### ANALYSIS OF STATISTICAL DATA CHARACTERISING THE ECONOMIC-SOCIAL INEQUALITIES (DIAGNOSIS) IN THE REGION SOUTH – MUNTENIA – INFRASTRUCTURE AND HOUSING CRITERIA

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#### Abstract

This paper is structured in two parts. In the first part we did an analysis of the statistic data which characterizes the economic - social inequalities from the region South – Muntenia from the point of view of infrastructure – housing criteria, and in the second part we achieved the SWOT analysis for the analyzed region in the criteria of infrastructure and housing in the view of delimitating and building the regional profile of the disadvantaged groups from the rural area.

The requirements for an improved rural infrastructure are evident and through upgraded water supply systems, through sewerage systems, must be resolved some serious social problems that exists in rural areas at the regional social level. Investments in such rural infrastructures can also support reduction of high level infant mortality.

In the same time eliminating the negative effects arising from the existence of an inadequate physical and social infrastructure will also lead to a diversification of rural activities.

Developing and upgrading physical and social infrastructure is a first step that must be taken, leading on one hand to an increasing of rural activities, and on the other hand penetration of private capital on the agricultural market.

Keywords: infrastructure, housing quality, rural environment, economic development

#### JEL Classification: Q10, R10, R51

#### Introduction

The South region is located in the south of Romania, with an area of 34.453 km<sup>2</sup> (14.45 % of Romania's surface), corresponding the counties Argeş, Călăraşi, Dâmbovița, Giurgiu, Ialomița, Prahova and Teleorman.

Currently within the region, road transport, being for the last years in constant development, tends to become a leader in the field amid the decline of rail transport.

Crossed by four international roads and by the future highway Constanța – București – Oradea – part of the pan-European transport network, the region has a good national and international opening.

The national road network, largely modernized, ensures a good communication especially between urban centers in the region.

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# 1. Analyses of statistical data characterizing the economic – social inequalities

1.1. Access to road networks

Quality of road network

Communication with the territory of the country located within the Carpathian arc is provided by four couloirs, namely:

- Prahova Valley (road and rail)
- Olt Valley (road and rail)
- Rucăr Bran (road)
- Transfăgărăşan (road- accessible only during summer)

The region has an European public road network, national and county with a length of 12 051 km. Compared with the technical estate, in generally satisfactory of the national roads, the county and local ones with a share of 77, 31% are mostly inadequate, fact which impede or make hard the traffic, this having a major negative impact particularly in rural areas.

Road transport is supported by rail one, from the region's rail network making part 4 main artery which make connection with all historical regions: Moldova, Dobrogea, Transylvania and Banat.

In the region is not functioning any civilian airport for passenger and cargo air transport, but is beneficing of the services at largest airport in Romania – București Otopeni, located at minimum 60 km and maximum 120 km from the county capitals in the region.

	2000	2003	2006
Public roads – total:	11818	11805	12051
Modernized	3199	3295	3525
• With light road asphalt	3260	3319	3681
National roads*:	2502	2515	2734
Modernized	2440	2457	2609
• With light road asphalt	60	46	93
County and local roads:	9316	9290	9317
Modernized	759	838	916
• With light road asphalt	3200	3273	3588
Public roads density on 100 km <sup>2</sup>	34,3	34,3	35,0

Table 1. Public roads in South Muntenia region in the period 2000-2006

\* Including highways and European roads Source: Statistical Yearbook of Romania, INSSE.

The length of the public roads at the end of 2006 was of 1 052 km, increasing from the years 2003 and 2000, when the length of the public roads was of 11 805 and 11 818 km.

In the structure of the public roads network, the national roads whose length was of 2734 km, in the year 2006, having a share of 22,69%, the remaining 77,31% are county and local roads.

In terms of technical aspect the most county and local roads are inadequate, which determines that the access of rural population from some communities (especially in the southern region) at the national roads network to be quite low.

The share of national roads in total public roads increased in the year 2003 comparing with the year 2000 from 21,17% to 21,30%, amounting in 2006 - 22,69%, while the share of county and local roads has reduced in the year 2003 comparing with the year 2000 from 78,83% to 78,70%, and in the year 2006 arrived to 77,31%.

Public roads density is in the year 2006 of 35,0 km/100 km<sup>2</sup>, increasing by 0,7 km/100 km<sup>2</sup> from the years 2000 and 2003.

The technical estate of the public roads network is generally poor, modernized roads with a length of 3 525 km representing 29,25% from their total length, and the ones with light road asphalt coat 30,55% (3681 km).

The national roads within the region are modernized up to 95,43%, and the county and local ones 9,83%.

The existing road network and the geographical position of the region provide a good internal and international opening.

The main international roads crossing the region, and facilitating the access from and through it at national and international level are:

- E70 București Pitești Craiova Timișoara
- E60 Constanța București Ploiești Brașov Oradea
- E85 Giurgiu București Bacău Suceava
- E81 București Pitești Sibiu Cluj-Napoca Satu-Mare
- E574 Bacău Onești Brașov Pitești Craiova

The region benefits also from the advantages offered by the motorways A1 (Bucuresti – Pitesti) and A2 (Bucuresti – Constanta).

The link with the main sea gate of teh country Constanta and the access to it over the Danube river, is provided by the rail road bridge Fetesti – Cernavoda and by the road bridge Giurgeni – Vadu – Oii.

The region benefits of checkpoints and border crossings with Bulgaria for auto and rail traffic, located in the counties of Teleorman, Giurgiu and Calarasi.

Of all the most important is the check point cross border and customs terminal for goods Giugiu – Ruse, through which, due to rail road bridge is ensured the link between the countries of north-western and central Europe and the Middle East.

1.2. Municipal technical equipment

Share of the localities where natural gas is distributed.

Public utilities, due to their major role in reinvigorating the region and increasing its economical performances, requires special attention, providing and improving them contributing to the region's economic development, improves the inhabitants standard of living and to protect the environment.

Thereby, the region's urban centers, real poles of economic and social activities concentration and in the same time leaders of the changing process, requires multiple interventions to ensure the upgrading and extension of public utilities.

However, insufficient, and often, the lack of public utilities from the rural area, requires major investments in this area with the purpose to ensure to the rural communities the optimum conditions for socio-economic development and in order to facilitate their presence and active participation to region's economy.

Regarding natural gas supply, within the region are connected to the national gas distribution system a number of 133 localities, in the year 2006, representing 17,18% of country's total, of which 90 were from rural villages areas.

The length of the gas distribution network at region level is about 3 792 km.

## Table 2. Localities where natural gas is distributed in the region South Muntenia in the period 2000 – 2006

	2000	2003	2006
Number of localities where natural gas is distributed - total:	94	146	133
• rural	64	116	90
Localities share where natural gas is distributed - total:	17,34%	11,96%	17,18%
• rural	17,16%	11,16%	16,36%

Source: TEMPO – ON LINE Data base, INSSE.

Localities share where natural gas distribution declined in 2003 compared with 2000 both per total, from 17,34% to 11, 96%, and also in rural areas, from 17,16% to 11,16%. This share reduction was achieved on the base of the increasing localities where natural gas is distributed both per total, from 94 to 146, and also in the rural area, from 64 to 116.

In 2006 the share of localities where natural gas is distributed increased in 2006 compared with 2003 both total, from 11,96% to 17,18%, and also in rural areas, from 11,16% to 16,36%. This share increase was achieved on the fond of localities reduced number in which natural gas is distributed both per total, from 146 to 133, and also in rural areas, from 116 to 90.

Overall length of the simple distribution of drinking water

Most localities in the region are supplied with water in centralized system, supplying sources being surface water and groundwater.

From the total of 557 localities (cities, towns, villages) of the region, 305 are equipped with centralized drinking water supply which represents 54,76% at regionally and 16,4% at country level.

Regional network of drinking water distribution has a total length of 9057,6 km, of which 5077,6 km in rural areas.

## Table 3. Overall length of the simple distribution network for drinking water in South Muntenia region, in the period 2000-2006

- km -

	2000	2003	2006
Overall length of the simple distribution network for	6299,1	7061,1	9057,6
drinking water – total:			
• urban	3389,3	3598,9	3980
• rural	2909,8	3462,2	5077,6

*Source:* TEMPO – ON LINE Database, INSSE.

# Overall length of the simple distribution network for drinking water registered an increase in 2003 compared with 2000, from 6299,1 km to 7061,1 km, per total and from 2909,8 km to 3462,2 km, in rural areas.

In 2006 compared with 2003, the total length of drinking water distribution network registered an increase from 7061,1 km to 9057,6 km, per total and from 3462,2 km to 5077,6 km, in rural areas.

A general characteristic of drinking water supply networks in particular of those in urban areas is the high rate of wear and age, with major implications in terms of ensuring the necessary drinking water of the population.

With regard to public sewerages their total length is 2156 km, with 92 receiving localities, of which 46 cities.

Also from the point of view sewage waste waster the population in rural areas is disadvantaged, in the region benefiting from such a network a number of 46 communes.

The public distribution network for drinking water, plant capacity and the volume of drinking water distributed to consumers can not provide the utilities needs of the rural population, both in number of inhabitants that are beneficiaries but also as proportion of endowed rural localities.

#### 1.3. Quality of housing

Number of rooms/person

In the period under review has increased the number of rooms/person, both per total but also in the rural area. This growth take place on the increased number of dwellings both in rural but also per total. This increase was also due to the increased number of people living in rural areas.

### Table 4. Number of rooms/person in the region of South Muntenia, between 2000 and 2006

	2000	2003	2006
Population, from which:	3471322	3368615	3321392
• rural	2022408	1996865	1936489
Number of rooms, from which:	3347418	3516212	3557222
• rural	2115584	2207355	2232136
Number of rooms/person, from which:	0,96	1,04	1,07
• rural	1,05	1,11	1,15

Source: TEMPO Database – ON LINE, INSSE.

In the analyzed region the number of rooms/person increased in 2003, by comparison with 2000, totally but also in the rural regions. In rural regions raised from 1,05 to 1,11, and in total from 0,96 to 1,04. This increase was due to both the increased number of rooms and also to the reduced population from one period to another.

In 2006 compared with 2003 has increased the number of rooms per person in both total and rural areas. In rural areas increased from 1.11 to 1.15, while the total from 1.04 to 1.07. This increase was due to both the increased number of rooms and also by the reduced population from one period to another.

Dwelling area per capita

In 2000-2006 there was an increase of habitable surface, both total and rural, while in 2003 compared with 2000 the living space was reduced in urban areas, although the total has increased.

Table 5. Dwelling area per capita in South Muntenia region, in the period 2000 and 2006

	2000	2003	2006
Population, from which:	3471322	3368615	3321392
• rural	2022408	1996865	1936489
Dwelling area (m <sup>2</sup> ), from which:	273982	296671	356956
• rural	184857	166193	224486
Dwelling area per capita ( $m^2$ /capita), from which:	0,08	0,09	0,11
• rural	0,09	0,08	0,12

Source: TEMPO Database – ON LINE, INSSE.

The dwelling area per capita, in the analyzed region, increased from 0.08 to 0.09 m2 per capita in 2003 compared with 2000, while in rural areas fell from 0.09 to 0.08 m2 per capita. Reduction recorded in rural areas was due to the fact that the regional population reduction was accompanied by a reduction in the livable area.

In 2006 compared with 2003, the living space per capita increased in both rural and total, from 0.08 to 0.12 m<sup>2</sup> per capita in rural areas and from 0.09 to 0.11 m<sup>2</sup> per capita overall. This increase was significant compared with that recorded in 2000-2003. The increase has been registered against the backdrop of habitable surface with 20.32% overall and 35.08% in rural areas.

Number of completed dwellings during the year

Number of completed dwellings increased in 2000-2006, both total from 4481 to 5241, and in rural area from 3228 to 3329. This increase was of 3.13% in the rural area and 16,96% in total.

region, between 2000 and 2006			
	2000	2003	2006
Number of finished housing during the year - total:	4481	4642	5241
• urban	1253	2044	1912
• rural	3228	2598	3329

## Table 6. Number of finished housing during the year in South Muntenia region, between 2000 and 2006

Source: TEMPO Database – ON LINE, INSSE.

In the South Muntenia region, the number of completed dwellings increased in 2003 compared with 2000 by total, while in rural areas has decreased, and in 2006 compared with 2003 was an increase in both total and rural.

In 2003 compared with 2000 has been registered a decrease with 19.52% of the number of completed dwellings in the rural area, while per total has been registered an increase with 3.6% of the number of completed dwellings during the year. This increase of 3.6% happened because of the increased number of completed dwellings from the urban areas with 63.13%.

# 2. Swot analysis of South Muntenia region- infrastructure and housing criteria

SWOT analysis is not a simple presentation of the factors which describe the situation of infrastructure and current housing and the potential conditions of South Muntenia region, it is a basic tool in the process of identification of the most important strategic directions and priorities which will conduct to economic development and social cohesion of the region in the next period.

Starting from the SWOT analysis of South Muntenia region – infrastructure and housing criteria we can say that the economic development of rural areas is affected by multiple problems generated by the access roads condition, the lack or insufficiency of public utilities and social infrastructure. Also, the life quality is strict determined by the distance at which the products and services necessary for peoples are.

Taking into consideration the actual economic conditions, the development of rural areas under all aspects, may and have to assure a socio-economic alternative of urban areas.

Strengths	Weaknesses
• The presence of pan-european transport corridors (E574, E81, E70, E85 şi E60) and highways: A1 (Bucharest – Pitesti) and A2 (Bucharest Constanta) The Danuha Bivar	• poor technical conditions of local roads, the highest rates of modernized public roads recorded in southern counties: Teleorman, Lelomita aach with 33%
<ul> <li>The existence in the region of airports: Bucharest – Otopeni and Bucharest – Baneasa</li> </ul>	<ul> <li>low use of the ports on the Danube, low traffic generating the decline of profile activities</li> </ul>
Good density of transport network	• Failure to use the railway network at full
• The existence in the region of Danube river	capacity
path and some important points of passing the	• Inadequate technical level of county and local

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border	road networks
• The road, rail and river access at the Black	• Low efficiency of urban and public transport
Sea	system
• Good density of natural gas networks in the	<ul> <li>reduced traffic safety on public roads</li> </ul>
North of the region	Reduced Infrastructure of river ports
• high level of coverage of fixed and mobile	• Infrastructure to support public service
networks	reduced
	• insufficient natural gas networks in the
	southern region
	• Public Utilities degraded: advanced degree of
	degradation/underflow of water pipes, low
	density gas supply network
	• Limited access to ICT
	• Poor technical-household features in urban
	areas and insufficient in rural areas
Abbantamitias	Theoats
Opportunities	
• Extension/modernization of road network	• Insufficient financial sources for local and
• The development of support infra-structure	regional infrastructure development
for economic activities	<ul> <li>Omission of investment orientation to</li> </ul>
• The development of internal and across	sectors with growth potential
border cooperation	• Omission of investment correlation with the
• The development of cooperation with the	educational system and the business
countries that have access to the Danube River	environment
• The increase of competitiveness and region	<ul> <li>Negative demographical trend</li> </ul>
attractiveness	• The widening imbalance between rural and
<ul> <li>Modernization of transport infrastructure</li> </ul>	urban communities

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The complex problems of the countryside involve taking measures to reduce or eliminate disparities and make a socio - economic connection.

#### Conclusion

The rural infrastructure from South Muntenia region is underdeveloped and has big disparities between the north part of the region which is more industrialized and the south part which still is predominantly agrarian.

In most parts of the rural area we can note not modernized local roads and dust or gravel roads which have a negative impact on direct access to the national road network or to the railroad.

Significant deficiencies are found also at those which ensure circulation in rural areas and/or serve access to farms. Also, water supply networks in a centralized system, sewerage and sewage treatment plants are almost absent.

Thus, in most municipalities lack sewer systems and wastewater treatment; wastewater is usually discharged into the rivers crossing the region.

Under these conditions, many rural households don't have the possibility and/or opportunity to access extended agricultural services, markets, and thus they can't sell their agricultural production and generate alternatives at the subsistence environment.

In terms of economic and social development, rural areas are still dependent on agricultural activities based on primary exploitation of natural resources.

The demands for a better rural infrastructure are obvious and by modernized watter supply systems, by sewers, it must be solved some of the seriously social difficulties which exists in the rural areas at regional level. Investments in those rural infrastructures can also support reducing high levels of infant mortality.

Also eliminate the negative effects generated by the existence of an inadequate physical and social infrastructure will lead to a diversification of rural activities.

Developing and upgrading physical and social infrastructure is a first step to be taken, leading on the one hand the increase of attractiveness in rural areas, and secondly the penetration of private capital in the agricultural market.

Objectives:

- creation, rehabilitation and modernization of public utilities
- ensuring an efficient transport of people, goods and raw materials
- ensure the necessary water quantity and increasing its quality
- Indicative activities:

• modernization of linking roads between communities and their access roads to the national, county and local roads

- modernization and extending water supply networks
- modernize and make drinking water treatment plants and sewage treatment **Cover area** entire region

### Impact:

- economic and social revitalization of rural communities
- increased attractiveness for investment
- valuing the rural areas with development potential
- increase the degree of comfort and reduce the risk of illness of rural population

Acknowledgements: This article is the result of the research conducted during the project "Social economic models for the attenuation of rural inequalities, in regional profile" (MESAIR), ANCS/October 2008.

### References

2009 Statistical Yearbook.

TEMPO – ON LINE Database; INSSE.

http://www.madr.ro/pages/dezvoltare\_rurala/pndr\_versiunea\_consolidata\_21. 07.2008.pdf.

National development Plan 2007 – 2013, Romanian Government, Bucharest, 2005.

National Rural Development Program 2007 – 2013, Romanian Government, Bucharest, consolidated version July 2008.

National Strategic Plan for Rural Development 2007 – 2013, Romanian Government, Bucharest, 2007.

Regional Operational Program 2007 – 2013, Romanian Government, Bucharest, 2007