

## THE EMPLOYED POPULATION OF IASI COUNTY AND ITS INCOMES – BETWEEN PRECARIOUSNESS AND GROWTH

Andrei Chirilă<sup>1</sup>

**Abstract.** This article is written in an attempt to analyze the distribution and dynamics of the employed population in Iasi County, including a qualitative approach of the development of wage levels, taking into account that it is this part of working population that creates financial surplus value and presents the driving force for the economic development of any society. The present study consists of several components. First of all, we are going to analyze the dynamics of the employed population rate (compared to labour resources economic activity rate) and that of the average net nominal wage level (taking into account the real earning index) in the post-1990 period at county level, in order to create a complex picture of the situation of this socio-professional category. The main part of this paper presents the analysis of the territorial distribution of the employed population rate and the realization of a spatial typology according to economic activities structure (at NUTS V level). The third part of this study discusses the issue of supplementary income (including in the form of wages), which is not taken into consideration by the official statistics. Here we refer to the EU-financed projects, according to the activity sectors of the beneficiaries (the engaged financial assistance). This type of the institutional resources has been chosen for the reason that these institutions can provide income growth on short term, as well as the premises of an increase in the competitiveness level of the labour resources and, in a broader sense, of local development.

**Keywords:** *Iasi County, labour resources underutilization, wages evolution, employed population rate*

### 1. Introduction

The present article represents an addition to vaster studies which deal with the issue of the labour resources in Iasi County, both by quantitative approaches concerning their dynamics in the post-1990 period, and by the definition and calculation of the precariousness of the active population's incomes, taking into account their socio-occupational status. Thus, an inherent continuation of these studies is represented by the number and the incomes of the employed population, occupational category that should sustain, at least theoretically, the other components of the society. According to the official data of the National Institution of Statistics (INS), calculated in the Household Budgets Survey (ABF) (Veniturile si Consumul Populatiei, 2011), the monthly cash income per capita of the households run by employed persons accounted in 2011 for 943 RON (national level). In the same time, the cash expenditures per capita (the same year and the same socio-economic category) accounted for 843 RON. Likewise, the average monthly income of working employed households was in

---

<sup>1</sup> PhD Student at “Al.I.Cuza” University of Iasi, Faculty of Geography and Geology, Department of Geography, Bd.Carol I 20A, 700505, Iasi, Romania, andrei\_g\_chirila@yahoo.fr

2011 only 30% higher than the average income of all households. Having analyzed these data, we can affirm that even though the employed households are in a better situation than the others, even the employed population can be characterized by financial precariousness, taking into account their income and expenditure volumes.

Another worrying aspect is the underutilization of working resources, meaning a reduced rate of the employed population (24% at county level in 2010, with the rate arriving at around 10% in some communes), correlated with an economically active population rate continuously reducing after 1990. Thus, even though there exists a reserve of labour force (especially in rural areas), it is either unused, either used inefficiently (own-account workers and unpaid-family workers that are occupied in a subsistence agriculture), or used in the informal sector. Taking into account that, at national level, cash expenditures concerning taxes and contributions account for 28.7% of total expenditures in the case of employed households, and that in the case of other categories, these expenditures account for 10% of the total (3% in the case of farmers) (*ABF, INS 2011*), we can affirm that a reduced employed population rate hinders good financial functioning of the society, including by smaller budgets of pension and healthcare funds. As far as the dynamics of wage level is concerned, this has experienced some positive changes lately, but, taking into account the real income index, this growth is much diminished by the level of inflation; here we can speak about the notion of precariousness of salary income growth.

## 2. Labour resources underutilization

In order to measure the underutilization of labour resources of Iasi County in the post-1990 period, we calculated two rates: labour resources economic activity one and the employed population one. The labour resources economic activity rate represents the ratio, expressed as percentage, between the economically active population and the labour resources. The economically active population includes all the persons who work for an income and whose work is usually done in one of the activities of the national economy, based on a work contract or a free-lance activity (self-employed) in order to get income such as salary or in kind payment. The labour resources include working age population which is able to work, as well as persons under and over the working age but who are still working. (*INS – Tempo*). As far as the employed population rate is concerned, it is represented by the percentage of the employed population in the total population aged 15-64 (*Iatu, 2006*).

Both rates have negative dynamics between 1990 and 2010 (figures 1 and 2). The first one decreased from about 80 percents in 1990-1991 to a minimum of 53.3 percents in

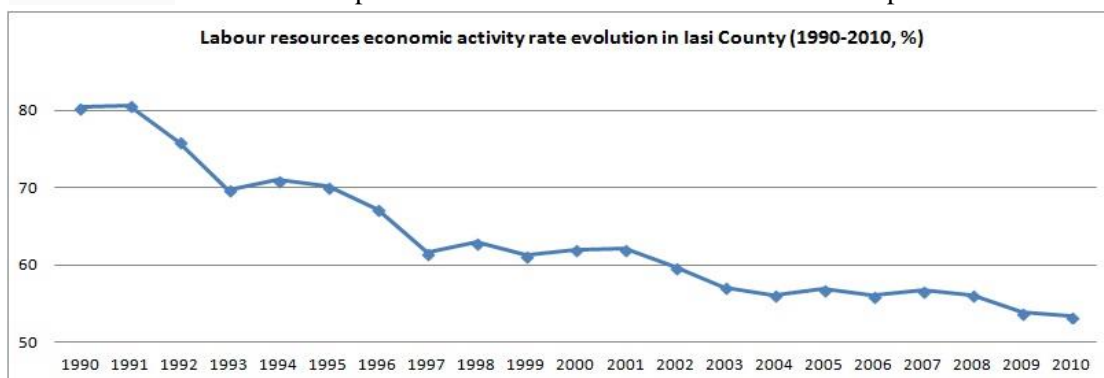
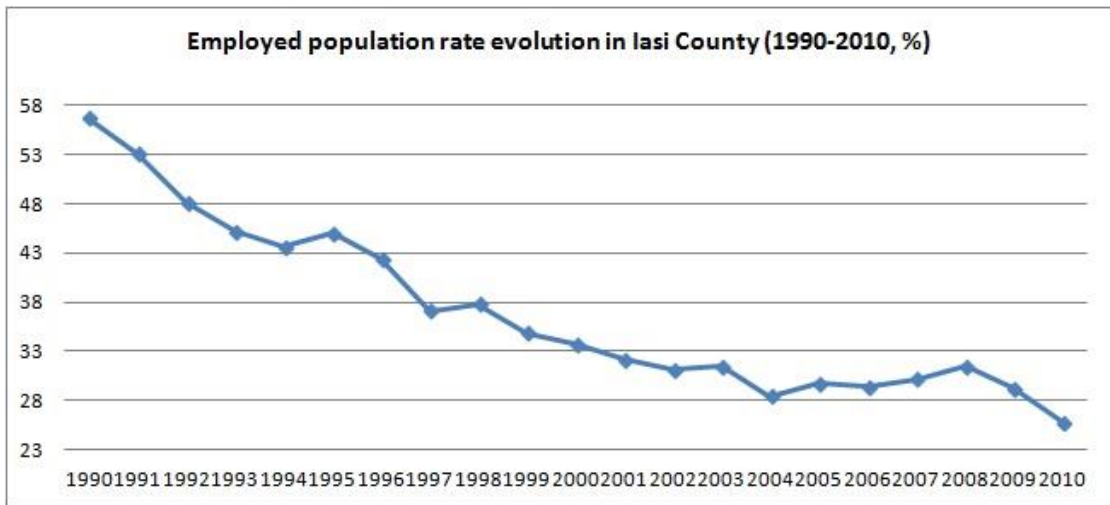


Figure 1: Labour resources economic activity rate evolution in Iasi County

2010, the relative values recorded in Iasi County being below the national ones for the entire analyzed period and quite similar to the ones recorded in the North-East Development Region.

Figure 2: Employed population rate evolution in Iasi County



Although the total stable population has slightly increased in the county after 1990, the economic characteristics of the transition have led to this concerning situation. The principal causes are the massive dismissals and the abolition of agricultural associations, but also the international migrations which have affected particularly the working age population. The employed population rate also decreased from 56% in 1990 to nearly 24% in 2010. These very low percentages may be explained also by an important part of students in the youth population (especially in the case of Iasi Municipality), as well as by early retirements in order to diminish the effects of collective dismissals or by internal migrations of the ex-employees of the industrial giants in the cities towards their origin villages (a part of the phenomenon of *rurbanization*). They increased the number of the unpaid family workers or of the own-account workers, their productivity being extremely low. This type of activities is also known as a survival economy (Barthou, 2008), the small plots of land permitting to the people to avoid buying food or other agricultural products. Although these activities are perceived as a manner to survive, they are far from being profitable and pecuniary and prevent the small farmers from higher incomes.

To conclude, these continuous declines of the economic activity rate and of the employed population rate are leading to an underutilization of the labour resources, more or less skilled resources that sometimes activate in the (semi)informal economic sector.

### 3. Wage Dynamics

Another aspect that must be taken into account when analyzing the employed population is the qualitative one, meaning its level of incomes. Although the number of the employees continuously diminished after 1990, the level of incomes tended to increase, at least for the last decade. From this point of view, between 2005 and 2011 (figure 3), the average net nominal monthly wage almost doubled, both in Iasi County and in Romania and the North-East Region.

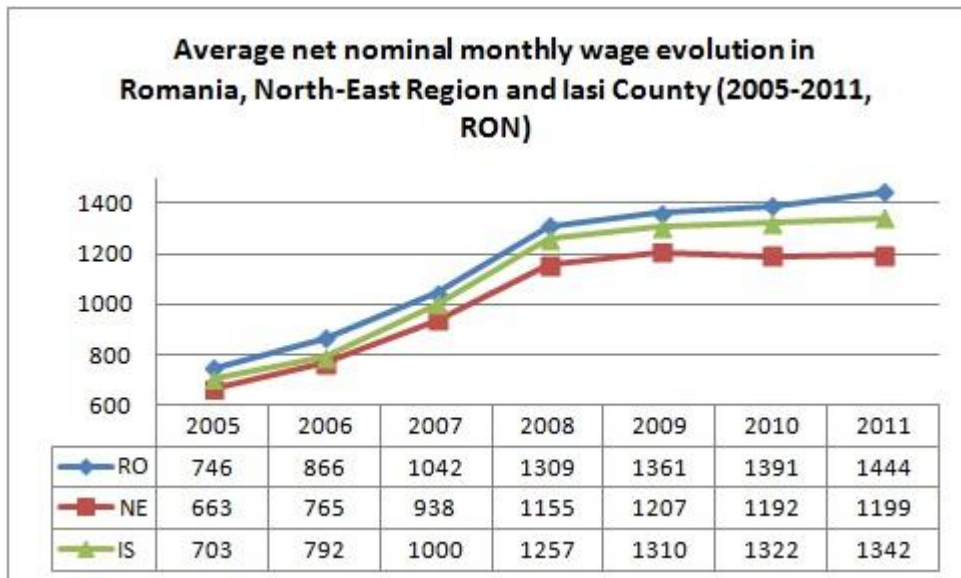


Figure 3: Average net nominal monthly wage evolution in Romania, NE Region and Iasi County

However, this matter of facts must be treated with precaution and moderation. The net nominal wage in Iasi County increased from 703 RON in 2005 to 1342 RON in 2011, but in the entire period it remained below the national values, a small gap still existing to the levels recorded in other similar counties from the point of view of their population and economic functionality. For instance, the net wage in 2008 in Iasi County was 1257 RON, while in Cluj and Timis counties it was slightly higher, of 1315 and 1319 RON respectively. In comparison, the net monthly wage in Bucharest (same year) was almost 50% higher, a value of 1838 RON being recorded by the INS. Moreover, the optimistic outlook of wage doubling must be tempered if the real earning index evolution is taken into account (figure 4). It represents the ratio between the average net nominal earning index and general consumer price index (INS, Tempo



Figure 4: Net average monthly real wage evolution in Iasi County

Thus, if considering the inflation rate, we reach to the conclusion that the real average net wages in Iasi County have known an increase of 300 RON between 2005 and 2008 (the year when the maximum GDP was recorded), the dynamics becoming slightly negative after that critical moment, reaching a value of 953 RON in 2011. Still, the qualitative aspect of wage dynamics remains one of the few positive ones encountered in the analysis of the employed population.

#### 4. Territorial Differences of the Employed Population Rate

In order to refine our study, we have calculated the employed population rate also at a territorial level (NUTS V) in 2010 (figure 5), consulting the 2011 BDL (Local Database) of Iasi County Statistics Department.

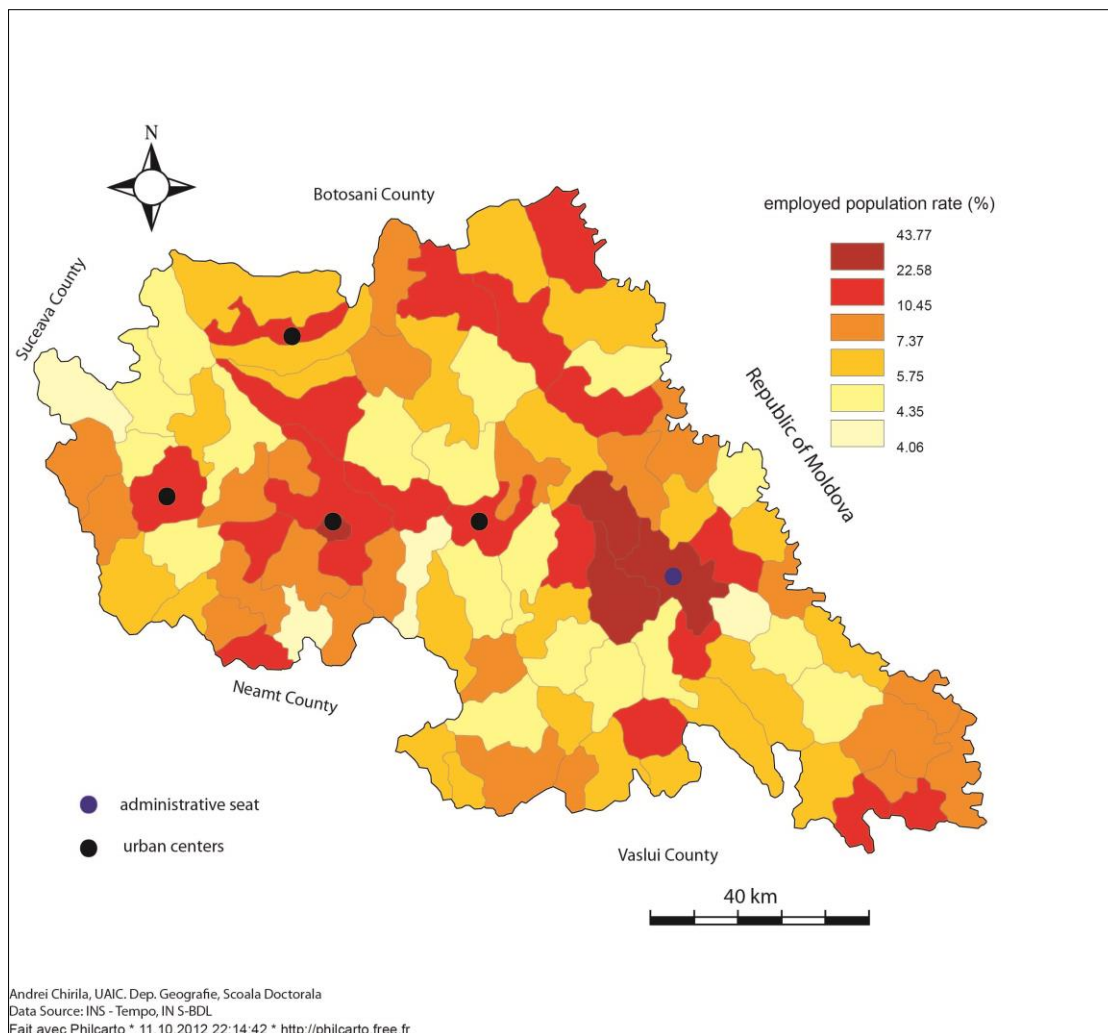


Figure 5: Territorial differences of the Employed Population Rate in Iasi County (2010)

At county level, the employed population rate has a relative value of 24%, the maximum being reached in Iasi Municipality and the minimum of 4% in Butea commune (more than 55% of its employees work in public administration, educational and sanitary sectors), in the south-western part. The low value encountered in the administrative seat can be explained also by the large proportion of students in its educational structures, but even so, an underutilization of the labour force can be noticed, given the fact that there are only 102 thousands employees in a total population of around 300 thousands, even if this underutilization may be a synonym for a large number of population working in the informal sector. In the case of the other administrative units of the county (especially in the rural areas), the situation is not as much affected from this point of view as in Iasi Municipality, as there are lesser percentages of students above 15 years old, lack of higher education institutions.

A drawback of the present analysis is represented by the fact that the number of employees is calculated on the base of what economic units are reporting and the places of residence of the employees is not taken into account. That partially explains the high rates in the communes of Iasi Metropolitan Area, as a big part of the employees of Delphi Letcani or CET II Holboca actually live in Iasi. On the other hand, even so, the existence of the employers in those communes brings financial value to local budgets, by taxes on buildings and terrains. However, the other rural areas are less affected by this drawback, given the fact that the working population tend to be more immobile (educational, sanitary or administrative sectors).

The central part of the county is positively distinguished, namely Iasi Metropolitan area and Iasi-Pascani axis, with rates between 15-25%, denoting better economic activity and higher mobility of the employees, this axis being the backbone of the county railway network. Another area with relatively higher rates is the north-eastern one, which disposes of important agricultural units (Bivolari or Trifesti), as well as some isolated cases, as Sipote ori Grajduri communes, with big sanatoriums, or as Mircesti, where 64% of the employees work in manufacturing activities (agro-industrial or woodworking).

The areas with the smallest values are the southern, north-western and north-central ones (Tatarusi – 4.21, Valea Seaca – 5.32, Voinesti – 5.12 or Gropnita – 4.78), which are characterized by reduced accessibility and by a high percentage of own-account or unpaid-family workers in subsistence agriculture. Moreover, unexpectedly low rates are registered in some administrative units south-east of Iasi Municipality, as Aroneanu (7.35), Ciurea (4.40) or Tomesti (4.25). The inexistence of some major industrial or commercial units (as in Holboca, Letcani, Rediu or Miroslava) and their lower economic attractiveness determine them to be only sleeping neighborhoods of the administrative seat of the county.

Even if there are spatial discontinuities in the territorial repartition of the employed population rate, its extremely low relative values in all the localities represent a factor of quantitative precariousness. The lack of investments in the rural areas, the reduced accessibility, the actual age of the persons dismissed in the 90's that does not permit themselves to re-qualify or even the fear of taking the responsibility for the personal economic well-being (Ionescu, 2007) are only some of the causes that led to this dramatic situation.

## **5. Spatial Typology of the Employed Population Economic Structure**

The occupational structure of the employed population on economic activity sectors is a complement of the *diagnose* of the situation of Iasi County's workforce, between precariousness and growth, both quantitative and qualitative. We have realized a multivariate

analysis, after having consulted the BDL Database of Iasi County (2011) and taking into account all the activity sectors, in order to establish the localities' economic specializations and their eventual vulnerabilities. These sectors are: agriculture, forestry and fishing, extractive industry (mining and quarrying), manufacturing industry, energy-gas activities, water distribution and sanitation, constructions, trade, transport, Horeca, information and communication, insurances, real estate, professional-scientific-technical activities, administrative services, public administration-defence-public social insurances, education, health and social assistance, culture and, finally, other activities.

The administrative units of the county have been divided into six classes, according to the number of employees in each economic sector, compared to the county average (in percentage). Thus (figure 6), the first class (red on the map) consists of 4 urban units – Iasi, Pascani, Targu Frumos and Harlau – with extremely diverse specializations, having higher proportions than the average of employees in industry, energy, water distribution, constructions, transport, information-communication, insurances, real estate, scientific-technical and private administrative services.

The second class (dark blue) represents the other extreme of this typology. Almost half of the administrative units (44) belong to it, especially in the southern, south-eastern, north-eastern and western part of the county. The part of the population working in the industrial sector is under-dimensioned, as well as those working in constructions, distribution of water, energy, as well as those working in private enterprises of the tertiary sector. Moreover, they are characterized by higher percentages of the employees in public administration, health and educational systems. As a matter of fact, they work in the budgetary sector, in state institutions that do not pay taxes to local councils, but, on the contrary, they are often subsidized. We do not doubt about their strict necessity, these being the most basic services a community may offer (along with small trade activities), a healthy, educated and skilled population representing a departure point to future local development. Yet, without private sector activities it is impossible to generate development on long term. This can happen only if taken full profit of existing local resources, for rural areas this meaning the agricultural ones. However, even the primary sector is slightly under-dimensioned, with only 5-10% of the employees working in this field. The vast majority of the working population in agriculture are own-account or unpaid workers that, at most, are paid in kind. These are the most vulnerable area as far as the working-age population is concerned, also being a large reservoir of international migrations. Those migrations of the working-age and fertile population can lead on long term even to depopulation.

The third class (green) consists of 3 communes (Halaucesti, Tibanesti and Raducaneni), with higher percentages of the population employed in the manufacturing sector, construction, energy and water distributions. The more diverse economic structure leads to smaller proportions than the county average of people employed in the budgetary sector. Furthermore, the information-communication sector is surprisingly over-dimensioned, as there are cable enterprises in each of these three administrative units, an example being SC Norbert Communication SRL from Halaucesti, with 12 employees (almost 5% of the total). With up to 40% of the employees working in the manufacturing sector (clothing or glass fibre processing), the economic structure of this class is quite solid.

The fourth class (yellow) consists of 15 communes widely spread on the county's territory, with higher proportions of people employed in agriculture, manufacturing, transportation, constructions and with smaller proportions in the budgetary sector. It is a quit inhomogeneous class, characterized either by agricultural or agro-industrial specializations (Protota, Strunga, Vladeni, Cotnari, Baltati – dairy, wine and fruit-growing enterprises), either



by manufacturing ones (Holboca, Letcani, Mircesti – the latter with almost 65% of the entire employed population).

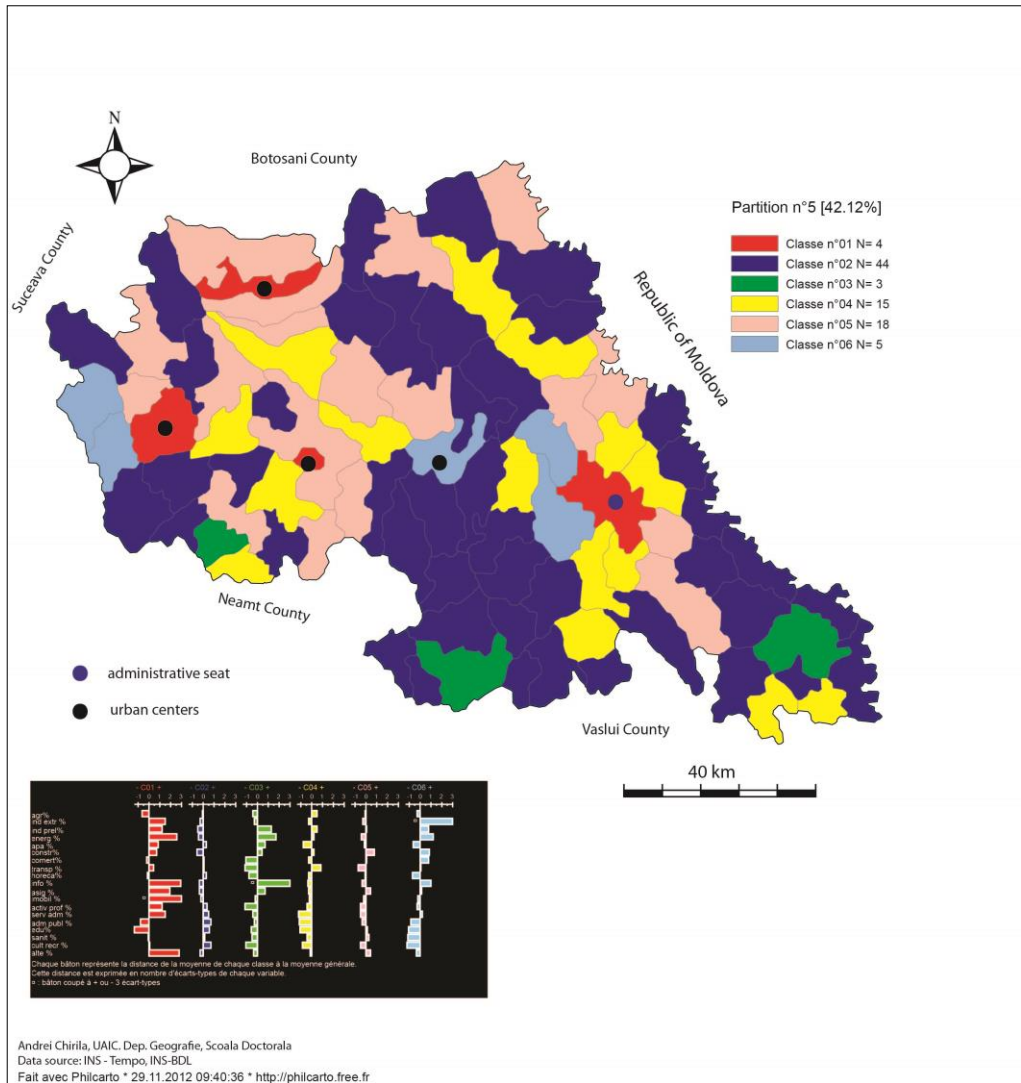


Figure 6: Spatial Typology of the Employed Population Economic Structure in Iasi County (2010)

The fifth class (rose) comprises 18 communes and is characterized by higher percentages of people employed in constructions and education and health systems, the majority of the economic activities being under-dimensioned. As a matter of fact, it can be considered as an extension of the second class and therefore may be vulnerable because of the lack of investors, of its reduced accessibility and of the under-utilization of the local agricultural resources. Finally, the sixth class (light blue on the map) is composed of 4 communes (Miroslava, Reditu, Motca and Cristesti) and a town (Podu-Iloaiei), with higher percentages of the population working in the secondary sector, as well as in energy, trade, constructions and communication sectors. Implicitly, having a diverse economic structure, the



budgetary sector is under the county average. As the previous class was an extension of the second one, the sixth class may be perceived as an extension of the first one, or in a broader sense, semi-urban one. A fact that must be mentioned is that the western communes belonging to this class have also important percentage of people working in mining sector (around 10%), exemplifying from this point of view with the extraction of gravel, sand, clay and kaolin (SC Moldova Cristesti SRL).

## **6. EU Structural Funds – between income growth and sustainable development**

The official data on the salary levels (as well as on the incomes in general) does not fully reflect the territorial realities and the living standards of the population. Thus, in order to create a complex picture in this connection, we are to use the concept of territorial resources, defined as the means a territory disposes in order to generate wealth, means that can be built on ideal or material components (Gumuchian and Pecqueur, 2007). Since the income level is exclusively material and financial, we decided to research the issue of the European funds, which represent a source of income growth, as well as a modality of local development on mid and long term. Therefore, we reviewed all the projects in Iasi County approved for the European financing (ADRNE site) and classified them according to the sectors of economic activity. We have chosen this classification and not the one according to operational programs because the latter often contain projects dealing with various economic activities, which would make the observation of engaged funds destination more difficult.

On the whole, in Iasi County during 2007-2013, the total financing of the approved projects accounts for 2.58 billion RON, even though not the whole sum has been consumed. The distribution according to the activity sectors (figure 7) reveals the fact 36% from the total sum is assigned for the environmental projects (927 million RON), next come the educational projects (17% or 441 million RON), those for the urban development (12% or 317 million RON), research and innovation (243 million RON), transport and social infrastructure (218 million RON), tourism (185 million RON) and the manufacturing sector (139 million RON). The latter three categories have the smallest share of all; however, the sums involved are still (agriculture – 41 million RON, administrative capacity strengthening – 40 million RON and information technology – 27 million RON).

The aim of this part of the study is not to exemplify and name the projects (for these, one can consult the site of Development Agency of North-East Region), but to underline their major role in the increase of population income levels. Thus, this growth can be either direct (by means of payments for qualification courses, funds for the development of individual agricultural farms, grants and trainings for socio-professional insertion of youth or by employments for determined periods of time) or indirect (by means of payments for those employees of state-own enterprises who realize the extension and the modernization of the utility systems or those of the private enterprises selling construction materials or various equipment). Likewise, we can affirm that in some sectors of economic activity (education, research and innovation, administrative capacity strengthening) the major part of the sum is used as direct incomes. In other cases, the major part of the funds is used for the acquisition of circulating assets, thus creating an indirect financial surplus value.

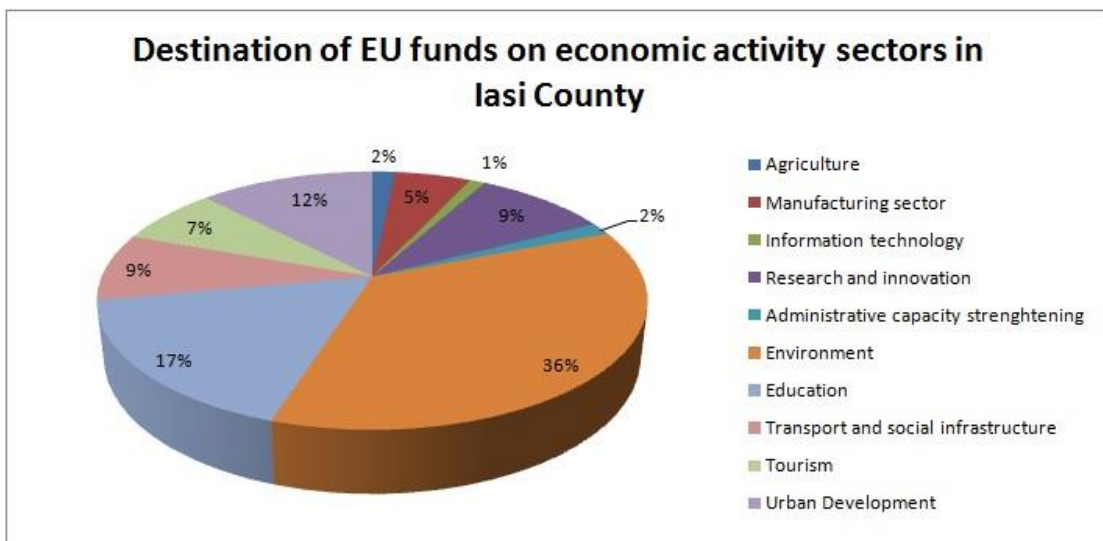


Figure 7: Destination of EU Funds on Economic Activity Sectors in Iasi County (2007-13)

As far as the territorial distribution of the engaged funds is concerned, with the exception of agricultural (including forestry and fishing) sector, the major part of them is concentrated in Iasi Municipality, thus contributing to the discrepancy between the administrative seat and the rest of the localities and, broadly speaking, between urban and rural population. Moreover, only some of the administrative units have launched projects, for example Pascani (manufacturing, tourism and urban development sectors) and several communes near Iasi (Holboca, Tomesti, Popricani and Letcani – the latter stands out because of the investment of 14 million RON in a logistics park). In addition to this, we have to add that some projects are not addressed to an individual administrative unity, but to the whole county. However, these projects is likely to guarantee not a direct increase in rural population incomes, but rather sustainable development on long term (the extension and rehabilitation of water infrastructure in the county, the providing of training courses and the modernization of transport infrastructure).

We should pay special attention to the agricultural sector, characterized by projects for rural communities (by Rural Development National Program). The sum allocated for this program accounts for only 2% of the total funds; however, they contribute, directly or indirectly, to the increase in the incomes of financially vulnerable areas of the county. Besides, three of the most accessed measures of RDNP (112 – The Setting Up of Young Farmers, 121 – The Modernization of Agricultural Holdings and 312 - Support for the Creation and Development of Micro-Enterprises) are aimed as well at the income growth. The territorial distribution of these sums is much more balanced than in the case of the other activity sectors; however, here we can single out the north-east (cereal farms) and the south-east of the county (horticulture), highlighting their agricultural specializations. Major part of the funds has been accessed by juridical persons; the financial assistance to the physical persons generally accounts for 7500-15000 RON. The question we set before us in this connection is what is encouraged by the access to such type of funds, either the productive quality of larger farms, or the quality of living conditions through the income growth. There is a room for improvement for both types of quality; the creation, modernization or the extension of agricultural units imply, at least theoretically, an increase in the number of employees, a

way to fulfil the transition from subsistence agriculture to a collective and organized system. In addition to this, the sums that the respective economic agents will bring to the local budgets cannot be neglected, for they also create indirect local development.

## Conclusions

The conclusions of this study are in the same time optimistic and pessimistic and they can be categorized as it follows:

### *Positive:*

- The average net monthly wages increased in the late period (2005-2011) in Iasi County, being higher than the ones registered in the North-East Development Region, but smaller than the ones from similar counties (population, economic functionality) such as Timis, Cluj or Constanta
- The EU structural funds represent both an important source of income growth (in a direct and indirect manner) and of sustainable development, due to environmental, infrastructural, educational, research, agricultural and manufacturing projects

### *Negative:*

- Iasi County suffers of a chronic underutilization of labour resources (small economically active population and employed population rates, low profitability of the economic activity of own-account and unpaid-family workers in agriculture); this situation can lead to even more serious demographic problems
- big discrepancy of the employed population percentage between urban and rural areas and, in particular, between Iasi Municipality and the rest of the localities; this discrepancy is found also in the case of the distribution of structural funds
- 62 rural administrative units are vulnerable from the point of view of the economic activity structure, with high representation of the budgetary sector, with employed population rates below 5%, but without a profitable exploitation of local agricultural resources.

## Acknowledgements

This work was supported by the European Social Fund in Romania, under the responsibility of the AMPOSDRU [grant POSDRU/CPP 107/DMI 1.5/S/78342].

## References

1. Barthou E., 2008. *L'Economie de survie ou comment s'adapter à l'essor du capitalisme en Roumanie*, Presses de Sciences Po, Autrepain, no. 4/2008, p. 101-112
2. Gumuchian H., Pecqueur B., 2007. *La ressource territoriale*, Edition Economica, Collection Géographie, Paris
3. Iatu C., 2006. *Démographie et géographie du travail en Roumanie postdecembriste*, Ed. Sedcom Libris, Iași
4. Ionescu I., 2007. *La question de la pauvreté en Roumanie*, Pensée Plurielle, no. 16, 3/2007, p. 141-151
5. DJS Iasi – BDL 2011 (Local Database 2011)
6. INS, 2011. *Veniturile si consumul populatiei*
7. ADRNE – Regional Development Agency of North-East Region
8. INS – The National Institute of Statistics. *TEMPO Database*