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THE NATURAL DYNAMICS OF THE RURAL POPULATION IN APUSENI MOUNTAINS (2011 CENSUS)

Mădălin-Sebastian LUNG*
Babeș-Bolyai University, Doctoral School of Geography, Faculty of Geography, 400006, Cluj-Napoca, Romania, e-mail: lungmadalin@yahoo.com

Abstract: The article aims to study the natural dynamics of the rural population in the Apuseni Mountains at the last census in 2011. From the website of the National Institute of Statistics, data were acquired and then processed with the programs Microsoft Excel 2013 and Arc Gis version 10.3. After processing, a series of new data was produced, with graphs and maps being produced. This study showed that the rural population in the Apuseni Mountains is experiencing higher mortality rates than birth rates. Consequently, natural growth has low and rising values for most of rural areas.

Key words: natural dynamics, rural population, Apuseni Mountains,

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INTRODUCTION

The article aims to study the natural dynamics of the population in the rural area of the Apuseni Mountains at the last census in 2011. Three demographic indicators, such as natality, mortality and natural growth, have been taken into account. Their territorial distribution was monitored at the level of the rural population. This article complements another article (Lung and Gligor, 2018), where the natural and migratory dynamics of the urban population of the Apuseni Mountains have been studied. It is necessary to complete the research of this mountainous area started on the urban space, with the extension to the rural space. The Apuseni Mountains spread across six counties (Alba, Arad, Bihor, Cluj, Hunedoara, Sălaj). The rural area consists of 140 territorial-administrative units, which are more or less equally deployed in the territory of the six counties. Rural diversity is given by the geographical positioning of villages at different altitudes, influencing the emergence and diversification of certain forms of settled settlements specific to the Apuseni Mountains. Due to the millenary history of the popularity of these mountains, they have represented and continue to be the subject of study for various scientific fields. Geographically, the Apuseni Mountains have been in the attention of a large number of

* Corresponding Author

researchers who have approached various topics (Arghiuş, 2007; Cocean, 2000; Constantin, 2011; Gaceu and Herman, 2010; Herman and Benchiş, 2017; Ilieş et al., 2010; Tătar and Ganea, 2004; Herman, 2013; Jurca, 1998; Petrea, 2004; Surd et al., 2007; Surd et al., 2017). There have been sociological studies on the Apuseni (Totelecan, 2003; Buțiu, 2004). All these researches encompass the entire area of the Apuseni Mountains or only a part. In other studies, the Apuseni Mountains were included in systems affected by "functional ruptures" (Ianoş, 2004, p. 67) or as a "disadvantaged area" (Cândea et al., 2006, p. 93). Dragan (2011, p. 5) included the Apuseni Mountains "peripheral areas", and Mureşan (2016, p. 171) in the category of "critical regions".

Population, through natural, migratory dynamics and other perspectives, is studied throughout the world, being a subject of research for many scientific fields (Attané and Barbieri, 2009; Barakat, 2015; Dellapergola, 2001; Franke and Kulu, 2018; Jani, 2018; Keating et al., 2011; Stupariu et al., 2018).

METHODOLOGY

Statistical data was used to perform the study. The numerical data of newborns and deaths were procured from the website of the National Institute of Statistics. After obtaining the numerical data, they were processed through Microsoft Excel 2013, which resulted in the demographic indicators analyzed. The values of the obtained rates were introduced in the Arc Gis version 10.3 program, with maps of natality, mortality and natural growth rates in the rural area of the Apuseni Mountains. For 2011, numerical data on demographic evolution were obtained and a chart was produced.

RESULTS AND DISCUSSIONS

NUMERICAL EVOLUTION OF POPULATION

The rural population of the Apuseni Mountains in 2011 was 319,159 inhabitants. The most populous were the Bihor Apuseni with the largest number of communes, 34. Following are the Albei Apuseni, containing 33 communes, but the number of inhabitants visibly smaller than their predecessors. The smallest number of communes have Sălaj Apuseni, which have the lowest number of inhabitants in the five administrative units. The differences of administrative units are not large between the Cluj Apuseni (19), the Hunedoara Apuseni (23) and the Arad Apuseni (26) (figure 1).

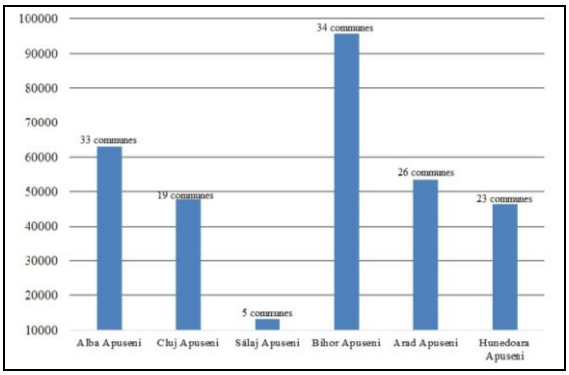

Figure 1. Numerical evolution of the population
(Source: data processed after the NIS)

Also, the demographic population is distributed in parallel with the number of communes without significant values between the three parts.

NUMERICAL EVOLUTION OF NEWBORNS AND BIRTH RATES

In 2011, 2,559 newborns were registered in the rural area of the Apuseni, representing less than 1% (0.8%) of the total rural population and 2.5% of the total urban population. From figure 2 we can see that the largest share of newborns was in the Bihor Apuseni with 896 births (35%). The second weight was 19% in the Alps where 475 were born. The Arad Apuseni and Cluj Apuseni had near 15% (395 births) and 14% (365 births). The last two weights came to the Hunedoarei Apuseni with 11% (270 births) and the lowest share was 6% in the Sălaj Apuseni, where 158 were born. We can say that the distribution of the offspring between the six parts of the Apuseni did not have great values apart from each other, except for the maximum value that visibly detached. Of the Albei Apuseni, the highest number of births in 2011 was in Vinţu de Jos with 51 newborns. On the opposite side, there were two communes of Ocoliş and Ponor where only one child was born on the commune. In the Cluj Apuseni, the largest number of newborns was in Gilau commune (100). It is the maximum recorded in the rural area by a rural administrative unit in 2011. Beliş is placed with the lowest number of births, 5. Vâlcău de Jos from Sălaj Apuseni was ranked first with 42 births, and the lowest value of 22 was in Cizer. In Bihor Apuseni dominated Dobreşti with 79 births, while two communes Şinteu and Carpinet each had five births. Târnova ranked first in the Arad's Apuseni with 65, and Igneşti recorded three newborns. The situation is more balanced in the Hunedoara Apuseni, where the highest values were 28 in Băiţa and Ilia, and the lowest value was in Bulzeştii de Sus with only a newborn in 2011. The difference in the whole rural area between the highest and the lowest is 99 births.

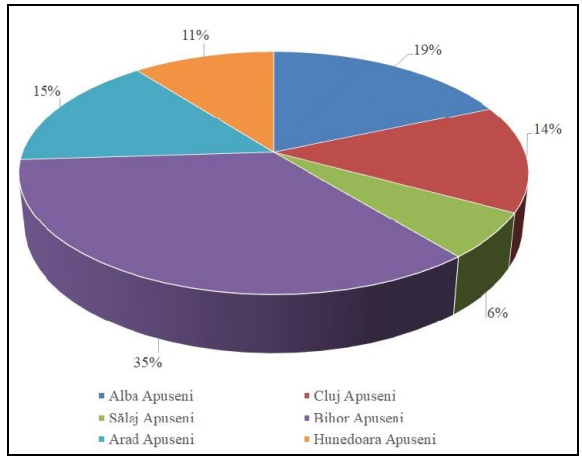

Figure 2. The percentage of the born in the rural area of the Apuseni Mountains (Source: data processed after the NIS)

Rural natality rates in the Apuseni Mountains are not among the highest. On the whole, only three villages have higher rates between 15.1-20 (Lugaşu de Jos 18.4 ‰, Budureasa 15.5 ‰, Conop 15.1 ‰), the first two from the Bihor Apuseni and the last from the Arad Apuseni. 31 communes have birth rates with

values between 1-5 ‰, and the absolute minimum in the whole rural area is 1.6 ‰ in Ocoliș from the Albei Apuseni. 19 administrative units have rates ranging from 10.1 to 15 ‰ and the remaining 87 have rates between 5.1 and 10 ‰. 62.1% of rural space has birth rates between 5.1-10 ‰. These rates are evenly distributed within the Apuseni Mountains, and the highest number of rates between 1-5 ‰ are distributed in the territory of the Arad, Hunedoara and Alba Apuseni (figure 3).

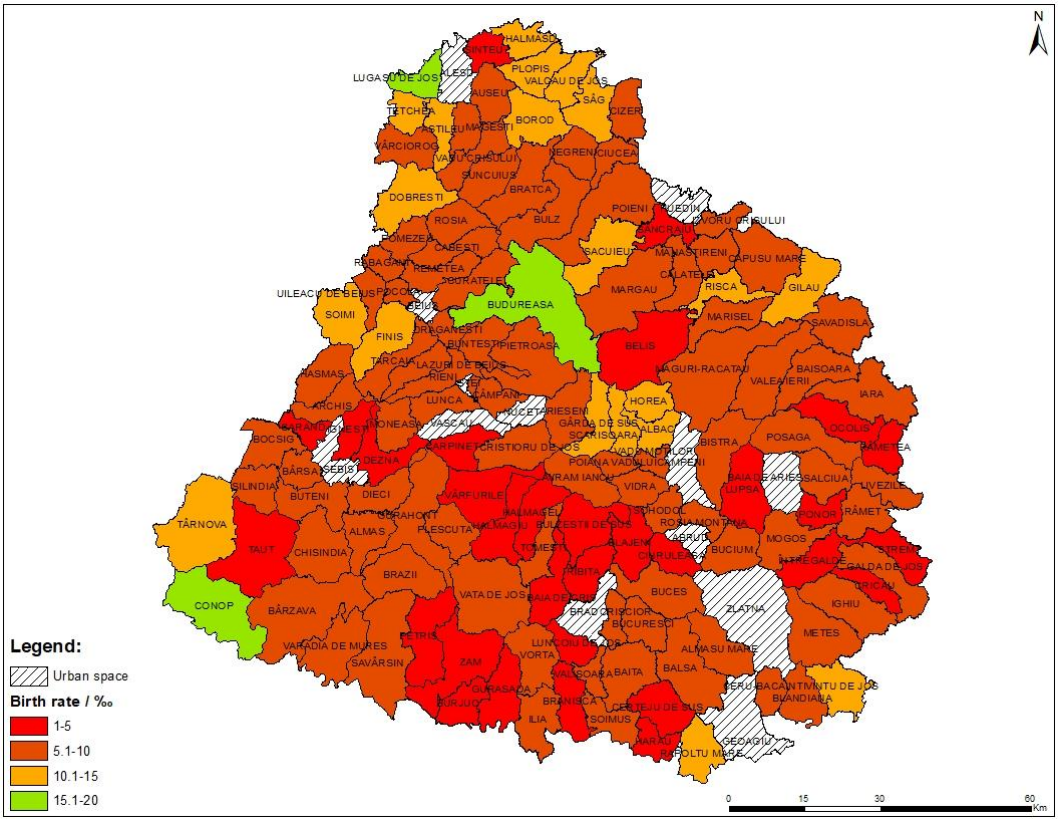

Figure 3. Distribution of birth rates in the rural area of the Apuseni Mountains (Source: data processed after the NIS)

NUMERICAL EVOLUTION OF DEATHS AND MORTALITY RATES

The number of deaths in 2011 was 5,123. In the Bihor Apuseni, most deaths were recorded, reaching 1.440 and a weight of 28%. On the second place were the Albei Apuseni with 982 deaths, followed not far from the Arad Apuseni by 944. There were 807 deaths in the Hunedoarei Apuseni (16%), 778 deaths in the Cluj Apuseni (15%), and the minimum was 172 (3%) in the Sălaj Apuseni (figure 4). In the Albei Apuseni, the highest number of deaths was in Ighiu, where there were 79 deaths. The smallest number was only four deaths in Ceru-Băcănți. There were three more communes that had the number of deceased persons under 10 (Ponor and Blandiana 9, Ocoliș 8). The Cluj Apuseni had the highest value of 83 deaths in Poieni, and the lowest value of 13 in the Iara Valley. The commune of Gilău was very close to maximum, registering 82 deaths. In the village of Sâg the number of deceased persons was 48, representing the highest number of Sălaj Apuseni. In Plopiș the minimum was

23. The maximum in the Bihor Apuseni, but also in the entire rural area of the Apuseni Mountains was in Bratca with 85 deaths. In Şinteu there were only 17 deaths. Târnova ranked first with the most deaths in the Arad Apuseni with 77. Ignesti was the only commune in this territory that had less than ten deaths, 8. From Hunedoara Apuseni, Băiţa was the one who had 70 deceased people. There were two small values below 10 in the commune of Ribiţa with 7 deaths and the lowest in Bulzeştii de Sus with only three deaths. The difference between the highest and the smallest value of people leaving the system was 82.

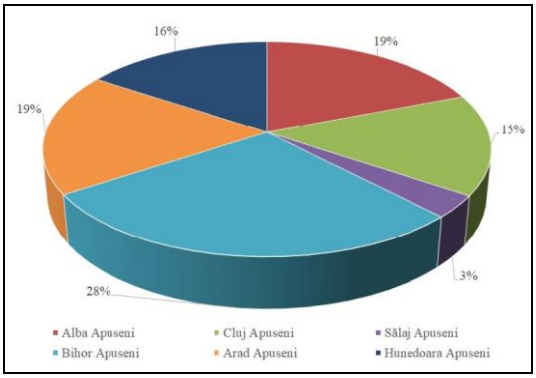

Figure 4. The percentage of deaths in the rural area of the Apuseni Mountains
(Source: data processed after the NIS)

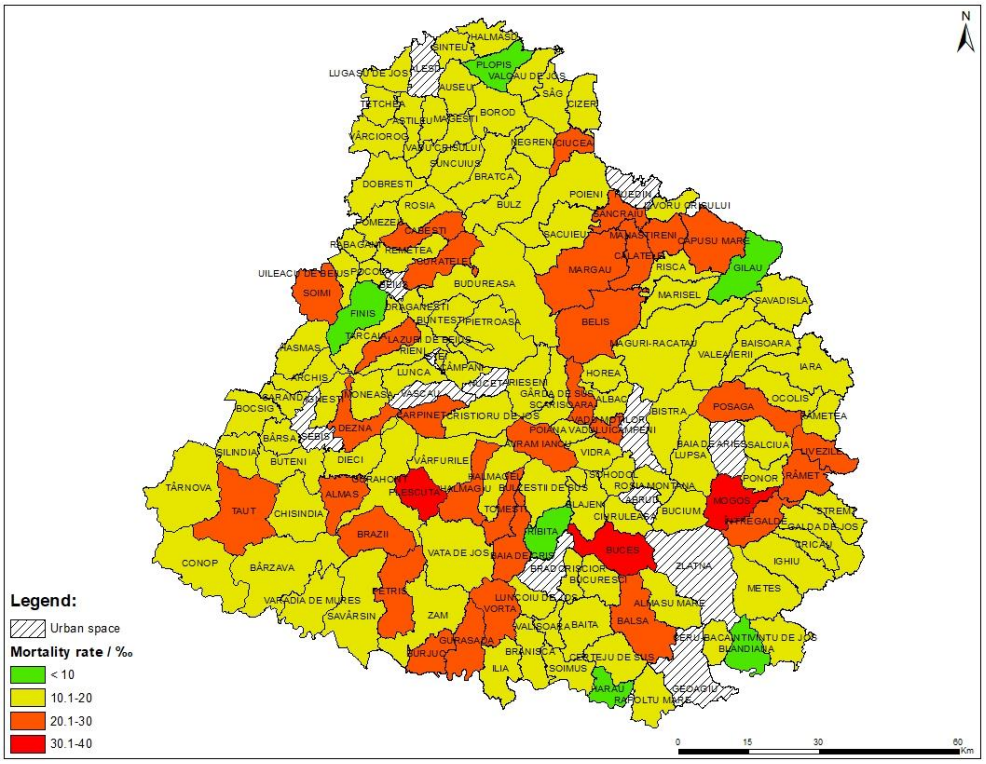

Figure 5. Distribution of mortality rates in the rural area of the Apuseni Mountains
(Source: data processed after the NIS)

Mortality rates are dominated by values ranging from 10.1 to 20 ‰, comprising 101 communities with a 72% share. These values are spread across the entire rural area of the Apuseni Mountains. The values of rates ranging from 20.1 to 30 ‰ are the most abundant ones, accounting for 30 administrative units with a weight of 22%. The Sălaj Apuseni are the only ones where there is no mortality rate higher than 20.1 ‰. The smallest mortality rates below <10 have been recorded in six communes (Ribița 5.2‰, Hărău 5.4‰, Finiș 9.2‰, Plopiș 9.6‰, Blandiana 9.8‰, Gilău 9.9‰) with a weight of 6%. The minimum mortality rate in the entire rural area of the Apuseni Mountains was recorded in the Apuseni Mountains (Ribița commune). Maximum mortality rates were in three communes, where rates were between 30.1-40 ‰. However, the weight of these extreme values is only 2%. The highest rate of 30.6 ‰ was in Buceş commune in Hunedoara Apuseni, followed by Pleşcuța commune from Aradului Apuseni with a rate of 30.4 ‰ and Mogoş commune from Albei Apuseni at a rate of 30.1 ‰ (figure 5).

DISTRIBUTION OF NATURAL GROWTH RATES

Natural growth is a demographic indicator of great importance because it is the difference between system inputs and outputs in the system. The rural population of the Apuseni Mountains registered low values of the natural increase in the 2011 census.

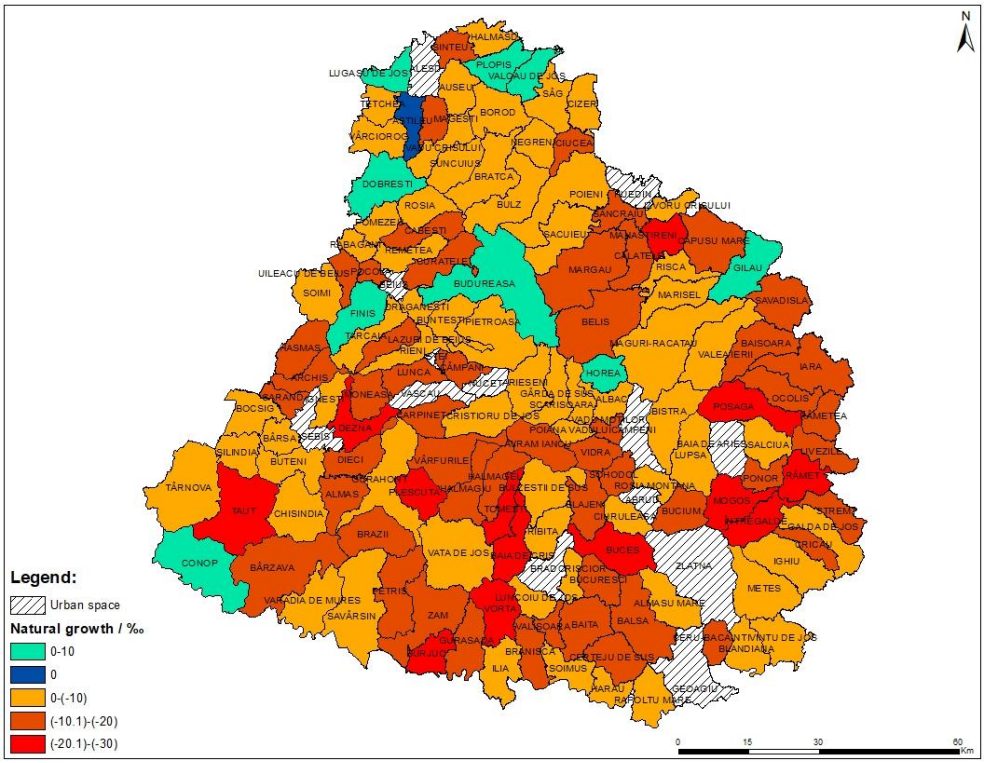

Figure 6. Distribution of natural growth in the rural area of the Apuseni Mountains
(Source: data processed after the NIS)

Only 7.1% of rural space had positive or stagnant levels of natural growth. Only nine administrative units (Horea 0.5‰, Conop 0.9‰, Gilău 2.2‰,

Budureasa 2.3‰, Dobreşti 2.7‰, Vâlcău de Jos 2.8‰, Plopiş 3.3‰, Finiş 5.2‰, Lugaşu de Jos 7.8‰) had positive natural growth. Most rates are between 0-(-10) totaling 66 communes and a weight of 47%. There are rates between (-10.1)-(-20) that comprise 51 communes with a weight of 37%. There are 13 administrative units that recorded values of the natural increase between (-20.1)-(-30). So they are: Pleşcuţa -20.5‰, Mănăstireni -20.9‰, Tomeşti -21.4‰, Vorţa -21.7‰, Baia de Criş -21.8‰, Întregalde -22.5‰, Poşaga -22.9‰, Tăuţ -23‰, Buceş -23.5‰, Burjuc -24.1‰, Râmeţ -24.4‰, Mogoş -24.6‰, Dezna -25.9‰). In the 13 communes, natural growth shows the lowest values in the entire rural area of the Apuseni Mountains. They are confronted with an offensive depopulation phenomenon. The number of births is considerably lower than the number of deaths. The most balanced community is Aştileu, which had in 2011 a total of 40 births and 40 deaths, which placed it as the only commune in the Apuseni Mountains with the value of natural growth 0 (figure 6).

CONCLUSIONS

The rural population in the Apuseni Mountains is in a continuous dynamic. Unfortunately, system exits are higher than system entries, so mortality is higher than birth rates. As a result of the decrease of the two indicators, negative natural increase resulted for 130 administrative units, for 9 natural positive natural spores and one common with spor. We can say that the rural population is constantly decreasing, which requires the continuity of the demographic risk phenomena. The depopulation of rural areas is increasing, which leads to the raising of the negative values of natural growth.

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GEOGRAPHICAL ASPECTS OF SPACE-TIME EVOLUTION OF INDEPENDENT STATES

Grigore Vasile HERMAN*
University of Oradea, Department of Geography, Tourism and Territorial Planning, 1 University St., 410087 Oradea, Romania, e-mail: grigoreherman@yahoo.com

Vasile GRAMA
University of Oradea, Department of Geography, Tourism and Territorial Planning, 1 University St., 410087 Oradea, Romania, e-mail: vasile.grama2014@gmail.com

Abstract: This study aims to analyze the space-time evolution of independent states as a support for the assertion of regionalization as an integral part of the larger phenomenon called globalization. In this context, the results obtained aim to highlight the role and importance of proclaiming and asserting independent states in shaping regionalization.

Key words: sovereignty, independence, national state, regionalization, globalization

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INTRODUCTION

The system of international relations is defined by the total relations between the actors of the international market, represented by the national states, the organizational relations between them (regional and international), the multinational companies, the terrorist groups, the mafia organizations etc. All these components (subsystems) are an integral part of the complex system of globalization, each of them has its own life cycle marked by the following stages: birth, space-time evolution, apogee and decline (Herman et al., 2017).

States are functional and organizational units that have been imposed in a certain place at some time on the background of technological advances made by human society, with a direct effect on the diversification of production forces, the emergence of social classes, economic development and the spirituality of humanity. Just as globalization is self-imposed due to economic, social, political and cultural progress, the state has also imposed itself as a form of organizing human society, following other forms of inferior organization such as gens and the tribe. Gens was a community of people based on blood relativity, being the main form of public organization in the primitive age. The tribe was a form of primitive economic and social-political organization, consisting of a group of

* Corresponding Author

several gentes or related families, having common tongue and beliefs, living the same territory and subjecting the authority of an elected leader. So the state is a superstructural institution, a main instrument of political and administrative organization through which social system functionality is exercised and relations between people are regulated; the territory and population over which this organization exercises its authority.

National states are independent political units that "occupy a well-defined, permanently populated territory with total sovereignty over its internal and external affairs" (Bodocan, 1997, p. 58 quoted by Ilieş, 2006, p. 31). The main defining features that "individualize, outline and consolidate" the state as a form of political organization are: the existence of a clearly defined territory, a form of governance characterized by order and hierarchy, and a permanent population (Ilieş, 2006, p. 31-32). The motives that train and fuel the proclamation and affirmation of state independence (obtaining state independence) are economic, social, political etc. The idea of territorial separation and the proclamation of the independence and sovereignty of some territories comes in consolidating and affirming the concept of regionalization. It should be noted that ”globalisation and regionalization are two complementary concepts that can not exist independently. Both concepts reflect an economical, political, social and cultural phenomenon” (Herman et al., 2016a, p. 50) which have the whole terrestrial globe as coverage (Baylis and Smith, 2001; Held et al., 1999; Holm and Sorensen, 1995; Lechner, 2009; Indra, 2016; Rodhan, 2006; etc.), respective parts thereof (Clark, 1997; Ghena, 2015; Indra, 2016; Kacowicz, 1999; Grama, 2011 etc.). In this context, we can emphasize that the proclamation and affirmation of the independence and sovereignty of national states contributes to the assertion of regionalization as an integral part of globalization. In this context, the present study aims to emphasize the role of national states ”in strengthening the concepts of globalization / regionalization as distinct and complementary at the same time” (Herman et al., 2016a, p. 50).

WORKING METHODOLOGY

From a methodological point of view, the present study aimed at analyzing the evolution in time and space of the states that have gained their independence. The temporal analysis focused on the evolution of the number of independent states at the level of the century or decade, while the spatial analysis focused on the distribution of independent states at the continent and globe. The database was composed of textual information (continental names, hydronimes etc.), graphs (shapefiles, graphs) and numerals (Buhaş et al., 2017; Herman et al., 2016a, 2016b; Ilieş et al., 2014, 2016, 2017; Tofan et al., 2016, Tofan and Niță, 2017). In the 4 analytical maps on the space-time distribution of the states that have gained their independence, the "World Topographic map" was used as a background, over which there were overlapping textual, numerical and patternfild information and polygon) (figures 1-4). Their processing was done in ArcMap Version 10.6.

RESULTS AND DISCUSSIONS

Currently, according to the Information and Research Office of the "U.S. Department of State, Diplomacy in Action" there are 195 sovereign [1] and

[1] *http://www.state.gov/s/inr/rls/4250.htm*

independent states and 66 dependent territories globally. [2] Sovereignty is an inherent, indelible and indivisible attribute of the state, which consists in the supremacy of state power within its borders and in its independence in relations with other states. Independence is a "situation of a state or people enjoying national sovereignty; a state of affiliation and the right to freely resolve its internal and external problems without interference from the outside (with respect for the rights of other states and the principles of international law).

The analysis of the world states reveals that most of them have won and proclaimed state independence as a result of bloody events. An argument in this respect is also the situation of Romania, which won and proclaimed its independence in 1877, following the Russian-Turkish conflict.

Thus, the formation of states and the gaining of their independence was a long-lasting process that began in the 13th century and has not ended yet (figure 2). The analysis of the evolution of the number of states that have gained independence reveals that this phenomenon had an upward trend over time, with nine moments of maximum intensity, overlapping over the 19th-20th centuries (figure 2).

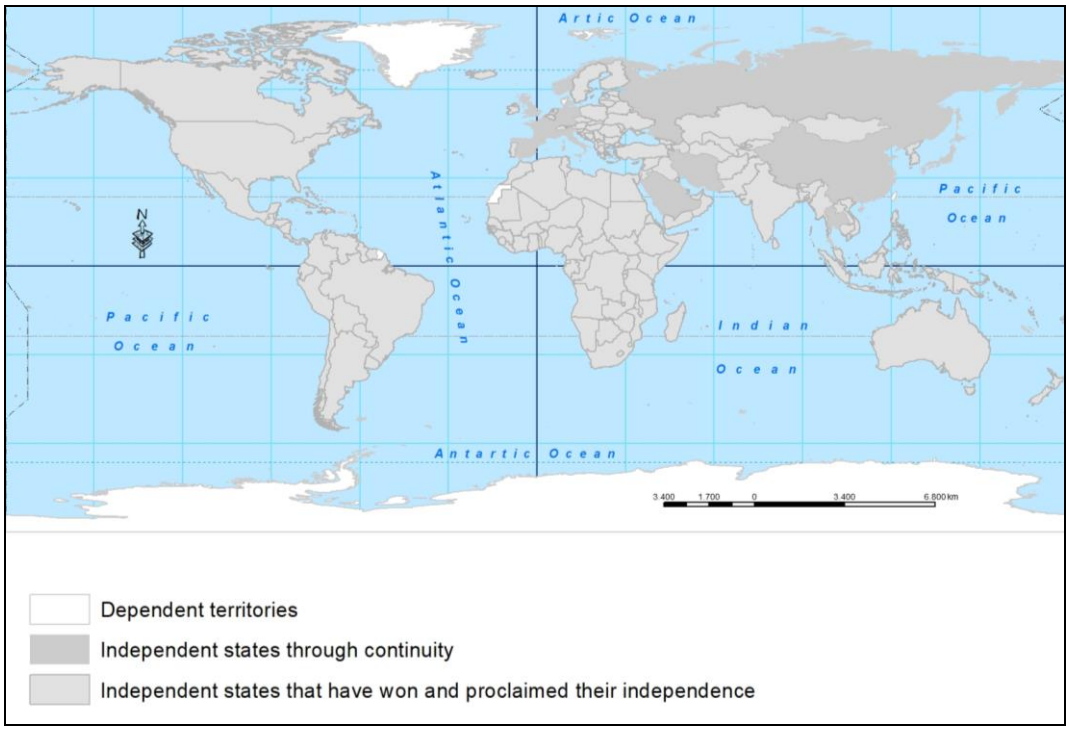

Figure 1. Spatial distribution of the world states

Thanks to the extent to which the phenomenon of the consciousness of national states was known in the 20th century, it can be called the century of nations. The evolution of the way in which the nation states appeared in the 20th century is closely linked to the main events that have shaken the system of international relations, the two world wars between 1914-1918 and 1939-1945

[2] *http://www.state.gov/s/inr/rls/10543.htm*

respectively. Although the trend presents an upward trend may be given to the seventh decade of the 20th century, when 45 states have gained their independence (figure 2).

The analysis of the independent states highlights the existence of two categories of states, namely: independent states through continuity and independent states that have won and proclaimed their independence in the context of events in a favorable context. In the first category are the successor states of the old state formations, which are characterized by a relatively advanced age and continuity in time. In the other category, that is, the states that have gained independence belong to the young states that have detached from the old state formations following historical events that created an international context favorable to the declaration of state independence and sovereignty. From a numerical point of view, the higher share of states that have gained their independence is the ratio of 178 states that have gained independence, compared to only 17 independent states through continuity (figure 1).

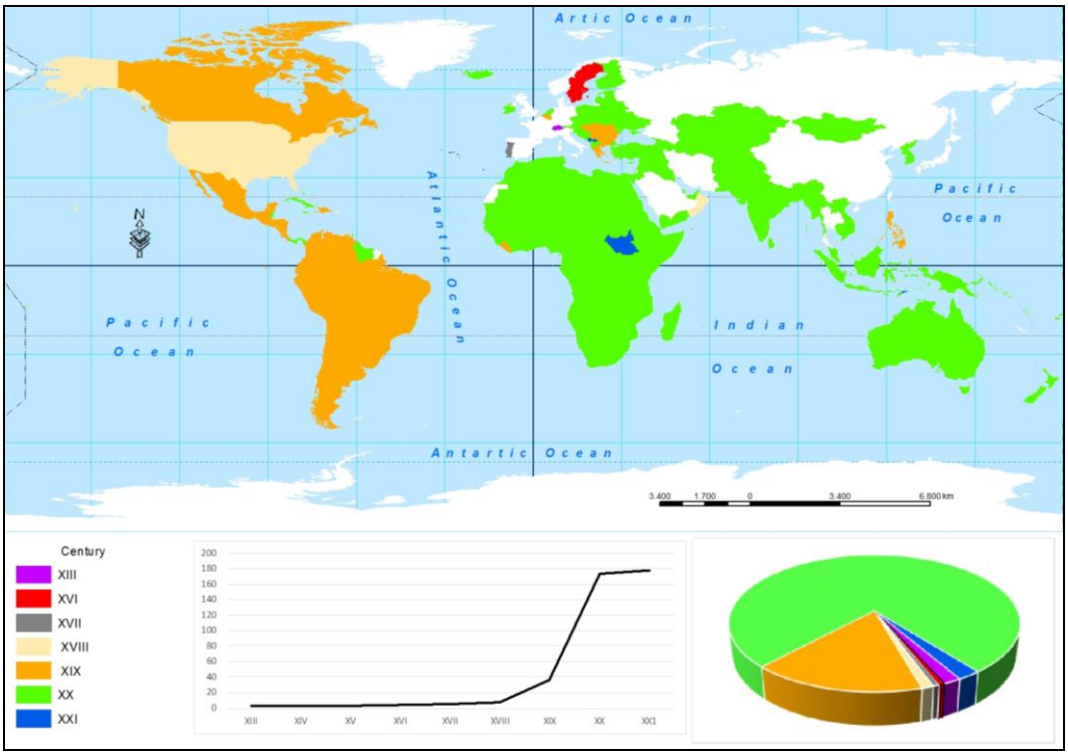

Figure 2. Space-time division of states that have gained their independence

The spatial distribution of the independent states of the world reveals that they have a global character, being extended to the entire earth globe. From the analysis of the spatial distribution of the independent states, it is clear that the independent ones by continuity are located in the Euro-Asia, being the successors of the old empires, while the states that have gained their independence are located everywhere and they are separated from the structure

of the old state empire formations or emancipating themselves from their influence, domination and suzerainty (figure 1).

Forming national states and winning their state independence has been and is a slow, long-lasting process that contributes to building and strengthening globalization. The analysis of the 19th century - in the light of this aspect, reveals that this century was a century of nationalism for the American continent, and now 19 states were proclaiming their independence, except for the US that proclaimed independence on July 4, 1977.

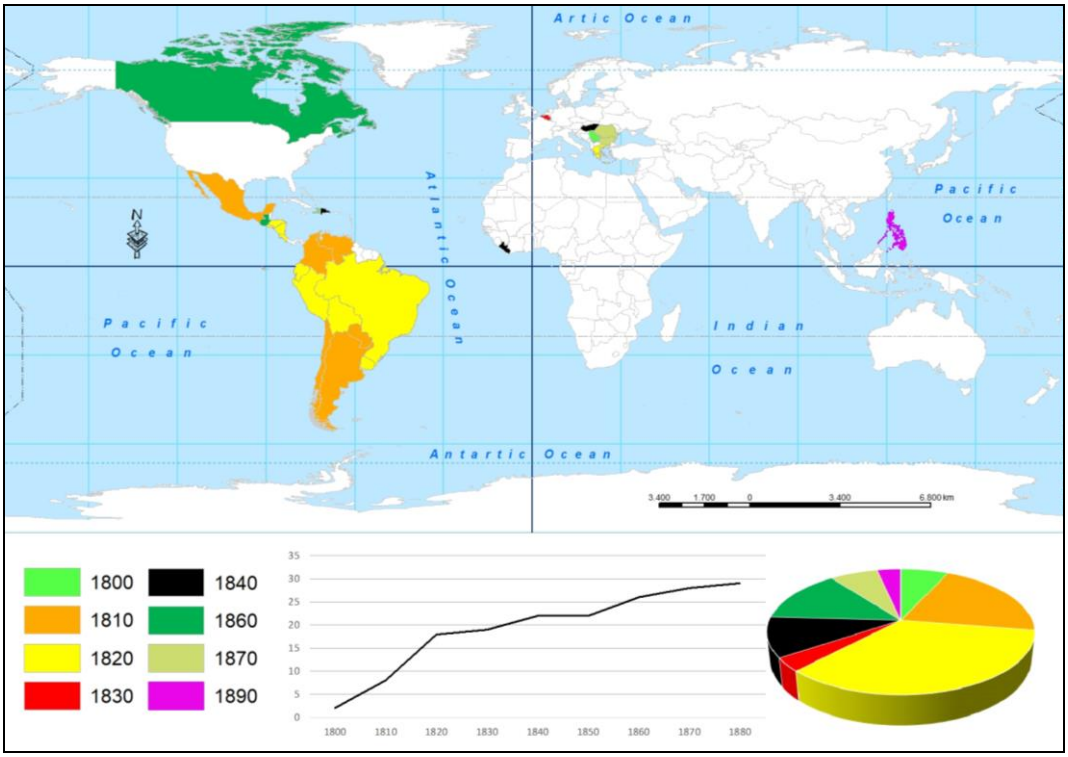

Figure 3. Space-time division of states that have gained independence in the 19th century

Eight states in Europe (Serbia, Greece, Belgium, Hungary, Romania, Bulgaria, Luxembourg, Liechtenstein), one in Africa (Liberia) and one Pacific island state (Philippines) have also proclaimed their independence in this century. The evolution of the number of states that gained their independence in the 19th century was relatively constant with two thresholds, discontinuities imposed by the second and third decades, when six and eleven states were declared independence (figure 3).

The 20th century, also called the century of great world conflagrations or the century of nationalities, was a decisive one in imposing national states in the world. The continents marked by the storm of nationalism were: Africa, Europe, Asia and Australia and Central and South America (figure 4). If in the first decades of the 20th century nationalism manifested itself shyly, now proclaiming its independence a number of 13 states in Europe, Asia and Australia, after the Second World War, from the four and five decades this activity intensifies, the seventh decade, also called the decade of nationalities

when 45 States, predominantly from Africa (figure 4), proclaimed their independence. In total, 138 states have proclaimed their independence in the 20th century, representing 77% of the total number of states that have proclaimed state independence over time.

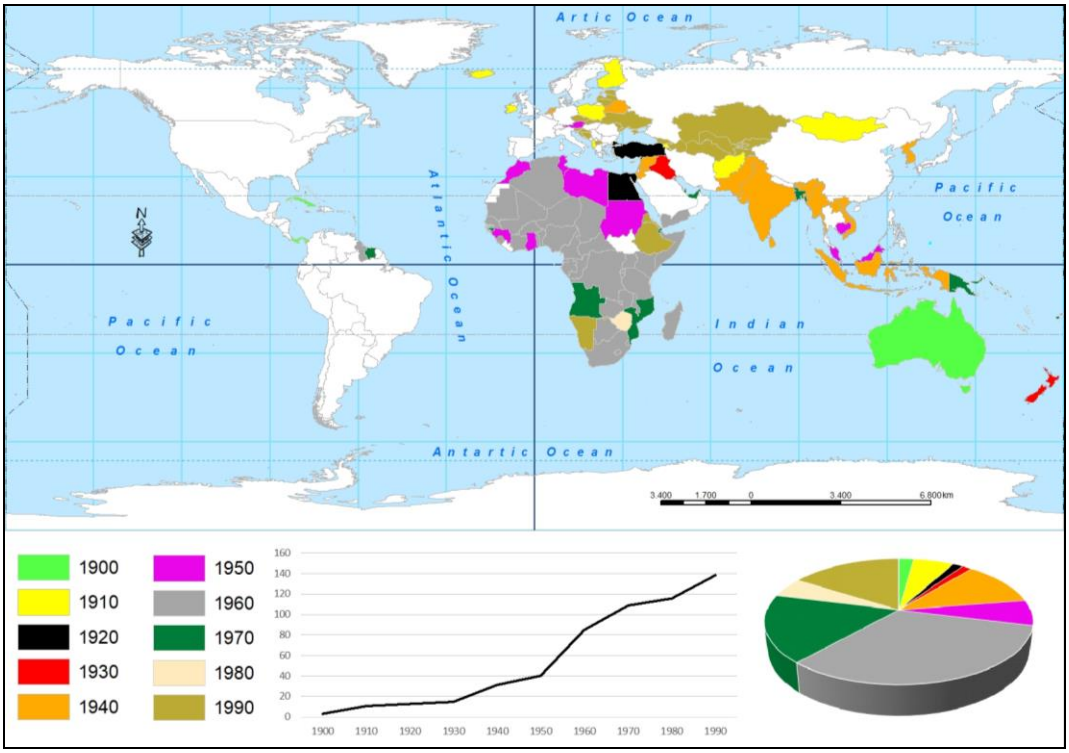

Figure 4. The space-time division of states
that have gained their independence in the 20th century

In the 21st century, four states, two of them in Europe (Montenegro - 2006 and Kosovo - 2008), one in Asia (East Timor - 2002) and the other in Africa (South Sudan, 2011) proclaimed the independence and sovereignty of four states.

CONCLUSIONS

National states, by way of space-time manifestation, are a major component of globalization, alongside organizational relationships, multinational companies, terrorist groups and mafia organizations, etc.). Within them, the man, through everything he defines, was and is the main beneficiary and determinant in the evolution and substantiation of the concepts of regionalization, respectively globalization.

From the space-time analysis of the evolution of states that have gained independence, it is clear that this phenomenon is not a recent date, dating back to the 13th century and still far from being completed. Arguments in this sense are the centrifugal events of the last period of time, among which are those that happened in 2017 in Catalonia, Spain.

Catalonia is considered part of a group of regions, "stateless nations" (Conversi, 1997; Gibernau, 2006), "imagined communities" (Anderson, 1991) or "virtual nations" (Tubau, 1999) such as Flanders, Quebec, and Scotland, that have a strongsense of identity

In recent years the Catalan nationalist government has stepped up his self-determination claims with the announcement of plebiscite in the regions. These claims for self-determination can be seen as the next stage in the evolution of the regionally defined decentralization. From a Catalan nationalist perspective, the current political organization of Spain insufficiently recognizes the distinct historical and cultural rights of its nation, now that their treatment has again become similar to that of other Spanish regions. Opponents interpret the self-determination and independence claims as a manipulation by nationalist elites of their clienteles in support of their own particular ambitions (Oskam, 2014).

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THE APPEARANCE OF BROWNFIELD AND GREENFIELD DEVELOPMENTS IN THE INTEGRATED URBAN DEVEVELOPMENT STRATEGIES OF THE NORTHERN HUNGARY (HUNGARY)

Marianna MARINCSÁK*
PhD candidate, University of Debrecen, Faculty of Science and Technology, Department of Social Geography and Regional Development Planning, Egyetem square 1, 4032 Debrecen, Hungary,
e-mail: marincsakm@gmail.com

Gábor KOZMA
Associate Professor, University of Debrecen, Faculty of Science and Technology, Department of Social Geography and Regional Development Planning, Egyetem square 1, 4032 Debrecen, Hungary,
e-mail: kozma.gabor@science.unideb.hu

Abstract: In the spirit of environmentally friendly urban development, which has gained importance in recent years, increasing attention has been devoted to the status of brownfields, i.e. areas within the internal parts of settlements that had lost their previous functions. This problem appears with particularly acuteness in Hungary's Észak-Magyarország (Northern Hungary) region, which was one of the most important zones of heavy industry in the country in the period between 1945 and 1990, and as a result, it had numerous and extensive brownfield areas after the political transformation. With a view to the above, the purpose of this study is the analysis of the Integrated Urban Development Strategies prepared by the cities in the region, the presentation of the concepts formulated in these documents in connection with the brownfield areas, and the exploration of the differences between the potential opportunities of use.

Key words: brownfield developments, Northern Hungary, Integrated Urban Development Strategies

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INTRODUCTION

In the spirit of environmentally friendly urban development, which has gained importance in recent years, increasing attention has been devoted to the brownfields, i.e. areas within the internal parts of settlements that had lost their previous functions. There are fundamentally two facts underlying this phenomenon. On the one hand, the use of such areas may often make the

* Corresponding Author

development of other areas used with low intensity (e.g. agricultural areas/green areas) superfluous, and on the other hand, with their careful use, the "landscape wounds" deteriorating the appearance of the settlements may also be eliminated (Boca, 2018).

This problem appears with particularly acuteness in Northern Hungary (NUTS-2 region) included three counties (figure 1), which was one of the most important zones of heavy industry in the country in the period between 1945 and 1990, and as a result, it had numerous and extensive brownfield areas after the political transformation. In order to resolve the situation of the settlement parts concerned, suitable development concepts had to be elaborated, which in the programming period between 2007 and 2013 meant the Integrated Urban Development Strategies.

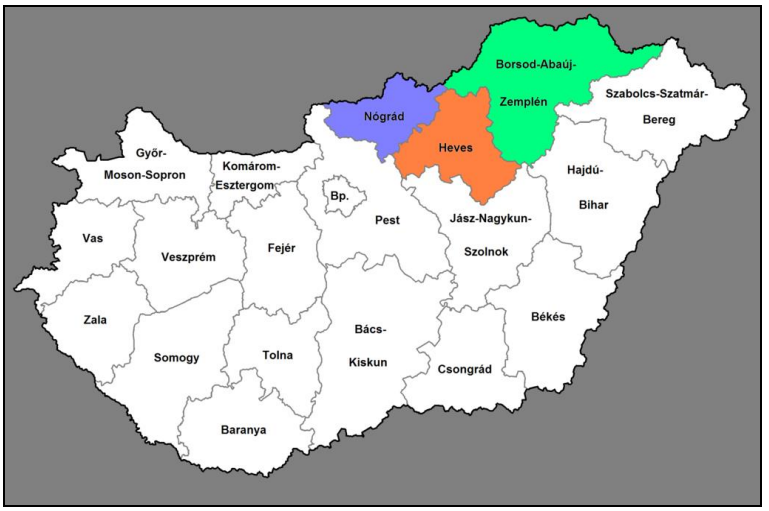

Figure 1. Location of Northern Hungary and its counties
(Source: en.wikipedia.org)

With a view to the above, the purpose of this study is the analysis of the abovementioned documents prepared by the cities in the region, the presentation of the concepts formulated in these documents in connection with the brownfield areas, and the exploration of the differences between the potential opportunities of use. At the same time, in order to be able to determine the specificities of brownfield areas, we also considered "greenfield areas" as a control group.

THEORETICAL REVIEW

Scientific interest in brownfield areas can be observed from the mid-1980s, which can be fundamentally attributed to two facts. On the one hand, as a result of the global economic crisis, a large number of companies went bankrupt and discontinued their activities, and therefore abandoned their former premises (Loures and Panagopoulos, 2010; Filip and Cocean, 2012). On the other hand, as a result of the process of disarmament starting in the early 1980s, followed by the reduction of the size of military forces in the early 1990s both in Western European and in former socialist countries, many military barracks also became vacant (Bagaeen and Clark, 2016; Herman et al., 2016; Ponzini and Vani, 2014).

In the light of the above, several definitions of brownfield areas have emerged. The definition originating in the United States only included in the scope of this concept areas subject to environmental pollution (e.g. Kádár, 2011; Orosz, 2012), while researchers in Europe applied a much broader approach.

Pursuant to the definition used by the expert network of CABERNET (Concerted Action on Brownfield and Economic Regeneration Network), brownfields are sites which were used earlier, but are derelict or underused now, may be affected by contamination, are mainly located within developed urban areas, and require intervention to bring them back to beneficial use (Cabernet, 2006).

According to the definition formulated by the Conference of Ministers responsible for Spatial/Regional Planning (CEMAT), "[b]rownfield land is previously used for industrial (or certain commercial) purposes, which may be contaminated by low concentrations of hazardous waste or pollution but has the potential to be re-used once it is cleaned up. Sometimes the term 'brownfield land' is also used to designate areas that were previously developed and have become obsolete but are not necessarily contaminated. Generally, brownfield sites exist in a town's industrial section, on land with abandoned factories or commercial buildings, or other previously polluting operations. Small brownfield sites may also be found in many older residential districts, where (for example) dry-cleaning establishment or petrol stations once existed. Many contaminated brownfield sites were unused for decades, but emphasis has recently been put on decontaminating and rehabilitating them because demand for development land is continually growing" (CEMAT, 2007).

The definitions used in Hungary, at the same time, point beyond the above approaches. According to the definition formulated by VÁTI Kht. in the early years of the century, "brownfield (rust belt) areas are former areas of industrial or other economic use that have become unused or underused and are generally in a deteriorated physical condition and affected by environmental pollution, as well as abandoned, no longer used military barracks" (Nagy and Teőke, 2003, p. 3). In the course of the studies conducted in Budapest, the research group of the Budapest Department of the Centre for Regional Studies of the Hungarian Academic of Sciences (MTA) applied the following definition: brownfields are "former industrial areas which are used with smaller efficiency (underused) or occasionally abandoned, but we can also include here underused or abandoned railway yards and vacated military facilities as well" (Barta, 2002).

Even though in recent years there have been no extensive surveys in Hungary concerning the size of brownfield areas, the studies conducted so far have indicated that approximately 40% of such areas are located in the capital city, where they occupy approximately 13 to 15% of the urban areas (Nagy and Teőke, 2003). In the light of the above, it is not surprising that a significant part of the research so far has also dealt with Budapest (e.g. Barta, 2004; Győri, 2006; Kukely et al., 2006; Lepel, 2006), and there have hardly been any studies examining other urban areas (e.g. Papp et al., 2006; Kádár and Kozma, 2011, Dannert and Pirisi, 2017).

The emphasis on the need for integrated urban development can be considered a very important element of the Leipzig Charter on Sustainable European Cities (Schwarz, 2010; Csete and Horváth, 2012), in the light of which – in order to enforce the principle of concentration – the problems and interests that are important from the point of view of urban development must be considered simultaneously and equitably (Bujdosó et al., 2016). It was the

achievement of the above objective that the "Integrated Urban Development Strategies" (IUDS) prepared by the cities served, which, on the one hand, outlined a medium-term vision of the given settlement, and on the other hand, also formulated strategic objectives for the settlement as a whole, as well as for individual neighbourhoods within them.

According to the relevant requirements, an IUDS consists of the following main components: the breakdown of the long-term ("conceptual") urban development objectives into programmes and projects that can be realistically implemented in the medium term; the consistent application of a planning methodology that has a territorial basis and approach; the realistic estimation of the resources that can be used for the purposes of the development; the diversification of the structure of resources as far as possible; the allocation of government resources that are focused to the problem and extend the opportunities inherent in private developments as far as possible; the setting of transparent and accepted objectives, built on an accurate analysis of the problems and opportunities, and the assignment of clear and transparent urban development and municipal management activities to these objectives; the adoption of a strategy established with the real and wide-scale involvement of the society and economic stakeholders ('partnership'), as well as strategic monitoring carried out with the involvement of the partnership".

MATERIAL AND METHOD

In the course of the writing of this study, we reviewed the Integrated Urban Development Strategies adopted in the second half of the first decade of the 2000s in the cities of the Northern Hungary. In this period, settlements only had to prepare the above document if they wanted to receive funding from the grants available under the Regional Operational Programmes. In the spirit of the above, out of the 36 towns and cities of the region (as of 2008), 28 had such development concepts (figure 2).

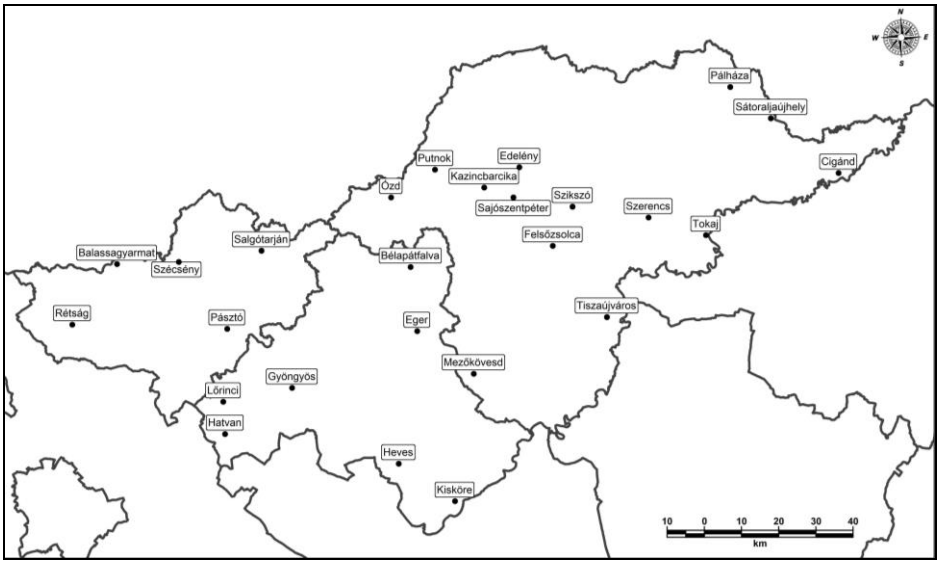

Figure 2. Location of 28 towns examined
(Source: own work)

In the course of our research, we used content analysis, a method of increasing importance in social geography: we examined in what contexts the phrases “brownfield” and “greenfield” areas appeared in the texts, and what ideas were formulated in connection with these types of areas.

RESULTS

Several important conclusions can be drawn on the basis of the examination of the appearance of the phrase “brownfield” in the documents concerned. On the one hand, the size of the settlement proved to be an important influencing factor (table 1): the bigger the population of the settlement was, the more types of utilisation were mentioned, and the intensity of these utilisation opportunities was also stronger. In the background of the above we can find the fact that in the period before the political transformation, larger settlements – as the primary sites of industrialisation – had very significant industrial areas, the decisive majority of which lost their original functions after 1990.

Table 1. The opportunities for the utilisation of brownfield areas as a subject of the size of the settlement
(Data source: Integrated Urban Development Strategies)

	the number of types various types of utilisation opportunities are mentioned/settlement	the intensity of the various types of utilisation opportunities mentioned/settlement
more than 20,000 inhabitants	3,43	4,14
10,000 – 20,000 inhabitants	3,00	3,86
less than 10,000 inhabitants	1,43	2,00

Table 2. The concepts formulated in connection with the utilisation of the brownfield areas
(Data source: Integrated Urban Development Strategies)

	the number of types various types of utilisation opportunities are mentioned (number per settlement)	the intensity of the various types of utilisation opportunities mentioned (frequency of mentioning)
recreation	15	25
economy/industry	14	18
recultivation/rehabilition	12	15
green areas	10	10
public services	6	6
residential function	3	4
transport	2	2

With respect to the concepts related to brownfield areas (table 2), the role of two functions could be underlined: those of leisure-related and economic-industrial functions. The fact behind the first of these is that, in an effort to break with the past, the settlements concerned formulated the aim of functional change in case of former industrial areas as well, and in the framework of the above, one of the most logical ideas appeared to be leisure-related utilisation, designed to satisfy the needs of the local population and tourists visiting the

settlement. Some examples for such developments in this group that were actually realised include the Festival Cauldron established in the area of the former stone quarry in Tokaj (figure 3), the National Film History Theme Park in Ózd (figure 4), and the Science Museum and Art Centre in Miskolc (the latter facility was completed, but was not eventually opened yet).

Figure 3. The Festival Cauldron established in the area of the former stone quarry in Tokaj
(Source: own photo)

Figure 4. The National Film History Theme Park established on the area of the former Metallurgical Works of Ózd
(Source: own photo)

The position of the economic/industrial function, occupying the second position, can be attributed to the fact that in case of the areas concerned – primarily due to the availability of the infrastructure – such ideas of utilisation evidently emerged as a result of the discontinuation of the earlier activities. Rehabilitation/recultivation, occupying the third position, cannot be considered as a definite function, when mentioning it, the settlements mainly intended to refer to the general renewal of the given area.

Utilisation as a green area can also be considered as an important concept, the purpose of which was – in addition to the reparation of the earlier landscape wounds – the improvement of the environmental conditions of such settlements, which generally had unfavourable conditions (e.g. the green area created in place of the former Kavicsos Lake of deteriorated condition in Mezőkövesd – figure 5).

The analysis of the potential utilisation of the greenfield areas (table 3) clearly shows that there are many more investment plans formulated in comparison with those based on brownfield areas. This fact is rather surprising in the light of the fact that the strategies of almost all settlements mention the need to utilise the brownfield areas, and some of the documents even state that they should be given a priority over greenfield investments. In the background of this contradiction we can probably find the fact that a new settlement part that was not used earlier is more attractive to investors than a brownfield area, and this fact is also reflected in the detailed settlement development concepts.

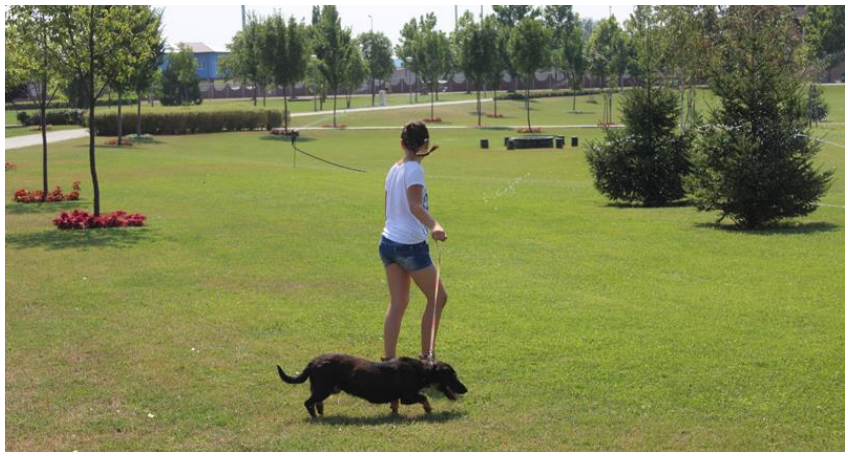

Figure 5. Green area in the place of the former Kavicsos Lake in Mezőkövesd
(Source: own photo)

Table 3. The concepts formulated in connection with the utilisation of the greenfield areas
(Data source: Integrated Urban Development Strategies)

	the number of types various types of utilisation opportunities are mentioned (number per settlement)	the intensity of the various types of utilisation opportunities mentioned (frequency of mentioning)
economy/industry	24	37
recreation	18	29
residential function	13	15
public services	10	10
green areas	6	6

On the basis of the analysis of the nature of the industrial investments and comparing brownfield and greenfield investments from this point of view (table 4), we can draw several important conclusions.

One of the shared elements of brownfield and greenfield industrial investments that most of the settlements emphasised was that they primarily expected small and medium-sized enterprises, whose investments and long-term operations in the settlements would be mainly encouraged by the provision of tax allowances. The plans drawn up in the documents for helping enterprises also included the establishment of business incubators in Ózd, Mezőkövesd, Pálháza (brownfield), as well as in Putnok, Felsőzsolca and Cigánd (greenfield). The expectation for investors to operate in an environmentally friendly way was formulated with respect to both types of areas (Szerencs, Lőrinci, Salgótarján, Bélapátfalva – brownfield; Ózd, Edelény, Cigánd, Bélapátfalva – greenfield). It is worth mentioning here also that the settlements did not place much emphasis on encouraging investments to be of research and development type.

The majority of the developments, which affected almost all of the settlements (with the exception of Szerencs, Tokaj and Rétság) were related to industrial parks and areas, as well as economic areas and zones. The difference is also manifested most in this area, since the dominant types of investment in case of brownfields were logistic centres and economic areas (21.4% as opposed to 28.6% in case of greenfields), while the proportion of industrial areas, park development, extension and utilisation in case of greenfield areas is 60.7%. This also clearly shows that there is a bigger demand for greenfield areas, and as a result, the settlements are also striving to satisfy these needs, since the most important consideration for them is job creation. There are a few unique greenfield plans, such as the biomass plant and the port in Sátoraljaújhely, the harbour of Tiszaújváros, as well as the of Szikszó microregional "employment works".

Table 4. The types and weight of industrial investments in brownfield and greenfield areas (Data source: Integrated Urban Development Strategies)

	brownfield (%)	**greenfield (%)**
machine industry	3,6	-
light industry	3,6	-
small- and medium sized enterprise	25,0	39,3
business incubator	10,7	14,3
environmentally friendly industry	14,3	14,3
development/extension of industrial parks	10,7	60,7
development/extension of logistic centres and economic areas	21,4	28,6
establishment/development of commercial and service areas	-	7,1
reseach and development	10,7	3,6
employment works	-	3,6
biomass plant	-	3,6
handicraft industry	3,6	-
harbor	-	7,1
railway station	3,6	-

From among brownfield investments, the one proposed for Bélapátfalva could be considered as unique, which specifically mentioned that they are expecting companies in the fields of light industry, electronics assembly or operating in the background activities of tourism for the area of the old cement factory, and enterprises active in the fields of wood processing or machine industry for the area of the new cement factory. Yet another unique case is that of Putnok, where they intend to settle small and medium-sized enterprises in the fields of handicrafts to their brownfield area. The establishing of handicraft industries and processing plants based on local agricultural products was mentioned in the plans of several settlements, but the documents did not elaborate on whether these investments would be conceived as brownfield or greenfield developments. The main objectives formulated by the settlements in connection with all investments were that they should preferably provide jobs to a large number of people and that the investors should have long-term plans for their local operation.

CONCLUSION

By way of summary we can conclude that in most Integrated Urban Development Strategies, the development of greenfield areas, as well as the recultivation/rehabilitation of brownfield areas are among the top priorities. Brownfield areas, especially in towns and cities that used to have considerable industrial activities, are located in the central parts of the settlement, and therefore, in many cases, their situation needs to be addressed. Such areas often only constitute a part of the designated target areas of action, and are therefore not separate action areas in themselves, unlike greenfields, which were often indicated as separate industrial areas or Industrial Parks. It was primarily smaller or larger industrial investors using environmentally friendly technologies that were expected to settle in these rust belt areas, but there were also some settlements where the plans called for transforming these sites into places for leisure activities.

The municipal governments intended to carry out the rehabilitation or recultivation of the areas of deteriorated condition from grants and/or the involvement of private capital. In most cases there were also plans for the utilisation of brownfield sites outside the central parts of the settlement, mainly for industrial purposes, but in case of abandoned mining yards, quarry ponds, or military barracks, a change of function was also planned, primarily shifting in the direction of activities related to tourism or logistics. The planned utilisations in most cases also intended to serve the purpose of job creation, since one of the biggest problems of the region continues to be the lack of job opportunities.

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POWER OF BIG CITIES

Luca DIACONESCU *
University of Oradea, Doctoral School of Geography, 1st, Universităţii St., 410087, Oradea, Romania, e-mail: diaconesculuca@yahoo.ro

Mădălin-Sebastian LUNG
Babeş-Bolyai University, Doctoral School of Geography, Faculty of Geography, 400006, Cluj-Napoca, Romania, e-mail: lungmadalin@yahoo.com

Abstract: The organization of people in increasing groups has increased their power and influence, providing the first professions, administration ideas, complex economic activities and trade. The tribe first appeared, then the village followed by the city, the metropolis, and the urban agglomeration that surpasses the population of a country. These are giants, with populations of a size that can not be imagined for the human mind, more and more megalomania, now dominating the decisional power of some extended regions, the states they belong to or the continents in their entirety, representing a new era in the evolution of civilization, era urban colossus.

Key words: power, big cities, population, domination, influence

* * * * * *

INTRODUCTION

The port city of Drobeta Turnu Severin, recognized as a city of historical flowers and monuments, developed in an area where man's existence is attested from 3500-2800 BC. (Vlăsceanu & Ianoş, 1998, pp. 79-80) dominates the economic, political, decisional, financial or cultural life of Mehedinți County.

There is no major change in the county that does not start with Drobeta Turnu Severin first, or a decision that does not have the approval of the city's elite. Nothing passes to the territory of the county unfiltered by the city. Fashion and new trends, before conquering the county, first have to convince the city.

The influence of the town of Piteşti on Argeş County or the city of Oradea over Bihor County is also dominant, examples being able to continue in all counties of Romania. As the local centers, which generally have 100 thousand inhabitants, have a major influence on the life and future of the smaller administrative units, such as the counties. For the regions of Romania that groups more than 4 counties on average, developed regional centers such as:

* Corresponding Author

Timisoara for the West Region, Cluj-Napoca for the North-West region, or Iasi for the North-East region, all with populations over 3 to 6 times larger than county centers, often reaching over 400,000 population along with the outskirts (Erdeli & Cucu, 2007, pp. 239-249). For the entire Romanian territory, an average representative of over 7 to 10 times the population of regional centers has developed. The city of Bucharest, which has evolved from 1.3 million inhabitants in 1996 to 2 million inhabitants in 1995 (Vlăsceanu & Ianoş, 1998, p. 9), currently having over 2 million inhabitants and almost 3 million the metropolitan area, representing the colossus, the dominant power of the country. The capital is for Romania what Rome was for the Roman Empire, all the roads lead to Bucharest, here are the decisions of the country, the bases of the foreign relations are established, the axes are traced, the business ends up to the level of governments, half of the investments made by the agencies International in Romania, here is everything. Is it a rhetorical question if, from a geopolitical point of view, does Romania have Bucharest or Bucharest as peripheral space, Romania?

The same situation also occurs in Bulgaria where the city of Sofia, Serbia, the city of Belgrade or the Republic of Moldova with the city of Chişinau dominate, with examples being able to continue with another 25 states only in Europe, where only one city has captured the country's geopolitical life through its power. The city of Bucharest holds between 10 and 15 % of the population of 20 million inhabitants of Romania. But the city of Budapest, with its 2.7 million inhabitants, reaches 27 % of Hungary's population of 10 million, Athens with its 4.5 million holding 40 % of Greece's population of 11 million, Seoul with 26 million more than 50 % Of the total population of South Korea of 50 million, and the city of Singapore with over 5 million inhabitants, represents the entire population of Singapore. There is no doubt that the city has come to dominate the region it belongs to, or the country or even an entire continent. For these reasons, cities can be treated as geopolitical and geostrategic subjects, being able to create their own future, often parallel to the region they are part of. A trend is becoming increasingly clear in the new laws of globalization, in which capital migrates as it pleases, targeting the most prosperous centers. The growth of the urban population, the emergence of enlargement mega-cities and the increasing demography show a tendency to emphasize the current situation, cities becoming more and more influential.

POWER BY INFLUENCE

The emergence of cities as centers of power

The first centers of power were represented by the capitals of the empires and the fairs on the commercial routes, continuously evolving from the villages to the real jewels that adorned the Earth, which continues to fascinate us today with the ruins that prove the pre-eminence (Nedejda, 2008). They dominated Africa and Asia, and after the year 1000 they will be more and more present in the Americas.

Europe held the long domination of periods, both during the Greek and Roman empires, and later during the colonial empires, reaching 1900, the first 10 centers worldwide according to the number of inhabitants to number 6 while the newly industrialized US holds 3. Between the first positions in the 1900s are cities that are big cultural centers nowadays like Vienna or Berlin but now they do not even get a place on the list of the top 100 cities at World level. On the top of the largest urban conurbations on Earth in 2017, Europe is barely ranked first in

position 29 with London and 32 with Moscow while the US ranks first with number 15 with New York and Los Angeles at position 23. Currently, the top 9 positions are dominated by Asia, showing the economic trends that will follow.

And the city of Bucharest has been promising in the last century, reaching from a population that today is comparable to the population of Timisoara, to reach after 100 years with a demographic size similar to the cities of Timişoara, Cluj-Napoca, Craiova, Iaşi, Galaţi, Constanţa And Braşov together.

Table 1. List of cities by the number of inhabitants in the year 1900
(Source: Rosenberg, 2017)

Rank	City	1900	Country	Continent
1	London	6,5	United Kingdom	Europe
2	New York	4,0	USA	North America
3	Paris	3,0	France	Europe
4	Berlin	2,7	Germany	Europe
5	Chicago	1,7	USA	North America
6	Vienna	1,7	Austria	Europe
7	Tokyo	1,5	Japan	Asia
8	St. Petersburg	1,4	Russia	Europe
9	Manchester	1,4	United Kingdom	Europe
10	Philadelphia	1,4	USA	North America
-	Bucharest	0,35 (in 1912); 0,6 (in 1930).	Romania	Europe

If the city of Lagos in Nigeria had a less numerous population than the city of Bucharest in the 1970s, in 2017 Lagos reached about 7 to 10 times higher, exceeding the population of the entire country of Romania. In 2050 an 80% increase for Lagos is expected and a drop of up to a quarter of the population of Romania, so the African city will be two and a half times more populated, and in the year 2100 it will be 8 times higher demographically than Romania and maybe 40 to 80 times more populous than the city of Bucharest.

Table 2. Evolution of the population of the fastest growing cities compared to the population of Bucharest and Romania
(Source: Peahă, 1974, pp. 161-162; Eremia, 2008; Mureşan, 1999, pp. 71, 90, 104-105, 211-213)

Nr	City	1970	2017	2050	2100	Country	Continent
1	Lagos	1,5	22	37	80	Nigeria	Africa
2	Lilongwe	0,02	1	4	58	Malawi	Africa
3	Blantyre	0,15	1	4	56	Malawi	Africa
4	Bagdad	1,9	12	18	35	Irak	Asia
5	Kampala	0,3	3	10	35	Uganda	Africa
6	Dakar	0,5	3	8	22	Senegal	Africa
7	Kigali	0,02	1	5	20	Rwanda	Africa
8	Bucharest (Romania)	1,6 (20,7)	2,3 (3) (19,2)	- (15,2)	- (10,7)	Romania	Europe

Worldwide centers by region

The center consists of a large metropolis that has reached a high level of attractiveness, economically, financially, commercially and culturally, taking the capital of extensive areas. These, itself by the definition of the metropolis, meaning the mother city, is the city developed enough to take care of the other

cities and territories (Bonnet, 2000, pp. 9-13). There are two major cultural centers on Earth, Paris for the Old World and London for the New World. Two other financial, economic and influential centers developed in the second half of the 20th century are Tokyo and New York.

Another series of centers awaits their turn for a dominant Planetary role, but they need time and modernization for centers in developing countries or have limited human resources for centers in developed countries.

Currently, most of the world's second-largest power and influence centers, are small cities but with a high financial and decision-making power being the seat of several companies and organizations. In Europe, besides Paris and London, the cities of Brussels, Madrid, Rome, Milan, Vienna, Frankfurt, Hamburg and Berlin dominate the western side, while Moscow and Warsaw dominate the Central Eastern European. In North America, Toronto is the center of Canada, and Los Angeles, Washington, Chicago, Boston and San Francisco share their influence with New York in the US. Japan holds the second center next to Tokyo in the city of Osaka, Australia in Sydney, the south-eastern cone of Asia to Singapore and Hong Kong, Africa to Cape Town and Johannesburg and South America to Buenos Aires (Cocean et al., 2001, p. 107).

If the world's dominant centers until the beginning of the 21st century were small, low-lying cities, especially in Europe, North America, Japan and Western affiliated states such as Australia, South Africa, Argentina or Singapore, in the 21st century will dominate large centers, especially those in Latin America, East Asia and South East Asia, followed by the centers in South Asia and Africa.

Sao Paulo, with more than 30 million inhabitants, already dominates Portuguese America, and in the near future will have unmistakable influence throughout South America.

Mexico, with 36 million inhabitants, under the current development will be able to compete with cities like New York and Los Angeles in North America. South Korea's Seoul City is getting closer to taking over from Japan's Tokyo capital, and the cities of Jakarta and Manila will capture Southeast Asia and even Oceania. If the cities of Karachi and Tehran they share their influence in the west of Asia, Lagos will dominate Africa, and Cairo and Istanbul will put great pressure on the old centers of the Mediterranean Sea to southern and eastern Europe.

Giants are in China, where Shanghai, Beijing and Guangzhou will dominate the world's first positions by the middle of the 21st century, and the Indian centers: Delhi, Mumbai and Kolkata will follow.

POWER BY NUMBER OF POPULATION

Urban agglomerations

The shize of the cities varies from a few thousand to tens of millions of inhabitants, having the higher values of the staircase, the metropolises (Bonnet, 2000) representing a superior level of the urban hierarchy, which have become the centers of the modern economy in the meantime (Neguț, 2011, p. 348).

The demographic size list of cities was calculated by adding the city's own population and adjacent areas within its area of influence, which also includes other large cities (urban agglomeration), the administrative unit of the city, and the surrounding administrative subdivisions with dense and dependent population economically and commercially by the central city, depending also on the visual findings of the satellite imagery, the city including the peripheries up to a reasonable limit.

Collosal cities of the world

Table 3. List of mega-towns with more than 30 million inhabitants
(Source: proccesed after: 3D World Map 2.1.; Matei et al., 2005;
Instituto Geografico DeAgostini, 2008)

Rank	Megacity	Large population	Urban agglomeration	Includes - population milion; - (urban agglomeration).	Country	Continent
1	Shanghai	104	35	Nanjing 8 m. (27 m., includes: Taizhou 3 m., Yangzhou 3 m., Zhenjiang 3 m., Wuhu 3 m., Chuzhou 3 m., Mansan 2 m.); Hangzhou 10 m. (23 m., includes: Ningbo 8 m.); Suzhou 10 m.; Nantong 2 m. (7 m.); Wuxi 6 m.; Changzhou 5 m.	China	Asia
2	Beijing	85	27	Tianjin 16 m.; Shijiazhuang 6 m. (11 m.); Baoding 3 m. (11 m.); Tangshan 8 m.; Changzhou 2 m. (5 m.); Langfang 1 m.	China	Asia
3	Guangzhou	65	27	(includes: Dongguan 10 m., Foshan 7 m.); Shenzen 13 m. (23 m., includes: Hong Kong 7 m., Huizhou 5 m.); Jiangmen (4 m.); Zhaoqing (4 m.); Zhongshan (3 m.); Qingyuan (3 m.); Macau.	China	Asia
4	Jakarta	50	33	Sarang; Bogor 1 m.; Bekasi 1 m.; Dekop 1m.	Indonesia	Asia
5	Chongqing	50	32	Nanchong 2 m. (6 m.); Luzhou 1 m. (4 m.); Yibin 1 m. (4 m.); Neijiang 1 m. (3 m.); Zigong 1 m. (2 m.); Hechuan 1 m.	China	Asia
6	Dacca	50	22	Gazipur (2 m.); Tangail (2 m.); Faridpur (1 m.).	Bangladesh	Asia
7	Delhi	46	27	Meerut (4 m.); Aligarh (4 m.); Ghaziabad (3 m.); Faridabad (2 m.); New Delhi.	India	Asia
8	Tokyo	43	40	Chiba (6 m).; Yokohama 4 m.; Saitama (5 m).; Kawasaki 2 m.; Maebashi 1 m.; Utsunomi 1 m.	Japan	Asia
9	Kolkata	38	18	Haora 3 m.; Baharampur (1 m.); Barddhaman.	India	Asia
10	Sao Paulo	37	30	Campinas 3 m.; Santos 2 m.; Sorocaba 1 m.; Sao Jose Dos Campos 1 m.	Brazil	South America
11	Mexico	36	32	Puebla 6 m.; Cuernavaca 2 m.; Toluca 2 m.; Tlaxcala 1 m.	Mexico	North America
12	Lagos	35	22	Ibadan 4 m.; Ogbomosho 2 m.; Osogbo 2 m.; Abeokuta 1 m.	Nigeria	Africa
13	Lahore	35	20	Faisalabad 4 m. (8 m.); Gujranwala 3 m. (5 m.); Sahiwal 1 m. (3 m.); Kasur 1 m. (2 m.); Sialkot 1 m.	Pakistan	Asia
14	Manila	34	27	Quezon City 2 m.; Angeles.	Philippine	Asia
15	New York	31	29	Philadelphia 7 m.	USA	North America
16	Wuhan	30	18	Huangang 1 m. (6 m.); Xiaogan 1 m. (5 m.); Huangshi (2 m.); Xianning 1 m.; Xiantao 1; Ezhou 1 m.; Tiamen 1 m.; Jianli 1 m.	China	Asia

There are already 16 cities in the world that together with the outskirts reach more than 30 million inhabitants. Performance if we think there are only

45 countries out of a total of more than 200, over 30 million inhabitants. Asia holds 12 positions, North America 2, Africa and South America one. These cities are colossal, they will dominate the world's economic, commercial and financial life in the future, and the large number of cities in Asia are still showing upward trends. With more than 750 million in the top 16 cities on Earth, they have a population that exceeds the demographic size of the continent Europe with 10 million inhabitants

Mega II Centers

Table 4. Urban agglomerations with population between 20 and 30 million inhabitants
(Source: proccesed after: 3D World Map 2.1.; Matei et al., 2005;
Instituto Geografico DeAgostini, 2008)

Rank	Megacity	Large population	Urban agglomeration	Includes - population milion; - (urban agglomeration).	Country	Continent
17	Karachi	-	28	-	Pakistan	Asia
18	Cairo	28	21	Al Jizah 4 m.; Banha; Zagazig; Shibin el Kom.	Egypt	Africa
19	Chengdu	28	15	Mianyang 1 m. (4 m.); Deyang 1 m. (3 m.); Leshan 1 m. (3 m.); Guangyuan 1 m. (2 m.); Yaan 1 m.	China	Asia
20	Changsha	28	10	Hengyang 1 m. (5 m.); Yang 1 m. (4 m.); Changde 1 m. (4 m.); Zuzhou 1 m. (3 m.); Xiangtan 1 m. (2 m.);	China	Asia
21	Seul	-	26	Incheon 3 m.; Suwon 1 m.;	South Korea	Asia
22	Mumbai	-	25	Thane 3 m.; Navi Mumbai 2 m.; Kalyan 2 m.	India	Asia
23	Los Angeles	25	19	San Diego 3 m.; San Bernardino 2 m.; Riverside 2 m.; Tijuana 2 m.	USA Mexico	North America
24	Patna	25	10	Arwal; Bojpur; Saran; Vaishali; Nalanda.	India	Asia
25	Zhengzhou	25	10	Keifeng (5 m.); Luoyang 3 m.; Xinxiang 1 m. (3 m.); Xuchang 1 m. (2 m.); Pingdingshan (2 m.); Jiaozhou 1 m.	China	Asia
26	Nanchang	25	10	Jiujiang 1 m. (3 m.); Jian 1 m. (3 m.); Fuzhou 1 m.; Yiangtan 1 m.; Shangrao 1 m.; Jiangdezhen 1 m.; Fengceng 1 m.; Linchuan 1 m.	China	Asia
27	Chittagong	25	10	Kaptai; Coxs Bazar.	Bangladesh	Asia
28	Ha Noi	23	10	Thanh Hoa (3 m.); Hai Phong 2 m.; Nam Dinh (2 m.); Thai Nguyen 1 m.	Vietnam	Asia
29	London	22	15	-	United Kingdom	Europe
30	Osaka	-	20	Kobe 4 m.; Kyoto 2 m.; Nara 1 m.	Japan	Asia
31	Bangkok	-	20	Nonthaburi 1 m.; Ayutthaya.	Tailand	Asia
32	Moscow	20	14	-	Russia	Europe
33	Ho Chi Minh	20	10	Bien Hao 2 m.; Long Xuyen 2 m.; Cao Lanh 1 m.; Vinh Lang 1 m.; Tan An 1 m.; My Tho 1 m.; Ben Tre 1 m.	Vietnam	Asia
34	Xuzhou	20	10	Suqian 1 m. (3 m.); Suzhou 1 m. (3 m.); Huaibei 1 m.	China	Asia
35	Bangalore	20	10	Kolar; Sira.	India	Asia
36	Xian	20	10	Xianyang 1 m. (4 m.); Weinan 1 m. (4 m.); Baoji 1 m.	China	Asia
37	Jinan	20	10	Taian 3 m. (5 m.); Dezhou 1 m. (3 m.); Liacheng 1 m. (3 m.); Zibo 2 m.; Binzhou 1 m.	China	Asia
38	Cochin	20	10	Calicut 2 m.; Trivandrum 2 m.; Thrissur 1 m.; Alappuzha 1 m.; Kollam 1 m.	India	Asia

There are 22 mega-towns with a population agglomeration of between 20 and 30 million inhabitants and they represent the world's growing centers with a strong population growth and development potential. With more than 500 million inhabitants, the 22 cities are mostly located in Asia with 18 cities, Africa and North America one each, and Europe is the first to be in the top with the cities of London And Moscow. All 38 cities outnumber the population of Romania, estimated at mid-2017 to less than 20 million inhabitants.

Other urban agglomerations with over 10 million inhabitants

Another 35 mega-cities have a population of between 10 and 20 million. A figure not to be neglected if we consider that countries such as Greece, Portugal, Belgium, Sweden, the Czech Republic, Hungary, Austria, Belarus, Cuba, Tunisia or Israel have populations of around 10 million inhabitants. Most of these are regional centers or occupy the second position in their own country, but together they have 450 million people with significant demographic growth, at least 15 of which will pass the threshold of 20 million inhabitants in -a near future. The first place in the number of hosted cities is the continent of Asia with 20 centers, followed by Africa with 6 cities, South America with 4 cities, North America with 3 cities and Europe with 2 centers.

Besides the 73 mega-towns with over 10 million inhabitants each, there are 24 other centers, which together with the outskirts reach over 10 million.

They are still at the outset of development, as is the case with African agglomerations, or they do not have a well-defined center like the agglomerations in Europe.

With more than 260 million inhabitants, it is a budding force. In total, 97 cities with suburbs and satellite cities reach more than 10 million inhabitants. Cumulatively, they have a population of 2 billion inhabitants out of the 7.5 billion existing on Earth. Of four people worldwide, one lives in one of these urban colossus.

CONCLUSIONS

The cities since their emergence have been a magnet for merchants and elites, becoming, in the meantime, the image of well-being. With a higher living standard than rural areas, cities tend to attract more and more people becoming more numerous and more populated. Their evolution has been steadily rising, so that there are now over 100 cities on Terra that together with its outskirts exceed 10 million people, reaching a total of 2 billion people. The strength of their economic, financial, cultural, administrative, and especially decision-making, multi-ethnic, multi-religious, and skyscrapers tends to de-nationalize their own territories by building their own strategies and axes, becoming more and more present in the geopolitical textbooks . With populations that go beyond even countries such as Germany, France, Canada, or Australia, these cities can be considered the new empires of the world, dividing their areas of influence, depending on their rank, as regional, national, continental or world centers.

Taking the factories and headquarters of the multinationals that are the industry and service representatives, as well as the headquarters of some organizations with an administrative role that tend to replace the capitals of the states, leaving little towns and rural areas only agricultural activities and too little of transport and leisure. These are the great centers of the world, the colossus resulting from the evolution of civilization on the highest peaks.

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GEOPOLITICS OF THE OCEANS: THE DEMOGRAPHIC INFLUENCE IN THE SEPARATION OF POWERS

Luca DIACONESCU *
University of Oradea, Doctoral School of Geography, 1st, Universității St., 410087, Oradea, Romania, e-mail: diaconesculuca@yahoo.ro

Abstract: It has been argued that the strength in the world domination is found on land and it is represented by Central Asia. Thus, who will dominate the Heartland will also easily dominate the Rimland, which includes the major demographic centers of the world today, from Asia and Europe, but excluding Africa. Comparing the demographic change between different regions by the year 2100, it is noticed that Sub-Saharan Africa will hold 38% of the world's total population and the southern half of Asia, over 32%. It is understood that the world center of power will in the south, between these two major demographic regions, on ocean waters. The population around the Indian Ocean will reach over 40% of the world's population in 2050 and 50% by the year 2100. Thus, it can be said that whoever dominates the Indian Ocean will become the greatest power and will dominate the World.

Key words: population, evolution, sea trade, exceeds, the world center, the periphery of the world

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INTRODUCTION

The water from the oceans of the world is the essence of life on Earth, making the difference between the planet Terra and the other planets in our solar system, sustaining life and giving it the name of the Blue Planet.

Representing 71% of the surface of the Planet, the oceans hold vast biological resources, finding here 357.000 species known till now, large oil and natural gas deposits, and 50 million billion tons of dissolved solid substances, which could cover the entire planet with a layer of 170 m, representing a great economic potential in the near future (Gâştescu et al., 2004, p. 9-23).

Also, ocean waters have an inexhaustible energy source that can be used to produce electricity, including: marine currents, tides, waves, temperature differences and hydrogen (Neguț, 2009, p. 12-13).

* Corresponding Author

Table 1. Earth's oceans
Source: Gâstescu et al., 2004, p. 11; Soft and Toylor, 2010

Name	Area (km^2)	Volume (km^3)	Coastline (km)	Maximum length / width
Pacific Ocean	179.710.000	723.710.000	145.000	18.000 / 13.900
Atlantic Ocean	91.655.000	330.100.000	120.000	14.120 / 7.900
Indian Ocean	74.917.000	219.945.000	70.000	10.200 / 9.400
Arctic Ocean	14.788.000	16.700.000	45.000	5.000 / 3.200
World Ocean	361.070.000	1.362.455.000	380.000	

The maritime transport of goods represents 80% of the total merchandise transport and the appearance of containers, easy to transfer from ships to trains or lorries, has contributed to an increase of the percentage (Soft and Toylor, 2010, p. 23). Since ancient times, ocean waters have been a major geopolitical interest in establishing the powers of the world, and over the past five centuries, maritime empires have often won military or economic wars with continental empires. Expansion of the oceans was translated into the number of days needed to cross them, and the islands represented stands for monitoring, defending and protecting the ships. There are 94.000 islands in the world's oceans, of which 45.000 are found in the Arctic Ocean, 25.000 in the Pacific Ocean, 21.000 in the Atlantic Ocean and only 2.000 islands in the Indian Ocean (Gâtestescu and Cioacă, 2013, p. 8).

THE ATLANTIC DOMINATION: THE EUROPEAN EMPIRES

Europe: the dominant maritime power

Equipped with European maritime powers, the Atlantic has dominated global shipping over the last 500 years, turning the Atlantic Ocean into its own lake, where the main transport was that of slaves from Africa to America, raw materials from America to Europe and from Europe to the two continents, finished goods and emigrants.

Trade between European powers has given the most widely circulated maritime area in the world from the Mediterranean Sea, the Black Sea, the Baltic Sea and the Atlantic coast of Europe, motivating also other territories in the Atlantic, where the shore closest to Europe had the best industrial and economic development at the same time. The US and Canada, located just 5.000 km from Europe's coasts, have developed high-end industries and high-skilled jobs with the technology and immigrants taken over from the Old Continent. Trade between the European States and the coasts of the US and Canada have transformed the North Atlantic into the first ocean area of the Globe and the Earth's leading decision-making nucleus, with more than half of the global GDP, the first industrial powers and megalopolises having their own territory here.

World Ocean in the past

Slightly explored and far from the European powers, the other oceans did not have the attention of developed countries, being considered as periphery waters of the world.

Until 1950, the Pacific Ocean, located in the periphery of the world according to Europeans, registering a rapid population growth in the surrounding countries, exceeds the population around any other ocean. Thus, the US is beginning to be economically attracted into the new competition by moving its core activities off the Atlantic east coast to the west coast of the Pacific Ocean, where the country's leading economy is the state of California, being the sixth economic power of the world.

THE PACIFIC, HALF OF THE WORLD OCEAN: THE NEW CENTER OF INTEREST

With an area of 181.000.000 km2 including the surrounding seas, the Pacific represents one-third of the entire Earth's surface and more than the entire land of all the continents (Gifford, 2005, p. 20).

With a larger population than the Atlantic, the Pacific Ocean (Quiet), which covers half of the surface and water volume of the World Ocean and twice the Atlantic, following the development of the shipbuilding industry, which has increased the speed of ships and shortened the time to travel between the US and East Asia, on the 10.000 km, led to the increase of shipping and development of economy of the surrounding countries, overtaking the Atlantic Ocean.

The general of American Foreign Affairs, Zbigniew Brzezinski, argues that the West loses supremacy over the rest of the world, and the real reason is the rise of Asia (Grumaz., 2013, p. 87). The very geopolitical importance of the North Pacific, the West Pacific and the North Indian Ocean, which are gradually beginning to replace the commercial volume and North Atlantic power, are directly influenced by the Asian economic miracle.

The North Pacific

With the fall of Europe following the two world wars, the US is turning its attention to Japan, the new ally, which is fast moving to transforming the Pacific into the main maritime trade area.

Water trade between the top three economic powers in the world: the US, China and Japan, as well as the economic growth rates recorded on the Pacific Asian shore, have led to organizations that are getting closer, economically, riparian states, such as Japan and Asian Tigers , which have been remarked as the new economic powers in the capitalist system, with accelerated industrialization between 1960 and 1990; ASEAN, which includes South East Asian states; APEC, which includes states across the whole Pacific, such as USA, Japan, Russia and China, with more than 60% of the global economy and 50% of the trade (Humeau et al., 2010; Peptenatu et al., 2005).

World Ocean today

The ocean waters lie from economically advanced countries and in a demographic impasse, to poor and overpopulated states. And as the seas have been shown to unite, but not to separate, sooner or later, a developed country will begin to work with a developing state with the same access to the sea, sending out investments, technology and finished materials and taking raw materials, labor cheap and immigrants.

This kind of relationship happened between Europe and North America and between the USA and Japan, and now it has been noticed an approach between Japan and China or South Korea, between the USA and the Caribbean

states at the Gulf of Mexico, between Italy and the Balkan states, or between Saudi Arabia and the states around the Red Sea (Gaceu, 2006). The new economic relations between developed countries and developing countries, which support each other economically, come to improve the relations between these countries. Thus, trade and economic interest for seas and oceans that seem to fall, tends to relaunch through the development of new maritime routes that change and increase the geopolitical importance.

Currently, the USA and Canada are developing their ports and cities on the Pacific coast, to the detriment of the Atlantic coast. Brazil enhances the relations with the state of Peru for the access to the Pacific ports, and the European Union gives up on the UK, which is located in the Atlantic, and focuses its attention on the approach and integration of Russia that lies its territory to the Great Ocean.

In the current formula of power distribution, Europe is the most disadvantaged, geopolitically, seeing itself left at the periphery of the world system of powers, and the Atlantic Ocean has begun to be perceived as the periphery of the world. The European recession is a consequence of these changes, and during 2014-2016, the EU falls from the world's first economic power, being surpassed by the USA, and by 2022 China will surpass it as well.

LITTLE INDIAN OCEAN: THE DEMOGRAPHIC CENTER OF THE EARTH

By 2050, the population around the world's oceans will change completely.

If in 1950 the population of Europe represented nearly 60% of the total population around the Atlantic Ocean, by 2050, the mainland African coast will exceed 50% of the population.

In the Pacific Ocean, in 1950, the West Asian coastline had 8 times more population than the American east coastline. Until 2050, this difference will be reduced from 8 times to 4 times. The second change will be within the Asian regions, where the South-East Asia is becoming more populated, while East Asia comprising the great powers, Japan and China, risks losing population.

The Indian Ocean will also be affected by major structural changes. If, in 1950, the Asian coastline exceeded the African coastline population by 6 times, this difference is now only of 4 times, and by 2050, the southern half of Asia will have 3 times more population than the eastern half of Africa.

Table 2. Demographic evolution around the world's oceans between 1950 and 2015
Source: Processed from the worldometers.info; Gaceu, 2007

No.	Name	Population and annual evolution (millions) 1950	2018	2030	2050
1.	Arctic Ocean	117,0 + 2,0	170,0 + 0,1	160,0 - 0,1	155,0 - 0,1
2.	Atlantic Ocean	805,0 + 11,0	1.845,0 + 22,5	2.125,0 + 23,0	2.595,0 + 23,2
3.	Pacific Ocean	908,0 + 18,0	2.250,0 + 13,4	2.360,0 + 6,1	2.355,0 - 3,5
4.	Indian Ocean	760,0 + 14,0	3.060,0 + 46,0	3.580,0 + 42,5	4.400,0 + 32,0
1.1.	Rusia	105,0 + 1,7	144,0 0,0	140,0 - 0,4	132,0 - 0,3
2.1.	Europe (without Rusia)	470,0 + 4,0	600,0 + 1,0	600,0 - 0,3	580,0 - 1,1

2.2.	Atlantic America	213,0 + 4,7	615,0 + 5,4	655,0 + 4,0	695,0 + 1,4
2.3.	Atlantic Africa	122,0 + 2,3	630,0 + 16,0	870,0 + 19,0	1.320,0 + 23,0
3.1.	Pacific America	108,0 + 2,5	336,0 + 3,4	370,0 + 2,9	415,0 + 1,3
3.2.	Pacific East Asia, South-East Asia, Oceania	800,0 + 15,5	1.915,0 + 10,0	1.990,0 + 3,2	1.940,0 - 4,8
3.2.1.	East Asia	730,0 + 13,3	1.650,0 + 6,2	1.680,0 + 0,2	1.586,0 - 6,9
4.1.	Indian South Asia, South-East Asia and South-West Asia	650 + 11,5	2.460,0 + 31,0	2.750,0 + 26,0	3.200,0 + 13,0
4.1.1.	South Asia	500,0 + 8,9	1.880,0 + 23,0	2.130,0 + 18,7	2.380,0 + 8,7
4.2.	Indian Africa	110,0 + 2,5	600,0 + 15,0	830,0 + 16,5	1.200,0 + 19,0

This demographic evolution can bring with it ample migration of the population. The Western Roman Empire was overwhelmed by the pressure of massive migration, and Europeans invaded America, replacing indigenous peoples. There is the possibility for the oceans to become the path of increasing migration from poor countries to developed countries, and the current wave of immigrants arriving in Europe, North America, the Persian Gulf or Japan will become a flood that will force the militarization of borders and the blocking of the maritime routes (Levy, 2010, p. 70-74).

The Pacific stagnates: the demographic decline

In 1950, the population around the Pacific waters exceeded with more than 100 million inhabitants, the population around the Atlantic Ocean or around the Indian Ocean. By 2018, the population around the Indian Ocean is 800 million more numerous than the Pacific Ocean population. But the Pacific Ocean still surpasses the Atlantic Ocean, exceeding it with 400 million inhabitants.

By 2050, with the demographic explosion in Africa, the population around the Atlantic Ocean will exceed the Pacific Ocean population with 100 to 200 million. Also, the population around the Indian Ocean will exceed the Pacific population by 2 billion people. Thus, in just 100 years, the population around the Pacific Ocean gets on the first place, and on the third place in terms of the demographic predominance of the surrounding population.

As in the past, the economic power around the Atlantic has surpassed the power of the Indian Ocean, and the Pacific Ocean has taken over the Atlantic Ocean, always coinciding with the demographic evolution, it is expected that by the end of the 21st century, the Pacific Ocean to represent the third geopolitical region of interest after the Atlantic and the Indian Ocean, being perceived again as the periphery of the world.

Revival the Atlantic: South Atlantic

If in 1950 the most populated states were located in the North Atlantic and in the Mediterranean, by 2050, the population of the southern states will come on the first place, demographically, followed by an economic development and trade increase, as against the states from the North Atlantic.

In order to maintain the power in the North Atlantic, the European Union and NATO have been created, which aimed, among other actions, on the

unification of the Western states, to maintain colonialism in Africa, which was becoming increasingly populated. The idea of African unity, which was first held in 1900, the first Pan-African Conference and firmly reaffirmed in Tunis in 1960, led to the creation of the African Union, which tends to form a genuine economic force able to compete with the united states of the North Atlantic, until 2050 (Woddis, 1965, p. 169-174; Stasac and Stupariu, 2010).

Table 3. Comparison of Demographic Evolution, of the northern and southern Atlantic states between the 1950s and 2050s.
Source: Processed from the worldometers.info

State from the North/State from the South	Year: 1950 Population million:	2018	2050
SUA/	158	326	390
Nigeria	37	195	410
Germany/	70	82	82
Brasil	60	210	250
France/	42	65	72
Congo	12	84	200
Canada/	14	37	45
Colombia	12	49	57
Spain/	28	46	46
Egypt	20	99	155

The Indian Ocean: half of the world's population

The Indian Ocean will register the most spectacular demographic evolution over the course of 100 years, between 1950 and 2050. If in 1950, the population around the Indian Ocean was ranked on the third place among the oceans with the largest population, surpassing only the Arctic Ocean, by 2018 it exceeds the other two oceans, too, reaching the first place. With an annual growth of over 40 million inhabitants, the population around the Indian Ocean multiplies in two years with the equivalent of the population owned by Germany, Turkey or Iran, in three years with the equivalent of the population of Japan, or every 8 years, with a demographic growth similar to the USA population. This demographic explosion will continue in the coming decades, the population around the Indian Ocean reaching 4.4 billion people, from the 9.5 billion population predicted across the globe, for the year 2050.

With such a demographic growth, the Indian Ocean enters the global ocean competition, with the greatest chance of becoming the first commercial area and economic power among the four oceans of the planet, becoming the geopolitical center, globally.

It has been demonstrated that a region, the more populated it is, the more difficult it is to subdue it, and that country will not become a colony. China has never been conquered entirely by European powers, India has constantly created problems to the French and then to English people, and the Africans gained their independence only after a demographic explosion (Waddis, 1965).

Even the food problem could be solved through agriculture. In 2000, out of over 1.3 billion workers in agriculture, half of them are around the waters of the Indian Ocean. At this impressive number of farmers on the entire planet, there were only 28 million tractors (Arthus-Bertrand, 2005, p. 123).

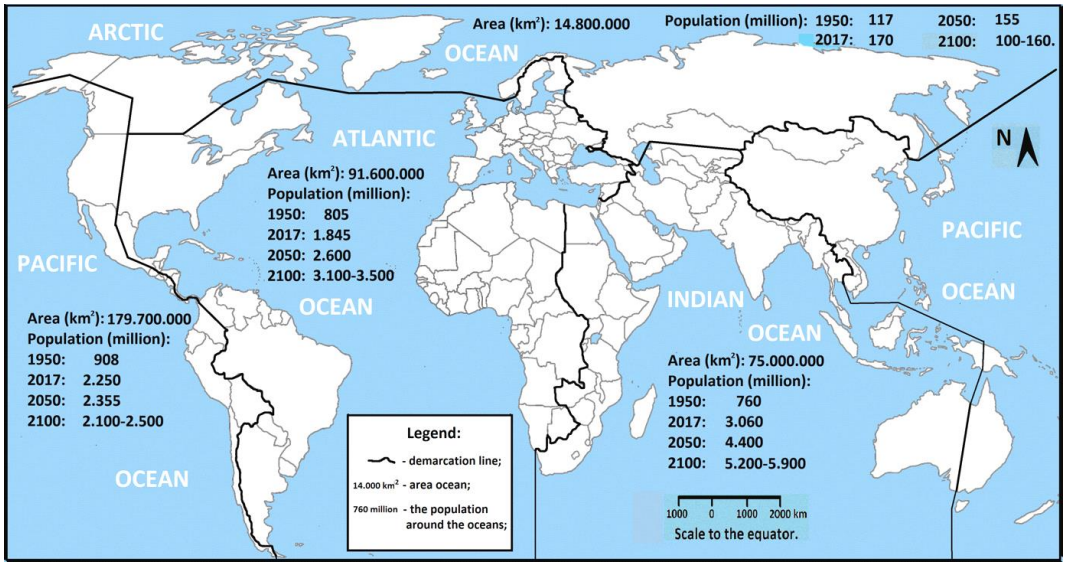
Currently, the Indian Ocean waters comprise the world's second largest state as population, the world's largest democracy, the countries with the highest population growth rate, the poorest countries, but also the most

advanced countries. United Arab Emirates with cities like Dubai, Qatar, or Bahrain, Kuwait or Saudi Arabia are among the most developed countries in the world, and the Persian Gulf energy reserves, with around 60% of world oil reserves, represents the strength in the geopolitics of the ocean, tending to intensify the fight among the great powers for what is believed to be the last large petroleum territory of the Earth (Roberts, 2008).

YEAR 2100: AMERICA COULD BECOME PERIPHERY

In 2100, the world will be very different from how we know it today. Technological and economic developments can not be anticipated, but one thing is certain, the population of the planet will exceed 10 billion people, maybe 12 billion, and half of the world's population will be around the Indian Ocean.

Figure 1. Distribution of the population around the oceans between 1950 and 2100.
Source: Processed from the worldometers.info



In 1900, the world was ruled by the European capitals, and it was then predicted to be a developed and peaceful Europe. In 1920, Europe was at the end of an endless war that had decimated the continent, the Ottoman, Austro-Hungarian and German empires were disappearing, communism had just emerged in Russia but without a chance of success, and the USA and Japan became the first forces outside the Old Continent. In 1940, Germany recovered its forces and conquered France, and Japan became the great power of Asia (Friedman, 2009, p. 11).

After another 70 years, Germany is a pacifist and very prosperous democracy, France becomes its main economic ally, Japan is a neutral and anti-militarist democracy, and Russia is a proud and independent state (Roberts, 2013, p. 814-815).

Major and unanticipated changes that occur over short periods of time demonstrate that in geopolitics, the margin of error in prospecting the future is very high.

Until 2100, the USA will no longer be the world's center of power and interest, and America will be conceived as the periphery of the world. On the other hand, the Indian Ocean, located in the center of the Old World, will be considered the key to ruling the world. With half of the world's population and having as peripheries the three demographic centers located in East and South-East Asia, Central Africa and Europe, it will lead to the creation of the largest economic market.

By 2100, the North Indian Ocean will become the world's largest maritime route, followed by the East Asia-Southeast Asia, Europe-Mediterranean and the South Atlantic, all of them having in the center the Indian Ocean and the southern coast of Asia, which will most likely become the first economic area of the world and, at the same time, the first commercial center.

Today, the great powers are trying to reach the Pacific Ocean. Until 2100, the world's great powers will only be interested in expanding territories to the Indian Ocean. Russia will try to prolong the Eurasian Union towards Iran, Myanmar will become China's vassal, ASEAN will include states like Japan and Korea, the EU will integrate Israel, North Africa will form an union with Egypt and Sudan, Sub-Saharan Africa will enlarge the African Union including eastern states with coastlines to the Indian Ocean, Brazil will seek the formation of the Portuguese Union with Angola and Mozambique, and the USA and Canada will implement, with the UK, New Zealand and Australia, the much-discussed project of the Anglo-Saxon Union.

The South Atlantic, the Mediterranean and the Caribbean - the new important centers

The Atlantic Ocean is recovering demographically, becoming the second ocean with the largest population to surround it, after the Indian Ocean. The Atlantic will reach the population of the states surrounding the Pacific and will even exceed it with 1 billion people.

The South Atlantic will exceed the North Atlantic population and the Mediterranean is re-launching with the help of the Asian and African states, which tend to overcome the population of the old powers in Europe. The Caribbean Sea contributes to the economy of the USA coast, and the cities Miami, Houston, Dallas, Atlanta or Tampa tend to gain equal decisional power as the centers towards Asia, California, or the centers towards Europe, from the north-east coast of North America.

In a pessimistic scenario over the Atlantic, the European Union will break apart, as a result of economic pressures and the inability to resolve structural crises. African migration will further destabilize Europe, and the US economy will be jeopardized by the Latin American immigration. Latin American countries will go into a demographic decline, and Africa will become the center of instability and wars.

But there is also an optimistic scenario, closer to reality. Thus, the US and the EU will use the flow of immigration economically and, at the same time, new populations will support the economic rapprochement between the North Atlantic and the South Atlantic. Nigeria could become a great economic power, and its population could exceed 700 million to 900 million inhabitants. EU expansion to North African states, new economic agreements between the US and the Caribbean, development of the Union of South America and of the African Union are other possible positive movements in the Atlantic Ocean.

Latin America has significant agricultural fields and food production will also grow in the future. Instead, African states are launching industrial activities, requiring raw materials and agricultural products from Latin America, which will lead to a new massive maritime route of the South Atlantic. Thus, the Atlantic has the chance to become again the main geopolitical centre within the World Ocean.

Pacific: The Pacific Union or just Asia

In the Pacific, the main mega power on which geopolitics depends, is China. There are prognoses showing that China's population will remain stable, or will even grow by 2100, to more than 1.5 billion people. A decline of one billion inhabitants could also be possible, China being demographically overtaken by both India and Nigeria.

Going from the premise that wealth generally unites, such being the case of the EU, NAFTA or OPEC, the two largest powers of the world, China and the US will coexist in the Great Ocean but also the old powers Canada, Japan and Russia, as well as the new powers: Korea, Indonesia, Philippines, Vietnam, Mexico or Colombia. It is difficult to predict if the US and China will maintain economic alliances, attracting the other states, and transforming APEC into an union like the EU, or on the contrary, war will divide the Pacific in the new Iron Curtain, where the two superpowers will confront from the following points of view: military, cultural, economic, secret services or spatial (Pedrero, 2008, p. 55-57).

Generally, military tensions weaken when states become commercially and financially interdependent, but there are plenty of examples of wars that have begun between states that were the closest trading partners (Toffler and Toffler, 1995, p. 243-244).

At the moment, there is an economic and a commercial rapprochement between East Asian Southeast Asia states, to the detriment of the relations with America. If this trend continues, interconnecting even more Asian states, we will have to deal with the strongest union of the world, namely ASEAN in an extended form.

There is another scenario, that food will be the determining factor in the geopolitics of nations. Economic growth and, at the same time, the increased consumption within the emerging powers mostly situated in East, South-East and South Asia, could leave poor African countries without food. If African countries do not regulate their economy and do not prevent the demographic explosion, we will have an entire continent in famine, migration and wars throughout the 21st century, and the main maritime routes will be between the continent of America and Asia or Europe, avoiding Africa (Roberts, 2009)

Indian Ocean: a favoured ocean

The Little Ocean could comprise, around its waters, by 2100, more than 50% of the world's total population. Another 4 power centers: Europe, Russia and Central Asia, East Asia and the western half of Africa are indirectly involved in the political and economic life of the ocean, the economic flow between East Asia and Europe or Africa, passing through the Indian Ocean.

At a first glance, India will have a major role in this change. The small state, which occupies only 2% of the surface of the Planet and over 15% of the population, is predicted to have between 1.700 million and 2.200 million inhabitants by the year 2100 (Gifford, 2005, p. 280). India's economic power has

also major chances to overtake the US by 2050 and China until the end of the 21st century. Indonesia, Pakistan, Iran, Saudi Arabia, Tanzania or South Africa could also become great economic powers.

Also, the emergence of new powers in the Indian Ocean through territorial expansions is to be taken into account. The integration of the small state of Israel into the European Union as a measure to increase the Arab population around it, the union of China with the state of Myanmar where both states speak Sino-Tibetan languages, or the transformation of Sub-Saharan Africa into a federation-type union, are possible actions by which mega powers outside the Indian Ocean, to become riparian states of these waters. China is currently launching a mega-project in Pakistan called CPEC (China-Pakistan-Economic-Corridor), with a value that will exceed 80-100 billion US dollars, providing the construction of motorways, railways, seaports and power supplies that will link China to the Indian Ocean.

Indonesia is predicted to have between 300 to 400 million inhabitants by 2100, Bangladesh between 200 and 300 million, Iraq between 130 and 180 million, Tanzania between 300 and 360 million, Kenya between 140 and 190 million, Egypt between 160 and 220 million, and states that do not have direct access to the coastline: Ethiopia between 250 and 350 million and Uganda over 200 million people.

Countries with more than 100 million inhabitants, which will exceed the population of Russia or Japan by 2100, will be everywhere in the Indian Ocean. Thus, countries such as Iran, Yemen, Madagascar, Mozambique, Sudan, South Africa, or even Thailand, Saudi Arabia and Somalia could exceed each, 100 million inhabitants.

The surprise could come from Pakistan. It has 200 million inhabitants at the moment, from a population of 38 million in 1950. For the year 2050 it is estimated to exceed 300 million inhabitants, but until 2100, the prognoses are uncertain, being estimated between 300 and 700 million inhabitants, with real chances to become the Indian Ocean's Nigeria.

CONCLUSIONS

Until 1500, the Mediterranean Sea and the North Indian Ocean dominated the world shipping. Simultaneously, the states around these waters owned most of the world's population.

It was followed by the North Atlantic, and by the Northern Pacific now, which is the world's first commercial, economic and geopolitical axis. Looking at the demographic evolution around the oceans, it is found that every time an ocean held most of the population, it also became a commercial, and then an economic center.

Currently, the population around the Indian Ocean has exceeded the Pacific population, and far from it, there is the population around the Atlantic Ocean.

Future evolution will further mark changes in population distribution, so that if in 1950, the population around the Indian Ocean was lower than the populations around the Pacific and Atlantic Ocean, it has now reached the first place, and by the year 2100, the total population around the Little Ocean is expected to reach 50% of the world's total population.

It is certain that the world's population is gathering around the Indian Ocean, and so is the economy. Here, there will be the most populated states, the greatest powers of the world, and, in the same time, the most circulated

maritime route that will attract both riparian states and external states, such as: Europe, East Asia and Central and Western Africa. China already takes the place of the West in Africa, and cheap raw materials go to Asia using the Indian Ocean route (Lynch, p. 107).

With more than 50% of the world's population by 2100, and sustained growth after that period, the Indian Ocean tends to exceed the commercial volume of other oceans for at least a few centuries..

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