Research fellow (Post-Doc) ReNovRisk-IMPACTS

Indirect costs of cyclonic damage

Job description

Project context:

All the territories located in the Indian Ocean face several natural risks. Among them, cyclones hold a preponderant place, with an observed average of 4.73 cyclones per year in the southwest Indian Ocean basin over the last 30 years. In terms of damages, these natural phenomena have important repercusions: Besides impacting goods and services, they have a profound effect on both economic performance and living living conditions in the affected regions.

In this context, the ReNovRisk-IMPACTS project aims to, on the one hand, develop a valid protocol for the evaluation of impacts of cyclones, while, on the other hand, measure the potential economic impacts of cyclones. The ultimate goal of the project is to contribute to the improvement of the available information for decision-makers regarding spatial planning policies.
The project is organized in three axis : vulnerability, direct impacts and indirect impacts. The candidate will join the team focusing on the third axis, aiming to assess the indirect impacts of cyclones, both in terms of time and territory, using a computable general equilibrium model (CGEM)

Position:

The retained candidate will be in charge of adapting a CGEM representing the whole economy of the Reunion island –taking into account the interactions between the various agents and sectors of activity– to analyze the repercusions of cyclone impacts. It is expected that the resulting CGEM will be available to public decision-makers on the CEMOI website

The retained candidate is expected to be able to i) collect/elicit data to build the social accounting matrix; ii) formalized a metamodel of the Reunion's economy, specifying the model's functional forms.; iii) based on the two prior items, modify/build a CGEM adapted to the study of shocks of natural hazards; iv) both formulate valid simulation protocols and carry out simulations of the repercussions of cyclonic events; v) Present with scientific rigor the results of the simulations in order to both determine shock propagation paths, and assess sectors and agents most affected by rippling shocks due to the impacts of cyclones; and vi) produce scientific publications and communications from the results obtained.

In addition, the retained candidate may be required for i) the training of students, graduate students and staff in partner organizations (UCM, BNGRC); and ii) the joint supervision (with other team members) of graduate students.

The retained candidate is also expected to contribute to/lead the following deliverables:

- L.3.4: Methodological training / skills transfer

- L.3.1: Computable general equilibrium model to assess intersectoral impacts of direct damage of cyclones.

- L.3.1: Coordination meetings

Requirements

Diploma

- PhD in economics

General, theoretical or disciplinary skills

- Expertise in computable general equilibrium models (development and use of CGEM)
- Knowledge of natural disaster economics
- Knowledge of macroeconomics

Opertional skills

- Proficient in GAMS programming

- Knowledge on R programming is highly appreciated
- Teamwork and scientific rigor
- Well-organized and independent
- Scientific communication (articles, presentations, deliverables, conferences, workshops)

Language skills

- Be proficient in both English and French (oral as well as written communication is expected in both languages).

Conditions of employment

- Position to be filled between September 1, 2020 and February 1, 2021
- Fixeed-term contract: 12 months
- Remuneratiion: 2 318, 89 € net/month
- The activity is carried out in the Reunion island, at the Center for Economics and Management of the Indian Ocean (CEMOI) of the Université de la Réunion.
- Occasional trips to Madagascar.

Employer

Receiving Institution : Université de La Réunion
Recipient of the request :Pôle Recherche
Requested level : Ingénieur de Recherche (french system codification)
Concerned Team(s) :CEMOI teams

How to apply

Application

- CV up to date
- Motivation letter
- A research article, illustrative of the experience and skills demanded.
- Applications must be sent by email to Sabine Garabedian (sabine.garabedian@univ-reunion.fr)

Note : Additional information may be requested during the selection process.**. The candidate can send the application information in both English and French. Interviews will be held in French**

Calendar

- Deadline for applications: December 1st, 2020. Applicants are highly encouraged to send applications early on inasmuch as evaluations and interviews will begin immediately and will continue until the position has been filled.

Additional information

Sabine Garabedian, project leader.
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