

Source: UN. 2020. Map of the world [online].
[Cited January 2022]

The Tonga-Hunga Ha'apai volcano began to erupt on the 14th January 2022 and reached a powerful peak on the 15th January 2022. The eruption released massive amounts of ash and caused a tsunami, resulting in the potential inundation of areas across the region. In this assessment, four key Areas Of Interest (AOIs) have been identified and these are 1) Tongatapu, 2) Eua, 3) Ha'apai and, 4) Vava'u, based on the administrative boundaries from Global Administrative areas (GADM) to evaluate people exposed to ash cover following the eruption.

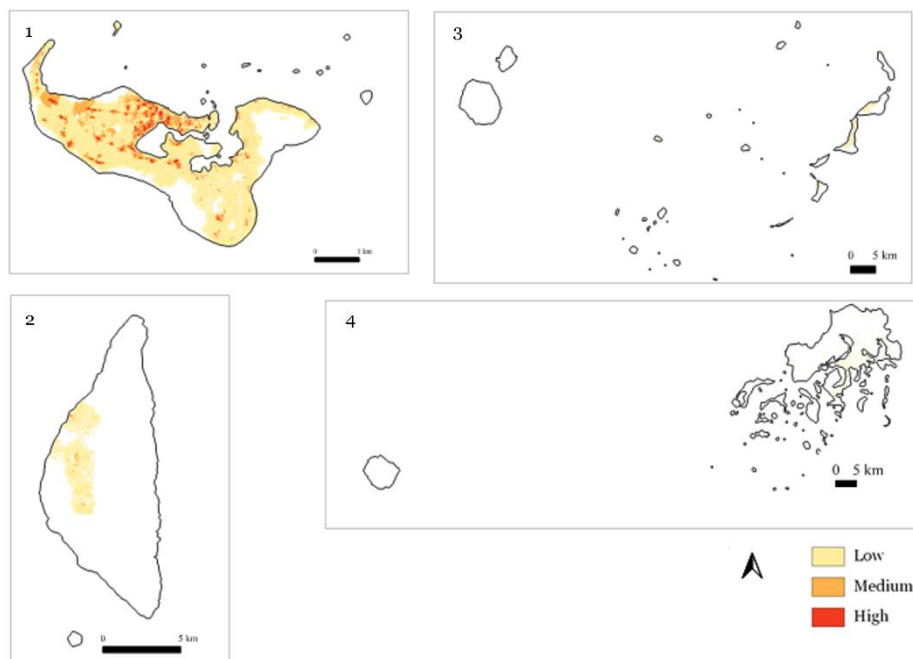


Figure 1: Spatial extent of people exposed to high, medium and low ash cover in four divisions (1. Tongatapu, 2. Eua, 3. Ha'apai, 4. Vava'u) of Tonga¹

Table 1: People exposed to low, medium, and high classes of ash cover in Tonga

Division	Total population	Low	Medium	High	Total impacted population	Impacted population (%)
Tongatapu	77 786	19 592	39 763	2 825	62 180	80
Eua	4 478	2 652	168	7	2 827	63
Ha'apai	5 035	1 703	508	76	2 287	45
Vava'u	12 739	1 134	39	0	1 173	9
Total	100 038	25 081	40 478	2 908	68 467	68

A rapid assessment on ash cover was conducted by the FAO Geospatial Unit of Land and Water Division (NSL) using optical imagery to estimate people exposed to ash cover caused by the Tonga-Hunga Ha'apai volcanic eruption in Tonga on 14th January 2022.

Data Used:

- Landsat 8 (30 m),
- Sentinel-2 image (10 m – 60 m), and
- Worldpop (2020) (100 m).

Key Findings:

Total **68 467** (68.4%) number of the population were exposed to ash cover in Tonga.

- 62 180 (80%) in Tongatapu,
- 2 827 (63%) in Eua,
- 2 287 (45%) Ha'apai, and
- 1 173 (9%) in Vava'u.