

URBAN DEVELOPMENT OF BOTOȘANI MUNICIPALITY IN TERMS OF SUSTAINABLE DEVELOPMENT

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Abstract. This article wants to examine issues concerning the sustainable character of urban development in Botoșani municipality, very important especially for a town exposed to social exclusion, environmental damage, lands waste or uncontrolled urban extension. The new cohesion policy takes into account the fact that the urban areas are seen as economical engines and as key elements of regional development inside European Union. The fact that 80% of the economical activities are developed in towns imposes a new vision on the role and importance of local authorities, which become partners in regional development. The contemporary period is under the pressure of some important qualitative changes in all social life compartments, with consequences felt in the whole structure of human environment.

Population welfare depends on three factors: economical development, population growth and environment. If the first two factors are conditioned by health, the last one conditions health. Recognizing the role these elements have for development led to an approach and solving method of policies and strategies with the tendency to join this issue in the context of their own long-term development policies. These elements maintain, strengthen, justify and substantiate the sustained and durable character of the development.

The high priority of durable urban development is stressed by the final aim itself: promoting a strategic perspective view. Lack of a strategic view may lead to a low administrative capacity, resulting in inefficient ratio resources – results and, in this context there are missed special opportunities (structural funds local absorption, etc.) and are degraded local premises of durable development.

Planning the territory implies an optimum capitalization of the natural and economic potential, integrated organization of energy, information, goods, persons transfer networks, building an advanced technological infrastructure of the

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territory, developing the localities system, equitable distribution of the industrial location and the social and cultural facilities.

The town planning projects are based on the study and highlighting of human resources and they regard the outlining of the demographic perspectives, number of places in perspective, their correlation with the town possibilities and the localities system, to provide accommodation, jobs and necessary services. That's why, in any study, we start from some obligatory data: knowing the facts; establishing the development possibilities by boosting proper forces; capacity assessment to answer efficiently at the impulses and demands of regional and national territorial level; forecast evolution in long-term perspective.

For Botoșani municipality, one of the basic tasks for adjusting the urbanization process remains the rational use of lands in town and in its suburban area. The administrative territory surface of the municipality is 4135,41 ha, based through the General Urban Plan, since December 1998 and the subsequent additions, which represents 0,85% of the Botoșani county surface, being, this way, a medium locality with a general density of 28,11 inhabitants/ha. The inner territory occupies 1937 ha. Totally, there are 2704 ha farmland and 1432 ha with non-agricultural use. In figure n. 1 is presented the municipality territory on destinations.

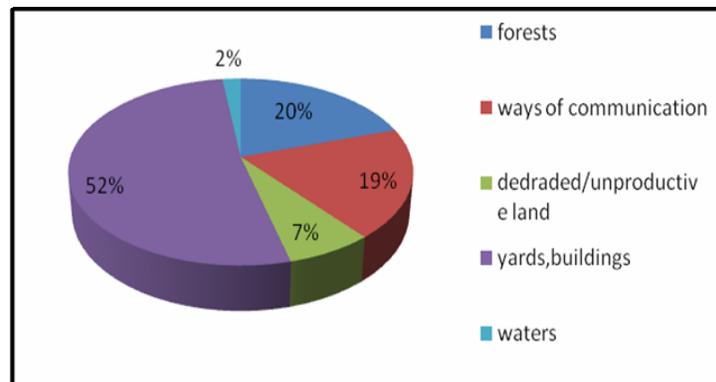


Fig. 1 – Botoșani municipality destinations

The historical, political, economic, demographic and social factors determined the genesis and had a great influence on the evolution of Botoșani town. By the systematization of the municipality was realized a functional town zoning, with specialized areas in the inside: industrial, commercial, residential areas with financial – banking, sanitary, recreational, transport, travel institutions.

Also was kept the linear configuration of the main thoroughfare on the direction north-west – south-east.

In the transition period from planned to market economy, the town faced a number of problems in its developing, such as: regression in industry development, bulk placement of human resources workforce, increasing social inequality, irrational use of lands, aging urban technical infrastructure, insufficient level of preparation for urban environment for sudden changes in economics and demography, absence of a land market, of traditions for establishing prices for inside lands and for underground water resources; location of industrial enterprises near the blocks of flats.

The municipality economy realizes 70% of the county production even if the population of the municipality represents only 25% of the total one, representative industrial branches being: textile and textile products industry; chemical and synthetic and artificial fibers industry; machines and electrical devices industry; equipment and scientific instruments industry; garment industry; furniture production; machines and equipments industry; food and beverage industry; metallic constructions and metal products industry.

Manolești Deal district detaches within districts, because there the industrial societies occupy 58,4% of the area, and it is followed by suburban districts – Luizaia, Tudor Vladimirescu, Pușkin, Șoseaua Iașului (with 4-5%), and the central districts in which the industry occupies small areas, about 1-2%. The main cause, which led to industry distribution in those zones, is the lines of communication, used to supply with raw materials (especially the railway).

Commerce represents a basic domain in the economy of Botoșani municipality, polarizing the main business and financial resources. In commerce, besides large units with private and state equity, there are individual traders and private equity associations, covering the whole municipality with specific activities observing a noticeable improvement of population supply.

Botoșani municipality has 24,5% of total population of the county, given that for the other territorial administrative units is the rest of 75,5%. In 1997 Botoșani had over 121000 inhabitants (in the period 1990 – 1997 is registered a growth with almost 3.000 inhabitants) but, after 1997 there was registered an important decrease, at the census in March 2002 there were numbered little over 115.000 inhabitants. So, after the census in March 2002, population of Botoșani municipality figured at 115.069 persons, of which: 59.315 (51,6%) women and 55.755 (48,4%) men. The massive decrease in number of inhabitants in Botoșani municipality has many explanations:

- partially enrolls in descending trend line manifested after 1990 at country level, because of negative natural balance and of migration;
- labor migration to other areas in the country or abroad, especially of young

people;

- a part of the municipality population came back in rural areas after restructuring the industrial area in the municipality (staff dismissal).

The municipality has a road infrastructure of almost 140 Km of roads, a water and sewerage network situated in the rehabilitation program at this moment (I.S.P.A. program), power supply system and public lighting system, gas supply system, centralized system of production, transmission and distribution of thermal energy for population, and special communication system (landline, mobile, internet).

The public local transport by tram is provided by SC ELTRANS SA the proper operator of the Local Council, and by private operators for transport by minibuses, thus, there is an alternative and competition, for every kind of transport being established and monitored the performance indicators.

The access to the municipality can be realized airy, too, through Salcea Airport, situated at a distance of 35 Km from Botoșani for the route București – Suceava – București, but also through the Iași International Airport, at 135 Km, being able to realize the contact with all the important locations on the continent and outside it.

There are over 34.000 dwellings situated in blocks of flats (common dwellings) and over 5000 houses (single-family dwellings), and also private residential districts. The educational system contains over 26.000 children in 60 education units. There are also accommodations furnished to European standards in Botoșani.

The banking in the municipality offers many financial and banking services, many of the banking and financial institutions having branches and representations in Botoșani municipality.

And last but not least, in Botoșani municipality, three cultural institutions operate, sustained by the local budget, respectively the “Mihai Eminescu” Theatre, “Vasilache” Puppets Theatre and Botoșani Philharmonic orchestra, all of them with tradition and high record.

In this multilateral context, it is very important to highlight the profile of the citizen in Botoșani municipality according to the opinion questionnaire realized on a sample of 120 persons (10 persons for every district with ages between 18-68 years old) and, statistically estimated, a situation which reflects actually the reality influenced by the present factors and beyond the official statistics.

In the processed questionnaires, their respondents represent 54,43% women and 45,57% men, a phenomenon which illustrates the degree of outward migration comparing with the official statistics. Meanwhile, by age, the citizens with ages over 18 years old, that are effectively in Botoșani municipality, are divided this way (tab. 1).

Tab.1 - The profile of the citizen in Botoșani municipality according to the opinion questionnaire

Age	18-24	25-34	35-44	45-54	55-64	Over 65
%	13.33%	15.42%	24.08%	22.49%	12.64%	12.04%

Concerning the access at the utilities:

- 93.03% of the citizens have drinking water in individual system, 5.27% - flat system, and 1.69% didn't answered;
- among those with homes connected connected to the centralized heat supply, 75.82% have hot water in individual system, 5.87% - flat system, and 18.31% didn't answered;
- 49.85% of the citizens have a proper central heating;
- 91.20% of the citizens have homes connected at the gas supply network, 2.99% use cylinder, and 5.87 didn't answered;
- 94.53% of the citizens have access at the town sewerage, 1.99% has proper sewerage systems, and 3.48% didn't answered.

Water supply and sewerage service is managed by SC Apa Grup SA Botoșani, which is subordinated to Botoșani Local Council and has the activity area Botoșani municipality and Dorohoi, Ștefănești, Flămânzi and Darabani localities. Poor treatment process determines a treated water quality under the standards level. From treatment stations, water is transported in Botoșani municipality and in the localities around. The distribution network is divided on 3 areas (industrial, high pressure and low pressure) and includes cast iron, steel and asbestos cement pipes, but also modern solutions after the rehabilitation programs.

Concerning the citizens endowing degree with consumer goods, the situation is this way:

- 95.22% of the citizens have a color TV, 2.19% have a black and white TV, and 2.59% didn't answer;
- 91.84% have TV cable, 5.57% have an aerial, and 2.59% didn't answer;
- 44.68% have a new foreign washing machine, 20.50% have a new Romanian washing machine, 26.67% have an old washing machine, and 8.16% didn't answer;
- 33.63% have a new foreign fridge, 29.85% have a new Romanian fridge, 33.03% have an old fridge, and 3.48% didn't answer;
- 44.18% have a fix telephone, and 55.82% don't have a fix telephone;
- 55.52% have a computer connected to the internet, and 44.48% didn't answer and don't have a computer;

- 11.94% have a new foreign car, 6.17% have a new Romanian car, 8.46% have an old foreign car, 14.23% have an old Romanian car, 48.96% don't have a car, and 10.25% didn't answer.

Concerning the education level (fig. 2), the situation is this way:

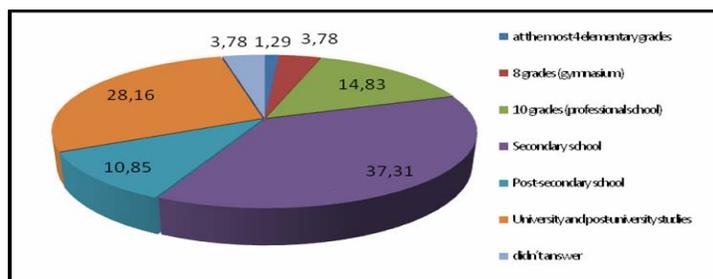


Fig.2 - Botoșani municipality-education level

Personal monthly income (tab. 2), no matter the source, in Botoșani municipality, is the following:

Tab.2 - Personal monthly income

Ron	100	101-300	301-500	501-700	701-1000	1001-1500	1501-2000	2000	NR
%	6.47	7.26	17.11	19.10	16.32	10.15	5.17	4.28	14.13

From the occupation (figure n. 3) point of view, the situation is this way:

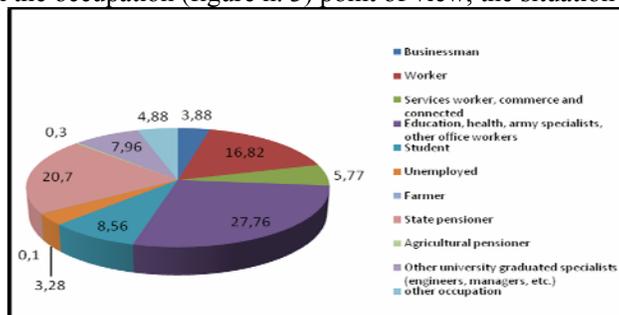


Fig.3 - Botoșani municipality-occupation

In 2008, the situation concerning offals administration, is this way:

Domestic offals (tons)	30054
Stored offals (tons)	45835
Served population	93200 inhabitants
Biodegradable percentage	60%
Capitalized paper / cardboard	1341t
Capitalized plastic	249t
Year - closing the rubbish pit	2012
(the rubbish pit is not concordant, but it has a functioning notice until 2012)	

In the offals management domain, were identified the following major problems:

- the absence of the specialized campaigns for information of the population, which are meant to sustain the idea of minimizing the generating the domestic offals, of separate gathering, at the source, of the capitalizing components;
- almost total absence of the selective gathering systems for the recyclable offals generated by population;
- absence of separate gathering systems of the biodegradable green offals, yield to composting process. These could reduce the biodegradable stored component, diminishing stenches which persist on the platform place, diminishing both the liquid leakage quantities and the storehouse gas emanations;
- absence of arrangements for offals selective gathering from the population, bringing system. These could allow separate gathering and dangerous part, diminishing the risks of soil and waters contamination on the platform place.
- not weighing all the offals accepted in the platform, although there is an electronic weighing system in that place. This leads to errors in estimating the quantities and stored composition, with negative influence on establishing the best methods to reduce the un-treated stored quantities.

Synthetically, the environment factors characteristics for Botoșani municipality are stated in the following table 3.

The natural risks in Botoșani municipality are represented by areas exposed to ground slips, subsiding by ground wetting, floods by overflowing from water courses, leaking from torrents.

There were identified ground slips in the areas: Împărat Traian Street – Hatman Arbore Street; Mecanica area – Alcor; Pacea graveyard – going out to Curtești; Tulbureni district.

According to the General Urban Plan of Botoșani municipality the total approximated surface of the areas with ground slips is about 333 ha. There is only one ground slip established by drainage works and consolidations, situated on the western slope of the municipality at the exit on DN 29. The Town Hall of Botoșani municipality obtained a financing from the Environment Fund to consolidate this slope. The other edge slopes of the natural plateau, on which the municipality is situated, are affected by unstudied ground slips.

Tab 3 - The environment factors characteristics

Element	Characteristics	Pollution sources
AIR	Dust outrunning	S.C. Termica S.A., traffic, offals burnings, centrals heatings
WATER	Sensible at evacuation of used waters	Evacuation used waters, sewerage infiltrations, offals in impermissible areas
SOIL	Pb, Cr, Zn, Ni, Cu outrunning	Offals in impermissible areas, inadequate pre-gathering points, traffic, zootechnical residues

The urban development policies of the municipality must take into account the decentralization and durable development principle. The fundamental objective of durable development is the reconciliation between two human aspirations: the necessity to continue the economical and social development, but also the environment protection and improvement, as the only way for welfare both for the present generations and for the future ones.

The sector domains on which we put the accent and which will lead to a durable urban evolution, are the following:

a. The water supply and sewerage network

Botoșani municipality has a water source sufficient reported at a population which is not seen to increase significantly, has a regional operator with great force which leads to increase the chances for these funds, operator which has already implemented and it is in course to implement modernization and rehabilitation projects with European financing. The great problems which characterize the water supply system in Botoșani municipality and that must be first solved are, according to the Master Plan realized by technical assistance in the ISPA project, the following:

- water loss in the system is very big;
- many of the important distribution pipes are un-protected steel pipes, of bad quality and they have great loss;

- there are asbestos cement pipes in the distribution system which must be replaced;
- the controls of great capacity and valves in the system are insufficient to allow an efficient detection of loss and corresponding repairs;
- pluvial sewerage is poor.

The measure which must be promoted implies investments together with the regional operator for rehabilitation of the existing water supply and sewerage network and extension it in the purlieus (including the treatment and cleaning stations) in the inter-community association (with the accent on making an efficient network for gathering the pluvial waters according to the county domain policy).

b. Offals administration. Objective: implementing a selective gathering system of the offals at the same time with development of the civic citizens spirit. By its measures, the strategy can be oriented to an integrated offals management, by local intervention levels.

Measures:

- investments in building the ecological zone storehouse for offals, a system connected to the county policy for offals administration, which will respect the new environment conditions at the European level and which will replace the present existing storehouse which is not concordant and with forthcoming closing term;
- investments for implementing the selective gathering system of the offals in the municipality, with investments in the gathering platform, offals transport and their sorting and capitalization;
- investments for implementing the selective gathering system of the offals in the communes partners in the inter-community association, with investments in the gathering platform and offals transport;
- investments for establishment an offals gathering point for electrical and electronic (DEE) equipments in Botoșani municipality, which will serve at the same time the inter-community association, too;
- implementing a continue campaign to promote the development of the citizens' civil spirit concerning the offals administration, in order to correct the environment factors, to reduce the offals quantities, to raise the offals capitalization degree, to develop the civic behaviour oriented to the offals administration, too;

c. Water and air quality. Objective: continue monitoring and interventions in order to maintain / maximalize the water and air quality parameters.

Botoșani municipality doesn't have outrunning at the pollution indexes, being one of the cleanest towns in Romania, and there are not registered different effects after the economical agents activity. The main polluter is SC Termica SA, which has a conformation program with purposive in 2010 which concerns the

following aspects: noxious monitoring, used water monitoring, installations, burners. The main pollution source is traffic, especially in the central area.

Measures:

- investments together with APM to implement a modern system for monitoring the water and air quality, which will allow immediate reactions of the institutions responsible for diminishing and removing of the pollution sources and effects;

- implementing together with APM, continue campaigns to promote the using of non-polluting technologies by the polluters;

- introducing a local tax system on the principle “the polluter pays” in order to create a local fund to sustain the environment investments as compensation measures, and which will be used as a source for environment investments;

d. Natural risks. Objective: prompt monitoring and interventions in order to forestall and combat the natural risks.

Measures:

- realizing, together with APM and with institutions empowered for interventions in emergency situations, a plan of monitoring and combating the natural risks which must have as a component the civic implication and voluntary term;

- investments for implementing voluntary services for emergency situations at the communes level in the inter-community association, which together with the municipality institutions, will connect at the regional system for emergency situations.

e. Phonic pollution. Objective: continue monitoring of the noise level in the same time with the municipality development to outside for relief of the phonic polluted points over limits.

In Botoşani municipality the main source of phonic pollution is traffic, the noise indexes being outrun in the Centre and on Calea Naţională.

Measures:

Investments for implementing a modern system to monitor the noise level together with APM which allow rapid reactions of the institutions responsible for diminishing and removing the sources of phonic pollution effects;

Investments for realizing construction works - anti-phonic obstacles in the residential areas (individual or collective) and the areas very circulated, and industrial areas, as a facility factor of the environment and green spot.

f. Parks and green areas. Objective: parks and verdure spots care, especially the purlieus ones and those near the blocks of flats, and creating new ones to outside town, in the same time with development of the citizens’ civic spirit.

Botoșani municipality is a green town, being close to the European standard concerning verdure spot, (with 28.64 m²/inhabitant); it has parks and lakes, forests and verdure spots outside town. There are very important the verdure spots administrated by the Town Hall which has a satisfactory cleanliness degree for the citizens. But there are some poor problems identified which must be solved: verdure spots between the blocks of flats which belong to the lodgers associations are not cared, arranged and are dirty; many of them are transformed in parking lots even in the central area, but the civic spirit is desirable.

Measures:

- implementing a complex program together with the lodgers associations to arrange and administrate the verdure spots in the purlieu areas and those between the blocks of flats, in order to develop the citizen's civic attitude and to increase the citizens and especially children's comfort degree, actions in which can be attracted the business domain, too;

- investments for arranging and endowing children playgrounds in the districts, with safe equipments as the law in force foresees, in order to increase the comfort degree and children's development, actions in which can be attracted the business domain, too;

- investments for rehabilitation of Mihai Eminescu Park and Youth Park until reaching to the modern standards architecture and cleanliness standards, as a symbol of the town, in order to increase the comfort degree of the citizens and especially of the young, but also to increase the tourist activity;

- identification and investment in pleasure areas, in the inter-community association, at the modern architecture standards.

Implementing continue campaigns to promote the civic spirit development concerning maintaining the cleanliness of the verdure spots and their development – to create the feeling of respect for green and for future.

The development script, Botoșani municipality can follow, simultaneously, two parallel directions:

a. Botoșani - town (space) of Romanian culture and tradition (which transform Botoșani from a line-end town in a transit town by promoting some old objectives with modern ways / mechanisms); with this vision, first time, Eminescu will have to mean Botoșani and conversely;

b. Botoșani - town (knot) European border (which will give value to town commercial history and will transform the town, from a way-end town in a physical transit – commercial border and regional knot, commercial distribution base for the North East Region).

Conclusions

Because of its characteristics as historical town and taking into account the development perspectives of the municipality, there is necessary to highlight the following aspects:

- territorial, social and economical evolution must be correlated with all the complementary aspects and necessary to live, concerning the development policies of the services and technical-town networks, and also the transport and communications infrastructure;

- material, financial and spiritual capacities must be potentiated by the human competence and passion, by the implication degree of the local public administration authorities.

The essence of urban development of Botoșani municipality consists in outrunning the condition of municipality isolation and disappearance of the region idea improper for business domain. Economical increase is a lasting one when it is accompanied by measures to reduce the poverty, social exclusion and environment problems.

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