



CERDI CNRS - UNIVERSITÉ CLERMONT AUVERGNE
Centre d'Études et de Recherches sur le Développement International



RESEARCH ASSISTANT

CERDI, Université Clermont Auvergne

Project: Weather Shocks and Migration in Madagascar

Deadline for applications: November, 20, 2021

Applications will be examined as long as they are received. The position will be filled as soon as a suitable candidate is found.

Duration of the position: 2 months

Starting date: December 2021 or January 2022

Monthly gross salary: between 1 800 and 2 050 € depending on the level of study

Applications need to be sent to Francesca Marchetta (Francesca.marchetta@uca.fr)

Applications include:

- **A detailed CV**
- **A motivation letter**

POST PROFILE

The Project:

The increasing number of extreme climate events such as droughts, floods and tropical storms that result from global warming have particularly serious implications for developing countries where mitigation efforts and coping strategies are less available. Large climate shocks often cause the destruction of schools and physical and social infrastructure, and contribute to environmental degradation, such as soil depletion, deforestation, and the destruction of fragile ecosystems. One mechanism to deal with the loss of livelihoods from climate change is migration away from affected zones. While some of this migration may be to other countries, much of it is expected to be internal to urban areas or less affected rural areas, where the costs are lower and challenges are less formidable. This is especially true in an island, poor, country like Madagascar, which is the focus of our study. In the proposed research study, we will examine how climate events affect internal population movements of young individuals who resided in rural areas before the shock. Our objective is to investigate the mechanisms that relate income shocks to migration, and explain the extent of heterogeneity in the response to these weather events across individuals.

To do so, we use a national longitudinal dataset from Madagascar that tracks a cohort of young adults and their households. The first round of the survey was conducted in 2004 when the cohort members were between 13 and 16 years old, the second round of the survey was in 2012 when they were young adults, and the third round was conducted in 2019/20 when the cohort members were around 30 years old. While we have prepared a longitudinal data set based on the 2004 and 2012 data sets, that included detailed retrospective questions that allow us to construct a long term panel, we need to incorporate the data recently collected in 2019/20. It is this task that we seek funding for a research assistant.

The Tasks:

The primary task will be to clean the 2019/20 and prepare the data analysis files to extend the panel from 2012 to 2020. This is a complicated task owing to several factors. First, is that identifying and merging data sets over time is challenging, and care must be made in matching the cohort members precisely. Second, is that we need to rely on retrospective data collected during the surveys to create year by year variables on migration, education, employment and other socio-economic conditions. Third, the fact that we are tracking individuals, not households over time. And these individuals are often members of different households, for example, moving from their parent's household to forming new households, makes the process even more complicated. Related to that is forth, owing to the migration of individuals, they are often in different locations over time, which of course is the subject of our research. So, the research assistant we are hiring also needs to merge the individual and household level data with community level surveys that we also conducted. And finally, all the individual, household and community data will need to be merged with climate data collect from various data sets. Specifically, the research assistant will assist with matching individual level data with satellite-based rainfall and temperature, as well as with a data set on the occurrence of cyclones, relying on the GPS coordinates that we collected at the localities where the cohort members resided. Hence, our weather variables need to be matched precisely with the relevant individuals' locality.

Required Skills

As indicated above, the proposed work is challenging and requires a high level of technical and programming skills. The research assistant first and foremost needs a high level of proficiency as a Stata programmer. This includes having experience working with large, complicated data sets. The research assistant, however, also has to have experience cleaning data, and creating Stata data sets from raw data files.

It is also important that the research assistance has at least a university degree in economics or related social science field. A PhD is preferred. While the task is larger doing programming under our guidance, the research assistant has to have sufficient background in economics and statistics to enable her to follow the instructions and construct variables consistent that will be required for the analysis.

Fluency in English is required. Knowledge of French is an asset.

Workplace

The selected candidate will be based at CERDI (<https://cerdi.uca.fr/>), Clermont Ferrand. Teleworking is possible, if candidate is unable to move to Clermont Ferrand for two months.