# RAIN-INDUCED LANDSLIDE AND FLOOD HAZARDS DUE TO TD PAENG

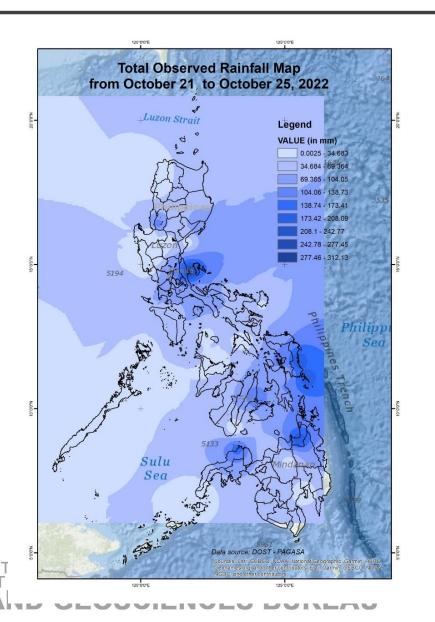


## DATA FROM PAGASA-DOST

- WRF and GSM 72-hr Forecast Rainfall data:
  - > WRF − 120mm; GSM − 80mm
  - Metro Manila: 50mm, Metro Cebu: 80mm
  - ➤ Debris Flow: 250mm
- Valid October 26-29, 2022 (8AM)



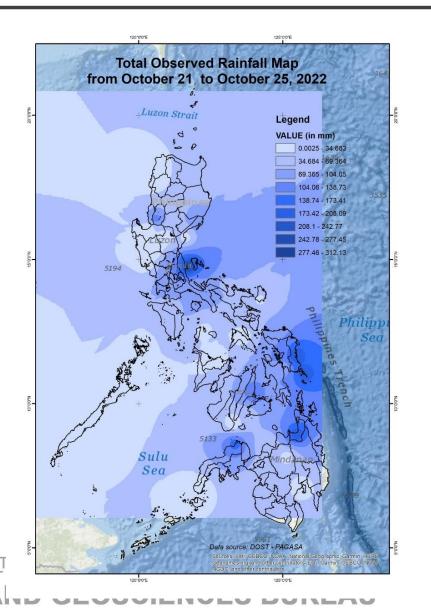
## RECORDED RAINFALL FROM OCTOBER 21 TO 25, 2022



-			
	Name	Total	
1	Infanta, Quezon	314.2	
2	Borongan City,	211.7	
3	Butuan City, Ag	198	
4	Guiuan, Eastern	195.6	
5	Dipolog City, Z	153.9	
6	Tanay, Rizal	149.8	
7	Surigao City, S	128.7	
8	Mactan City, Ce	127.8	
9	Baguio City, Be	120.1	
10	Science Garden,	109.4	
11	Catbalogan City	108.8	
12	Sangley Pt, Cav	100.4	
13	Port Area, Mani	95.5	
14	Casiguran, Auro	95.1	Ī
15	Catarman, North	91.2	
16	Tayabas, Quezon	85.6	
17	Alabat, Quezon	78.5	
18	Tacloban City,	74.6	
19	Hinatuan, Surig	71.4	
20	Maasin City, So	69.2	

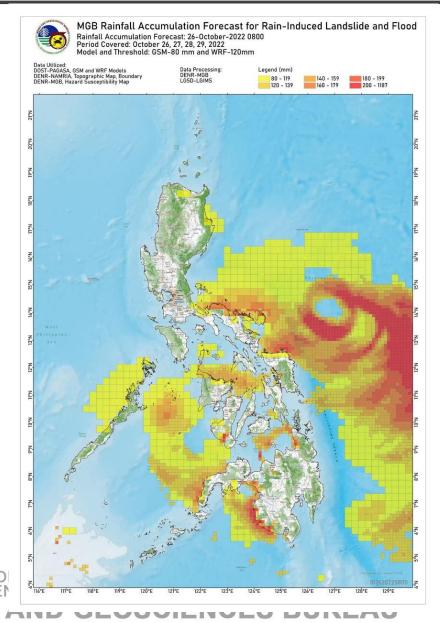


## RECORDED RAINFALL FROM OCTOBER 21 TO 25, 2022



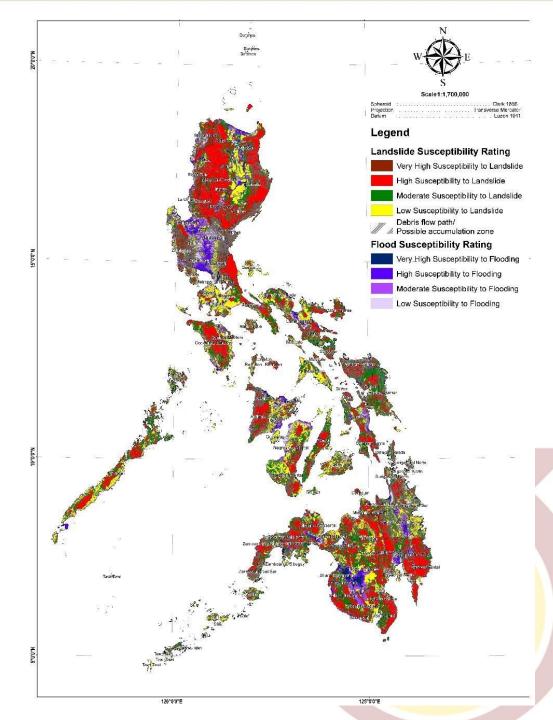
#	Name	October 25, 2022	OCTOBER 21-25, 2022
98434	Infanta, Quezon	251.8	314.2
98553	Borongan City, Eastern Samar	139.5	211.7
98433	Tanay, Rizal	138.8	149.8
98558	Guiuan, Eastern Samar	111.2	195.6
98428	Sangley Pt, Cavite	95.2	100.4
98430	Science Garden, Quezon City	90.2	109.4
98425	Port Area, Manila	69	95.5
98429	NAIA, Pasay City	65	66
98546	Catarman, Northern Samar	54.6	91.2

# GSM 72-HR AND WRF 72-HR RAINFALL DATA OCTOBER 26-29, 2022

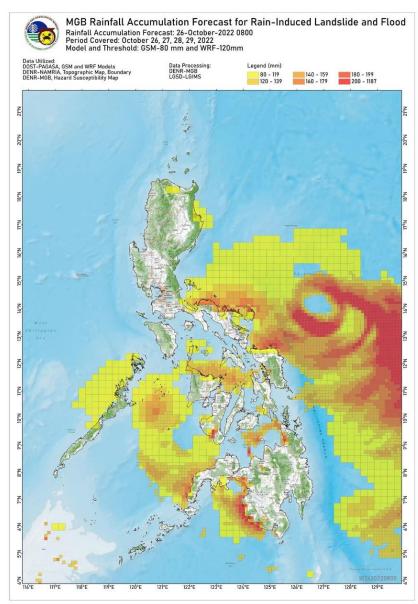


Overlay with MGB Geohazard Map





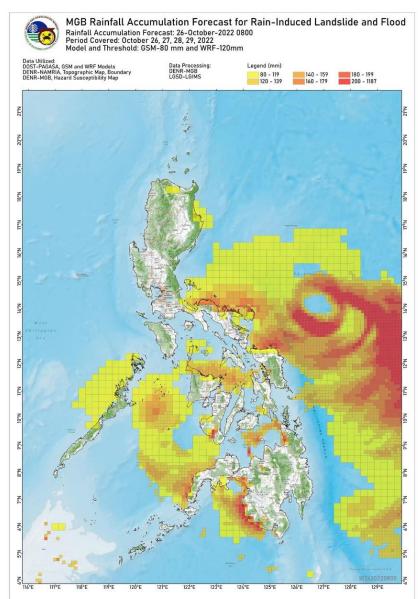
### LIST OF BARANGAYS SUSCEPTIBLE TO LANDSLIDE AND **FLOOD**



#### OCTOBER 26-29, 2022, 8AM

October 26 8am, 2022	GSM 80mm WRF 120mm
Row Labels	<b>▼</b> Count of BARANGAY
■ Autonomous Region of Muslim Mindanao	(ARMM) 303
<b>⊞ Lanao Del Sur</b>	252
<b>■ Maguindanao</b>	44
<b>⊞ Basilan</b>	7
■ Northern Mindanao (Region X)	126
<b>⊕</b> Bukidnon	23
<b>⊕ Lanao Del Norte</b>	56
Misamis Oriental	47
■ SOCCSKSARGEN (Region XII)	178
<b>⊞ Sultan Kudarat</b>	84
<b>⊞ Sarangani</b>	47
<b>■ South Cotabato</b>	46
□ Cotabato City (Not A Province)	1
Cotabato City	1
☐ Cordillera Administrative Region (CAR)	70
<b>⊕ Apayao</b>	70
□ Cagayan Valley (Region II)	120
<b>⊞ Cagayan</b>	75
<b>⊞ Isabela</b>	45
■ MIMAROPA (Region IV-B)	261
<b>⊞ Palawan</b>	134
<b>⊞</b> Romblon	127
■ CALABARZON (Region IV-A)	372
<b>⊕</b> Laguna	2
<b>⊕ Quezon</b>	370
■ Bicol Region (Region V)	1023
<b>⊕</b> Albay	144
<b>⊞ Camarines Sur</b>	322
<b>■ Masbate</b>	45
⊕ Catanduanes	226
<b>⊕</b> Sorsogon	19
<b>⊞ Camarines Norte</b>	267

# LIST OF BARANGAYS SUSCEPTIBLE TO LANDSLIDE AND FLOOD



### OCTOBER 26-29, 2022, 8AM

□ Caraga (Region XIII)	103
⊕ Agusan Del Norte	92
<b>⊞ Surigao Del Norte</b>	11
☐ Central Visayas (Region VII)	164
■ Negros Oriental	116
⊕ Bohol	2
⊕ Cebu	46
■ Western Visayas (Region VI)	983
<b>⊕ Aklan</b>	254
⊕ Capiz	311
■ Negros Occidental	103
<b>⊕</b> Antique	143
<b>⊞ Iloilo</b>	172
■ Zamboanga Peninsula (Region IX)	467
<b>■ Zamboanga Del Norte</b>	139
<b>■ Zamboanga Del Sur</b>	251
<b>■ Zamboanga Sibugay</b>	76
☐ City Of Isabela (Not A Province)	1
City Of Isabela	1
■ Eastern Visayas (Region VIII)	903
■ Northern Samar	442
<b>⊞</b> Samar	172
⊕ Southern Leyte	66
<b>⊕Leyte</b>	180
⊕ Biliran	43
Grand Total	5073

# RECOMMENDATIONS



1. Vigilant monitoring of areas showing **signs of landslides**: tension cracks, seepages, terracettes, tilting of trees, etc.



2. Monitor moderate slopes with **thick soil overburden** and areas underlain by **old landslide deposits**.



**Thick Soil Overburden** 

**Old Landslide Deposit** 

3. Avoid areas affected by repeated flooding, meandering with riverbank erosion, floodplain with shifting and braiding streams, coastal areas, affected by storm surge, flashflood areas, river deltas with many distributary channels, etc.



**Riverbank Erosion** 

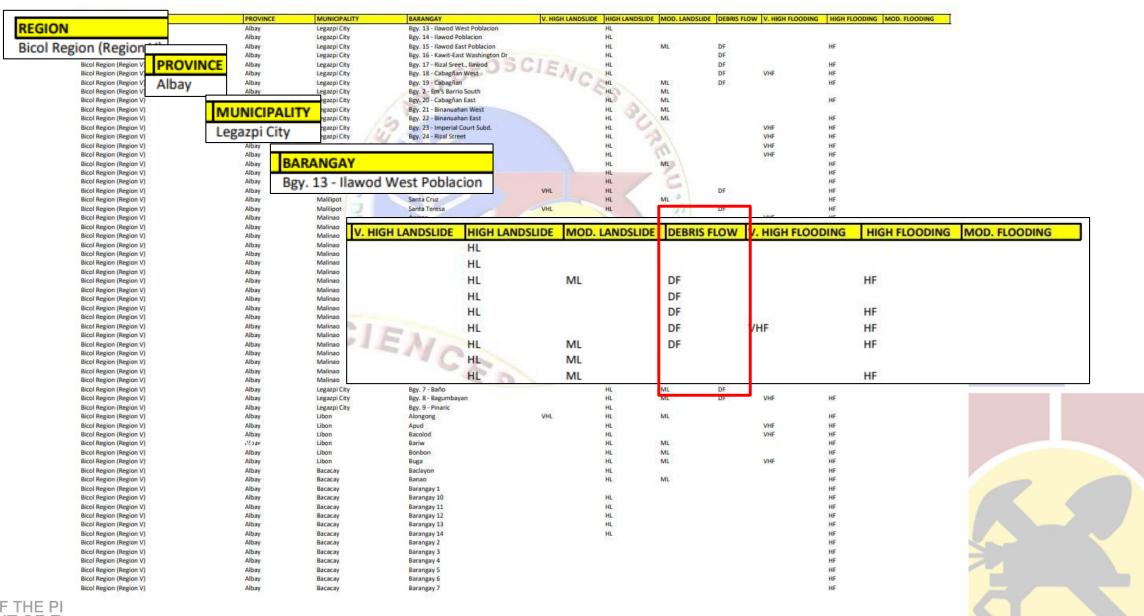


**Entrenched River** 

## RECOMMENDATIONS

- 4. Areas with **high antecedent rainfall** must remain vigilant, despite not being included in the list of barangays.
- 5. Be aware of the geohazard in your area. MGB Geohazard maps are available in the barangay, municipal, and provincial LGUs nationwide as well as your respective MGB Regional Offices. Visit MGB Web portal and other platforms like Hazard Hunter (GeoRiskPH).
- 6. Please take note of the barangay listings (in excel format) provided to our Regional Offices and other partner agencies (OCD, DILG, DSWD, etc.). Those areas in the previous listings should still remain vigilant.

Based from the GSM 120 and WRF 120-hour model of PAGASA dated 31 October 2020, 0200





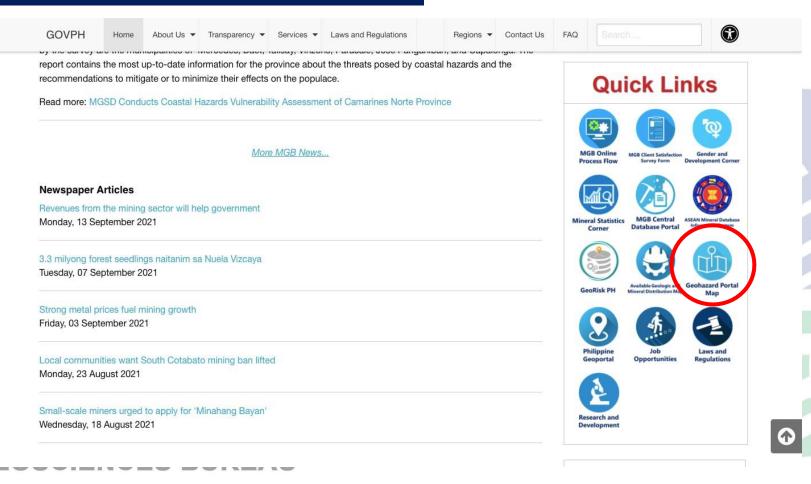
Barangay Count: 8,163

1 of 130

## MGB GEOHAZARD WEB PORTAL

# www.mgb.gov.ph

REPUBLIC OF THE PHII



## MGB GEOHAZARD WEB PORTAL

## www.tinyurl.com/MGB-Geohazard-Portal



# https://hazardhunter.georisk.gov.ph/



Type a location to start hazard assessment



Advanced features of HazardHunterPH may now be accessed by partner organizations with GeoRiskPH accounts.

Use Current Location

Use Coordinates

Go to Map View

HazardHunterPH is the country's one-stop shop for hazard assessment.

Find out if a location is prone to seismic, volcanic, or hydrometeorologic hazards. Generate hazard assessment reports.

See which critical facilities and areas in the Philippines are prone to different hazards.

All hazard information used for assessment has been generated by government agencies.

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Hazard Hunter PH is a product of GeoRisk Philippines, a multi-agency initiative led by the Philippine Institute of Volcanology and Seismology (PHIVOLCS), funded by the Department of Science and Technology (DOST), and monitored by the Philippine Council for Industry, Energy, and Emerging Technology Research and Development (PCIEERD).

## **THANK YOU**



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
MINES AND GEOSCIENCES BUREAU