The economic valorization of local resources – solution of diminish the effects of global crises (case study – Bacau County)

Valorificarea economică a resurselor locale- soluţie pentru diminuarea efectelor crizei globale (Studiu de caz-Judeţul Bacău)

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Abstract

The current crisis requires us to become aware that the only economic-social development way is the sustainable one, meaning the one that takes into account the limits of the natural environment. A healthy economy cannot develop in a polluted and degraded environment, with a population which is poor, ill and stressed by natural and pollution risks. The crisis should be counteracted by rational sustainable investments, which should offer long term economic stability. The implementation of the investments proposed will be able to be made by using the local labour force, including the socially assisted people and attracting European money-Structural Funds-Operational Programmes. In the long run, such development focused on the capacity to produce and support the natural capital, will lead to the decrease in the damages to the environment, and in the local or central budgetary expenditure and to a stable autochthonous economy..

Keywords: *global crises, investments, resources, ecosystems*

Rezumat

Actuala criza, impune sa constientizam ca singura cale de dezvoltare economico-socială este cea sustenabilă, adică acea care ia în considerare limitele mediului natural. Nu se poate dezvolta o economie sănătoasă într-un mediu poluat şi degradat, cu o populaţie săracă, bolnavă şi stresată de riscurile naturale şi poluare. Criza trebuie contracarata prin investitii rationale,durabile care sa ofere stabilitate economica pe termen lung. Implementarea investitiilor propuse se va putea face utilizind forta de munca locala,inclusiv persoanele asistate social si atragerea banilor europeni-Fonduri Structurale-Programe Operationale. Pe termen lung, o asemenea dezvoltare calibrată pe capacitatea de producţie şi suport a capitalului natural, va conduca la diminuarea pagubelor aduse mediului şi a cheltuielilor bugetare locale sau centrale şi la o economie autohtona stabila.

Cuvinte-cheie: *criza globala, investiţii, resurse, ecosistem*

JEL Classification: Q56 , Q51, M21

Introduction

The county of Bacău has a wide diversity of ecosystems and soil and subsoil riches, being a representative county for Romania, both in terms of the ecologic-geologic and social-economic conditions in their evolution since 1990 until today. It can be appreciated that the solutions proposed for this county are solutions applicable to the other counties in the country too. The investments proposed aim at 3 major directions: Rebuilding the ecosystems, as payment of the debts to the environment, payment which, in the short run, will not bring profit but jobs; Refocusing the industry on the capacity to produce and support the natural capital of the county; Increasing the metabolism of the designed and built systems.

The ecologic and economic situation of the main local resources

1) Agricultural ecosystems of Bacău County, covering 32341 ha, share 48,84% from that total area of the county of which only 2,4% represents undegraded soils .

The main types of degradation being:

- salted soils – 4537 ha;
- marshy lands – 40988 ha;
- acidification – 80419 ha;
- land settling – 102815 ha;
- erosion – 200413 ha.

Causes leading to soil degradation are as follows:

a) Application of inadequate technologies and abandoning of land by owners, contributed to erosion and land settling processes;

b) By not applying fertilizers the soil quality decreased, acidification took place and its fertility decreased;

c) An important agricultural area (41.000 ha), respectively ⅛ has marshy soils, excessively moisturized, or marshy,

d) Reduction of soil capacity to retain water

Another factor contributing so obviously to the emphasis of the drought phenomenon and of floods is the reduction of soil capacity to retain water (CPA). The phenomenon itself refers to soil settling, and consequently to the decay of soil structure, alteration of water air ratio through the disappearance of large pores allowing water infiltration and its storage at the level of structural aggregates.

2) The surface area of the forest ecosystem in year 1990 was of 275,489 ha, representing 42% of Bacau County's area. After the restitution of about 65,000 ha, i.e. 23% of forest areas belonging to private owners, they exploited the forest through law-cuttings (figure 1), in an amount of about 9,600 ha year 2006, i.e. 3.4% of the restituted forest areas had been cleared. The consequences of this irrational exploitation of the county's forests (figure 2) induced the catastrophes which took place in the summer of years 2003, 2004 and 2005.The share of forests is very low in the planes, where the consequences of excessive climate conditions are acutely felt, especially of the severe droughts. For this reason of forestation of large areas in the planes is of crucial importance, with a view to contributing

to the improvement of climate conditions in those areas. The share of forests should reach 60% in mountainous areas, 50% in the hills and 20% in the planes. Density index in the county's forests is lower than the national one of 6.3 m/ha. The reduced accessibility is in part at the origin of the imbalance of forest distribution, the share of exploitable classes being 37% of the forest areas and of 50.49% of the wooden resources; it is reflected in the low share of secondary products, due to difficulties in carrying out cultural operations.

Had the growing stock not have the right accesses, the following consequences would result:

- the cutting plan would not be correlated with the forests' possibility, calculated as the forestry for each production unit;
- massive cuttings would be concentrated in the most accessible perimeters;
- intensive treatments for natural regeneration would have to be postponed;
- maintenance and hygiene works in the brush, could not be executed on all areas needing intervention;
- wood could not be timely exploited and implicitly valorized.

3) Mineral water reserves represent a real wealth for Bacau County. By their diversity in terms of chemical composition, their distribution all over the county, their therapeutic benefits (proved and probable) these resources may play an important role in the county's economy, contributing to its development (improving health conditions of the population, providing jobs etc.). Some of them are renewable resources (plain water for instance) with a stable domestic and external market, needing low investment for valorization.

Existing mineral waters can be divided in several groups depending on their contents in minerals, namely:

- natrium-chloride (alkaline) and alkaline/chloride, aerated;
- natrium-chloride, highly mineralized;
- natrium-chloride, iodized;
- sulphide or salted-sulphide;
- vitriolic.

4) Competitive external industries having the greatest weight within the county industrial production are those industries exerting high anthropic pressure on the environment: the industry of exploitation and primary processing of wood, chemical industry, and the industry of oil processing.

The proposals of valorization the level resources of Bacau County

1).For agricultural reformation, several radical measures are required in Bacău county, namely:

- From organizational point of view: stimulating the creation of some agricultural exploitations that exploit economically an exhausted soil at the limit of its through: specific fiscal facilities, education and professional formation of farmers, training of labour within associative and capitalizing systems, creation and implementation of the latest credit system based on performance criteria.

- Technically and economically: giving up unprofitable crops and promotion of profitable crops highly demanded not only for food processing but especially for the production of alternative energies. Therefore, we suggest an increment in area of rape, soy sorghum (mainly in the southern and eastern parts of the county). Energetic crops may bring incomes equivalent to 36 barrels of oil /ha = 1200-1500 USD.

Giving up crops cultivation on eroded areas, by establishing a system "of protected green area" for at least 3 years, and after that animal grazing may be introduced. These green areas are subsidized (compensatory payments from EU). Development of bushy fruit trees culture mainly on acid soils (particularly blueberry bush) that have a market on export. Development of integrated and sustainable agriculture by taking into account the areal management described above, by considering the correlation of agricultural production with the existent market and in interventions in monopoles and free access on the market for certified producers.

2) The management of wooden resources in terms of ecological, economic and social performances should be conducted along the following main lines:

- reconstructing the forest ecosystems by recreating the integrity of existing forests and in the meantime increasing the forested areas;
- orientating wood processing industry toward the county's needs, namely: building ecological wooden houses. Creating small wood-processing enterprises associated with other categories of productive activities;
- using waste material for thermal and electric energy production in areas of concentration of such materials;
- internalizing negative externalities through cooperation between research and design, among economic agents, between various levels of production, chain collaboration of technologies along the whole life-cycle up to the end of it;
- issuance of the environment permit for economic agents in the fields of forestry and wood processing subjected to their capacity to eliminate all negative externalities and specifically document the rational management of wooden waste.

3) The Western part of the county is an area with great potential in berries, which are not being processed within the county but marketed on external market, and a wide array of herbs and aromatic plants that are not valorized either.

An eco-industrial park in the Comanesti area dedicated to forestry would be a development alternative which could contribute to a higher degree of processing the forest resources, to the development of transport infrastructure in the area, an incentive for the development of agro-tourism, health-care-, hunting-, cultural- and historic tourism. This would also be a solution to stop the pillage currently taking place on the Trotus Valley.

4) Mineral waters of a wide variety are one of the riches of the county: plain oligomineral waters, sulphurated, sodium carbonated, ferruginous, vitriolic, iodated etc. A number of about 100 springs wait for valorization; their therapeutic properties were certified as far back as 1971 by the Healthcare Research Institute.

Local public authorities should advertise them to potential entrepreneurs and valorize them for the public benefit of the county, and family physicians could make specific recommendations in each locality.

On the other hand, rural tourism could also benefit from a mineral water spring. In certain areas (Moinesti, Lucacesti, Lunca, Slatina, Sarata) springs are completely abandoned. Their inclusion in a circuit of health-care tourism should be preceded by the ecological reconstruction of the respective areas and the development of recreation services (telecommunication, restaurants, treatment

5) The introduction in the economic circuit of recyclable materials needs the support of the authorities for their collection, storage (in compliance with the legislation), and incentives and financial support for private investments from local funds for the re-processing of used materials.

Waste industry creates new professions and industries; albeit raw materials are just rezidues, their processing requires training and high performance equipment.

The industry of recycled materials provides new jobs for collecting, cleaning, processing and re-processing, actually new investment.

The newly created industries are capable to support themselves, in the meantime cleaning the environment. The implementation of recycling and re-conditioning industry contributes to the urban metabolism (by means of urban-waste treatment: incineration with energy recoup, recycling, compost for bio-gas and organic fertilizers).

Most new jobs will be created in the fields of planning and designing (re-designing) new products and in the new industries, as well as in production of equipment.

As we proceed towards environmental efficiency, mining and manufacturing industries will have to be significantly reduces. By the systematic reduction of waste flows through recycling and re-utilizing most of the materials, a clean, liveable environment will be created.

Bibliography

Constantinescu, L., Gheorghe, A., Stănescu, V., Stănescu, G., Zamfirescu, F. (1971). *Studiul resurselor de substanţe minerale utile din judeţul Bacău,* Bucureşti, Institutul de Petrol, Gaze şi Geologie – Facultatea de Inginerie Geologică şi Geofizică,

Gâf,-Deac I. (1997) *Management şi Marketing pentru resurse naturale ,* Bucureşti, Editura Tehnică

Răducanu, V. (2000). *Economia resurselor naturale,* Bucureşti, Editura ALL BACK,

Stoica, M., Berca, M., Rojanschi, V., Manea, Ghe., Radu, I. (2004). *Capitalul natural-antropic al jud. Bacău în perspectiva elaborării strategiei de dezvoltare durabilă,* Editura A.S.E., Bucureşti