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Population distribution in Albania and Kosovo: a comparative analysis on urban population and its classification based on administrative and non-administrative criteria

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Abstract

Due to national differences in the features and concepts that characterise urban and rural areas, no single and accepted definition is available worldwide for urban and rural population. However, the traditional distinction between urban and rural areas within a country is based on the general acceptance that urban areas provide a different demographic profile of the population and a different way of life and, usually a higher standard of living than is found in rural areas, at least in developing countries and transition economies. Moreover, statistical data for urban and rural areas are of some considerable importance for the central government and for local authorities while planning and managing services for local communities. For instance, the allocation of health and social care funding, housing, roads, water and sewerage and the provision and maintenance of schools have all distinctive aspects in urban and rural areas. Employment for urban and rural population has different features as well.

Recently, in many countries, including the Balkan countries, this distinction has become unclear and the principal difference between urban and rural areas in terms of the circumstances of living tends to be a matter of the degree of concentration of population. Indeed, rapid urbanisation processes have greatly raised the need for actual information related to different sizes of urban areas, and to the need to define standards for data comparability.

Like in all countries conducting a population census, in Albania and Kosovo the census data was disseminated following the administrative structure of the countries based on census legislation. In most of the Western Balkan countries, the law classifies the administrative units as urban or rural. However, like in many other countries, their cities and other urban areas are enlarging their size faster than the capacity of the law to revise such definitions which are needed to make urban boundaries consistent with the actual size of urban and non-urban areas. Therefore, the breakdown of census data by urban areas, both at national and regional level, is underreported. Consequently, census results show significant differences in terms of urban/rural breakdown if different criteria for data classification are applied. Moreover, taking into account that the 2011 censuses have been used to update the sample frame for the conduction of household surveys, also their results are affected by the definitions used for urban and rural population.

The main objective of this paper is to analyse the definition and classification of the urban resident population of Albania and Kosovo as obtained from their 2011 population and housing censuses, according to their administrative criteria and based on a new approach for data classification as well, and to compare the differences at national and regional levels. Selected census variables are also presented by urban/rural modalities using administrative and non-administrative criteria, including the 1 km² grid-based typology recently adopted by the European Union.

The results show that the differences between the two classifications in the share of urban population at national level is very high (about 10% in Albania and about 16% in Kosovo), and that it is even more at regional level. This seems demonstrate that the use of administrative criteria to define and classify urban and rural areas is not suitable for statistical purposes, unless such criteria are better defined and kept up-to-date by National and Local Authorities. The EU grid-based approach proposed in this analysis seems one option to be considered by Balkan countries to develop reliable definitions and classifications on what is urban and what is rural, ensuring international comparability as well.

Keywords: population and housing census, census data comparability, Geographic Information System, grid data, population distribution, urban/rural classification, urbanisation.

Introduction

The identification of urban and rural population has been always a target of researchers of different disciplines such as demographers and geographers, and an interest of policymakers, National and Local Administrations, International Organisations, because of the differences that characterise the two groups of population. This objective has been pursued through attempts in defining urban and rural areas. Rural areas have been generally defined as a residual category, following the identification of the urban areas (Jerome & Kimberly, 2004). Moreover, the traditional distinction between urban and rural seems today unclear, not only in the more economically advanced countries, but also in the countries with transition economies, including the Balkan countries.

Worldwide, international recommendations recognise the importance to distinguish between urban and rural areas, but does not provide a standard definition, and invite the single countries to decide what is urban and what is rural. Countries use different approaches for these definitions, based on administrative criteria, population size, population or building densities, urban morphology, presence of economic activities (Shryock, Siegel, & Larmon, 1980), or a combination of them. Therefore, it is often difficult to compare data on urban and rural populations between countries, and even within countries, the identification of what is urban and the comparison between areas is sometimes difficult because changes of the territory at regional or local level are often rapid, complex, and difficult to detect by statistical and non-statistical organisations. In addition, statistical and non-statistical organisations may have also different definitions within the same country, influenced by their main mission. However, data on urban and rural population continues to be widely used, even though its quality is sometimes low.

An example of international recommendations related to the classification of urban-rural areas is provided by the United Nations (UN) in the framework of the *World Population and Housing Programmes* implemented by the United Nations Statistics Division (UNSD) to assist countries in planning and conducting population and housing censuses, trying also to improve international comparability through standard definitions. The recommendations for the 2010 census round of the European countries, prepared by the United Nations Economic Commission for Europe (UNECE) in cooperation with the Statistical Office of the European Union (EUROSTAT) considered the "urban and rural areas" as a "non-core topic" (Conference of European Statisticians, 2006). Taking into account that "non-core" census topics are only optionally recommended to be considered by countries, it is evident how it is complex to have a single standard definition for all countries, even in a single part of the world.

Recently, however, the attempts to better define and classify urban and rural areas seems to have increased in Europe, for statistical and non-statistical purposes. The draft version of the UNECE/EUROSTAT Recommendations for the 2020 censuses of Population and Housing classifies the "urban and rural areas" and the "Location of place of work" as "core topics". Moreover, they introduce for the first time the concepts of "degree of urbanisation" and "population grid" as non-core topics, invite countries to use the "population grid" to identify the place of work and schools of residents, recommend the tabulation of census data also according to "urban agglomerations" (Conference of European Statisticians, 2015).

This new European efforts to improve definitions, classifications and comparability of urban and rural areas, and their corresponding population groups, started early in nineties, when the concept of *Degree of Urbanisation* was introduced to indicate the typologies of the local administrative

units of the EU countries[1], organised in densely populated, intermediate and thinly populated areas (Dijkstra & Poelman, 2014). The threshold for the LAU2 densely populated was 500 inhabitants per km², and such category was including not only LAU2 with large cities, but also LAU2 with small cities, because of the limited size of the local units. In order to avoid the high probability that the population density of administrative units is distorted by the variation of the size of the local units, a new approach was developed in the last years by the European Commission by classifying European administrative units using small cell grids of equal size (1 km²). The main objective was to ensure a better comparability between EU regions and Administrative local units.

Since 2010, the European Commission has endorsed and further developed the use of a grid-based approach to define a new urban-rural typology, and to classify EU NUTS 3 regions[2] (Eurostat, 2010). The EU Directorate-General for Agriculture and Rural Development, the EU Directorate-General for Regional and Urban Policy, Eurostat, and the EU Joint Research Centre developed jointly the new typology aiming at providing a consistent basis for classifying the territory of the European Union as "predominantly rural", "Intermediate" and "predominantly urban", as a variation of the OECD[3] methodology (OECD, 2011). Indeed, even though the OECD methodology introduced relevant improvements in comparison to the older approaches, it was still based on the use of smaller administrative units (LAU2) for the classification of larger administrative units (NUTS 3 regions) and cities, without fully overcoming the statistical bias caused by the variation in the size of the units.

The methodological foundations for the new EU grid-based approach derive from earlier studies conducted by the European Forum for GeoStatistics, now European Forum for Geography and Statistics (EFGS), first as a voluntary cooperation between National Statistical Institutes (NSIs) in the Nordic European countries since 1998, and then in the framework of the EU ESSnet3 GEOSTAT projects.

The GEOSTAT project "Dissemination of results from 2010/2011 censuses - Representing Census data in a European population grid", was implemented in 2010 and 2011 to develop guidelines for datasets and methods to link census 2010/2011 statistics to a common harmonised European grid for the production of statistical grid data[4]. Many of the European countries disseminated selected variables of their census data using grid maps, in addition to other mapping techniques. Examples are grid maps of the urban-rural population, age composition, type of dwellings and type of households, employed population, built-up areas, and daytime population.

The new EU grid-based approach discussed here make use of population grids instead of population densities at LAU2s level, for the classification of urban and rural areas. Indeed, the new EU degree of urbanisation classify LAU2s according to grid cells:

- Cities or densely populated area: at least 50% of the population live in high-density clusters (urban centres);
- Towns and suburbs or intermediate density area: less than 50% of the population live in rural grid cells, and less than 50% live in a high-density cluster (urban centres);

[1] Local Administrative Units 2 (LAU2) are the second level of the Local Administrative Units of EU countries.
[2] EU NUTS 3 Regions are the smaller EU regions according to the EU classification "Nomenclature of territorial units for statistics (NUTS)
[3] OECD is the Organisation for Economic Co-operation and Development.
[4] Statistical grid data are statistics geographically referenced to a system of grid cells in a grid net with Cartesian coordinates. It is based on the ETRS89 Lambert Azimuthal Equal-Area projection coordinate reference system.

- Rural area or thinly populated area: more than 50% of the population live in rural grid cells.

Such classification based on the concepts of rural and urban grid cells, seems more adequate for a statistical definition of urban and rural areas, and for the identification of areas, which are neither urban nor rural. Indeed, it may provide the advantages of having an harmonised definition within countries, more accurate comparability among countries, more reliable and updated data available taking for granted that the country has the availability and capacities to quickly update the population grid dataset, which is based on point locations of the places of residence of the population. In any case, a grid-based classification of the urban and rural population seems of particular interest especially for those countries who use administrative criteria, like Albania and Kosovo.

The analysis presented in this paper is a further elaboration of the first investigation made in Albania in 2014 to identify the urban and rural population derived from the 2011 population and housing census, using the EU grid approach. Such investigation was conducted and disseminated by the National Institute of Statistics of Albania (INSTAT), in the framework of the EU funded project "Population and Housing Census of Albania, 2011" (Shameti, Lecini, & Bianchini, 2014). The present study includes also the first results of a similar approach applied to the 2011 census data in Kosovo, which is still in progress.

Objectives of the study

The main objective of this study is to classify the resident population of Albania and Kosovo as urban or rural population using the 2011 census data, based on criteria that differ from the ones used to disseminate officially the 2011 census results. Indeed, taking into consideration that urban and rural areas are in both countries defined by law, thus by a static concept of classification, official statistical data on urban population seems underreported, especially for the suburbs of the main cities. The approach selected for this analysis is the EU grid-based typology. This approach has been preferred to others because eliminates the distortion due to the variation in size of administrative units, and because it is the typology used nowadays by EU countries (Eurostat, 2010). Albania and Kosovo are a candidate and a potential candidate country, respectively. Therefore, such analysis is also useful to strengthen the compliance of the two countries with EU standards, in terms of data availability and data comparability. However, the aim of this analysis is not to apply the new EU degree of urbanisation (DEGURBA) classification to the statistical regions of Albania and Kosovo, which could be a future phase of the analysis. Instead, the aim is here to identify the urban population through the concept of "urban cluster" developed within the EU grid-based typology, and to compare the outcomes with the share obtained using the administrative definition, at national and regional levels.

A second objective of this study is to underline how is important to derive from a population and housing census a reliable and up-to-date classification of urban and rural population for the construction/update of the master sample frame used in statistical surveys, where urban and rural variables play an important role in terms of data representativeness and quality. The master sampling frame usually used in Albania and Kosovo, and in many other countries, is the list of the Enumeration Areas (EAs) covering the whole country. Each EA is classified as urban or rural according to the administrative classification of the area where such EA is located. Therefore, EAs clearly located in areas with urban characteristics may be classified as rural, and vice versa. Consequently, since sampling procedures for statistical surveys include generally strata on

urban/rural characteristics, survey outcomes may present relevant limits in terms of quality and representativeness, as far as the urban/rural classification is concerned.

The methodology of this study is organised into four subsequent phases: i) analysis and comparison of definitions and classifications of urban and rural populations, as used in the two countries for the 2010 census round; ii) definition of the 1 km² grid-based urban population in the two countries, and generation of a grid covering the entire territory of the country; iii) aggregation of the census population into grid cells on the basis of the place of residence of the enumerated population, and implementation of a grid-based dataset of census data organised in a Geographic Information System (GIS) environment; iv) definition of the urban population based on non-administrative criteria and comparison with the disseminated census results of the 2011 Albanian and Kosovo censuses.

Data, materials, and coverage

This study make use of aggregated census data disseminated by the national Institute of Statistics of Albania and Kosovo, as a result of the 2011 population and housing censuses conducted in April and October 2011, respectively (INSTAT, 2012) (ASK, 2012). Moreover, georeferenced micro census data at building level was used to develop a grid-based dataset containing census data georeferenced to the 1 km²-population grid. The results of this study are presented at National level for both countries, and at Qarks/Prefectures level for Albania. In Kosovo, population data for the municipalities of Leposaviq, Zubin Potok, Zveçan and North Mitrovica are estimated figures based on a field count conducted at household level in 2008 and 2009 (ASK, 2013).

The population grids and thematic maps presented in this paper for both countries have been created with the GIS software Esri ArcGIS version 10. The analysis presented in the following chapters was possible thanks to the availability of comprehensive census geodatabases in GIS format developed at INSTAT and ASK for the preparation and implementation of the 2011 population and housing censuses. The geodatabases were developed in both countries at building level during the census preparatory activities, and populated with census data during the post-enumeration phase. Each building had assigned a unique ID code within EAs. The census geodatabases were implemented largely in line with European and International standards (EC, 2007) (UNSD, 2009).

Urban and rural population in Albania and Kosovo defined and classified according to administrative criteria[5]

At the time of the 2011 population and housing census, Albania was administratively divided into 12 regions named Qarks or Prefectures, 308 communes, and 65 municipalities named also Local Government Units (LGUs)[6]. LGUs were composed, and are still formed, of 74 cities and 2,972 villages. The urban areas in Albania are defined by the law and are included in the territory of 74 cities, while the 2,972 villages are classified by the law as rural areas. The Albanian legislation does not provide other criteria on how to define a city and/or an urban area, for statistical and non-

[5] The administrative division of Albania and Kosovo presented here refer to the administrative structure in force at the time of the 2011 censuses. However, the normative changes occurred in both countries after 2011 do not affect the definitions and classifications on urban and rural areas, which are nowadays the same as it was in 2011.

[6] In July 2014, the Parliament of the Republic of Albania approved a new law "On the territorial and administrative division of local government units in the Republic of Albania". LGUs are now 61.

statistical purposes. Some cities are of a very small size. The census EAs were demarcated and classified as urban or rural on the basis of such criteria. The census results showed that the urban population in 2011 was 47.7% and the rural population was 52.3% of the total population. The table below shows the percentages of urban and rural population by Quark/Prefecture. These units could be compared to EU NUTS3 regions (Table 1).

Table 1. Percentages of urban and rural population in Albania, according to administrative criteria, by Quark

Quark/Prefecture		Total Population	
		Urban %	Rural %
1	Berat	43.3	56.7
2	Dibër	25.4	74.6
3	Durrës	56.6	43.4
4	Elbasan	37.8	62.2
5	Fier	36.1	63.9
6	Gjirokastër	49.5	50.5
7	Korçë	39.7	60.3
8	Kukës	31.3	68.7
9	Lezhë	36.9	63.1
10	Shkodër	42.0	58.0
11	Tiranë	63.2	36.8
12	Vlorë	58.9	41.1
	Albania	47.7	52.3

Source: 2011 Population and housing census of Albania

In 2011, the territory of Kosovo was organised in 37 municipalities and 1,467 Settlements. Urban areas were defined as urban or rural by administrative decisions. An urban area is defined as "an urbanized geographical area - defined at settlement level - characterized by higher population density and vast human features in comparison to surrounding areas". Rural areas are "not urbanized geographical area - defined at settlement level - characterized by lower population density, and typically where most of the land is devoted to agriculture in comparison to surrounding areas". The settlements classified as rural are 39, while 1,430 are classified as rural areas. For the 2011 census, the EAs composing the settlements were classified as urban or rural based on the classification of the settlement as urban or rural settlements. Census results were disseminated

Table 2. Percentages of urban and rural population in Kosovo, according to administrative criteria, by Municipality[1]

Municipality		Total Population		Municipality		Total Population	
		Urban %	Rural %			Urban %	Rural %
01	Deçan	9.5	90,5	20	Prizren	53.2	46,8
02	Gjakovë	43.2	56,8	21	Skenderaj	13.0	87
03	Gllogoc	10.5	89,5	22	Shtime	26.6	73,4
04	Gjilan	60.1	39,9	23	Shtërpcë	18.2	81,8
05	Dragash	3.2	96,8	24	Suharekë	17.5	82,5
06	Istog	13.0	87.0	25	Ferizaj	39.2	60,8
07	Kaçanik	31.1	68,9	26	Viti	10.5	89,5
08	Klinë	15.3	84,7	27	Vushtrri	39.0	61
09	Fushë Kosovë	53.2	46,8	28	Zubin Potok	26.1	73,9
10	Kamenicë	20.3	79,7	29	Zveçan	17.3	82,7
11	Mitrovicë	69.4	30,6	30	Malishevë	6.2	93,8
12	Leposaviq	40.0	60.0	31	Junik	0.0	100
13	Lipjan	11.9	88,1	32	Mamushë	0.0	100
14	Novobërdë	0.0	100	33	Hani i Elezit	0.0	100
15	Obiliq	31.9	68,1	34	Graçanicë	0.0	100
16	Rahovec	28.3	71,7	35	Ranillugë	0.0	100
17	Pejë	50.8	49,2	36	Partesh	0.0	100
18	Podujevë	26.5	73,5	37	Kllokot	0.0	100
19	Prishtinë	81.3	18,7		Kosovo	38,3	61,7

Source: 2011 Population and housing census of Kosovo

[1] Data for the municipalities of Leposaviq, Zubin Potok, Zveçan and data for north Mitrovica are estimates.

according to such classifications, and showed that the urban population was equal to 38%, and the rural population 62%. Table 2 shows the percentages of the urban and rural population at municipality level, which could be compared to EU LAU2 units.

Urban and rural population in Albania and Kosovo defined and classified according to the EU 1 km² grid approach

The first phase for the definition of the grid-based urban population, was the generation of a 1 km² grid covering the entire territory of the countries. The GIS polygon layers representing the inhabited buildings in both countries, were transformed from the coordinated system UTM WGS84 into the ETRS89-LAEA system, and the polygons where converted into centroids to create point layers of buildings.

Figure 1. Population grid of Albania

The grid was generated in vector format (polygon), with a "bottom-up" method (EFGS, 2012). A table of attributes was also generated with a unique ID for each cell. The total number of grid cells was 29,197 for Albania (Figure 1.) and 11,342 for Kosovo.

In the second phase, INSTAT and ASK created a population grid using georeferenced micro census data associated to building centroids, obtained through GIS functions[7]. Indeed, by intersecting the grid polygon layers with the point layers of the building centroids, a new GIS layer was generated, containing both geometries and attributes of the source layers. In Albania, the number of

[7] A tool for ArcGIS version 10 was developed by EFGS with the support of Eurostat in compliance with INSPIRE specifications for European grids, http://www.efgs.info/data/eurogrid/eurostat-grid-generation-tool-for-arcgis/view. The population grids are based on ETRS89 Lambert Azimuthal Equal Area coordinate reference system.

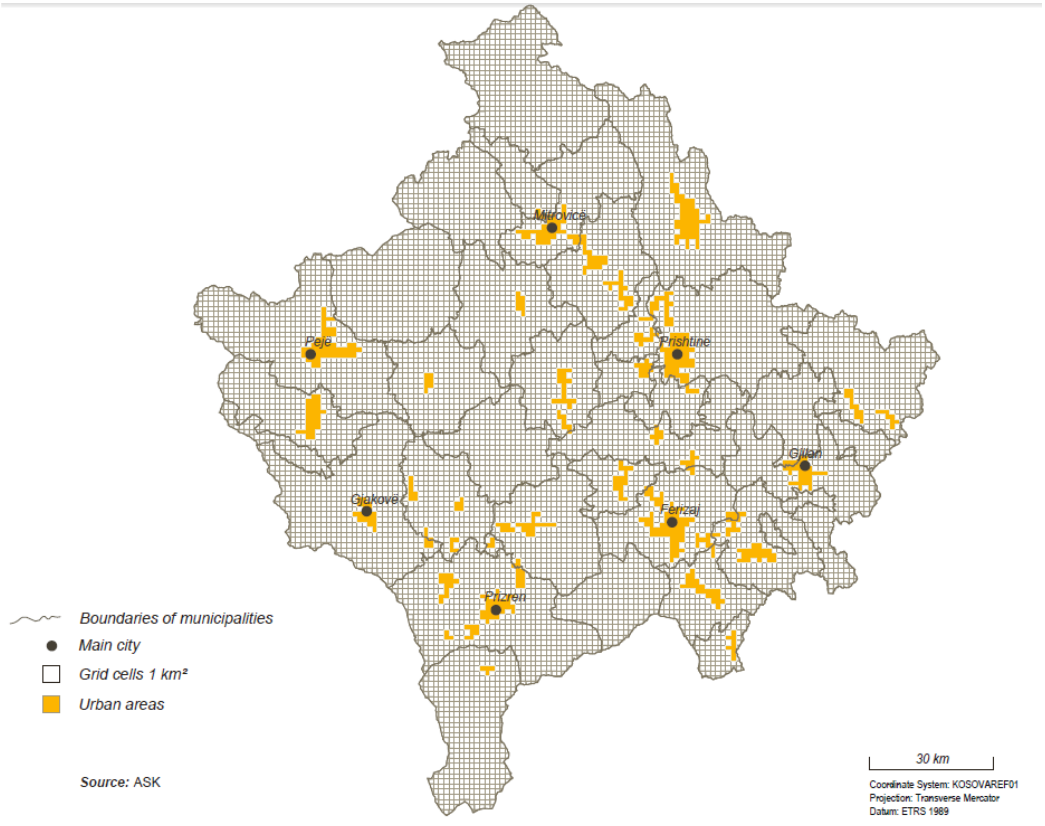
grid cells with resident population was 12,155, while the number of cells without population was 17,042 (including cells with no residential building or buildings not occupied by households). In Kosovo, the total number of cells with one or more inhabitants was 5,616, and 5,726 was the number of cells without population.

With the census data associated to the grid cells, based on the usual residence of the population, it was possible to apply the two basic criteria established by the EU grid-based typology for the identification of the "urban clusters":

1) Single grid cells which contain at least 300 inhabitants (population density of 300 inhabitants per km²), and;
2) Grouped contiguous grid cells with a minimum population of 5,000 inhabitants[8]. The other grid cells are considered as rural.

The GIS software allowed the selection of the grid cells fulfilling both the above-mentioned conditions, and the urban clusters were identified for both countries. Those grouped grid cells demarcated the urban areas. The urban population was identified as the population living in those urban areas. The rural population was defined as the population not living in urban areas defined as described above. The outcome was a total number of 575 groups of contiguous cells with at least 300 inhabitants and a total number of 37 urban clusters in Albania. In Kosovo, the number of identified urban clusters was 41 (Figure 2.).

Figure 2. Urban clusters in Kosovo, 2011

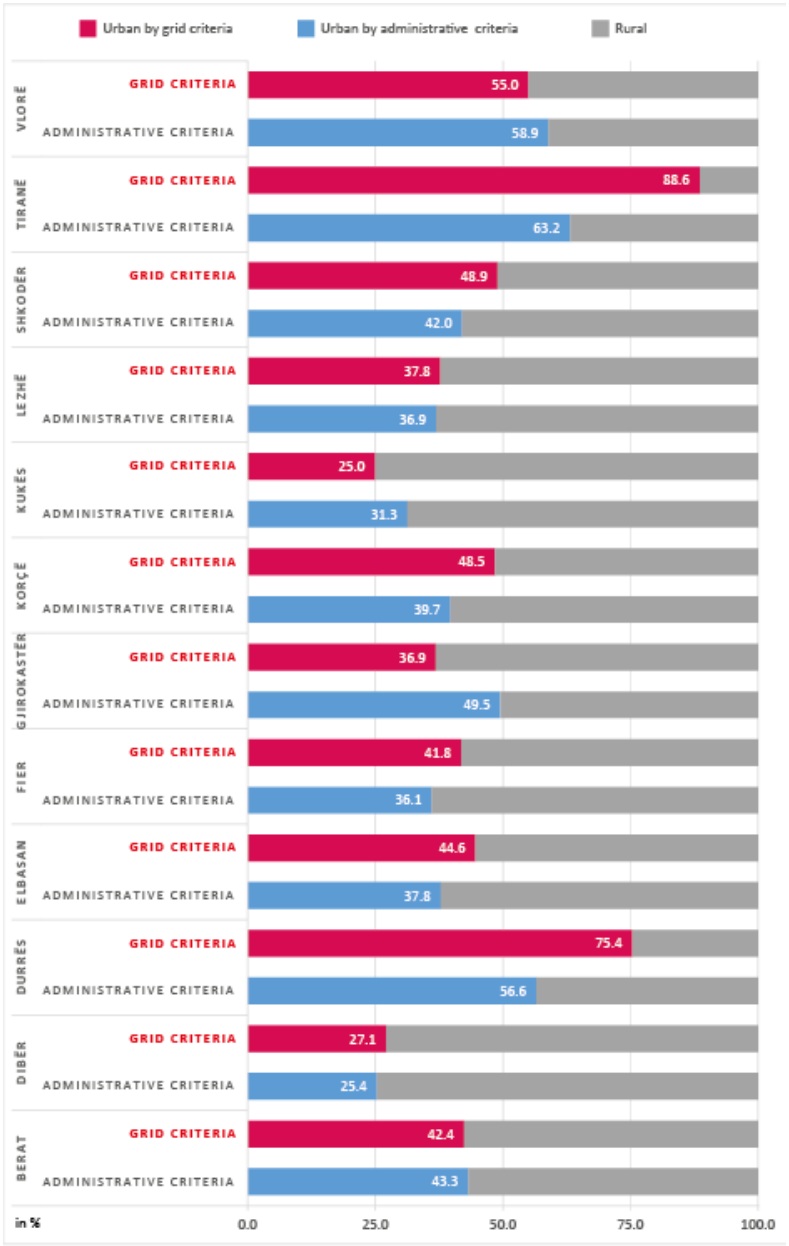


[8] Diagonal contiguity is included. Therefore, contiguous cells with a density of at least 300 inhabitants per km² are included in the urban cluster, even if the contiguity occurs by vertexes.

Results

The main findings of the classification based on the EU grid typology, showed that at the census date in 2011, 58.2% of the Albanian population was living in urban areas, while 41.8 % lived in rural areas. In Kosovo, the census urban population calculated with this methodology was 54.7%, and the rural population equal to 45.3% of the total population. These figures are substantially different from the data obtained taking into consideration the administrative definitions used to disseminate official census results (Table 1. and 2.). In Albania, the analysis was conducted also at regional level, showing significant differences at this level as well (Figure 3.).

Figure 3. Urban population of Albanian regions by grid and administrative criteria, 2011



Source: INSTAT, 2014

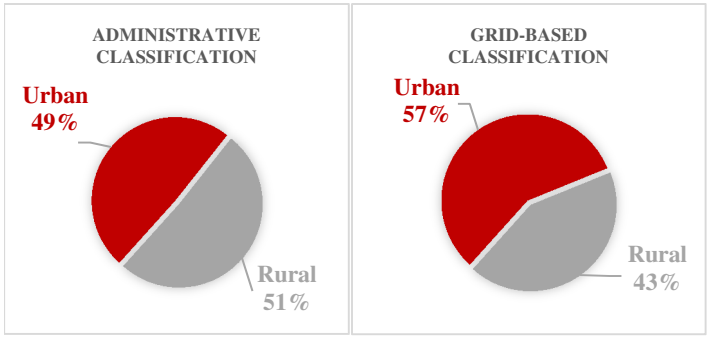
The grid-based approach shows that the percentage of urban population, in comparison to the administrative classification, is particularly higher in the area of Tirana (from 63.2 to 88.6%), and in most of the Quarks/Prefectures, with the exception of Vlore, Kukes, and Girokaster.

The percentages of urban and rural population at regional level, calculated according to the grid typology, allows the definition of the degree or urbanization, which is however outside the scope of the present analysis. What seems relevant to point out here is that different results would have been obtained also to this regard, if the administrative criteria would have been used, because of biased by the size variation of the local administrative units.

Maintaining the analysis within the scope of this study - the definition and classification of urban and rural population - it seems useful to highlight that the EU urban/rural typology shows considerable differences not only on the amounts or on percentages at national and

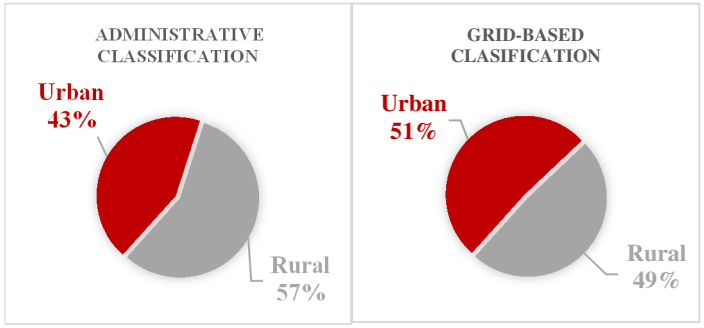
regional/local level. It has effects also on the statistical indicators constructed taking into consideration the urban/rural population shares. For instance, housing policies have generally distinct characteristics for urban and rural areas, and underestimating the amount of housing units in urban areas (or overestimating housing units in rural areas) may hamper planning and interventions. Figures 4. and 5. show different figures for conventional and vacant dwellings in Albania at the 2011 census date.

Figure 4. Percentage of conventional dwellings in Albania by urban/rural, 2011



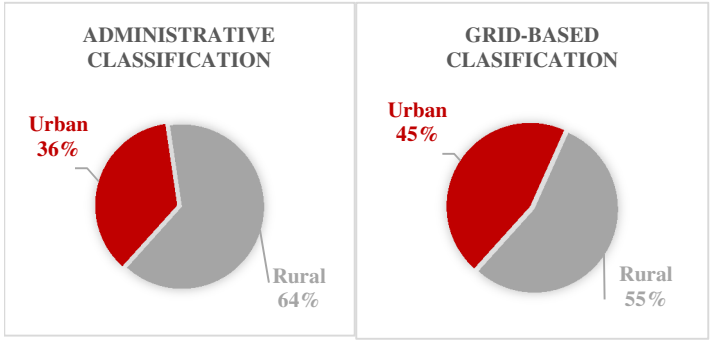
Source: 2011 census, INSTAT

Figure 5. Percentage of vacant dwellings in Albania by urban/rural, 2011



Source: 2011 census, INSTAT

Figure 6. Percentage of illiterates aged 10 years and more in Albania by urban/rural, 2011



Source: 2011 census, INSTAT

A second example is for the percentages of illiterates in urban and rural areas. It may be interesting to measure the gap between the literacy rate or illiterates in urban and rural areas, as an indicator of social equity and development of a country. Moreover, it would be useful to consider the urban share of illiterates as an indicator of progress in the education system of a country, in comparison with the data from the previous census. Figure 6. shows how significant is the difference for this indicator in Albania while considering the official census data, or the data derived from the results of this study.

Indeed, reliable data on urban and rural areas and urban/rural population seems particularly important for a set of key variables and indicators of measurement, including those related to labour statistics. In this sector, employment, unemployment and labour force estimates by rural/urban breakdowns are considered by the International Labour Organization (ILO) of primary importance, and recommended to be analysed (ILO, 2013). The EU degree of urbanisation is nowadays used in EU countries for the Labour Force Surveys (LFS), Surveys on Income and Living Conditions (EU-SILC), and other surveys on education and ICT.

Conclusions

The discussion and analyses presented in this study highlighted some aspects on the issues related to the classification of urban and rural populations for statistical purposes:

- even though no international standard is available, Europe developed a new typology based on a grid system, which is becoming a standard for the EU countries;
- the new principles and recommendations for the 2020 round of population and housing censuses in the UNECE region will probably contain more recommendations for the European countries to improve the urban/rural classification and to consider the concept of degree of urbanisation in their censuses;
- although the dichotomy urban/rural is losing importance because of the complexity of the changes of territory and of the society, the concepts of urban and rural remain largely used, providing differences from a demographic and socioeconomic point of view;
- administrative criteria for the definition and classification of urban/rural areas, like those used in Albania and Kosovo, seems not adequate for a reliable and up-to-date classification of the urban and rural population;
- the EU grid-based typology has the advantages that is not affected by the distortion of the size variation of administrative units, and can facilitate international comparability;
- reliable and up-to-date data on urban/rural areas and population are important for a number of demographic and socio-economic indicators. For instance, employment and unemployment rates, type of work like self-employment, fertility rates, life expectancy, availability of household amenities, level of education, health issues, poverty levels, may all have different patterns in urban and rural areas.

Moreover, urban and rural definitions are not only relevant for the dissemination and analysis of statistical data. They have also particular value in the phase of production of data through sample surveys. If the sample is stratified by urban and rural areas, which are based on an out-of-date classification, the results of the survey may be also affected by errors of small or large extent.

The analysis and findings presented in this paper are based on the data derived from the 2011 population and housing census of Albania and Kosovo, which, like any other major statistical operation, are affected by errors. Therefore, the reported percentages may not reflect exactly the share of urban and rural populations at the time of the censuses in 2011.

As anticipated in the objectives of this paper, this study focused on the identification of urban/rural areas of Albania and Kosovo, by applying the first part of the EU grid based typology. In the next phase, an attempt will be made to define the degree of urbanisation of the statistical regions of those countries. This plan includes also the identification of the cities, as indicated by the EU urban-rural typology. Such investigation at the level of urban areas, is also expected to provide specific tools for the validation of the results obtained in the present study.

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