater treatment plant

- General information: the wastewater treatment plant has no biological treatment stage and does not ensure sufficient quality for discharged waters. Increasing the wastewater flow requires modernisation and boosting of the plant capacity;
- Financing source: public-private partnership and attraction of non-reimbursable financing sources;
- Estimated value of project: $6.5 million;
- Duration: 2 years from the start of financing

III.2.5. Extension and rehabilitation of the electricity network

- General information: the construction of a modern power station (110/20 KV) is required to supply electricity to future investments;
- Financing source: public-private partnership (S.C. ELECTRICA S.A.);
- Estimated value of project: 164.8 billion lei;
- Duration: 2 years from the start of financing.

III.3. ENVIRONMENTAL PROTECTION

III.3.1. THE ECO PROGRAMME

- Objectives:
  - to reduce, re-use and recycle waste whenever possible;
  - to estimate both the material benefices and those related to environmental protection to aid reduction and recycling of waste;
  - reduction and prevention of waste production involving the local inhabitants;
  - prevention of waste production to increase the quality of the environment in the area.
  - These will be accomplished through the following activities:
  - purchasing containers for selective collection of recyclable waste;
  - collection and utilisation of different categories of waste;

- attraction of funds to finance other environmental protection activities.
- Financing source: public-private partnership and attraction of non-reimbursable financing sources;
- Estimated value of project: $150,000;
- Duration: 2 years from the start of financing.

III.3.2. Waste management

The problems confronting waste management are the following:

- the existing waste disposal sites are in inadequate places (in the vicinity of housing, underground and surface waters, leisure areas);
- the waste sites are not correctly equipped for environmental protection and pollute the waters and the soil in their respective areas;
- the waste sites are badly run: waste is neither compacted nor covered with inert substances to prevent fire or the spread of unpleasant odours; there is no a strict quality or quantity control for disposed waste; and the sites lack fences;
- the land on which waste sites are located is considered damaged land;
- waste collection is not selective; refuse is dumped at the sites without recognising the potential of the materials being disposed of (paper, glass, scrap metal, plastics);
- All this leads to the conclusion that waste management requires specific measures tailored to each phase of waste elimination from the environment. These measures must be implemented and monitored through the environment indicators that reflect the effects of waste;
- Financing source: public-private partnership and attraction of non-reimbursable financing sources;
- Estimated value of project: $1.5 million
- Duration: 2 years from the start of the financing

III.3.3. Recovery of demaged land

III.3.3.1. Areas of forest vegetation

Only promotion of a suitable forest policy will successfully solve the problems of sustainable management of forests. Establishing a new mentality of forested land owners toward forests is of major importance in ensuring the continuity of forest structures and functions and preserving the multifunctional potential of forests. Forest management must be subordinated to local interests, founded on following the aims and traditions of forestry and ecological principles.

The entire surface of forest vegetation, regardless of owner, must be re-forested in those parts where trees have been felled or uprooted by wind in order to ensure the stability of the slopes and keep the microclimate rich in negative air-ions.

- Financing source: public-private partnership and attraction of non-reimbursable financing sources;
- Estimated value of project: €1,000 /ha;
- Duration: 5 years from the start of financing.

III.3.3.2 Delimiting and rehabilitation of pretected areas

Delimiting the areas of national interest “The Round Chair” and “The Botanical Reservation” is done by marking out the area with landmarks and warning and direction signs.

For the bathing area, the protective perimeter requires revision in order to include new surfaces in the built area and obtain the status of spa.

The following areas are proposed for landscape and urban rehabilitation:

- **The travertine quarries area** will be re-integrated into the landscape by re-ecologisation works stipulated by the decision to interrupt travertine exploitation:
  - Financing source: public-private partnership and attraction of non-reimbursable financing sources;
  - Estimated value of project: €100,000;
  - Duration: 3 years from the start of financing.

- **The spa zone** regeneration involves:
  - Transforming the parking lot in front of Thermal Point no. 1 into a sports ground with suitable equipment;
  - Renovating the children's play grounds, sports grounds and leisure facility with outdoor swimming pool for tourist use;
  - Renovating parks and paths for recreational walks, and renovating routes leading to the sights;
  - Renovation of deteriorated mineral water springs.
  - Financing source: public-private partnership and attraction of non-reimbursable financing sources;
  - Estimated value of project: €350,000;
  - Duration: 3 years from the start of financing.

III.3.5. Green areas of the locality

- creation of a protective curtain between the stone quarry and the inhabited area;
- creation of a protective curtain between the area of intense traffic and the inhabited area;
- creation of a protective curtain between the industrial sub-area and the inhabited area.

Renovation of the central park and systematic planting of trees and bushes is required due inadequate landscape planning of the green areas in the centre of the city.

- Financing source: public-private partnership and attraction of non-reimbursable financing sources;
- Estimated value of project: €15,000;
- Duration: 2 years from the start of financing.

III.4. Education and culture

- Transforming of the old workshop building into a hostel or accommodation for tourists, groups of pupils, school or creative camps, and the creation of specialist teaching cabinet (public nutrition):
  - Financing source: public-private partnership and attraction of non-reimbursable financing sources;
  - Estimated value of project: €45,000;
  - Duration: 2 years from the start of financing.
- Construction of a multifunctional sports hall:
  - Financing source: public-private partnership and attraction of non-reimbursable financing sources;
  - Estimated value of project: €850,000;
  - Duration: 2 years from the start of financing.

An active cultural life is very important, especially for youth and elderly persons, and contributes to the creation of a spiritual environment, becoming an important way of spending time.

Actions to improve cultural life:

- Construction of a house of culture, containing the city library and a cinema;
- Establishing of a City Museum with exhibition hall:
  - Financing source: public-private partnership and attraction of non-reimbursable financing sources;
  - Estimated value of project: €1.5 million;
  - Duration: 3 years from the start of financing.