



火山災害潛勢評估及觀測技術強化(2/4)

Potential Assessment and Observation Technology Enhancement of Volcanic Hazards (2/4)

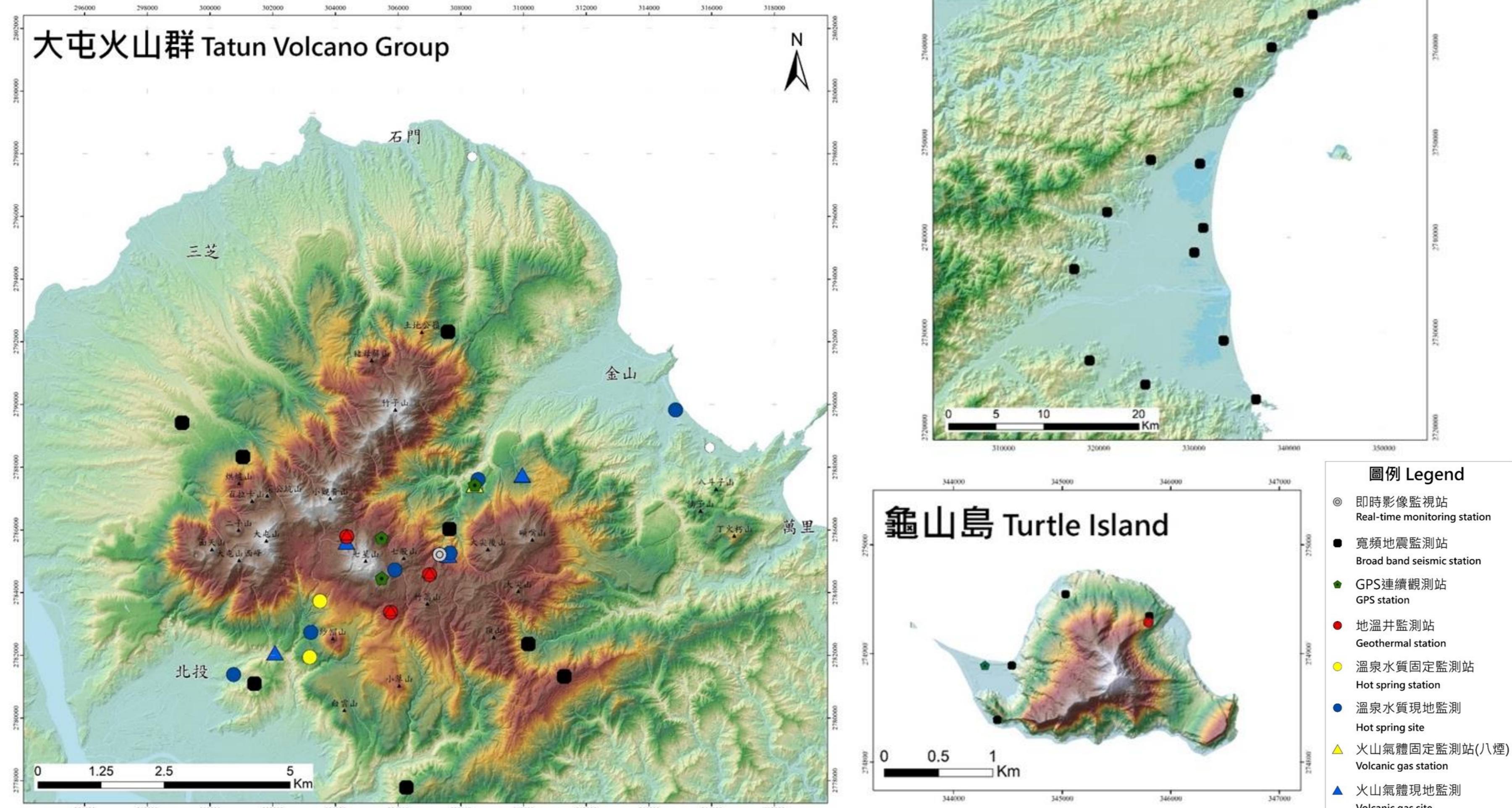
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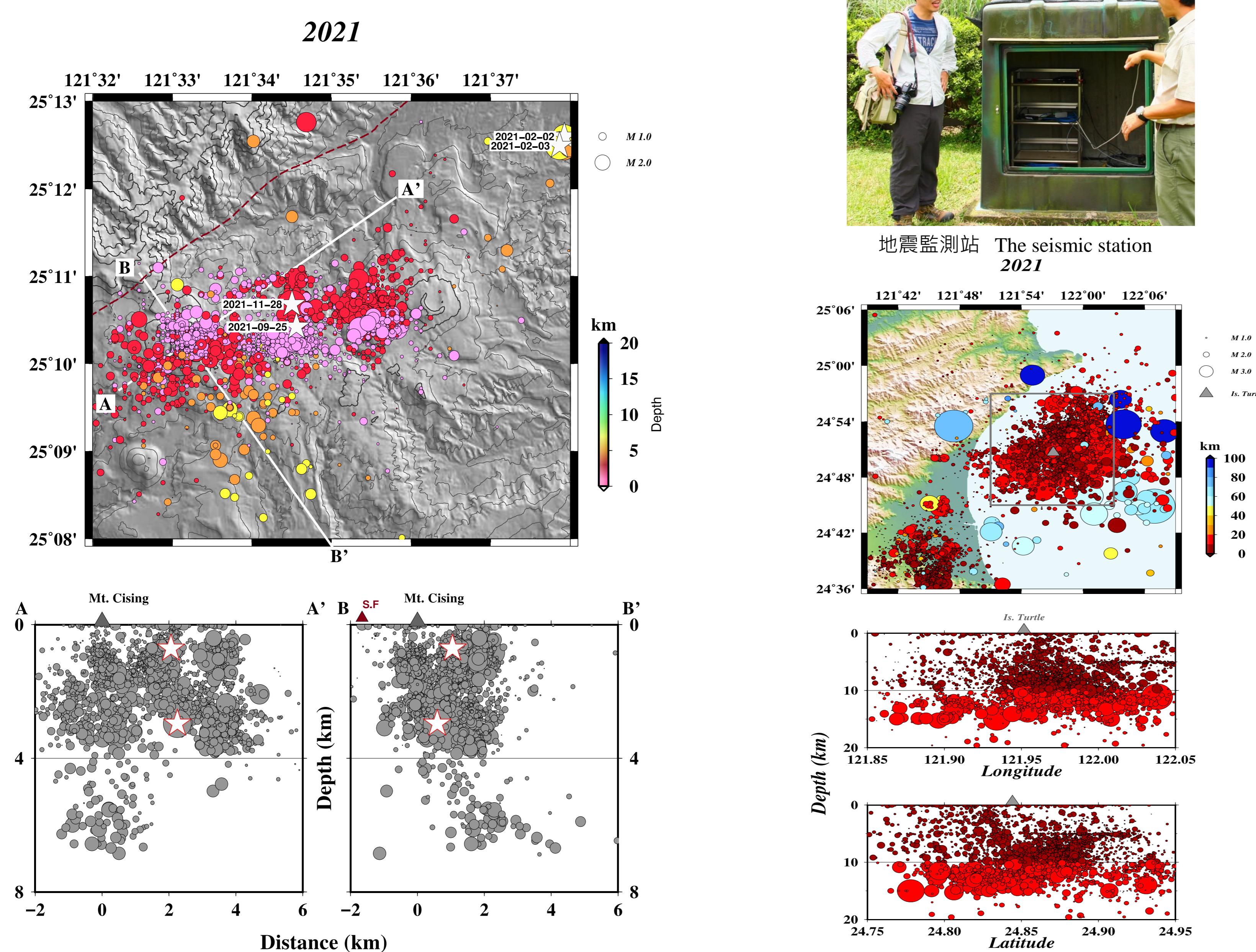
本計畫投入臺灣北部火山活動徵兆監測工作，以瞭解臺灣北部大屯火山群及龜山島火山岩漿庫或熱液活動，作為火山災害潛勢評估及火山防救災政策制定依據。內容包括火山微震、地球化學、地表變形監測、大地自然電位觀測及地球物理探測等。綜合110年各項監測資料，與往年相較，大屯火山區與龜山島之火山活動仍處於穩定狀態。本年度完成之大屯山及七星山火山亞群火山災害潛勢圖資，可供各機關火山災害防救計畫後續運用。2020年12月至2021年11月土林及礦嘴山地電測站的自然電位功率譜變化，並完成大屯火山地區總長1775公尺的地電阻剖面調查與解算分析，顯示在大油坑噴氣孔下方有一拱門狀低電阻率分布，可能在大油坑火山口西側地下存在一發育中的火山噴氣及熱液通道。

The project aims to operate the monitoring networks toward active volcanoes in northern Taiwan for better evaluating possible volcanic hazards. Seismic and geochemical monitoring, ground deformation measurement, real-time image monitoring, self-potential observation and aero-magnetic survey have been applied as routinely monitoring methods within these volcanoes. In summary, the Taten Volcano Group and the Turtle Island are in a stable state at present. the volcanic disaster potential map of Taten and Cising volcanic subgroups completed in 2021 can be used for subsequent use of volcanic disaster prevention and rescue plans of various agencies. There is an arch-shaped low-resistivity distribution below the fumarole, and there may be a developed volcanic jet and hydrothermal channel underground on the west side of the Dayoukeng crater.

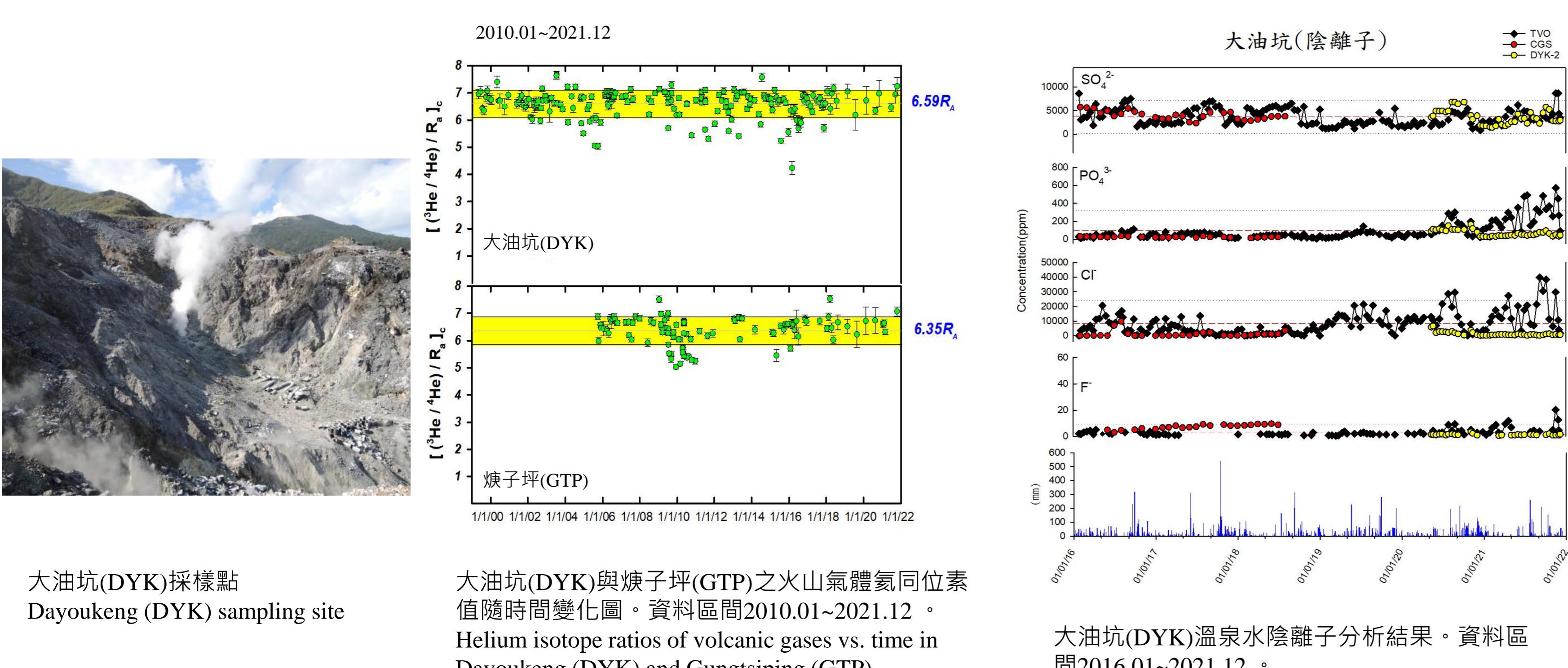
火山監測站 Volcano Monitoring Stations



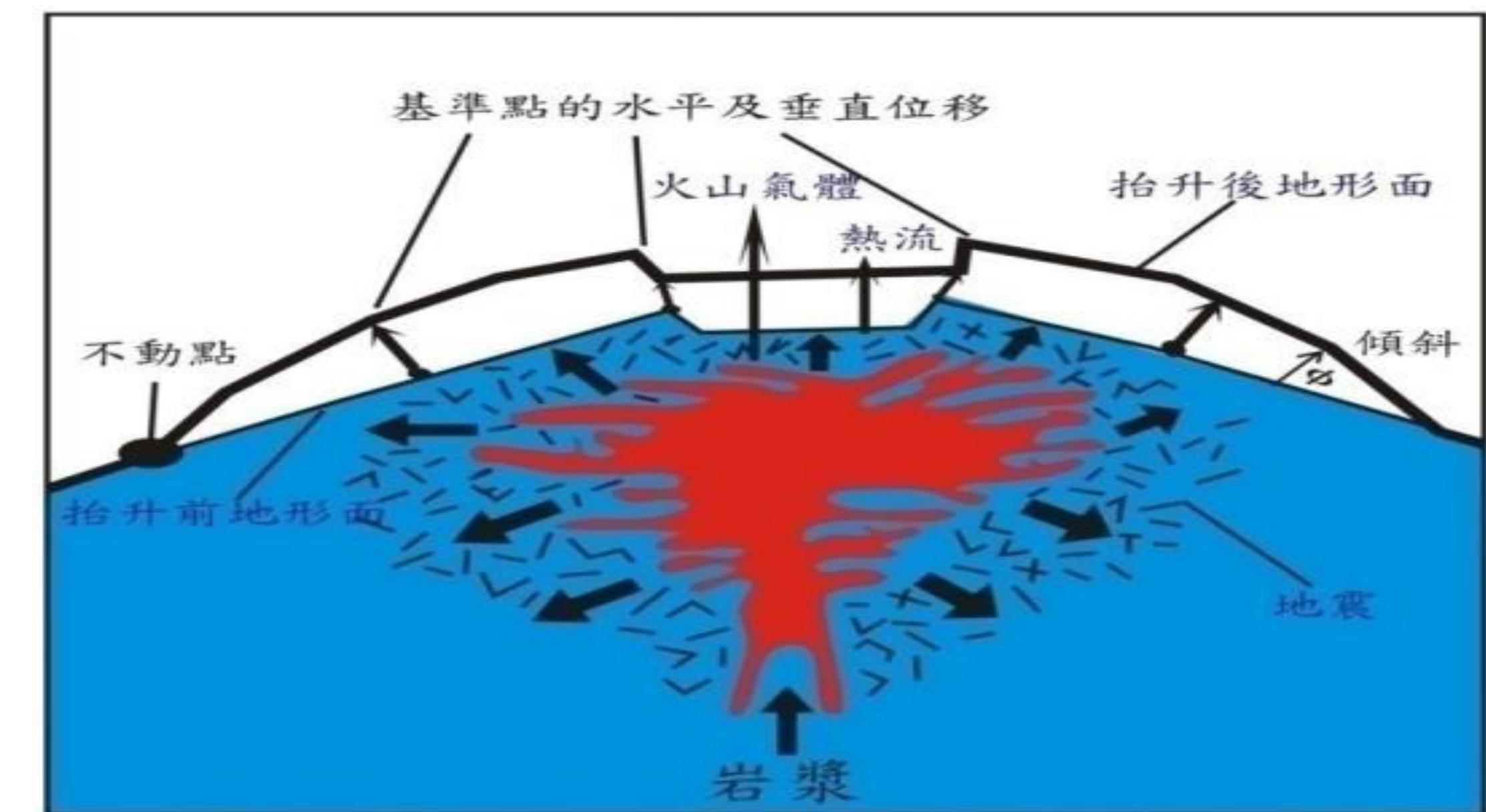
微震監測 Monitoring of Seismic Activities



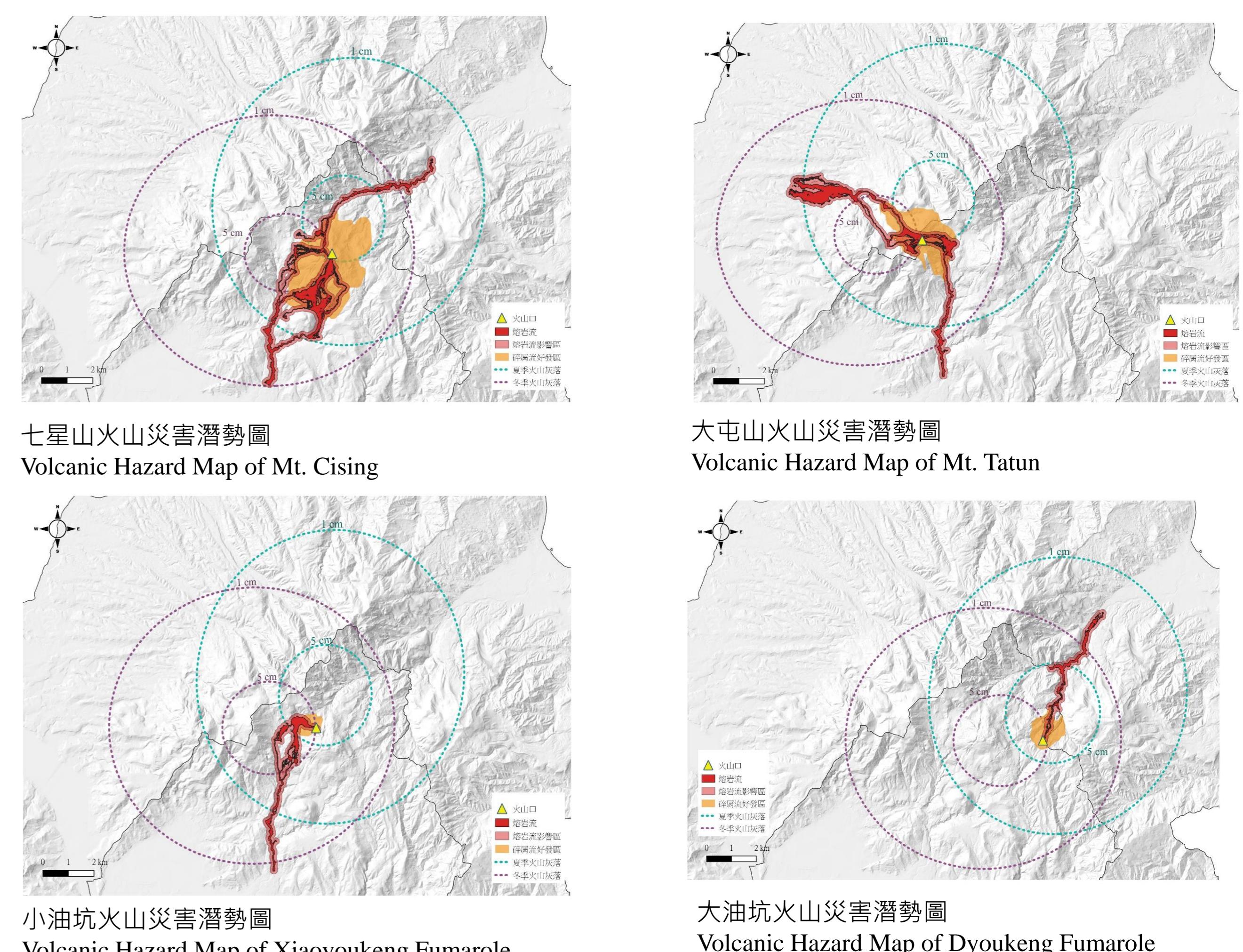
地球化學監測 Monitoring of Geochemical characteristics



火山監測方法 Volcanic Monitoring Methods



火山災害潛勢調查 Volcanic Hazard Potential Investigation



大地自然電位觀測 Self-potential continuous observation

藉由連續觀測大屯火山地區的自然電位變化，可延伸應用於觀測地下熱液的長期流動變化，以瞭解火山熱液系統之活動性。

We extensively monitor the long-term variation of the local self-potential in TVG region to better understand the activity of the underground hydrothermal system.

