The Dynamics of Civil War Outcomes in Bosnia and the North Caucasus of Russia: A Project of the Human and Social Dynamics Initiative of the National Science Foundation

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http://www.colorado.edu/ibs/waroutcomes/

Research Questions:

- What is the character and localized distribution of economic, social, political, environmental and health outcomes of the wars in the two conflict zones?
- What factors explain these distributions?
- How can the application of an integrated methodology of individual and aggregate data that relies on opinion survey, census, governmental, and remote sensing data collection be operationalized in a spatial analysis across a variety of scales?
- Are postwar developments in the former conflict regions promoting or retarding interethnic harmony and democratic values, thus enhancing or reducing the prospects for long-term peace?

Satellite Analysis of Abandoned Agricultural Land

Moderate resolution satellite analysis used Landsat Thematic Mapper (TM) 30m data to detect abandoned agricultural land in both the northeast and southern Bosnia and Herzegovina study areas. Supervised classifications of abandoned agricultural land were created and verified through field work. The map shows an example day of field work from the southern city of Mostar. Each triangle represents a field where a photograph and written log of the agricultural land was recorded.

Social Distances in Bosnia and the North Caucasus

'Social distance' describes how close members of diverse social groups are to one another in an unmeasured social metric. We calculate distances among the 1000 interviewees' responses to ten questions regarding ethnic and religious preferences for interaction, displaying them in a two-dimensional space to see underlying, unobserved social distances defined by the answers. We use multidimensional scaling (MDS) to decompose social distances from the 10 dimensions.

Analysis of Violent Events in the North Caucasus, 1999-07

Violent event data were collected from multiple newspaper sources, yielding almost 13,000 events from 1 Sep 1999 – 1 May 2007. Events are coded by actor, target, exact geocoordinates, locality/republics, casualties and sources of information.

In Chachnya, after a surge through 2002, violent events from all sources declined dramatically to 2007. A seasonal pattern is also evident.

In Ingushetia and Dagestan, two Republics adjoining Chechnya, violence is stable over time and now (2007) equals that in Chechnya.

In 2001/02, violence was geographically concentrated in Chechnya, especially along the main east-west axis through Grozny.

By 2005/06, violent events spread into Ingushetia and Dagestan.

A plot of geospatial clustering scores based on the average nearest neighbor distance shows a clear concentration or geographic diffusion for all types of violence from 2000 to 2006.

Future work

Integration of satellite data analysis with sociodemographic (census) and survey responses in a multiscale GIS.

-Analysis of the diffusion of violence using geospatial techniques and methodologies
-Field work in the North Caucasus focused on forced migrations and local inter-ethnic tensions.

For the latest findings, see the project website at: http://www.colorado.edu/ibs/waroutcomes/