



# The Appearing Crack Signs and Uplifting of Car Road at the Popa Area, Mandalay Region & Brief Geohazard Event of Myanmar

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Myanmar Introduction Location Geology Field Investigation Landslide Conclusion
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#### Geohazards in Myanmar (2013-2017)



#### Landslide Prone Areas in Myanmar



### 8. Swa Dam (Spillway Failure)

Aftermath of Swa Dam burst through its weak spillway by the effect of heavy rain in Swa Township on 29 August, 2018.

Sr.No	Name	Location	Year	Triggering Process
1	Hpakant Jade Mine Landslide	Hpakant, Kachin	2015,2016, 2017	Torrential Rain & Human Activities
2	Zalai & Laizo	Falam, Chin	2013	Heavy Rain
3	Vicinity of Hakha	Hakha, Chin	2013/2015	Heavy Rain
4	Vicinity of Kyaikhtiyoe Pagoda	Kyaikhto, Mon	2016	Heavy Rain
5	Mawchi Mine Landslide	Hpasaung, Kayah	2015	Heavy Rain
6	Popa Landslide	Kyaukpadaung, Mandalay	2017	Heavy Rain
7	Thit Seint Gone	Mogok, Mandalay	2017	Heavy Rain
8	Swa Dam ( Spillway Failure)	Swar, Bago	2018	Heavy Rain

Source from DGSE & Internet



Source from DGSE & Yangon University



- Popa village is situated in Kyaukpadaung Township (near proposed Geopark Area) Mandalay Region, Myanmar.
- This village lies near Mt. Popa resort also proposed Geopark Area.
- During October, 2017 the vicinity of Popa village was appeared the initial crack signs and uplifting the car road after heavy rainfall of this area.
- Our field group was assigned by Ministry of Natural Resources and Environmental Conservation, Myanmar. Then our field group carried out the field investigation from 11<sup>th</sup> November to 14<sup>th</sup> November, 2017.







Geology Map of Popa-Kyaukpadaung Area, Mandalay Region









Source from google earth











Geohazards in Myanmar	Introduction	Location	Geology	Field Investigation	Culprits of Landslide	Conclusion

### **Culprits of Landslide**

Google Earth, 201.



- The mountain is 750 m (above sea level) in height and the gradient of Slope >50°
- Over loading building and Heavy weight of Water tank
- ✓ Reactivation







Geohazards in Myanmar	Introduction	Location	Geology	Field Investigation	Culprits of Landslide	Conclusion
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## **Culprits of Landslide**



Landslide in Myanmar	Introduction	Location	Geology	Field Investigation	Culprits of Landslide	Conclusion
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## **Culprits of Landslide**



✓ Earth material on the slope is mainly composed of weathered tuff (Sandy soil).



✓ Volcanic rock- tuff and agglomerate are poor cohesion



✓ Human Activities (build a small dam on a creek)



 ✓ Over saturated condition causes of Pore Water Pressure



# THANK YOU FOR YOUR ATTENTION



Welcome to Inlay Lake, Myanmar