

### **Experiments on local adaptation to a risky environment**

Local adaptation to a risky environment is possible when three conditions are met: (1) the average migration distance is smaller than the size of the risky area, (2) the behavioral trait adapted to the risky environment (risk tolerance) is transmissible, and (3) living in the risky area provides material benefits that compensate for the exposure to risk. Such conditions can arise in several places, in particular in the surroundings of active volcanos. We provide evidence about local adaptation to a risky environment at mount Merapi (Indonesia), a volcano that has been active for centuries. We combine behavioral data, elicited through incentivized economic experiments, and genetic data, to show that people who live in the risky area are less risk tolerant than those who live outside that area. We discuss briefly our ongoing research at mount Semeru (Indonesia) and Santa Maria (Guatemala), and about non-volcanic areas (Guet Ndar (Sénégal) fishermen).