THE DEMOGRAPHIC COMPONENT IN THE DEVELOPMENT OF A METROPOLIS. CASE-STUDY: IAȘI¹

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ABSTRACT - Several peculiarities make Iaşi an outstanding city: it is a first-rank city in the national settlement system and the capital of the historical province of Moldova, numbers over 300,000 inhabitants and holds the 2nd position in the national urban hierarchy by demographic size, and a national growth pole since 2008 (Government Decision 998/2008). In view of the above, Iaşi has a significant demographic potential, also discharging complex functions and polarizing a large influence area, being one of the pillars of urban development in Romania. The aim of this paper is to outline the urban development strategy in the light of demographic structures and evolution. The demography today in the peri-urban space shows two characteristic features, namely the urban—rural migration, on the one hand, and the dominant agricultural functionality, on the other hand, as mirrored by the structure of employment. The development—related factors are the positive natural demographic balance, low level of population ageing and supply of a large workforce, a potential well-balanced local labour market. Concluding, the provision of Iaşi integrated urban and peri-urban strategy are pointed out.

Keywords: demographic evolution, urban development, catalyst factors, development strategy, Iași

INTRODUCTION

The population of Iaşi and of its peri-urban space, just as the population of the county itself, has been decreasing. The Projection of Romania's Population by 2025, published by the National Institute for Statistics in 2004, shows that, in Iaşi County, the demographic evolution will take a downward trend, basically forecasts speaking up of fewer inhabitants in 2025 than in 2003 (775 thou. inhabitants). However, in comparison with the evolution at the county level, Iaşi appears to have some peculiarities offering long-term advantages. As a matter of fact, in most regional metropolises of Romania, the recently revigorated fertility rate was due to positive economic dynamics and employment offer in the local job-market. Although Iasi has not indicated any economic growth comparable with other regional metropolises (Cluj-Napoca and Timişoara), yet recent evolutions look promising for a comeback liable to stimulating also fertility, hence birth-rates and natural increase. This assumption is sustained by recent demographic trends. In July 2009, there were 860 live births (by 121 fewer than in 2008), 610 deaths (by 12 fewer than in the previous year), the natural increase being +250 people (by 109 more than in 2008). But, for all the decrease compared to 2008, the birthrate was pretty high by number of live-births, Iasi County coming second after Bucharest City. The natural increase was positive and one of the highest in Romania while in many other counties (16 out of 41) the record was negative (Iasi County Directorate of Statistics, Press Report No. 22/2009).

Several peculiarities make Iaşi an outstanding city: it is a first-rank city in the national settlement system and the capital of the historical province of Moldavia, numbers over 300,000 inhabitants and holds the 2nd position in the national urban hierarchy by demographic size, and a national growth pole since 2008 (Government Decision 998/2008). In view of the above, Iaşi has a significant demographic potential, also discharging complex functions and polarizing a large influence area, being one of the pillars of urban development in Romania. The national increase pole, recently

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granted status in accordance with the Strategic Concept of Territorial Development in Romania 2007-2030 and the Reference National Strategic Framework 2007-2013, warrants the preferential funding of development projects through Regional Operational Plan (Axis 1 for urban development assistance). Earmarking investments to Iaşi and to other six large cities (Braşov, Cluj-Napoca, Constanța, Craiova, Ploieşti and Timişoara) recalls the economic development policy of the 1950s and the 1960s, promoting the growth of regional cities, in particular.

Iaşi City, as well as the towns and the communes analyzed in the present study, fall into a pronatalist regional area. Unlike other regions of the country, natural increase values in Moldavia and Maramureş are the highest compared to Transylvania, Banat, Oltenia or Muntenia (Wallachia). Although somehow attenuated over the past two decades, this characteristic feature continues to distinguish this study area from others.

Recent studies (Muntele, 2008) suggest that after 1990, the post-transition demographic regime in Romania came into being under thoroughly adverse economic and social conditions. The signs of this regime ("the second demographic revolution", Van der Kaa, 1997, 2001) indicate visible variations of the birth and death rates securing over the past few years a natural balance close to zero. From the time being, the risk for the population stock to become progressively eroded has been overcome. One can no longer speak of the classical regional disparity between a traditional demographic regime specific to the north-east of the country and a modern one characteristic of its western parts. Currently, the question is of opposition between the typically post-transition regions (in which fertility rates are recovering), partly adapted to the pattern of development countries (the case of Bucharest in the first place), and the regions passing through the ultimate phase of classical transition (some north-eastern counties). These studies prove that Romania has surpassed the paradigm of imbalances opposing regions of labour shortage to regions of excess labour generating vast internal migration fluxes; the country is already experiencing a paradigm in which own labour resources have been exhausted, a situation characteristic of most Western states. A careful look at recent demographic evolution in Romania suggests clear-cut homogeneity of behaviour in this respect. Extremes tend to fall in line with national averages, and fresh evolutions appear on the horizon. Perhaps most spectacular is the rapid growth of fertility rates and seemingly life expectancy at birth in the most dynamic zones of the country (Bucharest with Ilfov County, and the counties of Cluj, Timiş, Constanta, etc.) At the same time, the areas refraining from modernity are shrinking down to dissolution.

The population of large cities in the nowadays Romania, with over 300,000 inhabitants, has been steadily grown in the 19th and 20th cc), except for Iaşi and Galaţi, in which the population dropped sharply during the Second World War and during the ensuing period of the drought. The previous Master Plan (1995) considers that fluctuation of population in Iaşi is of old standing, emerging as a result of changes in the political-administrative role of the city and of its geographical position during the two World Wars. The eight significant evolution stages of the Iaşi population are further more expressed in global percentages for each period as follows:

- I-1848-1854: when the capital of the United Principalities was moved to Bucharest, Iaşi lost 29.0% of its population;
- II 1854-1912: alternating population increase and decrease, numbers rising by 15.5% on the eve of the First World War; however the most dynamic evolutions were recorded between 1894 and 1900 (16.6%):
 - III 1910-1941: steep population decrease by 48.4%;
 - IV 1941-1948: population fall (15.8%) through war and drought;
- V-1948-1989: fast-growing increase by 251.0%, due mostly to forcible industrialization drive of the centrally-planned economy;
- VI-1989-1999- annual fluctuations with ups (1990, 1992, 1994) and downs (1991, 1993), the overall outcome being a 5.1% increase;
 - VII 2000-2001: dramatic population fall in numbers;
- VIII 2002-2007: dominantly fluctuating values each year, yet not above the normal demographic limits of a large city.

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Out of the total Iasi county population, the city holds 38.2% and 80.1% of urban population. Second in rank comes Pascani, with a demographic ratio of 7:1 in 2007. The fluctuating character of demographic evolutions in Iași makes it difficult to attempt population forecasts not by ordinary methods since migration-induced disturbances do not afford any of these methods as a basis for extrapolating natural increase trends. As mentioned in Iaşi Master Plan 1995, these ups and downs in the evolution of population size in interrelations with the other socio-economic and cultural factors have determined the physical, functional and landscape configuration of Iaşi city urban framework in a pulsatory, sometimes even congestive manner, triggering a process that cumulated functional incompatibilities and disproportions between the architectural layout of various stages. Synthesizing, one may say that in 1930, Iasi City had over one hundred thousand inhabitants, a decrease following in the wake of the Second World War and a comeback to over 100,000 inhabitants in 1956. Intense population growth began in 1966, when the city numbered 160,000 inhabitants. A true functional urban demographic explosion took place between 1966 and 1989, when its population doubled. A brief interval of moderate growth – 1990-1992, was the result of new domicile laws came into effect in "closed cities". Slow fluctuations of population increase and decrease, marked the 1990s, with a peak in 2001: 348,000 inhabitants.

A sharp drop of 45,000 people followed over 2001-2002, a major decrease in the city's history. This dramatic demographic decline of 12.9% of the total population could partly be explained by a positive to negative change in the migration balance, higher mortality rate associated with a fall in natural increase and correspondingly in the vitality rate. On the other hand, the positive evolution of some demographic indicators attenuated the intensity of the above loss through considerable reduction in infant mortality, elevated general fertility and a positive external emigration/immigration rates. Looking at trends in the evolution of the main demographic indicators, it appears that the demographic decline was largely the outcome of the migratory movement. Another explanation would be the statistical estimates for 2001 and reviewed for 2002, used in our study. After 2002, numerical evolutions are rather fluctuating, figures indicating population growth until 2004, a drop in 2005, again growth in 2007, and a decrease over the last interval. In terms of magnitude, fluctuations fall within the normal demographic trends for a large city.

From the beginning of the second half of the 20th century to date, the city's population has trebled - an evolution common also to other 1st rank cities in the Romanian settlement system. Just as they did, top population growth years spanned the 1956-1977 interval. A comparative analysis of long-term demographic evolution of 1st rank cities shows each having its own start, values becoming similar beginning with 1966, comparable positive growth rates going up to the early 1990s. The pace of the demographic decline that followed was again individual.

Evolution trends of the Iasi population between 2000 and the present-day puts the city on the same footing with Timişoara and Cluj-Napoca, other two regional capital cities in Romania. Recent population dynamics in the three cities looks much better than in the other cities, such as Brasov and Galați, for instance, where demographic values are much more depressed. The other two small towns in the same region- Târgu-Frumos and Podu Iloaiei, have registered significant population increase (16.4% and 32.3%, respectively) over the 1990-2007 period, compared to Iaşi average growth rate -9.09% over the same interval. As result of average growth rate disparities, the population gaps between the two small towns diminished considerably. In 2007, Târgu Frumos and Podu Iloaiei (the latter raised to township in 2004), was of 13,620 and 10,167 inhabitants, respectively. Altogether, the three towns had a negative growth rate, increases in the two small towns being attenuated by the decreases in Iași. The average value was - 7.34 percent. The peri-urban space registered positive evolution on average, the growth rate of all the communes studied over 1990-2007 being of 10.56%, numbers going up by nearly 20,000 inhabitants. Population dynamics shows highest growth-rates within the first ring of communes (from Rediu to Miroslava, Grajduri, Ciurea, Bârnova, Tomesti, Holboca, and Popricani) all with over 20% the population of 1990. A similar important record for the second ring of settlements located at the eastern end of the city (Victoria, Golăiești and Ungheni). At the other end, three communes can be found (Românesti, Brăești and Horlesti), located at variable distances from Iaşi, with a population between 1,800 and 3,200 inhabitants, figures that rank them

among the smallest settlements of the peri-urban study-area, their population decrease being more than 10 percent over the analyzed period. With the exception of Dumeşti commune that has a negative average rate all settlements on the Iaşi - Podu Iloaiei - Târgu Frumos axis have positive average population growth records. The evolution of the other communes depends on each one's demographic potential, location along the routes of communication and local economic structure.

The study-area falls within a demographic context of slow numerical decrease of population. According to the demographic prognosis made by the National Institute of Statistics in 2004, Iaşi County is expected to lose some 40,000 inhabitants between 2003 and 2025 that is approximately 5% of the total population in relative values. However, this demographic decline is much lower than in other counties, given that the birth rates stand above the average. Insofar, as numerical evolutions after 1990 to-date are concerned, the population size is seen to stagnate, losses amounting to a mere 1.12% of the total. Subsequently, the main feature is the redistribution of population inside the study-area.

STRUCTURES AND IMBALANCES

Speaking of the dynamics of population, all of the first ring communes around Iaşi registered highest values. The same positive records have the settlements on the Iaşi - Podu Iloaiei - Târgu Frumos axis. Radical changes in the demographic behaviour of Târgu Frumos and Podu Iloaiei towns are linked to economic structural imbalances. The value distribution of birth-rates dissociates the first settlement ring into two distinctively different parts: those in the north, west, and south of Iasi, with high natality values, and those in the east, with an extremely low record, even below the urban average in some cases. However, a detectable upward trend suggests that the urban demographic behaviour of Iaşi was largely adopted by these communes as well. Compared to birth-rate, the rate of mortality is altogether differently spread across the territory. The lowest values registered by the two small towns (Târgu Frumos and Podu Iloaiei) indicate a balanced age-group structure, unlike the situation in the countryside, where values of 9.3% (1990) and 10.9% (2006) define a characteristic trend in country's rural area, namely an entrenched process of population ageing. For all that, three communes make an exception: Popricani, Holboca and Tomesti, located in the proximity of Iasi, in which death-rate stands low and that can be explained by a shift of population from the city to these settlements. The two opposite trends taking place in the urban area of Iaşi, namely the higher natural increase in the city and depleted in the two small towns, are the result of a positive local economic evolution in the former and a kind of equilibrium reached between economic evolution and demographic behaviour in the latter. The peri-urban space under analysis is the major source of population growth in Iaşi County as a whole, at an average natural increase rate of 3.8% versus 2.7% per county.

In terms of general fertility, over 2.1 rises in 1990, the countryside appears to have an important demographic potential. In 2006, three communes (Dobrovăț, Leţcani and Movileni) fell below the 2.1 generation replacement threshold which suggests a possible steep population decline in the future. As a whole, the rural area enjoys good prospects for further population increase having in mind that higher fertility rates are crucial for demographic growth (Gheţău, V., 2003). While infant mortality in town dropped spectacularly, the village area continued to register alarmingly high values (22.2‰) both in 1990 and 2006. Depleted population vitality, particularly in the rural area, translates into drastic reduction of minimum and maximum values and the existence of twice as many settlements in which the vitality index is below 100 percent.

The distribution of migration-rate values in 2006 reveals a clear-cut differentiation between the eastern and western sides of the Iaşi peri-urban area, with a negative record in the west and positive in the east, respectively. Highest values were not recorded in Iaşi, but in the first ring of rural settlements. The second ring, less compact, is also positive with this indicator. The spatial spread of migratory fluxes presents a dynamic area of demographic convergence in the first and the second rings surrounding Iaşi city.

The population sex structure shows radical changes over the 1990-2007 interval, the femaleto male rates being reversed, females being the losers, hence incidental occurrence of the feminisation process. The large age-group population structure shows a lower proportion of youth due both to depressed birth rates and to the young population growing into adulthood thereby adding to the labour

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resources. At the same time, there is a very slow ongoing demographic process, but somehow more active in the countryside. In 1992 and in 2002, the years taken up into our study, demographic ageing become apparent in the settlements located at the periphery of the area of interest because distance and limited accessibility has maintained out-migration flows and underdevelopment. The demographic dependency index is dominantly sub-unity suggesting a positive ratio among the main age-groups. The 100% value of this index indicate an equal proportion of youth and elderly, on the one hand, while of adults, on the other hand, is not representative of our area, its incidence being extremely rare.

The number of employees has a downward trend, the economic and social effects being more acute in towns. Interestingly, there is higher growth of employment in the countryside, in the communes situated at various distances from Iaşi and its polarizing area, therefore no direct connection with proximity. It is only the three communes located at the western periphery of the city in which new activities were being developed or the existing ones expanded due to their geographical proximity to Iasi.

A relatively high unemployment rate compared to other areas in Romania is characteristic, higher in towns and opposite evolutions, but expected to increase. Between 1992 and 2003, the labour force structure by sectors of activity (primary, secondary and tertiary) suffered radical changes within the context of metropolization and suburbanization. Thus, the first settlement ring proved more attractive for the development of industrial activities than the services sector. So, the urbanized Iaşi - Târgu Frumos - Podu Iloaiei axis has a better chance to becoming an efficient urban network, given that the tertiary sector of the first peri-urban ring, despite extensive Iaşi-polarised area is little development. As for the suburban area of Iaşi, it remains to be seen to what extent the less intense commutation-related urban-rural interconnections could be compensated for by suburbanization.

THE DEVELOPMENT STRATEGY

One of the major resources of Iaşi county is the human one. At the beginning of 2009, it had a population of 823.4 thousand inhabitants, basically with 4.4 thousand persons more compared to January 2008, 1.8 thousand in the urban area and 2.6 thousand in the rural area (Press Report No 27/Oct. 8, 2009, issued by the Iaşi County Statistics Directorate). This increase took place against a general background of demographic decline in Romania and of evolution forecasts regarding Iaşi county population. The demographic projection made by the National Institute of Statistics in 2004 put Iaşi county's population at 815.5 thousand inhabitants in 2010 (baseline scenario), that is by eight thousand fewer people than actually registered at the beginning of that year. The 2009 population had surpassed even the optimistic scenario (819 thousand persons) which means that the demographic projection for 2010 was not holding.

There are two phenomena characteristic of Iaşi peri-urban area defining the demography there, namely, the urban-to-rural migration, and the dominant agricultural function discharged by settlements, mirrored by the structure of population employed in various economic sectors. The first phenomenon, featuring new migration directions and intensities, was the result of the radical changes experienced by people in matters of attractiveness options over the 1990-2006 period. The Iaşi peri-urban area shows clear-cut differentiations in the territorial mobility of its population. In 1990, the city was a strong centre of demographic polarization. Attractiveness was enhanced by the domicile laws passed that very year, 1990 being atypical in this respect. Before 1990 and subsequently until 1995, Iaşi was a point of attraction for the population and for the local workforce of the whole Moldavian space, generally (over 1,000 people/year).

After 1995, attractiveness would gradually wane, so that, in 2002, net migration had a negative record, which continued, fluctuating significantly from one year to the next in terms of the economic situation. As important are the changes in the village area. In 1990, all rural settlements constituted an area of demographic divergence, loosing population through negative migratory fluxes. In 2006, the village area showed huge differences in terms of demographic attractiveness, the main criterion being proximity to Iaşi. The city was surrounded by a first ring, almost continuous, of settlements that had the capacity to polarize the population. The communes of Aroneanu, Miroslava, Ciurea, Leţcani, Rediu, Bârnova and Holboca, having developed into a residential area, attracted most

of incomers, especially from Iaşi, compared to outgoers. People used to come also from the west of the peri-urban space which thus lost population. A second settlement ring, developed around the first and discontinuous in its western part, is moderately attractive. The incomers are either from Iaşi, or from the countryside between Podu Iloaiei and Târgu Frumos. Population mobility is a geographical process, generated by push and pull factors. Imbalances in the job market between offer and demand, as well as the quality of life in the adjoining communes are major factors driving city-dwellers to move therein. What makes the western peri-urban area become demographically divergent is the long distance to Iaşi, agricultural character, subsistence farming, poor incomes, few jobs opportunities, and the low polarization capacity of Târgu Frumos caused by local economic dysfunctions (Figure 1).

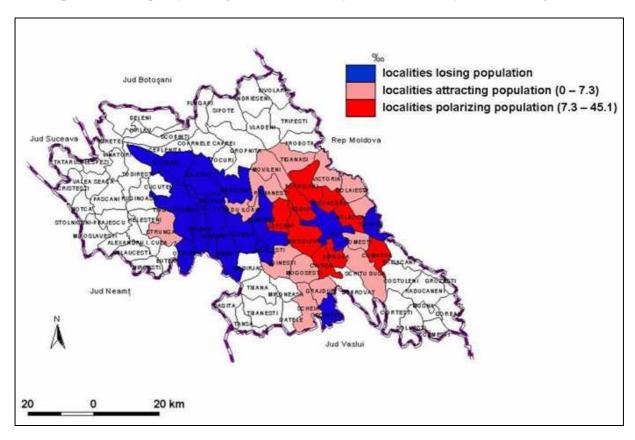


Figure 1. Demographic attractiveness, 2006

The second main phenomenon is connected with the prevalence of agriculture resulting from the employment structure by economic sectors. The city of Iaşi lies in the midst of a rural space in principal, which its influence extends on. As a matter of fact, the whole North-East Development Region is largely rural and agricultural compared to the other development regions. Looking at the 2002 population structure, active in various economic sectors, five functional settlement types have been identified: agrarian, agrarian and services, industrial and services, services and industrial, and mixt. The agrarian type prevails, three-fourth of the Iaşi peri-urban communes being engaged in farming. Almost all these agrarian communes (27), excepting three of them, registered increases, sometimes significant, of farming population out of total village population, over 1992-2002. There are two main reasons behind the entrenchment of the agrarian function: on the one hand, most local industries were closed down, and on the other hand, commuting lost in intensity. Enhancing the agrarian character of the countryside is tantamount to social and economic impoverishment, translating into lack of functional diversity, imbalanced economic sectors, a more vulnerable population obliged to be strictly dependent on farming, low individual incomes and implicitly a low living standard and depletion of job opportunities. Out of the five communes discharging agrarian and services functions

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three lie in the proximity of Iaşi (Leţcani, Miroslava and Bârnova). Tertiary activities therein are directly, or indirectly, related to the process of sub-urbanization. Placing lower services in these communes was determined either by the extension of residential areas, or by lower land prices than in inner city area. Alongside these communes stands Podu Iloaiei, which was granted the town status in 2004. Its activity is mainly of the agricultural and services type. Only two localities, Târgu Frumos and Tomeşti discharge industrial and services functions. Being located in the proximity of Iaşi, Rednic, Ciurea and Holboca have a mixt economy of the farming and industrial, and services type. After 1990, the city of Iaşi experienced intense tertiarization, passing from the industrial-services type to the services-industrial one. These two types of activity remained characteristic of the local urban economy, what changes was their weight in the structure of the overall employed population. Iaşi lies within a relatively homogeneous functional area dominated by farming. Its influence in the area materialized in tertiary and industrial activities. The functional dissociation of the urban—rural space engendered major functional complementarities capable to stimulate the process of economic and social integration (Figure 2).

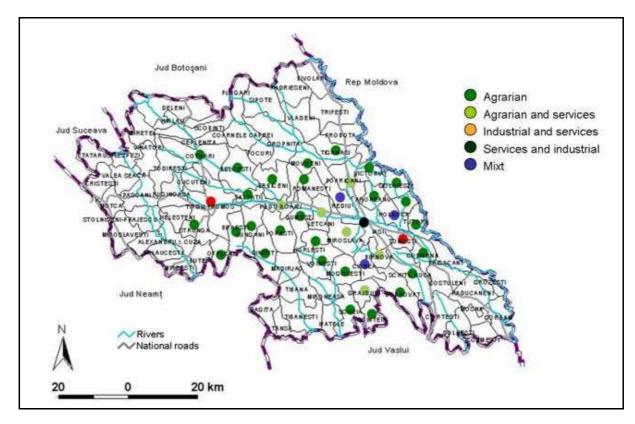


Figure 2. Functional types of settlements, 2002

Analyzing the existing situation and resorting also to SWOT analysis, current peculiarities of evolution and population trends in Iaşi and its peri-urban area have been revealed. Proceeding from these results and from sustainable development principles, some of the general strategic development goals become obvious, such as:

- maintaining the demographic characteristics liable to ensuring viable and balanced long term
 development by sustaining natural growth rates, increasing attractiveness for the local jobmarket and implicitly support active population stability in the urban and peri-urban space of
 Iaşi;
- raising the living standard of Iaşi townsfolk and its peri-urban villagers, through enhancing the economic growth and human well-being;

- identifying restrictive and favourable factors for polarizing population and economic activities in Iaşi and its peri-urban area;
- optimising the strengths specific to the study-area versus the demographic trends manifest al county, regional and national level;
- minimizing the weaknesses related to demographic and labour structures.

These general strategic goals can potentially be reached having in view some development catalyst factors.

A positive natural demographic balance. In 2006, the minimal and maximal natural increase values were 0.2% and 16.3%, respectively. It was the town that makes the largest contribution (4.7% on average) as against the countryside, where the average value came close to the Iaşi county score, which was somehow higher (2.9%). The peri-urban area is the major source of population growth within the County of Iaşi, averaging a natural increase of 3.8% compared to the county average of 2.7%. However, Iaşi county itself is one of the few counties having a positive natural increase record, the majority facing a negative natural balance (in 2006 - 2.7 % in Iaşi as against 1.8% across the country).

Low population ageing and large workforce supply. The age structure of the population is analyzed in the light of figures yielded by two census-years: 1992 and 2002. The population ratio in terms of the three large age-groups is quite balanced, youth and adults being fairly well represented. It is a structure typical of a young population, high demographic vitality and important labour resources. Obviously, disparities between town and countryside do occur. In 1992, nearly one-third of the town population consisted of youth, a high proportion of adults and under 10% elderly people. There were fewer labour resources in the rural, but a good balance between youth an elderly. Although in other parts of Romania, the number of young people decreased and of elderly increased alarmingly, yet the study-area still had a positive balanced structure with development potential also in 2002. However, as the birth-rate was falling and the young population grew into adulthood thereby adding to the labour resources, the share of youth dropped. At the same time, there was a slow ongoing ageing process, particularly in the countryside (1992 - 19.7% elderly over 60; 2002 - 21.1%, out of the total population).

A potentially balanced local job market. Trends in regional economically dynamic metropolises indicate increased population fertility-rates; Iaşi features a positive natural balance and a well-represented young population, supposedly ensuring the positive growth of population on medium term at least; the city's economy is potentially attractive for investments and thus has a job creating capacity, a chance for greater numbers of academic graduates to be absorbed by the local job-market. The demographic and economic polarization of Iaşi signifies a better balanced local labour-market of the first ring of rural settlements around the city. Improving the quality of the human capital and optimizing its use is a basic prerequisite for successfully implementing the North-East Development Region Strategy (Regional Development Strategy, 2007-2013). One of the strengths of the North-East Region alone is its positive natural increase, and implicitly its young population. Unless an adequate training system is put in place, this benefit may degenerate into far higher unemployment than currently recorded (which is fairly elevated). According to the same strategy, the region has a complex education network capable to provide adequate professional training at all levels, literacy standing at 96.3 per cent. One the other hand, the skills offered by the system appear to fail the students' needs and aspirations. Students and particularly people obliged to change their profession or trade ought to be guided opting for those skills required in the job-market, obviously provided one has the aptitudes and development potential for it. As a matter of fact the proportion of farming people (51.1%) in the North-East Region is by far too great compared to agriculture's potential to increase the region's welfare state. It follows that for 30% of the active population, working condition are precarious or this percentage is at risk of exclusion from the labour market, although these people are a potential development source for the region, what they need is instruction to become more productive-efficient

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and competitive. To this end, strategies of labour training and employment worked out for individuals with less than five-year experience should be worked out in order to optimize the capacity of graduates and undergraduates who cannot find a job suitable to their ability at local and regional levels and choose to emigrate, a phenomenon which, wisely attended could be stopped. A special attention deserves such issues as equality of chances for active-age people, disadvantaged on the jobs-market and running the risk, either of being permanently refused a job or unable to find one, for reasons of qualification, age, family situation, or because they live in peripheral areas. The priority targets aimed at by the regional development strategy are following: to improve workforce training in order to better meet the regional job market demands, to adjust qualification and the level of qualification to market demands; to develop human resources in the countryside, to secure the instruction of youth in activities required in the rural area, e.g. technical assistance and consultancy, creating the conditions for the instruction and re-training of the active population to develop activities, to train human resources for specific trades on demand in the regional jobs-market.

Under the CBC 2004-2006, PHARE funded project on "Local Action Initiative for Economic Development", Iaşi County has put forward a socio-economic development strategy for the next five years. Among vertical targets aimed at, there is reduction of inequalities and improvement of social inclusion. In order to attain it, it is necessary for the Iaşi county council to elaborate a number of policies to implement the development of social resources services, reduce rural-urban disparities through social policies, and counteract negative effects of migration. Projects for a scheme of financial stimulation establish a county network coordinated by the Iaşi General Directorate of Social Assistance and Child Protection to monitor and assist families in difficulty at high risk of child abandonment, and train social assistance workers to council problem families. The same recent document stipulates among strategic objectives the greater economic competitiveness by optimizing human resources. Attaining this goal, the Iaşi county council designs five comprehensive policy directions: training people in the agri-food sector, promoting creative industries, training people to promote the cultural heritage, adjusting and training people in the renewable energy field, diminishing disparities and promoting social inclusion.

The long term evolution of the population mirrors the study area's demographic potential (Figure 3). Numerical evolution trends between 1990 and 2007 revealed four rural and urban categories that make up the Iaşi peri-urban area. Some settlements have positive or negative population records; others show a moderate and low decrease of inhabitants. Their spatial distribution relates to distance from Iaşi city. The first, almost continuous settlement ring registered significant population growth. The communes of Aroneanu, Holboca, Tomeşti, Bârnova, Ciurea, Miroslava and Popricani are situated in the proximity of the city, benefited from urban-rural transfer of population, better access, and location of economic activities (production, storage, retail or warehouse thereby becoming potentially growing demographic convergence centres).

The longer the distance from Iaşi, the lower its influence on the peri-urban space. In general, the second settlement ring has a low population growth record. After 1990, increase rates in the communes of Comarna, Schitu Duca, Mogoşeşti, Leţcani, Movileni, Ṭigăneşti, Golăeşti, Bălţaţi and Popeşti, were fairly low (0-12.6%). The two towns, Podu Iloaiei and Târgu Frumos, have developed local influence areas associated with significant increases of population, being surrounded by rural settlements wherefrom people chose to move into the two more attractive towns. It is the case of Dumeşti and Horleşti around Podu Iloaiei, and of Târgu Frumos which appeared to offer better opportunities for the people of Strunga, Brăeşti and Oţeleni to live and work in. There are a few communes (Şcheia and Dobrovăţ in the south, Ṭuţora in the west or Belceşti in the north-east) situated towards the periphery of Iaşi peri-urban area, in which population has been significantly decreasing. Disparities in evolution call for appropriate measures to be taken, in the view of implementing the targets set.

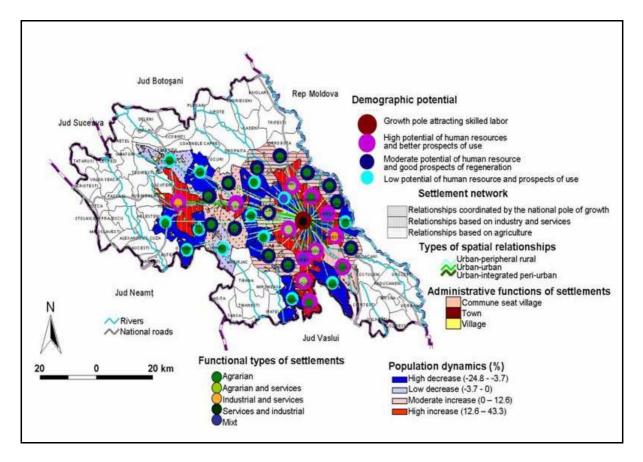


Figure 3. Demographic potential

The analysis made by Iaşi Master Plan and the overview of the development strategies elaborated by county and regional authorities outline the following spot targets set for the population and workforce of Iaşi and its peri-urban area:

- encouraging the return of people who had emigrated abroad in search for work. Migration got momentum after 1990 and especially after 2007, when Romania became an EU member state. This new status meant free movement to find a better job elsewhere. Moldavia being a less economically developed region plagued with severe poverty, slow-going industrial privatization and restructuring, as well as little attractiveness for foreign investment contributed to stimulating and enhancing emigration fluxes over 1994-2006, when 4.419 people left the county from the Iaşi county. Most of the emigrants (87.5%) originated from the Iasi peri-urban area, turning this area into the most dynamic one in terms of geographic population mobility. Furthermore, the rural area encounters low depopulation process; hence emigration is far more intense. A negative social consequence of the work-related emigration phenomenon was the abandonment of minors left in the care of their grandparents, or of other family members and the dissolution, often compromised child-parent relationship. The long-term effects will be seen in the educational level of children or youth and in their capacity for social integration. In addition, the well-being of the elderly or of other dependent people could be affected by work migration, especially in the communes in which traditional social solidarity networks exist. Moreover, the migrants' sex structure is expected to entail changes in the distribution of family roles and in demographic behaviour. Job migration has a two-fold impact on the family: positive in that the household's economic situation is improved and negative in that migrants fail to discharge their family role.

- strengthening a services-governed social-professional structure. The Iaşi peri-urban space witnesses a slow-going, but significant increase in the structure of employed population between 1992 and 2002 (from 17.3% to 21.7%). At the same time, urban and rural disparities sharpened. In 2002,

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- 57.7 of the population of the three towns worked in services versus only 19.1% in the village area. This gap between the two environments is characteristic of Romania, especially after 1990 when increasingly more settlements were declared towns. But the countryside continued to remain unattractive even for inferior services and continued to be town-dependent for getting them. In 2002, less than 25% of the total population worked in the tertiary sector. Only in the two towns and in a few communes located in the vicinity of Iasi, the proportion was somehow greater.
- reducing the farming population by developing a competitive agri-food sector. The periurban of Iaşi has grown very much agrarian, that is the farming population increased from 62.7% in 1992 to 71.1% in 2002. Two-thirds of the peri-urban communes had 75-91% of their total workforce engaged in agriculture. This percentage shows not only the share of activities in the local economy, but also the economic and social dependence of village communities largely on low-income subsistence agriculture, entailing economic and social instability. Bringing the countryside in line with development means not only commercial farming, but also stimulating entrepreneurship in the industrial processing of agricultural products.
- creating a job-market of greater labour mobility between declining and prospering businesses. This provision targets primarily the three towns still coping with economic and social imbalance, because privatization and restructuring were still ongoing processes. In Iaşi for example, Nicolina or Fortus industrial units, still in a situation of insolvency or cancellation of a privatization contract, basically in a state of uncertainty, put their future in jeopardy. The unemployment rate in these towns, higher than elsewhere in Romania, suggests that growing businesses were incapable of generating jobs to compensate for the declining ones. The gap in the local job-market between offer and demand has lately become chronic having been widened by the economic crisis that hit the public and the private sectors.
- *improving access to health services and eliminating territorial disparities*. For many regions of Romania, the stringent question is not to improve the quality of health services, but rather to secure people's access to them. Moldavia is one of the regions affected by social and economic poverty, limited access to basic medical services and education, where there is in a wide gap between offer and demand in the labour-market. In Iaşi county, the population per doctor ratio improved from 300 inhabitants/one doctor in 2002 to 291 in 2007. In 2002, the Iaşi peri-urban had 0.84 doctors to 1,000 inhabitants. There were huge urban to rural disparities, e.g. from a minimum of one doctor to 3,800 inhabitants in Goleşti to one doctor for 143 people in Iaşi city. Only one-fifth of the peri-urban settlements have one doctor to 1,000 inhabitants, the other 80 percent enjoy very limited access to medical services, hence the precarious quality of the medical act.
- increasing schooling rate and correlation of the education and professional training structure with local economic development. After 1990, abandoning school-going kept increasing, a country-wide situation reported in sociological analyses. The main cause was poverty, lately enhanced by parents migrating abroad in search for work and leaving their children unmonitored or abandoning them. The phenomenon is not specific to Moldavia or to Iaşi either, but it is severer here than in any other part of the country. The situation could worsen and its effects become more serious than elsewhere.
- abandonment of school-going (high-school, vocational and apprentice education) had an above-county and country average record. If students leave high-schools and vocational schools before finishing their studies, without obtaining a graduation diploma (baccalaureate), or a professional qualification certificate, they will be uncompetitive on the labour market, standing at a disadvantage, increasing alarmingly the ranks of unskilled labourers. They will find it extremely difficult to mount the social ladder and their individual earnings will be below average. On the other hand, there is a gap in academic education between entrepreneurial dynamic areas and work places. Besides the fact that the economy of Iaşi is not fully connected to the local job market, the regional economy has not succeeded in benefiting from and optimizing the capacity of Iaşi specialists.
- *improving the living standard and progressively mitigating poverty*. All poverty assessments, or human development measurements, place Moldavia close to the bottom of the regional hierarchy. A 2003 CASPIS (Commission against Poverty and Social Inclusion Promotion) study ranked the North-

East Region at the top of the poverty-risk table, with highest values (35.4% than in the other development regions); also highest values in the country side (48-50%). In other words, a third of the region's total population and nearly half of the village one were at risk from poverty. Lowest poverty rates in Iasi county went to Iasi city (0.15-0.17) with the best record for the south and south-west of the county (0.57-0.70). Those in the North-East Region slow a clear-cut difference in matters of individual incomes, Iași and Bacău, being more privileged, next in line coming Botoșani, Suceava and Neamţ. The last place goes to Vaslui. Iași occupies a good position at regional level and an intermediate one at country level. The economic crisis curtailed individual incomes, deteriorating the standard of living. In the Press Report No 26 of October 6, 2009 delivered by the Iaşi County Directorate of Statistics says that the average incomes in Iasi county are by some 5% lower than average earnings in Romania. Net average wages of 1.292 lei, were by 2.1% lower than in July 2009 and by nearly 3.4% higher than in August 2008; above country-average, wages are in aviation, telecommunication, information technology, insurances, R&D, and public administration; below average in the garments, wood-processing, hotels and restaurants, food industry, agriculture, trade, constructions and health-care. In August 2009, real wages, calculated as ratio between net nominal wage earnings and consumption price indexes to the previous month were 97.2% while the purchasing power fell by 2.8 percent.

Population proves to be a vital macro-economic and social factor for Iaşi development. The strengths rely on "one of the most important resources – the human one, numerous, active and skilled" (Planul Integrat de dezvoltare pentru Polul de Creştere Iaşi 2009-2015, 2009). The second city in terms of population number and the second university city in the country (in average having more than 60,000 students per year), Iaşi is the engine of the economic growth and the supplier of social services for the North-East region of the country. The endemic gap between demographic potential and the economic growth impedes the chances for future development of Iaşi and the North-East region as well. The Human Development Index of 0.773 in 2004 (0.800 for Romania) is the lowest as compared to the other regions. The drawback is represented by the regional GDP per capita, while life expectancy at birth, adult literacy rate and school-attendance rate are similar with the national scores.

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