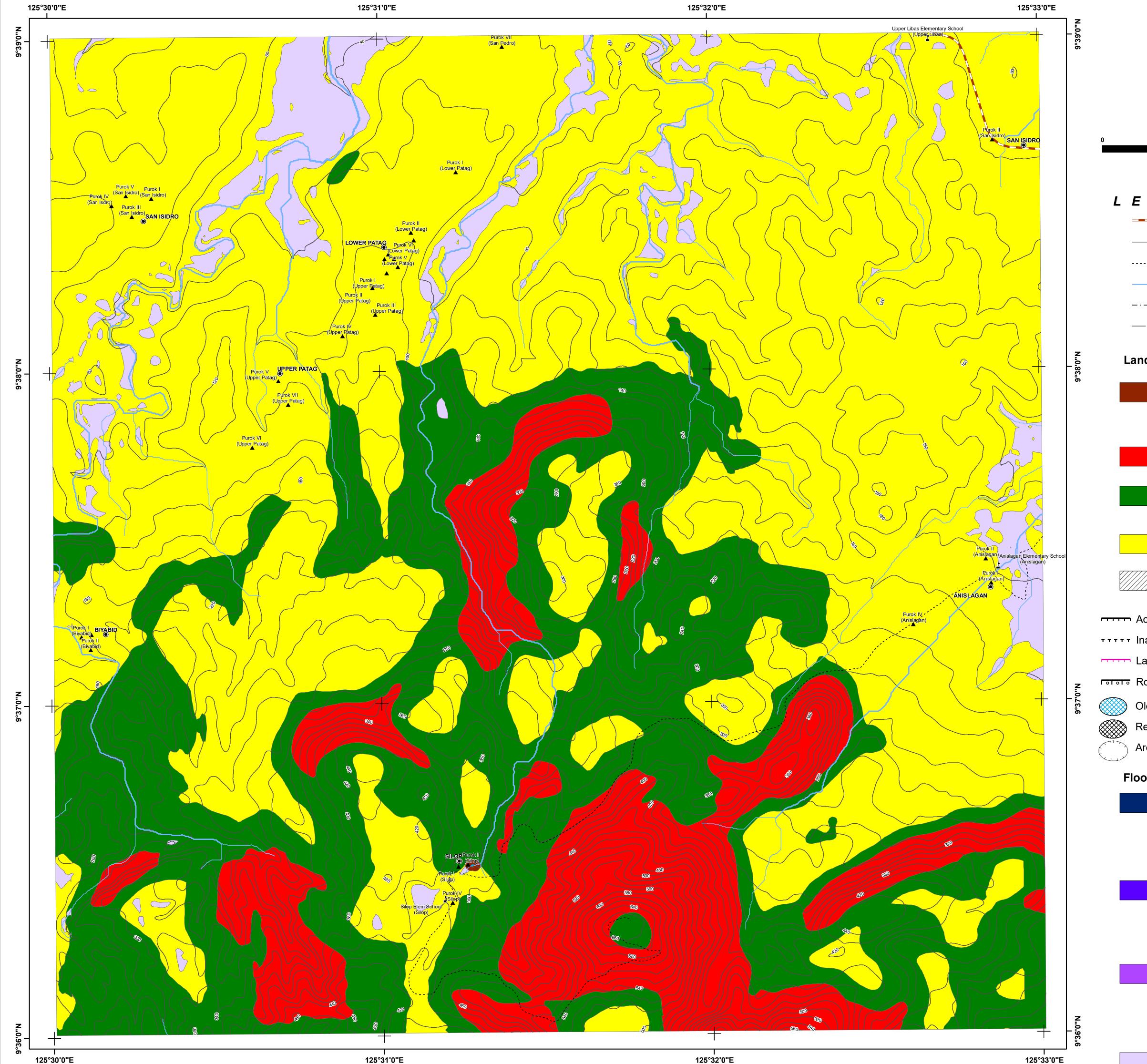


DETAILED LANDSLIDE AND FLOOD HAZARD MAP OF PLACER, MAINIT AND TUBOD, SURIGAO DEL NORTE, PHILIPPINES **4120-III-11 SILOP QUADRANGLE**





DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES MINES AND GEOSCIENCES BUREAU North Avenue, Diliman, Quezon City

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

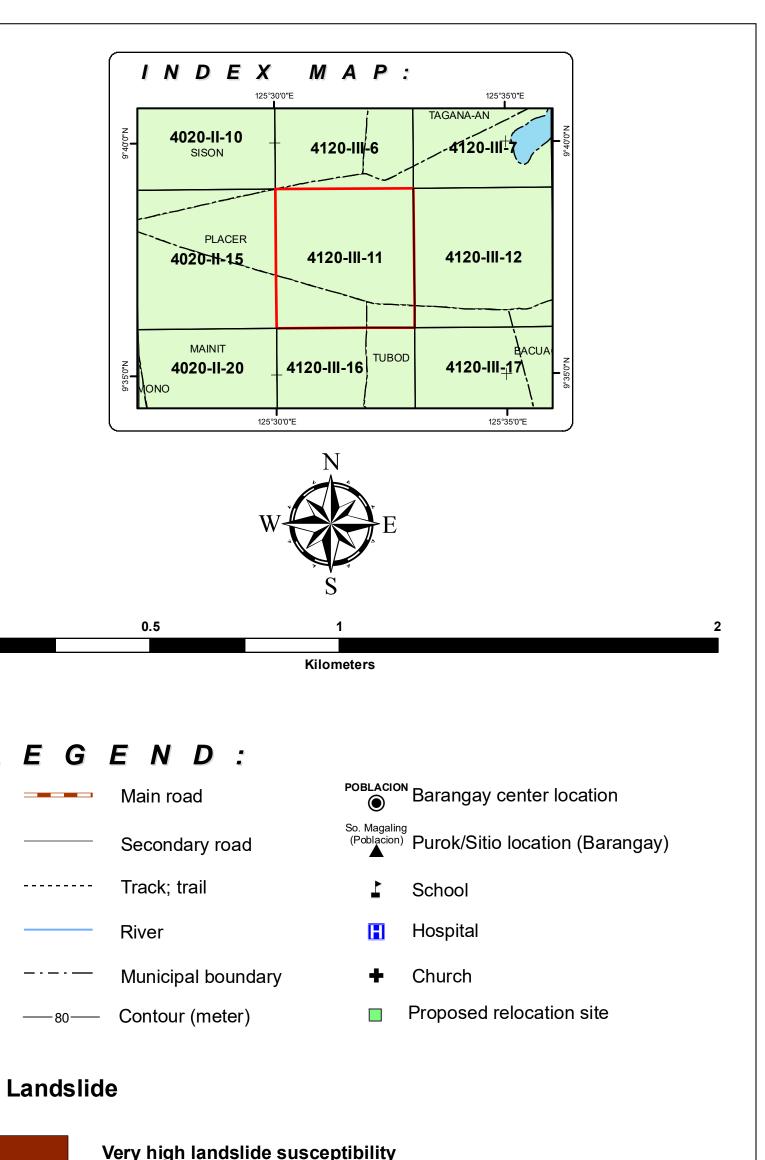
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Coordinate System :

Spheroid :..... Clark 1866 Datum :..... Luzon 1911

Mapping scale 1:10,000

Lands Geological Survey Division



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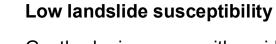
aggravating factor. High landslide susceptibility

Areas usually with steep to very steep slopes and underlain by weak materials. Areas with numerous old/inactive landslides. Moderate landslide susceptibility

Areas 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

Areas with moderately steep slopes. Soil creep and other indications of possible landslide occurrence are present.



Gently sloping areas with no identified landslide.

Debris flow / Possible accumulation zone Areas that could be affected by landslide debris.

Active landslide

- -→-→→ Creep TTTT Inactive landslide Tension crack Landslide area with mitigating measure $\rightarrow \rightarrow \rightarrow$ Gully **Riverbank erosion** Rock fall/Rock slide prone area
 - 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 Direction of receding floodwater



 $\overset{1.2}{\otimes}$ Flood depth (meter)

Flashflood exit point