

SOCIAL-ECONOMIC INEQUALITIES EXISTING AT RURAL LEVEL –SOUTH WEST OLTENIA REGION

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Abstract:

The article includes a part of a complex research concluded under a larger project and refers to the social – economic inequalities found at South West Oltenia region level, in rural areas. The basic unit of research was the commune and it was used a set of five criteria. The results of the study indicate a large degree of inequality, due to economic and territorial infrastructure criteria. Depending on the importance of the indicators included in each criterion and on the importance of the criterion itself upon the total degree of inequality at rural level, there were proposed measures of reducing those inequalities. The study was finalized by developing complex scenarios for inequality attenuation, depending on the determined situation.

If we look at this region's situation in a larger context, at national level, we can observe a relatively high inequality degree, with high intervals between minimum and maximum levels which lead us to the conclusion that this region needs more than others firm, rapid and radical measures on all levels of social and economic life, so that development discrepancies do not amplify, but even diminish. This paper was elaborated under the MESAIR Project - Contract no. 92072.3/01.10.2008. Program no. 4 – Partnership in priority domains.

Key words: economic development, socio-economic inequality, inequality attenuation, social infrastructure, economic dimension

JEL classification: R11, R13, R58

INTRODUCTION

The analysis presented by this article refers to the inequalities that can be noticed at rural level in South West Oltenia region. The data that could be obtained entirely are from 2008 and take part from a larger study conducted during a complex research project. The socio-economic particularities were divided into five categories, playing the role of relying criteria for the study.

The criteria were the following:

- Territory equipment. This criterion offers information on the comfort of living, technical-urban infrastructure as support of rural development - including business environment.
- Socio-demographic dimension. The criterion gives information on the local demographical perspectives, disintegration degree of family values, and attractiveness degree for living and presumed socio-economic opportunities of the region.
- Social infrastructure. The information regards educational and health infrastructure and their degree of adaptation to community needs such as potential accessibility to TIC.
- Economic dimension. The criterion offers information about the chances to acces a working place and the dependency degree of rural population to social transfers from agriculture, intensification degree of land exploitation, development degree of economic activities complementary to agriculture, capacity to promote rural services complementary to agriculture.
- Investments. The criterion reveals the projection upon the development potential of rural communities.

Each criterion was based on a set of indicators (from one indicator to five indicators), as follows:

- territory equipment: habitable area/inhabitant, quantity of distributed potable water to households (cubic meters/inhabitant), simple length of potable water network (km), simple length of sewage network (km), simple length of the natural gas distribution network (km).
- socio-demographic dimension: natural population increase/1000 inhabitants, divorces/1000 inhabitants, sold of domicile changing/1000 inhabitants, sold of residence changing/1000 inhabitants, sold of external migration/1000 inhabitants.
- social infrastructure: number of pupils/teacher, number of inhabitants/physician, number of PCs/1000 inhabitants.
- economic dimension: number of employees/1000 inhabitants, percent of arable area in total agricultural area, percent of vineyards and orchards in total agricultural area, average number of accommodation places/accommodation unit, number of overnights/accommodation.
- investments: finished homes in 2008/1000 existing homes.

The analysis of those indicators led to the establishment of some inequality levels for each criterion and those, in their turn, led to conclusions regarding each ones importance to the region's inequalities at rural level. The resulting sizes were compared to the national average, the minimum level and the maximum one calculated for all the Romanian development regions.

As a consequence, for each criterion was established measures that could lead to the reduction of the induced inequality degree and therefore, to a much more equilibrated development at all levels.

GENERAL INFORMATION REGARDING SOUTH WEST OLTENIA REGION

South West Oltenia region is placed in the south west part of Romania and includes five counties: Dolj, Olt, Valcea, Mehedinti and Gorj. Mostly, it is the Olt historical region named Oltenia, into its natural borders: Danube at south, Olt River at east, the Carpathians at north and west. Having 29.212 square km it is the 7th among Romanian regions and represents 12.25% in the total area of the country.

The network of localities is composed of 40 cities and 408 communes. The most important cities are Craiova, Ramnicu Valcea, Drobeta Turnu Severin (over 100000 inhabitants each one), Targu Jiu and Slatina (over 80000 inhabitants each one). Most of the small towns (under 20000 inhabitants) don't have an appropriate structure and level of development. Regarding the distribution of communes, most of them are in Dolj (104) and Olt (104) Counties, and fewer in Gorj (61) and Mehedinti (61) counties.

From the geographical point of view, the region is equilibrated, including mountains, planes, hills and plateaus. The north of the region is dominated by forests and pastures and the south is specialized in cereal cultures.

The hydrographic network gives the region the main role in the production of hydroelectric energy.

THE ANALYSIS OF THE INEQUALITY CRITERIA AND THE INDICATORS' IMPORTANCE FOR EACH ONE AT REGIONAL AND NATIONAL LEVEL

For the South West region, the general inequality degree in rural zones is differently justified by the five selected criteria, their influence ranging from 19.25% to 38.07% (as indicated in the table below).

Table 1. The importance of the socio-economic inequalities for the justification of the general variation of the inequality degree – comparative situation (%)

	Maximum level	Minimum level	National level	Regional level (South West)
Territory equipment	48.06	18.72	24.76	22.73
Socio-demographic dimension	31.38	9.63	31.38	17.35
Social infrastructure	21.99	13.32	17.12	19.25
Economic dimension	41.89	13.44	23.11	38.07
Investments	12.70	1.61	3.63	2.61

Source: processing made under the project PNII partnerships, no. 92072/2008, based on statistical information from Communes Sheets.

As shown above, the criterion with the greatest influence on the inequalities at South West region level is the **economic dimension (38.07%)**, followed by the **territory equipment (22.73%)**. These two criteria will be analyzed in a following section of this article in order to establish necessary measures to attenuate the inequalities.

Table 2 reflects the importance of the socio-economic inequality indicators for the justification of the general variation of the inequality degree of the South West region (rural level), also analyzed in a following section of this article.

If we look at the level of importance of the indicators, it can be noticed that the first most important indicators are (by decreasing importance):

- average number of accommodation places/accommodation unit (13,26%)
- number of overnights/accommodation (11,56%)
- number of pupils/teacher (9,47%)
- percent of vineyards and orchards in total agricultural area (8,02%)
- quantity of distributed potable water to households (cubic meters/inhabitant) (6,71%)
- simple length of the natural gas distribution network (km) (5,72%)
- sold of domicile changing/1000 inhabitants (5,40%)

Table 2. The importance of the socio-economic inequality indicators for the justification of the general variation of the inequality degree of the South West Region (rural level)

Criteria	Indicators	% in the total variation of cumulated variation South West
Territory equipment	Habitable area / inhabitant (square meters / inhabitant)	2.99
	quantity of distributed potable water to households (cubic meters/inhabitant)	6,71
	simple length of potable water network (km)	2.15
	simple length of sewage network (km)	5.17
	simple length of the natural gas distribution network (km)	5.72
Socio-demographic dimension	natural population increase/1000 inhabitants	0.46
	divorces/1000 inhabitants	2.80
	sold of domicile changing/1000 inhabitants	5.40
	sold of residence changing/1000 inhabitants	4.11
	sold of external migration/1000 inhabitants	4.58
Social infrastructure	number of pupils/teacher	9.47
	number of inhabitants/physician	4.72
	number of PCs/1000 inhabitants	5.06

Economic dimension	number of employees/1000 inhabitants	3.78
	percent of arable area in total agricultural area	1.44
	percent of vineyards and orchards in total agricultural area	8.02
	average number of accommodation places/accommodation unit	13.26
	number of overnights/accommodation	11.56
Investments	finished homes in 2008/1000 existing homes	2.61

Source: processing made under the project PNII partnerships, no. 92072/2008, based on statistical information from Communes Sheets.

Compared to the national situation, there can be noticed resemblances and some differences. The factors on which the rural socio-economic inequality level mostly depends are those regarding the *demo-social dimension*, the indicators attached to this criterion explaining 31.4% of the total variation of the inequality level. Under this dimension, the most relevant aspects are related to: sold of residence changing/1000 inhabitants which reflects the demographic desertification risk of rural communities that are economically and socially isolated and are no longer attractive for living; the second demo-social aspect relevant to socio-economic inequality is the natural increase, which reflects the demographic ageing risk, labor force ageing and depopulation of rural communities.

The *territory equipment* of the rural communities is the second predictor of inequality, as this explains 24.8% of the total variation of rural inequality. The most important aspect from the territory equipment point of view, relevant for socio-economic inequality, is the dwelling comfort (expressed by the quantity of distributed potable water to households and the habitable area/inhabitant. Equipment of the communes with technical infrastructure elements (water supply networks, natural gas supply networks and sewerage systems) which, in its turn, has a significant contribution to the explanation of the general socio-economic inequality, as the indicators that measure the simple length of natural gas supply pipelines of the are the most relevant for the general inequality, as compared to the indicators related to other technical infrastructure networks.

The indicators related to the *economic dimension* of rural communities represent the third stage in the order of importance of factors determining the socio-economic inequality level. Overall, the economic dimension explains 23.1% of the total variation of the inequality level.

Among the indicators composing this dimension, the most relevant in the differentiation of communes is average number of accommodation places/accommodation unit due to the poor development of tourism infrastructure and weak tourism potential promotion. The second aspect, economically important, is the incidence of contractual relations on the labor market (measured by the indicator number of employees/1000 inhabitants), which reflects the access opportunity to a paid job and the diminution of the risk of dependence on own agricultural holding.

Social infrastructure is on the fourth position in the hierarchy of criteria conditioning the distribution of communes on the socio-economic inequality scale, this criterion explaining 17.1% of the total variation of the inequality level. The indicators that measure the social infrastructure development level (number of pupils/teacher, number of inhabitants/physician) have a narrow variation range, the most part of the communes from Romania being characterized by the poor development of these infrastructure elements which make them have a low incidence on the inequality level.

The number of computers/1000 inhabitants reflects the risk of not having access to electronic information resources. This indicator is the third indicator that explains the total variation of cumulated socio-economic inequality.

The criterion *Investments* has a low incidence upon the general inequality level (it explains only 3.6% of the general variation of socio-economic inequality). For most of the communes the share of new dwelling (finished homes in 2008/1000 existing homes) is not significant, which overall also makes the criterion *Investments* be less relevant for the economic-social inequality

structuring in rural Romania at present.

The relevant two indicators are **socio-economic dimension (31.38%)** and **economic dimension (23.11%)** – criterion situated on the first position in the case of South West Region (see Table 1).

Table 3. The importance of the socio-economic inequality indicators for the justification of the general variation of the inequality degree at national level (rural level)

Criteria	Indicators	% in the total variation of cumulated variation National
TERRITORY EQUIPMENT	Habitable area / inhabitant (square meters/inhabitant)	1.86
	quantity of distributed potable water to households (cubic meters/inhabitant)	10.65
	simple length of potable water network (km)	2.64
	simple length of sewage network (km)	3.01
	simple length of the natural gas distribution network (km)	6.59
DEMO-SOCIAL DIMENSION	natural population increase/1000 inhabitants	5.67
	divorces/1000 inhabitants	3.70
	sold of domicile changing/1000 inhabitants	2.64
	sold of residence changing/1000 inhabitants	14.00
	sold of external migration/1000 inhabitants	5.37
SOCIAL INFRASTRUCTURE	number of pupils/teacher	5.21
	number of inhabitants/physician	3.81
	number of PCs/1000 inhabitants	8.10
ECONOMIC DIMENSION	number of employees/1000 inhabitants	4.80
	percent of arable area in total agricultural area	4.22
	percent of vineyards and orchards in total agricultural area	4.36
	average number of accommodation places/accommodation unit	6.46
	number of overnights/accommodation	3.28
INVESTMENTS	finished homes in 2008/1000 existing homes	3.63

Source: processing made under the project PNII partnerships, no. 92072/2008, based on statistical information from Communes Sheets.

As for the indicators, the seven most important ones are (see Table 3):

- sold of residence changing/1000 inhabitants (14.00%);
- quantity of distributed potable water to households (cubic meters/inhabitant) (10.65%);
- number of PCs/1000 inhabitants (8.10%);
- simple length of the natural gas distribution network (km) (6.59%);
- average number of accommodation places/accommodation unit (6.46%);
- natural population increase/1000 inhabitants (5.67%);
- sold of external migration/1000 inhabitants (5.37%).

Only three of the indicators selected at national level are relevant for the inequalities manifested at South West region level: average number of accommodation places/accommodation unit, quantity of distributed potable water to households (cubic meters/inhabitant), simple length of the natural gas distribution network (km). Based on the figures characterizing the indicators and the criteria presented above for the South West Region, a SWOT analysis was sketched:

Table 4. SWOT analysis for South West Oltenia Region

Strengths	Weaknesses
<ul style="list-style-type: none"> • High comfort of living in communes from Dolj and Mehedinți Counties; • Quality technical infrastructure in some communes; 	<ul style="list-style-type: none"> • Low comfort of living in communes from Olt, Gorj and Valcea Counties; • Poor technical infrastructure in many communes;

<ul style="list-style-type: none"> • Tendency to preserve traditional values (such as family); • Weak migratory flows abroad; • Premises for a good quality of social services (education, sanitary); • High share of arable land in the whole agricultural land; • High fertility of arable land; • Experience and tradition of communes from hilly zone in vineyards and related activities; • High touristic potential of communes of mountain zones or of balnear resorts; • Existence of mining areas in Gorj department. 	<ul style="list-style-type: none"> • Tendency of population reduction and ageing; • Weak tendency of social emancipation; • Relative instability of habitation; • Low access to information; • Poor accommodation capacity; • Lack of employment opportunities; • Low capacity to promote rural services complementary to agriculture (agro-tourism); • Low interest for property investments in communes outside the influence area of urban centers.
Opportunities	Threats
<ul style="list-style-type: none"> • Development of the comfort of living in order to increase the quality of life of rural population; • Development of the rural technical infrastructure in order to develop business environment; • Increase of active population by attracting the urban population affected by the precarious economic situation; • Keeping teachers and physicians by rising the quality of endowments; • Increasing agricultural and touristic investments; • Economic development of communes nearby Danube while intensifying the efforts to better exploit it; • Development of social infrastructure and services; • Increasing the attractiveness degree of rural environment. 	<ul style="list-style-type: none"> • Insufficient funds on short and medium term to develop rural infrastructure; • Deepening the discrepancies between rural and urban; • The fast population decline; • Teachers and physicians leaving in the context of the demographic reduction; • The impossibility of a real competition between rural inhabitants and urban ones (mostly on the labor market) and deepening of social and professional training discrepancies; • Increase of the rural population dependency on social transfers and agriculture; • Migration of young rural population towards urban zones; • Loss of capitalization opportunities for the touristic potential of the region; • Insufficient funds for infrastructure and social services development as a base for the increase of the rural attractiveness; • Slow development of rural economy; • Increase of economic disparities between north and south of the region; • Deepening of the imbalance inside rural communities.

ECONOMIC POLICY MEASURES THAT CAN ATTENUATE THE INEQUALITIES MANIFESTING AT RURAL LEVEL IN SOUTH WEST OLTENIA REGION, CONSIDERING THE TWO SELECTED CRITERIA

The two relevant criteria and the seven indicators resulting from the analysis of the South West region make the object of proposals for the reduction of the inequalities, as follows.

Proposals of necessary measures for the attenuation of inequalities observed at rural level must begin with the analysis of *socio-economic* facts characterizing this region. We are talking about a region reuniting departments heterogeneous not only in terms of nature facts (relief, area, minerals) but also in terms of economy. The departments from the north have a high touristic potential (bathing waters, natural landscapes, historical objectives, religious objectives), while the departments from the south are mostly agricultural (cereals in particular). Industrial activity is referring to minerals' extraction, chemistry, wood exploitation and other manufacturing industries. Efforts in order to improve the *territory equipment* are necessary because of the fact that the lack of investments in modernizing public sewage and drinking water networks affect upon the quality of water and thus, upon population's health. Also, bad conditions of residual waters collection imply a

high degree of pollution of streams and the insufficient number of garbage dumps negatively affect environment.

Further we will present measures regarding the two relevant indicators selected in the table above as the most important for the **territory equipment**:

- attraction of investments in infrastructure by accessing European funds;
- finding funding sources at local level, possibly by uniting the efforts of several neighboring communes which can beneficiate of mutual utility networks; another possibility are private-public partnerships in order to realize such works;
- a better informing of the population about the benefits of using sewage and drinking water networks, while maintaining low costs for those services;
- encouraging the establishment of bank branches and other credit institutions at rural level for a better access to funding;

The economic situation of South West region is rather precarious, the low level of development of the region being due to the low level of direct foreign investments. Economic restructuration made a part of the aged unemployed population from urban centers to head to rural zones where they practice subsistence agriculture. The large share of rural population and the large area of arable lands, mostly in the south, make from agriculture the most important sector of the region's economy.

About the reduction of **economic discrepancies** of the region, measures can be conducted for:

- accessing European funds in order to develop mountain and health tourism;
- supporting the local business (from agriculture but also from industrial manufacturing of agricultural products), in their efforts to obtain funds (national or European ones) in order to conduct their activity and also to find new markets;
- Transforming the Danube from a natural barrier to economic changes into a favorable factor by putting into place custom checkpoints to Bulgaria and ex-Yugoslavia countries. In this manner, Danube can be used as a faster transportation route.
- Establishing free zones along the Danube;
- Developing the transportation infrastructure at rural level (mostly railways and routes);
- Reviving the former industrial zones by putting into place industrial parks in communes situated nearby big cities.

ECONOMIC POLICY MEASURES THAT CAN ATTENUATE THE INEQUALITIES MANIFESTING AT RURAL LEVEL IN SOUTH WEST OLTENIA REGION, CONSIDERING THE SEVEN SELECTED INDICATORS

The analysis of the seven indicators selected above need correction measures of inequalities, such as:

- The indicator **average number of accommodation places/accommodation unit (13.26%)** and **number of overnights/accommodation (11.56%)** are deeply connected and, in order to attenuate the inequalities, we propose the following measures:
 - o Attracting European funds in order to develop rural tourism activities;
 - o Establishing information and counseling points about European funds attraction in zones with unexploited touristic potential;
 - o Exploitation of local specificity for touristic development even in less attracting zones from natural point of view (in the neighborhood of European and national routes, organizing local celebrations and festivals, organizing events with local specificity – wine testing, thematic agricultural exhibitions, religious touristic circuits);
 - o Orientation to recreational activities without rural specificity but which can be conducted in rural areas – horse riding, mountain trips, extreme sports, sporting competitions;

- The indicator **number of pupils/teacher (9.47%)** may lead to inequalities either because of a reduction of the number of teachers working at rural level, or because of a depopulation of communes, of their ageing, having as a consequence the reduction of the number of pupils. The measures must be oriented in two directions:
 - o The restoration of the teachers' number by:
 - Encouraging the teachers to activate at the country by facilitating their transportation, accommodation or meals and encouraging the young university graduates to return into the community;
 - Rehabilitating the educational spaces and their endowment with modern teaching means – computers, labs;
 - o Increasing the number of pupils in communes by:
 - Increasing natality by ensuring better means of living;
 - Reducing migratory flows towards urban centers or abroad by ensuring jobs at local level.
- Inequalities induced by the indicator **percent of vineyards and orchards in total agricultural area (8.02%)** can be explained by the heterogeneity of landforms at regional level, only a part of those being appropriate for orchards or vineyards. Still, even in communes where the necessary conditions are fulfilled it can be noticed a trend of reduction of such areas. Therefore, measures can target:
 - o Reestablishment of vineyards and orchards where they existed before and where, by retrocession, they were dissolved or abandoned, using fiscal facilities (at local level) or supporting funds accession;
 - o Encouraging the establishment of agricultural associations;
 - o Supporting local producers in their efforts to find business opportunities in order to sell the production, by organizing local or regional fairs, informing media and tourists about local or regional industries.
- The indicator **quantity of distributed potable water to households (cubic meters/inhabitant) (6.71%)** explains inequalities because in more than half of the region's communes drinking water networks are missing, therefore there is no distributed water. For the regions beneficiating of drinking water networks, the discrepancies among used quantities of water are explained by various factors: some communes don't have alternative sources of drinking water, others use water for agricultural purposes – watering gardens, feeding animals, in other communes with relatively large networks distributed quantities are small because many households chose not to use those networks. Inequalities reduction measures may be:
 - o Accessing European funds in order to develop water networks;
 - o Encouraging branching to water networks, some arguments being water quality and its high degree of accessibility;
 - o Maintaining reduced prices for the distributed water by using local sources of potable water and reducing distribution lengths.
- In the case of **simple length of the natural gas distribution network (km) (5.72%)** it can be noticed that the region has 90% of the communes not branched to gas networks (in Mehedinti county, the proportion is 100%), therefore the measures may be:
 - o Higher accession of European funds for gas networks development;
 - o Attracting investors in industry, mostly for communes nearby cities, interested to develop gas networks that can be expanded afterwards;
- About the indicator **sold of domicile changing/1000 inhabitants (5.40%)**, its high influence upon inequality degree can be attenuated using the following measures:
 - o Reducing migratory flows, both internal and abroad, by rising living standards and assuring a good insertion on local labor market for active population;
 - o Creating development opportunities for small family businesses, both in agriculture and tourism or in small traditional crafts;

- Developing community cohesion through a bigger attention paid to social and cultural activities taking place at local level.

CONCLUSIONS

This analysis was completed under the frame of the project by a cluster-type analysis, the region's communes being divided into three clusters, depending on the degree of social and economic inequality, making possible the extraction of other types of conclusions.

The results of cluster analysis and data series on rural economic and social inequalities led to the partitioning of the communes in the South West region into three clusters. Thus, communes can be divided into:

- rural communities characterized by a lower level of rural socio-economic inequalities (cluster I) – 11.3%; those communes are situated nearby big cities, nearby important transportation routes, in hilly and mountain zones, the main activities being tourism, orchard and vineyard culture and they also have a good access to technology and information ;
- rural communities characterized by a medium level of socio-economic inequalities (cluster II) – 42.1%;
- rural communities characterized by a higher level of rural socio-economic inequalities (cluster III) – 46.6%; communes included into this category are situated in plains and the main occupation is agriculture.

The study was finalized by developing complex scenarios for inequality attenuation, depending on the determined situation.

If we look at this region's situation in a larger context, at national level, we can observe a relatively high inequality degree, with high intervals between minimum and maximum levels which lead us to the conclusion that this region needs more than others firm, rapid and radical measures on all levels of social and economic life, so that development discrepancies do not amplify, but even diminish.

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