PRINT ISSN 2284-7995, E-ISSN 2285-3952

# A SOCIO-ECONOMIC ANALYSIS OF THE RURAL AREA IN THE WESTERN REGION

# Nicoleta MATEOC-SIRB, Teodor MATEOC, Camelia MĂNESCU, Ada-Flavia CRISTINA, Caius GOȘA, Ioan GRAD

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine Timisoara, Calea Aradului 119, Timisoara, Romania, Phone 0040277430

#### Corresponding author: mateocnicol@yahoo.com

#### Abstract

The analysis presented in this paper points out the fact that we need to make fundamental improvements in the Western Region if we want to be able to face the future challenges generated by new investments with a view to increase economic activities, to improve institutional activities, and to make short-term specific investments in both human resources and infrastructure. The authors of this paper have reached the conclusion that the Western Region needs investments in the business environment in both developed areas and underdeveloped areas or unfavoured areas.

Key words: analysis, development, infrastructure, region, rural area

# **INTRODUCTION**

The Region West has known a quick economic growth before the vertiginous crisis at the end of the 2000s. Despite all this, economic expansion has not lead to increases of the employment rate; it increased inequalities between different areas in the region.

The Region West is the second representative region of Romania, with a GDP 13% higher than the national average but much lower than that of the Capital city, Bucharest. The Region West was the region with the quickest growth rate during 2000-2007 and, together with Bucharest, the region with the highest growth of the decade. In fact, compared to other regions in Europe, the Region West was a winner in the last decade.

Overall, economic growth of the Region West contributed to a significant convergence with the mean of the European Union (E.U.). However, the gap between it and Europe is substantial: its GDP per capita from the point of view of the purchase power) is still less than half of the E.U. mean.

# MATERIALS AND METHODS

The research methodology includes a bibliographical study (scientific documentation) in several steps: source information, data collection, study of documentary sources and their classification, evaluation and study of documentary sources. The main method the authors have used is content analysis.

# **RESULTS AND DISCUSSIONS**

# a) Rural Area in the Region West

The rural area is the land area where predominate crops, forests and green areas, that relies on a predominantly agricultural society. Etymologically, *rural* comes from the Latin *rus*, meaning crop, fields, land that is occupied, inhabited, worked and managed by man.

In Romania, most of the labour force of a rural locality works in agriculture, forestry and fishery, supplying a specific and viable lifestyle for its inhabitants; modernisation policies will allow it to preserve its rural specificity in the future. From the point of view of administrative-territorial units, on December 11, 2011, there were, in the Region West, 12 municipia, 30 towns, and 281 communes with 1,327 villages.

As far as the residence environment is concerned, about 37.2% of the population in Region West lived in the rural area; at national level, in 2011, about 45.1% of the total population lived in the rural area, which

PRINT ISSN 2284-7995, E-ISSN 2285-3952

means that Region West had a lower concentration of the population in the rural area than at national level.

Table 1. Rural localities in region West per counties (2011)

(2011)		
County of the	Communes	Villages
Region West		
Arad	68	270
Caraş-Severin	69	287
Hunedoara	55	457
Timiş	89	313
REGION WEST	281	1,327
ROMANIA	2,861	12,957

Source: INS – Anuarul statistic al României, 2012

#### **b)** Demographics

In Region West, in 2011, **population density** was **59.7 inhabitants/km**<sup>2</sup>. There are, in the field, two models of population distribution and two area types, respectively: an area more intensely populated, in the west, particularly in the periurban area, and a less populated area, in the mountain area, where population density is much below 30 inhabitants/km<sup>2</sup>.

Table 2. Share of the population depending on residence environment (2011)

County/ Region	Total population	Urban population	% urban	Rural population	% rural	Density
Region	population	population	urban	population	Turai	
Arad	455,126	250,742	55	204,384	45	58.7
Caraş- Severin	320,391	179,575	56	140,816	44	37.6
Severin						
Hunedoara	459,967	352,569	76.7	107,398	23.3	65.1
Timiş	678,347	418,109	61.6	260,238	38.4	78
Region West	1,913,831	1,200,995	62.8	712,836	37.2	59.7
Romania	21,413,815	11,778,195	55	9,635,620	45	89.8

Source: INS – Populația României pe localități la 1 ianuarie 2011

In the rural area, the natural growth of the population is, in general, lower than in the urban area, i.e. -5.8% compared to -2.5% in the urban area. At county level, there were values below the regional mean in the counties of Hunedoara (-9.7‰) and Caraş-Severin (-8.5‰), and values above the regional mean in the counties of Arad (-5.3%) and Timiş (-3.2‰).

The sold of internal migration in Region West was positive in 2011; it was, together with Region North-West and București-Ilfov, among the only regions with a positive sold of internal migration (total departed and arrived), which denotes the attractiveness of the region within the national area.

Taking into account the structure per ages of the rural population, the current death rate seems to have reached its peak. In the future, there seems to be some relative stagnation and then a slight decrease of the death rate.

Though it might seem paradoxical, the current level of death rate will lead to a rejuvenation of the population: thus, in 2015, rural population will be much younger, but less numerous that at present.

# c)Agriculture in Region West. General Data

At national level, Region West has 12.80% of Romania's agricultural lands, with an important valorisation potential.

In Region West, there are certain differences at county level: thus, agricultural lands in the counties of Arad and Timiş are superior to those in the counties of Caraş-Severin and Hunedoara; the explanation is that the former benefit from the potential of the Western Plain, while the latter are dominated mainly by hills and mountains, but have high forest resources.

# d) Structure of Agricultural Lands

At regional level, there are two categories of ownership, i.e. small lands (below 20 ha), not competitive and valorised for one's own production, and lands above 50 ha, well technologised (in general, owned by large companies) on which they practice highproductivity agriculture.



Fig. 1. Agricultural areas per use categories (2011) Source: INS – Anuarul statistic al României 2012

PRINT ISSN 2284-7995, E-ISSN 2285-3952

In 2011, the agricultural area of the region was 1,868,417 ha (12.80% of Romania's agricultural area).

As for agricultural land use categories, there are differences between the regional and the national levels.

The specificity of the natural landscape determines the individualisation of certain agricultural activities. Thus:

-The western area of the region (overlapping the Western Plain) as well as the Mureş Passage (the Deva area up to the Haţeg Depression) is remarkable for the large share of arable lands favourable to cropping (particularly cereals) and animal raising;

-The hill area (Lipovei Hills, Pogănișului Hills) and the passage and depression areas (the Bistrei Passage, the Cernei Passage, the Hațeg Depression, the Zărandului Depression, the Brad-Hălmagiu Depression) are favourable to fruit cultivation and particularly favourable to grapevine cultivation.

-The mountain area (particularly in the counties of Caraş-Severin and Hunedoara) are remarkable for the large share of grasslands and haymaking fields, favourable for animal raising.

# e) Plant Cultivation

As for agricultural production in Region West, it is mainly vegetal. Agricultural production represents 10.64% of the total national production and 69.6% of the total regional production; it is more developed in the counties of Timiş and Arad.

Table 3. Agricultural production
----------------------------------

Agricultural branch,	2011 (thousand	%
of which:	RON)	
Vegetal	5,664,685	69.6
Animal	2,423,474	29.8
Agricultural services	53,213	0.6
TOTAL	8,141,372	100
Private ownership	7,873,546	96.7

Source: INS – Anuarul Statistic al României 2011

Cereals are the most frequently cultivated in Region West. At county level, the highest productivity is in the Timiş County— 1,416,496 t, Arad County—926,607 t, Caraş-Severin County—182.569 t and Hunedoara County—119,986 t.



Fig. 2. Evolution of cereal production during 2005-2011

Source: INS – Statistică teritorială 2012, Anuarul Statistic al României, 2012

In Region West, they have chosen to cultivate potatoes and sugar beet because they are staple foods in the area. In 2011, potato production reached 366,713 t, an amount inferior to that of 2005, when production was 20% higher.



Fig. 3. Evolution of potato production during 2000-2011

Source: INS – Statistică teritorială 2012, Anuarul Statistic al României, 2012

In Region West, **sunflower** production is superior to that of 2005; starting with 2009, sunflower production increased constantly in the region.

Sunflower production is rather modest in Region West (114,047 t): thus, the region ranked  $5^{\text{th}}$  among other development regions. Mean production per ha in sunflower 2,166 kg/ha, being superior to the national mean.

In Region West, in 2011, **vegetable** production was above the level of 2005; there was no clear trend, but rather a fluctuation of the production, as in most crops; vegetable production decreased during 2008-2010 but increased later on to 434,772 t.

In Region West, the area of **fructifying vineyards** is 8,400 ha, of which most are in the counties of Timiş and Arad.

PRINT ISSN 2284-7995, E-ISSN 2285-3952

Among the most important viticultural areas in the Arad County are the Aradului Vineyard, the Măderat-Bocsig area and, in the Timiş County, the Recaşului, Buziaşului, and Sânnicolaului Mare areas.

In the counties of Caraş-Severin and Hunedoara, the areas of vineyards are smaller; however, we need to remind the areas Berzovia-Doclin, Ciclova Română in the Caraş-Severin County.

In the Hunedoara County, though there are some vineyards, their areas are small and only within households.

County/Development region	Vineyards and viticultural nurseries (ha)
Arad	3,746
Caraş-Severin	772
Hunedoara	-
Timiş	3,882
Region West	8,400
Romania	211,347

Source: INS – Statistică teritorială 2012

Region West has important traditions in the cultivation of grapevine: it is spread mainly in the counties of Timiş and Arad, but also in the Caraş-Severin County.

However, after 2005, grape production fluctuated: in 2011 the grape production reached 20,566 t, much above the level of 2005 but, after 2009, when there was a record production of 30,062 t, grape production decreased constantly.



Source: INS – Statistică teritorială 2012

In 2011, total **fruit** production was, in Region West, about 126,877 t, i.e. a little above the level of 2010, but much below the level of 2005, when production was about 25%

higher.

# f) Animal Husbandry

Animal production represents the second branch of agricultural production in the Region West, with a production reaching, in 2011, 2,423,474 thousand RON, i.e. 11.12% of the total animal production of Romania.

Animal production in Region West is characterised by the following: 4,194,000 hl milk, of which 3,554,000 hl cow and buffalo cow milk, 2,468 t wool, 505,000,000 eggs, and 3,512 t of honey.

Table 5. Animal production in Region West (2011)
--

Specification	Live weight (t)	%
Beef	15,742	8.3
Pork	134,815	71.5
Mutton and goat	15,095	8.00
Poultry	22,927	12.2
TOTAL	188,620	100
		10

Source: INS – Anuarul Statistic al României 2012

# g) Population Active in Agriculture

Of the total population employed in agriculture in Region West (811,000 people), 141,000 (i.e. 17.3%) carry on activities in agriculture. Among the causes of the decrease of the share of population employed in agriculture are retirement of old people from agriculture, small incomes from the sector (which make it unattractive for the youth), low rural investments that absorb younger labour force, etc.

As for the population employed in agriculture per age groups, only a small share of the young population carries on activities in the sector.

# i)Specific Infrastructure

The park of agricultural machines in the Region West is superior to the national mean (it is the third region from this point of view with its 70,619 equipments), being outnumbered by Region North-West with 75,097 equipments (2<sup>nd</sup> rank) and Region South-Muntenia with 88,791 equipments (1<sup>st</sup> rank) in 2011.

The arable land in Region West represents 11.6% of the total national land area, while the park of agricultural machines in Region West represents 14.9% of the total park of agricultural machines in Romania.

PRINT ISSN 2284-7995, E-ISSN 2285-3952

#### j)Forestry

In 2011, in Region West, the area covered by forests and other lands covered by forest vegetation represented 34.5% of the total area of the region.

 Table
 6. Park of tractors and main agricultural machines in Region West

Specification	2010	2011
	(pieces)	(pieces)
Physical agricultural tractors	27,891	28,755
Ploughs	20,630	21,772
Mechanical cultivators	4,784	4,943
Mechanical sowing	10,234	10,209
machines		
Mechanical spraying and	215	245
dusting machines		
Cereal self-propelled	3,557	3,376
combines		
Harvesting self-propelled	100	112
combines		
Cereal self-propelled wind	72	75
rovers		
Straw and hay bale pressing	985	1,132
machines		
Arable area per physical	39	-
tractor (ha)		

Source: INS – Anuarul Statistic al României 2011, 2012

At regional level, during 2000-2010, the forest areas increased. At county level, the highest increase was in the Caraş-Severin County—19,488 ha more, then the Arad County with 6,927 ha more, the Hunedoara County with 3,160 ha more, and the Timiş County with 2,858 ha more.



Fig. 5. Evolution of forest areas in region West (2005-2010)

# CONCLUSIONS

In order to re-launch economy in the rural area of Region West, we need to take the following measures per development areas:

# a) rural development:

-Stopping the decline of traditional life;

-Recovering traditions in the rural area, traditional trades and crafts;

-Diminishing the poverty level in unfavoured rural areas.

#### b) **agriculture**:

-Producing relatively constant vegetal production;

-Reducing crop fragility in case of extreme climate phenomena (drought, lack of rainfall); -Increasing soil quality;

-Introducing medicinal and technical plants (much demanded on the market) into cultivation;

-Reaching quality standards with a view to integrate on the European markets and reach the standards of the great traders on domestic markets;

-Diminishing massive imports of agricultural products;

-Developing an informational network in agriculture and forestry;

-Developing works meant to control soil erosion and land glides and stopping massive lumbering;

-Valorising agricultural production properly;

-Increasing the knowledge of legislation in agriculture and the opportunities of accessing EC funding;

-Increasing entrepreneurial spirit and climate. c) forestry:

-Increasing responsibility in preserving and managing forests sustainably;

-Exploiting forests reasonably and reducing land glide risks;

-Observing current regulations in forestry to protect private heritage.

# d) demographics:

-Increasing labour force renewal chances;

-Taking measures to attract labour force and young population to the rural area;

-Ensuring decent living conditions in agricultural area;

-Taking measures to increase employment offer in the rural area;

-Stopping youth migration from the rural to the urban areas and/or abroad.

# e) rural tourism:

-Developing policies regarding the

PRINT ISSN 2284-7995, E-ISSN 2285-3952

conservation of some tourism potential sites in the rural area (mills, houses, equipments, etc.);

-Increasing the quality of services in the rural area;

-Using all rural tourism opportunities.

# f) industry:

-Increasing the confidence of the inhabitants of the rural area in carrying on nonagricultural activities;

-Increasing the interest of the investors in the rural area.

# g) society:

-Reducing the number of dropouts ;

-Eliminating social issues caused by industry restructuring.

# h) ecology:

-Developing proper policies in environmental protection;

-Eliminating the permanent risk of degrading environmental factors and improving legislation in the field;

-Stopping massive lumbering.

# REFERENCES

[1]Davidovici, I., Gavrilescu, D., 2003, Politica agricolă și de dezvoltare rurală în dezvoltarea economică a României, Ed. Academiei Române

[2]Mateoc-Sîrb Nicoleta, 1999, Exploatația agricolă, Ed. Agroprint, Timișoara

[3]Mateoc-Sîrb Nicoleta, 2004, Dezvoltare rurală și regională în România, Ed. Agroprint, Timișoara [4]Man T.E., Mateoc-Sîrb Nicoleta, 2007, Dezvoltarea rurală și regională durabilă a satului românesc, Editura Politehnica, Timișoara

[5]Mateoc-Sîrb Nicoleta, Ungureanu, G., 2010, Dezvoltarea regională și rurală. Evoluții și tendințe, Editura Mirton, Timisoara

[6]Otiman, P.I., 1997, Dezvoltare rurală în România. Ed. Agroprint, Timișoara

[7]Otiman, P.I., 2000, Economie rurală II, Ed. Agroprint, Timișoara

[8]Otiman, P.I.,2002, Agricultura României, Ed. Agroprint, Timișoara

[9]Otiman, P.I., Goşa, V., Mateoc-Sîrb Nicoleta ET AL, 2006, Dezvoltarea rurală durabilă în România, Editura Academiei Române

[10]Otiman, P.I., Mateoc-Sîrb N., Mănescu, C.,2013, Economie rurală, Editura Mirton, Timișoara

[11]INS – Anuarul statistic al României 2010

[11]INS – Anuarul statistic al României 2010 [12]INS – Anuarul statistic al României 2011

[12]INS – Anuarul statistic al României 2011 [13]INS – Anuarul statistic al României 2012

[14]http://www.adrvest.ro

[15]http://www.madr.ro