## **Project proposals**

## 1. Segregation

- **Data:** census data (household, population) and the corresponding basemap
- **Objects:** categories of population (scheduled castes or tribes, professional status, etc.)
- **Methods:** similarity index, theil entropy, segregation index tournament, autocorrelation, implementation of Cortese's Z (Cortese el al., 1976, "Further considerations on the methodological analysis of segregation indices", American Sociological Review, vol.41, n°4, pp.630-637.)

## 2. Amenities

- Data: census data (amenities) and the corresponding basemap and OSM data
- **Objects:** multivariate and spatialized characterization of the set of amenities (hospital, school, water, etc.) at the household level and at the village level
- **Methods:** multivariate geometrical analysis (PCA, hierarchical clustering), distance gradients, highlighting multiscale variation (regional vs. subregional effect)

## 3. Fire occurence

- **Data:** fire occcerrence database (MODIS), census data (amenities or population) and the corresponding basemap and OSM data
- **Objects:** crisis management, urbanization, socio-economical processes (agricultural practices)
- **Methods:** point pattern analysis, routing, accessibility measures, time series