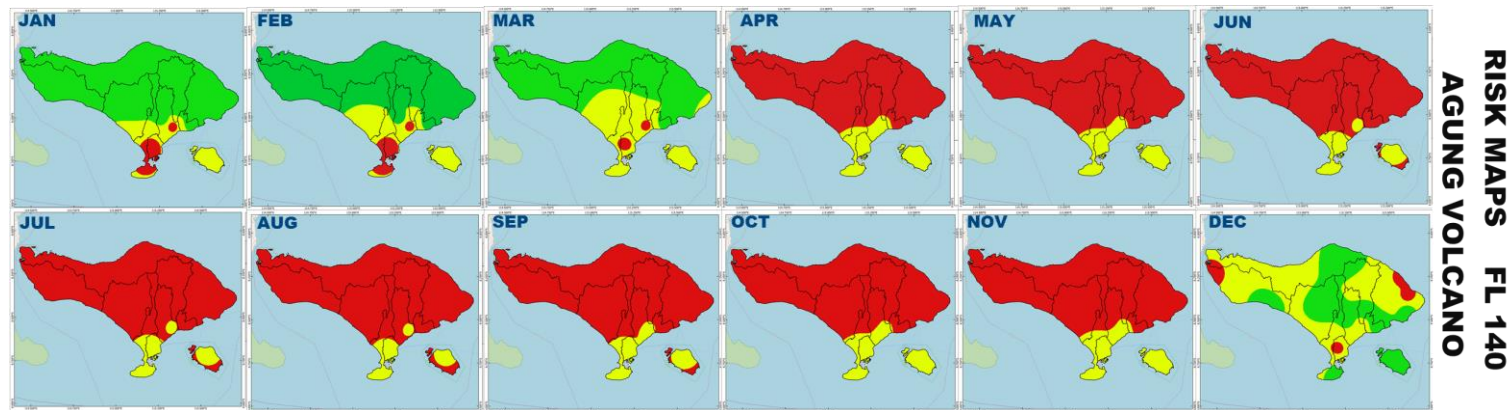


I Gusti Ngurah Rai Airport (Bali Airport) is one of the busiest airports in Indonesia. Unfortunately, it is surrounded by three active volcanoes which have recently erupted and spewed volcanic ash. When volcanic ash is detected around airports or along flight routes, airports may need to alter or close their operations as a safety measure

This research has 2 main objectives:

- Generating a volcanic ash risk map on Bali flight area
- Developing the risk maps were used to develop an effective, efficient, and appropriate flight plan, as well as a robust airport hazard mitigation plan.



The spread of volcanic ash during the eruption of Raung, Agung, and Rinjani volcanoes is mostly influenced by the prevailing wind patterns in specific months. The risk of ash coverage is high during certain periods due to the direction of the prevailing winds.

Agung and **Rinjani** volcanoes present a high risk of volcanic ash hazards from **April** to **November**, while **Raung** volcano poses a high risk in **January** and **February**.