

## **Resilience.io GAMA prototype development programme**

The Resilience.io model is being developed as part of the Cities Alliance Future Cities Africa (FCA) programme by The Ecological Sequestration Trust (The Trust), The Institute for Integrated Economic Research (IIER) and Imperial College London (ICL).

### **Project aims**

The development vision is for an open source model to become available to city-regions across the world including deployment for African cities. The model is to provide in-depth insights in a substantial portion of available resources and wastes in city-regions inclusive of their metropolitan area and supply hinterland, and how policy and technology decisions can positively or negatively affect resource flows, expressed in terms of social, economic, and environmental performance indicators. The model architecture is designed to enable decision-makers and key stakeholders to make better city-wide policies, plans, investments and interventions.

### **GAMA Prototype**

The development of the prototype model is part of a 5-year development programme split into a number of phases. As a final outcome a user-friendly city-region systems model will be released under open source conditions. The FCA project supports the 18-month development under phase 1a, to build a prototype that demonstrates the core functionality of the modeling approach.

In order to deliver a successful demonstration of the functionality of the model a number of steps need to be achieved.

- 1) The identification of a specific 'sector' to investigate as part of the demonstration must be made by a consensus process. A high-level workshop is being convened on the 24<sup>th</sup> March in order to consult with experts and decision makers and to select a sector for investigation as part of the resilience.io prototype. See [event website](#) for further details. – The sector needs to be well described in its scope, boundary and activities.
- 2) A small working group will be formed with representation from government, community groups, universities and the private sector. These members will have a particular expertise in the sector to be investigated. This session will first happen on the 26<sup>th</sup> March with ongoing support from the Cities Alliance FCA team throughout the duration of the project (convening)

- 3) Sufficient data needs to be available to generate a reasonable model representation, with a minimum of five years worth of data available. To achieve this the working group will help to source data including census data, government data, industry data, ground-truthing satellite Earth Observation data.

26<sup>th</sup> March – resilience.io prototype demonstration – Detailed session

Attendees will be provided with a more detailed 'technical' pack of information following the 24<sup>th</sup> March workshop to include.

- Preliminary sector selection guidelines
- Preliminary data requirements listing
- 4 sector examples
- Brief output on sector definition from the 24<sup>th</sup> March session

Agenda

- 1) Welcome, recap and context for the session - SRP
- 2) Detailed presentation on the model functions (1/2 hr economics webinar presentation) - RK
- 3) Broad discussion on the sector investigation to include
  - a. Scope and boundary of sector
  - b. No. of activity locations to consider
  - c. Data requirements and availability
  - d. Data collection methodology
- 4) Summary and future collaboration agreements

Example of future collaboration

- Develop virtual project space for team to access documents, deposit data and references etc. communicate
- Regular telephone/web meetings (2-monthly?) for progress with model development, involvement of GAMA team in model review/testing,