

THE ANALYSIS AND PROGNOSIS FOR SOCIAL SYSTEM OF JIU VALLEY REGION

Lect., PhD student Murărița Ilie,
Ph.D. Assoc. Prof. Siminică Marian Ilie,
Assist. Ph.D. student Cîrciumaru Daniel
University of Craiova
Faculty of Economics and Business
Administration
Craiova, Romania

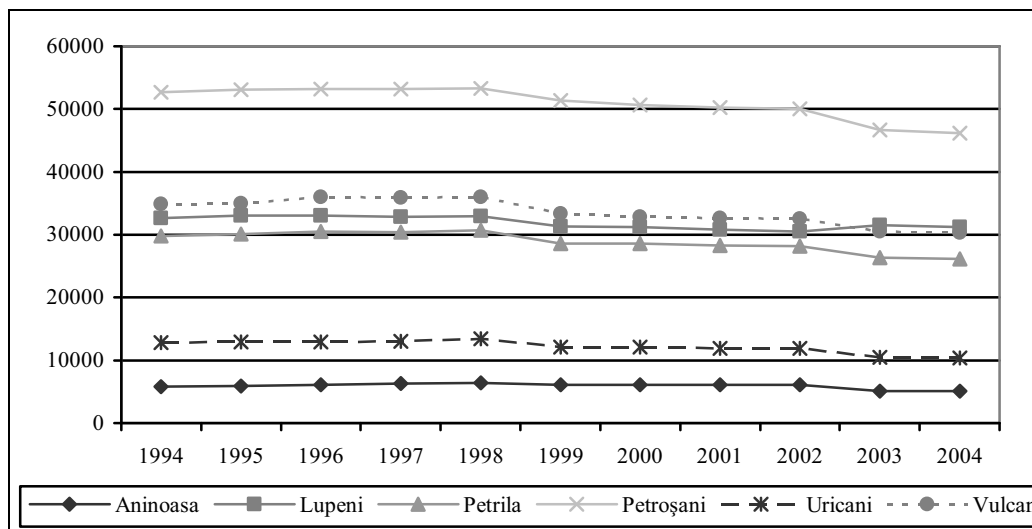
Abstract: The deep economic-social crisis, which marked the transition of Romanian society from the planned economy to market economy, affected to a high level the Jiu Valley. This occurred because the mono-industrial character of the region didn't sustain a quick accommodation of the economical system, thus after 16 years from the events December 1989, the reality from the Jiu Valley is far away from the present times. Many programs and strategies tried to develop the local economy, but without results. We wish to carry out a statistical analysis of the Jiu Valley and we present a forecast of some territorial indicators, as well as the ways and the means of economical development of the region.

Key words: crisis, development, regional, analysis, prognosis.

In Romania, *coal industry* registered a slow increase during the first half of the 1990, followed however by a marked decline of production in the second part of the last decade. The objectives of the first strategy of reorganization in mining, from 1998, were referring to adjusting the mining industry at the requirements of market economy, minimize state direct involvement as owner, investor and subsidies supplier, increasing the environment protection degree, attenuating the social problems caused by the lock-out of some capacities and straightening the economy of the mining regions. After many years of reorganizations, dismissals and lock-out of many unprofitable mines, doubled by the labour productivity increase and ecological impact reduction, constitute perceptible results of the strategy, while increasing efficiency by reducing costs, redeployment, developing investments and alternative activities constitute unreachable desiderata.

Jiu Valley constitutes the unmatched spokesman of the coal industry difficulties from Romania, region with important economic-social problems. The deep economic crisis, which marked the transition of the Romanian society, affected in a high level especially the Jiu Valley Hollow. This occurred because the mono-industrial character of the region didn't sustain a quick accommodation of the economical system. The reality from the Jiu Valley is far away from the present times. Located in south of Hunedoara county, the Petroșani Hollow, known better as the Jiu Valley, including the following main places: Petroșani, Lupeni, Vulcan, Uricani, Petrila, Aninoasa. From the regional point of view, the Jiu Valley region belongs to the West W Region, which, at its turn, is part of the Euro region Danube-Criș-Mureș-Tisa. The prognosis allows the identification of the possible ways of evolution in future of the social indicators, and this way the establishment of national developing strategies.

Between 1994 and 2004, *the total population* from Jiu Valley, reduced both for each place and for the entire region, reaching from 168.654 inhabitants in 1994, 149.233 in 2004 (figure no. 1.). The prognosis for “Total population at 1st July (stable)” in Jiu Valley is pessimistic: only 113.572 in 2009.



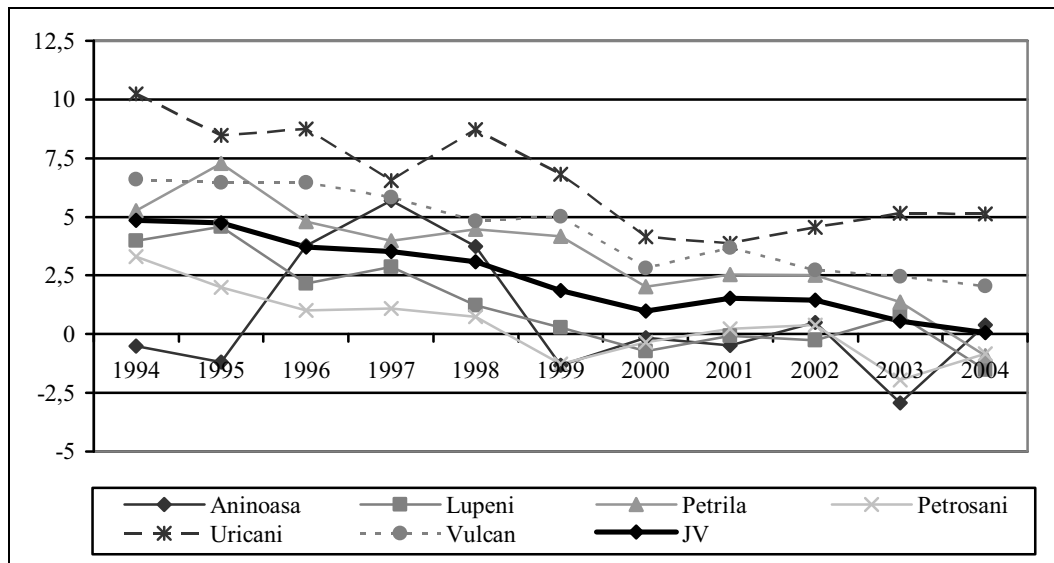
Source: *The County Office of Statistics Hunedoara.*

Figure no. 1 The total population evolution in Jiu Valley, between 1994 and 2004, for each location.

Although increases of population also appear from one year to another, the general trend is of its decrease. If until 1998 changes took place having as effect the rise of population, after this year a continuous decrease of population is happening. Hereupon the levels recorded by the birth-rate and death-rate indicators, in Jiu Valley, the natural increase sees a decreasing general trend (4,86‰ - 1994 and 0,05‰ - 2004). For the Petroșani Hollow places, the natural increase had a sinuous evolution, with consecutive rise and fall, having even negative values for many years (figure no. 2).

The prognosis for „Birth-rate at 1000 inhabitants” has a negative evolution, due to continuous decrease: 14,37‰ in 1994, 10,15‰ in 2004, and in 2009 only 7,66‰. „Death-rate at 1000 inhabitants” has a negative evolution, due to its continuous increase: 9,51‰ in 1994, 10,09‰ in 2004, and in 2009 10,14‰. Putting together the evolution of the two indicators, a negative natural increase is reached for the next 5 years.

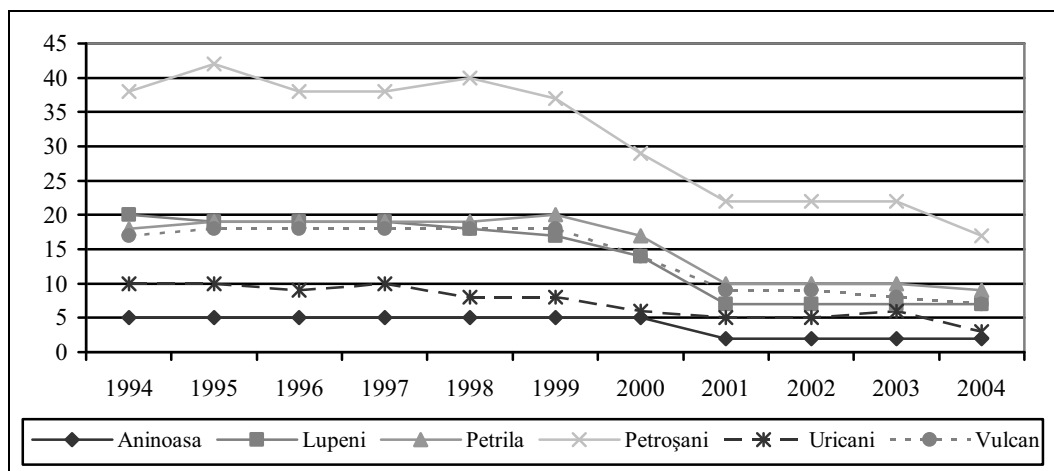
The migration of population from Jiu Valley manifested permanently the past 16 years, being favored by a large number of aspects, such as: the events December 1989, the massive dismissals from 1997, and the way mining labour formed. The maximum level of the migration rate was reached in 1998 (41,48‰), and the minimum level in 1995 (15,27‰). The situation established beneath 20‰ for the last four years. Regarding the prognosis for the migration, the facts obtained are not concluding.



Source: The County Office of Statistics Hunedoara.

Figure no. 2 The dynamics of natural increase of population in Jiu Valley, for each location, between 1994 and 2004.

In figure no. 3 is presented the evolution of educational establishments' number existing in Jiu Valley, for the six towns. A decrease of educational establishment number comes out both for each place as for the entire area (from 108 in 1994 to less than half in 2004 - 45).



Source: The County Office of Statistics Hunedoara.

Figure no. 3 The dynamics of educational establishments from Jiu Valley, for each location, between 1994 and 2004.

The evolution of scholar population in teaching system is relieved in table no. 1. The scholar population from Jiu Valley, with few variations, remained relatively constant (between 35.000 and 37.500). Neither for the places there are no significant variations between 1994 and 2004.

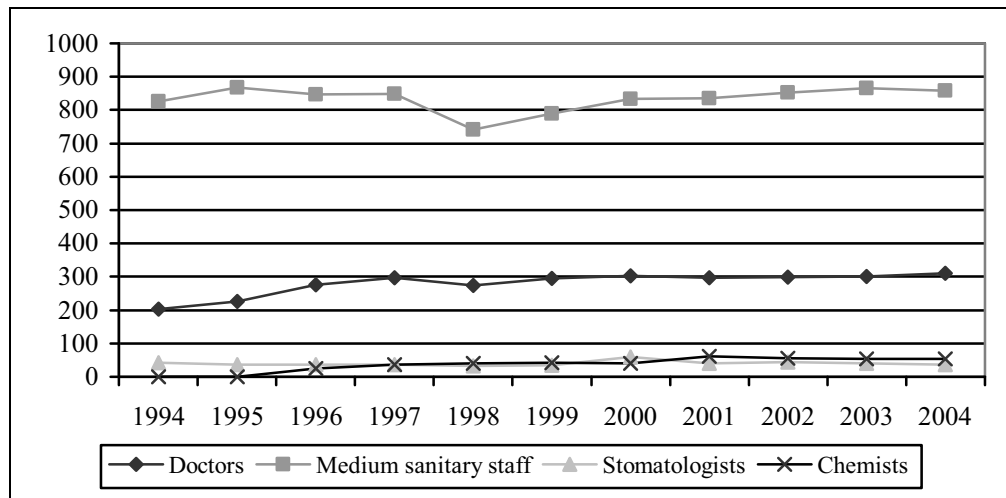
Table no. 1 The evolution of scholar population from Jiu Valley, for each location, between 1994 and 2004

Locality	Year										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Aninoasa	833	907	956	989	948	922	909	860	858	812	761
Lupeni	6929	7066	7389	7375	6945	6575	7450	6571	6513	6609	6654
Petrila	5141	5301	5623	5792	5389	5352	5386	5108	4993	4980	5041
Petroșani	14127	14373	13468	14046	13912	14096	14245	15084	15581	16883	16526
Uricani	2149	2251	2344	2462	2059	2077	1997	1969	1933	1835	1819
Vulcan	6336	6466	6652	6788	6466	6167	5924	6113	5873	5819	5983
JVR	35515	36364	36432	37452	35719	35189	35911	35705	35751	36938	36784

Source: *The County Office of Statistics Hunedoara.*

In “Education”, the indicators evolution, but especially the prognosis, is contradictory. While the number of educational establishments reduces, the number of those entered into the system increases. However, a special situation is represented by the number of students, which is a real one: it increases and are estimated for 2009 12.372 students. The explanation for this evolution is represented by the fact that the University of Petroșani became a regional appeal, students from all over the Jiu Valley Hollow learning in this institution. Teaching staff keeps its decreasing trend from 2000-2004 (from 1.839 drops to 1.723), after a period of growth, 1994-2000 (from 1.564 to 1.839), the predicting for 2009 showing a level of only 1.166 employees.

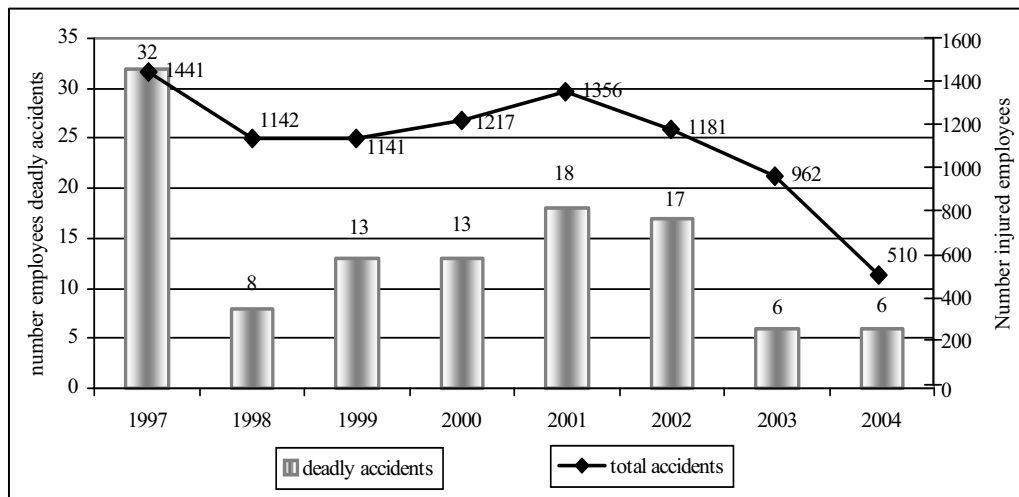
The substructure of health system in Jiu Valley was presuming, in 2004, a number of 4 hospitals, 7 health units, 12 surgeries, 10 stomatologies and 25 drugstores. Regarding the number of beds from the public hospitals, it registered a decreasing trend from 1994 until now (1.632 in 1994, 1.596 in 1996, 1.477 in 2001 and 1.129 in 2004). The dynamics of staff in health system in Jiu Valley, between 1994 and 2004, are rendered with the helping of figure no. 4, which concludes that the trend is of increase for all kind of staff.



Source: The County Office of Statistics Hunedoara.

Figure no. 4 The evolution of health system staff from Jiu Valley, for each category, between 1994 and 2004.

The Jiu Valley inhabitants' precarious health condition is the result of the area special conditions. It is well-known that the miners' professional diseases lead to a medium life time, much lower than the national one. Work accidents in mining are presenting a decreasing trend. The upper work and protection equipment supplies made that, after 2001, the number of work accidents minimize from 1.356 to 340, and deadly accidents decrease from 18 to 6 (figure no. 5).



Source: The National Company of Pit coal Petroșani.

Figure no. 5 Work accidents evolution at The National Company of Pit coal Petroșani, between 1997 and 2004.

In health system, the reforms made that the number of sanitary units permanently decrease. The number of beds in hospitals minimized until 2004 (to 1.129), and in 2009 only 732 beds are estimated. If between 1994 and 2004, the number of doctors waved, however growing until 323, between 2005 and 2009, the prognosis

shows a decreasing trend, so that in 2009 only 241 doctors will work. In exchange, the medium sanitary increased until 858 in 1994-2004, also estimating an increase in the next 5 years, reaching 1.043 persons.

Public utility development is closely related to the concepts of quality life and human development, in general, the quality and quantity of dwellings, streets, drinking water supply, sewerage supply, gas supply, buses. On the whole, a relative stability of dwellings numbers, as well as of the inhabited surface are obvious, both for each town, as for the whole hollow. Public utility development, as well as human life quality, chase, especially the substructure of the analyzed region. In Jiu Valley, important public utility development indicators are present in table no. 2. Although all the indicators register increases, showing a favorable situation, the problem which stands up is of the rhythm of achievement of these increases: very low. From this point started the great disparities towards the developed countries or even towards other regions of the country.

Table no. 2 Substructure indicators evolution in Jiu Valley, between 1994 and 2004

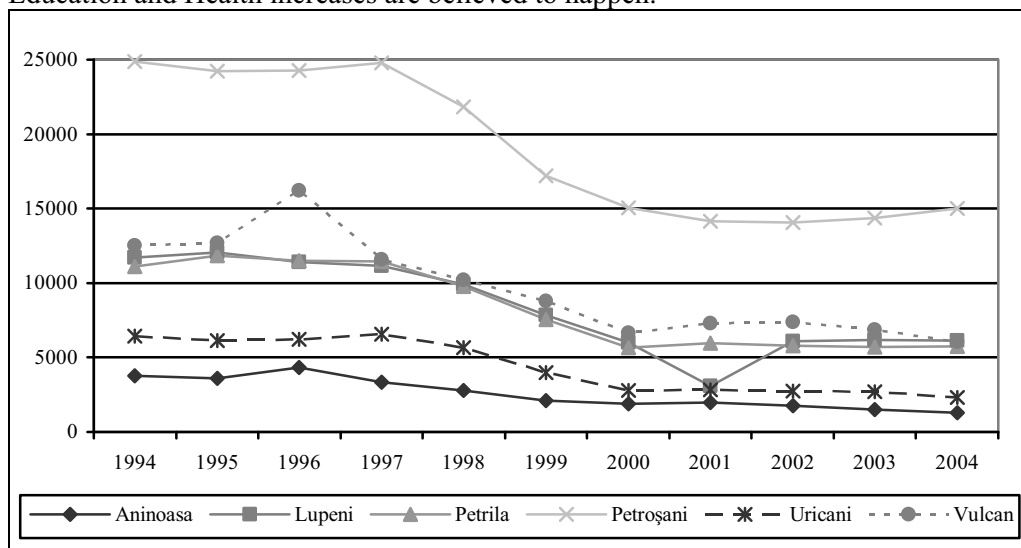
Indicators	Year											
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Existing dwellings - number	55659	55691	55725	55810	55857	55884	55800	55936	56358	56894	56967	
Town streets length - km	388	388	381	385	385	391	402	419	409	410	410	
Drinking water supply length - km	225,7	238,1	232,7	245,1	232,8	245,2	232,8	245,2	232,8	249,4	273,1	
Sewerage supply length - km	138,7	138,7	138,8	138,8	138,8	138,8	138,8	138,8	166	188,5	189,8	
Gas pipe supply length - km	30,2	42,2	42,2	57	33,5	33,5	38,4	33,3	35,9	42,7	57,7	
Buses number	44	46	32	40	18	18	10	10	66	85	97	

Source: The County Office of Statistics Hunedoara.

The predicting referring to public utility development is normal. Thus, for “Total existing dwellings” there is an increase between 1994 and 2004, in 2009 the 56.873 level will be reached. “Habitable surface” increases between 1994 and 2004, being estimated to 2.450.021 meters square in 2009. A series of indicators present increases both since 1994 until 2004, and after this year, as follows: “Town streets length” (388 km – 1994; 410 km – 2004; 446 km – 2009), “Drinking water supply length” (238,10 km – 1994; 273,10 km – 2004; 297,85 km – 2009), “Sewerage supply length” (138,70 km – 1994; 189,80 km – 2004; 307,61 km – 2009), “Gas pipe supply length” (42,20 km – 1994; 57,70 km – 2004; 85,91 km – 2009), “Number of buses” (44 – 1994; 97 – 2004; 301 – 2009).

The Post Decembrist transition represented the economic restraint of activity, which was translated into a massive dismissal. Thus, the average of employees, between 1992 and 2004, almost halved. This situation, same as the distribution of labour for the localities of Jiu Valley, is restored in figure no. 6. Although in some surveys (*Evaluation of present and perspective situation of coal industry in Romania 1990-2000*, survey draft by a Governmental Work Commission, December 1990, page 93), since 1990 only in producing pit the engaged staff was forecasted to reach in 2000 55.000 persons, in fact, in 2000, the hole population in Jiu Valley was under that level.

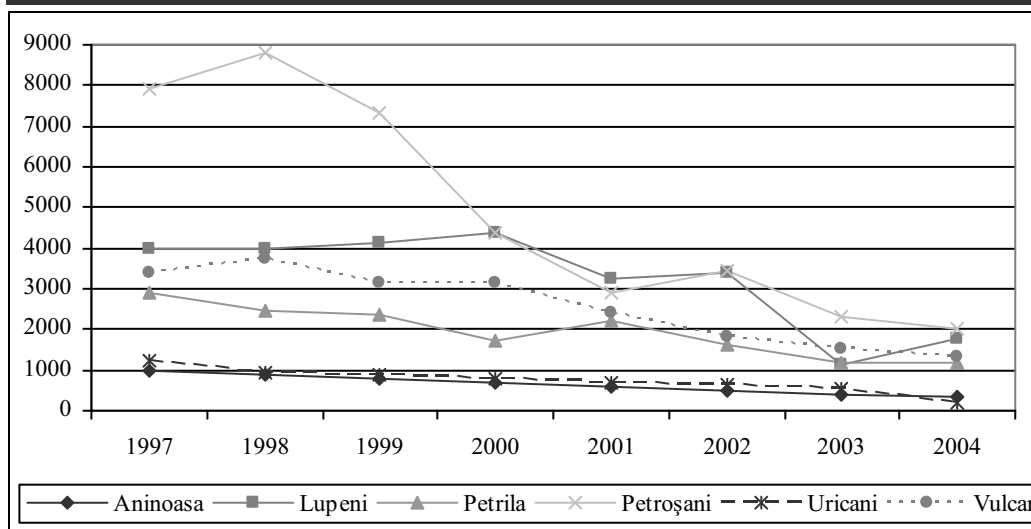
“Employees average” reduced between 1994 and 2004, and the predicting shows a decreasing trend until 2007, followed by a slow reestablishment in the next two years of the provisional horizon (30.630 in 2007; 30.811 in 2008; 31.538 in 2009). If in agriculture a slow increase of employees is pointed out, the decrease in industry is more important: in 2009 only 11.780 employees are estimated. The extractive industry deals with a similar situation: the decrease between 1994 and 2004, and in 2009 only 7.258 employees will remain. In the processing industry, a reestablishment leading to a growth of staff is expected, so that, in 2009, their numbers reach those from 1994. In “Electrical and thermal energy, gas and water”, the average of employees, after oscillations until 2004, will resolutely reduce. In construction, a reestablishment of staff is expected, after the decrease recorded until 2004, an ascendant trend is estimated. If in Trade, Transport, Financial activities, decreases are recorded, in Public Administration, Education and Health increases are believed to happen.



Source: The County Office of Statistics Hunedoara

Figure no. 6 The evolution of the average of employees in Jiu Valley, for each location, between 1994 and 2004.

The labour market represents, no doubt, one of the most sensitive domains of Jiu Valley Hollow. By its permanent pinch, by the lack of regional solutions, dramatic situations stroked the population, although from the statistical point of view, things are not as serious as they seem. Thus, the registered and paid unemployed’ situation, for each place in Jiu Valley, between 1997 and 2004 (figure no. 7), show a continuous decrease, their number minimizing for almost three times (for Jiu Valley Region, from 19.430 unemployed in 1997, to only 6.786 in 2004). The prognosis for “Unemployed”, at regional level, but also for each place, show reduce till disposal. The results are considered to be inconclusive, even if the descending trend of the indicator is natural.



Source: CAE (County Agency for Employment) Hunedoara.

Figure no. 7 The evolution of unemployed in Jiu Valley, for each location, between 1997 and 2004.

Jiu Valley registered, thus after 16 years from the events December 1989, a reduced progress level and into a very low living of the inhabitants of the region. The multiple difficulties founded in the economic-social evolution can't find their pending through ill-assorted approaches, but by considering the region as a hole, with all its advantages and disadvantages. In this direction, the zonal development strategy is considered to necessary have as main objectives stimulating the creation of new jobs by developing the private sector, rehabilitating the regional substructure, supporting the zonal activities, transforming the environment, promoting the Jiu Valley. The reform in Jiu Valley will have to contain as a central point the social dialog, even though it is possible for this attitude to stand as a slowing down of the reorganization, however it's rather to be a slower advancement, but constant, than a voluntarist acceleration containing the risk of returning to the starting point.

REFERENCES

1. Biji M., Biji E.M., Lilea E., Anghelache C.
 2. Ciurlău C., Enea-Smarandache I., Tomiță I., Popescu Gh., Murărița I., Dura C.
 3. Radu C., Ionașcu C. M., Murărița I.
 4. Velica I., Shreter C.
- Tratat de statistică*, Editura Economică, București, 2002
 PREVIZIUNE ECONOMICĂ – Abordare conceptual-metodologică, Editura Universitaria, Craiova, 2003
 Bazele statisticii, Editura Universitaria, Craiova, 2003
 Călătorie prin vârstele Văii Jiului, Editura Destin, Deva, 1993