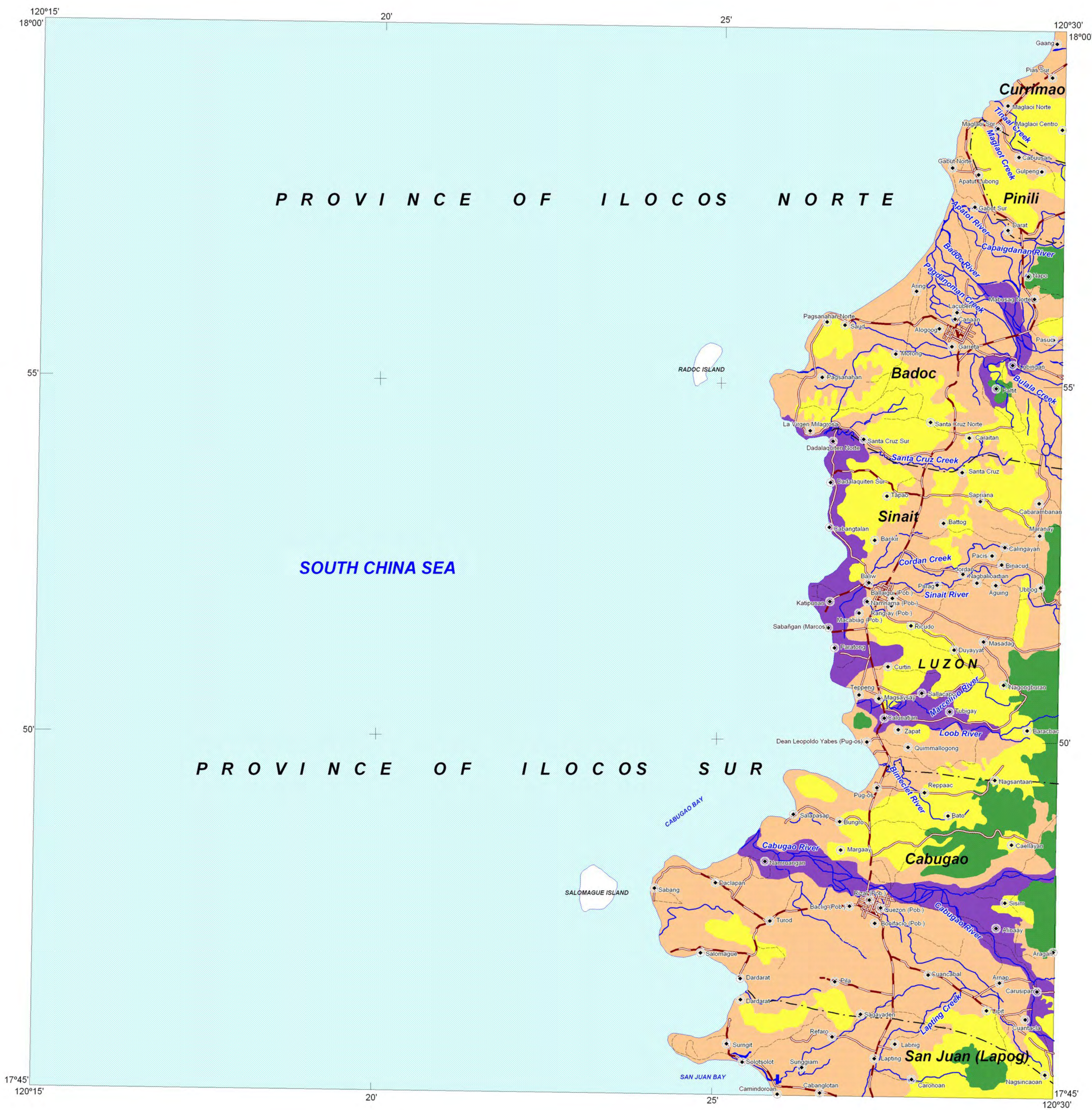
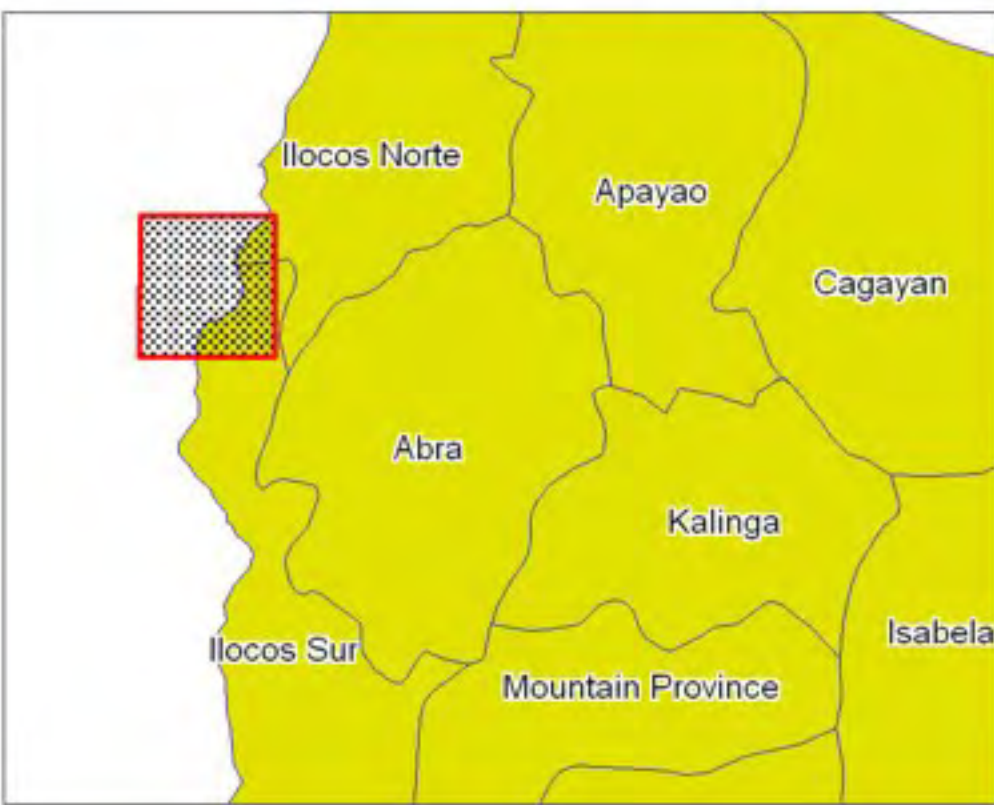


LANDSLIDE AND FLOOD SUSCEPTIBILITY MAP OF CABUGAO QUADRANGLE, ILOCOS NORTE AND ILOCOS SUR PROVINCES, PHILIPPINES



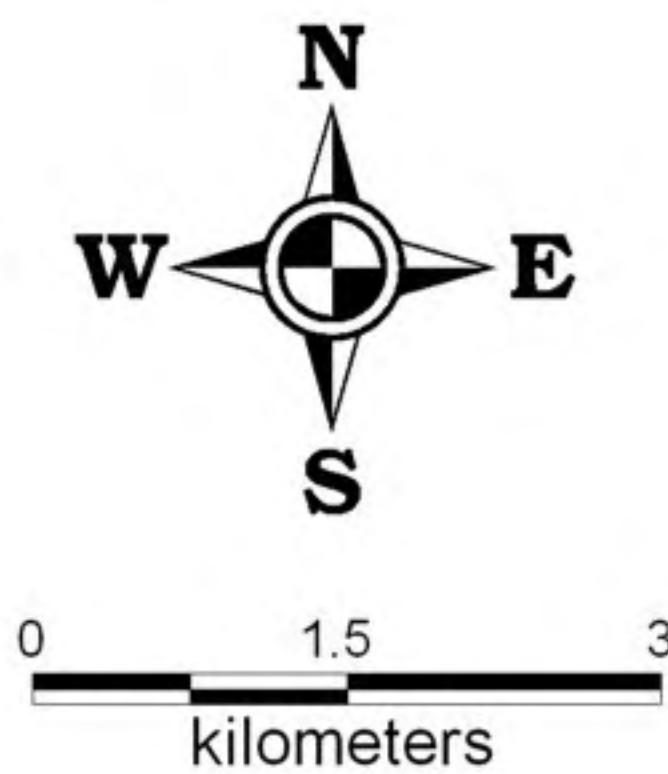
INDEX MAP



LEGEND :

- Moderate susceptibility to landslide**
Areas with moderate landslide susceptibility rating have inactive/old landslides and tension cracks which are located away from the community. These areas usually have moderate slopes.
- Low susceptibility to landslide**
Areas with low to gentle slopes and lacking tension cracks have low landslide susceptibility rating.
- High susceptibility to flooding**
Areas with greater than 1 meter flood height. These areas are usually flooded for several hours during heavy rains; include landforms of topographic lows such as active river channels, abandoned river channels and areas along river banks; also prone to flashfloods.
- Low to moderate susceptibility to flooding**
Areas with less than 1 meter flood height. These areas are usually inundated during prolonged and extensive heavy rainfall or extreme weather condition.

- Roads
- River
- Municipal boundary
- Barangay center location



TRANSVERSE MERCATOR PROJECTION
MAPPING SCALE 1:50, 000

GIS Processing :
Lands Geological Survey Division

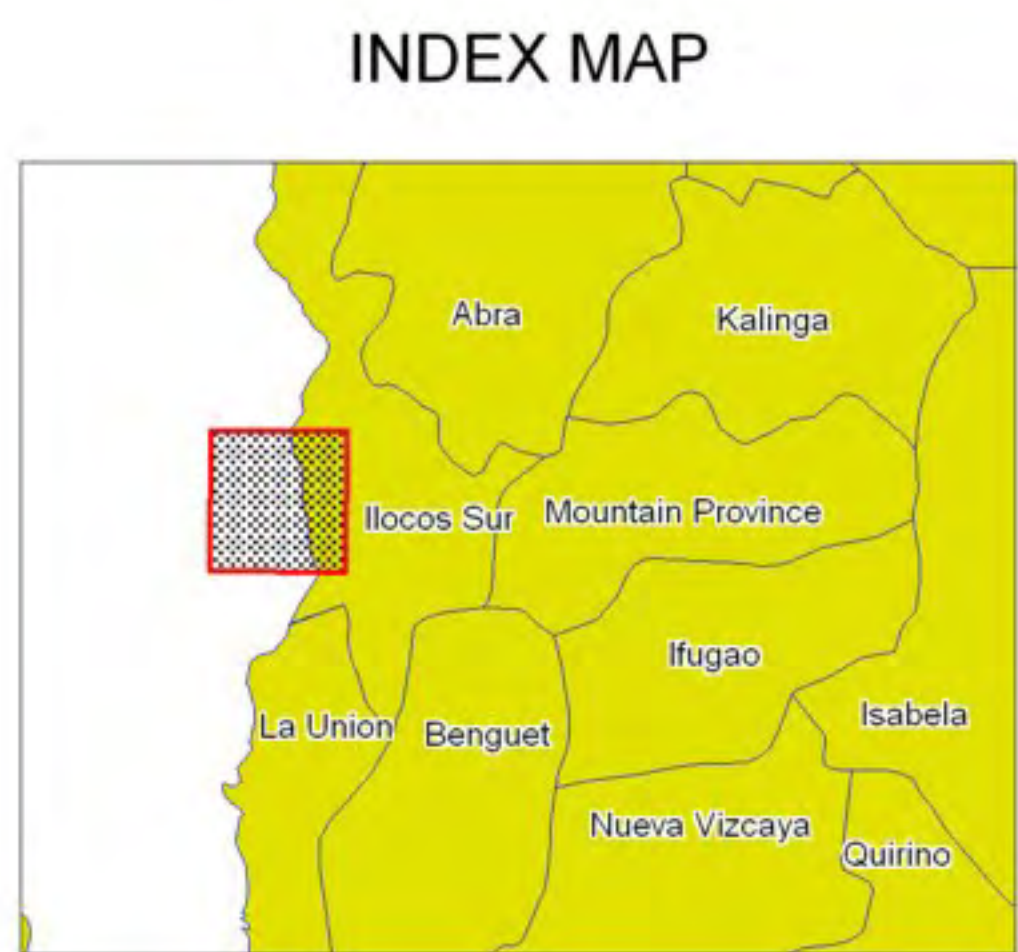
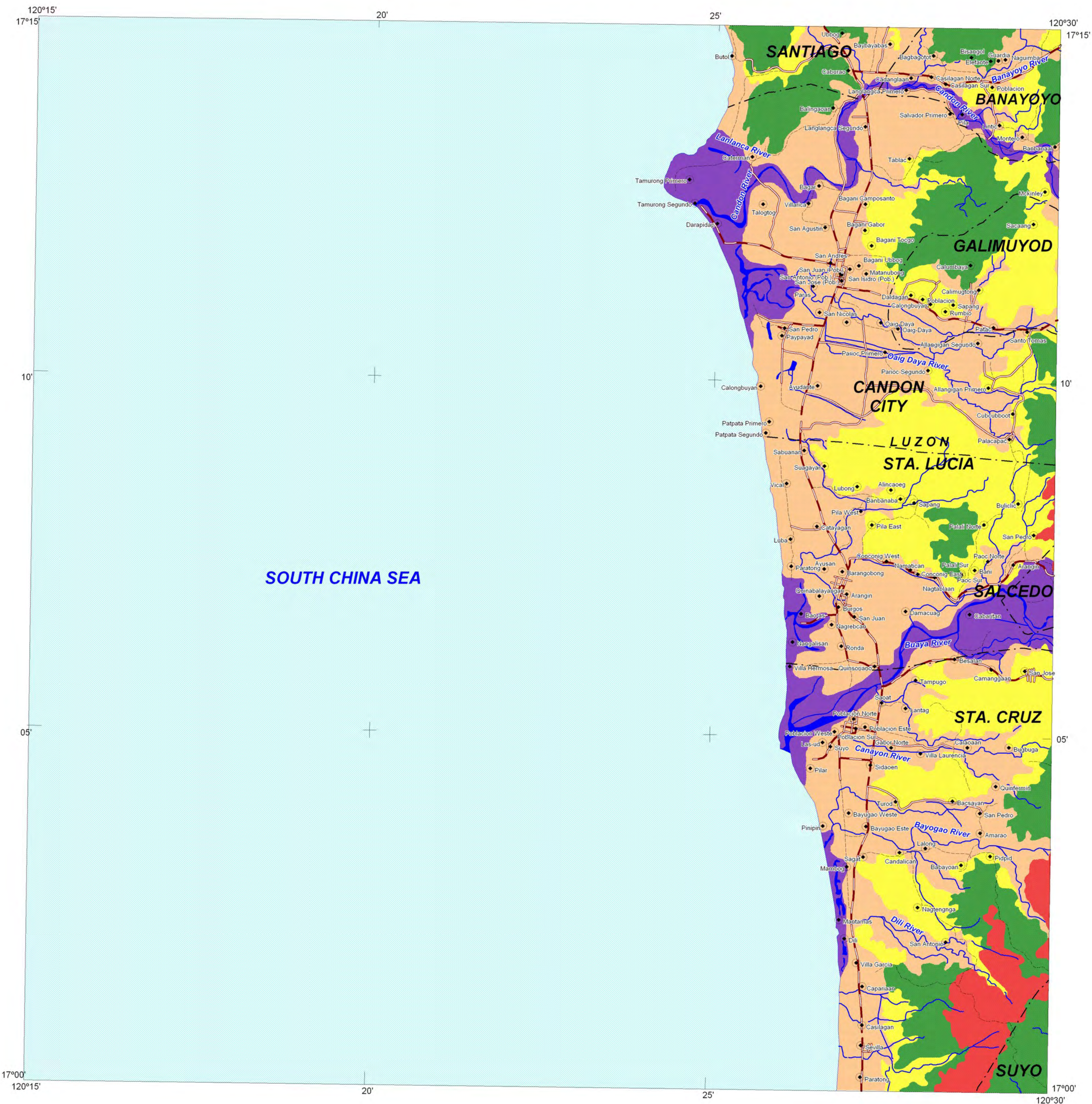
Data Sources:
MGB Geohazard Assessment Team
Geological Database and Information Systems Section
Lands Geological Survey Division
Geosciences Division MGB RO I

Base Map :
Sheet No. 7078 I "Cabugao Quadrangle"



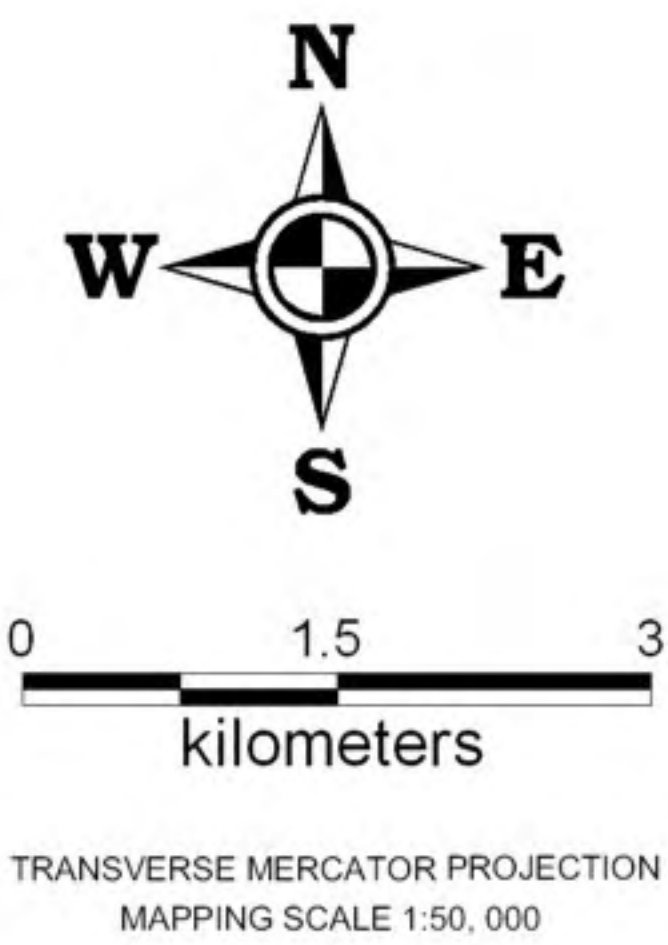
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MINES AND GEOSCIENCES BUREAU
LANDS GEOLOGICAL SURVEY DIVISION

LANDSLIDE AND FLOOD SUSCEPTIBILITY MAP OF CANDON QUADRANGLE, ILOCOS SUR PROVINCE, PHILIPPINES



LEGEND :

- High susceptibility to landslide**
Areas with high landslide susceptibility rating have active/recent landslides and tension cracks that could directly affect the community. Those with steep slopes and drainages that are prone to landslide damming are also highly susceptible to landslides.
- Moderate susceptibility to landslide**
Areas with moderate landslide susceptibility rating have inactive/old landslides and tension cracks which are located away from the community. These areas usually have moderate slopes.
- Low susceptibility to landslide**
Areas with low to gentle slopes and lacking tension cracks have low landslide susceptibility rating.
- High susceptibility to flooding**
Areas with greater than 1 meter flood height. These areas are usually flooded for several hours during heavy rains; include landforms of topographic lows such as active river channels, abandoned river channels and areas along river banks; also prone to flashfloods.
- Low to moderate susceptibility to flooding**
Areas with less than 1 meter flood height. These are usually inundated during prolonged and extensive heavy rainfall or extreme weather condition.
- Roads**
- River**
- Municipal boundary**
- Barangay center location**

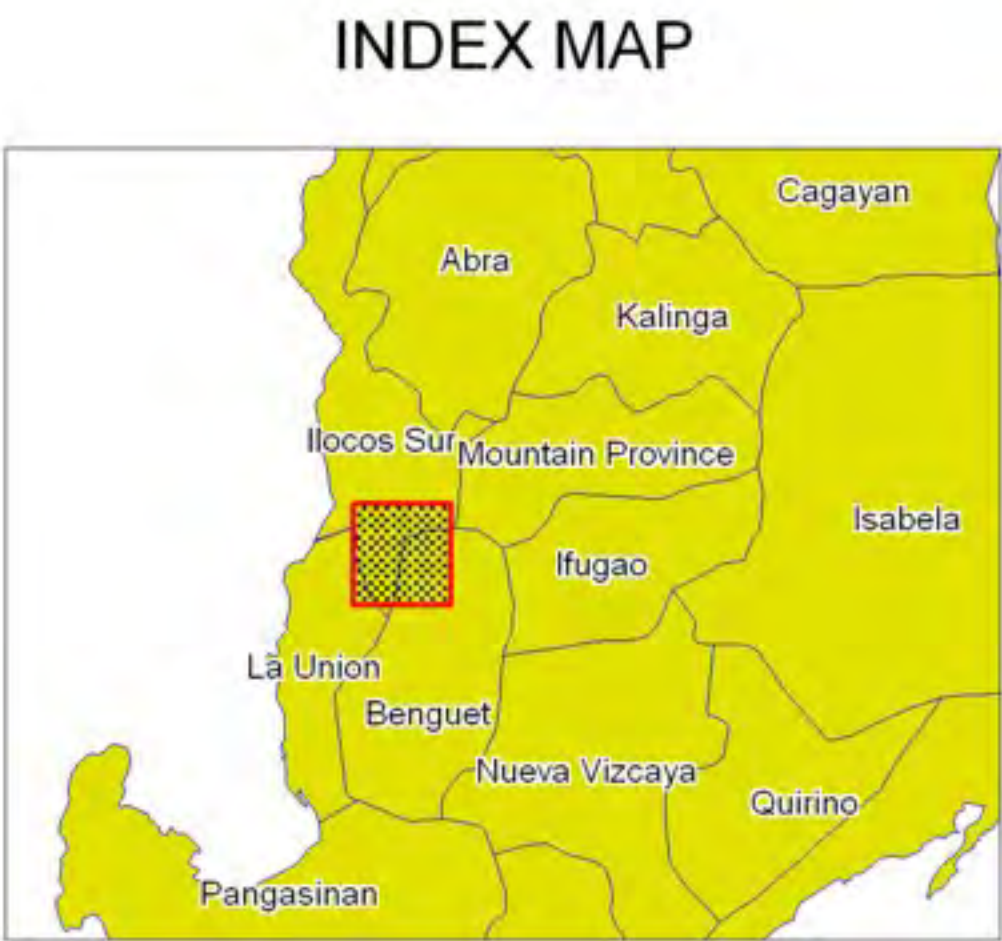
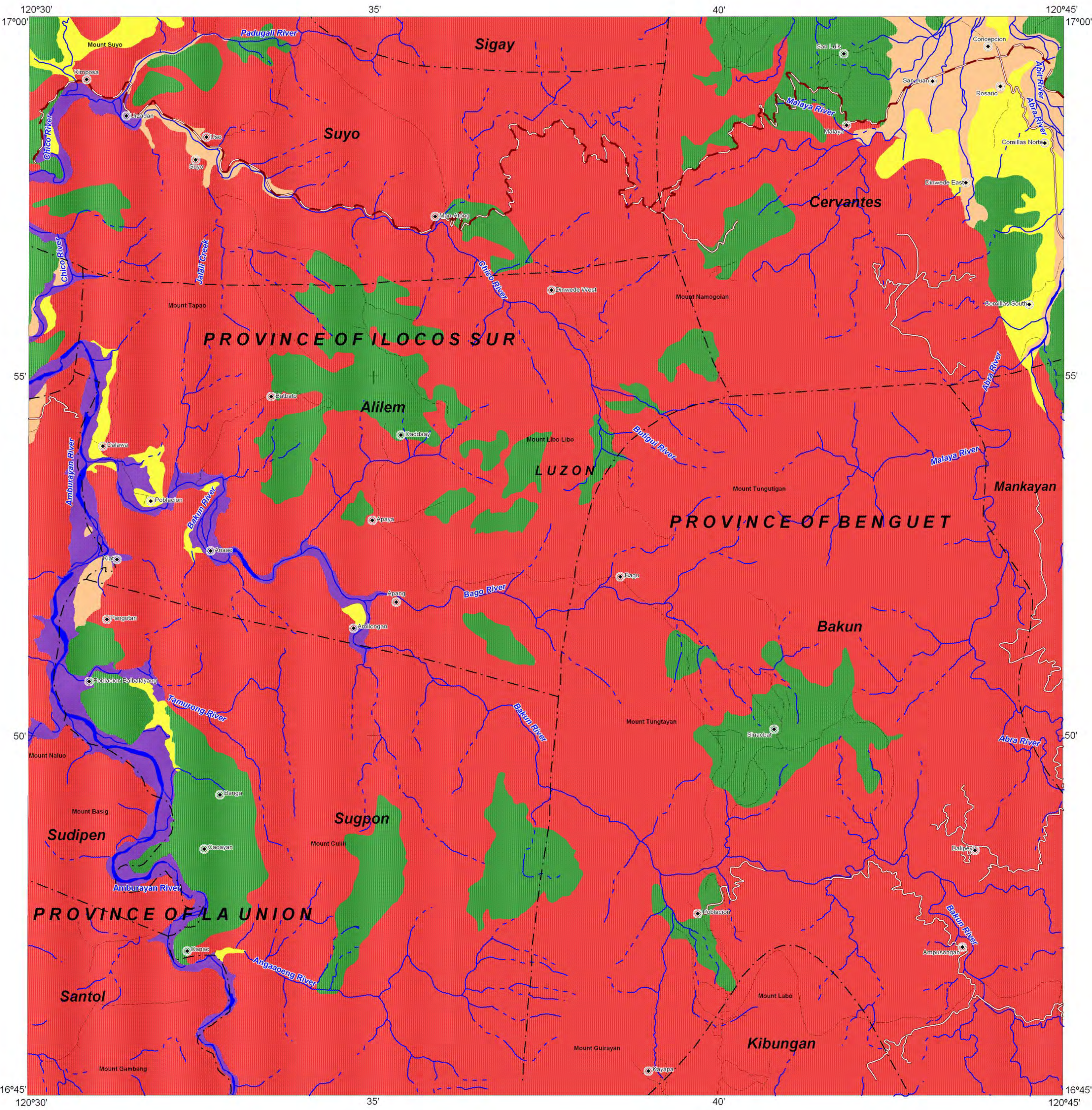


GIS Processing :
Lands Geological Survey Division

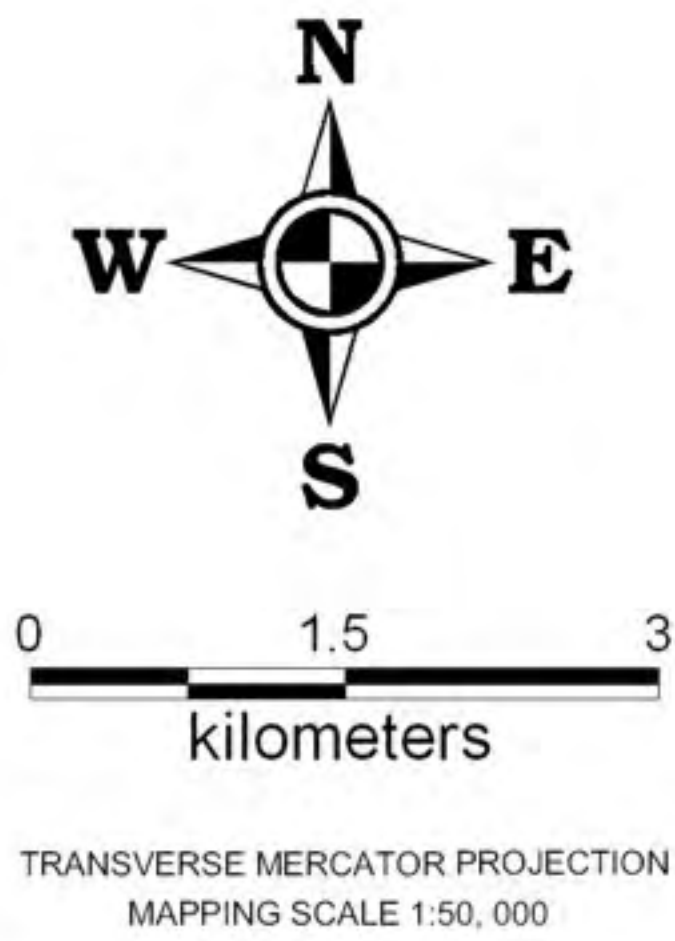
Data Sources:
MGB Geohazard Assessment Team
Geological Database and Information Systems Section
Lands Geological Survey Division
Geosciences Division MGB RO I

Base Map :
Sheet No. 7077 II "Candon Quadrangle"

LANDSLIDE AND FLOOD SUSCEPTIBILITY MAP OF CERVANTES QUADRANGLE LA UNION, ILOCOS SUR AND BENGUET PROVINCES, PHILIPPINES



- LEGEND :**
- High susceptibility to landslide**
Areas with high landslide susceptibility rating have active/recent landslides and tension cracks that could directly affect the community. Those with steep slopes and drainages that are prone to landslide damming are also highly susceptible to landslides.
 - Moderate susceptibility to landslide**
Areas with moderate landslide susceptibility rating have inactive/old landslides and tension cracks which are located away from the community. These areas usually have moderate slopes.
 - Low susceptibility to landslide**
Areas with low to gentle slopes and lacking tension cracks have low landslide susceptibility rating.
 - High susceptibility to flooding**
Areas with greater than 1 meter flood height. These areas are usually flooded for several hours during heavy rains; include landforms of topographic lows such as active river channels, abandoned river channels and areas along river banks; also prone to flashfloods.
 - Low to moderate susceptibility to flooding**
Areas with less than 1 meter flood height. These are usually inundated during prolonged and extensive heavy rainfall or extreme weather condition.
- Roads
 River
 Municipal boundary
 Barangay center location

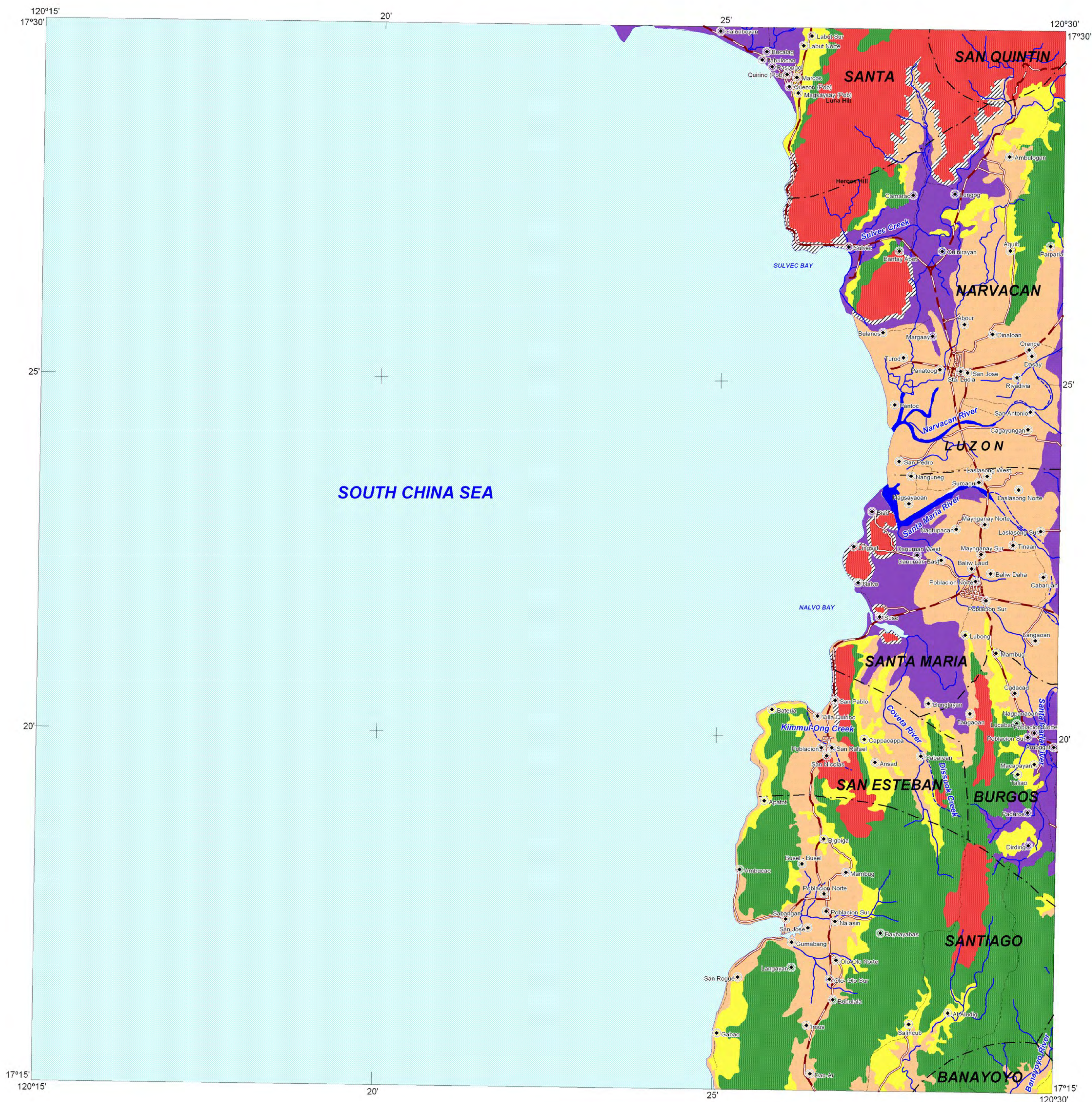


GIS Processing :
Lands Geological Survey Division

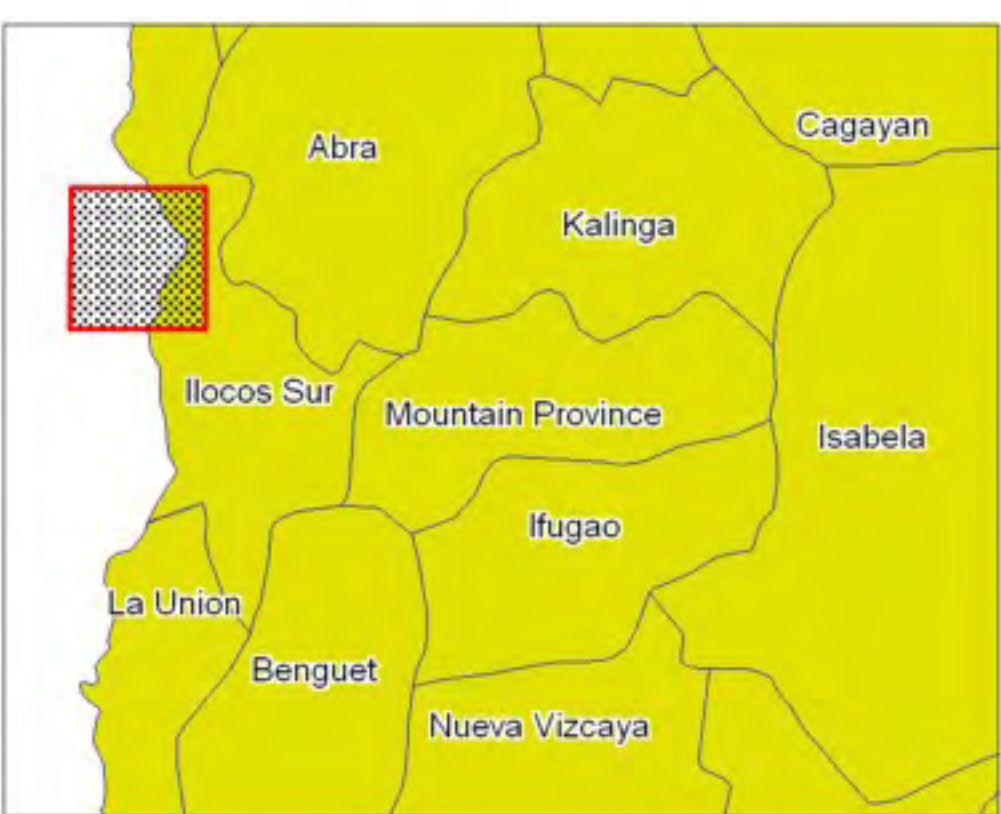
Data Sources:
MGB Geohazard Assessment Team
Geological Database and Information Systems Section
Lands Geological Survey Division
Geosciences Division MGB Region I and CAR

Base Map :
Sheet No. 7176 IV "Cervantes Quadrangle"

LANDSLIDE AND FLOOD SUSCEPTIBILITY MAP OF NARVACAN QUADRANGLE, ILOCOS SUR PROVINCE, PHILIPPINES

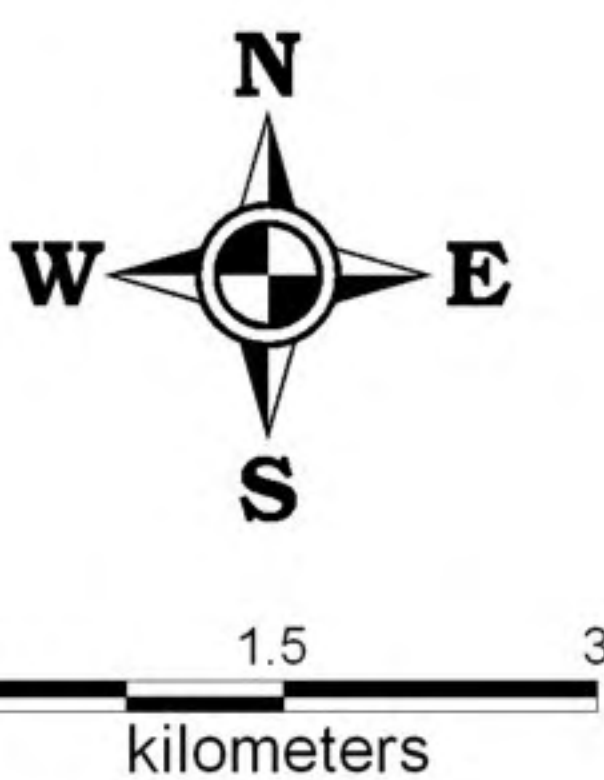


INDEX MAP



LEGEND :

- High susceptibility to landslide**
Areas with high landslide susceptibility rating have active/recent landslides and tension cracks that could directly affect the community. Those with steep slopes and drainages that are prone to landslide damming are also highly susceptible to landslides.
- Moderate susceptibility to landslide**
Areas with moderate landslide susceptibility rating have inactive/old landslides and tension cracks which are located away from the community. These areas usually have moderate slopes.
- Low susceptibility to landslide**
Areas with low to gentle slopes and lacking tension cracks have low landslide susceptibility rating.
- Possible landslide debris accumulation zone**
These are areas where landslide debris could accumulate.
- High susceptibility to flooding**
Areas with greater than 1 meter flood height. These areas are usually flooded for several hours during heavy rains; include landforms of topographic lows such as active river channels, abandoned river channels and areas along river banks; also prone to flashfloods.
- Low to moderate susceptibility to flooding**
Areas with less than 1 meter flood height. These are usually inundated during prolonged and extensive heavy rainfall or extreme weather condition.
- Roads**
- River**
- Municipal boundary**
- Barangay center location**



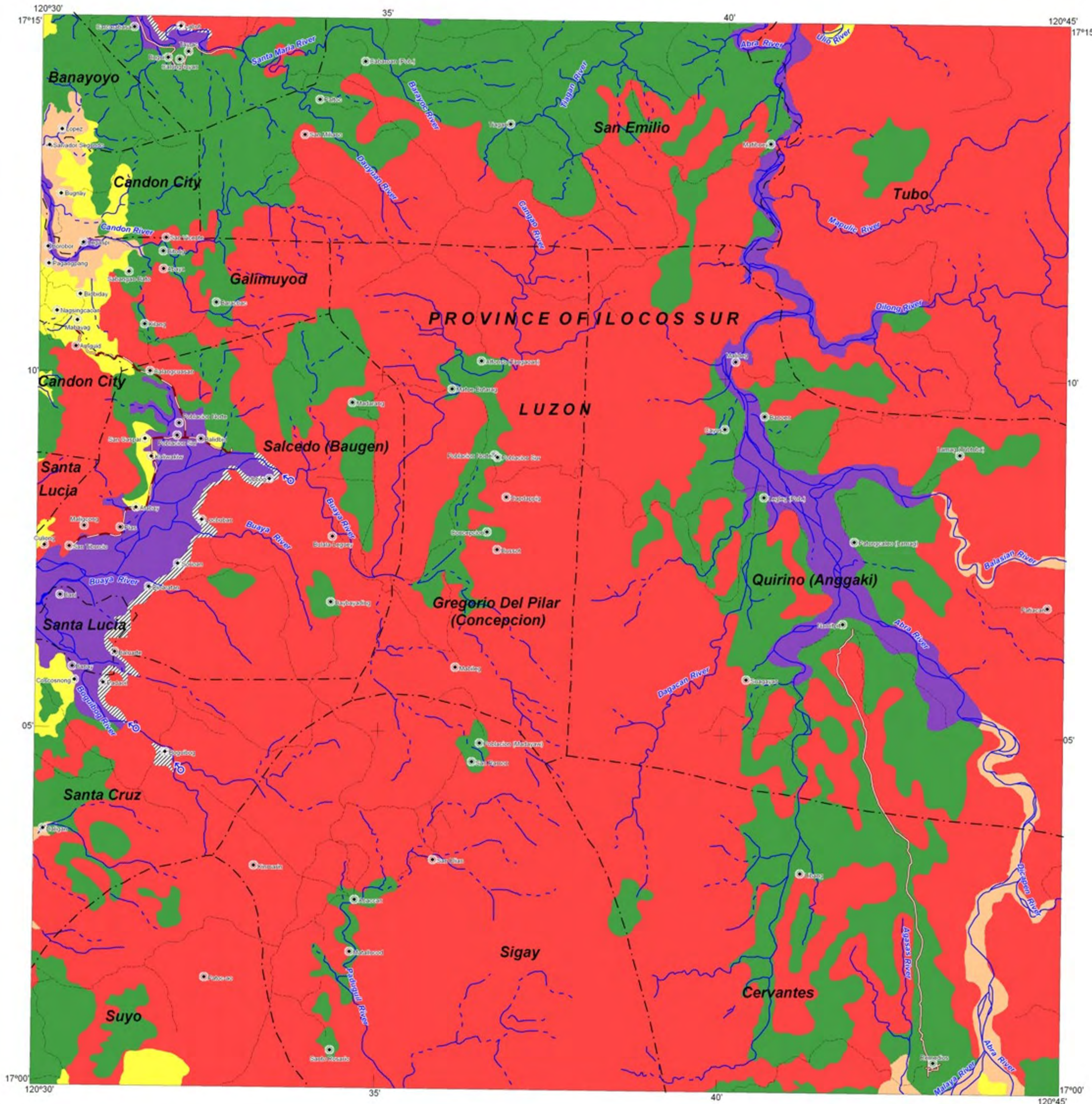
TRANSVERSE MERCATOR PROJECTION
MAPPING SCALE 1:50, 000

GIS Processing :
Lands Geological Survey Division

Data Sources:
MGB Geohazard Assessment Team
Geological Database and Information Systems Section
Lands Geological Survey Division
Geosciences Division MGB RO I

Base Map :
Sheet No. 7077 I "Narvacan Quadrangle"

LANDSLIDE AND FLOOD SUSCEPTIBILITY MAP OF SALCEDO QUADRANGLE, ILOCOS SUR PROVINCE, PHILIPPINES



INDEX MAP



LEGEND :

- **High susceptibility to landslide**
Areas with high landslide susceptibility rating have active/recent landslides and tension cracks that could directly affect the community. Those with steep slopes and drainages that are prone to landslide damming are also highly susceptible to landslides.
- **Moderate susceptibility to landslide**
Areas with moderate landslide susceptibility rating have inactive/old landslides and tension cracks which are located away from the community. These areas usually have moderate slopes.
- **Low susceptibility to landslide**
Areas with low to gentle slopes and lacking tension cracks have low landslide susceptibility rating.
- ▨ **Possible landslide debris accumulation zone**
These are areas where landslide debris could accumulate.
- **High susceptibility to flooding**
Areas with greater than 1 meter flood height. These areas are usually flooded for several hours during heavy rains; include landforms of topographic lows such as active river channels, abandoned river channels and areas along river banks; also prone to flashfloods.
- **Low to moderate susceptibility to flooding**
Areas with less than 1 meter flood height. These are usually inundated during prolonged and extensive heavy rainfall or extreme weather condition.
- Roads
- River
- Municipal boundary
- Barangay center location
- Flashflood exit points



TRANSVERSE MERCATOR PROJECTION
MAPPING SCALE 1:50,000

GIS Processing :
Lands Geological Survey Division

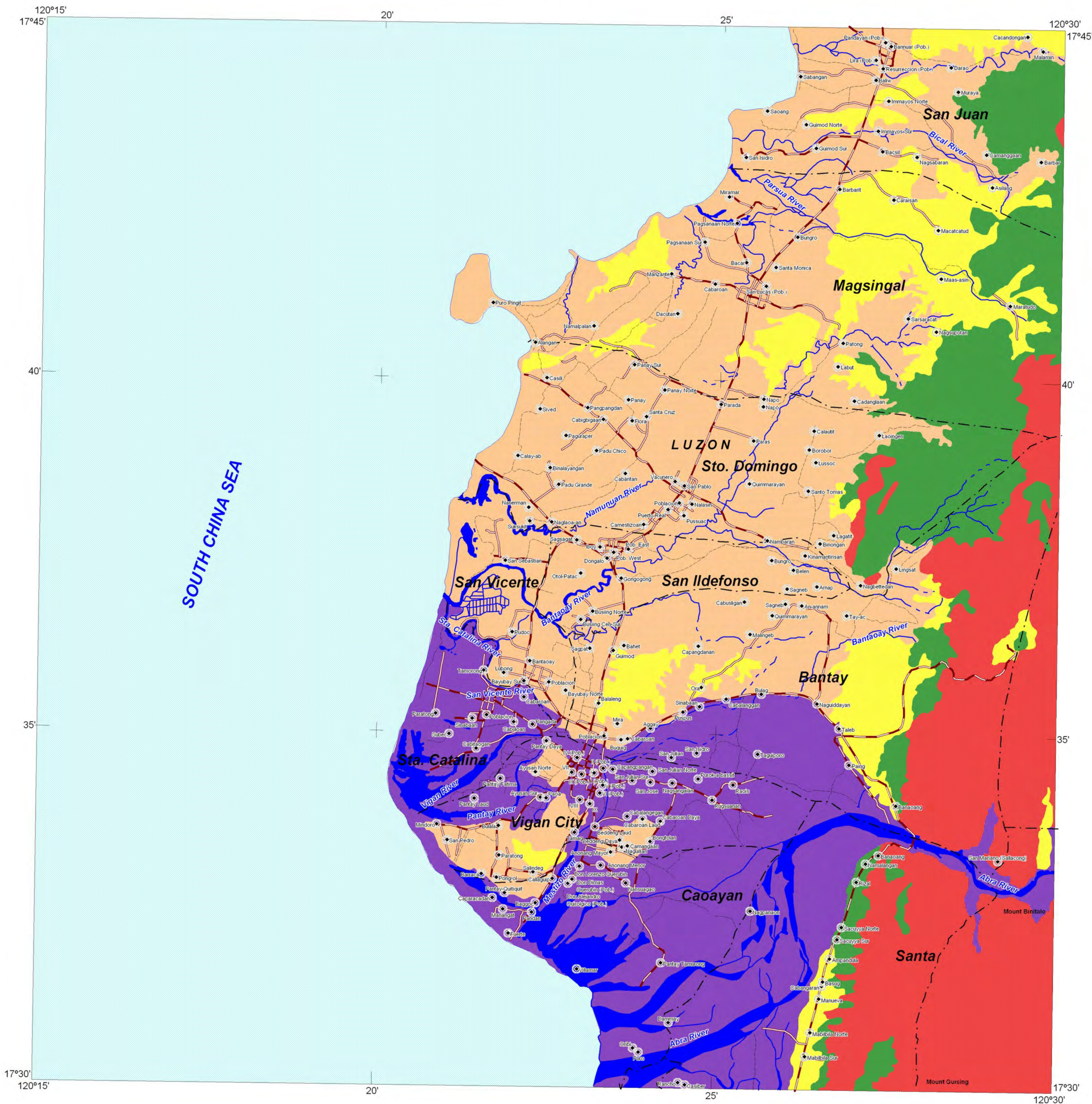
Data Sources:
MGB Geohazard Assessment Team
Geological Database and Information Systems Section
Lands Geological Survey Division
Geosciences Division MGB RO I

Base Map :
Sheet No. 7177 III "Salcedo Quadrangle"

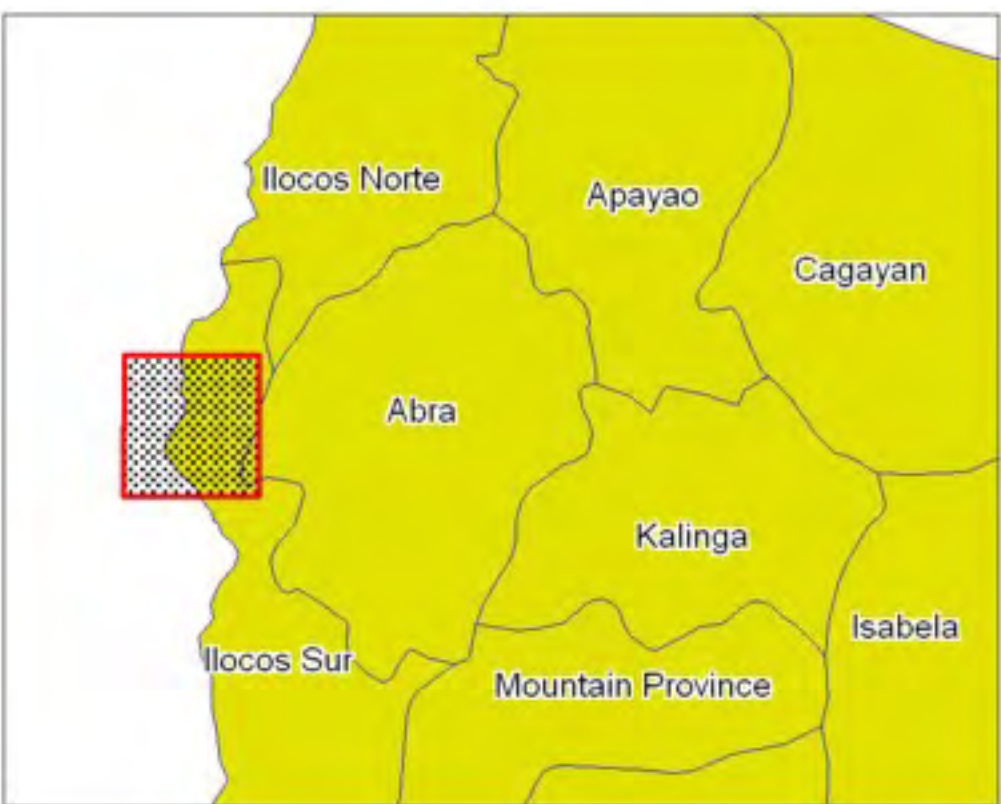


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LANDSLIDE AND FLOOD SUSCEPTIBILITY MAP OF VIGAN QUADRANGLE, ILOCOS SUR PROVINCE, PHILIPPINES



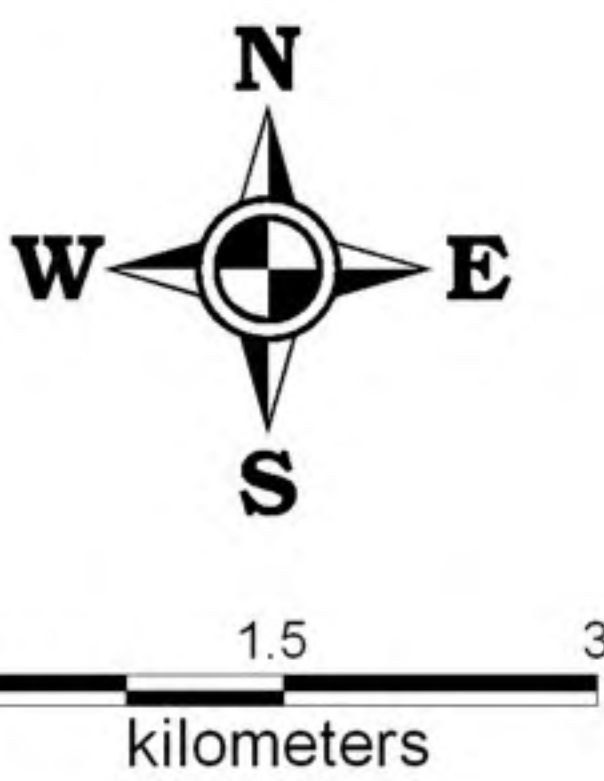
INDEX MAP



LEGEND :

- High susceptibility to landslide**
Areas with high landslide susceptibility rating have active/recent landslides and tension cracks that could directly affect the community. Those with steep slopes and drainages that are prone to landslide damming are also highly susceptible to landslides.
- Moderate susceptibility to landslide**
Areas with moderate landslide susceptibility rating have inactive/old landslides and tension cracks which are located away from the community. These areas usually have moderate slopes.
- Low susceptibility to landslide**
Areas with low to gentle slopes and lacking tension cracks have low landslide susceptibility rating.
- High susceptibility to flooding**
Areas with greater than 1 meter flood height. These areas are usually flooded for several hours during heavy rains; include landforms of topographic lows such as active river channels, abandoned river channels and areas along river banks; also prone to flashfloods.
- Low to moderate susceptibility to flooding**
Areas with less than 1 meter flood height. These are usually inundated during prolonged and extensive heavy rainfall or extreme weather condition.

- Roads
- River
- Municipal boundary
- Barangay center location



TRANSVERSE MERCATOR PROJECTION
MAPPING SCALE 1:50, 000

GIS Processing :
Lands Geological Survey Division

Data Sources:
MGB Geohazard Assessment Team
Geological Database and Information Systems Section
Lands Geological Survey Division
Geosciences Division MGB RO I

Base Map :
Sheet No. 7078 II "Vigan Quadrangle"

