

Future Landslide Hazards: 12 March Earthquake, West, and 29 March 2014 Landslide, East of Anjouan-Island, Comoros.

The Comoro-Islands, formed along the process of a mantle plume moving eastward within the Somali plate (e.g. Emmerick & Ducan, 1982), are four volcanic Islands, Grand Comore (1148km²), hosting the active “Karthala volcano” (rising up to 2361 m .al), Moheli (211km²; 790m al.), Anjouan (424km²; 1595m al.), and Mayotte (374 km²; 660m al.), which respective eruptions are estimated generally 10 million years ago westwards with time. They are composed of basalts and associated volcanic, plutonic rocks (e.g. Thompson & Flower, 1971; Ludden, 1977). In past 3 years, Anjouan Island recorded moderate earthquakes, and in 2014, a motion from Magnitude 4.8 ML (IDC-REB record) of March 12 has been felt partly in the western side of the Island about 7- 8s tremor duration (villager testimony). Seventeen days separated the earthquake and a Landslide with displacement commenced on March 29 in the Eastern side of the Island (with respect of local oral interviews) after strong rainfall in the area and in many regions of the Islands. The objective of this study is to comprehend the triggering geological causes as well as understanding the possible seismic activities effects on such cases of landslide in the future within the Islands.

Primary author: MADI, Mariama (CNDRS (Centre National de Documentation et de Recherche Scientifique))

Presenter: MADI, Mariama (CNDRS (Centre National de Documentation et de Recherche Scientifique))

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