ATTENUATION SCENARIOS OF SOCIO-ECONOMICAL INEQUALITIES AT RURAL LEVEL - SOUTH-WEST OLTENIA REGION

University lecturer PhD. **Ramona Florina POPESCU**
University of Pitesti, Romania
rf.popescu@yahoo.com
University professor PhD. **Emilia UNGUREANU**
University of Pitesti, Romania
emiliaungureanu@yahoo.com

Abstract:

The article presents the results of a larger research made with the purpose to discover the best ways of attenuating socio-economical inequities from the rural environment at regional level, having as a start point the analysis of some relevant criteria and indicators. The present article, which is continuing a series of articles on the same subject, presents the communes classification from the region considering the disparity degree and particularities of the disparities attenuation scenarios. The particularities are of economical, demographical and social nature and try to reflect the basic needs of the communities. Also, for each commune category (the communes are included into three clusters, depending on the level of disparities, form the highest level – cluster one, to the lowest level – cluster three), we motivate the opportunity of applying a scenario or another, following the main objective of disparity reduction at rural level. The results of this research allowed us to have a picture not only of the developing level of the region at rural level, but also the needs of each category of communes (as divided in clusters). The non-unitary approach is considered to be more efficient in putting into practice the economic and social measures at regional level.

Key words: socio-economical inequalities, cluster, disparities attenuation scenarios, competitive scenario, territorial convergence scenario

JEL classification: R11, R13, R58

INTRODUCTION

Rural space analysis in South-West Oltenia region has been made at the level of administrative-territorial local units, known as NUTS 5, the smallest territorial level from which statistical data are collected and then published. Using this territorial level is a positive premise for obtaining a high accuracy of the results.

Socio-economical particularities have been divided into five categories, acting as criteria that are in the centre of the study regarding socio-economical disparities at rural level (Tudor, Rusu, 2011). Thus, the considered criteria are the following:

- Territory equipment (comfort of living, technical-urban infrastructure as support of rural development - including business environment)
- Demo-social dimension (local demographical perspectives, disintegration degree of family values, attractiveness degree for living and presumed socio-economical opportunities of the region)
- Social infrastructure (educational and health infrastructure and their degree of adaptation to community needs; potential accessibility to TIC, etc)
- Economic dimension (chances to access 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 (development potential of rural communities).

Considering the selected indicators and criteria used to classify the rural environment, the communes from South-West Oltenia region are significant different. Therefore, it was put into place a classification of region's communes in several categories, based on a cluster analysis. Also, there have been developed two scenarios of attenuation the existing inequities at rural level, having as starting point a few hypotheses. Considering the analysis of criteria and indicators importance for

each cluster for both scenarios, it has been chosen one or another as most adequate for sustaining the attenuation policies of social-economical inequities at rural level.

GENERAL INFORMATION CONCERNING THE SOUTH-WEST OLTENIA DEVELOPMENT REGION

South West Oltenia Region is situated in the south-west part of Romania and has five counties: Dolj, Olt, Vâlcea, Mehedinţi şi Gorj. With a surface 29 212 km² (7th place among Romanian regions, 12.25% from the total area), Oltenia is an approximate symmetrical Quadrilateral, on the North - South West and East - West).

The localities network includes 40 cities, from which 11 are county residence and 408 communes. Referring to small cities (under 20.000 inhabitants), most of them don't have a proper structure and development: Vânju Mare, Dăbuleni, Scorniceşti etc. The rural environment of the region consists of 408 communes; South-West Oltenia Region is, close to North-East region, one of the "most rural" Romanian regions. The rural environment plays an important role in the economical and social life and considering the communes' distribution, most of them are situated in Dolj (104), Olt (104), and the fewest are in Gorj (61) and Mehedinti (61).

From the geographic point of view, the region is equilibrated, having mountains, heals, plains and plateaus. In the Northern part of Oltenia, the relief is mountainous and hilly (Carpathian Mountains and Sub-Carpathian Area), predominating forests and alpine meadows. The plain area is specialized, especially, in culture of cereals. The hydrological network, composed in principal by Danube River, Olt and Jiu River, offers to the region the principal energetic role in Romania (over 70% of the total hydroelectric production).

To summarize, we can say that the rural infrastructure from South – West 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 being usually discharged into the rivers crossing the region (Bâldan, Avramescu, 2011).

SELECTION OF CLUSTERS AND CORRESPONDING COMMUNES

For South-West region, the general degree of inequality manifested in the rural area is differently explained by the five selected criteria, their influence ranking from 19.25% to 38.07% (table 1).

Table 1. Importance of socio-economical inequities criteria in explaining the general variation of inequality degree – comparative analysis

	Maximal level	Minimal level	National level	Regional level (S-W)
Territory infrastructure	48.06	18.72	24.76	**22.73**
Demo-social 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**
Investment	12.70	1.61	3.63	2.61

Source: PN II Project data processing, Partnerships, no. 92072/2008 based on statistical data from Communes Files, INS, 2008

The results of cluster analysis of data series concerning socio-economical rural inequities led to the division of communes in three clusters, as following:
-   Cluster 1: 46 communes, representing approx. 11.3%;

- Cluster 2: 172 communes, representing approx. 42.1%;
- Cluster 3: 190 communes, representing 46.6%.

Table 2. Commune distribution by clusters, at national level and in South-West Oltenia region

	National level		South-West Oltenia region	
	Total	%	Total	%
TOTAL	**2860**	**100**	**408**	**100**
Cluster 1	586	20.5	46	11.3
Cluster 2	1164	40.7	172	42.1
Cluster 3	1110	38.8	190	46.6

From the table above, we can observe the distribution of communes in South-West Oltenia region by clusters compared to the national level. The share of communes from the region situated in cluster 1 is lower than the share registered at national level (11.3% compared to 20.5%). Concerning the ones included in cluster II, the share is almost equal compared to the national level (42.1% compared to 40.7%). In return, the share of communes situated in cluster 3 is much higher than the national average (46.6% compared to 38.8%). It is obvious that the lower share in cluster I and the equal one in cluster 2 will led to a state of under-development of rural areas from South-West Oltenia region compared to the national average.

DEVELOPMENT OF COMPETITIVE AND TERRITORIAL CONVERGENCE SCENARIOS

In the analysis, we have started from the hypothesis that social inequities are generated by an economic, demographical and social system of conditions, specific to each rural area or zone. Also, social inequities, in territorial profile, are amplified by economic and social policies. Thus, the strategic plans for attenuating rural inequities must be focused on two types of scenarios concerning the nature and the amplitude of socio-economical inequities as following: the scenario "social competitiveness and efficiency"- CES and the scenario "territorial convergence and cohesion"- CCT.

Thus, for CES scenario, we considered the following:
1. Economic growth does not implicitly mean the attenuation of social inequities; if the inter-conditionality between specific factors of equipment quality, social and material welfare is growing, the chance of reducing inequity is growing.
2. If the demographic quality is higher, the chance of reducing inequities is growing.
3. If the investment sustainability is growing, the chance of reducing inequities is growing.
   CCT scenario considers the following hypothesis:
1. If the dependence on conjectural situations is reduced, the impact of the scenario will be higher.
2. If the degree of social and economical homogeneity performance is higher, the scenario impact will be higher also.
3. If the degree of complementarity between economical and social plans is growing, the scenario impact for attenuating inequities will grow.

Each scenario supposes different directions and concrete measures for reaching the established specific objectives.

COMPETITIVENESS AND SOCIAL EFFICIENCY SCENARIO

CES scenario is based on the following strategically options:
A. **Social development by** increasing the social welfare;
B. **Technical-urban development by** increasing the material welfare.
The selected indicators influencing those options are:

- **Indicators for „competitiveness":** number of employees /1000 inhabitants, average number of accommodations /unit.
- **Indicators for social development:** Number of houses finished in 2008/1000 existent houses, sold of changes of domicile /1000 inhabitants, registered pupils/teacher, number of inhabitants/physician.
- **Indicators for technical-urban development: q**uantity of drinking water distributed to housing consumers, simple length of pipes.

The table below presents the main aspects of the CES scenario.

Table 3. Scenario CES - South-West region

Strategic Objectives	Directions of action	Measures
- Increase of population living standards;	- providing utilities (water, pipes, natural gas) and public services (health, education and culture) for covering the existing needs; - sustaining small agricultural and touristic businesses, agricultural products processing, traditional manufacturing professions etc. - development and diversification of transport infrastructure; - increasing the access to information;	- accessing European funds; - concluding public-private partnerships; - common infrastructure projects for neighbor localities; - fiscal facilities; - free business consultancy; - initiating actions to promote local economy and community; - establishing information centers provided with modern equipment to access useful information; - rehabilitation of schools and health units with adequate equipment; - insuring the transport of pupils to school, considering that the mountains increase the distance between schools and houses;
- Dynamics of local economic environment.	- helping companies to obtain funding, access to market, access to technologies; - Investment attraction in concordance with local profile, to ensure a sustainable development; - exploitation of geographical advantages (Danube) and economical ones (big cities nearby); - stimulation of ecological agriculture; - developing and diversifying transport infrastructure; - increasing the access to information;	- fiscal facilities granting; - developing relations with different economical and administrative entities in order to initiate business contacts with other producers/processors/ distributors etc. - granting exemptions from taxation and financial help for those who are initiating ecological economic activities - ecological cultures, apiculture, medicinal plants etc. - encouraging the creation of inter-communal agricultural organizations in order to put into place irrigation systems and a more efficient exploitation of agricultural fields, by granting fiscal facilities and accessing European funds; - organizing manifestations for promoting activities/ products with local character; - establishment of free zones (at the border, on the Danube) and industrial parks (near to big cities and in the disadvantaged areas which benefit of economical and fiscal advantages at national level); - encouraging touristic activities and recreational ones by including the commune in touristic circuits for entertainment, treatment, religion, etc.

CONVERGENCE AND TERRITORIAL COHESION SCENARIO

CCT scenario is based on the following strategically options:

A.   **Territorial convergence –** to reduce existent discrepancies and prevent intra-regional discrepancies.

B.   **Territorial cohesion** – to assure equality of chances, a polycentric development and appearance of some secondary poles; assure an equilibrated and sustainable development of rural areas, with different characteristics and particularities, allowing diversity preservation.

The selected indicators which are influencing those options are:

- **Indicators for territorial convergence:** number of employees/1000 inhabitants, % of occupied surface with vineyard and orchard in the total agricultural surface, PC/1000 inhabitants
- **Indicators for territorial cohesion:** sold of changes of domicile /1000 inhabitants, external migration sold/1000 inhabitants.

From those indicators one can be found among the most important indicators that explain inequities in the South-West region: % of occupied surface with vineyard and orchard in the total agricultural surface. Table 4 reflects the aspects taken into account by CET scenario.

Table 4. CCT scenario – South-West region

Strategic Objectives	Action directions	Measures
- Community consolidation and ensuring the stability at local level;	- orientation of agriculture / small entrepreneurs on local specific activities; - efficient exploitation of natural potential (land, forests); - development of pride concerning the community membership; - stimulation of young people for professional development in domains that can be used at local level - agricultural studies, economical ones, arts and manufacturing. - encouraging young people with medium/high education to return to their original environment; - supporting access to information for all ages; - development of a complete set of social services at local level, such as education, health, entertainment.	- granting fiscal facilities for the small entrepreneurs which are developing businesses, especially with local specific ones; - using public fields with the purpose of stimulating small entrepreneurs (pastures, lakes, etc.); - organizing cultural and educational manifestations in order to exploit the local specificity - traditions, gastronomy, local personalities, etc. - granting scholarships for young people who are making professional trainings in domains with local appliance; - establishing points of information for the population/ organizing meetings at local level with the inhabitants referring to the main aspects of general interest; - collaborating with agencies for professional formation of local population; - adequate financing the hospitals/ medical checkpoints/ schools on the local territory;
- Increasing the degree of socio-economical insertion of rural population at local level;	- encouraging the integration on the local labor market of traditional-housing categories - women and different ethnical groups (rroma population); - assuring a better relation between the commune and the nearby localities by developing local transportation networks; - encouraging the re-inclusion of unused terrains in the agricultural circuit; - supporting professional reconversion of unemployed persons on occupations with local specific.	- accessing European funds in order to set up social firms meant to lead activities with local specific; - rehabilitation of communal roads, viaducts, bridges for an easier access to all nearby localities; - creation of inter-communal transportation networks with nearby localities; - exemption of taxation or fee payment for fields reintroduced in the agricultural circuit; - initiating and financing professional reconversion at the commune level, for local applicable professions.

SELECTION OF THE ATTENUATION SCENARIO OF CLUSTER 1 INEQUITIES AND CONCLUSIONS

The communes from the region situated in this cluster are mainly from Gorj and Valcea counties and they are grouped mostly in mountain areas. At the level of South-West region the situation of the seven indicators earlier selected is illustrated in Table 5.

From the total number of communes from cluster 1 from South-West region, for all the selected indicators we can notice a higher number of communes that are under the national average of the cluster than the ones situated above the average. Also between the minimal values and the maximal ones from the cluster and the cluster's average there is a big difference.

This cluster includes the localities with the highest level of the development indicators. In the selection of communes that are included in this cluster, the first nine indicators with the higher influence were: fresh water pipe length, number of overnight stays in accommodation units in 2008/unit, average number of accommodation places/ unit, number of employees/1000 inhabitants, % of arable field in the total agricultural land, quantity of distributed fresh water, simple length of natural gas pipes, % of occupied surface with vineyard and orchard in the total agricultural surface, sold of changes of residence /1000 inhabitants and the length of sewerage network.

Table 5. Average value of relevant indicators selected from the rural inequality matrix for cluster 1

Criteria	Indicators	Cluster 1	Total rural	Minimal level cluster 1 SW	Maximal level cluster 1 SW
Territorial infrastructure	Quantity of fresh water distributed to housing consumers (cube meter/ inhabitant)	**33.5**	14.8	**0**	**340.20**
	Simple length of natural gas pipes - km	**9.7**	4.4	**0**	**29.70**
Demo-social dimension	Sold of changes of residence /1000 inhabitants	**11.1**	4.5	**-19.42**	**32.35**
Social infrastructure	Registered pupils/ teacher	**9.8**	9.7	**4.88**	**17.84**
Economic dimension	% of occupied surface with vineyard and orchard in the total agricultural surface	**6.9**	3.4	**0**	**41.73**
	Average number of accommodation/ unit	**20.8**	5.1	**10.00**	**208.76**
	Number of overnight stays in accommodation units in 2008/ accommodation	**34.1**	7.9	**4.30**	**267.76**

Source: data interpretation based on Communes Files, INS, 2008

We can notice that seven indicators induce in a higher extent the inequities at local level (selected in Table 5), this thing justifying the reduced number of communes from South-West region that are under cluster 1.

From the table that reflects the order of importance of the indicators for cluster 1 communes, we can notice that the indicators correspondent to CES scenario are more relevant that the one's correspondent to CCT scenario.

Also, from the selected indicators that lead to the biggest inequities in the region, three (of four) indicators corresponding to CES scenario are founded among the nine more relevant indicators for cluster 1. In return, only one (of two) from the corresponding ones to CCT scenarios are in the same situation.

This two cumulated arguments justify the selection of CES scenario as being the most adequate for reducing specific disparities in cluster 1 communes from South West region.

In the case of South West region, this kind of scenario needs to follow at the same time the three strategically options: economic development, social development and technical-urban development because there can be noticed some deficiencies for each ones.

SELECTION OF THE ATTENUATION SCENARIO OF CLUSTER 2 INEQUITIES AND CONCLUSIONS

At the level of South West region the situation of the seven selected indicators previously selected is presented in Table 4.

From the total of communes situated in cluster 2 of the South-West region, for all the selected indicators excepting the one referring to the % occupied surface with vineyard and orchard from the total agricultural surface, we have a higher number of communes situated under the national cluster average than the number of communes situated above the national cluster average. The difference between the minimal value and the maximal one from the cluster communes are more close to average value of the cluster at national level, compared to the cluster 1 communes.

Table 6. Average value of relevant indicators selected from the rural inequality matrix for cluster 2

Criteria's	Indicators	Cluster 2	Total rural	Minimal level cluster 2 SW	Maximal level cluster 2 SW
Territorial infrastructure	Quantity of fresh water distributed to housing consumers (cube meter/ inhabitant)	**14.6**	14.8	**0**	**103.11**
	Simple length of natural gas pipes - km	**5.3**	4.4	**0**	**35.40**
Demo-social dimension	Sold of changes of residence /1000 inhabitants	**3.1**	4.5	**-26.50**	**56.86**
Social infrastructure	Registered pupils/ teacher	**8.7**	9.7	**0.24**	**15.26**
Economic dimension	% of occupied surface with vineyard and orchard in the total agricultural surface	**2.6**	3.4	**3.75**	**18.38**
	Average number of accommodation/ unit	**1.4**	5.1	**6**	**24.50**
	Number of overnight stays in accommodation units in 2008/ accommodation	**1.5**	7.9	**0**	**42.75**

Source: data interpretation based on Communes Files, INS, 2008

This cluster includes localities with an average level of development indicator. In the selection of communes belonging to this cluster, the first ten indicators with the biggest influence have been: number of overnight stays in accommodation units in 2008/accommodation, Number of houses finished in 2008/1000 existent houses, average number of accommodation/unit, length of sewerage network, registered pupils/teacher, % of arable field in the total agricultural field, % of occupied surface with vineyard and orchard in the total agricultural surface, number of employees/1000 inhabitants, natural growth/1000 inhabitants, number of employees/ physician.

From this ones, six (of eight) are under CES scenario and two (of five) in the CCT scenario, which reflects a highly relevance of CES scenario comparing with the CCT one for the cluster 2 communes.

Also, two selected indicators as inducing the biggest inequities in the region, three (of six) of CES scenario are in the top nine most relevant for cluster 2. Also, both indicators under CCT scenario can be founded in our selection.

Thus, both scenarios need to be explored for identifying the optimal solution.

The communes included in cluster 2 are mainly communes from mountain yards and hilly areas, close to big rivers which cross the region and are benefitting from a higher touristic and forest potential than plain ones. It can't be neglected the livestock sector. For one of them, especially the one's from Valcea County, but also from Gorj County, tourism is already a tradition and traditional manufacturing is still practiced. Also, some are near to ex-mining basins, benefiting in a good extent of infrastructure and network utilities.

Because of the activity reduction in the forest domain and the exploitation of underground resources, the reducing number of animals in the households, habit changes for consumption and lifestyle, workforce is confronting with integration difficulties on the local labour market and the temptation to leave the domicile localities for searching a job. The population remaining is old and there is a lack of financial resources for carrying on the local activities. Also, young people who are studying in other cities tend not to return because they search for a modern lifestyle and better paid jobs.

It can be considered, thereby, that even because of the existent need to increase the competitiveness and social efficiency, on short and medium term, the main aspects are related to convergence and territorial cohesion. Thus, for the South - East region localities included in cluster 2, the CCT scenario is the most appropriate.

SELECTION OF THE ATTENUATION SCENARIO OF CLUSTER 3 INEQUITIES AND CONCLUSIONS

Cluster 3 includes the communes from the plain region (mostly the ones from Dolj and Olt counties). These communes have as main activity the plants culture, especially cereals (mainly wheat) but also vegetables, in the meadows of rivers and Danube meadow. Unfortunately, the agriculture is mainly one of subsistence, practiced by an aging population or by dismissed people from the urban area. Another characteristic is the land crumbling and the lack of modern production means and methods.

One of the main problems for the cluster 3 communes is the weak infrastructure and the lack of utilities, but also long distances until the nearest city. Also, touristic activities are almost inexistent.

Table 7. Average value of relevant indicators selected from the rural inequality matrix for cluster 3

Criteria's	Indicators	Cluster 3	Total rural	Minimal level cluster 3 SW	Maximal level cluster 3 SW
Territory infrastructure	Quantity of fresh water distributed to housing consumers (cube meter/ inhabitant)	**5.10**	14.8	**0**	**50.31**
	Simple length of natural gas pipes - km	**0.80**	4.4	**0**	**15.60**
Demo-social dimension	Sold of changes of residence /1000 inhabitants	**2.50**	4.5	**-22.42**	**30.75**
Social infrastructure	Registered pupils/ teacher	**10.60**	9.7	**5.21**	**15.00**
Economic dimension	% of occupied surface with vineyard and orchard in the total agricultural surface	**2.50**	3.4	**0.26**	**20.51**
	Average number of accommodation/ unit	**0.80**	5.1	**0**	**0**
	Number of overnight stays in accommodation units in 2008/ accommodation	**0.80**	7.9	**0**	**0**

Source: data interpretation based on Communes Files, INS, 2008

The above table shows the situation of the seven indicators previously selected at the level of South-West region.

From the total number of communes under cluster 3 in the S-W region, for all the indicators selected, we can notice a highly number of communes situated under the national average than the number of communes situated above the national cluster average.

This cluster unifies localities with a reduced level of development indicators. In the communes' selection in this cluster, the first ten indicators with the highest influence are: number of overnight stays in accommodation units in 2008/accommodation, simple length of natural gas pipes, quantity of distributed water, % of arable field in the total agricultural land, average number of accommodation/unit, length of fresh water network distribution, number of employees/1000 inhabitants, length of sewerage network, housing area/inhabitant, registered pupils/teacher.

From those, five can also be found among the representative ones for the disparities at South-West region level. Those five indicators (of eight) can found in CES scenario and only one (of five) in CCT scenario, which indicate a highly relevance of CES scenario compared to the CCT one for cluster 3 communes.

These considerations will lead as to the conclusion that for cluster 3 communes from South-West region the optimal scenario is CES.

FINAL CONCLUSIONS

It can be noticed that the different situation of communes from the three clusters impose different approach at socio-economical policies level. Even if they are components of the same region, localities present particularities which make inefficient a unique approach. Because of this, the development strategies at regional level need to take into consideration other criteria that the geographical one or the number of inhabitants.

The situation discovered in South-West region is not singular, in fact the analysis at the level off all development regions in Romania lead, also, to the necessity of an heterogenic approach of regional development policies, so that the development disparities will stop to accentuate and begin to attenuate.

REFERENCES

1. Bâldan, C.F., Avramescu, T., (2011), *Analysis of statistical data characterizing the economic-social inequalities (diagnosis) in the region South –West– infrastructure and housing criteria*, Scientific papers, Series I, Volume XIII, USAMVBT – Faculty of Agricol Management, Agroprint Publishing House, Timişoara: 143-150
2. Rusu, M., Florian, V., Tudor, M. (coordinators), (2011), *Socio-economic inequalities in rural space, Regional profile analysis*, Terra Nostra Publishing House, Iasi, 2011
3. Tudor, M., Rusu, M., (2011), *Romanian rural area typology by the inequality level - A multicriterial approach*, Scientific papers, Series I, Volume XIII, USAMVBT – Faculty of Agricol Management, Agroprint Publishing House, Timişoara, 2011: 113-120
4. ***, Project PN II, Partnership, no. 92072/2008, (2008-2011), *Economic-social models to attenuate the inequalities in the rural areas by regions*
5. ***, NIS (2010) *Communes Files* 2008