

***Contracting Authority
Ministry of Regional Development and Public Administration***

***Analyses necessary for elaborating the CBC Programme
Romania - Ukraine 2014-2020***

- Territorial analysis -
- SWOT Analysis -
- Main findings following the preliminary consultation process -

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Bucharest, July 2014

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1. Territorial analysis

The following report is a result of the territorial analysis developed for the CBC OP Romania-Ukraine 2014-2020. The report focuses on the eligible core area of the programme, benchmarked where possible and/or relevant against the national levels or the EU28.

1.1 Executive Summary

The continuation of the cooperation programmes developed by the European Union along its virtual borders with its non-EU partners is necessary in the context of future social and economic development. In this context, the present programme continues the development of relations within the limits of the Eastern Neighbourhood Partnership. As part of the future Romania-Ukraine cross-border cooperation programme, the following analysis tries to ensure the correct assessment and identification of local and cross-border advantages and limitations that act as basic necessities for the elaboration of the programmes priorities and objectives.

The territorial analysis covers the core eligible area of the Romania-Ukraine 2014-2020 programme, specifically the five Romanian counties of Maramureş, Satu-Mare, Botoşani, Suceava and Tulcea, and the four Ukrainian Oblasts of Zakarpattia, Ivano-Frankivsk, Odessa and Chernivtsi. The core eligible area is composed of a significant part of the core eligible area of the former Romania-Ukraine-Republic of Moldova cross-border cooperation programme (Odessa and Chernivtsi oblasts and Botoşani, Suceava and Tulcea counties) and an additional number of two oblasts and two counties (Zakarpattia and Ivano-Frankivsk oblasts and Maramureş and Satu-Mare counties).

The core eligible area encompasses a total area of 100860 km² and has a combined border length of 694.4 km. Out of the total core eligible area 32.48% represents the Romanian territory and 67.52% represents the Ukrainian territory. In terms of proportionality, the Ukrainian territory is more than double in size compared to the Romanian territory.

The core eligible area of the programme sums up a total of approximately 8,022,042 inhabitants. Of the total population, 26% (2,083,538 inhabitants) reside on the Romanian side of the border and 74% (5,938,504 inhabitants) on the Ukrainian side. The difference in scale, considering both the size of the territories and populations is extremely important and an integral part of the territorial analysis, as these differences can have a skewing effect on the territorial comparisons results.

There are a number of important urban settlements in the core eligible area that polarize a large number of the resident population. This type of polarization, along with the social and economic situations of the urban and rural areas emphasizes the large disparities when comparing urban and rural settlements. This is of major importance, as in spite of the urban concentrations in the area, a large part of the core eligible area is still predominantly rural.

The core eligible area concentrates a large population with ages between 15 and 64 years. Territorial comparisons show that the four Ukrainian oblasts have a positive (but sensitive) natural increase of 0.6‰, while the Romanian counties have a negative rate of -3.78‰. The largest negative natural increase rates are registered in the rural area of the core eligible areas, while urban centres register slight positive increases. Even so, the natural increase rate of the core eligible area is of -0.54‰, which combined with the outward migration trends signals

major difficulties in the population rejuvenation process, creating the premise for the increase of the urban-rural disparities.

The health infrastructures are limited in development especially in the rural areas. The level of development and the capacity of the health units are below national averages across all of the core eligible area. Significant differences are observed in the more urbanized counties and oblasts; however, even in these cases the capacities are still under their national averages.

The major differences in development and opportunities leading to higher poverty and unemployment rates have direct effects on the quality of life and life expectancy at birth. In Romania male life expectancy is 71 years and female life expectancy is 78.1 years, while in Ukraine the life expectancy for males is of 66 years and 76 years for females. Compared to previous years life expectancy is on a rise, but it is still below European averages.

The core eligible area's active population represents 45.09% of the total population. Out of this total, 93.83% of the active population is employed, while 6.15% is unemployed. The largest employed population by sector is employed in the agricultural sector, and represents 25.35% of the total employed population. Territorial differences are however significant, as in Romania 42.58% of the employed population works in this sector, while in Ukraine only 20.35%. In the latter case, this still represents the largest sector by employed population.

The structure of the unemployed population shows that there are similarities between the two sub-national territories. On both sides of the border the largest part of the unemployed population has only primary, secondary or vocational education. In the Romanian counties, 62.99% of the unemployed population has this level of education, while in the Ukrainian oblasts 48.03%. In addition, early school leaving is relatively high in the area, especially in Ukraine, where in 2012 at the secondary level early school leaving reached 17%.

The average gross monthly earnings in the area are some of the lowest at national and European levels. On average the gross monthly earnings reached in 2012 €360 in Romania and €241 in Ukraine. The agricultural sector is the largest sector in terms of employed population; however, earnings in this sector are some of the lowest, registering values below the averages.

The core eligible area of the programme has one of the lowest development levels in the area in comparison with the other neighbouring countries and regions. At the national level of Romania, comparing the GDP per inhabitant levels by county emphasized a directional trend of development on an axis from North-West to South East. Compared to this axis of development, the North-East development region and the Northern part of the South-East development region in Romania can be considered peripheral, while their GDP levels indicate a type of isolation effect. The North-West Development Region, which includes Maramureş and Satu-Mare counties, benefits from the direction of this axis; however, the two counties are positioned only in the influence area of the axis.

In Ukraine the major development axis, is also oriented from North-West to South-East, out of the reach of the Ukrainian oblasts in the core eligible area. Compared to the rest of the country and excepting Odessa Oblast, the rest of the oblasts in the eligible area are some of the poorest at national level. This is consistent when comparing the GDP per inhabitant levels at county and oblast level, as Botoşani and Chernivtsi have some of the lowest GDPs compared to each of their national territories.

Competitiveness is rather low in the core eligible area. The major causes behind this are: the predominance of agriculture and industry as the main economic activity and the lack diverse economic activities; the low level of investments in Research & Development and its underuse in industrial and technological activities, reducing productivity; low accessibility due to the poor quality of the transport infrastructure; the underdeveloped and deteriorating public utilities infrastructure; and the low ICT penetration rates at territorial level.

In terms of infrastructure, the core eligible area has a poorly developed transport infrastructure, which cannot insure accessibility and connectivity at international standards, resulting in an isolation effect. Intermodal transport is still limited, as the naval and air links are underdeveloped, in spite of the gain potential given by the Tulcea-Odessa region. The road and rail infrastructures are sufficiently dense if compared to their national figures. However, quality wise the infrastructure still leaves room for improvement. Local roads lack investments due to limited funding opportunities and bureaucracy, compared to national and European roads, which receive significantly more attention. The rail network is rather old and requires significant improvements, as at the present state it does not allow the use of high speed trains, and the gauge difference between the two countries makes border crossing by train time consuming.

The state of the public utilities and services infrastructure serving the urban and rural localities in the area raises a number of issues. Even if significant percentages of the localities in the core eligible area are connected to these networks, their quality is rather poor. A large portion of these infrastructures are developed before 1989 and in general lack serious investments since then, especially in the case of rural localities. This creates problems in terms of environmental protection, as this leads to the evacuation of undertreated or untreated waters and poorly managed waste, which combined have a negative impact on soil and water quality.

The analysis shows that the core eligible area is a big consumer of energy, mostly due to industrial activities and energy production with the purpose of heating. The Ukrainian oblasts have significantly higher levels of energy use compared to the Romanian counties. Furthermore, the Ukrainian oblasts are large consumers of coal and gas as fuels, greatly increasing particle and greenhouse emissions in the area.

The varied relief, the geographical positioning, the varied flora and fauna, and the cultural heritage of the area are major competitive advantages of the core eligible area in terms of tourism. The area benefits from over 1000 natural protected areas of national and international importance and numerous historic sites. The increasing number of tourists in the last two years confirms that the attractiveness of this area is one of international level.

1.2 Methodological note

The territorial analysis presented below was elaborated using a clear set of statistical databases, strategic documents made available by local and national authorities through their websites and by request, as well as other documents as press releases or news items that were identified as relevant for the present exercise.

Territorialised statistical datasets as well as national and regional statistical publications were used for the comparison of the two territories composing the core eligible area. In order to emphasize and increase the degree of relevance in relation to the comparison similar time intervals were used in the process. Where this was not possible due to older datasets or unavailability of recent data, clear specifications of the time intervals were made. Also, where it was appropriate additional calculations were made in order to make the comparison possible.

Additional data, referring to specific domains was extracted from the relevant documents identified. In the cases where the data lacked territorialisation, the national data was presented and adapted, where possible, to the appropriate territorial level (e.g. Foreign Direct Investments, Energy). In all of the cases, the level of analysis is clearly stated in order to make the analysis as clear as possible.

An important methodological consideration, also mentioned throughout the analysis where it was appropriate is the difference in scale between the two sub-national territories composing the core eligible area. As the area and population differ significantly comparisons are sometimes skewed due to the scaling effect, which is not always proportional. However, in these cases the difference is signalled within the text of the analysis.

1.3. General description

1.3.1 Core eligible area

The core eligible area of the Romania-Ukraine 2014-2020 programme represents a part of the old cross-border cooperation programme Romania-Ukraine-Republic of Moldova 2007-2013. The core eligible area covers:

- **Romania** – 5 counties – Suceava, Botoşani, Satu-Mare, Maramureş, Tulcea;
- **Ukraine** – 4 oblasts – Zakarpattia, Ivano-Frankivsk, Odessa, Chernivtsi.

The core eligible area encompasses a total area of 100860 km², out of which 32760 km² represent the Romanian territory (divided between the 5 counties: Suceava 8553 km², Botoşani 4986 km², Satu-Mare 4418 km², Maramureş 6304 km², Tulcea 8499 km²), and 68100 km² represent the Ukrainian territory (divided between the 4 oblasts: Zakarpattia 12800 km², Ivano-Frankivsk 13900 km², Odessa 33300 km², Chernivtsi 8100 km²). In terms of proportionality, the Ukrainian territory is more than double in size compared to the Romanian territory.

The border shared by the two countries represents part of the current virtual border of the European Union, as the Romanian regions of North-West, North-East, and South-East are the outermost border regions of the EU in the region.

Note: The programme area will be completed with an analysis of possible adjoining regions and major centres following the decision of the JPC regarding the Thematic Objectives.

1.3.2 Romania-Ukraine border

The total length of the border is of 649.4 km. The border is varied in terms of type and is formed out of: land – 273.8 km, river – 343.9 km, sea – 31.7 km. Furthermore, the Southern part of the Romanian-Ukrainian border divides the shared biosphere of the Danube Delta. The two countries share 6 main border crossing points, accessible by car and train:

- **Halmeu – Diakove** – rail & auto
- **Câmpulung la Tisa** – Teresva – rail (not operational acc. to Romanian Border Police)
- **Sighetu-Marmaţiei** - Solotvino – auto
- **Valea Vişeuului – Dilove** – rail (not operational acc. to Romanian Border Police)
- **Vicşani – Vadul Siret** – rail
- **Siret – Porubne** – auto



Figure 1: Core eligible area

1.3.3 Geography and main topography features

To the North, South, and East, the core eligible area neighbours other Ukrainian oblasts and Romanian counties. The Western and South-Eastern neighbourhoods of the core eligible area are more complex. To the West, Satu-Mare County and Zakarpattia Oblast border Hungary; in addition, the latter also neighbours Slovakia, and Poland. The Eastern part of the core eligible area is very different. Moldova is found in the middle of the core eligible area, sharing its borders with Botoșani County, Chernivtsi Oblast, and Odessa Oblast. In addition, Tulcea and Odessa are bordered to the East by the Black Sea, sharing the sea border.

The geography and topography of the area is varied, and changes in a descendent manner from North-West to East, South-East. The Western part of the area is dominated by high mountains and hills, descending into plateaus to the East, valleys and canyons along the rivers, plains and steppes further East, and beaches to the South-East, towards the Black Sea shore.

As a result, according to the dominating forms of relief the core eligible area can be divided in four main sections:

- Satu-Mare County – dominated by plains and hills;
- Maramureș County, the Western part of Suceava County, Zakarpattia Oblast, Ivano-Frankivsk Oblast and the Western part of the Chernivtsi Oblast – dominated by the Eastern Carpathian Mountains, descending into hills and plains to the east (mainly Nistru and Prut valleys);

- the Eastern part of Chernivtsi Oblast, Suceava County, and Botoşani County – dominated by plateaus, planes and hills (mainly Moldova's plane and Suceava's plateau); and
- Tulcea County and Odessa Oblast – dominated by the Danube Delta, planes, plateaus, flat steppes, and sea shore.

In the mountainous North a large number of high-altitude mountainous peaks can be found, including the highest peaks in Romania and Ukraine: Pietrosu Călimanilor (2100 m) in Suceava County, and Hoverla (2061 m) in Zakarpattia Oblast.

The hydrographic network of the area is extremely complex encompassing thousands of small and large rivers and springs, as well as a large network of lakes and estuaries situated in the Tulcea-Odessa region. The main rivers that pass through the eligible area are Nistru, Prut, Siret, Tisa, and the Danube with its main arms – Chilia, Sfântul Gheorghe and Sulina. The majority of the smaller rivers flow into Nistru, Prut and Danube rivers.

Tulcea County's territory covers the large majority of the Danube Delta UNESCO Biosphere Reservation, summing up over 40% of its administrative territory, while only a small fraction on the left bank of Chilia arm is part of Odessa Oblast. The Danube Delta has an area of 3124.4 km², and encompasses almost all major lakes and estuaries found in the core eligible area. On the Romanian side 9 of the major lakes of Romania are located here: Razim, Smeica, Dranov, Roşu Lake, Gorgova, Lumina, Merhei, Furtuna and Motiţa. On the Ukrainian side, the largest lakes and estuaries are: Yalpuh Lake, Kagul Lake, Kugurluy Lake, Sasyk Lake, Dnistrovski, Sasyk and Tylihulskyi.

1.3.4 Administrative-territorial systems

The national territory of Romania is divided in 4 macro-regions corresponding to NUTS level I and 8 development regions, corresponding to NUTS level II. These regions are not administrative regions, and hold no responsibilities in this respect, their role being mostly statistical in managing EU funding.

The Romanian administrative-territorial system is structured on several levels. From top to bottom, Romania is divided in 42 counties, including Bucharest Municipality; 320 towns and municipalities, 2861 communes (including one or several villages) and 12957 villages. The commune is the basic administrative-territorial unit.

The Romanian eligible area part of the programme is formed out of 5 counties Maramureş, Satu-Mare, Botoşani, Suceava and Tulcea. The counties are further divided into 35 towns, 12 municipalities, and 337 communes summing together 1279 villages.

The Ukrainian territory is structured in 26 main administrative units: 24 oblasts, the Autonomous Republic of Crimea, and two cities with special status Kiev and Sevastopol. The eligible Ukrainian territory is formed out of the four oblasts of Zakarpattia, Ivano-Frankivsk, Odessa, and Chernivtsi. Below oblast level, the territory is divided into districts (raions). Furthermore the Ukrainian administrative-territorial system is split into: cities; cities with special status, republican, and regional importance; city districts, urban type settlements, village councils and rural localities. The four oblasts composing the Ukrainian part of the core eligible area are divided into 64 districts, 56 cities, 84 urban type settlements, 1475 village councils and 2866 rural localities.

1.4. Demography

1.4.1 Population

The core eligible area of the programme sums up a total of approximately 8022042 inhabitants. Of the total population, 26% (2083538 inhabitants) reside on the Romanian side of the border, while 74% (5938504) on the Ukrainian side.

In terms of densities, in a country-to-country comparison the difference is notable. The average density for the five Romanian counties was in 2011 63.6 inhabitants/km², significantly lower than the national population density of Romania of 84.4 inhabitants/km². In comparison, according to the 2013 population estimates, the four Ukrainian oblasts had an average density of 87.20 inhabitants/km², higher than the national average of 75.5 inhabitants/km².

Looking at population densities at sub-national level emphasizes the difference in territorial scales and explains a significant part of the differences. The sub-national comparison shows a significant average difference of 24 inhabitants/km² in favour of the Ukrainian oblasts, making the Ukrainian territory more densely populated.

Proportionally similar densities can be observed at oblast and county levels when comparing neighbouring administrative units. Tulcea County and Odessa Oblast are according to their densities the most sparsely populated areas of each of the sub-national territories, having densities of 25.7 inhabitants/km² and 72 inhabitants/km².

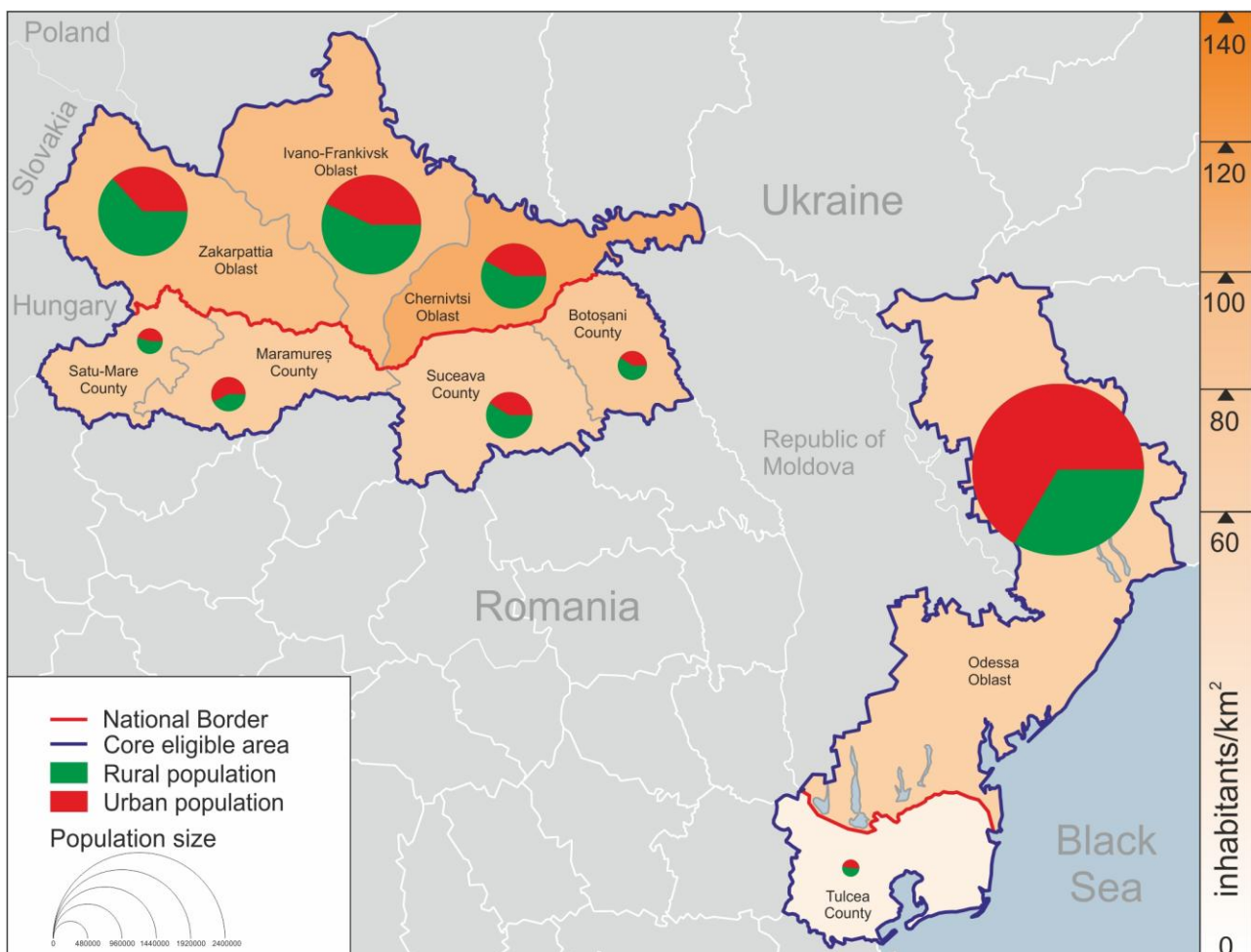


Figure 1: Population density & distribution by living environment

Chernivtsi Oblast and Botoşani County are according to their densities at the opposite pole, being the densest populated administrative units with 112 inhabitants/km², respectively 82.76 inhabitants/km². Zakarpattia, Ivano-Frankivsk Oblasts and Satu-Mare, Maramureş, and Suceava counties are at the middle of the density hierarchy, averaging at 76 inhabitants/km² in Romania, and 98.7 inhabitants/km² in Ukraine.

These significant density differences can be assigned to multiple factors. The most relevant are the geographic and topological similarities that can inhibit the development of urban and rural localities (Tulcea-Odessa – plains and delta; Zakarpattia-Ivano-Frankivsk-Satu-Mare-Maramureş-Suceava – predominantly mountainous) and the social and cultural similarities of these areas.

Urban areas concentrate a large part of the population, especially in the Romanian counties and Odessa Oblast. Comparing the urban-rural composition of the population, the numbers show a slight difference: only 46.16% of the Romanian population is living in urban areas, compared to 50.84% of the Ukrainian population. Compared to national levels both of the sub-national territories have significantly smaller urban populations than at national level, as 54% of Romania's population lives in urban areas, while in Ukraine the rate is 68.88%.

This overall statistic is however distorted by oblast and county level differences. Two major anomalies have to be considered. On the Romanian side, Maramureş raises the overall Romanian statistic because of its slightly more prominent urban character, its urban population representing 57.5% of its total population – above the national level - compared to the rest of the Romanian counties, in which the urban population averages at 43%. On the Ukrainian side of the eligible area, Odessa Oblast is responsible for boosting the urban population statistic, as 66% of its total population lives in urban areas – almost equal to the national level – compared to the 40% average of the rest of the Ukrainian area. These anomalies show that in reality the core eligible area is approximately 60% rural in terms of living environments, with notable exceptions in areas where major urban centres developed – e.g. Odessa.

1.4.2 Gender & vital statistics

The gender distribution is almost even between male and female, however a slightly larger female population can be observed – 52.18% of the population – compared to the male population – 47.57%.

At the level of the core eligible area, birth and crude death rates almost cancel each other out registering 12.11‰ (births/1000 inhabitants), respectively 12.56 ‰ (deaths/1000 inhabitants). This leads the natural increase rate (calculated as the difference between the two) to show an overall negative trend, the area having a weighted average of -0.54‰. A slightly positive weighted average of 0.36‰ can be observed in the case of the urban areas, while the rural areas register a negative natural increase average of -1.33‰.

At territorial level the natural increase rate shows prominent differences. The Ukrainian oblasts show an overall slight positive natural increase of 0.6‰, with a more prominent 1.075‰ natural increase in urban areas. Compared to the national rates, the four oblasts are in

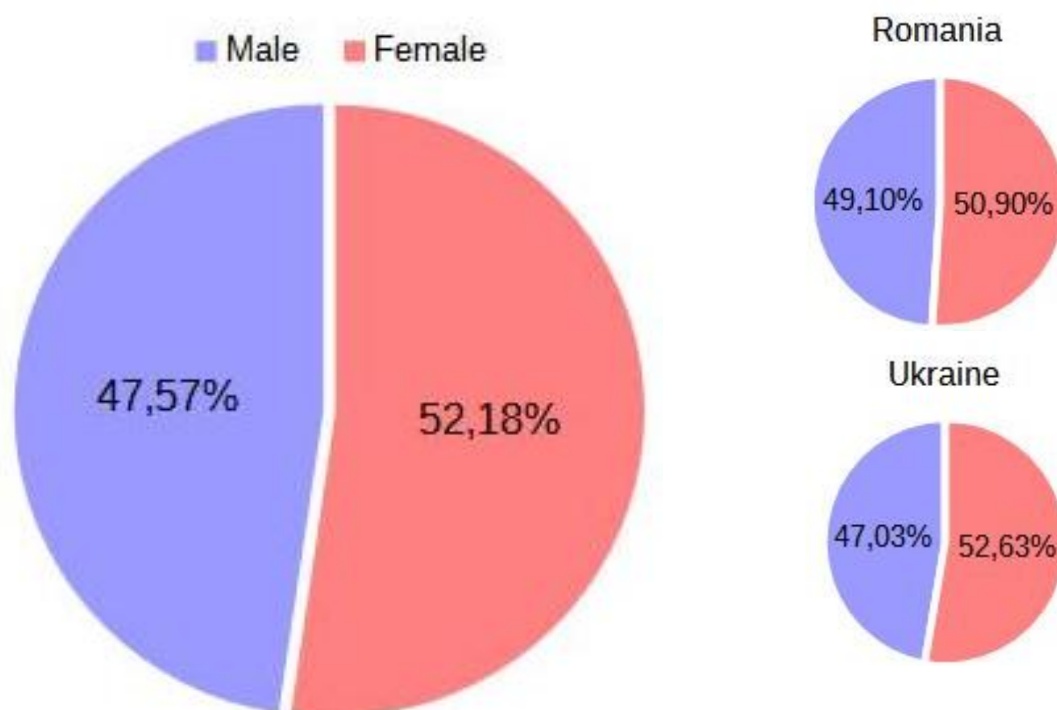


Figure 2: Distribution of the population by gender

a good position, as the overall natural increase for Ukraine is of -3.1‰, with a record rate of -5.1‰ in rural areas.

None of the Romanian counties have a positive natural increase rate, the total average being of -3.78‰, slightly higher than the Romanian natural increase rate of -3.6‰. Tulcea County has the lowest natural increase rate of -5.6‰, followed by Botoșani County with 4.5‰. On the Romanian side of the eligible area a subtle correlation can be made between the large size of the rural population and the negative natural increase rate. The most extreme natural increase of the rural population is in Botoșani County with a natural increase of -7‰ and Tulcea County with a rate of -8.6‰, significantly higher than the national rural rate of -5.7‰.

1.4.3 Age groups distribution

The age distribution of the population is consistent across the territory, with only small variations at county and oblast level. 69% of the population is aged between 15 and 64 years, 17% in between 0 and 14 years, and 14% is over 65 years. The general differences in scale of the population age groups are mainly explained by the difference in scale between oblasts and counties. Even so, a difference that can be emphasized is that proportionally the Ukrainian population aged between 15 and 64 is somewhat larger in the Romanian counties. In the same way the Romanian population aged between 0 and 14 years is larger than the Ukrainian population in the same age group, but the difference averages around only 2%.

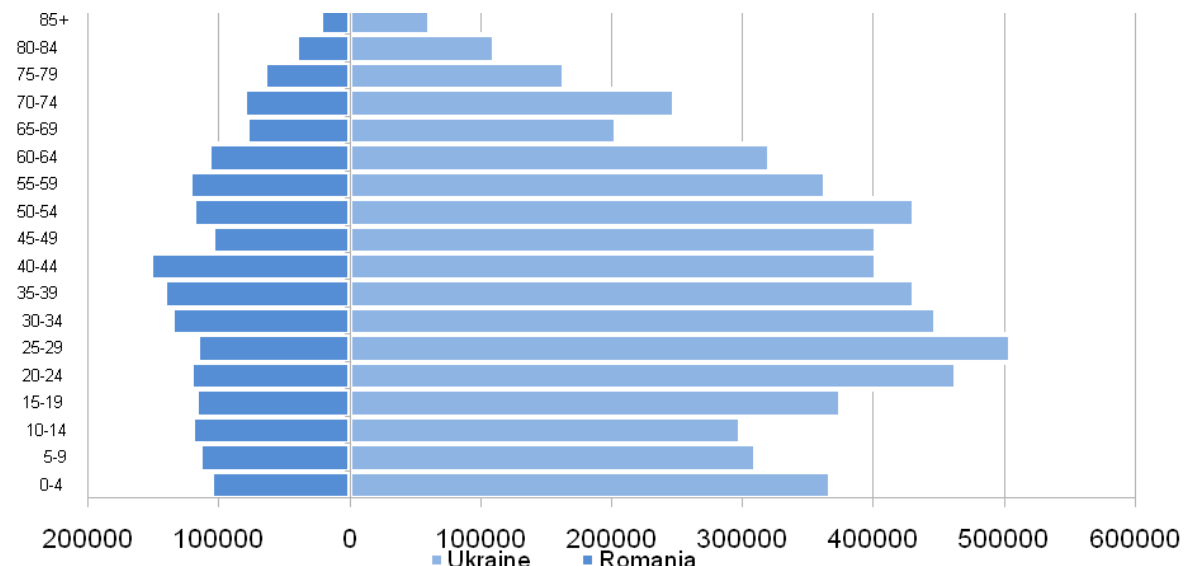


Figure 3: Age pyramid by country in the core eligible area. Sources: Romanian Statistical Yearbook 2013; Online database of State Statistics Service of Ukraine.

The Romanian counties and Ukrainian oblasts have similar populations across the age groups, with only slight differences. In Romania, the 40-44 age group represents 8.15% of the population, being the largest age group. Considering size, the top three age groups cover the age range 30-44 years and represent 23% of the total Romanian population. Overall, the 0-14 age groups represent 18.27% of the total population, the 15-64 age groups 66.34%, and the over 64 age groups 15.41%.

In the four Ukrainian oblasts, the largest age group, representing 8.55% of the total population is the 25-29 age group. The top three age groups cover the age range 20-34 years and represent 23.89% of the total population. Overall, the 0-14 age groups represent 16.52% of the total population, the 15-64 age groups 70.15%, and the over 64 age groups 13.33%.

1.4.4 Migration

Migration represents a major problem in the area, especially in the Romanian counties of the core eligible area, which compared to the Ukrainian oblasts have a negative migration balance. The five counties had in 2011 an overall net migration balance of -2752 persons, while the four Ukrainian oblasts, in 2013 had a net migration balance of 6898 persons.

In the case of the Romanian counties, internal migration is rather limited, the bulk of the migration being represented by international migration. Emigration represents 52% of the total external migration flows for the five counties. Botoşani County is the county with the largest difference between out-migration and in-migration at county level, registering a migration balance of -1046. However, the largest number of emigrants is registered by Suceava County, with 8646, but here the outward flow is counterbalanced by the immigration flow, cancelling each other out.

In the case of the Ukrainian oblasts, in 2013, the positive migration balance is a result of the reduced level of out-migration in comparison with the in-migration at oblast level. Odessa Oblast registers the largest numbers in both cases; however, the in-migration total is 37144 persons, while the out-migration total is only 31363 persons. Even though Odessa Oblast registers the largest number of out-migrants out of the four oblasts, it has to be noted that at the level of the Ukrainian eligible area, it is still the most attractive oblast for all types of migrants. In contrast comparing in- and out-migration totals shows that Zakarpattia is the least

attractive oblast, as compared to the other three oblasts, it has the lowest and the only negative migration balance, registering -1233 persons..

1.4.5 Education

The educational system in the core eligible area has registered several improvements in the last 20 years, however the provision and accessibility of post-high school educational units is still relatively low.

Early school leaving is a notable problem at the level of core area of the programme. In Ukraine, at national level, in 2012 17% (715 thousand) of the total secondary level (primary, secondary, and high school) students did not finish this level of education, and 16.4% (39.7 thousand) of the students admitted in vocational educational institutions did not graduate. These numbers signal a high rate of early school leaving, reducing the potential opportunities of young adults, as education is an important factor in increasing individual competitiveness on the labour market.

The Romanian educational system manages to keep the early school leaving rates relatively low for the primary and secondary educational levels – less than 3%. However, this is still a high rate compared to the national level of 1.8%. At high school and vocational level, Botoşani County has the highest early school leaving rate – 10.1%, while Maramureş County has the lowest - 4.4%. Both of these are above the national rate of 4.2% for this education level. Moving towards post high school education increases the school leaving rates significantly. Tulcea County has the highest rate – 9%, followed by Botoşani with 8.4%, and Satu-Mare with 7.4%. Maramureş and Suceava have the lowest rates, registering 1.6%, respectively 4.9%. The latter, are the only counties that register early school leaving rates significantly lower than the national rate for this level of education of 6.1%.

From a quantitative perspective, the two sub-national territories have similar educational structures. In Romania the majority of the educational units (from preschool to tertiary education) are located in Maramureş and Suceava counties, the first summing 183 units, and the second 228 units, out of the total of the area of 758 units. The major observable territorial difference appears when comparing the vocational and post-high-school education levels, as in Satu-Mare, Suceava and Tulcea there are no vocational education units. In addition, in Suceava County there are 6 post high school and professional educational units, and in Maramureş County 4, compared to the rest of the territory where only one is found in each county. In the Romanian eligible area there are only 3 tertiary education units, in Maramureş, Satu-Mare and Suceava, creating large territorial gaps in terms of education at this level. The effect is counter-balanced at some extent in Tulcea County, as in this area the population can take advantage of the educational infrastructure found in Galaţi.

In the four Ukrainian oblasts the situation is similar in terms of trends, the difference being one of scale. One significant difference referring to the tertiary education level has to be mentioned. Odessa Oblast concentrates a total of 41.44% of the total educational units in the Ukrainian eligible area. However, the rest of the units are distributed in a consistent manner across the territory. At the tertiary level of education, the units become scarcer, in terms of distribution, these being located mostly in urban settlements. In this case Odessa is still the leader in the hierarchy, as it concentrates 22 tertiary education units, compares to Zakarpattia and Ivano-Frankivsk with 6 each, and Chernivtsi with 4.

Because of the structure and quantitative consideration of the educational infrastructure, in the five Romanian counties the student population is not distributed evenly. Maramureş and Suceava counties have the largest student populations of 81510 and 133575 students, together representing 55.7% of the total student population in the Romanian eligible area. A direct correlation can be made, as these two counties have also the largest number of educational

units. The outliers in this case are Suceava and Tulcea counties. Tulcea registers the lowest number of students – 34293. A particularity in this case total lack of students enrolled in tertiary education. At the opposite pole Suceava, has the largest numbers of students for all categories. The most notable difference is the number of students in tertiary education – 7325 in 2012, considering the next county in the hierarchy is Satu-Mare County with 1380.

In the Ukrainian territory the number of students is in its majority evenly spread out, the exception being as in the case of the infrastructure Odessa Oblast. The oblast registers the largest number of overall students – 443725 – representing 41.44% of the total number of students in the Ukrainian oblasts. The large number of tertiary educational units makes the oblast concentrate 59.8% (114300) of the total tertiary level students in the Ukrainian eligible area. Out of all of the oblasts, Chernivtsi has the lowest number of students – 166570 – representing 15.5% of the total student population in the core eligible area, and its tertiary student population only 12.3% of the total students in this category at the level of the Ukrainian eligible area.

Number of Students by level of education							
	Total	Pre-school	Primary and Secondary	High school	Vocational	Post high school and foremen / Professional training	Tertiary education
Romania (total eligible area) 2012	386179	66123	206174	92279	3454	7979	10170
Maramures	81510	14035	42293	21491	649	1769	1273
Satu-Mare	60635	12117	31243	14074	522	1299	1380
Botoşani	76166	12680	44601	17103	636	954	192
Suceava	133575	20868	69126	31852	1424	2980	7325
Tulcea	34293	6423	18911	7759	223	977	0
Ukraine (2012)	1070752	178400	636852		42200	22200	191100
Zakarpattia	228436	45000	153536		5100	4000	20800
Ivano-Frankivsk	232021	31400	149221		13400	5500	32500
Odessa	443725	71500	235125		13600	9200	114300
Chernivtsi	166570	30500	98970		10100	3500	23500

Table 1: Number of students by education level. Sources: TEMPO-Online Database of the Romanian National Institute of Statistics; Romanian Statistical Yearbook 2013; Statistical Yearbook of Ukraine for 2012

1.4.6 Health & Life expectancy

In 2012 the Romania counties' population benefited from the use of 32 hospitals, with a total capacity of 10620 beds, averaging at 50.6/10000 inhabitants, significantly lower than the national average of 64.42 beds/10000 inhabitants. There are however significant territorial differences. In Maramureş County a number of 58.9 beds were available per 10000 inhabitants, while in Tulcea County the number is reduced to 39 beds/10000 inhabitants, and in Suceava County to 46.9/10000 inhabitants. This difference is significant and compared to the population size and number of hospitals brings forth the importance of territorial differences.

In Maramureş and Suceava counties the number of hospitals is the same (10) and the number of beds is extremely similar, however the capacity per 10000 inhabitants is significantly different due to the much larger population of Suceava County. This territorial difference is also important for the number of physicians available for 10000 inhabitants, which in Maramureş and Satu-Mare counties is 17.6/10000 inhabitants, while the lowest is that of Suceava County, 13.9/ 10000 inhabitants.

In the Ukrainian oblasts, the number of hospitals is significantly lower in Chernivtsi and Zakarpattia oblasts (i.e. 40, respectively 54), compared to Odessa and Ivano-Frankivsk oblasts (i.e. 103, respectively 82). The total capacity of the hospitals in the four oblasts is of 79.87

beds/10000 inhabitants, which is lower than the national capacity estimate of 87.38/10000 inhabitants. At territorial level, Odessa Oblast had in 2013 a total capacity of 20325 hospital beds – the distribution being of 84.9 beds/ 10000 inhabitants, the biggest capacity in the Ukrainian eligible area and close to the national level. At the opposite pole, Zakarpattia Oblast has the lowest capacity of 9097 hospital beds, with a distribution of 72.5 beds/10000 inhabitants. The situation is however different if the number of physicians is compared. Even though Odessa Oblast has over two times more physicians than Zakarpattia Oblast, its distribution of 47.5 physicians/10000 inhabitants is close to Zakarpattia's of 41.1. As in the case of Romania, this is a territorially induced abnormality caused by the difference in size of the oblasts' populations.

At the level of the European Union in 2012, life expectancy for males was estimated at 77.5 years and for females at 83.1. By comparison Romania and Ukraine have significantly lower life expectancies at birth.

According to Eurostat data, in 2012, in Romania the general life expectancy at birth is of 74.2 years, while according to the state statistics in Ukraine life expectancy is of 71.2. Male life expectancy at birth in Romania is of 71 years, while in Ukraine is of 66 years; and female life expectancy at birth in Romania is 78.1 years, while in Ukraine is of 76 years. These numbers position the two countries at the bottom of the life expectancy hierarchy if we compare these with the EU member states.

1.5. Labour market

1.5.1 Activity and Employment

In overall numbers the core eligible area has an economically active population of 3608400 persons, representing 45.09% of the total population. Out of the active population, 93.83% are employed and 6.17% unemployed. Referenced to the total population of the area 42.20% are employed and 2.78% unemployed.

Comparing the numbers of the active population for the Romanian and Ukrainian territories shows a small difference of 2% in the employed-unemployed categories. 95% of the Romanian active population is registered as employed compared to 93% of the Ukrainian active population.

A methodological note has to be made here, as the comparison is skewed because of the difference in defining the active population. In Romania the active population age range is between 15 and 64 years, while in Ukraine the top limit is set at 70 years. In consequence, the proportional size of the active population is slightly larger in Ukraine. This difference in proportion can be correlated with the significantly larger unemployment rates of the Ukrainian oblasts, in arguing that a large portion of the unemployed population registers in the over-64 age group.

In the Romanian counties unemployment averages at 4.94%, with the highest rates in Suceava and Tulcea counties with 5.5%, respectively 5.9%. All five counties forming the Romanian eligible area have unemployment rates below the national rate, which was in 2012 7%. The

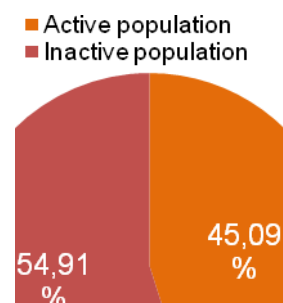


Figure 4: Active vs. Inactive population in reference to the total population in the

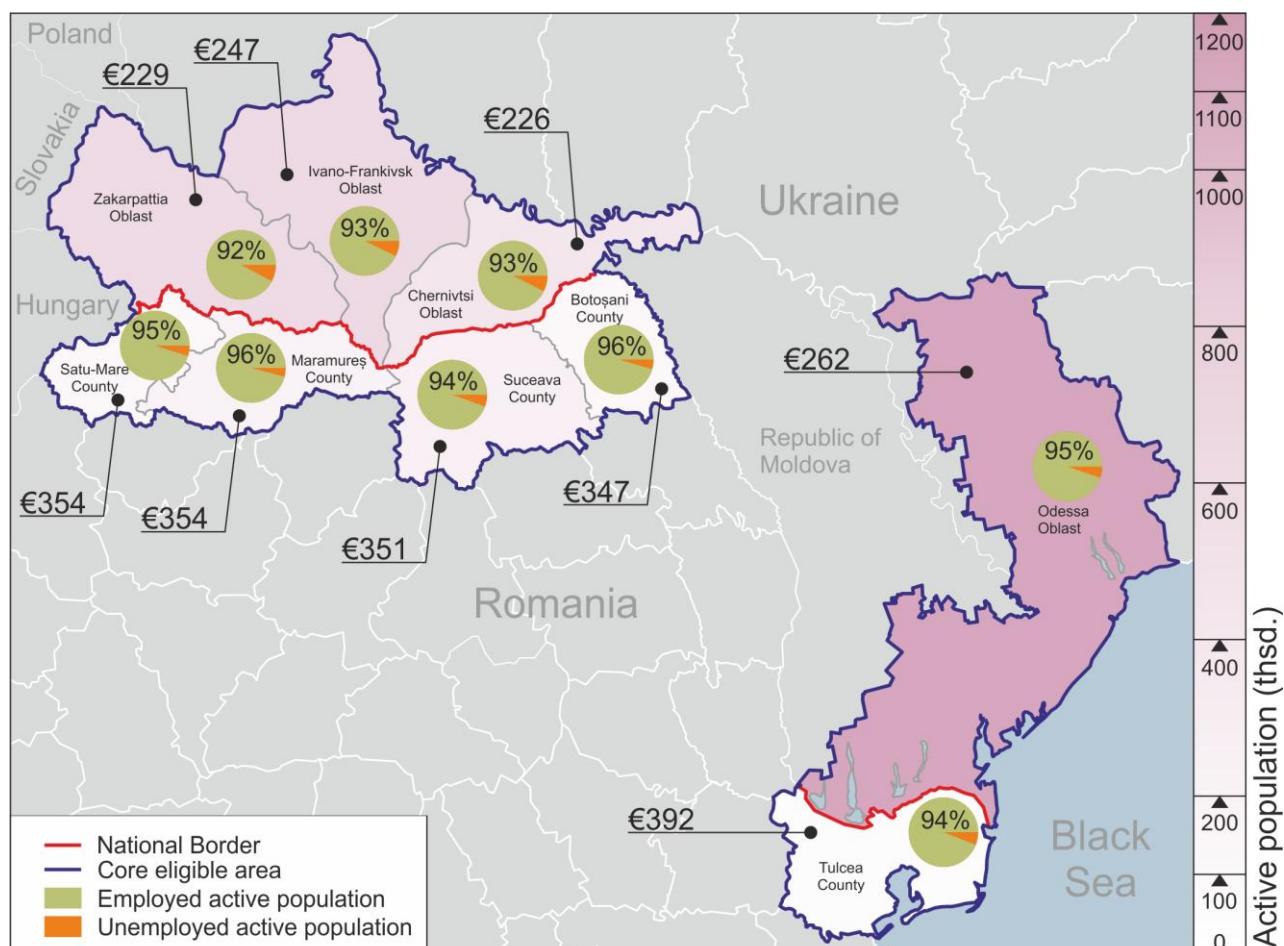


Figure 5: Active population (in thousands), rates of employment, and average gross monthly earnings in the core eligible area

Ukrainian oblasts have a larger unemployment rate average of 6.93%. Here, much larger extremes are also present. Zakarpattia oblast registers an unemployment rate of 7.8%, followed by Chernivtsi with 7.4% and Ivano-Frankivsk with 7.2%. These rates are comparable to the national unemployment rate of 7.2%. Odessa is the only Ukrainian oblast registering an unemployment rate under the national rate with 5.3%.

In the Romanian counties employment averages at 56.6%, below the national rate of 59.5%. Sub-national differences are more subtle, however these exist. Maramureș and Satu-Mare counties in Romania are the only two that register an employment rate of over 60% at core area level. The Ukrainian oblasts register an average employment rate of 58.08%, with Odessa having the highest rate of 59.6%. However, even at territorial level all four oblasts are below the national employment rate of 60.3%.

Looking at employment and unemployment rates by gender shows significant territorial differences. At national level Romania shows significant differences between males and females, as the employment rate for the male population is 66.5%, while for female population is of 52.6%. However, at the level of the Romanian counties in the core eligible area, the situation is significantly different. Tulcea and Maramureș counties are the only counties where this trend is mirrored at territorial level. The two counties have smaller employment rates compared to the national level. Also, the male-female differences are much smaller than at national level. Satu-Mare, Botoșani and Suceava counties have larger female employed populations, contradicting the national level trend. The largest difference in this direction is registered by Botoșani County which has a male employment rate of 50.4%, compared to the female employment rate of 58.8%.

The four Ukrainian oblasts have trends similar to the national level, which has a male employment rate of 65.9% and a female employment rate of 53.3%. Furthermore, at territorial level the gap between the two rates widen significantly. The most notable difference is that of Chernivtsi Oblast, where the male employment rate is of 68.2% (above the national rate), while the female employment rate is only 49.9% (below the national rate). In comparison, the smallest gap between the two is registered in Zakarpattia, where male employment is below the national level, i.e. 61%, while female employment is above the national level, i.e. 55.5%.

The unemployment rates at national level are fairly similar in Romania and Ukraine, both having larger male unemployment rates. This trend is consistent across all of the Romanian counties and all of their rates are below the national male and female unemployment rates of 7.6%, respectively 6.4%. The oblasts also confirm the trend, but with two considerable differences. First, Zakarpattia Oblast has a much larger difference between male and female unemployment rates – 11.6% (much larger than the national rate of 8%) versus 3.3% (below the national rate of 6.2%). Second, Ivano-Frankivsk contradicts the general trend, and has a significantly larger female unemployment rate, i.e. 8.8%, compared to the male unemployment rate, i.e. 5.9%.

The registered unemployment rates referenced to the urban population show a possible change of the trend identified in the last programme, which indicated that unemployment rates are higher in urban areas than rural ones. The present statistics show that unemployment has gone down in counties and oblasts with large urban populations.

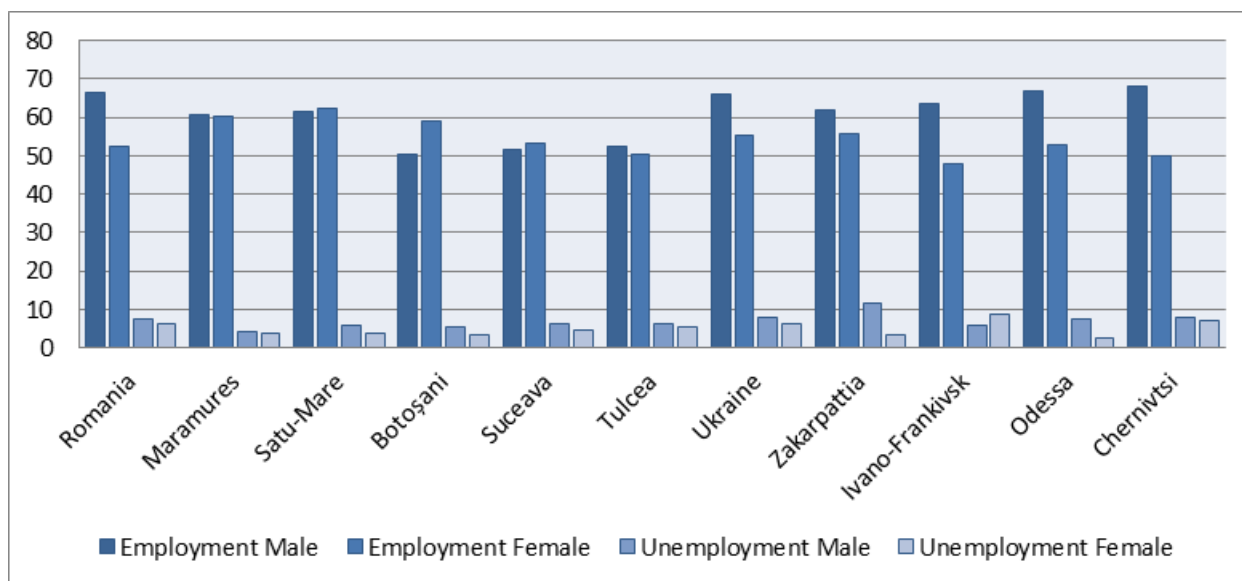


Figure 6: Employment/Unemployment rates by gender at territorial level

Looking at unemployment considering the level of education of the unemployed population, shows distinctive trends between the two sub-national territories. In the case of the Romanian counties, the largest part of the unemployed population has *Primary, Secondary or Vocational* education. As a general dynamic, unemployment percentages go down as education levels go up. 27.73% of the unemployed population has a *High-School or Post-High-School* education, and only 9.29% have a *University* education.

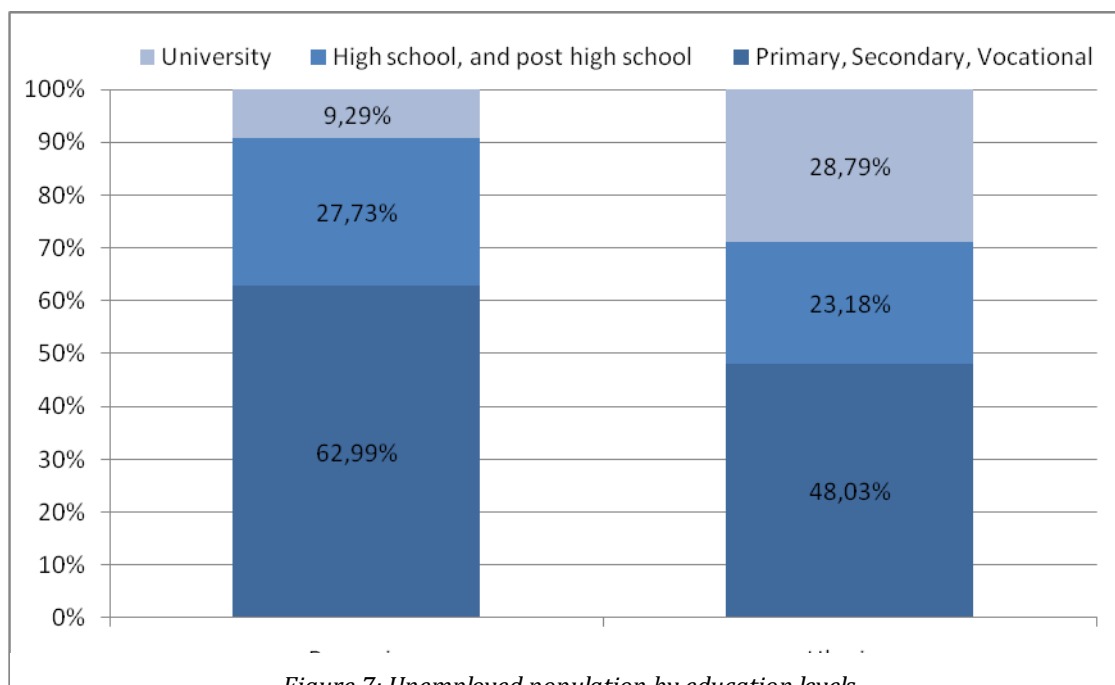


Figure 7: Unemployed population by education levels

In the four Ukrainian oblasts, the trends are different. Even though the largest part of the unemployed population has only a *Primary, Secondary or Vocational* education, the University educated population is the second largest group of the unemployed population with 28.79%, 5% larger than the population group with *High-School or Post-High-School* education.

The trends in the two countries indicate that labour market opportunities are limited for individuals that do not hold high school or University degrees. The situation in the Ukrainian counties shows a guidance of the students towards domains and subjects not in sync with the labour market needs.

In terms of employment by type of economic activity proportions are consistent in majority across the territory, but percentage differences are visible.

Agriculture, forestry and fishing represent the largest economic sector in the core eligible area, employing 25% of the total employed population. The main difference is made when comparing Romania and Ukraine. 42.48% of the employed population of the Romanian counties works in this sector, while in Ukraine only 20.35%. However, in the case if the latter this still is the dominating sector at oblast level.

Industry and Wholesale and retail; repair of motor vehicles and motorcycles; Hotels and restaurants, employ together over 33% of the active population in the core eligible area, the first accounting for 13% of the total employed population, while the second for 20%. For these two main sectors, the sub-national differences are also visible. In Romania over 19% of the employed population works in the *Industrial* sector, while in Ukraine only 11%. *Wholesale and retail; repair of motor vehicles and motorcycles, Hotels and restaurants* sector shows an inverse

relationship, its share of employed population in Ukraine reaches almost 23%, while in Romania its share is only 13%.

The services and public administration sectors are significantly in comparison in comparison (2% in Romania vs. 5.61% in Ukraine), while *Shows, culture and recreation activities* are 5 times more prominent in the Ukrainian oblasts, registering 5.66% compared with the Romanian total of 0.42%. The first inequality is at some extent explained by the difference in territorial scale and population, which in the case of the Ukrainian oblasts results in a more complex and larger administrative system. The second, signals a worrying lack of opportunities related to entertainment and cultural activities.

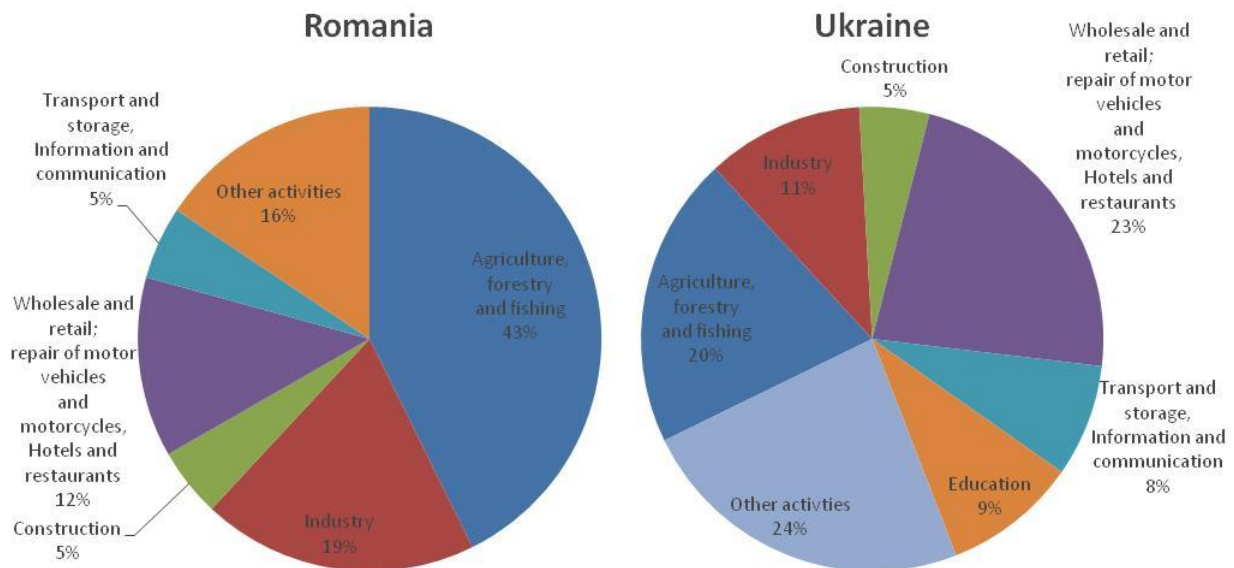


Figure 8: Employed population by economic activities

These trends show a differentiated situation in terms of economic activities of the labour market in Romania and Ukraine. The Romanian counties point to over specialization, especially in the case of the *Agriculture, forestry and fishing* sector. This indicates a continuation of the issue emphasized in the 2007-2013 programme, specifically an inability of the active work force to adapt to the economic exigencies and changes in terms of main economic sectors. This over-specialization becomes dangerous, especially in the case of this sector, which is sensitive not only to economic events but also natural events, exposing a large portion of the population to the risk of unemployment.

The Ukrainian situation shows a much more diversified labour market. Even though, a large proportion of the employed population activates in the field of agriculture, this represents a much smaller percentage than in the Romanian case, while the rest of the labour market is much more evenly distributed according to each sectors necessities.

1.5.2 Earnings and wages

Average gross monthly earnings vary at core eligible area level, especially when comparing the two sub-national territories. In 2012 the average gross monthly earnings in the Romanian eligible reached €360, while in the Ukrainian eligible area only €241. Compared to the national average gross earnings both sub-national territories have lower averages. In 2012, in Romania the national average gross earnings reached €465, while in Ukraine in the same year the national average reached €294.

At territorial level, the average gross monthly earning is almost evenly distributed across the Romanian counties – ranging from €354 to €392 – as well as in the Ukrainian oblasts – ranging from €226 to €262.

The agricultural sector holds a large share of the employed population in Romanian counties (i.e. 42.68%) and Ukrainian oblasts (i.e. 20.35%); however, this sector is one of the poorest in terms of earnings, averaging €339 in Romania (year 2012) and only 124€ in Ukraine (year 2010).

In 2012, on the Ukrainian side, the earnings were almost evenly distributed at territorial level. At the same time the economic activities register similar average gross earnings in all oblasts. A spike in earnings is visible in Odessa Oblast; however, the differences are not always significant. The activities of *Financial intermediation and Insurance* and *Public administration and defence; social insurance of public sector* registered the highest earnings, ranging at territorial level from €238 to €318.

In the Romanian counties gaps in earnings levels are visible especially in the case of *Financial intermediation and Insurance* and *Public administration and defence; social insurance of public*, as earnings in this sector range at territorial level from €557 to €759. This is a significant difference, considering that for the rest of the economic activities €500 is the maximum – as in the case of *Information and communication* activities, which is positioned in the top-half of the earning hierarchy.

A major contrast is visible between the small number population employed by the *Information and Communications activities* and *Financial Activities* in contrast with their high earning levels. In comparison, economic activities that employ a larger number of the active population like *Agriculture, Industry, and Wholesale and retail* have some of the lowest earnings levels. The concentration of earnings on a limited number of economic activities shows an over-specialization of the labour market, increasing the risks and exposure of the labour market to socio-economic changes.

1.6. Economy

1.6.1 General development status

Considering the GDP per capita values, the geographical positioning of the core eligible area and its neighbours, a few general development patterns are visible. These support the theory that economic development is problematic in the area at a much larger scale.

The extreme positioning of the core eligible area is also important as the general development in the neighbouring areas is similar, showing lower levels of development than that of the European Union, as well as the overall national levels.

In the case of Romania, The North-East Development Region is one of the poorest regions of the European Union, with a GDP of €7200 per inhabitant in 2011. Comparing the GDP per inhabitant at county level in Romania shows that higher GDPs are structured along a diagonal virtual axis, from North-West to South East. Overall, the axis corresponds to the major transport infrastructure at national level, and emphasizes that the North-East and South-West Development Regions are at national level the extremes of this axis and its area of influence, making these rather isolated. The North-West Development Region, which includes Maramureş and Satu-Mare counties benefit from this axis. However, the two counties are not positioned directly on the axis, but in its influence area, where spill over effects take place.

In Ukraine the major development axis, is also oriented from North-West to South-East. However, in this case the identified national axis and its influence area seem to be out of the reach of the Ukrainian oblasts in the core eligible area. Compared to the rest of the country and excepting Odessa Oblast, the rest of the oblasts in the eligible area are some of the poorest at national level. Chernivtsi Oblast has had in 2011 the lowest GDP per inhabitant in Ukraine, registering only €1194 compared to the national GDP per inhabitant of €2572, or any of the European regions.

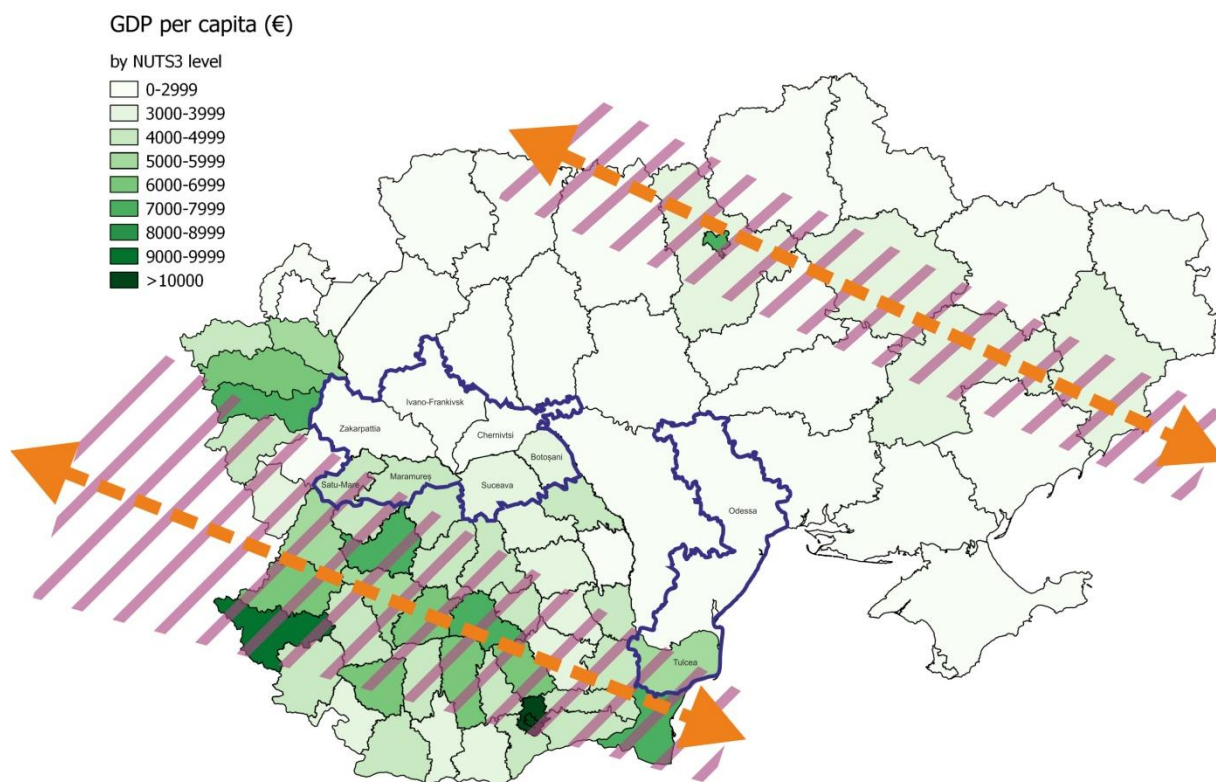


Figure 9: GDP per inhabitant distribution at territorial level

1.6.2 Gross Domestic Product (GDP) distribution

Since the previous analysis preceding the 2007-2013 Romania-Ukraine-Moldova Programme, a general improvement is noticeable in the area. The average GDP at current market prices of the Romanian counties is €1597.6 million, while the Ukrainian oblasts average at €2669.9 million. The comparison is however skewed due to the differences in size of the two sub-national areas.

According to the 2011 data, the GDPs per inhabitant registered significant increases since 2004. In Romania, the regional GDPs increased on average 2.3 times, while in the case of the Ukrainian oblasts the increase was of 2.25 times. However, the territorial hierarchy in terms of GDP per inhabitant at county and oblast levels remains similar to the one in described in the previous programme analysis.

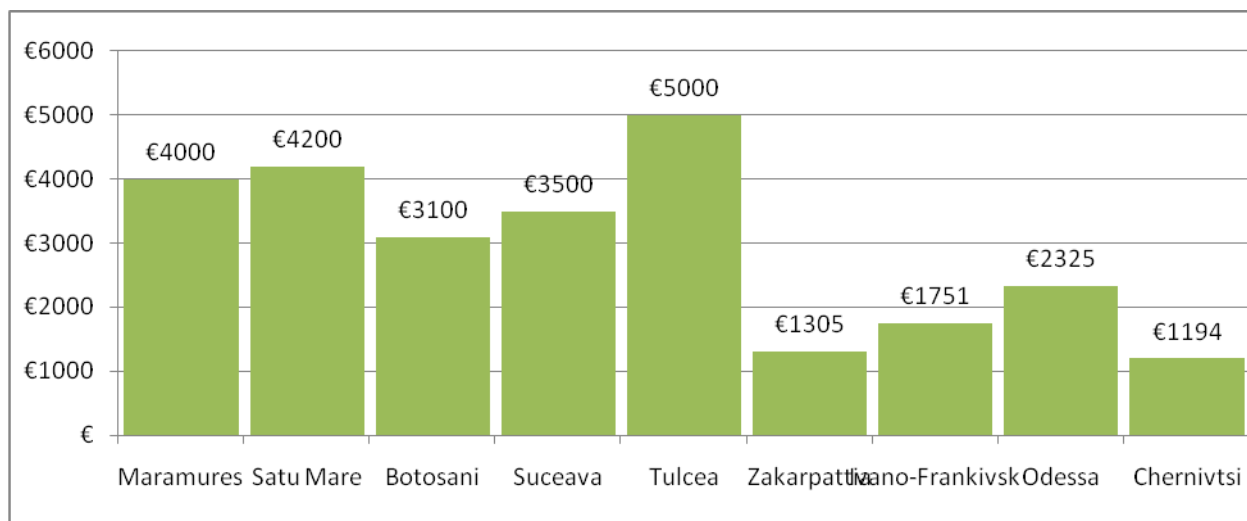


Figure 10: GDP per inhabitant in EUR at current prices.

Tulcea County's GDP per inhabitant is one of the largest in the area, registering according to EUROSTAT at €5000, 2.4 times larger than in 2004. Meanwhile, even though major increases (2.2 times) can be observed, Botoșani and Suceava Counties still have the smallest GDPs per inhabitant in the Romanian eligible area, with €3100, respectively €3500. The two new counties added to the programme Maramureș and Satu-Mare, are positioned at the middle of the hierarchy with €4200, respectively €4000.

In case of the Ukrainian oblasts increases in GDP per inhabitant are significant. Odessa is still the leader in the Ukrainian eligible area, with a GDP per inhabitant of €2325, 2.3 times larger than the 2004 value, while Chernivtsi is the last in the hierarchy with €1194, but still registers a 2.2 times larger GDP per inhabitant than in 2004. The newly added oblast of Zakarpattia has a GDP per inhabitant of €1305 representing almost double the 2004 value of €657.

The 2011 values registered by both Romanian counties and Ukrainian oblasts signal that the regional GDPs per inhabitant are significantly larger than the previous ones, however the territorial disparities have also increased significantly. Comparing the two sub-national areas' GDP per inhabitant averages shows that the Romanian average value is 2.4 times larger than the Ukrainian average.

At country levels, the GDP per inhabitant gap also increased. The difference between the Romanian top and bottom counties in terms of GDP has increased since 2004 from €631 to €1900 in 2011, tripling in size. On the same note, the territorial differences also register on the Ukrainian side of the core eligible area. The difference between the top and bottom oblasts in terms of GDP per inhabitant hierarchy has increased from €459 in 2004 to €1131 in 2011, representing a 2.5 increase.

A simple correlation with the type of population in relation to the urban-rural living environments shows that the Romanian counties with the largest rural population have some of the lowest GDP per inhabitant values. A similar situation can be observed in the case of the Ukrainian oblasts where Odessa has the largest GDP per inhabitant and the largest urban population in the Ukrainian eligible area. Furthermore, counties and oblasts with established urban centres of regional importance, as Tulcea, Maramureș, Satu-Mare and Odessa do significantly better in terms of GDP per capita. In this context urbanization can be considered an advantage that can lead to GDP increase. However, causality should be considered carefully. A counter example is that of Tulcea County where 46.7% of the population lives in urban areas, compared to Maramureș County with an urban population of 57.5% of the total, however the GDP of the first is 1000€ larger than the latter's.

The widening of the GDP gap in the area shows an involution in terms of reducing regional disparities, and over-polarization of both capital and population to already established urban areas. This is a systemic unbalance with long-term consequences that comes against the EU's polycentric approach towards development.

1.6.3 Fixed assets investments

Investments in tangible fixed assets in the core eligible area have increased significantly, however there are still several discrepancies and high sectoral concentration.

In 2012 the Romanian area managed to attract investments summing up over €757.6 millions. In comparison in 2010, the four Ukrainian oblasts managed to attract over €1541.3 millions.

In 2012, in Romania the investments were in general equally distributed between four of the counties, ranging from 22% to 26% of the total investments. One exception is Botoșani County which managed to attract only 5.5% of the total investments in the Romanian eligible area. In the Ukrainian eligible area 49.3% of the total sum of investments has been made in Odessa Oblast, 26.2% in Ivano-Frankivsk, 13.35% in Zakarpattia and 11.15% in Chernivtsi.

In terms of sectoral allocation, in the Romanian counties the *Industry* related activities sum up 62.40% of the total investments in fixed assets. A large majority of these investments are divided between the manufacturing activities (i.e. 41.10%) and activities related to the supply of electricity, gas, steam and air conditioning (i.e. 18.70%). The latter is also the most important area of investment in Tulcea County, accounting for 58.93% of the total investments at county level. *Wholesale and retail; repair of motor vehicles and motorcycles* is the third and last economic activity sector which manages to rise above 10% in terms of investments, at 12.84%. Notable discrepancies can be observed in the case of the investments in *Education* and *Health*, which receive less than 1% each. Considering the potential of the area for tourism, the lack of investment in *Hotels and Restaurants* is also of concern for future development.

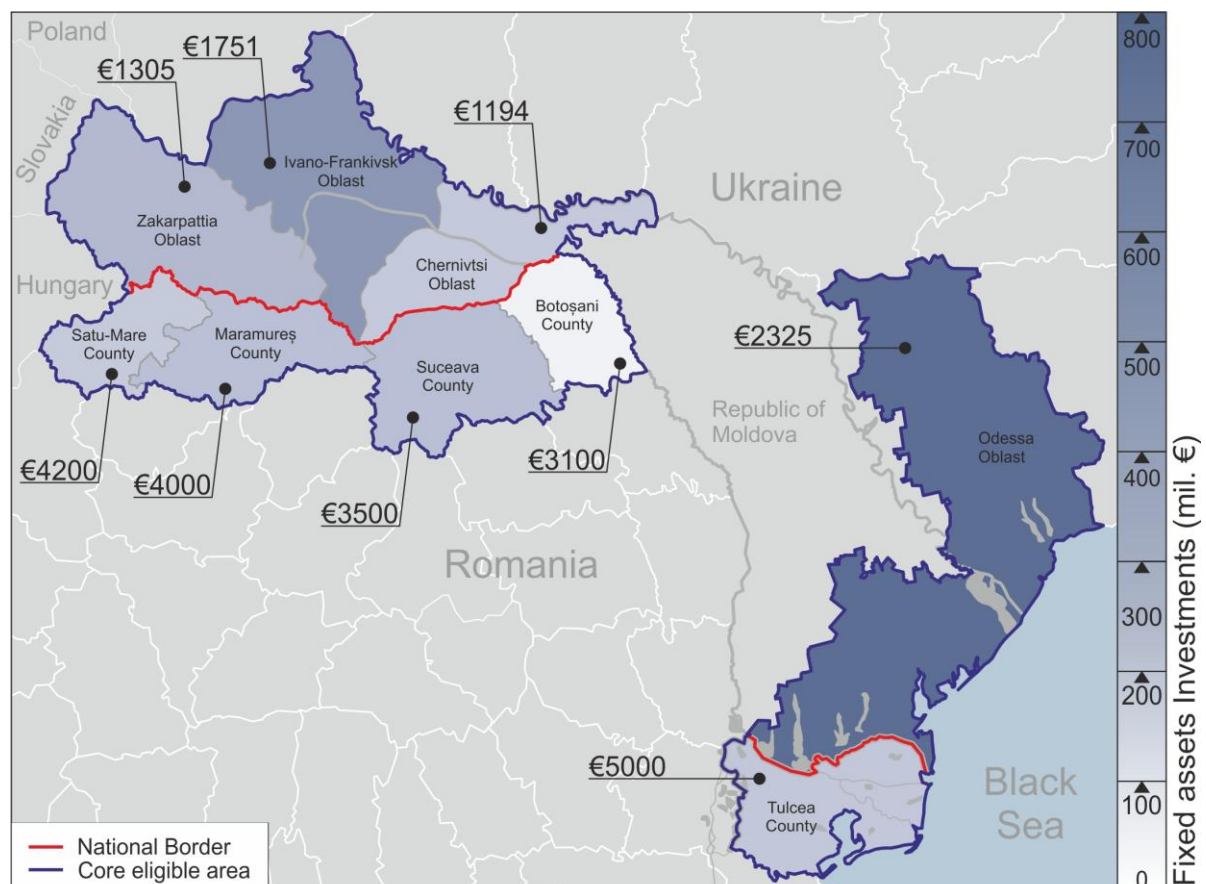


Figure 12: GDP per inhabitant and intensity of fixed assets investments

By comparison, according to the available data, in the Ukrainian eligible area, in 2010 investments almost doubled compared to 2009. In terms of sectoral allocation the *Real Estate and Financial Services* has the largest percentage of the total investments in fixed assets of the four oblasts, with 30.3%, followed by the *Industry* sector with 24.8%. While the first represents a large part of the investments across all oblasts, at oblast level investments in *Industry* are more prominent in Zakarpattia 29.5%, Chernivtsi 28.5%, and Ivano-Frankivsk 40%. A major difference in the case of the Ukrainian territory is Odessa Oblast, which does not fit the trends in investment of the other oblasts. One major difference is the investments in the Transportation sector, representing 26% of the oblast's total, in contrast with a maximum of 10% for the other regions, registered by Zakarpattia. *Health* and *Education* are two of the least favourite investment sectors, measuring 2.24%, respectively 2.93% of the Ukrainian eligible area's total investments, with a subtle difference in the case of Ivano-Frankivsk Oblast, where 4.5% are the regional investments were made in the *Health and Social Work* sector.

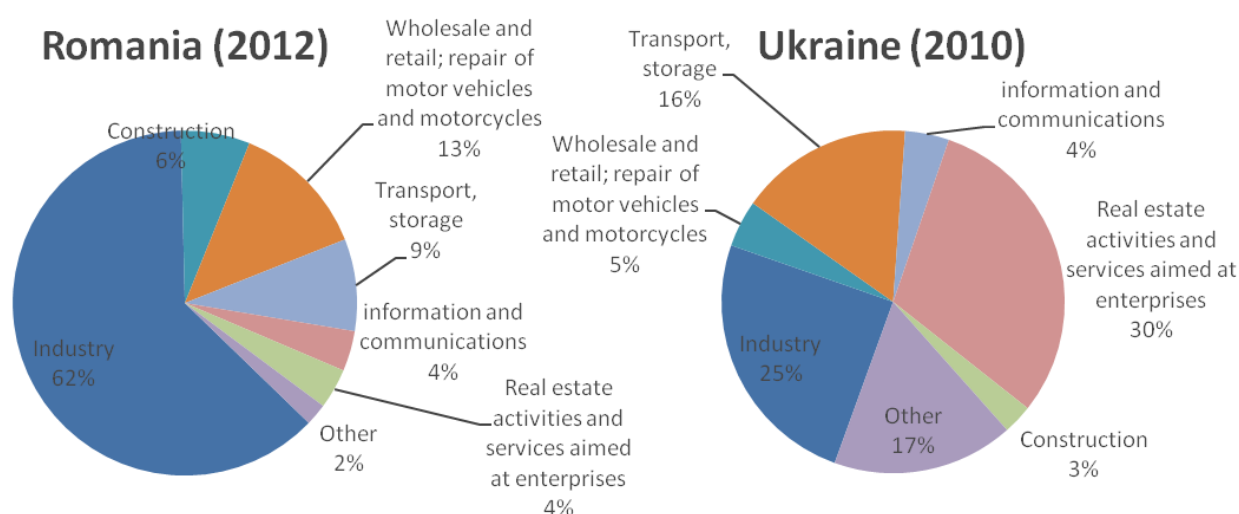
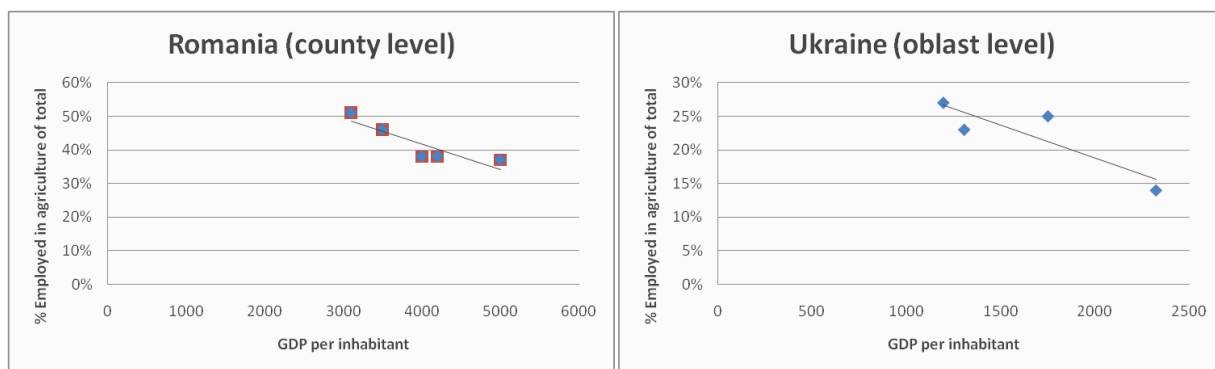


Figure 11: Fixed assets investments by economic sector

1.6.4 Agriculture

Agriculture is an important sector in the core eligible area of the programme, but with a significant difference when comparing the number of employees and the areas assigned to agricultural use at sub-national level.

In both Romanian and Ukrainian regions over 52% of the total area, totalling 5291086 ha, is destined for agricultural use – 1728786 ha in Romania and 3562300 ha in Ukraine. The overall percentages show that in Romania 42% (352400) of the employed population works in the *Agriculture, forestry and fishing* sector, while in Ukraine 20.35% (506500) of the employed population works in this sector. Correlating the number of employees in the agricultural sector and the GDP per capita at oblast and county levels shows a negative correlation between the two. Overall, in the case of counties or oblasts with larger percentages of employed population in this sector, the GDPs per inhabitant are significantly smaller than in the cases where employment rates in this sector are smaller.



One reasoning behind this negative correlation is that a significant part of the agricultural sector is taken up by subsistence agriculture. This is one of the major problems in the Central and Eastern European countries, as there is an extensively fragmented stock of agricultural lands owned by individuals, that cannot fully capitalize on their potential due to lack of resources.

Because of the importance of the agricultural sector to the core eligible area's economy, fluctuations in agricultural production are extremely important in terms of general economy and labour market. The total production in the core area summed up in 2012 €4009 million, however this represents only 89.5% of the total production in 2011. Out of the total, 54% was produced by the Ukrainian oblasts and 46% by the Romanian counties. At territorial level, Odessa Oblast and Suceava County are the largest contributors to the total agricultural production of the area, with 22.5%, respectively 16.57%.

At sub-national level significant differences are visible. In the Romanian eligible area, production has fallen to 79% compared to 2011. Decreases are also visible in all Romanian counties, the largest being in Tulcea County. Here, the 2012 production of €253.7 million represented a decrease of 32% compared to 2011. However, even considering this trend, Suceava still produces 30% of the total Romanian eligible area agricultural production.

In case of the Ukrainian territory, at the level of the eligible area, the agricultural production of 2012 decreased to 93.88%, compared to 2011. The total is however skewed by the special case of Odessa Oblast, which is the only oblast in the Ukrainian eligible area that had a decrease of almost 20% compared to 2011, while all the other oblasts registered mild growth, from 1% to 6%.

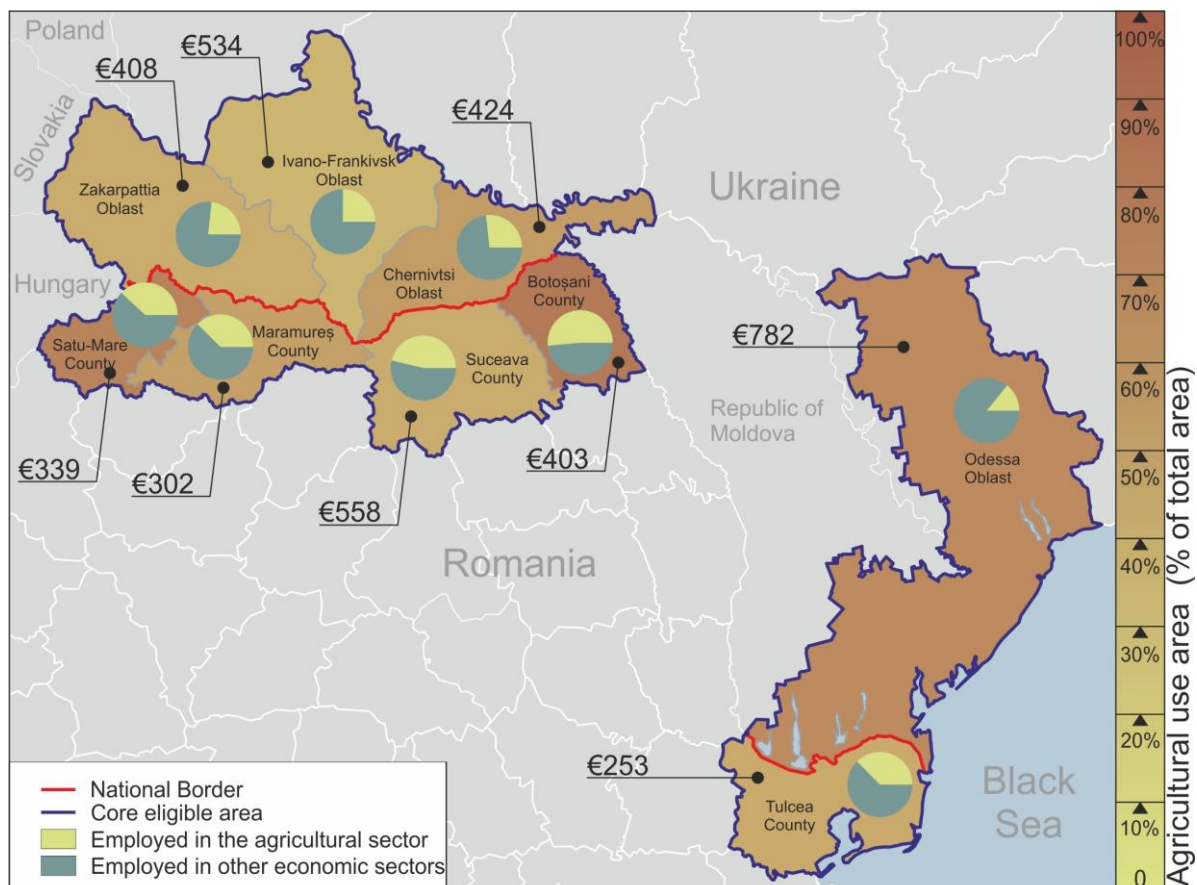


Figure 14: Agricultural production (millions of €) and employment in agricultural sector. Sources: Romanian Statistical Yearbook 2013; Statistical publication. Regions of Ukraine 2011.

1.6.5 Research & Development (R&D), Innovation

Research & Development (R&D) is a key advantage builder in developing local specialization and discovering territorial advantages. Considering this role, attention should be given to the fact that in the whole core eligible area of the programme only 0.18% (5897) of the total employed population is involved in R&D. This includes researchers, technicians, assimilated personnel, and other support categories. Percentage differences are present. In Romania only 0.10% of the total employed population in the five counties activates in R&D, while in the Ukrainian oblasts 0.20% work in this sector.

There are two outlier values in the area given by Botoșani County in Romania (2012 figures) and Odessa Oblast in Ukraine (2010 figures). The first registers the lowest number of employees in R&D – 11, while the second registers the highest number of employees – 2828. On the Romanian side, the low number of employees in R&D can be assigned to the limited number of tertiary education units, Maramureș, Satu-Mare and Suceava being the only counties having such institutions. On the Ukrainian side, Odessa Oblast is capitalising on its urban agglomerations, and developing R&D activities around its education institutions.

The amount of expenditure in R&D at sub-national level is consistent with the level of employment in this field and confirms the trend. In 2012, €11.5 million were spent in the field of R&D in the Romanian eligible area. The largest amount, representing 36.8% of the total was spent in Suceava County, and the least in Botoșani County– 3%. The rest of the counties registered similar levels of expenditure: Maramureș 21%, Satu-Mare 16.2% and Tulcea 23%.

In Ukraine, the distribution of the expenditure across the four oblasts is extremely skewed by Odessa Oblast, where in 2010 61.15% of the total of the Ukrainian eligible area was spent,

followed by Ivano-Frankivsk with 19.45%, Chernivtsi with 11.24% and Zakarpattia with only 8.15%..

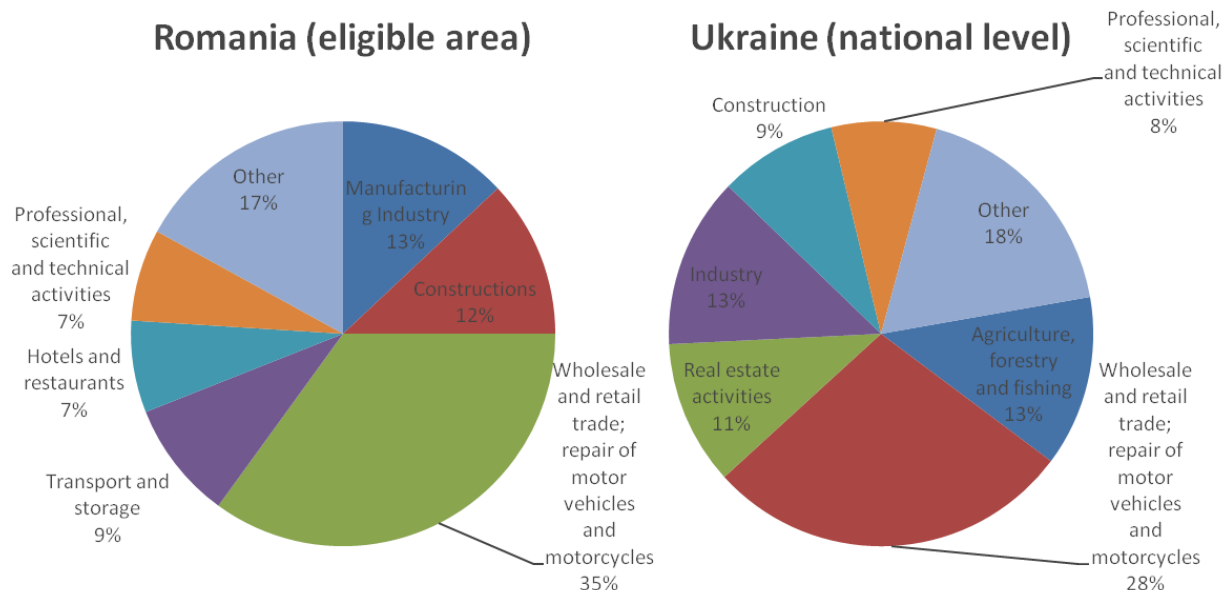
1.6.6 Small and Medium Sized Enterprises (SMEs)

In spite of the lack of tradition in the development of small and medium sized businesses (SMEs), this sector has taken up speed in the last 20 years. As a result, the entrepreneurial segment of the SMEs represents in absolute numbers a large part of the total number of enterprises.

In the four Romanian counties, in 2012 a total number of 33782 enterprises were registered. Out of these a total of 99.77% (33705) are SMEs. In the Ukrainian oblasts, in 2010 there were a number of 136575 enterprises in total, out of which 99.65% represents the SMEs sector.

At territorial level, the largest number of SMEs is registered in Suceava and Maramureş counties in Romania, 9935 enterprises, respectively 9077 enterprises. In Ukraine, the largest number of SMEs (considering the territorial scale) is concentrated in Odessa Oblast (74934).

At the level of the Romanian counties 60% of the SMEs activate in three main economic sectors: *Wholesale and retail trade; repair of motor vehicles and motorcycles* 35%, *Manufacturing Industry* 13%, and *Constructions* 12%. In comparison, at the Ukrainian national level, 65% of the SMEs activate four main economic sectors: *Wholesale and retail trade; repair of motor vehicles and motorcycles* 28%; *Agriculture, forestry and fishing* 13%; *Industry* 13%; and *Real estate activities* 11%.



1.6.7 Foreign Direct Investment (FDI)

In 2012, both sub-national regions included in the core eligible area registered significant amounts of investments. Even so, the overall totals of the investments represent only small shares of the two countries FDI totals.

At the end of 2012, Ukraine's FDI total (paid in capital) reached €41913.5 million. The four oblasts' combined FDI represented only 5.05% (€2111.4 million) of the national total. The distribution between the four oblasts is skewed in favour of Odessa Oblast, and to a certain degree Ivano-Frankivsk Oblast. Odessa's FDI total represented by itself 3% of the total Ukrainian FDI, while Ivano-Frankivsk's FDI represented 1.18% of the national total.

Zakarpattia and Chernivtsi Oblasts have the lowest percentages out of the four oblasts. The first registered a total of 0.75%, while the latter only 0.12% share out of the national total.

In the case of Romania, the five counties forming the Romanian eligible area are part of three development regions, with very different FDI values, showing different patterns in terms of the attractiveness of the area for investments. The three development regions (i.e. South-East, North-East, and North-West) managed to attract in 2012 a combined FDI stock of €7834 million, representing together a total of 13.3% of the total national FDI stock of €59126 million. Out of the eight Romanian development regions, South-East, North-West and North-East, are the regions that along South-West development region represent the bottom-half of the FDI hierarchy at national level, neither rising above 5.5% of the total FDI stock.

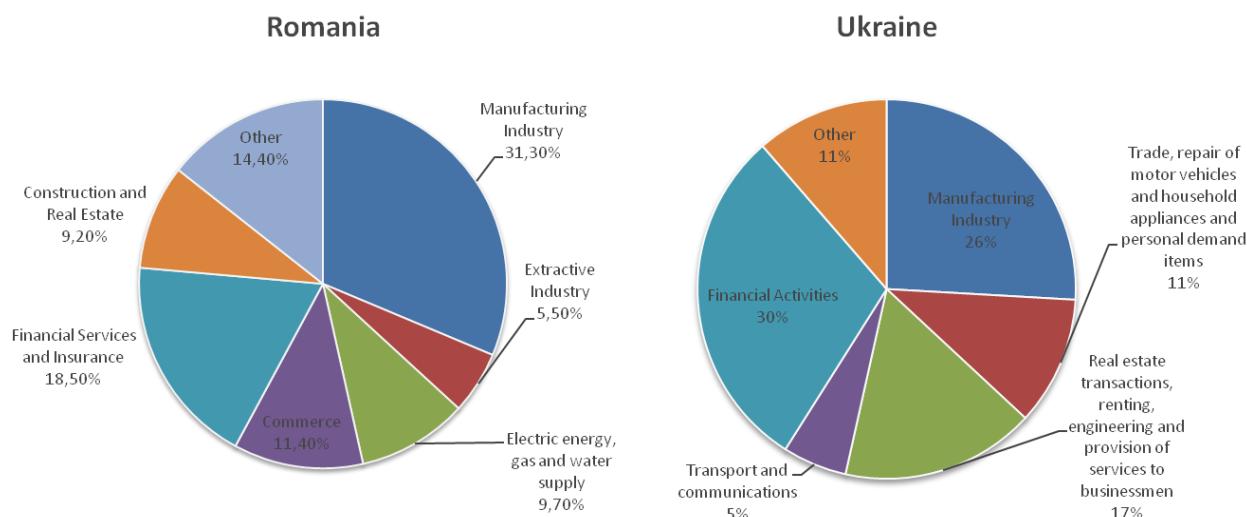
It is however worth mentioning that there are a few similarities in terms of FDI distribution at territorial level. In line with the GDP distribution axis identified previously, we can also identify three sub-regions at the level of the core eligible area. In the Southern part of the core eligible area there is the case of Odessa Oblast and South-East development region, the latter which includes Tulcea County. In this case both the Ukrainian Oblast, representing 3% of the national total FDI and the Romanian development region, representing 4.8% of its national FDI stock, are at the top of their sub-national hierarchies at core eligible area level. Sharing economic, social and geographical characteristics can certainly account for the similar proportions of FDI compared to national levels.

The Northern region of the core eligible shows two very different trends in FDI distribution. The Central and Western part of the core eligible area attracts a relatively significant part of each of the countries' total FDI. In Romania, Maramureş and Satu-Mare counties are part of the North-West development region, which accounts for 4.8% of the total FDI stock, while in Ukraine, Zakarpattia and Ivano-Frankivsk oblasts account for 1.93% of the total Ukrainian FDI. This positions the two sub-national areas at the middle of each of the countries FDI distribution hierarchies.

Botoşani County, Suceava County and Chernivtsi Oblast are the poorest performers in terms of FDI. At national level, the Romanian North-East development region that includes Botoşani and Suceava has the lowest share out of the national FDI stock, of only 3%. At the same time, Chernivtsi Oblast's 0.12% share out of the total Ukrainian FDI positions the oblast last in the national FDI distribution hierarchy.

If we compare the originating countries in the case of the FDI at national level certain similarities become obvious, which leads to the conclusion that certain investors tend to group together in the region. In Romania, in 2012, the top 5 countries, which shared a total of 60.8% of the FDI stock, were: Netherlands 22.4%, Austria 18.5%, Germany 11%, France 8.9%, and Italy 5%. At the same time, in Ukraine the largest the top 5 countries, which share 66% of the total FDI, were: Cyprus 31.7%, Germany 11.6%, Netherlands 9.5%, the Russian Federation 7%, and Austria 6.2%.

In Romania, the FDI stock is mainly divided between six major activities – *Manufacturing Industry* 31.3%; *Extractive Industry* 5.5%; *Electric energy, gas and water supply* 9.7%; *Commerce* 11.4%; *Financial services and Insurance* 18.5%; *Construction and Real Estate* 9.2% – summing together 85.6% of the total, the rest being divided between the remaining economic activities, neither one registering above 5%. In the case of Ukraine, the largest part of the investments prioritised five main economic activities: *Financial activities* 29.6%, *Manufacturing Industry* 25.9%, *Trade, repair of motor vehicles and household appliances and personal demand items* 11%, *Real estate transactions, renting, engineering and provision of services to businessmen* 16.6%, and *Transport and communications* 5.5%. Together these five economic activities have received 88.6% of the total national FDI.



1.6.8 Competitiveness

The World Economic Forum's (WEF) 2012-2013 Global Competitiveness Index (GCI) positions Romania and Ukraine relatively closely to each other; however, their position is significantly lower in the hierarchy compared to their neighbours. Romania, with a score of 4.1/7 is the 78th in the GCI 144 country hierarchy, while Ukraine does somewhat better with a score of 3.9 positioning itself as the 73rd. Both countries are positioned below Poland 41st, Slovakia 71st, Hungary 60th, and Bulgaria 62nd. The only common neighbour compared to which the two countries are more competitive is Republic of Moldova, which is positioned 87th. The report signals a number of issues in all the countries and ranks them accordingly to emphasize the main problems in each country. In the case of Romania and Ukraine, out of all the issues, five of these stand out as the most important and common to both countries: corruption, inefficient government bureaucracy, access to financing, tax regulations and tax rates.

At territorial level several common issues are emphasized by county and oblast level analyses and strategies. Out of these, the poorly maintained road and rail networks along with the constantly deteriorating public utilities infrastructure are the most prominent. These issues are even more prominent in rural areas and considering that 50% of the population in the core eligible lives in these areas, it is clear that this large population has a relatively low quality of life. In addition, in both Romanian counties and Ukrainian oblasts the lack of local investments in transport infrastructure and fixed assets reduces the level of attractiveness of the area for prospective investments, as these along with public utilities are basic requirements for business development.

The core eligible area contains two sub-areas with distinct geographical characteristics that create specific advantages. The Northern area composed of: Zakarpattia, Ivano-Frankivsk and Chernivtsi oblasts, and Maramureş, Satu-Mare, Suceava and Botoşani counties has a predominant mountainous character, making it a hard to reach area. At the same time, in combination with its numerous natural protected areas the area has an increased tourism potential, but which is hindered by the deteriorating tourism infrastructure. The Southern area composed of Odessa Oblast and Tulcea County has specific advantages as a result of their opening towards the Black Sea and the presence of the Danube Delta. These create specific advantages in terms of development of commerce and naval industries as well as tourism.

Economic activities in the area are limited in variety and are mainly dominated by agriculture, industry and commerce. The main issues in this case are the lack of productivity and the low added value of these activities. While the agricultural sector employs a large number of the total employed population at the level of the core eligible area, in both countries significant problems arise from the fragmented agricultural land in terms of ownership, and the reduced

added values resulted from this type of activity. At the same time, the industrial sector which was mostly developed pre-1989 has suffered significant structural changes, reducing in turn the level of the added value it can offer (e.g. Chernivtsi Oblast). Moreover, R&D and innovation activities are rather limited in the area, the effect being a reduced role for technology and innovation, which affects all sectors, especially the industrial sector.

Business development and entrepreneurship are on a rise in the area; however, these are limited by certain competitive disadvantages. Institutional bureaucracy and the lack of support systems for entrepreneurs along with political instability have a major negative impact on the level of attractiveness in the area. Moreover, on the Ukrainian side of the core eligible area there is a lack of legislative infrastructure aimed at protecting smaller entrepreneurs against local monopolies.

Looking at the overall distribution of GDP, population and economic activities in the core eligible area shows clear signs of polarization in and around urban areas. In the core eligible area, Odessa, Chernivtsi, Ivano-Frankivsk, Uzhhorod, Tulcea, Baia-Mare, Botoşani, Suceava and Satu-Mare are the largest urban agglomerations and concentrate a large part of the social and economic capital. Two major disadvantages have to be considered as direct results of this polarization, which are mentioned by all county and oblast strategies. First, in this process there is a resulting development gap in between these urban centres. However, this can also be attributed to the difficult geographical terrain in the core eligible area (the mountainous region in the North and the Danube Delta in the South) which limits the urbanization process. Second, the polarization of the labour market in the urban centres creates an opposed effect in the rural area, where unemployment is much higher.

1.7. Transport, Infrastructure and traffic

1.7.1 Border traffic

The Romania-Ukraine border traffic directions are split almost equally in terms of quantity, as 49.56% of the traffic is represented by persons travelling from Ukraine to Romania, while 50.44% by persons travelling from Romania to Ukraine.

In 2013, out of the total of four land border crossing between Romania and Ukraine, Siret-Porubne registered the largest amount of border crossings: 1613729 persons. This represents 63% of the total number of persons that crossed the border on land between the two countries. Sighetul Marmăției-Solotvino border crossing points follows with 13% (521761 persons), while Vicșani-Vadul Siret and Halmeu-Diakove (car & rail) together account for 16.40% of the total traffic.

International traffic also has to be considered, even though in terms of quantity this represents only a small portion of the total border traffic in the area. For example, in the Romanian counties there are five international border crossings, represented by Tulcea Port, “Danube Delta” Tulcea Airport, Sulina Port, Suceava Airport and Satu-Mare Airport. Out of these, Tulcea Port is the most used crossing point, accounting for 73.6% of the total international traffic in the Romanian counties.

Looking at the number of human trafficking cases in the Romanian counties out of the total number of infractions, shows that this type of infraction is extremely rare. Only one case was registered in Suceava County in 2013. The highest number of infractions is represented by contraband, border fraud or illegal crossings. In 2013, a large number of these types of infractions were concentrated at the Romanian-Ukrainian border, in Maramureş and Suceava

counties: 413 cases. The Romanian authorities reported 397 infractions of this type registered on the Ukraine to Romania direction.



Figure 12: Romania-Ukraine border traffic

1.7.2 Naval infrastructure

Navigation is at the moment one of the most feasible transport modes, especially for freight transport; however, it is at a large scale, both in Romania and Ukraine, underdeveloped and underutilized to its full potential.

In the Romania-Ukraine core eligible area the most important and utilized navigable route is the Danube, and its three arms unravelling in Tulcea County: Chilia, Sulina and Sfântul Gheorghe. However, the traffic on the Danube is fairly limited due to the underdevelopment of the navigable canals, in spite of the direct link to the Danube Delta, the possible connectivity with Galați and Tulcea ports, and the link with the Black Sea, which could open more opportunities in terms of international freight and passenger traffic. Because of the presence of the Danube Delta, an extremely important consideration is the ecological element, which poses a dual problem. On one side, the use of navigable routes should be developed further as an efficient and safe means of transport, on the other an increase of the traffic would enhance the ecological risks for the Danube Delta UNESCO Biosphere Reservation.

The most important ports in the core eligible area are Tulcea river and sea port, Sulina, Chilia and Sfântul Gheorghe in Romania, and Izmail, Reni, Ust Dunoï in Ukraine. To the Romanian side two more large ports contribute to the economic environment of the area: Brăila and Galați,

located in the neighbouring counties (with the same names). Galați and Tulcea are the two main ports on the Danube as these insure the linkage between the river and the Black Sea and the inter-modal change between means of transport (naval-road-rail).

1.7.3 Air Infrastructure

The core eligible area is served by eight main international airports: Suceava, Satu-Mare, Baia-Mare, and Tulcea in Romania and Odessa, Chernivtsi, Ivano-Frankivsk and Uzhhorod in Ukraine. All of the airports operate passenger flights, except Chernivtsi which is technically closed. The airports operate only low-cost or charter regional flights, and domestic flights.

At the level of 2011, the air traffic was split between the three main airports in the area at that time Suceava, Satu-Mare, and Baia-Mare. The total traffic of the three airports summed up a total of 68517 passengers. Out of these, 63775 passengers, representing 93% of the total traffic, was internal traffic. Out of the remaining 7% international passengers, 3207 – representing 67.7% of the international passengers – used Satu-Mare Airport.

In the four Ukrainian oblasts, a total number of 17854 departures and arrivals took place. Out of these 81.64% of the flights departed from or arrived in Odessa Oblast. Out of the total number of air activities, the largest proportion of the traffic – 67.18% (11995 flights) – was international traffic, and was also concentrated in Odessa Oblast.

The area's connectivity is very limited in terms of air links, making it a difficult to reach destination for both freight and passengers, because of the required interim stops for connecting flights. The two most used airports (Satu-Mare and Odessa) are positioned at the extremities of the core eligible area, leaving a large gap of connectivity in between.

Tulcea County area suffers from limited connectivity by air, especially considering the important role of the area in the Danube-Black Sea link. The recent reopening of “Danube Delta” Tulcea International Airport (Spring 2014) is an improvement for the area; however, the number of routes and destinations is still limited.



Figure 13: Positioning of main naval ports and airports

1.7.4 Road infrastructure

Even though road densities are fairly similar, the road infrastructure in the core eligible area of the two sub-national territories shows significant differences as a result of the different sizes of the territories. The total length of the Romanian road network in the area is 9910 km while the Ukrainian road network measures in the four oblasts 18700 km.

The Romanian counties have a road network density of 30.25 km/100 km², smaller than the national road density of 35.3 km/100 km². Significant differences are visible at territorial level, as Botoșani County has the densest road network out of all the five counties, with a density of 42 km/100km². While the least dense road network is that of Tulcea County, with 15.6 km/100km², less than half of the national level road network density. The four Ukrainian oblasts have a density of 27.17 km/100 km², almost equal to the national density of 27.5 km/100 km². However, at oblast level the differences significant. Chernivtsi Oblast has the densest road network, 35.8 km/100 km², while Odessa the least dense with only 24.32 km/100 km².

The differences in density of the road network show two major similarities at the core eligible area level. First, the low densities of Odessa Oblast and Tulcea County can be partly attributed to their geographical and topological characteristics, as the presence of the Danube Delta covering a large part of the combined territory makes the development of this type of network

very difficult. Second, Chernivtsi Oblast and its direct neighbour Botoşani County have the densest road networks in the core eligible area, which can be attributed to the more flat relief, compared to their Western neighbouring administrative units, where the mountainous terrain can be assigned as one of the reasons behind the less developed road network.

The core eligible area is crossed by several roads, part of the European roads network:

- E58 - Uzhgorod - Mukacevo - Halmeu - Suceava - Iaşi - Leucheni - Chisinau – Odessa
- E81 - Halmeu - Satu Mare
- E85 - Chernivtsi - Siret - Suceava
- E87 – Odessa – Izmail – Reni – Galaţi – Tulcea
- E95 - Saint Petersburg - Pskov - Homel - Kyiv - Odesa
- E581 – Tecuci –Huşi - Albiţa – Leuşeni – Chişinău – Odessa

The quality and modernization levels of the road network in the core eligible area show significant issues at territorial levels. In Romania, in the five counties, 56.88% of the roads are either modernized or have a light pavement. This share is close to the national level, where 59% of the roads are of this type. Meantime, in the five counties 43.12% are either not modernized or earthy roads. Territorial differences are important and have to be considered, as these percentages are relative. Out of the five Romanian counties, Maramureş, Satu-Mare and Tulcea have percentages above the national average – as in all three cases 63% of their road networks are modernized or lightly paved. At the same time Botoşani and Suceava have significantly lower percentages of modernized or lightly paved roads, with only 47.4% and 54.6%.

The Ukrainian oblasts tell a different story, as 98.3% of all roads are covered with a hard coating. At territorial level, Odessa Oblast is the only oblast out of the four where only 97.6% of its roads are covered with hard coating, the rest registering at 100%. These numbers are in line with the national level, where 97.8% of the roads are covered with hard coating.

It is important to note that these percentages do not reflect the real road quality. All of the county and oblast strategies and their afferent analyses emphasize that in the core eligible area the quality of the transport infrastructure is very poor. National and European level roads have significantly higher qualities and their state is better than that of the local roads. The problems in the area result from the ageing pavements, as the majority of the roads in the area are built pre-1989, and have since then exceeded their maintenance periods, leading to a continuous degradation.

Modernization is difficult in the area, as excepting the national and European roads which benefit from the direct attention of the national authorities, the local or smaller roads lack investments as the local authorities are dependent of the central authorities for the funding of this type of interventions.

1.7.5 Rail infrastructure

At the level of the core eligible area the total length of the two rail networks measure 3798 km, and a total density of 37.93 km/1000 km². In comparison, the two sub-national areas have different lengths – 1215 km Romania and 2583 km Ukraine – but similar densities. The Romanian counties have a total density of 37.09 km/1000 km², significantly lower than the national 45 km/1000 km², with Tulcea County having the least dense rail network – 12.1 km/1000km². Suceava has the highest rail network density of 61 km/1000 km². This reveals

that the overall density is driven down because of the Danube Delta that covers a large part of Tulcea County. Besides Suceava and Tulcea, the rest of the counties average at 38.13 km/1000 km², in line with the other neighbouring counties and close to the national level.

In comparison, the Ukrainian territory has a rail network density of 37.93 km / 1000 km², with the densities much more evenly distributed ranging from 36 (i.e. Ivano-Frankivsk) to 51 km per 1000 km² (i.e. Chernivtsi). Compared to the Ukrainian national level, at which the density is 36 km/1000 km² the majority of the oblasts have densities above this value, the only exception being Odessa Oblast, where the density only reaches 32 km/1000 km².

Rail transport, which represents along with naval transport one of the most eco friendly and efficient modes of transport is underdeveloped. The old infrastructure drastically limits the movement speeds across the network, and the lack of modernisation projects inhibits the introduction of high-speed trains. In addition, the network is underused, especially in the case of Romania, where at national level the majority of the rail traffic uses less than 50% of the rail network.

A particular technical problem of the Romanian-Ukrainian border region is the gauge difference. The Romanian rail network functions on normal gauge, while the Ukrainian rail network functions in its majority on large gauge. This technical difference makes the transfer from one type of network to the other a compulsory one; the result being the increase of waiting times at rail border crossing points.



Figure 14: National and International road networks

1.7.6 International transport corridors

The core eligible area is crossed by several international corridors: the Pan-European Network, the TEN-T Network, TRACECA and OBSEC “Black Sea transport circle”, the latter which aims to develop the regional transport and communication networks in the Black Sea Basin.

Pan-European Corridor V – the corridor links Ukraine to the EU through both rail and road networks. The corridor links the main cities of Kiev, Lviv, Uzhhorod, Budapest, Zilina, Bratislava, Budapest, Zagreb, Rijeka, Ljubljana, Venice

Pan-European Corridor IX – the corridor links Romania and Ukraine to the EU, Moldova and Russia through both rail and road networks. The corridor links the main cities of Helsinki, St. Petersburg, Moscow, Pskov, Vitebsk, Kiev, Ljubashevka, Odessa, Chişinău, Bucharest, Dimitrovgrad, and Alexandroupolis.

TEN-T Corridor Rhine-Danube or Corridor VII – is a transport corridor linking together the North Sea and the Black Sea via the Rhine, Main and Danube Rivers. The Danube section that links Germany, Austria, the Czech Republic, Slovakia, Hungary, Serbia, Bulgaria, Romania, Moldova and Ukraine to the Black Sea. The corridor ends in Romania, follows the direction Galaţi-Tulcea-Sulina, in which end point flows into the Black Sea.

TRACECA (Transport Corridor Europe-Caucasus-Asia) – the corridor links together 13 EU and non-EU countries part of the Eastern European-Caucasus-Central Asian Region. Both Romania and Ukraine are members in TRACECA. Several important intersection points of the corridor are located in the core-eligible area: Chernivtsi, Ivano-Frankivsk, Uzhhorod, Odessa, Satu-Mare, Baia-Mare, Suceava, and Tulcea. These are all intersection points with inter-modal capabilities.

The position of the core-eligible area of Romania-Ukraine programme raises an important issue in relation to the advantages that appear from the area being the EU border region and the inter-modal potential of the main cities in the area, which are not exploited to their full potential.

1.8. Human settlements network

1.8.1 Main & largest cities

Out of the 47 urban areas in the Romanian eligible area, the most important cities are, according to their administrative status the five county capitals – the municipalities of Baia-Mare, Botoşani, Satu-Mare, Suceava, and Tulcea.

According to the population sizes, only 3 of the 5 Romanian county capitals have a population above 100000 inhabitants: Baia-Mare – 123738, Botoşani – 106847, and Satu-Mare – 102411. Out of the rest of the towns and municipalities Suceava and Tulcea counties are the only two with populations above 50000 inhabitants, with 92121, respectively 73707. The rest of towns in the five counties register populations below 50000.

Out of the 56 cities in the Ukrainian eligible area 19 are cities of special status, republican, or regional importance. According to their administrative status the four most important cities in

the area are the oblasts' administrative centres: Odessa, Chernivtsi, Ivano-Frankivsk and Uzhhorod.

Based on their population sizes the four oblast administrative centres are also the largest cities in the four regions. Ranked according to population, Odessa is the largest city in the core eligible area, with a population of 1008162 inhabitants. The difference between Odessa and the next ranking city – Chernivtsi – in terms of population is of 752233 inhabitants, the latter having a population of only 255929. The four administrative centres are also the only four cities with populations above 100000 inhabitants. Out of the rest of the cities, six cities have populations above 50000: Mukacheve – 84630, Izmail – 73651, Kalush – 67562, Kolomyia – 61290, Illichivsk – 59465, Bilhorod-Dnistrovskiy – 50263.



Figure 16: Main cities in the core eligible area by size of population

1.8.2 Housing stock

The living area composing the housing stock of the core eligible area sums up a total of 172805872 m². Because of the disproportionate area and population ratios between the Romanian and Ukrainian eligible territories, 20% (34761872 m²) of the total living area is on the Romanian side of the core eligible area, while the bulk of 80% (138044000 m²) is on the Ukrainian side.

Comparing the average living area per inhabitant shows a significant difference between the Romanian counties and Ukrainian oblasts. In the Romania, the average living area is of 16.8 m² per inhabitant, with the highest registered in Tulcea County (18.45 m²) and the lowest in

Botoșani County (14.31 m²). The Ukrainian oblasts average at 23.5 m² per inhabitant, and have smaller differences at territorial level compared to the Romanian counties, the oblasts' living area per inhabitant ranging from 3 m² to 24.6 m².

1.8.3 Technical Infrastructure for public utilities

At the core eligible area level the technical infrastructure required for public services is more developed in urban than in rural localities. However, the level of development of the infrastructure is not always consistent at territorial level.

1.8.3.1 Drinking water supply & sewage systems

The sewage system is one of the most developed technical infrastructures at core eligible area level. 93.62% of the Romanian urban localities and 77.40% of the Ukrainian urban localities are equipped with sewage systems. In rural localities the picture is however different. 26.40% of the Ukrainian rural localities are equipped with sewage systems, and 23.44% of the Romanian ones benefit from this type of utility. At territorial level, the rural localities of Botoșani County and Satu-Mare County have the lowest level of penetration of the sewage system, 11.27% respectively 13.56, while Tulcea County has the highest rate of 39.13%

At the opposite side, the provision of drinking water is a much more common public utility in the Romanian rural localities than in the Ukrainian ones, the first having penetration rate of 66.17%, while the second 30.30%. In Romania, at territorial level, all rural localities of Tulcea County are equipped to supply drinking water, while only 34.69% of those in Suceava County benefit from this type of infrastructure.

This is also the case for the urban localities, as 95.74% of the Romanian ones are equipped for providing drinking water, while in Ukraine only 78.50% of these have this type of infrastructure. In the case of Ukraine one difference should be considered, namely the existence of *urban-type settlements*, categorized in relation to the administrative system, not level of the infrastructure, and which can reduce the statistical measurements.

1.8.3.2 Gas supply

By comparison of the two sub-national territories, it can be observed that gas supply infrastructure is more common in both rural and urban localities of Ukraine, than in those of Romania. Gas supply is accessible in 82.50% of the Ukrainian urban localities, and 59.57% of the Romanian ones, as only 28 of the total of 47 of towns and municipalities are connected to the gas supply infrastructure. This difference has to be carefully considered, because gas is the main resource used for generating heat and warm water. The major difference is however in the rural localities. In Romania only 12.76% of these are connected to the gas infrastructure, compared to Ukraine where 84.40% of this type of localities benefits from this infrastructure.

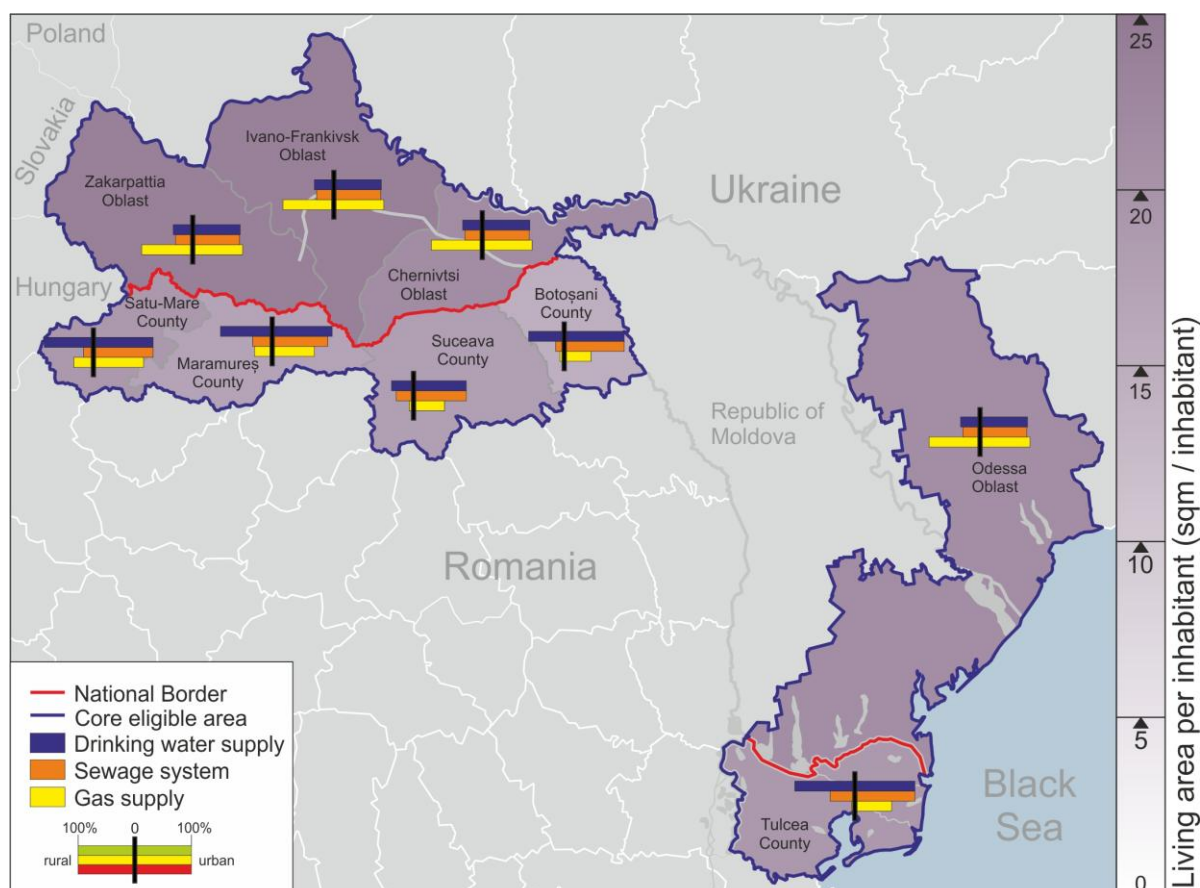


Figure 15: Rate of penetration of basic services and utilities

1.8.3.3 Thermal energy supply

Reliance on thermal energy supply has gone down and is lower than in previous years. Only 19% of the Romanian towns and cities in the core eligible area are still connected to thermal energy infrastructure. In the case of the Romanian counties two particularities appear. First, in the year 2012 Suceava County registered 0% connectivity to the thermal energy supply infrastructure. Second, Tulcea County is the only county in the Romanian core eligible area where one commune is connected to the thermal energy supply infrastructure.

In the Ukrainian oblasts major differences appear between urban or rural localities and also compared to the Romanian counties, as in this case both types of localities are connected to the thermal energy supply infrastructure. 77.40% of urban localities and 40.40% of the rural localities are connected to central heating systems.

1.8.4 Internet access

Internet access has improved in the recent years across Romania and Ukraine. In Romania, in 2013, 52.9% of the total number of dwellings had internet access, and 73.2% of these were urban dwellings. In addition, 95% of the internet subscribers used fixed broadband technologies. At regional level, the 5 Romanian counties are part of the North-West and North-East development regions. The first is the third at national level in terms of connectivity with 56.9%, while the second has the lowest internet access rate of 45.7%.

In Ukraine, the State Statistics Committee puts the level of subscribers to internet services in 2013 at around 13% out of the total population. However, organizations like GfK Ukraine and

the International Telecommunications Unit estimate that in 2012 the number of internet users reached over 40% of the total population.

1.9 Public Transport

Local public transport networks in the core eligible area are varied and complex in terms of modes of public transport. At core area level, bus and minibus are the most used modes of transport, as passenger traffic for these represent 71% of the total traffic.

In Romania, in 2012 bus and minibus traffic represented 87.51% of the total traffic of 42 million passengers, while in Ukraine, in 2010 this mode of transport accounted for 69.63% of the total passenger traffic of 507.1 million. The highest levels of usage of this means of transport are registered in Maramureş and Suceava counties and Odessa Oblast. While not the most environmentally friendly, this mean of transport is the most flexible and accessible for the areas' population, especially considering the high percentage of rural localities which are difficult or expensive to access by other means of transport.

Other means of public transport, dependent on dedicated infrastructure like trams and trolleybuses are also in use in the core area, but only in a few locations – specifically in cities of regional importance like the county capitals or oblast administrative centres. Trams are used for public transport in the major urban centres of Botoşani County and Odessa oblast. If at regional level the tram traffic is low, at local levels these reach significant values. In Botoşani County, tram passengers account for 47.5% of the total passenger traffic in the county and use a tram line of 15 km, while in Odessa Oblast 17% of the passengers ride by tram, on a tram line of 198 km.

Trolleybus traffic is more significant in the major urban settlements in the three Ukrainian oblasts that use this means of transport: Ivano-Frankivsk, Odessa and Chernivtsi. Passengers using the trolleybus service represented 23% of the total public transport traffic in the three oblasts. In Romania, Maramureş County and specifically Baia-Mare Municipality relies on trolleybuses as means of public transport. The total traffic for this mean of transport represents 20% of the total local traffic, and uses a total of 8 km of simple line.

1.10 Energy

Energy consumption and production in the two sub-national territories is significantly different in terms of production and consumption. In 2012, at national level in Romania, the total primary energy resource was of 41728 thousand tonnes of oil equivalent (toe). Out of this, the production was of 27112 thousand toe, and the imports represented 11615 thousand toe. This primary energy ensured for Romania an energy independence degree of 77.7%.

The total final energy consumption for Romania was in 2012 22766 thousand toe. Out of this, over 35% represents the populations' daily use. Out of the total of 34851 thousand toe representing the gross domestic energy consumption 31.34% is represented by natural gas, 45.49% coal, oil and petroleum products, and only 3.7% electric energy.

In Ukraine in 2012 the total supply of primary energy reached 122488 thousand toe. Out of this total, 85247 thousand toe represented the production, 46520 thousand toe the imports, and 8007 thousand toe the exports. The use of coal and peat, natural gas and oil products are the most common in Ukraine. In comparison with the total supply of primary energy, these products represent 79.5% of the total. In a similar comparison, these also represent 66% of the total final consumption of primary energy of 73107 thousand toe.

In 2012, at territorial level, in the four oblasts the production of energy used materials summing together 12233 thousand toe. The highest material consumption is registered by

Ivano-Frankivsk with 6128 thousand toe, due to its high consumption of coal and natural gas. In terms of gas, Odessa Oblast is the largest consumer out of the four oblasts with 2484 thousand m³. At the level of the four oblasts, the most used materials for generating energy are coal, natural gas and firewood (used for heating).

1.11 Environment and Ecology

The core eligible area presents several varied types of relief. When discussing environmental and ecology issues in the area, particular care should be given to the Danube Delta Biosphere Reserve, where circumstances are prioritized differently than in other cases due to its natural habitat status. Because of this, the core eligible area can be divided in two sub-regions in terms of environmental protection. The Northern region is formed out of Maramureș, Satu-Mare, Suceava and Botoșani counties and Zakarpattia, Ivano-Frankivsk and Chernivtsi oblasts. In this case, the counties and oblasts have several similarities starting from relief and environmental issues to similar extractive and manufacturing industries and their implications. The second sub-region is formed out of Tulcea County and Odessa Oblast which share the Danube and its Delta with all of its specific characteristics.

Surface water pollution levels in the area are high, but within international limits – the Ukrainian side registering significantly higher levels. Pollution reasons are versatile, but the most significant are the evacuation of untreated or under-treated used waters resulted from both home and industrial use, and the ageing water treatment and purging facilities.

In the Northern region of the core eligible area, the majority of the treatment and purging facilities as well as the drinking water supply system is developed before 1989, and lacks any real modernisation for bringing these to present day standards. In addition, the rural localities in the area have significantly lower penetration levels of the sewage system, as a result the evacuation of used waters in these cases being done directly into the water streams. Even so, surface waters register levels of pollution within accepted limits, and are used as water sources for industrial and home use (drinking water) – for example the Tisza Basin. Few exceptions do exist in this respect, especially where these are or were affected by industrial activities and contaminated sites, as in the case of Satu-Mare, where the water quality is lower than normal.

In the case of the Danube and the Delta, water pollution is much more difficult to measure because of the total mass of water; however, levels of pollution have been noted as high on its tributaries, increasing the potential pollution levels of the Delta, and further more of the Black Sea. Tulcea Municipality and Izmail on the Danube and Odessa on the Black Sea coast are the largest urban pollution sources in the area. In addition to the levels of pollution due to urban living, industrial activities and naval transport also have a significant impact on the environment.

Leakages and losses due to ineffective sewage systems, treatment facilities working below potential capabilities and the lack of general waste management systems – especially in the rural area – all participate to the pollution of the soil and underground water systems.

A specific problem of the Northern region of the core eligible area is the infiltration of mine waters, resulted from active mining activities. In the case of Maramureș and Satu-Mare counties, the problems are caused by closed mines where the mining process was not followed by the measures required for the treatment of this type of waters.

The use of chemical fertilizers used in agriculture has a damaging effect on the soil and underground waters, due to increased levels of nitrites and nitrogen, making the latter not recommended for use without treatment. Furthermore, waste storage platforms that are not up to sanitary and environmental standards – mainly in rural area – are major contributors to the soil and underground water pollution. This is especially the case in rural areas where the storage of zoo-technical waste is not done properly in order to avoid soil infiltrations. In

addition, industrial waste and storage (chemicals, toxic waste, etc.) sites and de-industrialized contaminated sites are also a problem in the area. One important example is Odessa Oblast where there located over 600 industrial toxic waste storage sites, which have retained their toxicity levels.

Soil erosions, landslides, drought in the summer and floods in the spring have major impacts in the area, especially on agricultural lands. Along with climatic changes, deforestation is a major contributor to these phenomena, as soil becomes destabilized, especially in areas with mountainous and hilly terrain, like the Northern region of the core eligible area, or the South where floods can have major impacts on the network of human settlements.

Air pollution is below internationally accepted limits, however territorial differences are significant. At sub-national level, air pollution is higher in the Ukrainian territories than in the Romanian ones. The difference can be partially assigned to the industrial activities in the area that use coal and gas as energy fuels (especially in Odessa Oblast). In the Northern region of the core eligible area, two factors have to be considered when discussing air pollution. First, the pollution resulted from industrial manufacturing and energy production sites, which are generally positioned close to urban settlements, as resulted from the pre-1989 industrialization process. Second, the mountainous relief present in most areas and the positioning of human settlements in valleys where atmospheric conditions prevent the dispersion of toxins in the air. A good example of this phenomenon is the case of Baia-Mare Municipality in Maramureş County. Here the intensive lead production industry and the particular topography of the terrain make the air pollution levels rise significantly, sometimes above permitted limits due to atmospheric calmness.

In other urban areas, where industrial activities are more limited, as in the case of Uzhhorod in Zakarpattia Oblast, auto transportation is the major contributor to air pollution along with thermal energy production. The latter is extremely important as the move towards gas usage as fuel for thermal energy production significantly increased the production of greenhouse gas emissions, with global climatic impacts and affecting the ozone layer.

1.12 Culture

Comparing the cultural institutions shows a number of differences across the core eligible area. In the five Romanian counties there are a number of 1347 cultural institutions, distributed in a relatively even manner across the territory, with the exception of Tulcea County which has the lowest number of 164 institutions. Out of these, the most numerous are libraries, accounting for 1240 of the total institutions, with an average distribution of 6.1 libraries/10000 inhabitants. In this case, Tulcea County has the largest distribution of 7.2 libraries/10000 inhabitants, due to its smaller population size. The total number of 89 museums is also evenly distributed, with the exception of Botoşani county, which compared to the average 0.4 museums/10000 inhabitants only has 0.2. Cinemas are the scarcest cultural amenity in the Romanian counties, counting a total of only 5, with Suceava County having none.

At the level of the Ukrainian oblasts, there are a significant number of cultural institutions, 2932 in total. The difference in comparison with the Romanian territory is in part due to the difference in territorial scale. There are an average number of 0.1 museums/10000 inhabitants, and an average of 4.4 libraries/10000 inhabitants, the territorial distribution being consistent with these numbers across all oblasts. The main territorial differences can be observed in the case of cinemas and theatres, as the distribution of these amenities is more skewed. If Ivano-Frankivsk and Chernivtsi oblasts register a large number of cinemas summing 158, respectively 127, Odessa and Zakarpattia oblasts have only 12 cinemas each. In addition, there is a limited number of theatres and similar institutions, the distribution in this case being of only 0.03 institutions per 10000 inhabitants, across the whole Ukrainian eligible territory.

1.13 Tourism

The natural settings in the core eligible area give very specific competitive advantages in terms of tourism, especially in the mountainous areas of Maramureş County, the Western part of Suceava County, Zakarpattia Oblast, Ivano-Frankivsk Oblast and the Western part of the Chernivtsi Oblast. Moreover, there is also a notable touristic advantage given by the protected area of the Danube Delta, renowned at international level.

In 2012, in the core eligible area there were a number of 1309 hotel and similar facilities, out of which 695 were located in the Romanian counties, and 614 in the Ukrainian oblasts. If we compare these numbers at territorial level, compared to area and population, than the number of hotels and similar facilities in the four Ukrainian oblasts is fairly small. On the Romanian side, Botoşani and Satu-Mare counties have the smallest number of facilities, with 18 units, respectively 74 units, while on the Ukrainian side Chernivtsi has 80. Odessa Oblast and Suceava County have the largest number of hotels, summing 216 and respectively 296 units.

Comparing the overnight stay numbers also shows a difference in scale. In 2012, the Romanian eligible area registered 1098417 one-night stays while the Ukrainian eligible area 721600. The difference can be attributed to the EU and non-EU status of the two countries, and the reduced accessibility in the area due to limited or underdeveloped transport modes and networks.

Local strategies emphasize the important role of tourism as one of the most important potential competitive advantages for the core eligible area. The varied relief, the geographical positioning, the varied flora and fauna, and the cultural heritage of the area are key components that can form the base for developing the tourism infrastructure and services. The area benefits from over 900 natural protected areas of national and international importance on the Ukrainian side and over 170 on the Romanian side (see Annex for complete list) and numerous historic sites. These are important points of attraction for national and international tourists, as proven by the number of over-night stays. Even so, as emphasized by the Economic and Labour Market sections of this analysis, the fixed assets investments in touristic infrastructure is limited as it represents only 0.98% of the total investments in the five Romanian counties, and 3% in the four Ukrainian oblasts.

1.14 Conclusions

The territorial analysis emphasizes important socio-economic development issues with both similar and conflicting trends between the two sub-national territories forming the core eligible area. These are of utmost importance for future cooperation and intervention in order to address the main territorial cohesion issues along the Eastern border of the European Union.

The core eligible area of the 2014-2020 Romania-Ukraine Cross-border cooperation OP covers a significant surface in terms of size. In Romania the five counties forming the core eligible area stretch out along the border and are part of three different development regions, while in Ukraine the programme covers four oblasts. A major consideration in terms of relating the two sub-national territories is the **difference in size** between the two, in favour of the Ukrainian oblasts, which can create significant problems in identifying needs and providing solutions at the appropriate scale. Also, the two territories have **different administrative systems** with a different number of decision-making tiers. Considering cross-border cooperation these structures have to be weighted carefully considering each of the administrative tiers' decision-making tasks, funding resources and the implementation power.

Geography and demography

The major **geography and topography of the area divides the area in two**: a mountainous and hilly region in the North and a flat region dominated by the Danube Delta and wetlands in the South. This major difference requires a comprehensive approach, to address the territorial particularities of each of the regions.

In the mountainous Northern region there are major risks for landslides and floods with direct effects on localities at the base of the mountains. Similarly, increased natural disaster risks are also present in the Southern region of the core eligible area, dominated by the Danube Delta and plains. Here, potential flooding is a major risk, which must be carefully managed.

The area has a **limited number of large urban centres**, in general, these being the administrative capitals of the corresponding county or oblast. The largest urban centres in the area like Odessa, Uzhhorod, Ivano-Frankivsk, Chernivtsi, Baia-Mare, Satu-Mare, Suceava, Botoşani and Tulcea attract a large part of the rural-to-urban migration in the area as well as the majority of the international immigration. In addition, these urban centres concentrate the bulk of the services based economy in the detriment of the rural areas. In contrast, the largest **majority of the population in the area still lives in rural areas** with limited access to public utilities and amenities.

Outward migration and consequently the ageing of the resident population are major concerns in the area. The young adult population leaves the area in search of work opportunities and education either abroad or in other parts of Romania or Ukraine. Territorial differences are visible as in Ukraine the natural increase rate is positive, but close-to-0, compared to Romania's negative natural increase rate. An important consideration is the **fragility of the natural increase trend** (in the case of Ukraine), which can swiftly change its direction, especially considering the low life expectancy at birth of both territories in comparison with EU averages.

International and internal out-migration at core eligible area level and the **polarization** effects of cities like Odessa or Tulcea create significant development gaps of slowly depopulated rural areas where opportunities become extremely limited in terms of economic activities. This is especially important in Odessa Oblast and Tulcea County, where there are major **differences in terms of population densities** compared to the rest of the core eligible

area due to the presence of the Danube Delta, making depopulation and the ageing of the resident population major concerns, as in this region smaller demographic variations have much greater impacts.

Economy and Labour Market

In terms of **employment and unemployment**, percentages are in line with national averages, with only small variations. The dominance of the agricultural sector in Romania and agricultural and industrial sectors in Ukraine in terms of employment makes the labour market over-specialized and extremely sensitive to socio-economic changes. These sectors register some of the lowest earning levels out of all the economic sectors, thus being unable to support an increase in the standards of living. The analysis showed that there is a negative correlation between the high rates of employment in the agricultural sector and the GDP levels, emphasising **the low added value of this activity** in the core eligible area. This is mainly caused by the fragmentation of the agricultural land between small subsistence farms, which lack the resources required to capitalize on their agricultural production and to protect their production against natural disasters.

Negative variations in both industrial and agricultural production have a direct impact on the living standards in the area. At the same time, **the low variety of economic activities**, especially in the rural areas, limit the opportunities of the unemployed active population. This is more important in the context in which over 60% of the unemployed population in the five Romanian counties and almost 50% of the unemployed population in the Ukrainian oblasts have only primary or vocational education. This is a high risk situation if we also considered the low level of investments in the education sector and the significant early school leaving rates. These trends signal that the tools required by the unemployed population to adapt to the labour market requirements are missing.

One major disadvantage in the core eligible area is the **lack of investments in R&D** and the reduced number of this type of activities. Considering the general movement towards a service-based economy, the potential added value of this sector is significantly diminished. This is extremely significant as R&D can also have positive impacts in both dominating sectors of agriculture and industry through technological innovation.

Compared to the national level, the core eligible area is also the **poorest performer in terms of FDI attraction**, because of the low level of competitiveness of the sub-national territories composing the core eligible area. The **reduced competitiveness** of the area can be assigned to three main problems: the complex bureaucracy, the taxation systems along with corruption create a high risk environment for investors; the reduced level of accessibility and intermodal capabilities significantly increase travel times; excepting the main urban centres, the technical infrastructure in the area is underdeveloped.

Transport and Infrastructure

The transport in the core eligible area is dominated by **road and rail transport**. However the networks are underdeveloped and poorly maintained, limiting traveling speeds and increasing traveling times.

Out of the seven functioning international airports in the core eligible area, Odessa International Airport has the most varied flight schedule in terms of type and destinations, the rest of the airports being limited mostly to charter or low-cost flights and seasonal flights, hence affecting the **accessibility of the area**.

Urbanization is a major concern in the area considering the types of technical infrastructure available, the access of the population to public services, and the limited levels of connectivity of the urban and rural settlements. A large number of localities and their population are deprived because of the **limited access** to the drinking water and sewage systems. This limitation does not only reflect in the conditioning of future local development, but becomes a

problem as it can create major health and sanitary issues. In addition, the lack of this type of public utilities also directly affects the environment as the lack of sewage and waste management systems means that used waters and waste are discarded directly into the environment, increasing the pollution levels and affecting the quality of the soil and waters. Access to telecommunications and internet backbones is also a problem as, along public utilities provision, it directly affects the competitiveness level of the area, especially in the case of the rural settlements, making the area unattractive for business using these technologies.

Public transportation and urban-rural linkages are major problems, since the majority of the public transport networks are concentrated in and around the main urban centres with limited rural connections.

Environment and Energy

A major concern in terms of energy and pollution is the excessive **use of gas, coal and wood as fuels for energy production**, due to lack of alternatives. This has a major impact on the environment as energy production is one of the main polluting activities directly affecting air quality, especially in the Northern region of the core eligible area where the relief inhibits the movement of air masses.

A specific environmental problem of the area is the existence of several contaminated industrial sites and toxic waste storage sites, which directly affect the quality of the soil and the underground waters.

Culture and Tourism

Culture and tourism are two sectors with a significant growth potential due to the **specific advantages** of the core eligible area: the mountainous regions in the North and the Danube Delta in the South. This potential is diminished by the **low level of investments** in both culture and tourism. The latter is also affected by the low accessibility of the area, which makes the development of touristic projects; and the lack of public utilities in rural areas, which limit the type of tourism that can be practiced in the area

2. SWOT Analysis

This section summarizes *i)* the main findings of the territorial analysis, *ii)* the statistical data and *iii)* conclusions from the document analysis, under the general framework of a SWOT analysis. The generic model is briefly presented below:

SWOT matrix

	Factors to promote the achievement of stated objective	Factors to impede/ delay the achievement of the stated objective
Factors of internal environment	aStrengths	Weaknesses
Factors of external environment	Opportunities	Threts

In the specific case of the current analysis, the “objective” to achieve is represented by the strategic objectives of the CBC Programme:

- 1) Promote economic and social development in regions on both sides of common borders;*
- 2) Address common challenges in environment, public health, safety and security;*
- 3) Promotion of better conditions and modalities for ensuring the mobility of persons, goods and capital.*

Starting from these objectives, the SWOT analysis is organized along the main lines of the territorial analysis: 1) Geography; 2) Demography; 3) Economy and Labour Market; 4) Transport and Infrastructure (including public utilities and ICT); 5) Environment and Energy; 6) Health, Social, Safety and Security; 7) Education, Culture, Society; 8) Public Administration and Governance. In this context the main strengths, weaknesses, opportunities and threats that are relevant for structuring and implementing this programme are summarised in the tables below:

Strengths		Weaknesses		Opportunities		Threats	
1. Geography & Human Settlements							
S11	Various relief forms as: mountains, hills, plains presenting advantages for agricultural and tourism development	W11	Extremely different topography across the programme's area. The eligible area of the programme is split in two distinct geographical zones: north-west zone (Suceava, Botoşani, Satu-Mare, Maramureş counties and Zakarpattia, Ivano-Frankivsk, Chernivtsi regions and the south-east zone (Tulcea county and Odessa region))	O11	The proximity of Black Sea represents a strong potential opportunity for the south-east area of the programme	T11	High risk from natural disasters due to the differentiated types of relief (e.g. landslides, floods)
S12	Complex hydro graphic network: many lakes and estuaries, important rivers and Danube together with its Delta	W12	Large unpopulated areas and rural areas, especially in the areas of Tulcea County and Odessa Oblast	O12	Future synergies that can be obtained by cooperation with border regions from Hungry, Slovakia and Poland, which all are UE member states	T12	Massive migration from rural to urban settlements due to lack of opportunities, services, and other amenities, especially in areas with small number of urban centres (i.e. Odessa Oblast, Tulcea County)
S13	Presence of the powerful urban pole of Odessa	W13	Large urbanization gaps between the main urban centres	O13	Development of the technical infrastructure in rural areas, consequently reducing the polarization effects of established urban centres	T13	Uncontrolled sprawl of the existing urban areas towards neighbouring rural areas without considering technical requirements
S14	Developed urban settlements with more than 100000 inhabitants (i.e. Baia-Mare, Satu-Mare, Botoşani, Odessa, Chernivtsi, Ivano-Frankivsk, Uzhgorod)	W14	Mountainous areas and the natural deltas hinder urban and infrastructure development				
		W15	Uneven distribution of large urban settlements which favour polarization processes				

Looking at the geography and characteristics of human settlements it should be mentioned that the positioning of the main urban centres and the predominant rural character of the area signal the existence of large rural areas positioned between these centres, with limited access to services and amenities characteristic to urban areas. This factor negatively affects the accessibility to education, healthcare or social assistance services, mostly for the rural area. On the Romanian side this issue is also confirmed by the Romanian National Spatial Plan (*Planul de Amenajare a Teritoriului National*) which identifies several areas with limited access to urban centers, especially in Tulcea County.

Strengths		Weaknesses		Opportunities		Threats	
2. Demography							
S21	Higher density of population in the north-west part of the eligible area of the programme	W21	Low density of population in the south-east part of the eligible area of the programme. (A low density implies higher operating costs for public services for population, especially in Tulcea and Odessa)	O21	Future synergies that can be obtained by cooperation with border regions from Hungry, Slovakia and Poland, which all are UE member states	T21	Long term trend in negative natural increase ratio
S22	Important urban centres of both sides of the border concentrating a large urban population	W22	Urban population ratio under the national average in Tulcea County and Odessa Oblast	O22	Increased attractiveness of the EU border area and the potential return of expats to the Ukrainian oblasts due to the signing of the EU Association Agreement	T22	Over-polarization of the migrant urban population in established urban centres (e.g. Odessa)
S23	The Ukrainian regions have a positive natural increase ratio of population	W23	The Romanian counties are confronted with a negative natural increase ratio of the population			T23	Strong migrant influx: external in the case of Romanian counties, internal in the case of Ukrainian
						T24	Ageing process of population on Romanian side

One of the main weaknesses is the split of the CBC eligible area in two parts: north-west and south-east, with different geography and population features. Other weaknesses are related to the ageing population and strong migrant flows: internal in Ukraine and external in Romania. These have the potential of a negative impact on the labour market (the tendency is for the most skilled labour force to leave while the non-active and socially assisted part of population would remain).

Out-migration is an important issue in the core eligible area, especially in the Romanian counties, and the most eastern oblast in Ukraine, Zakarpattia. Even though, the statistical analysis shows a relatively stable present situation, the slight negative natural increase rate emphasizes the importance of the ageing process, and the current inability to counter-balance this process. This conclusion is especially valid for the Romanian side of the eligible area. On the longer run, this trend would impact heavily on the sustainability of the national pension system.

Even if the Ukrainian data shows a more positive trend regarding evolution of the population, great attention should be given to the population forecasts, as the close-to-0 numbers show that the natural increase rate is exposed to the risks of future socio-economic events, which combined with out-migration trends, can increase the depopulation phenomenon in the area. Even though a large part of the population fits in the 15-64 age group (active population), the tendency towards negative natural increase shows that attention should be given to the population rejuvenation process, whilst also considering increasing in-migration flows and decreasing out-migration, in order to stabilize the active population and to reduce the strain on the social security system.

Strengths		Weaknesses		Opportunities		Threats	
3. Economy and Labour Market							
S31	Diverse structure of economy and important natural resources (forestry)	W31	The divergence in investment focus between Romanian side (industry related area) and Ukrainian side (real estate and financial services)	O31	Opportunities related to the EU member-state status of Romania (attractiveness for foreign investments) and to the signing of the Association Agreement between Ukraine and EU	T31	Political instability of the north-west part of Black Sea region can jeopardise economic development, especially the Foreign Direct Investments – FDIs
S32	Developed agriculture, forestry, fishing and food industry activities	W32	Divergent economic structure (on Romanian side focused on agriculture/forestry/fishing and on Ukrainian side on services	O32	EU financing programmes on Romanian side	T32	The other regions surrounding the north-west part or the eligible area of the CBC OP, from Hungary, Slovakia and Poland are from the poorest in their countries – generation of negative spill over effects
S33	Strong potential for tourism in general and agro-tourism in special	W33	The main economic activities have low value added (agriculture, forestry, fishing, trade and tourism related services)	O33	Other donors increasing their financial assistance programs in Ukraine (e.g., USAID,UNDP focusing on local lasting economic development)	T33	The eligible area of the CBC OP is relatively far from the specific economic developing axes in Romania (West-North-West to South-East) and Ukraine
S34	Since the programming period 2007-2013, GDP per capita increased 2.3 time on the Romanian side and 2.25 on the Ukrainian side	W34	The agriculture production is concentrated in subsistence farms and is strongly dependant on weather conditions and exposed to natural risk.	O34	Well established cross-border contacts and communication at the business level in the northern area	T34	Ukrainian economy presented zero economic growth and it is in recession in 2014.
S35	Low rate of unemployment partially influential by migratory fluxes	W35	Very low ratio of employed population is hired in high added value activities as R&D, Innovation (0.18%)			T35	Internal turmoil in UA with impact economic activity across the country
S36	Relatively low gap in personal	W36	Low coherence of the economic				

	revenues on both sides of the border (maximum 50%): the relative difference between wages especially in conditions of low absolute pressure does not stimulate migratory border.		structure due to the split of the eligible area of the programme in two different and specific sub-areas: north-west and south-east				
S37	Important number of SMEs	W37	Labour force massively occupied in a very limited number of activities				
S38	Competitive labour costs and labour force with good education and skills (see especially the structure of un-employed population on Ukrainian side)	W38	Widening of the GDP gap				
		W39	Unbalanced employment rate by gender, especially in the UA side.				

The most relevant issues are: the eligible area has an important economic potential and obtained high levels of economic growth in the last 7 years (the GDP per capita increased 2.3-2.5 times during this period); however the eligible area remains poorer compared with the national average in Romania and Ukraine. Moreover other two threats are relevant: the eligible area is surrounded by poorer (in their national terms) regions of Hungary, Slovakia and Poland; secondly the eligible area is out of the both developing axes of Romanian economy (which can be seen in the figure bellow) and Ukraine.

The concentration of investments in the Industry sector in the Romanian counties and Ivano-Frankivsk Oblast in Ukraine signals a resistance to the global de-industrialization process, more visible on the Romanian side. The limited amount of investments in Transportation emphasizes that in the future the level of connectivity of the area might suffer. The increase in investments in Real Estate and Financial Services in the Ukrainian oblasts, shows that in spite of the industrial character of the area, the economic activities are starting to reorient towards the more general services sector. The important role of the agricultural sector and the decrease in production, in reference to the percentage of the employed population working in this sector signals certain risks for the Romanian side of the core eligible area. Part of the decrease can be assigned to recent climatic changes, making natural risk a major element to be considered when analysing socio-economic development.

The analysis emphasizes significant territorial gaps both in Romania and Ukraine in general but also when comparing the two sub-national territories. A more focused approach to R&D is needed, given the limited (or lack) of R&D activities (especially in Botoşani County) and the need to counterbalance the areas that polarize these activities at the expense of others.

Strengths		Weaknesses		Opportunities		Threats	
4. Transport and Infrastructure (including public utilities and ICT)							
S41	Good density of road infrastructure in the Northern Border	W41	Under-developed air, naval and rail transport Poor quality of road infrastructure in UA	041	The eligible area is crossed by TEN-T and TRACECA networks	T41	Political instability and international conflicts or tensions can directly threat the significant investments in infrastructure development, which need long-term planning, predictability and stability
S42	Developed transport network for buses and minibuses	W42	Old rail infrastructure and using different gauges	042	2014-2020 EU programs to support developing of infrastructure (ROP, BIOP, NRDP)		
S43	The core eligible area is crossed by important EU network roads	W43	Very limited air direct connectivity of the eligible area (especially Tulcea-Odessa & Maramureş-Ivano-Frankivsk)	043	Other international donor programmes (in Ukraine) to develop public utility infrastructure (ROP, BIOP)		
S44	Good energy supply network	W44	Old airport infrastructure				
S45	Good water and sewage networks in urban area, especially on Romanian side	W45	Poor water and sewage networks in rural area				
S46	Good Internet access (using broadband technologies), especially on urban area	W46	Poor gas supply networks in the eligible area				
		W47	Low coherence of the transport infrastructure (especially road and rail) due to the split of the eligible area of the programme in two different and specific sub-areas: north-west and south-east				

An important issue for the core eligible area of the Programme is the low level of urbanization and the associated downfalls, directly affecting the accessibility of the population to public services and basic utilities. A large number of localities and their population are deprived because of the limited access to the drinking water and sewage systems. This limitation does not impact solely on the future local development, but reaches to wider issues, as it can create major health and sanitary challenges.

Access to telecommunications and internet backbones must be developed further to increase the competitiveness level, especially in the case of the rural settlements and their population by facilitating their access to new opportunities. Transportation should also be a priority, specifically public transportation and the improvement of the urban-rural linkages. The diversification of the modes of public transport should be the main concern

especially in Satu-Mare, Suceava and Tulcea Counties, and Zakarpattia Oblast, as this can participate to increasing the mobility level of the population and to reducing the level of pollution caused by public transport modes.

Strengths		Weaknesses		Opportunities		Threats	
5.		Environment and Energy					
S51	High quality natural sites and ecosystems, especially Danube Delta	W51	High levels of water pollution from wastewater and industrial pollution – lack of waste water treatment systems	O51	The EU programmes to finance environmental protection, to develop public utility infrastructure, energy efficiency and green energy production (Connecting Europe – EU projects list supporting two-way pipeline)	T51	Political instability and international conflicts or tensions can directly threat the significant investments in green energy production and infrastructure, which need long-term planning, predictability and stability.
S52	Variety of natural sites and ecosystems: forestry, wetlands, mountains.	W52	Lack of developed solid waste management systems, especially in the rural areas.	O52	The other international donor programmes (in Ukraine) focusing on energy efficiency and green energy production	T52	Development of new source of fossil energy (gas and oil in Black Sea, shale gas) can jeopardise new investments in green energy
S53	Low level of air-pollution	W53	High level of soil erosion	O53	Foreign Direct Investments in green energy (especially solar and wind power)	T53	Instable legal framework regarding the subsidies for green energy production
S54	Strong potential for green and renewable energy: hydro, solar and wind power	W54	Groundwater pollution by nitrates and nitrites				
		W55	Energy production is based on fossil resources – Ukraine is the 6th world producer of greenhouse gas				
		W56	Lack of modern and integrated emergency system in case of natural disasters				

The main strengths refer to the multitude and variety of natural sites and ecosystems and especially to the strong potential in renewable energy (sun and wind power). The main weaknesses are the high level of pollution together with the high rank of Ukraine as producer of greenhouse gas. In this sector the opportunities and threats are equal distributed as importance: on one side is a high interest of international investors in renewable energy; on the other side new technologies developed in the field of fossil energy resources together with the instable legal framework in the domain can jeopardize the development of green energy.

The main priority in the area should be the migration towards renewable and environmentally friendly energy sources, especially when the area has significant potential in this respect. Along with the high potential for harvesting solar and wind power especially in the plane and valley areas, the large

number of rivers is a good starting point for developing hydro-electric facilities. Moreover, the predominant rural areas and the intense agricultural activity can make possible the creation of biomass and bio-fuels through the recycling of zoo-technical waste.

Strengths		Weaknesses		Opportunities		Threats	
6.				Health, Social, Safety and Security			
S61	Health services in the area are fairly well distributed	W61	High cross-border criminality	O61	Initialling the small-scale border traffic agreement.	T61	The new conflicts from the Black Sea area (Crimea) could represent a direct threat to the south-east area of the programme
S62	Good density of border crossing points on the north-west part of the eligible area of the CBC programme	W62	No border crossing point in the south-east part of the eligible area of the CBC programme	O62	On-going political discussions on opening new cross border points.		
		W63	Cross-border traffic is concentrated in only one point: Siret-Porubne (63% from the total)				
		W64	Higher level of poverty in the eligible area of CBC programme compared with the national average both in Romania and Ukraine				
		W64	Lower rate of life expectancy at birth				

Increasing safety and security by reducing the cross-border criminality and the need to modernize the cross border points appear as priority activities out of the analysis. On the other hand, the social inclusion and poverty alleviation, other important areas of intervention, benefit of significant support from other programmes (EU or other international donor programs)..

The high concentration of traffic in Siret-Porubne and the two closed crossings signal that there might be a need for developing additional border crossing infrastructures and points. The development of cross-border infrastructure and economic activities is because of this of utmost importance. Moreover, the development of border environmental activities is also of importance considering that the Romanian-Ukrainian border is of three types are formed out of river and land, and it divides the shared biosphere of the Danube Delta.

The concentration of this type of traffic on the Romanian-Ukrainian border signals that security systems must be upgraded, especially when considering traffic from Ukraine to Romania. In this context, cross border projects covering the security infrastructure of the border must be prioritized.

Strengths		Weaknesses		Opportunities		Threats	
7.				Education, Culture and Society			
S71	Strong and diverse cultural heritage and long and positive tradition of multi-ethnic cohabitation	W71	High level ratio of early school leaving on Ukrainian side	071	Other international donors actively supporting this area (ROP, HCOP, UNICEF, UNDP, USAID, Youth in Action)	T71	Past contradictory discussions regarding minorities rights.
S72	Good culture infrastructure: museums, cinemas, libraries, etc	W72	Poor accessibility to educational infrastructure in rural areas	072	Shared cultural and linguistic background to support exchange experience and joint initiatives		
S73	Good potential for cultural tourism	W73	Un-balanced distribution of culture institutions within eligible area of CBC programme on both Romanian and Ukrainian sides				

The eligible area is well known as a region with strong education and culture heritage and a long positive tradition of multi-ethnic and multi-cultural cohabitation. The main weakness is the high ratio of early school leaving, especially on Ukrainian side. The cultural assets can be easily used to develop the tourism and so to use also the natural potential for this sector.

There are clear signs of concentration in the area, as both educational structures and number of students confirm it. The lack of access to educational infrastructure is one of the key factors for students moving away to other regions or countries for continuing their studies. Correlating this accessibility with the number of unemployed population according to education level emphasizes the limitations it brings in terms of labour market opportunities, and this direction should be prioritized in developing cross-border educational programmes

Working towards developing connectivity links and the modernization of the tourism infrastructure can bring a significant increase in the overall competitiveness of the area. In addition, advantage should be taken of the cultural similarities, as the basis for the development of tourist attractions involving cross-border cooperation.

Strengths		Weaknesses		Opportunities		Threats	
8. Public Administration and Governance							
S81	Good experience in working with EU programs, especially with the previous CBC OP, at both tiers of public administration, central and	W81	Different administrative structures: two tiers in Romania, three tiers in Ukraine and based on this different function	O81	EU structural programmes on Romanian side (ACOP)	T81	Future decentralization reforms can generate legal instability and lack of predictability

	local		assignment for these tiers.				
S82	Improved capacity of public administration (both central and local) in project management given the experience accumulated during 2007-2013 programming cycle	W82	For Romanian LG units potential lack of interest for the new CBC OP, due to the existence of other important EU and national investment programmes with possible similar eligible policy areas (ie transport infrastructure)	O82	New association agreement between EU and Ukraine	T82	Political instability and international conflicts or tensions can divert the focus from implementing the CBC OPs
		W83	For all LGs (but for different reasons in Romania and Ukraine) un-flexible budgetary framework, which limits investment capabilities	O83	Other international donors programs in Ukraine	T83	Differences in legal framework between the two countries
		W84	Long distance to Romanian Consulate for Ukrainian population from Zakarpattia affecting easy people and business environment contacts on both sides of the border	O84	High focus of international community to support Ukraine in political stability and economic development		

The final success of CBC programme is dependent by the administrative capacity and public governance quality. There are some problems in this sector (potential lack of interest of LGs, from the Romanian side together with an un-flexible budgetary framework). In the same time there are a lot of opportunities especially related to high interest of the international community to support the governance reforms in Ukraine. A potential threat could be represented by the organizational changes that might appear, especially with reference to the decentralization process, changing dramatically the function assignment for Ukrainian regions and smaller LGs, hence, indirectly causing delays in CBC implementation.

The different administrative structure of the Romanian and Ukrainian administrative systems poses additional risks with respect to the type of responsibilities assigned as well as the decision-making powers of various administrative units.