Spatial analysis of illegal migration in the Czech Republic 2005-2007

Abstract

This thesis deals with the spatial analysis of illegal migration across so-called green border from the Czech Republic to Germany and Austria in 2005-2007. The main data set was acquired from Czech Alien Police Service and Ministry of the Interior of the Czech Republic and contains also spatial component. For all places of detention various indicators characterizing geomorphology, landscape structure or distances from the closest routes, settlements and border checkpoints are computed. We can identify main aspects related to the choice to illegally cross state borders by merging the database of anonymous personal data of persons detained while illegally crossing the border and geographical data describing the nature of the place of detention.

Keywords: illegal migration, GIS, Python, spatial analysis, correlation, regression