REPUBLIC OF SRPSKA: SOCIO-GEOGRAPHIC CHALLENGES

Goran MUTABDZIJA

University of East Sarajevo, Bosnia and Herzegovina, goran.mutabdzija@gmail.com

Abstract: This paper presents possible socio-geographic challenges and solutions of NUTS standards implementation. Republic of Srpska has ambitions to be a part of ordered European space and, as a part of Bosnia and Herzegovina, it regulates its territory organization according to EU criteria. The author of this paper autonomously emphasizes some of their biggest geographical problems in domain of population and structure of economy according that offers possibilities to facilitate them through the process of regionalization on the basic NUTS standard.

Keywords: Republic of Srpska, BiH, NUTS, statistics, population, regionalization

I. INTRODUCTION

The main document in the new history of Bosnia and Herzegovina is The General Framework Agreement for Peace, reached at Dayton, Ohio on 21 November 1995. Annex 4 of the Agreement is the current Constitution of Bosnia and Herzegovina, recognizing Republic of Srpska as one of its two main political-territorial divisions and defining the governmental functions and powers of the both entities. The IEBL (Inter Entity Border Line-red line at Figure 1) is an administrative demarcation uncontrolled by military and there is the free movement across it. The total length of the IEBL is approximately 1,080 km. A basic document on the territory cohesion is the Spatial Plan of Republic of Srpska, adopted in 2007, and it emphasizes necessity of establishing regional policy. This document stated regionalization of Republic of Srpska into six counties (Prijedor, Banja Luka, Doboj, Bijeljina, East Sarajevo and Trebinje). On the other hand, the Institute of Statistics admits another six counties: Banja Luka, Doboj, Bijeljina, East Sarajevo, Foca and Trebinje. It means that there is no solid and clear vision of future regional policy, because official data are incomparable.
So, lack of official and comparable population statistics is an evident problem. The last census was conducted in 1991 and, finally, there is political approval on the state level about the next one in October 2013.

Main statistics are based on the assessments of the Institute of statistics of Republic of Srpska and International organization like Delegation of the European Union to BH and UNDP. Without good statistics data it is impossible to make successful strategy policies and create sustainable development of the whole territory. But, the biggest problems of Republic of Srpska are in the domain of population, like unequal population density and negative overall natural population growth.

II. ECONOMIC-GEOGRAPHICAL BACKGROUND OF RS

In the territory of Republic of Srpska live 1,437,477 inhabitants, located in 62 municipalities (RS Institute for Statistics, 2011). The average municipality size is 397 km² with 23734 inhabitants. However, as a result of socio-historic development, there is a huge contrast in the domain of number of inhabitants (1:3623) and the size of the territory (1:45). Basically it is the result of the splitting of the municipalities “before the war”, so there are 11 municipalities with areas smaller than 100 km² and 15 municipalities with less than 5000 inhabitants. Even bigger problem is the age structure of population which is extremely indigent, aged contingent I (0-14) 17%, II (15-65) 65,8% I III (>65 god.) 17,2%. (UNDP, 2010)

Looking at Republic of Srpska through regional differentiation based on the principle of relief homogenous region, there are two main areas: lowland and highland. Taking into account just one criteria-density of population, huge differences can be seen. Average population density in Republic of Srpska is 56 people per km², lowland (Posavina and Semberija) has 150 people per km² and highland has 16 people per km². The differences in socio-economical domain are huge. Smaller number of users stipulates prices to go up and quality of public services to go worse (education, health, transport etc.).
Also, migration directions follow the territory distribution of population density and they are the result of economically motivated migrations from highland (Krajina, Sarajevo-Romanija region, Herzegovina) to lowland (Posavina and Semberija) and bigger towns (East Sarajevo and Trebinje). In highland area there is a great deficit of infrastructure objects (roads, objects of culture, etc.) and labor markets. This massive system deficiency is the result of socio-economical development and obvious lack of regional policy up to now. Price of this deficiency could be much higher and experience shows that problem like this cannot be solved, even in more developed countries than Bosnia and Herzegovina, without the help of the EU.

Basic economic parameters of Republic of Srpska, as well as Bosnia and Herzegovina, are greatly troublesome. In 2002, Republic of Srpska and Albania had a GDP value of around 4500 PPS. Regarding the Western Balkan area, the average of GDP per capita is 2724 (Euros). This value is much lower than the other averages such as EU29: 19070 Euros, EU25: 18920 Euros, EU15: 26430 Euros, Accession 10: 7654 Euros. In Croatia, the value of GDP per capita (Euros) is very high (5828 Euros) concerning the average value in the Western Balkan area. Albania and Bosnia and Herzegovina (around 1500 Euros) have the lowest values in the study area. On the regional level, most of the regions in the European Union have GDP per capita rates (in Euros) from the middle of 18000 to below 28000 Euros. Regarding the Western Balkan area, the lowest values are displayed in
Kosovo region (912 Euros). In Serbia and Montenegro the maximum value is presented in the Montenegro region (2113 Euros per capita) and the minimum is appeared in Central Serbia region (1205 Euros). In all the Croatian regions the values fluctuate between 4000 and 8000 Euros (ESPON, 2005).

In 2010 Bosnia and Herzegovina had GDP per capita 4,157 USD and ranked on 98th in the world while GDP PPP was 7,751. According to UNDP data, GDP per capita in Bosnia and Herzegovina was 3,287 and Republic of Srpska 3,020 Euro (UNDP, 2010). However, according to the Government of Republic of Srpska, during 2010 substitution import was 57.2% and economic growth 16% (IMF, 2012). According to the territorial distribution of these parameters, bad position of highland area regions is perceived (East Sarajevo, Foca and Trebinje).

Analysing comparative data in the table 1 relating to the important socio geographical facts there are substantial differences at the regional levels of the Republic of Srpska.

### Table 1 General development standards per territorial units in BiH/RS-indicators 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Areas</th>
<th>Employment rate %</th>
<th>Unemployment rate %</th>
<th>GDP per capita BAM</th>
<th>Salary monthly average BAM</th>
<th>Average expenditure BAM</th>
<th>Poverty rate %</th>
<th>Number of doctors per 1000 people</th>
<th>Total number students per 1000 people</th>
<th>Number of registered travel car per 1000 people</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BiH</td>
<td>21.9</td>
<td>40.6</td>
<td>6429</td>
<td>752</td>
<td>1655</td>
<td>18.2</td>
<td>1.5</td>
<td>160</td>
<td>185</td>
</tr>
<tr>
<td>2</td>
<td>Federation of BiH</td>
<td>22.6</td>
<td>44</td>
<td>6718</td>
<td>751</td>
<td>1777</td>
<td>17</td>
<td>1.4</td>
<td>174</td>
<td>192</td>
</tr>
<tr>
<td>3</td>
<td>Republic of Srpska</td>
<td>20.6</td>
<td>33.9</td>
<td>5906</td>
<td>755</td>
<td>1463</td>
<td>20.1</td>
<td>1.4</td>
<td>138</td>
<td>166</td>
</tr>
<tr>
<td>4</td>
<td>Banja Luka</td>
<td>22.7</td>
<td>30</td>
<td>6659</td>
<td>773</td>
<td>1526</td>
<td>19.5</td>
<td>1.6</td>
<td>139</td>
<td>175</td>
</tr>
<tr>
<td>5</td>
<td>Bijeljina</td>
<td>17.2</td>
<td>39.3</td>
<td>4899</td>
<td>749</td>
<td>1431</td>
<td>18.7</td>
<td>1</td>
<td>129</td>
<td>160</td>
</tr>
<tr>
<td>6</td>
<td>Doboj</td>
<td>17.2</td>
<td>37.4</td>
<td>4255</td>
<td>646</td>
<td>1411</td>
<td>20.2</td>
<td>1.1</td>
<td>121</td>
<td>158</td>
</tr>
<tr>
<td>7</td>
<td>East Sarajevo</td>
<td>22</td>
<td>34.5</td>
<td>6672</td>
<td>782</td>
<td>1590</td>
<td>17.3</td>
<td>1.5</td>
<td>133</td>
<td>160</td>
</tr>
<tr>
<td>8</td>
<td>Foča</td>
<td>17.9</td>
<td>42.2</td>
<td>5667</td>
<td>810</td>
<td>1086</td>
<td>37</td>
<td>2.4</td>
<td>116</td>
<td>121</td>
</tr>
<tr>
<td>9</td>
<td>Trebinje</td>
<td>24.9</td>
<td>34.6</td>
<td>6846</td>
<td>740</td>
<td>1367</td>
<td>22.9</td>
<td>1.6</td>
<td>151</td>
<td>178</td>
</tr>
</tbody>
</table>

Source: Regional Disparity Assessment, UNDP Bosnia and Herzegovina 2010

Employment rate in Republic of Srpska was 20.6 %, unemployment rate 33.9% and poverty rate 20.1%. There are 0.6% of 4 members with HHs (households) without any income source, 37.9% of 4 members with HHs with one income source and 61.5% of 4 members with HHs with two or more income sources. Looking at the basic living standards, monthly salary average was 386 Euro and average expenditure was 748 Euro. Regarding the households 33.8%
have sewage system and 89.8% have potable water. Even 47 person/1000 people are displaced persons so it additionally worsens the situation in the entire Republic of Srpska (UNDP, 2010).

The indicators similar to those in the table1 are also present in the domain of the table 2 relating to General living standards per territorial units in BiH/RS-indicators 2.

### Table 2 General living standards per territorial units in BiH/RS-indicators 2

<table>
<thead>
<tr>
<th>No.</th>
<th>Areas</th>
<th>Percentage of household with sewage system</th>
<th>Share of 4 member with HHs without any income source %</th>
<th>Share of 4 member with HHs with only one income source %</th>
<th>Share of 4 member with HHs with two or more income sources %</th>
<th>Number of hospital beds per 1000 people</th>
<th>Number of displaced person per 1000 people</th>
<th>Poverty gap %</th>
<th>Percentage of household with potable water</th>
<th>ILO Employment rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BiH</td>
<td>47.7</td>
<td>1.6</td>
<td>34.3</td>
<td>64.1</td>
<td>3.5</td>
<td>32</td>
<td>26.2</td>
<td>94.1</td>
<td>33.6</td>
</tr>
<tr>
<td>2</td>
<td>Federation of BiH</td>
<td>55.3</td>
<td>2</td>
<td>32.5</td>
<td>65.5</td>
<td>3.5</td>
<td>24</td>
<td>25.2</td>
<td>96.9</td>
<td>31.8</td>
</tr>
<tr>
<td>3</td>
<td>Republic of Srpska</td>
<td>33.8</td>
<td>0.6</td>
<td>37.9</td>
<td>61.5</td>
<td>3.4</td>
<td>47</td>
<td>27.5</td>
<td>89.6</td>
<td>37.3</td>
</tr>
<tr>
<td>4</td>
<td>Banja Luka</td>
<td>40</td>
<td>0</td>
<td>41</td>
<td>59</td>
<td>4.4</td>
<td>32</td>
<td>31.3</td>
<td>91.2</td>
<td>33.8</td>
</tr>
<tr>
<td>5</td>
<td>Bijeljina</td>
<td>18.7</td>
<td>1.8</td>
<td>41.6</td>
<td>56.6</td>
<td>1.7</td>
<td>57</td>
<td>26.1</td>
<td>89.5</td>
<td>41.5</td>
</tr>
<tr>
<td>6</td>
<td>Doboj</td>
<td>29.6</td>
<td>0</td>
<td>30</td>
<td>70</td>
<td>2.7</td>
<td>52</td>
<td>26.3</td>
<td>88.2</td>
<td>43.1</td>
</tr>
<tr>
<td>7</td>
<td>East Sarajevo</td>
<td>33.1</td>
<td>0</td>
<td>13.8</td>
<td>86.2</td>
<td>3.6</td>
<td>57</td>
<td>20</td>
<td>92.8</td>
<td>42.7</td>
</tr>
<tr>
<td>8</td>
<td>Foća</td>
<td>62.5</td>
<td>0</td>
<td>45.5</td>
<td>54.5</td>
<td>5.1</td>
<td>63</td>
<td>23.4</td>
<td>98.9</td>
<td>29.9</td>
</tr>
<tr>
<td>9</td>
<td>Trebinje</td>
<td>36.9</td>
<td>3.7</td>
<td>47.5</td>
<td>48.7</td>
<td>2.5</td>
<td>91</td>
<td>20.3</td>
<td>73.6</td>
<td>31.9</td>
</tr>
</tbody>
</table>

Source: Regional Disparity Assessment, UNDP Bosnia and Herzegovina 2010

According to data about Bosnia and Herzegovina in 2006, the structure of economical sectors was: agriculture 9.8%, industry 25.9% and services: 64.3% (CIA, 2012). Agriculture is characterized by small, unprofitable holdings and incompatibility with the domestic needs, so the food is the most important importation goods. During the period of former Yugoslavia heavy and military industry was located in Bosnia and Herzegovina. So unfavorable industry structure, which is mostly destroyed during the civil war (1992-1995) is inherited. After the civil war, manufacturing declined up to 80% and GDP is still below the level from 1990.

Cohesion policy of EU has a main goal to standardize economical development in the countries and regions of the entire EU territory. Establishing NUTS (EU, 2003) standardization (Nomenclature of territorial units for statistics)
Republic of Srpska has made the first step on the road of establishing regional policy. Basic NUTS principles and characteristics are (Eurostat, 2012):

**Principle 1:** The NUTS regulation defines minimum and maximum number of inhabitants: Despite the aim of ensuring that regions of comparable size all appear at the same NUTS level, each level still contains regions which differ greatly in terms of population.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTS 1</td>
<td>3 million</td>
<td>7 million</td>
</tr>
<tr>
<td>NUTS 2</td>
<td>800,000</td>
<td>3 million</td>
</tr>
<tr>
<td>NUTS 3</td>
<td>1,500</td>
<td>8,000</td>
</tr>
</tbody>
</table>

**Principle 2:** NUTS favours administrative divisions (normative criterion). For practical reasons the NUTS classification is based on the administrative divisions applied in the Member States that generally comprise of two main regional levels. The additional third level is created by aggregating administrative units.

**Principle 3:** NUTS favours general geographical units. General geographical units are normally more suitable for any given indicator than geographical units specific to certain fields of activity.

According to Article 1 Regulation EU 1059/2003, i.e. shown in the table 3, basic subject matter is to establish a common statistical classification of territorial units, hereinafter referred to as ‘NUTS’, in order to enable the collection, compilation and dissemination of harmonized regional statistics in the Community.

**Fig. 3** NUTS 2 equivalent and comparable statistical units in the Western Balkan countries-part. (Source: ESPON 097/2005)

The EU has ambition to create regions with ability to provide implementation common policy and practical political supporting throughout the
region. This means that the implementation of these results should be constantly monitored and evaluated because it is the basis of the harmonized and sustainable economic development of the entire EU. Candidate Countries awaiting accession to the EU adopted NUTS classification and the countries of Western Balkan, mainly in status of potential candidates, which are going through the Stabilization and association process have to meet requirements for NUTS.

III. FRAMEWORK FOR REGIONALIZATION OF RS

Bosnia and Herzegovina is divided into two separate regions according to the federal status, the Bosniak and Croat Federation of Bosnia and Herzegovina and the Bosnian Serb-led Republika Srpska (ESPON, 2005). Therefore, the implementation of these measures whose aim is to stop the trend of demographic catastrophe is the cause *sine qua non* of all endeavors of Republic of Srpska to organize itself as a successful and sustainable entity. A precondition to formulating, implementing and monitoring the regional policy measures is the existence of established regional boundaries. Division proposals depend on criteria used. Politicians and various professions use different criteria, in order to achieve the optimal territorial structure that could enable same or at least similar effects of certain policy measures within the same territorial unit, and thus could be easily monitored.

Deciding upon the definition of the region as the basis for a regional disparity in Bosnia and Herzegovina was not an easy task. It was not only hindered by the lack of data but also, like so many other things, by the fact that it could quite easily have been politicized. Defining the boundaries and composition of territorial units would be an important first step for any future analysis of the regional inequalities (UNDP, 2010).

So NUTS standardization of Republic of Srpska coming from next assumption (see fig. 3):
- Bosnia and Herzegovina is level NUTS 1,
- Entities (Republic of Srpska – Federation of Bosnia and Herzegovina) are levels NUTS 2.

These assumptions fulfill requirements:
- Demographic:
  - more than 800,000 inhabitants;
- Socio-economical:
  - Democratic selected rules on direct voting (National Assembly);
  - Proper budget money (Government of Republic of Srpska);

All region or county as NUTS 3 level do not met EU requirements.
Table 4 Republic of Srpska-basic geographical data

<table>
<thead>
<tr>
<th>No</th>
<th>County/Region</th>
<th>Areas (km²)</th>
<th>Total no. of population</th>
<th>Population density</th>
<th>No of Municipalities</th>
<th>No of Settlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Republic of Srpska</td>
<td>24,617</td>
<td>1,437,477</td>
<td>58.4</td>
<td>62</td>
<td>2,622</td>
</tr>
<tr>
<td>1</td>
<td>Banja Luka</td>
<td>8,977</td>
<td>655,783</td>
<td>73.1</td>
<td>21</td>
<td>1,164</td>
</tr>
<tr>
<td>2</td>
<td>Doboj</td>
<td>3,120</td>
<td>255,878</td>
<td>82.0</td>
<td>8</td>
<td>550</td>
</tr>
<tr>
<td>3</td>
<td>Bijeljina</td>
<td>3,349</td>
<td>287,840</td>
<td>85.9</td>
<td>12</td>
<td>513</td>
</tr>
<tr>
<td>4</td>
<td>East Sarajevo</td>
<td>3,082</td>
<td>118,800</td>
<td>38.5</td>
<td>9</td>
<td>150</td>
</tr>
<tr>
<td>5</td>
<td>Foča</td>
<td>2.35</td>
<td>39,946</td>
<td>17.1</td>
<td>5</td>
<td>90</td>
</tr>
<tr>
<td>6</td>
<td>Trebinje</td>
<td>3,754</td>
<td>79,230</td>
<td>21.1</td>
<td>7</td>
<td>155</td>
</tr>
</tbody>
</table>

Source: Data of Institute of Statistics of Republic of Srpska

The table 4 gives a clear view on what is the main deficiency regarding county regionalization by Institute for Statistics of Republic of Srpska. It is the lack of the minimum inhabitant number in every county (150,000) whereby this criterion is met by following counties: 1 (Banja Luka), 2 (Doboj) and 3 (Bijeljina) but not by these towns: East Sarajevo, Foca and Trebinje.

Legend
1 Prijedor
2 Banja Luka
3 Doboj
4 Bijeljina
5 Hercegovina

Fig. 4 Possible NUTS 3 level according Table 5

This proposal of NUTS standardization of Republic of Srpska accepts some solutions of Spatial plan of Republic of Srpska, adopted in 2007 in the National Assembly with some changes, but main one regions 5 and 6 should be merged because there is the lack of inhabitants in certain regions.
### IV. CONCLUSION

The overall size of Bosnia and Herzegovina is 55,000 km\(^2\) with the overall population ranging between 3.4 and 3.8 million. Looking at regional level it is divided into two entities as normative units which fitted NUTS 2 level. They consist of 17 smaller units (6 in Republic of Srpska, 10 in Federation of Bosnia and Herzegovina and Brcko District as autonomous region) and some of them do not meet requirements of NUTS 3 level. Still there are not official and comparable data (last population census was in 1991), so as a result there is no visible cohesion policy. This is an urgent necessity because regional differences are huge and insuperable which additionally complicates economical situation. Another huge problem, apart from the economical, is population (dynamism, density, natural increase, geographical distribution…) and these two together create impediments for development and sustainability of these societies. Also, many municipalities (62 in Republic of Srpska) additionally complicate territorial organization and modest budgets make more adverse. So, rationalization in the number of the municipalities (LAU categorization) is yet another urgent task.

Therefore, adoption of EU standards and experiences in domain cohesion policy is set up as the best solution. Many regional initiatives coming from the EU, like Danube strategy and IPA founds, are the best signposts for “white hole” of Western Balkans and Republic of Srpska, as well.

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