Interactive Notebooks for SAFE

* Try to link the case study to a GSA key message
* The Notebooks will be available on Github along with a couple of functions from the SAFE toolbox
* The Notebooks will be interactive through MyBinder
* The Notebooks should use examples that can be understood by the general public (simple and easy to communicate)
* The methodology is not shown. What would you do differently or change in your next step after seeing the inputs and outputs interactions?
* Notebook 1
  + Understand a system/interactions. Mapping
  + Socio hydrological model
    - Climate change
    - Population growth: living in floodplains
    - Flooding frequency
    - Forgetting about past disasters with time
    - Climate change uncertainty so high that overcomes the other variables and we can’t go forward?
    - CO2 related to Temp by a certain function that depends on the parameter x
      * If x > threshold then all the other parameters do not matter anymore. CO2 is then the most influential variable
      * If x < threshold then the other parameters still have impact on the results
    - DICE model? Equations available on an excel file
      * Use only some of them to simplify the model
      * Select a few interacting equations
  + What is controlling the response?
  + Predators vs preys example
    - Population density
    - Hunting efficiency
    - Depending on the baseline scenario
      * Extinction
      * Overpopulation
  + Vary a parameter at a time vs all at the same time
  + No need for observed data to compare with
* Notebook 2
  + Screening
  + What parameter can we neglect during calibration because they are not sensitive?
  + Simple hydrological model
    - HYMOD: beta is hard to explain