Contribution to the Geospatial Analysis of the Poverty in Bosnia and Herzegovina

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Background

• Poverty is still one of the most pervasive problems in the overall human development

• Millions of people live in extreme poverty, i.e. with less than the international poverty line of US$1.90 a day or making just a little more than this amount

• SDGs 2030 treat this problem within SDG 1-No poverty
Poverty profile of Bosnia and Herzegovina - Evidence from Household Budget Survey (1)

• First poverty assessments in Bosnia and Herzegovina were made in 2001 and 2004 within the Living Standards Measurement Survey (LSMS)

• World Bank methodology of absolute poverty was applied

• Consumption expenditure was used as a monetary measure of poverty

• Following poverty and inequality indicators were produced:
  
  (i) Head Count;
  (ii) Poverty Gap;
  (iii) Severity of Poverty;
  (iv) Shortfall.

  a) Gini coefficient;
  b) Gini coefficient using OECD scale;
  c) Theil index;
  d) Entropy index;
  e) S90/S10;
  f) S50/S10;
  g) S90/S50.
The majority of poverty and inequality indicators were disaggregated by:

- regions (Bosnian entities);
- type of location (urban, rural and mixed);
- age;
- war displacement status;
- education of the head of household;
- employment status of the head of household;
- employment status of adults and
- household size.
Poverty profile of Bosnia and Herzegovina – Evidence from Household Budget Survey (3)

• Since 2004, Household Budget Survey (HBS) was designed for measuring of poverty
• European methodology of relative poverty was applied
• Consumption expenditure of households by COICOP was used as a monetary measure of well-being
• Following poverty and inequality indicators were calculated:
  (i) Poverty incidence at household level; a) Gini coefficient
  (ii) Poverty incidence at individual level; b) S80/S20.
  (iii) Poverty gap.
• HBS was conducted four times: 2004, 2007, 2011 and 2015
Poverty profile of Bosnia and Herzegovina – Evidence from Household Budget Survey (4)

The majority of these indicators were disaggregated by:

- regions (Bosnian entities and Brcko district BiH);
- type of location (urban, rural);
- type of households;
- size of households;
- age of the head of household;
- sex of the head of household;
- education of the head of household;
- employment status of the head of household;
- age of household members;
- sex of household members.
Poverty profile of Bosnia and Herzegovina – Evidence from Household Budget Survey (5)

- Neither LSMS nor HBS could provide poverty indicators at levels of data disaggregation, which are lower than Bosnian entities, because of limited sample sizes
  - LSMS 2011: 5,002 households
  - LSMS 2004: 3000 households
  - HBS 2004: 7,413 households
  - HBS 2011: 7,400 households
  - HBS 2007: 7,468 households
  - HBS 2015: 7,702 households
- There are user`s needs for poverty data at lower levels of geospatial and administrative organization of the country
- UNDP projects related to the regional disparity assessment in Bosnia and Herzegovina in 2010 and 2015
Geospatial presentation of basic poverty indicators in Bosnia and Herzegovina (1)

Following poverty indicators are selected from 2015 household budget survey:

- Poverty rate at household level
- Poverty gap
- Severity of poverty
- Gini coefficient
- Poverty rate at individual level
- Number of poor and
- Consumption expenditure per capita.
- ArcGIS Ver. 10.0. was used

- Above mentioned indicators are presented at level of 17 Bosnian cantons, regions or district.
Geospatial presentation of basic poverty indicators in Bosnia and Herzegovina (2)

Poverty rates at household level by cantons/regions, HBS BiH 2015

Cantons / Regions
Poverty rate HHs
- 7.0% - 12.9%
- 13.0% - 18.9%
- 19.0% - 24.9%
- 25.0% - 30.9%
- 31.0% - 36.9%
- 37.0% - 42.9%
Geospatial presentation of basic poverty indicators in Bosnia and Herzegovina (3)

Poverty gap at household level by cantons/regions, HBS BiH 2015

Cantons / Regions
Poverty gap
- 15.0% - 18.9%
- 19.0% - 22.9%
- 23.0% - 26.9%
- 27.0% - 30.9%
- 31.0% - 34.9%
- 35.0% - 38.9%
Geospatial presentation of basic poverty indicators in Bosnia and Herzegovina (4)
Geospatial presentation of basic poverty indicators in Bosnia and Herzegovina (5)
Geospatial presentation of basic poverty indicators in Bosnia and Herzegovina (6)
Geospatial presentation of basic poverty indicators in Bosnia and Herzegovina (7)

Number of poor by cantons/regions, HBS BiH 2015

Cantons / Regions
Number of poor people
- 3,000 - 20,999
- 21,000 - 38,999
- 39,000 - 56,999
- 57,000 - 74,999
- 75,000 - 92,999
Geospatial presentation of basic poverty indicators in Bosnia and Herzegovina (8)

Consumption expenditure per capita by cantons/regions, HBS BiH 2015

Cantons / Regions
Consumption expenditure per capita (KM)
- 360.00 - 469.99
- 470.00 - 579.99
- 580.00 - 689.99
- 690.00 - 799.99
- 800.00 - 909.99
- 910.00 - 1019.99
Conclusions and future steps

• Paper opened a question of the production of territorial statistics on poverty at sub-entity level in Bosnia and Herzegovina
• Increasing user`s need for subnational and sub-entity statistical data on living standards and poverty
• Limitation of household surveys for providing of such kind of disaggregated statistical data
• Needs for sophisticated statistical techniques, which can combine survey data with those coming from population census
• Pre-condition for the use of such techniques is that survey samples were selected from the census sampling frame, which is still not done in Bosnia and Herzegovina
• New sampling frame in following 3 years
• Common work of statisticians and specialists for geospatial presentations of statistical data needed
Thank you for the attention!

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