

CLIMATE AND DISASTER RISK ASSESSMENT



PROVINCE OF CAVITE
MUNICIPALITY OF AMADEO

Climate and Disaster Risk Assessment of Amadeo

Annex to the Comprehensive Land Use Plan
Planning period 2025-2031
Generated 8 September 2026

SAMPLE DATA - NOT FOR SUBMISSION

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This document contains seeded sample data (adaptive_capacity, cbms, costs, facilities, land_use). It is for testing o

1. Introduction

This Climate and Disaster Risk Assessment covers the 26 barangays of the Municipality of Amadeo, Province of Cavite (PSGC 0402102000). It is prepared as an annex to the Comprehensive Land Use Plan in accordance with the Department of Human Settlements and Urban Development Supplemental Guidelines (DHSUD-2025.1), and follows the eight-table scoring sequence those guidelines set out.

Every figure in this document is traceable to a named source and a dated request. The source register in the final section lists each dataset, the agency that publishes it, the service endpoint it was retrieved from, and what it was used for. Nothing here is entered by hand except the datasets the local government supplied, and those are identified as such.

1.1 Status of this assessment

Table A. Completeness of this assessment at the time of generation

Measure	Value
Hazards applicable to this municipality	7
Hazards with computed exposure	2
Datasets still outstanding	9
Stage reached	Partial exposure
Risk assessment	Scored
Ready for submission	No

This is a working draft. It is not submittable until the LGU datasets are loaded, risk is scored, and the MPDO has signed off.

2. The Municipality

Table B. Profile of the municipality

Attribute	Value
Municipality	Amadeo
Classification	Municipality
Province	Cavite
Region	Region IV-A (CALABARZON)
PSGC code	0402102000
Barangays	26
Has a coastline	No
Land area, GIS extent	3,605.8 ha

Attribute	Value
Boundary source	faeldon/philippines-json-maps PSGC 2023-12-31 (PSA/NAMRIA via faeldon, MIT)

2.1 Barangays

Table C. Barangays, land area and population

Barangay	Class	Area (ha)	Population	Households
Banaybanay	Urban	212.5	4,353	946
Barangay I	Urban	33.2	1,101	239
Barangay II	Urban	2.2	300	65
Barangay III	Urban	4.4	300	65
Barangay IV	Rural	12.5	503	109
Barangay IX	Rural	2.9	300	65
Barangay V	Rural	138.5	4,821	1,048
Barangay VI	Rural	12.6	596	130
Barangay VII	Rural	1.9	300	65
Barangay VIII	Rural	27.0	1,135	247
Barangay X	Rural	1.7	300	65
Barangay XI	Rural	15.4	561	122
Barangay XII	Rural	82.2	4,041	878
Bucal	Rural	180.3	5,600	1,217
Buho	Rural	80.1	3,501	761
Dagatan	Rural	340.6	8,719	1,895
Halang	Rural	416.7	15,932	3,463
Loma	Rural	139.5	7,094	1,542
Maitim I	Rural	167.4	5,487	1,193
Maymangga	Rural	245.4	11,142	2,422
Minantok Kanluran	Rural	143.5	3,918	852
Minantok Silangan	Rural	169.0	6,750	1,467
Pangil	Rural	483.9	10,571	2,298
Salaban	Rural	149.4	5,149	1,119
Talon	Rural	316.7	14,921	3,244
Tamacan	Rural	224.0	6,498	1,413

Source: Barangay outlines and areas from the national administrative boundary dataset; population and households as supplied by the local government.

Total population across the barangays with figures supplied is 123,893 in 26,930 households.



Barangay boundary

Figure 1. Barangay boundaries of the municipality.

3. Methodology

The assessment follows the DHSUD scoring sequence. Each barangay is scored for exposure to each hazard, for sensitivity and adaptive capacity, and those combine into a vulnerability score. Exposure and vulnerability give the severity of consequence, and severity multiplied by the likelihood of the hazard gives the risk score, which falls into one of four land-use control categories. The tables reproduced below are the published DHSUD thresholds, not this system's own.

severity of consequence = (exposure + vulnerability) / 2. risk score = likelihood x severity of consequence. Adaptive capacity is inverted: A is the strongest and scores 1. The severity table published by DHSUD is reproduced exactly by the formula above at all sixteen cells, which the test suite asserts cell by cell.

3.1 Likelihood of occurrence

Table 1. Indicative likelihood of occurrence (temporal probability) scores

Score	Rating	Return period	Probability in 50 years	Description
4	Likely	1-25 years	87%-100%	This event has occurred several times in your lifetime; it is expected to occur again within a short span.
3	Possible	25-100 years	40%-86%	The event may have occurred once or twice in your lifetime; it is possible to occur within a generation.
2	Unlikely	10-30 years	22.1%-39%	The event is unlikely to be experienced within a lifetime, but records show it has occurred before.

Score	Rating	Return period	Probability in 50 years	Description
1	Rare	30-100 years	2%-22%	The event is possible but not expected to occur except under exceptional circumstances.

Source: DHSUD

3.2 Exposure

Table 2. Exposure scores by share of the unit affected

Score	Rating	Area or population affected	Nominal
4	Very high	>15% affected	Yes
3	High	11-15% affected	-
2	Moderate	6-10% affected	-
1	Low	0-5% affected	No

Source: DHSUD

Table 3. Exposure thresholds by exposure unit

Exposure unit	Parameter	Score	Threshold
Population	Affected population	4	>20%
Population	Affected population	3	10.01-20%
Population	Affected population	2	5.01-10%
Population	Affected population	1	<=5%
Critical Point Facilities	Affected facility	4	100% (yes)
Critical Point Facilities	Affected facility	1	0% (no)
Lifeline Utilities	Affected area	4	>40%
Lifeline Utilities	Affected area	3	20.01-40%
Lifeline Utilities	Affected area	2	10.01-20%
Lifeline Utilities	Affected area	1	<=10%
Urban Use Areas	Affected area	4	>40%
Urban Use Areas	Affected area	3	20.01-40%
Urban Use Areas	Affected area	2	10.01-20%
Urban Use Areas	Affected area	1	<=10%
Natural Resource-based Production	Affected area	4	>40%
Natural Resource-based Production	Affected area	3	20.01-40%
Natural Resource-based Production	Affected area	2	10.01-20%
Natural Resource-based Production	Affected area	1	<=10%

Source: DHSUD

3.3 Sensitivity and adaptive capacity

Table 4. Sensitivity scores

Score	Rating	Share of the unit that is sensitive
4	Very high	>15% sensitive
3	High	11-15% sensitive
2	Moderate	6-10% sensitive
1	Low	0-5% sensitive

Source: DHSUD

Table 5. Adaptive capacity scores

Code	Score	Rating	Descriptive criterion
A	1	Very high	Local government is implementing existing regulations on hazard mitigation and structural design and monitors compliance thereof
B	2	High	Local government is implementing existing regulations on hazard mitigation and structural design
C	3	Moderate	Local government has existing regulations on hazard mitigation and structural design
D	4	Low	Local government has no regulations on hazard mitigation and structural design

Source: DHSUD. Note the inversion: code A is the strongest capacity and scores 1, because the score feeds a vulnerability index in which a higher number is worse.

3.4 Vulnerability, severity and risk

Table 6. Vulnerability index converted to a vulnerability score

Index	Score	Rating
up to 0.50	0.25	Very low vulnerability
up to 1.00	0.50	Low vulnerability
up to 2.00	0.75	Moderate vulnerability
up to 4.00	1.00	High vulnerability

Source: DHSUD

Table 7. Severity of consequence, by exposure and vulnerability score

	Vulnerability 4	Vulnerability 3	Vulnerability 2	Vulnerability 1
Exposure 4	4.00	3.50	3.00	2.50
Exposure 3	3.50	3.00	2.50	2.00
Exposure 2	3.00	2.50	2.00	1.50
Exposure 1	2.50	2.00	1.50	1.00

Source: DHSUD

Table 8. Risk categories and the corresponding land-use control

Risk score	Category	Land-use control
12.00 - 16.00	Very High-Risk Areas	Prohibited
7.00 - 11.99	High Risk Areas	Discretionary
3.00 - 6.99	Moderate Risk Areas	Conditional
1.00 - 2.99	Low Risk Areas	Permitted

Source: DHSUD

4. Hazards

Every hazard applicable to this municipality appears below, whether or not its exposure could be computed. A hazard omitted because its data could not be retrieved would be indistinguishable from a hazard that does not occur here, and those are opposite conclusions.

Table D. Hazards assessed, their sources and their status

Hazard	Group	Publishing agency	Status	Coverage
Flood	hydrometeorological	DENR-MGB	Computed	15 of 26 barangays
Rain-induced Landslide	hydrometeorological	DENR-MGB	Computed	26 of 26 barangays
Drought	hydrometeorological	DAAGASA	Pending	-
Ground Shaking	geological	PHIVOLCS	Pending	-
Liquefaction	geological	PHIVOLCS	Nil	-
Earthquake-induced Landslide	geological	PHIVOLCS	Pending	-
Ground Rupture	geological	PHIVOLCS	Pending	-

4.1 Flood

Susceptibility polygons published by DENR-MGB were clipped to each barangay and the share of the barangay in each susceptibility class measured. 15 of the 26 barangays carry at least one susceptibility class. The measurement used 1 features retrieved on 2026-09-08 from the FloodSusc field.

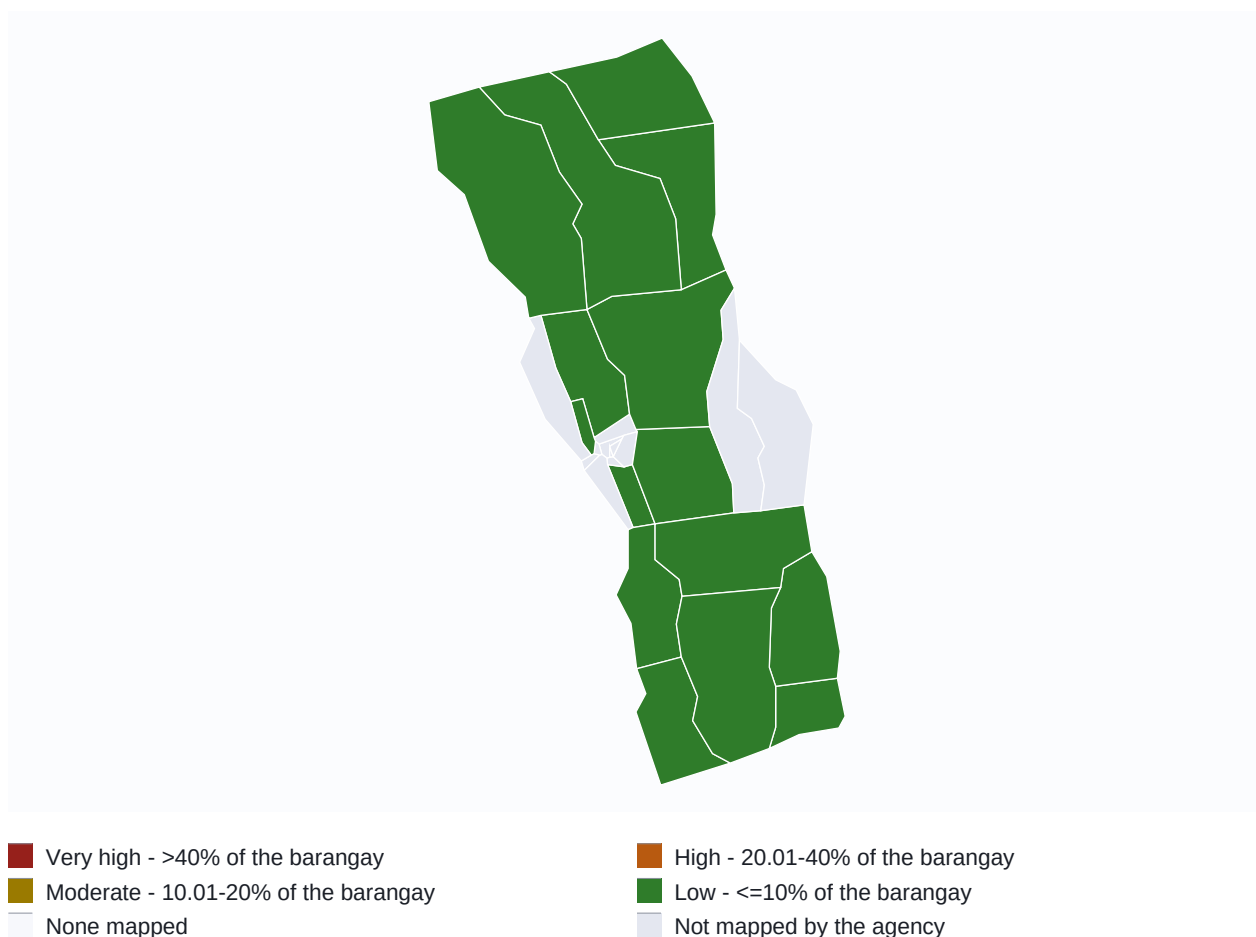


Figure 2. Flood susceptibility by barangay, banded to the DHSUD exposure scores.

Table 4.1. Flood: susceptible share by barangay

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Banaybanay	212.5	1.8%	HF	1
Barangay I	33.2	0.3%	HF	1
Barangay V	138.5	8.6%	HF	1
Barangay XI	15.4	1.4%	HF	1
Bucal	180.3	4.8%	HF	1
Buho	80.1	6.4%	HF	1
Dagatan	340.6	4.0%	HF	1
Halang	416.7	9.2%	HF	1
Loma	139.5	0.9%	HF	1
Maitim I	167.4	2.2%	HF	1
Maymangga	245.4	2.7%	HF	1
Pangil	483.9	5.0%	HF	1
Salaban	149.4	3.1%	HF	1
Talon	316.7	4.1%	HF	1

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Tamacan	224.0	7.0%	HF	1

Source: DENR-Mines and Geosciences Bureau

4.2 Rain-induced Landslide

Susceptibility polygons published by DENR-MGB were clipped to each barangay and the share of the barangay in each susceptibility class measured. 26 of the 26 barangays carry at least one susceptibility class. The measurement used 4 features retrieved on 2026-09-08 from the LndslideSusc field.

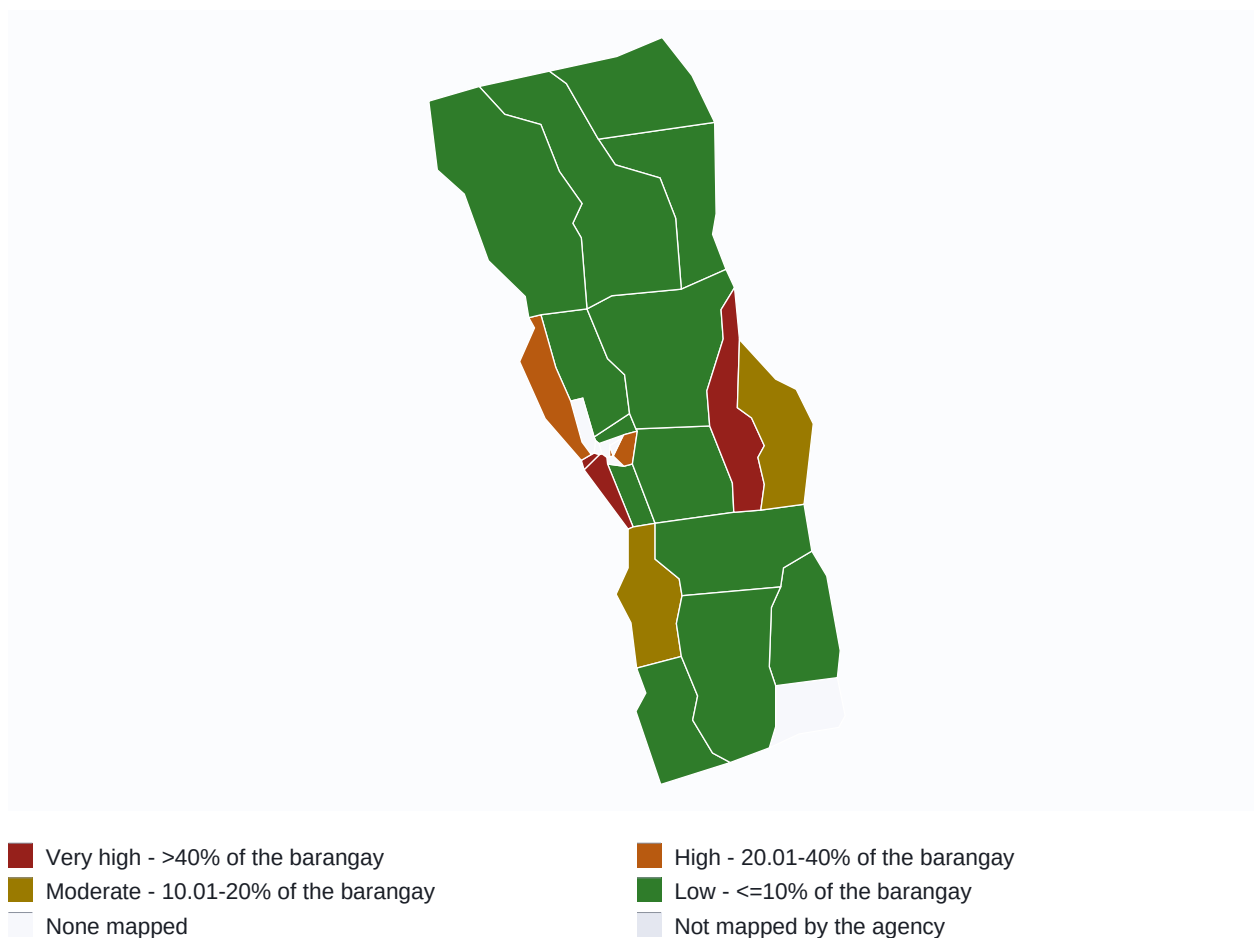


Figure 3. Rain-induced Landslide susceptibility by barangay, banded to the DHSUD exposure scores.

Table 4.2. Rain-induced Landslide: susceptible share by barangay

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Banaybanay	212.5	2.1%	HL	1
Barangay I	33.2	5.4%	VHL	1
Barangay II	2.2	0.0%	LL	1
Barangay III	4.4	0.0%	LL	1
Barangay IV	12.5	1.2%	VHL	1
Barangay IX	2.9	48.4%	HL	4

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Barangay V	138.5	4.2%	VHL	1
Barangay VI	12.6	22.1%	VHL	3
Barangay VII	1.9	0.0%	LL	1
Barangay VIII	27.0	47.8%	HL	4
Barangay X	1.7	0.0%	LL	1
Barangay XI	15.4	0.0%	LL	1
Barangay XII	82.2	20.8%	HL	3
Bucal	180.3	9.5%	VHL	1
Buho	80.1	0.0%	LL	1
Dagatan	340.6	6.7%	VHL	1
Halang	416.7	2.7%	HL	1
Loma	139.5	10.3%	HL	2
Maitim I	167.4	8.0%	HL	1
Maymangga	245.4	1.1%	HL	1
Minantok Kanluran	143.5	43.7%	HL	4
Minantok Silangan	169.0	19.7%	HL	2
Pangil	483.9	7.4%	HL	1
Salaban	149.4	4.0%	HL	1
Talon	316.7	0.6%	HL	1
Tamacan	224.0	2.9%	HL	1

Source: DENR-Mines and Geosciences Bureau

4.3 Drought

No automated source is wired up for this hazard yet.

4.4 Ground Shaking

No automated source is wired up for this hazard yet.

4.5 Liquefaction

The publishing agency returned no hazard polygons intersecting this municipality.

4.6 Earthquake-induced Landslide

No automated source is wired up for this hazard yet.

4.7 Ground Rupture

No automated source is wired up for this hazard yet.

5. Exposure Database

The exposure database is the barangay-by-hazard matrix the rest of the assessment is built on. A dash means the agency publishes no polygon covering that barangay for that hazard; it does not mean the barangay is not susceptible.

Table E. Susceptible share and exposure score, by barangay and hazard

Barangay	Flood	Rain-induced Landslide
Banaybanay	1.8% (1)	2.1% (1)
Barangay I	0.3% (1)	5.4% (1)
Barangay II	-	0.0% (1)
Barangay III	-	0.0% (1)
Barangay IV	-	1.2% (1)
Barangay IX	-	48.4% (4)
Barangay V	8.6% (1)	4.2% (1)
Barangay VI	-	22.1% (3)
Barangay VII	-	0.0% (1)
Barangay VIII	-	47.8% (4)
Barangay X	-	0.0% (1)
Barangay XI	1.4% (1)	0.0% (1)
Barangay XII	-	20.8% (3)
Bucal	4.8% (1)	9.5% (1)
Buho	6.3% (1)	0.0% (1)
Dagatan	4.0% (1)	6.7% (1)
Halang	9.2% (1)	2.7% (1)
Loma	0.9% (1)	10.3% (2)
Maitim I	2.2% (1)	8.0% (1)
Maymangga	2.7% (1)	1.1% (1)
Minantok Kanluran	-	43.7% (4)
Minantok Silangan	-	19.7% (2)
Pangil	5.0% (1)	7.3% (1)
Salaban	3.1% (1)	4.0% (1)
Talon	4.1% (1)	0.6% (1)
Tamacan	7.0% (1)	2.9% (1)

Source: Computed from the agency hazard polygons clipped to the barangay outlines. The figure in brackets is the DHSUD exposure score that share earns.

6. Risk Assessment

Population and land-use exposure apply the barangay's susceptible AREA share to its population and its built-up area, because no source publishes where within a barangay people live. That is the standard simplification and the published CDRA makes it too, but it is an assumption rather than a measurement. Critical-facility exposure is the exception: those have coordinates, so it is a real point-in-polygon test.

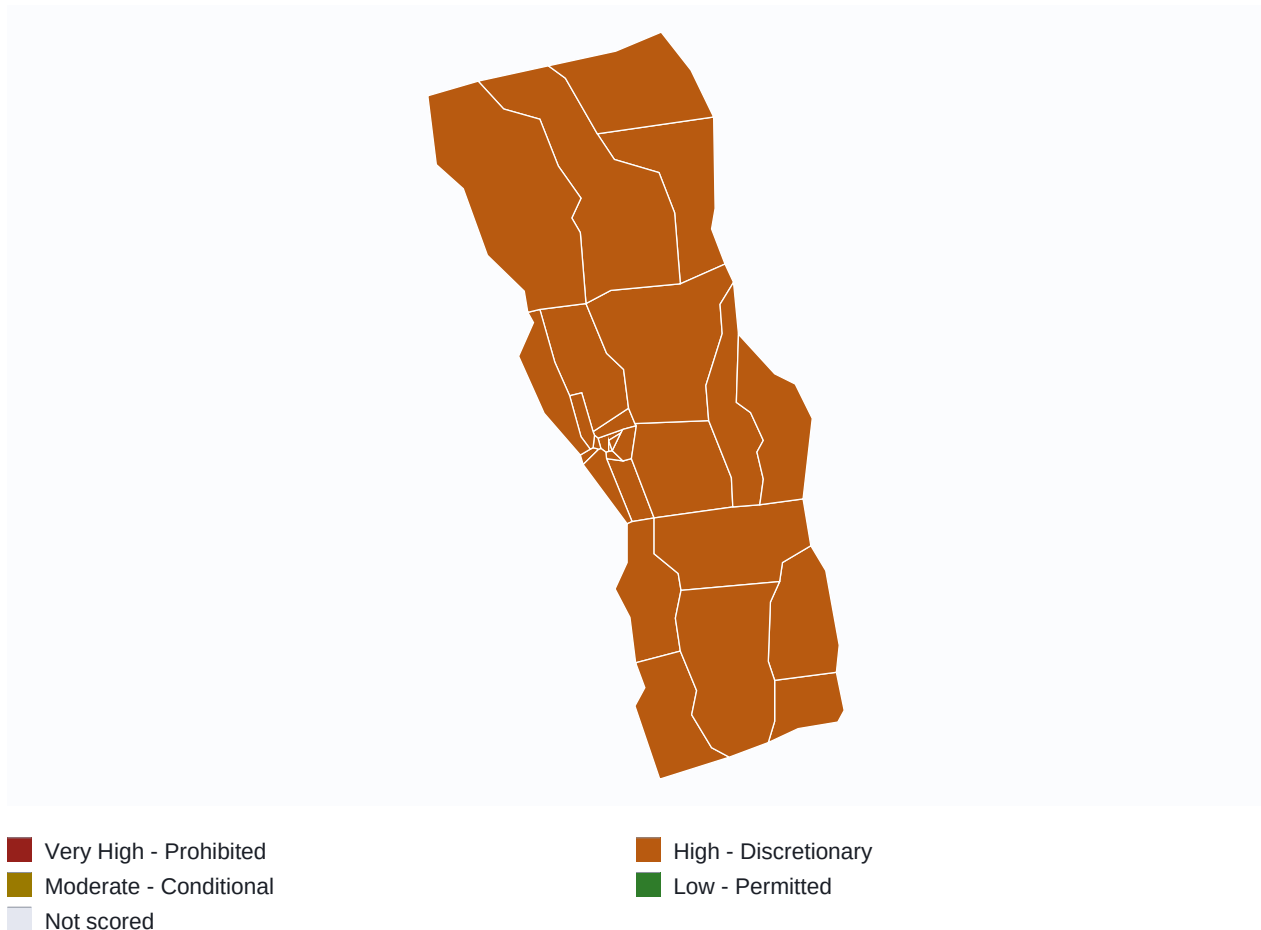


Figure R. Highest risk category reached in each barangay, across all hazards and exposure units.

Table F. Risk scores by barangay, hazard and exposure unit

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Banaybanay	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Banaybanay	Flood	Urban Use Areas	1	1	3	0.25	4	1.00	4.00	Moderate
Barangay I	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Barangay I	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Barangay V	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Barangay V	Flood	Urban Use Areas	1	4	3	0.75	4	2.00	8.00	High
Barangay XI	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Barangay XI	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Bucal	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bucal	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Buho	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Buho	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Dagatan	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Dagatan	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Halang	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Halang	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Loma	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Loma	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Maitim I	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Maitim I	Flood	Urban Use Areas	1	4	3	0.75	4	2.00	8.00	High
Maymangga	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Maymangga	Flood	Urban Use Areas	1	4	3	0.75	4	2.00	8.00	High
Pangil	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Pangil	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Salaban	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Salaban	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Talon	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Talon	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Tamacan	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Tamacan	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Banaybanay	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Banaybanay	Ground Shaking	Urban Use Areas	4	1	3	0.25	3	2.50	7.50	High
Barangay I	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay I	Ground Shaking	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Barangay II	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay II	Ground Shaking	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Barangay III	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay III	Ground Shaking	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Barangay IV	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay IV	Ground Shaking	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Barangay IX	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay IX	Ground Shaking	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Barangay V	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay V	Ground Shaking	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Barangay VI	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay VI	Ground Shaking	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Barangay VII	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay VII	Ground Shaking	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Barangay VIII	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Barangay VIII	Ground Shaking	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Barangay X	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay X	Ground Shaking	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Barangay XI	Ground Shaking	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay XI	Ground Shaking	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Banaybanay	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Banaybanay	Rain-induced Landslide	Urban Use Areas	1	1	3	0.25	3	1.00	3.00	Moderate
Barangay I	Rain-induced Landslide	Population	2	4	3	0.75	3	2.50	7.50	High
Barangay I	Rain-induced Landslide	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Barangay II	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Barangay II	Rain-induced Landslide	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Barangay III	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Barangay III	Rain-induced Landslide	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Barangay IV	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Barangay IV	Rain-induced Landslide	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Barangay IX	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay IX	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Barangay V	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Barangay V	Rain-induced Landslide	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Barangay VI	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay VI	Rain-induced Landslide	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Barangay VII	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Barangay VII	Rain-induced Landslide	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Barangay VIII	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay VIII	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Barangay X	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Barangay X	Rain-induced Landslide	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Barangay XI	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Barangay XI	Rain-induced Landslide	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Barangay XII	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Barangay XII	Rain-induced Landslide	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Bucal	Rain-induced Landslide	Population	2	4	3	0.75	3	2.50	7.50	High
Bucal	Rain-induced Landslide	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Buho	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Buho	Rain-induced Landslide	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Dagatan	Rain-induced Landslide	Population	2	4	3	0.75	3	2.50	7.50	High
Dagatan	Rain-induced Landslide	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Halang	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Halang	Rain-induced Landslide	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Loma	Rain-induced Landslide	Population	3	4	3	0.75	3	3.00	9.00	High
Loma	Rain-induced Landslide	Urban Use Areas	2	3	3	0.50	3	2.00	6.00	Moderate
Maitim I	Rain-induced Landslide	Population	2	4	3	0.75	3	2.50	7.50	High
Maitim I	Rain-induced Landslide	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Maymangga	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Maymangga	Rain-induced Landslide	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Minantok Kanluran	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Minantok Kanluran	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Minantok Silangan	Rain-induced Landslide	Population	3	4	3	0.75	3	3.00	9.00	High
Minantok Silangan	Rain-induced Landslide	Urban Use Areas	2	3	3	0.50	3	2.00	6.00	Moderate
Pangil	Rain-induced Landslide	Population	2	4	3	0.75	3	2.50	7.50	High
Pangil	Rain-induced Landslide	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Salaban	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Salaban	Rain-induced Landslide	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Talon	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Talon	Rain-induced Landslide	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Tamacan	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Tamacan	Rain-induced Landslide	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate

Source: E exposure, S sensitivity, AC adaptive capacity, V vulnerability, L likelihood, Sev severity of consequence. Computed by this system from the agency hazard data and the datasets the local government supplied.

6.1 Critical point facilities

Facility exposure is a point-in-polygon test against the hazard polygons, not a share applied to an area, so it is a measurement rather than an assumption.

Table G. Critical point facilities and their risk

Facility	Barangay	Hazard	Susceptibility	Risk	Category
Central Elementary School	Banaybanay	Flood	-	-	-
Fire Station	Banaybanay	Flood	-	-	-
Municipal Health Centre	Banaybanay	Flood	-	-	-
Police Station	Banaybanay	Flood	-	-	-
Municipal Hall	Banaybanay	Flood	-	-	-
Covered Court Evacuation Centre	Barangay I	Flood	-	-	-
Public Market	Barangay I	Flood	-	-	-
District High School	Barangay II	Flood	-	-	-
Barangay Health Station	Barangay III	Flood	-	-	-
Water Pumping Station	Barangay IV	Flood	-	-	-
Municipal Health Centre	Banaybanay	Rain-induced Landslide	LL	-	-
Police Station	Banaybanay	Rain-induced Landslide	LL	-	-
Municipal Hall	Banaybanay	Rain-induced Landslide	LL	-	-
Central Elementary School	Banaybanay	Rain-induced Landslide	LL	-	-
Fire Station	Banaybanay	Rain-induced Landslide	LL	-	-
Public Market	Barangay I	Rain-induced Landslide	LL	-	-

Facility	Barangay	Hazard	Susceptibility	Risk	Category
Covered Court Evacuation Centre	Barangay I	Rain-induced Landslide	LL		- -
District High School	Barangay II	Rain-induced Landslide	LL		- -
Barangay Health Station	Barangay III	Rain-induced Landslide	LL		- -
Water Pumping Station	Barangay IV	Rain-induced Landslide	LL		- -

Source: Point-in-polygon test against the agency hazard polygons.

7. What Is Still Needed

This section is deliberately prominent. An incomplete assessment that reads as complete is the failure with the worst consequences, because it gets submitted. Each row names the dataset that is missing, why it is missing, and which part of the assessment it blocks.

Table I. Outstanding datasets

Area	What is needed	Why it is missing	What it blocks
Drought	A hazard source	No automated source is wired up for this hazard yet.	Everything for this hazard
Ground Shaking	A hazard source	No automated source is wired up for this hazard yet.	Everything for this hazard
Earthquake-induced Landslide	A hazard source	No automated source is wired up for this hazard yet.	Everything for this hazard
Ground Rupture	A hazard source	No automated source is wired up for this hazard yet.	Everything for this hazard
Land use by barangay	Area by land-use category per barangay	Awaiting the LGU data upload.	Urban-use and natural-resource exposure units
Sensitivity (CBMS)	Informal settlers, light-material dwellings, dependants	Awaiting the LGU data upload.	The sensitivity half of vulnerability
Adaptive capacity	The DHSUD questionnaire, per hazard	Awaiting the LGU data upload.	The adaptive-capacity half of vulnerability
Critical facilities	Facility list with coordinates	Awaiting the LGU data upload.	Critical-facility exposure
Replacement costs	Unit cost per land-use category	Awaiting the LGU data upload.	Damage estimates

8. Sources and Terms

Every figure in this assessment traces to one of the datasets below. The endpoint column records the service the data was retrieved from, so any figure can be checked against the publishing agency directly.

Table J. Source register

Dataset	Agency	Vintage or attribution	Retrieved	Used for
Administrative boundaries	faeldon/philippines-json	PS maps 2023-12-31 (PSA/NAMRIA via faeldon, MIT)	-	Municipality outline, barangay polygons, all area computations
Liquefaction Susceptibility	PHIVOLCS	DOST-PHIVOLCS (as of July 2018)	2026-09-08 13:11	Susceptibility class share per barangay
Rain-induced Landslide Susceptibility	DENR-MGB	DENR-Mines and Geosciences Bureau	2026-09-08 13:08	Susceptibility class share per barangay
Flood Susceptibility	DENR-MGB	DENR-Mines and Geosciences Bureau	2026-09-08 13:08	Susceptibility class share per barangay

8.1 Terms

Table K. Terms used in this assessment

Term	Meaning
Exposure	The share of a barangay's people, area or facilities that falls inside a hazard-susceptible polygon, scored 1 to 4.
Sensitivity	The share of the exposed unit that is more easily harmed - informal settlers, light-material dwellings, dependants - scored 1 to 4.
Adaptive capacity	The local government's regulatory and institutional capacity to reduce harm, coded A to D and scored 1 to 4, inverted so that A scores 1.
Vulnerability	Sensitivity and adaptive capacity combined through the DHSUD vulnerability index, scored 0.25 to 1.00.
Severity of consequence	Exposure and vulnerability combined: $(\text{exposure} + \text{vulnerability}) / 2$.
Likelihood	The temporal probability of the hazard, from its return period, scored 1 to 4.
Risk score	Likelihood multiplied by severity of consequence, from 1 to 16.