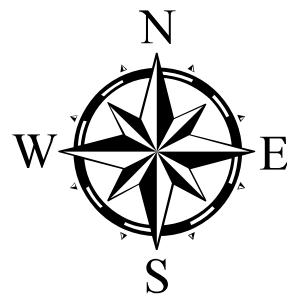
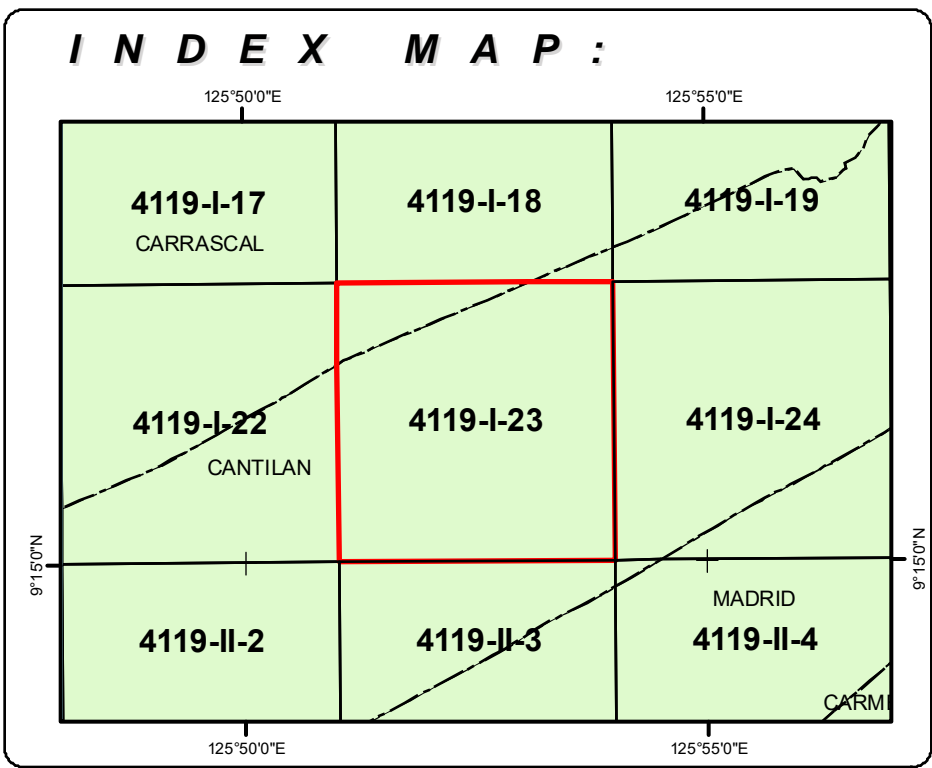




DETAILED LANDSLIDE AND FLOOD HAZARD MAP OF CANTILAN AND CARRASCAL, SURIGAO DEL SUR, PHILIPPINES 4119-I-23 LOBO QUADRANGLE



LEGEND :

- | | | | | |
|--|--------------------|--|--------------------------|---------------------------------|
| | Main road | | POBLACION | Barangay center location |
| | Secondary road | | So. Magaling (Poblacion) | Purok/Sitio location (Barangay) |
| | Track; trail | | | School |
| | River | | | Hospital |
| | Municipal boundary | | | Church |
| | Contour (meter) | | | Proposed relocation site |

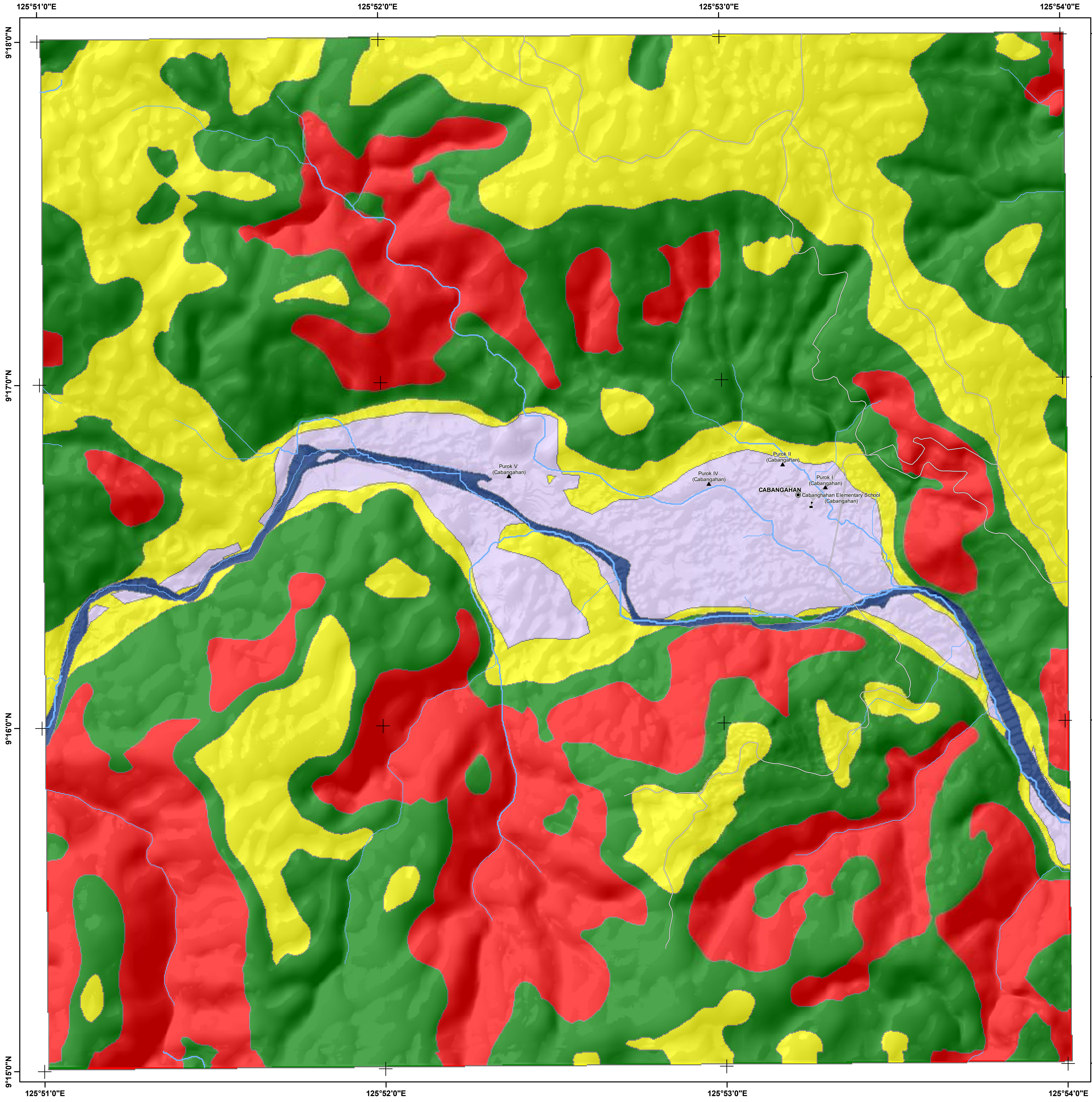
Landslide

- | | |
|---|---|
| | Very high landslide susceptibility |
| Areas usually with steep to very steep slopes and underlain by weak materials. Recent landslides, escarpments and tension cracks are present. Human initiated effects could be an aggravating factor. | |
| | High landslide susceptibility |
| Areas usually with steep to very steep slopes and underlain by weak materials. Areas with numerous old/inactive landslides. | |
| | Moderate landslide susceptibility |
| Areas with moderately steep slopes. Soil creep and other indications of possible landslide occurrence are present. | |
| | Low landslide susceptibility |
| Gently sloping areas with no identified landslide. | |
| | Debris flow / Possible accumulation zone |
| Areas that could be affected by landslide debris. | |
-
- | | | | |
|--|---|--|-------------------|
| | Active landslide | | Creep |
| | Inactive landslide | | Tension crack |
| | Landslide area with mitigating measure | | Gully |
| | Rock fall/Rock slide prone area | | Riverbank erosion |
| | Old landslide deposits | | |
| | Recent landslide deposits | | |
| | Areas susceptible to ground subsidence/sinkhole development | | |

Flood

- | | |
|--|---------------------------------------|
| | Very high flood susceptibility |
| Areas likely to experience flood heights of greater than 2 meters and/or flood duration of more than 3 days. These areas are immediately flooded during heavy rains of several hours; include landforms of topographic lows such as active river channels, abandoned river channels and area along river banks; also prone to flashfloods. | |
| | High flood susceptibility |
| Areas likely to experience flood heights of greater than 1 up to 2 meters and/or flood duration of more than 3 days. These areas are immediately flooded during heavy rains of several hours; include landforms of topographic lows such as active river channels, abandoned river channels and area along river banks; also prone to flashfloods. | |
| | Moderate flood susceptibility |
| Areas likely to experience flood heights of greater than 0.5m up to 1 meter and/or flood duration of 1 to 3 days. These areas are subject to widespread inundation during prolonged and extensive heavy rainfall or extreme weather condition. Fluvial terraces, alluvial fans, and infilled valleys are areas moderately subjected to flooding. | |
| | Low flood susceptibility |
| Areas likely to experience flood heights of 0.5 meter or less and/or flood duration of less than 1 day. These areas include low hills and gentle slopes. They also have sparse to moderate drainage density. | |

- | | | | |
|--|----------------------------------|--|-----------------------|
| | Direction of rising floodwater | | Flood depth (meter) |
| | Direction of receding floodwater | | Flashflood exit point |



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Data Sources :
MGB Geohazard Assessment Team
Lands Geological Survey Division
Geosciences Division MGB Regional Office XIII
National Mapping and Resource Information Authority

GIS Processing :
Lands Geological Survey Division

Coordinate System :
Spheroid : Clark 1866
Projection : Transverse Mercator
Datum : Luzon 1911

Mapping scale 1:10,000