

CHALLENGES FOR HUMAN CAPITAL AND SUSTAINABLE DEVELOPMENT OF RURAL AREAS. A CASE STUDY ON CRAIOVA METROPOLITAN AREA, ROMANIA

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Abstract: Sustainable development is a key issue in full expansion due to the need of new, innovative activities for a proper economic and social development of communities. The new economy implies also investments in human capital in order to bring benefits and to improve the quality of life in different areas, either urban or rural. Investments in human capital influence the environment and society and they have to be made only through coherent policies. Previous studies showed that despite many policies that are undertaken at the European level regarding the development of human capital in rural areas, there are still many issues that have to be dealt with, such as: low investment in education and training; and exclusion or migration of workforce, which led to a stagnation or even deterioration of the human capital. The study aims at investigating the human capital in the rural communes of Craiova metropolitan area (24 communities) focusing on four pillars: demography, workforce, education and health system; secondary, statistical data (2008-2013) were analyzed in order to present the quantitative assessment of the human capital in the study area. The main findings stress that rural communities have undergone lately a decrease of the population and of the economic activities; they have a low accessibility to the medical and educational system; thus, the metropolitan association started to conduct to several projects of social growth and economic revitalization.

Keywords: Human capital, sustainable rural development, economic revitalization, environment conservation, Craiova metropolitan area

1. INTRODUCTION

The proper development of a territory must be durable (continuous from the temporal point of view) and sustainable (achievable, viable), implying also the social, political, economic, demographic and technical areas. A change in the development patterns determines an interrelation between development and conservation; thus studies started to focus on development from the sustainable point of view.

Once with the introduction of this concept (i.e. sustainable development), human needs started to be taken into consideration before those of the environment.

Ianoș et al., (2009) stated that the environment has in general a natural component that provides many resources for the population and it represents the main type of environment for the development of a society; the social environment is the second one as importance and it is represented by the ability of the society to

adapt and to develop in accordance to the natural environment, meaning the determination of anthropization processes.

The loss of social structure in some human settlements is related to the loss of a coherent structure, i.e. a vast social agglomeration in some places and emptiness in other places (Tausch & Heshmati, 2012). Also, in order to obtain a high amount of wellbeing, it is appropriate to use less consumption as possible, thus underlining once gain the strong points of a sustainable development process (Tausch & Heshmati, 2012).

Sustainable development represents „the type of development satisfying the needs of current generations without compromising the possibility of the future generations of satisfying their own needs” (World Commission on Environment and Development, 1987).

United Nations (2007) reports on sustainable development stress that this is formed of „three pillars”: economic progress, social justice and

preservation of the environment. A proper implementation of this development may lead to poverty eradication, to changing the patterns of production and consumption and to a better management and protection of natural resources.

There was demonstrated that the social dimension is the weakest 'pillar' of sustainable development, and there was paid less attention to the interaction between the 'environmental' and the 'social' pillar, the most important challenge of sustainable development being the synergies and trade-offs between its dimensions (Lehtonen, 2004).

All the assets and capabilities which are necessary for living form the livelihood. The analytical framework of this context is based on several assets such as: natural capital, economic and financial capital, human capital, physical capital, cultural and social capital (Blewitt, 2014). By applying different strategies to these assets, rural communities or regions can achieve desired outcomes, which are customized on each community based on the appropriateness of the set of applied strategies (United Nations, 2007).

A sustainable social environment can be achieved by general and active participation of public actors and local community, investing in information, promotion, increasing in this way the social and human capital (Blessi et al., 2012).

Recent studies mention also that sustainable development has some primary dimensions: ecological sustainability on long-term; basic needs satisfaction; and intra and inter- regional equity promotion (Holden et al., 2014).

Stakeholders participation and acceptance play an important role in the achievement of sustainability according to Castillo & Pitfield, 2010; Amekudzi et al., 2009; but it must concern the global level too (Biermann et al., 2012). Thus sustainability can be achieved only with the involvement of people who act according to society interests (Bolis et al., 2014).

Economic aspects, mainly foreign direct investments, have a great impact on the human capital development (Thangavelu & Narjoko, 2014). The economic theory provides certain meanings for the word capital; the conventional fixed capital is divided into productive capital (machinery), economic capital (infrastructure) and social capital (social advancement institutions) (Purvis & Grainger, 2004).

According to different definitions, human capital represents either the cost of formal/informal education multiplied by the number of population, being correlated to the demographic changes (population decrease or changes recorded in the employment patterns) (Ederer, 2006) or, from the economic perspective, mainly the labour economics, it is a set of skills/characteristics that a person has

(acquired or innate) and that can contribute to his/her productivity; also it is the capacity of the population to drive economic growth (Acemoglu, 2009). It can be measured and assessed according to the European Human Capital Index which focused on the ability of an area to develop and deploy the human capital.

Human capital can record differences due to the innate abilities of a person, to school quality and training (all these requiring proper investments) and also to the pre-labour market influence. An area has the ability to develop and deploy the human capital. The key for the future of any country and any institution lies in the talent, skills and capabilities of its people (Bilbao-Osorio et al., 2013).

Empirical studies have supported the fact that human capital was connected with the economic growth of a space, underlining its positive effects (Tzeremes, 2014), representing the main determinant of income per capita (Barro, 1991), or of a high percentage of investments in technology and positive impacts on growth (Aghion & Howitt, 1998). Some cases of European countries show a high level of educated and unemployed people at the same time, thus the human capital must be correlated with the economic structure in order to trigger economic growth otherwise social problems such as high unemployment rates and fluctuations on the labour market can appear (Čadil et al., 2014).

Human capital is also directly related to education, although there was considered by various theories that the indicators of human capital endowment (years of schooling, school enrolment ratios etc.) do not have enough consistency when speaking about human capital formation; it is also related to the health system which is necessary for the well-being and health of the human capital (Blewitt, 2014).

The study was conducted and based on several *objectives* followed in the study area: (1) assessment of the current demographic situation: trends of the demographic evolution, trends of migrations; (2) evaluation of the workforce: the evolution of employees in different sectors of the economy and the unemployment rates; (3) evaluation of the education sector: the situation of the educational infrastructure, school enrolment and future trends; (4) analysis of the health system: the access to medical services, the number of doctors/inhabitants etc. (5) correlation of the four objectives from a sustainable perspective of development and growth.

2. STUDY AREA

The case study used in the human capital analysis focuses on Craiova metropolitan area,

representing a group of urban and rural spaces with different social and economic contrasts, located in Dolj County, in the nearby of Craiova city (Fig. 1).

A metropolitan area represents an inter-community development association based on the partnership between the 1st rank municipalities and the nearby territorial -administrative units in order to achieve joint development projects of regional or local interest, according to the Romanian legislation.

The formation of Craiova metropolitan area (CMA) was regulated since the 2000-2001 period by taking into consideration the legislation referring to the Local public administration; the National Development Plan, Section IV – The network of localities; and the Associations and foundations law. Once with Craiova City Council decision in 2008 regarding the integrated urban development plan of the city, Craiova metropolitan area was founded and it was formed of Craiova municipality and 6 administrative units situated in its area of influence.

Since 2008 until present day, CMA undergone several stages of development, integrating more and more communes located in the proximity of Craiova city that represents the core area of development.

Thus, the main stages were: in 2008, the metropolitan area was formed of Craiova city and of the rural communities: Breasta, Ghercești, Mischii, Pielești, Predești, Șimnicu de Sus; in 2009, other two communes joined the association – Murgăși and Teasc; in 2012, the following communes joined the CMA: Almăj, Bucovăț, Ișalnița, Terpezița, Țuglui, Vârvoru de Jos; in 2013, other two cities were integrated in CMA: Filiași, Segarcea and some other communes: Brădești, Calopăr, Coșoveni, Coțofenii din Față; the last stage of development was in 2014, when Cârcea, Malu Mare and Vela communes were integrated in the metropolitan area.

In the period 2008-2014 Craiova metropolitan area extended its surface, being formed of 3 cities and 21 communes (Fig. 2).

From a total of 660 544 inhabitants in Dolj County (2013), CMA represents 58% of the total population with 383 972 inhabitants (2013).

Regarding the surface, from the Dolj county total surface of 741 400 ha, 20% are occupied by the CMA, i.e. 149 862 ha (NIS, 2014). Thus, the metropolitan area concentrates an important space and population within the county.

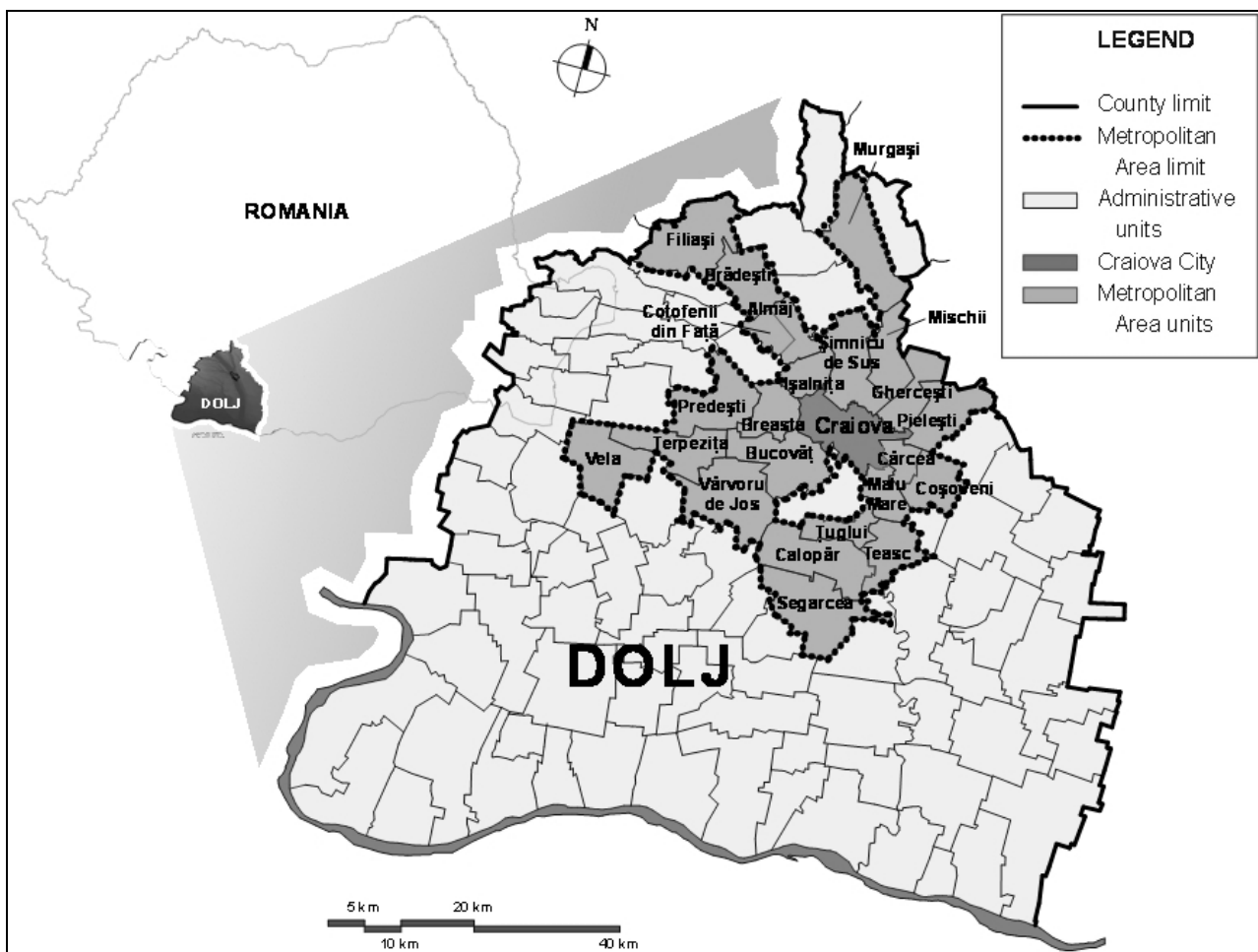


Figure 1. The geographical location of Craiova metropolitan area (CMA)

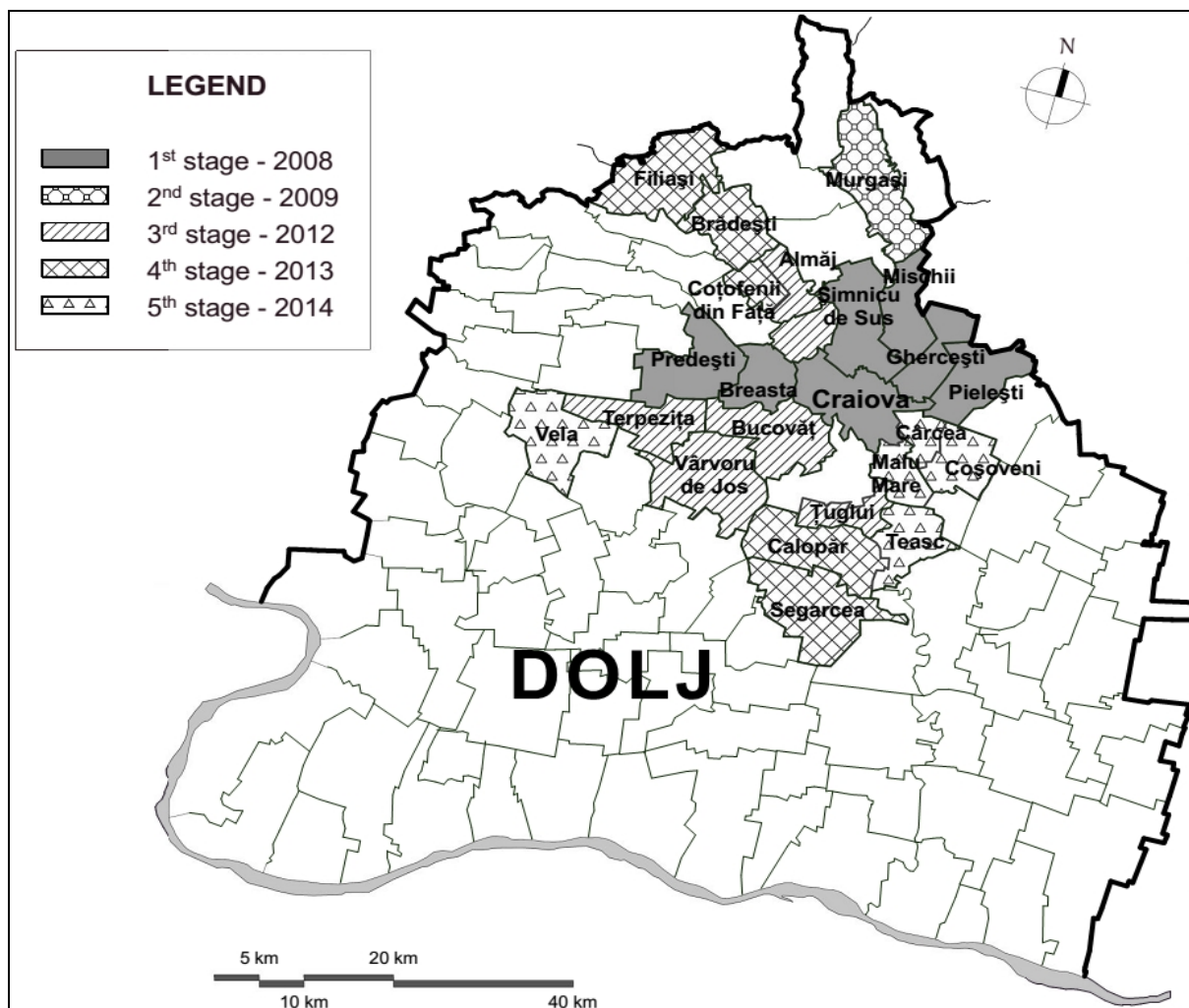


Figure 2. The development stages of Craiova metropolitan area

Table 1. Main approaches and sets of indicators on human capital (HC) analysis

GLOBAL APPROACH 4 pillars	EUROPEAN APPROACH 4 pillars	NATIONAL APPROACH 4 pillars
Education: access to education, quality of education, attainment	Endowment: investments and expenditure on primary, secondary and tertiary education	Demography: birth rates, age structure, migrations, life expectancy
Health and Wellness: survival, health, well-being, services	Utilisation: active workforce, employment rate of the HC	Workforce: employment rate, work productivity
Workforce and Employment: participation, talent, training	Productivity: contributions of the employed HC to local GDP	Education and Training: no. of graduates, educational infrastructure, investments
Enabling environment: infrastructure, collaboration, legal framework, social mobility	Demography and Employment: birth rates, life expectancy, migrations, age structures	Health system: access, medical services, medical staff, medical infrastructure

Source: adapted after Zahidi et al., 2013; Ederer, 2006; and National Sustainable Development Strategy. Romania 2013-2020-2030 (2008)

3. METHODOLOGY

This study provides a critical and analytical approach on the human capital challenges of Craiova metropolitan area from the sustainable development perspective, i.e. an assessment on how the characteristics of human capital (demographic situation, workforce, migration, education/training

and health system) could impact upon the life of the 24 studied communities that struggle to find new livelihood options because the traditional agricultural means can be at some point unsustainable.

The economic and demographic statistical data from 2008-2013 were analysed and processed in order to obtain a quantitative assessment of the human capital and to present the urban-rural discrepancies.

Several approaches were analysed when selecting the core set of indicators: global, European and Romanian approaches towards human capital. All of them are based on four pillars which focus mainly on the demographic, workforce, education and health indicators, as stated in table 1.

There were noticed some limitations of this concept analysis mainly due to data discontinuities and lacks which required a lot of processing time. Thus, there were many areas left uncovered regarding important economic aspects (industrial production, commerce, agriculture, forestry, etc.) and social aspects (health, education, social insurance etc.).

Thus the main analyzed indicators in the mentioned range of time are presented in table 2.

The difficulty or the impossibility of collecting data shows the need of creating a system of standardized indicators on the sustainable development at local level. This system will help for a better analysis and quantification of the economic and social aspects and evolution from a sustainable point of view.

Sandu (2011) proposed a model of analyzing the capital at local level through the local human development index (LHDI), a version of the Human Development Index (HDI) developed by UNDP (United Nations Development Programme), which allows a very good comparison of different rural/urban localities and it includes the levels of education, economic performance and health. The indicator measures four pillars: human capital (education stock at local level), health capital (life expectancy at birth), and vital capital (medium age of adult population of 18 years old and above), and

material capital (i.e. factor score of three indicators: dwelling space, private cars to 1000 residents, and distribution of gas for household consumption by inhabitant).

The aggregation of the four capital dimensions is done by a factor score which is converted by the Hull score ($=50+14*\text{factor score}$) and it ranges between 0 and 100, forming in this way a community capital which is represented on a qualitative scale from 1 to 7 (1 – Very poor, 2 – Poor, 3 – Lower-Middle developed, 4 – Middle developed, 5 – Upper-Middle developed, 6 – Developed, 7 – Upper developed).

The values of the calculated LHDI were analyzed at commune level; its limitation consists in the measuring of education stock only in the censuses so that the indicator was calculated for 2002 and 2011.

4. RESULTS AND DISCUSSION

Craiova city plays an important role at regional level, being considered a growth pole for the entire region, not necessarily for Dolj County. This relation is represented by the high connectivity of the city with other national urban centres located at a distance of 100 km, such as Drobeta Turnu-Severin, Tîrgu-Jiu, Rm. Vâlcea, Pitești, Slatina, Bechet and Calafat. The city area of influence is higher on a distance of 15 km from Craiova city limits but it decreases constantly on a distance of 30 km from the city limits.

Table 2. The main analysed indicators for the human capital assessment of Craiova Metropolitan Area

INDICATORS	
Demography	<ul style="list-style-type: none"> - no. of inhabitants (demographic evolution between the 2 censuses, 2002 and 2011) - age pyramid (male/female) - demographic density (inhab./sq km) - birth rate (‰) (number of births/total population*1 000), mortality rate (number of deaths/total population*1 000) and infant mortality rate (‰) (number of deaths of children less than one year of age per 1 000 live births), natural increase rate (‰) (birth rate minus death rate) - ageing rate (‰) (the number of the elderly people – 65+ years old/1 000 young persons: 0-14 years old), age dependency ratio (‰) (the ratio of dependents – people younger than 15 years old or older than 64 years old – to the working-age population – 15-64 years old) - migration rate (‰) (the difference between the number of persons entering and leaving the communes/towns per 1 000 persons); departures from the domicile
Workforce	<ul style="list-style-type: none"> - no. of employees per company, and per 100 persons - employees hired in the main economic sectors and in different types of enterprises - unemployment rate (%) (unemployed workforce/total labour force*100)
Education	<ul style="list-style-type: none"> - no. of education units - no. of pupils/teacher - no. of pupils per educational infrastructure - school enrolment in kindergartens and pre-university
Health	<ul style="list-style-type: none"> - no. of inhabitants/doctor - the medical staff /10 000 inhabitants

Basically, CMA is located in Craiova area of influence on a distance of 20 km from the city limits and on a distance of 30 km from the city centre. This position affects directly and sometimes negatively the development of rural communities situated in this range of urban influence.

Regarding the population concentration, urban areas polarize the population ranging between approx. 10 000 (Segarcea) and approx. 20 000 inhabitants (Filiași), while Craiova has almost 270 000 inhabitants. The rest of the rural communities records a population below 5 000 inhabitants. Thus, a high density of rural areas is found around big cities, at national level.

The means of transportation show a deficiency of the infrastructure especially in terms of the quality of roads; only three European roads are connecting CMA with other national territories – E70, E79, E579, the other roads being county roads. A new opportunity for the development of transportation hub is Craiova international airport which started to develop since 2008 (Fig. 3).

In terms of economic development, the entire study area has a high level of agricultural activities; food, car industry and services (retail, trade) are located in the administrative units situated in the proximity of Craiova city, such as Ișalnița, Bucovăț,

Cârcea, Pielești and also in the three cities of the CMA (Craiova, Filiași, Ișalnița).

Regarding the human capital, the analysis structure will emphasize the demographic, workforce, educational and health indicators for the 2008-2013 period.

4.1. Demography-current situation

The demography of Craiova metropolitan area stresses in terms of number of inhabitants a decrease in the demographic evolution between the censuses of 2011 and 2002 in most of the administrative units with up to 60% decrease.

The most affected areas are the extremities of CMA (Coșoveni, Malu Mare, Predești, Almaj) due to the major agricultural activities expansion and lack of jobs in other economic sectors. Increases of up to 10% were remarked in the administrative units located in the proximity of Craiova city (Breasta, Șimnicu de Sus, Pielești, Bucovăț) mainly because of the migration of some economical activities in these areas and also because some of the city inhabitants moved temporary or permanently to the mentioned communes.

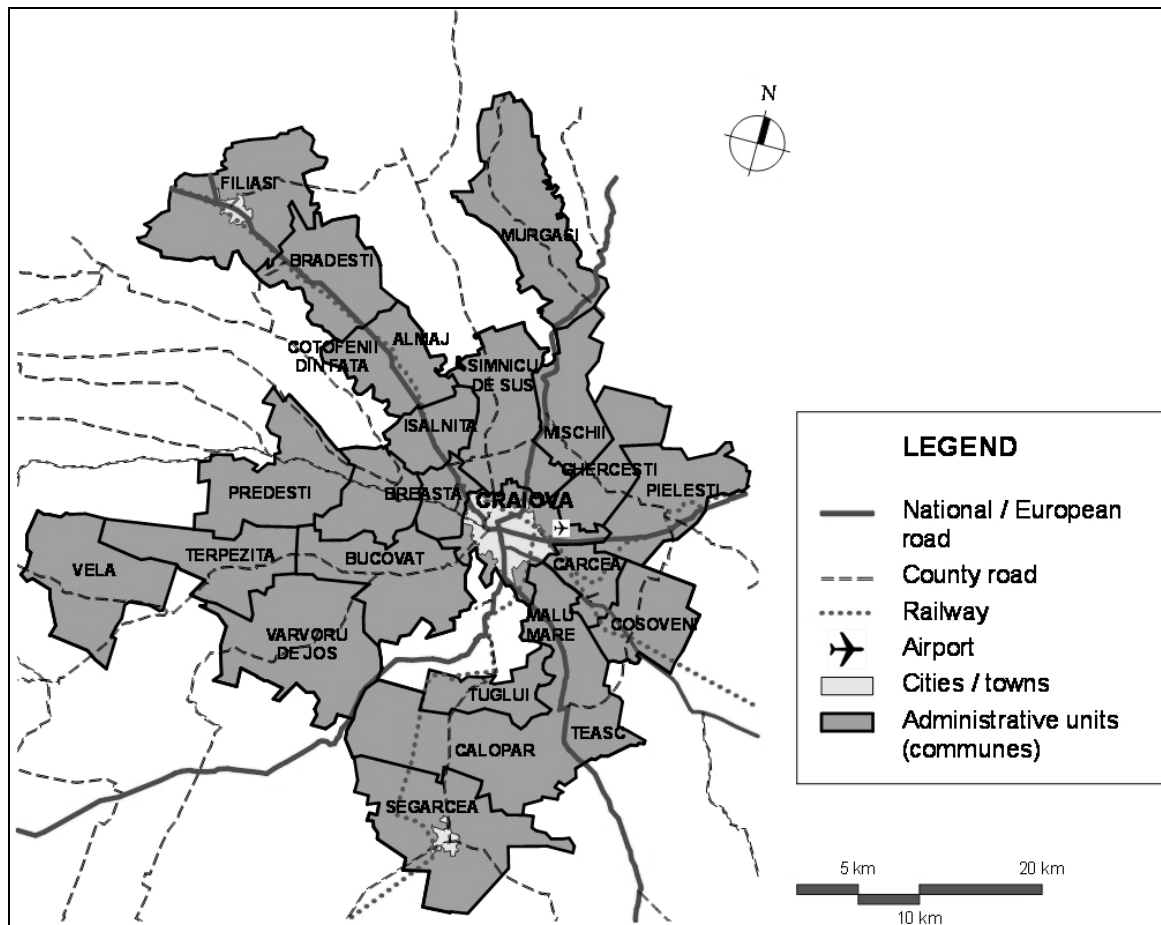


Figure 3. The means of transport in Craiova metropolitan area

Since the formation of CMA in 2008 until 2013, the total number of inhabitants recorded a slight decrease from 387 784 inh. (2008) to 383 972 inh. (2013), having a higher female population (around 200 000) following the national trend in this concern (Fig. 4).

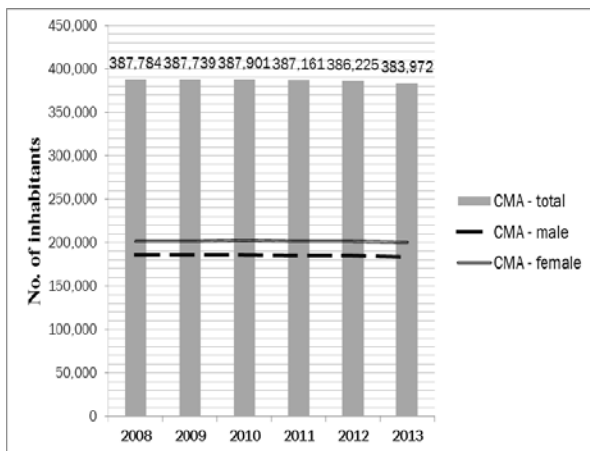


Figure 4. Demographic evolution in Craiova metropolitan area between 2008 and 2013
Source: processed data from NSI, 2014

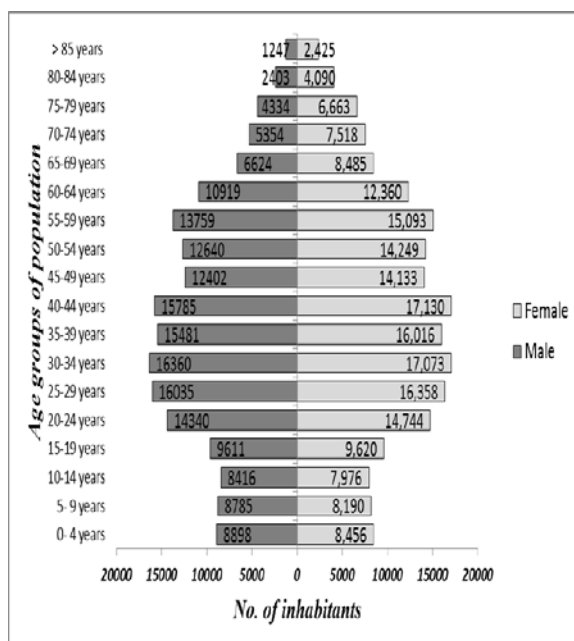


Figure 5. The age pyramid of Craiova metropolitan area (2013). Source: processed data from NSI, 2014

Regarding the demographic density (inhabitants/sq. km), the trend is the same as in the case of demographic evolution – the highest density of 200-250 inhab./sq. km is recorded in the urban areas and in the nearby administrative units, while the lowest density, below 50 inhab./sq. km, in most of the external communes of the CMA: Vela, Terpezița, Predești, Vârvoru de Jos, Calopăr, Murgăși, Mischii, Gherghești.

The age pyramid of CMA in 2013 shows a representative group of adults for both male and female

categories (ages between 25-45 years old). The young population, male and female, has a low representation in the CMA. The social problems that arise are related to a low birth rate that on long term will not support the replacement of the current workforce of the area (Fig. 5).

Urban areas are characterized by high birth rates, between 15-25‰; the majority of the administrative units recorded birth rates below 10‰. The mortality rate recorded high values in most of the communes, especially in the external ones, with values ranging between 20 and 30‰.

The urban centres and the communes nearby recorded low values between 5 and 10‰. The infant mortality rate has low values, below 20‰ in most of the communes. Thus, the rate of natural increase recorded negative values, ranging between -5 and -15‰.

The low values of natality and the high values of mortality determined a negative rate of natural increase. As presented also in the age pyramid there is a discrepancy between the rates determining sustained decreases in the number of inhabitants.

The ageing rate in the territorial and administrative units of the CMA (2013) (the number of the elderly: 65+ years old/1 000 younger persons of 0-14 years old) has high values (between 1 500 - 3 500‰) in most of the administrative units, except the urban areas (500-1 000‰).

The age dependency ratio in the CMA (the ratio of the dependents – people younger than 15 years old or older than 64 years old – to the working-age population – ages of 15-64 years old) is between 500 and 800‰. There is observed a high ageing rate of rural population.

Regarding the migration rate there were observed high values especially in the rural areas (negative ones: -5; -15‰), the positive values of 0-10‰ being recorded in Craiova and in some nearby communes such as Șimnicu de Sus, Mischii, Ghercești, Predești, Pielești, Coșoveni. In this respect the rate of departures from the domicile was calculated showing high departures in most of the analyzed areas (above 1 500 people), excepting Segarcea and Almăj (Fig. 6).

The demographic features of the metropolitan area show a high ageing of the population and a decrease of the inhabitants' number.

4.2. Workforce

The workforce was analysed as a ratio between the number of employees and 100 people (Fig. 7), a high percentage of 15-25% being recorded in Ișalnița, Segarcea, Șimnicu de Sus due to the presence of companies that have an average of 2-6 employees.

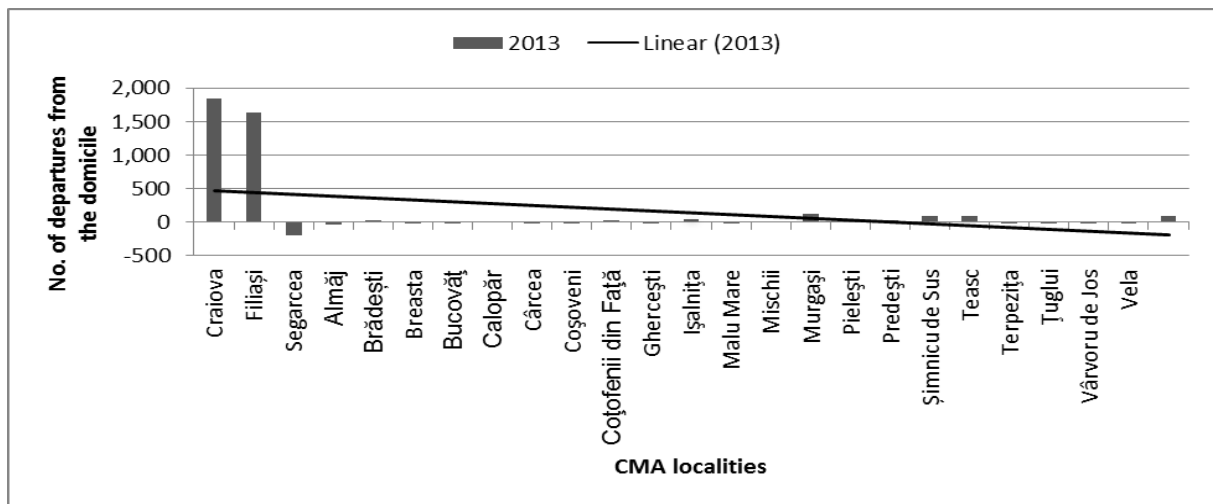


Figure 6. Departures from the domicile in CMA (2013). Source: processed data from NSI, 2014

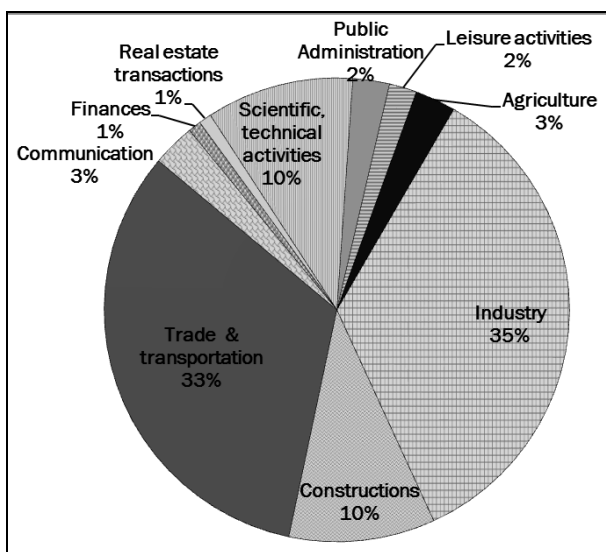


Figure 7. The percentage of employees hired in the main economic sectors of CMA (2013)
Source: processed data from NSI, 2014

The highest values above 25% were recorded in Craiova, Ghercești, Cârcea, Malu Mare, due to the migration of the companies in the outskirts and nearby the administrative units of Craiova municipality; the companies have an average number of employees ranging between 4 and 10 and above 10.

In terms of the economic sectors, 35% of the inhabitants are employed in industry, 33% in trade and transportation and 10% in constructions and in technical activities, according to the data from the National Institute of Statistics (NSI) in 2013.

Thus, the employees of CMA work mainly in micro and small enterprises, in the industry, trade and transportation field. The unemployment rates record high values, above 70% in all the communes located in the extremities of CMA, mainly for males, the values decreasing nearby Craiova city, below 20% (Fig. 8).

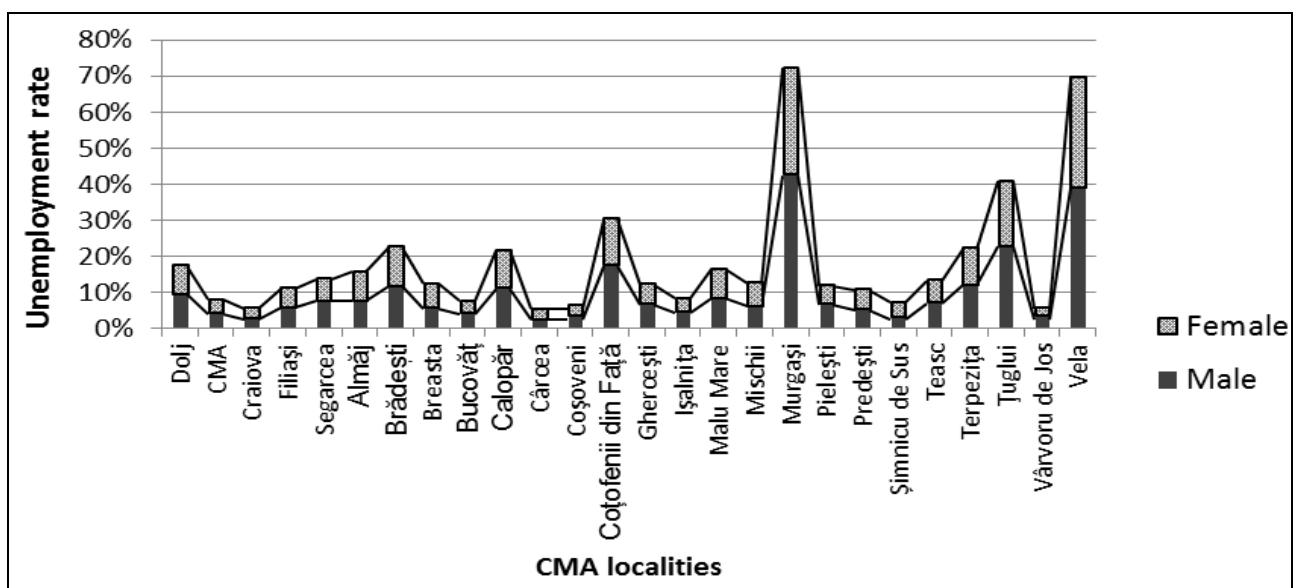


Figure 8. The unemployment rate (male/female) in Craiova metropolitan area (2013) Source: processed data from NSI, 2014

Unemployment rates are high mainly because of a reduced diversity of economic activities and also because most of them are not economically viable. On the other hand the workforce is not very well prepared for other types of businesses, being prone to work in lower-skilled jobs.

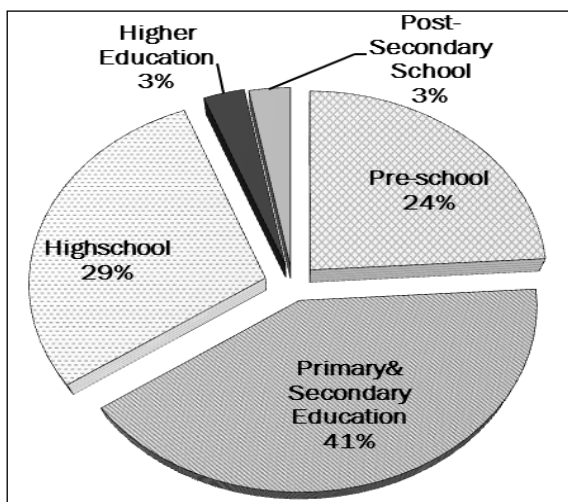


Figure 9. The percentage of the education units in CMA (2013) Source: processed data from NSI, 2014

4.3. Education and health system

All the demographic and workforce aspects are related to the education level and to the accessibility to medical services. A short introspection in these sectors shows some deficiencies in the administrative units of the metropolitan area (Fig. 9).

Most of the education units are represented for the primary and secondary school (41%), followed by high schools (29%) and pre-school units (24%). The rest of 3% is represented by the higher education and 3% by the post-secondary schools.

The average number of pupils per teacher shows values ranging between 14.9 in Dolj County, 15.5 in Craiova metropolitan area and 13.3 in the rural areas of the studied metropolitan area. The distribution of pupils per educational infrastructure in

2013 emphasizes an average number of 24 pupils in the classrooms of CMA and very high values for the sport fields and gymnasiums (Fig. 10).

In terms of school enrolment in kindergartens and pre-university in CMA (2013), considering the urban-rural ratio, the majority of the enrolments take place in the urban space (92%), respectively 85.9% in Craiova, 4.4% in Filiași and 1.7% in Segarcea; the rest of 8% are recorded in the rural space, although with a small increase since the previous years.

A short highlight of the health system is presented by processing two indicators: the medical staff/10 000 inhabitants and the number of inhabitants/doctor.

The medical personnel calculated per 10 000 inhabitants in Craiova metropolitan area show very low values for the rural area of CMA in terms of doctors and pharmacists, the urban space recording high values, especially for the medical staff (107.7 staff/10 000 inhabitants) (Fig. 11).

The rate of people with access to doctors ranges to values between 800-1600 in most of the rural administrative units and in the urban centres; values between 1600-2000 inhabitants/doctor are recorded in Ișalnița, Breasta, Terpezița, Malu Mare, Teasc communes; and values above 2000 inhabitants/doctor are recorded in Calopăr, Cârcea.

The number of doctors is decreasing in the rural areas and the local health centres were closed due to financial problems and the non-viability of the medical process.

The main findings of the analysis show a fragile social environment, rural communities facing many problems related to high unemployment rates determining the workforce migration and very low investments in education and health. Craiova metropolitan association tries to develop and conduct projects related to social inclusion of CMA rural population on the workforce market and also urban mobility projects, facilitating the accessibility of the people from the rural spaces to the urban centres.

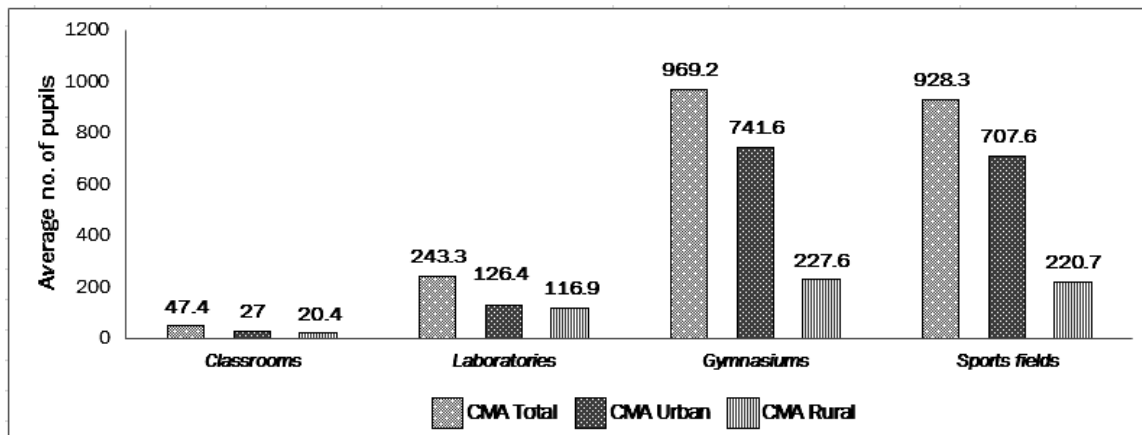


Figure 10. The average number of pupils per educational infrastructure in CMA (2013). Source: processed data from NSI, 2014

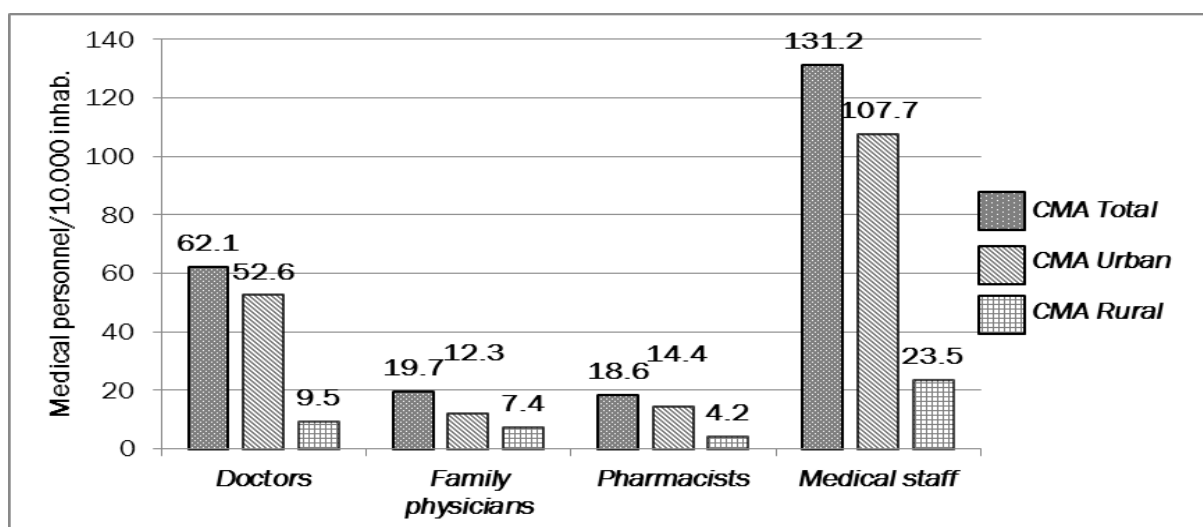


Figure 11. The medical personnel calculated per 10 000 inhabitants in CMA (2013). Source: processed data from NSI, 2014

Table 3. The dynamics of LHDI at local level in CMA (2002 and 2011) (qualitative scale 1-7)

Local Human Development Index (LHDI)	Very poor (1)	Poor (2)	Lower-Middle developed (3)	Middle developed (4)	Upper-Middle developed (5)	Developed (6)	Upper developed (7)
<u>LHDI 2002</u> in communes	Ghercești, Mischii, Pielești, Predești, Șimnicu de Sus, Murgași, Teasc, Almăj, Bucovăț, Terpezița, Țuglui, Vârvoru de Jos, Filiași, Segarcea, Brădești, Calopăr, Coșoveni, Coțofenii din Față, Cârcea, Malu Mare, Vela	-	Ișalnița	-	-	Craiova, Breasta	-
<u>LHDI 2011</u> in communes	Murgași, Coțofenii din Față, Calopăr, Vârvoru de Jos, Terpezița, Vela, Coșoveni	Ghercești, Mischii, Almăj	-	Predești, Țuglui, Teasc	Șimnicu de Sus, Pielești, Malu Mare, Bucovăț, Segarcea, Brădești	-	Craiova, Breasta, Ișalnița, Cârcea, Filiași

Source: adapted after CONREG Report (Disparities and flows for the social-economic analysis of the administrative regionalization of Romania – In Romanian), 2013

4.4. Local human development index (LHDI)

The dynamics in local human development is observed through the calculation of LHDI for the two censuses in 2002 and 2011 by Sandu (2011) (see section 3 – Methodology). Data variations show that the geographical location of a rural area is highly relevant for its development: the one located closer to a large city and to an European road is often more developed than the one with less accessibility.

Most localities in CMA have undergone noticeable changes between 2002 and 2011. The index presents in fact the different leading or lagging areas of CMA.

The urban areas (Craiova, Filiași) have a strong polarizing effect because the closer a commune is to the urban centres, the more developed it is (Breasta, Ișalnița, Cârcea). This leads to the fact that the leading areas, i.e. urban ones, generate additional revenues that can help the lagging areas, commonly rural ones and the people in lagging areas have better access to opportunities in the leading areas.

Thus, it was proven that the proximity to markets and to improved accessibility is a key issue in the driving development of CMA.

Cities are considered to be catalysts for development in poor areas so urban development can drive rural development. The local human development shows a key problem for CMA territorial cohesion: the social and economic standards discrepancies that still exist between the rural and urban areas.

At the national level, Dolj County, together with its Craiova Metropolitan Area has poor communes due to:

- the low urban connectivity;
- a larger share of occupation in agricultural activities because of the higher extent of plains (a tabular relief) in the studied communes;
- a decline of the industry;
- large share of SMEs;
- a low connectivity to other national and international markets.

5. CONCLUSION

Sustainable development implies an integrated approach in order to address the environmental protection, the social and economic prosperity at different social levels. One of the most important steps of sustainability is the creation of a set of policies, visions and procedures, which involves the development of human capital (Khalili et al., 2015), which can represent a real support for sustainability.

The assessment of the human capital of Craiova

metropolitan area highlights strong and weak points. Some important aspects and also other positive ones concern:

- there is a good structure of the population on age categories despite the demographic ageing;
- there was recorded an increase of the enrolment of children in kindergartens;
- urban area represents a sustainable support for the rural areas in its proximity;
- the new expansion and relocation of businesses take place in the administrative units near Craiova municipality.

The weak points of the human capital development in Craiova metropolitan area refer mainly to:

- a strong process of demographic ageing;
- a decrease of population, especially in the rural areas, but also the urban centres are facing some departures from the domicile;
- exclusion and high migration of the workforce in Craiova and in other cities in Romania, or even abroad;
- high unemployment rate in the rural extremities of CMA;
- low accessibility to education and medical services of the rural population;
- low investment in education infrastructure and facilities and in the training programmes for a proper reconversion to other type of jobs, besides the agricultural activities.

The main points stress very well the unbalanced social system of the area and the high dependence of rural space to urban space. Within the rural units of CMA there are noticed high disparities due to the distance from the main urban growth pole and to the decrease of its influence, and also a stagnation or even deterioration of the human capital.

The human capital influences an area's economic efficiency and productivity and this study can help in the future evaluation of the key economic variables associated with the education and health investments of the metropolitan area.

Previous studies determined that social capital accumulation can highly influence the sustainability level of a place, mentioning also the importance of local governance in the outcomes of the process (Kusakabe, 2013). The human capital development must be related to continuous training and employment, leading to skilled workforce, highly adapted to the environmental changes (Manole & Alpopi, 2013).

The municipality started to understand and to promote its regeneration by focusing on the attraction of new economic investors and on schooling investments that return to education, to social inclusion

projects targeting the female workforce and a higher mobility degree within the metropolitan area.

Holistic planning on long-term proves to be very important for the human capital development in Craiova metropolitan area in order to maintain or to improve the economic level.

Thus the future direction of the city metropolitan area involves an integrative approach of a proper human capital development and an economic revitalization, and also establishing better inter-relations between the natural, social and economic environment; sustainable development has to be one of the main objectives of rural development concerning the economic but also the social level.

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