

STRATEGIES FOR SUSTAINABLE DEVELOPMENT OF AGRICULTURE IN TERMS OF CLIMATE CHANGE AND ENVIRONMENTAL PROTECTION IN TURDA-CAMPIA TURZII AREA

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Abstract

A Local Development Strategy is an administrative instrument that contains the most relevant future investments at community level, an important step made by local authorities which enable knowledge by all stakeholders of the existing situation in the community and establishing common priorities. Due to the necessity of a better foundation, specialists were involved in project elaboration and local community was consulted for the achievement stage. Horizontal planning it seems to be very efficient regarding the development of rural communities. Agriculture and animal husbandry in Săndulești commune represent the major fields of activity of inhabitants. In order to maintain quality life and environmental protection of inhabitants of Săndulești commune preservation and protection of the environment is very important. At each farmland and animal holding It requires a proper management and use of fertilizers both for economic reasons and the requirements of environmental protection.

Key words: local development, country side, preservation, agriculture, environmental protection

INTRODUCTION

A Local Development Strategy is an administrative instrument that contains the most relevant future investments at community level. The Local Development Strategy 2015-2020 in Săndulești commune is a document that synthesizes the existing situation and the future proposed actions, based on public opinion consultation.

The importance of the strategic plan for development consists in the possibility of identify and answer concretely to the needs of the territory.

The general objective established for Săndulești commune is to adopt new directions of economic and social development and to insure a more effective way for the public administration activity by attracting grants for implementing investments projects.

Settlement

Săndulești commune is located at 35 km from city-residency of Cluj-Napoca county and at 6 km from Turda city, in southern area from Cluj county at 454 m altitude, in Turda-Campia Turzii depression. The commune includes two villages, Săndulești and Copăceni, located at 2 km from each

other. The commune residency is Săndulești. Copăceni village is crossed by European Road E60 and Săndulești village is crossed by County Road CD107. Also, the territory of the commune is crossed by Borș-Brașov Highway, which is under construction.

Slope located on the commune territory have a small and very small altitude. Hills are deforested, predominating areas with pastures and meadows.

Agriculture and animal husbandry (table 1 and 2) represent a major field of activity for the citizens, but also for the local economic agents that activate in the area of Săndulești commune.

Table 1.

Agricultural land situation from Săndulești village

Specific area	ha
Arable	1020
Pastures	696
Hayfields	144
Total Vineyard	0.17
-vineyard on fruit	0.17
Total Hop	
-Hop on fruit	
Total Orchards	56
-Orchards on fruit	56
Fruit bushes	
-Fruit bushes on fruit	
Total agricultural area	1916.17
Forestry	84
Waters	21
Roads	58
Constructions	125
Unproductive land	38

Table 2.

Livestock effective from Săndulești commune

Animal categories	Nb. producers	Nb. heads
Bovines	20	800
of the queen		750
Swine	180	360
of the queen		90
Sheeps	11	3250
of the queen		2000
Goats	3	400
of the queen		400
Birds		4500
of the queen		4500
Horses	17	17
of the queen		17
Bee families	3	80

In order to maintain quality of life and to protect the health of inhabitants from Săndulești commune is important to preserve and protect the environment and the ambient. The monitored pollutants, the methods of measurement, limit values, alert thresholds and information and the location criteria of monitoring points are established according to national legislation regarding the protection of atmosphere and are complied with the requirements provided by European regulations.

In the past years, once with the considerable reduction of the industrial activities near Turda-Campia Turzii, monitoring the atmosphere pollution was made more rare. With all this, according the inhabitants, the location near to the main road, limestone exploitation and building highway have led to a decrease a quality parameters of this environmental factor. The contamination of surface water from Săndulești territory can lead to groundwater pollution and decreased quality of drinking water.

Regarding soil quality, it can be said that this environmental factor present favorable characteristics, which is why agriculture is practiced extensively in the commune. Soil is characterized mainly by moderate acidity, high humus content and rich in microelements, phosphorus, mobile potassium and nitrogen. Maintaining soil quality is an important aspect for the commune. Mainly, a healthy soil ensures fulfillment of the basic functions like support for plants, bio-productive capacity and source of food.

The analyze of local strategy also reveals the problems from Săndulești commune, as follows:

✓ *Regarding agriculture:*

- areas that need afforestation
- areas with landslides and flooding areas
- territories suitable for practicing agriculture are limited
- individual give the land in lease to companies and territories from public domain are given in concession
- farmland and animal holding, even if are developed, need new equipment to be more efficient
- companies that collect agricultural products pay very bad
- there aren't collection points for agricultural and livestock products
- marketing products is made individual and in a haphazard way
- the wood is mostly operated illegally and used for the household heating
- there are many uncatalogued territories
- informing farmers about the possibilities of development is not enough

- at commune level are approximately 13 km of agricultural roads that need rehabilitation
- there is a forestry road that needs rehabilitation
- illegal logging
- the practice of arson destroys farmland fauna
- the massive import of agricultural products and lower prices than local market
- there isn't a collection point for sheep wool

✓ *Issues regarding environmental protection:*

- sanitation services are unsatisfactory, garbage is not picked up often enough;
- there is no container for the selective collection;
- lack of information and awareness program for the selective collection;
- in commune in no sewage on a stretch of about 6 km;
- Copăceni sewage is introduced, but still does not work.

MATERIAL AND METHOD

The importance of the strategic development plan lies in the ability to identify and respond concretely the local needs, therefore a number of projects are proposed for their resolution, based on certain directives and legislation enacted:

- ✓ Rehabilitation farm and forest roads
- ✓ The sewerage connection in all common areas and residents
- ✓ Proposing and implementing a strategy to attract investors in a commune
- ✓ Establishing a center for selective waste collection
- ✓ Stimulation of agriculture and animal husbandry by:
 - grouping of zootechnicians and farmers in associations
 - development of information and awareness campaigns for farmers on the opportunities for development of agricultural exploitations
 - tabulation of agricultural land
 - setting up a milk processing point or canned fruits and vegetables
 - setting up a collection center for agricultural products and livestock
 - opening a market which is within the village, but near Turda
 - establish a fair with traditional products
 - stimulating rural tourism

For the implementation of these projects will involve several institutions and forecasted numerous sources of funding:

- Village Hall Sandulesti

- City Council Sandulesti
- Company management consulting and acquisitions
- National Rural Development Programme
- The Regional Operational Programme
- Local buget
- Cluj County Council Funds
- Governmental Funds
- Sponsorship and grants
- National Rural Development Programme

RESULTS AND DISSCUSIONS

After analysing the methods and materials above and also based on the projects that will be implemented or started developing, the following results are expected:

- the economical-cultural and social developing of Săndulești community
- the mobilization of all existing resources and also an efficient and professional utilization by respecting the principles of sustainable development
- the continuous extension and growth, including on international markets, of manufacturing industry and services with high added value.
- restructuration and consolidation of agricol explotaitions in order to increase competivity and durability and also to improve business environment and attract investments.
- ensureing a durable growth by promoting en efficient economy, more ecological and more competitive from the point of view of utilization of resources.
- improving the quality of groundwaters and surface waters
- conservation of biodiversity and wild fauna;
- improving the human health;
- reducing soil erosion and improving the quality and soil structure;
- competivity growth among farmers

CONCLUSIONS

The local strategy development represents an administratif instrument wich establish the most relevant future investments for the community. An important step made by public local authorities which allows all interested entities to know the situation and establish common priorities in the community.

Agriculture and livestocking are one of the most important activities in Săndulești village.

The general objective established in Săndulești village is to adopt some directions of economical - social development and to increase efficiency regarding public authority administration by attracting grants in order to implement investmental projects.

In order to maintain the quality of life in Săndulești village an important aspect is represented by local conservation and protection of the environment.

Regarding the quality of soil, we can say that this factor represents positive features, this being one of the main reasons for which agriculture is being practiced at extensive level.

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