

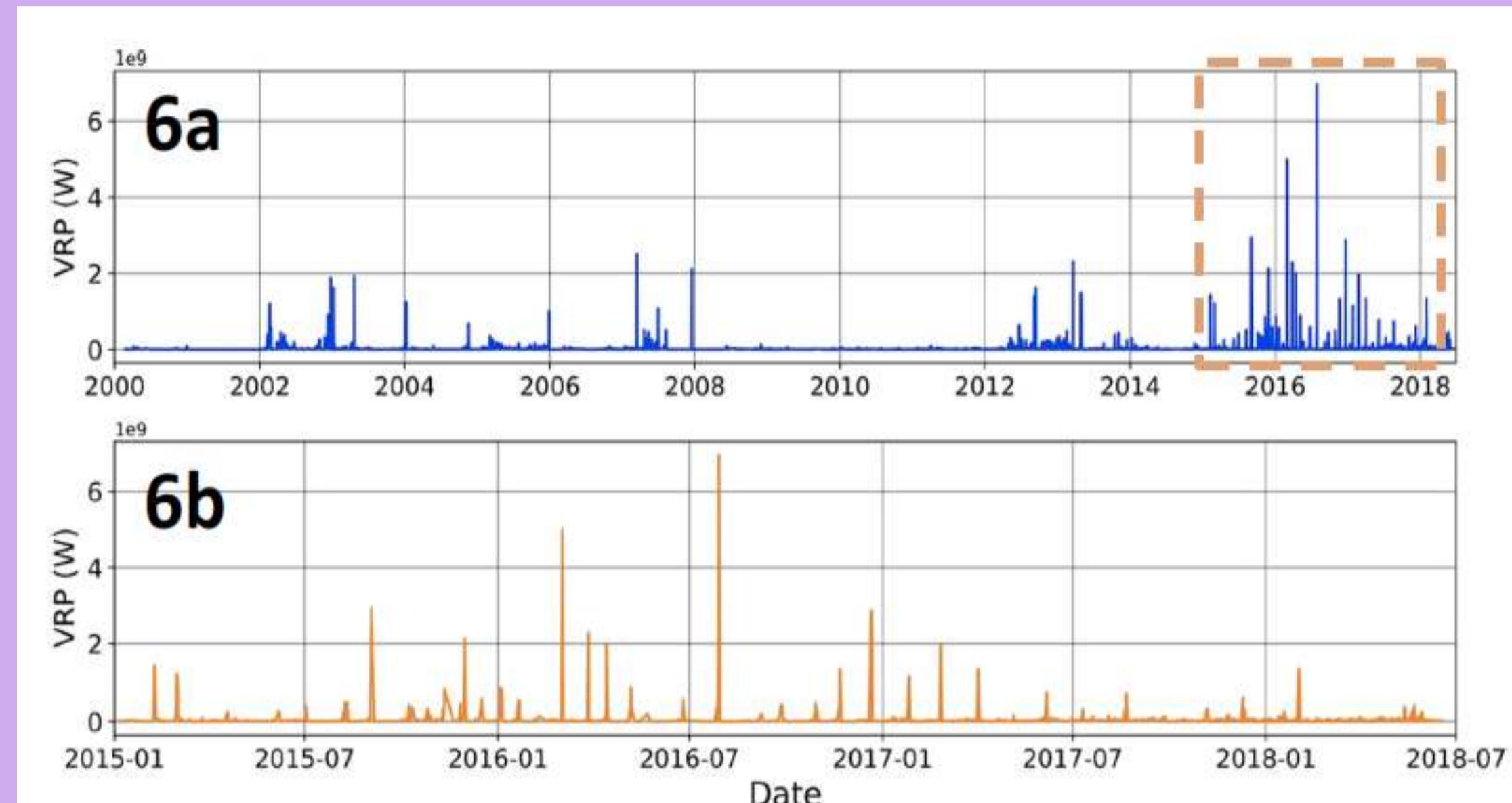
Local perspectives of the eruptive activity of Volcán de Fuego, Guatemala



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Historic activity and context

Volcán de Fuego is known for its persistent activity that manifests as frequent Strombolian eruptions interspersed with occasional larger-magnitude events¹, such as that of October 1974 [right]. Since the beginning of 2015, a new eruptive cycle has begun, consisting of frequent explosive paroxysmal eruptions preceded by lava effusion² [below]. The most recent eruption in this cycle occurred on 3rd June 2018 and caused hundreds of deaths. Evacuation of communities close to Fuego may mitigate their vulnerability to its activity³.



The eruption of 14th October 1974⁴

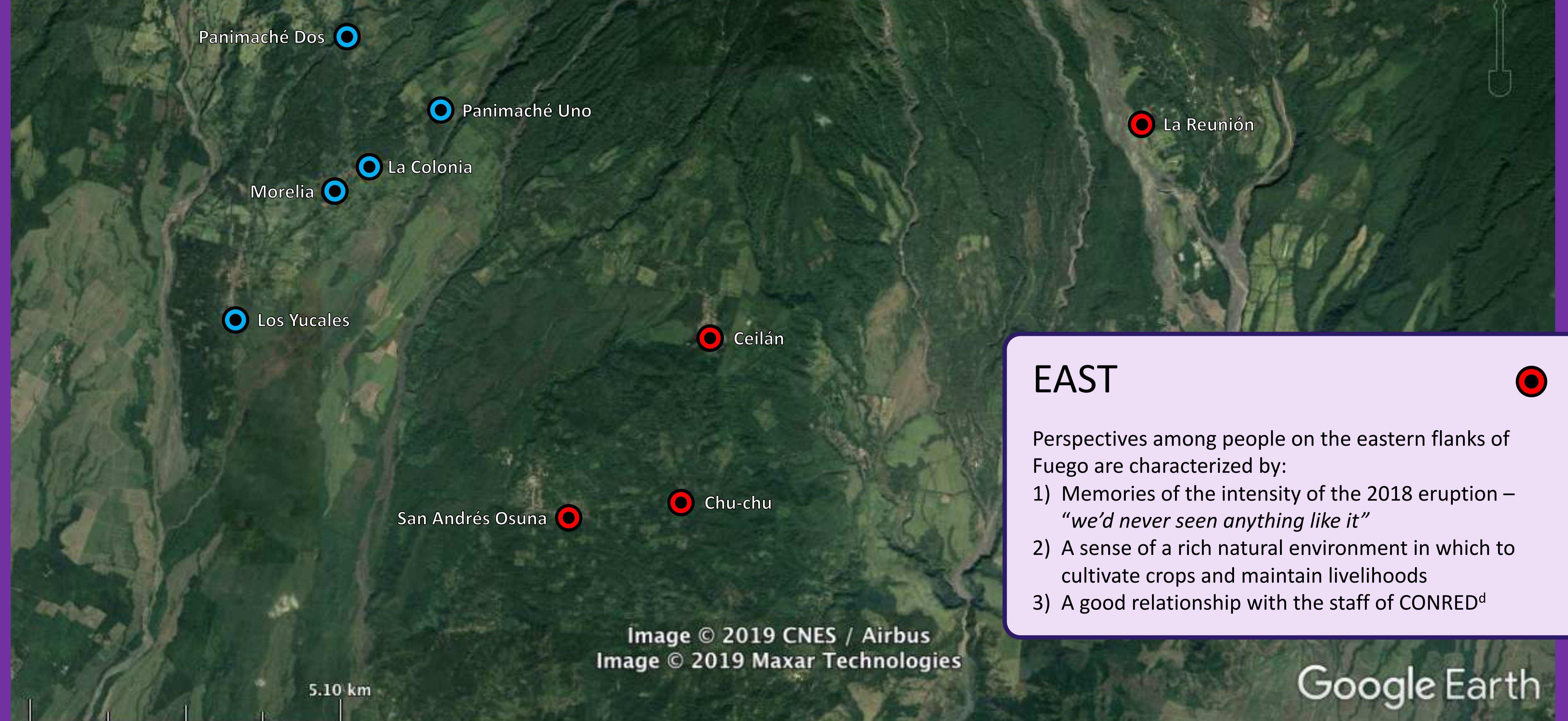
Main research questions

- 1) What are the experiences of local people with respect to the recent eruptive activity of Volcán de Fuego? How do these compare with observations from satellite remote sensing data?
- 2) Is perception of volcanic activity an important factor for these people in the decision to evacuate or not in the face of future volcanic crisis?

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Perspectives among people on the western flanks of Fuego are characterized by:

- 1) Memories of the intensity of the eruptions of 1966 and 1974
- 2) The powerful legacy of these eruptions and effects on agriculture and livelihoods
- 3) A good relationship with the scientists and observers of INSIVUMEH^c



Narrative themes

Perspectives of people who live around Fuego are very different from the changes that have been observed through satellite remote sensing data. Local people identify only the largest paroxysms as 'eruptions', and for older people who experienced the eruptions of 1966 and 1974, even the largest paroxysms in the new eruptive cycle do not appear significant. The eruption of 3rd June 2018 has increased the level of risk perception at Fuego, primarily among communities on the volcano's eastern flanks. However, existing socio-economic factors and challenges in communication may complicate the decision to evacuate in the case of a future eruptive crisis.

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- 2) Naismith, A. K., Watson, J. M., Escobar-Wolf, R., Chigna, G., Thomas, H., Coppola, D., & Chun, C. (2019). Eruption frequency patterns through time for the current (1999/2018) activity cycle at Volcan de Fuego derived from remote sensing data. *Journal of Volcanology and Geothermal Research*, 371, 206–219.
- 3) Escobar-Wolf, R. (2013). Volcanic processes and human exposure as elements to build a risk model for Volcan de Fuego, Guatemala (PhD thesis).
- 4) Photo by William Buell in 1974 (Global Volcanism Program, Smithsonian Institution).

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