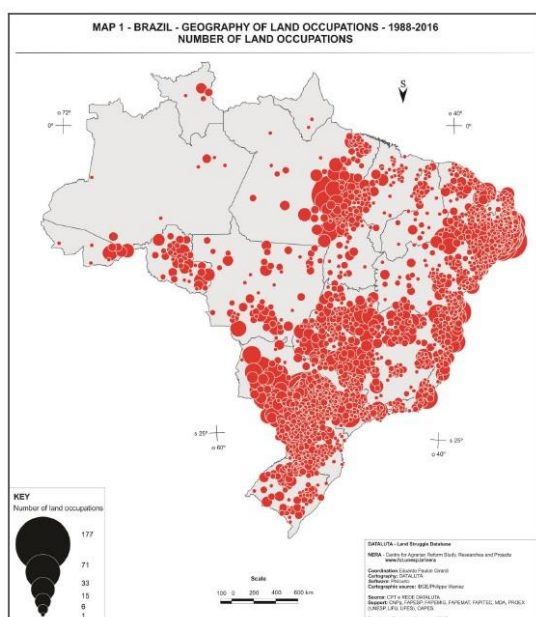


# The Spillover Effect of Rural Land Occupations in Brazil

In my term project, I will analyze the geographical spillover effect of rural land occupations in Brazil on the Bolsa Familia social assistance programme (BF). As a response of land dispossession experienced in Brazil during the second half of the 20th century, Brazilian rural has also faced expropriating land occupations since 1980s which were organized by radical social and political movements. The association of welfare expansion in Brazil, with the rural conflicts deserves consideration in depth. I plan to add the findings of my term project to another working paper focuses on the question that what is the relationship between land occupations in rural and nationwide social assistances.

My first hypothesis in the term project is that there is a significantly positive impact of probability of land occupations in the neighbors, on the BF expenditures of the government. A second hypothesis is then the effect of rural land occupations in a municipality would remain significant after adding the spillover variable.

Figure 1: Source DATALUTA (2017)



As it can be seen in Figure 1, the distribution of land occupations has a significant intensity in the south and east regions of Brazil. To handle with a possible spatial bias with this geographical concentration, to control for it, and to see the spillover effect, I will create a new variable by utilizing geographical data. For now, I downloaded length of border lines for each municipality with respect to neighboring municipalities, by ArcGis. In Brazil there are

(approximately) 5,500 municipalities. In my raw dataset there are 33,000 rows, which means approximately six neighbors for each municipality. I plan to weight the effect of each neighbor with respect to the length of border line through a three-dimensional array. I will add them together to find a total spillover effect.

For my land occupation data, I have a dummy variable whether there is any land occupation in that municipality for a specific year. By controlling the effect of weighted neighbor land occupations, which will be a continuous number from 0 to 1, I will differentiate the effect of land occupation in that municipality on preferences of the government while determining the amount of social assistances.