**PSEUDOCODE MODEL MEGADAPT R version**

**SETUP.R**

* LOAD PACKAGES
  + STATISTICAL REGRESIONS (glmm; ADMB; pscl)
  + GENETIC ALGORITHM (gramEvol; ecr)
  + MAPS (maptools)
  + Data mangement (plyr)
  + VISUALIZATION (leaflet)
* Load data to:
  + Define the agents
    - Criteria,
    - Link criteria <-> landscape attributes
    - Criteria weights
    - CREATE Actions LINKS
      * Action <-> landscape attribute change
  + Read climate scenario
  + Read GIS layers, and
  + Define /read statistical models
    - Landscape attribute -> expectation of hazard
  + Define time-scale of running

**CYCLE.R**

FOR EACH YEAR:

FOR ALL SITES:

* + - * Prediction of FLOODING
      * Prediction of DISEASES
      * Site suitability
      * Site selection
      * Take action SACMEX, RESIDENTS
      * Update attributes of landscape/infrastructure systems
      * Update level of adaptation/sensitivity, exposure and vulnerability of the population

FOR EACH WEEK:

For SACMEX:

* + - * Double coupling

FOR ALL SITES:

* + - * Update WATER SCARCITY MODEL
      * Update PROTESTS

**VISUALIZATION and SAVE OUTPUT**

* + - * csv, txt to save the data frame ?
      * Indicators of vulnerability
        + Use leaflet to visualize the geo-locations