CLIMATE AND DISASTER RISK ASSESSMENT

PROVINCE OF ALBAY

CITY OF LEGAZPI

Climate and Disaster Risk Assessment of City of Legazpi

Annex to the Comprehensive Land Use Plan
Planning period 2025-2031
Generated 4 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 70 barangays of the City of Legazpi, Province of Albay (PSGC 0500506000). 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 city	10
Hazards with computed exposure	3
Datasets still outstanding	12
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 City

Table B. Profile of the city

Attribute	Value
City	City of Legazpi
Classification	City (component)
Province	Albay
Region	Region V (Bicol Region)
PSGC code	0500506000
Barangays	70
Has a coastline	Yes
Land area, GIS extent	15,843.0 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
Bgy. 1 - Em's Barrio	Urban	43.1	300	65
Bgy. 10 - Cabugao	Urban	3.4	300	65
Bgy. 11 - Maoyod Pob.	Urban	17.6	300	65
Bgy. 12 - Tula-tula	Urban	12.1	300	65
Bgy. 13 - Ilawod West Pob.	Rural	3.5	300	65
Bgy. 14 - Ilawod Pob.	Rural	8.8	300	65
Bgy. 15 - Ilawod East Pob.	Rural	26.2	300	65
Bgy. 16 - Kawit-East Washington Drive	Rural	48.9	528	115
Bgy. 17 - Rizal Street., Ilawod	Rural	31.5	300	65
Bgy. 18 - Cabagñan West	Rural	49.0	468	102
Bgy. 19 - Cabagñan	Rural	19.7	300	65
Bgy. 2 - Em's Barrio South	Rural	36.4	302	66
Bgy. 20 - Cabagñan East	Rural	10.6	300	65
Bgy. 21 - Binanuahan West	Rural	4.6	300	65
Bgy. 22 - Binanuahan East	Rural	7.7	300	65
Bgy. 23 - Imperial Court Subd.	Rural	6.2	300	65
Bgy. 24 - Rizal Street	Rural	16.0	300	65
Bgy. 25 - Lapu-lapu	Rural	6.1	300	65
Bgy. 26 - Dinagaan	Rural	4.5	300	65
Bgy. 27 - Victory Village South	Rural	7.3	300	65
Bgy. 28 - Victory Village North	Rural	6.3	300	65
Bgy. 29 - Sabang	Rural	4.7	300	65
Bgy. 3 - Em's Barrio East	Rural	8.7	300	65
Bgy. 30 - Pigcale	Rural	4.0	300	65
Bgy. 31 - Centro-Baybay	Rural	9.9	300	65
Bgy. 32 - San Roque	Rural	24.8	300	65
Bgy. 33 - PNR-Peñaranda St.-Iraya	Rural	15.6	300	65
Bgy. 34 - Oro Site-Magallanes St.	Rural	14.6	300	65
Bgy. 35 - Tinago	Rural	2.8	300	65
Bgy. 36 - Kapantawan	Rural	11.3	300	65

Barangay	Class	Area (ha)	Population	Households
Bgy. 37 - Bitano	Rural	60.7	424	92
Bgy. 38 - Gogon	Rural	90.6	893	194
Bgy. 39 - Bonot	Rural	47.7	300	65
Bgy. 4 - Sagpon Pob.	Rural	11.3	300	65
Bgy. 40 - Cruzada	Rural	145.0	1,666	362
Bgy. 41 - Bogtong	Rural	131.0	966	210
Bgy. 42 - Rawis	Rural	157.5	1,614	351
Bgy. 43 - Tamaoyan	Rural	111.1	681	148
Bgy. 44 - Pawa	Rural	272.1	2,450	533
Bgy. 45 - Dita	Rural	84.6	414	90
Bgy. 46 - San Joaquin	Rural	70.1	544	118
Bgy. 47 - Arimbay	Rural	108.1	1,149	250
Bgy. 48 - Bagong Abre	Rural	127.3	830	180
Bgy. 49 - Bigaa	Rural	204.0	1,917	417
Bgy. 5 - Sagmin Pob.	Rural	5.3	300	65
Bgy. 50 - Padang	Rural	1,143.0	9,318	2,026
Bgy. 51 - Buyuan	Rural	398.4	4,392	955
Bgy. 52 - Matanag	Rural	208.8	1,443	314
Bgy. 53 - Bonga	Rural	399.8	3,911	850
Bgy. 54 - Mabinit	Rural	330.6	1,873	407
Bgy. 55 - Estanza	Rural	465.3	3,974	864
Bgy. 56 - Taysan	Rural	939.5	10,722	2,331
Bgy. 57 - Dap-dap	Rural	22.7	300	65
Bgy. 58 - Buragwis	Rural	74.2	755	164
Bgy. 59 - Puro	Rural	235.8	1,428	310
Bgy. 6 - Bañadero Pob.	Rural	37.6	336	73
Bgy. 60 - Lamba	Rural	232.4	1,118	243
Bgy. 61 - Maslog	Rural	637.1	4,897	1,065
Bgy. 62 - Homapon	Rural	711.5	7,512	1,633
Bgy. 63 - Mariawa	Rural	436.5	2,813	612
Bgy. 64 - Bagacay	Rural	379.1	3,531	768
Bgy. 65 - Imalnod	Rural	573.7	2,984	649
Bgy. 66 - Banquerohan	Rural	1,501.7	12,125	2,636
Bgy. 67 - Bariis	Rural	1,590.7	17,413	3,785
Bgy. 68 - San Francisco	Rural	642.0	4,386	953
Bgy. 69 - Buenavista	Rural	1,329.6	12,903	2,805

Barangay	Class	Area (ha)	Population	Households
Bgy. 7 - Baño	Rural	7.1	300	65
Bgy. 70 - Cagbacong	Rural	1,390.8	11,770	2,559
Bgy. 8 - Bagumbayan	Rural	36.8	417	91
Bgy. 9 - Pinaric	Rural	26.4	300	65

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 144,767 in 31,466 households.

Barangay boundary

Figure 1. Barangay boundaries of the city.

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.
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%

Exposure unit	Parameter	Score	Threshold
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 city 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	58 of 70 barangays
Rain-induced Landslide	hydrometeorological	DENR-MGB	Computed	70 of 70 barangays
Drought	hydrometeorological	PAGASA	Pending	-
Storm Surge	hydrometeorological	PAGASA / Project NOAH	Pending	-
Sea Level Rise	hydrometeorological	PAGASA	Pending	-
Ground Shaking	geological	PHIVOLCS	Manual	-
Liquefaction	geological	PHIVOLCS	Computed	66 of 70 barangays
Earthquake-induced Landslide	geological	PHIVOLCS	Manual	-
Ground Rupture	geological	PHIVOLCS	Pending	-
Tsunami	geological	PHIVOLCS	Manual	-

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. 58 of the 70 barangays carry at least one susceptibility class. The measurement used 3 features retrieved on 2026-09-04 from the FloodSusc field.

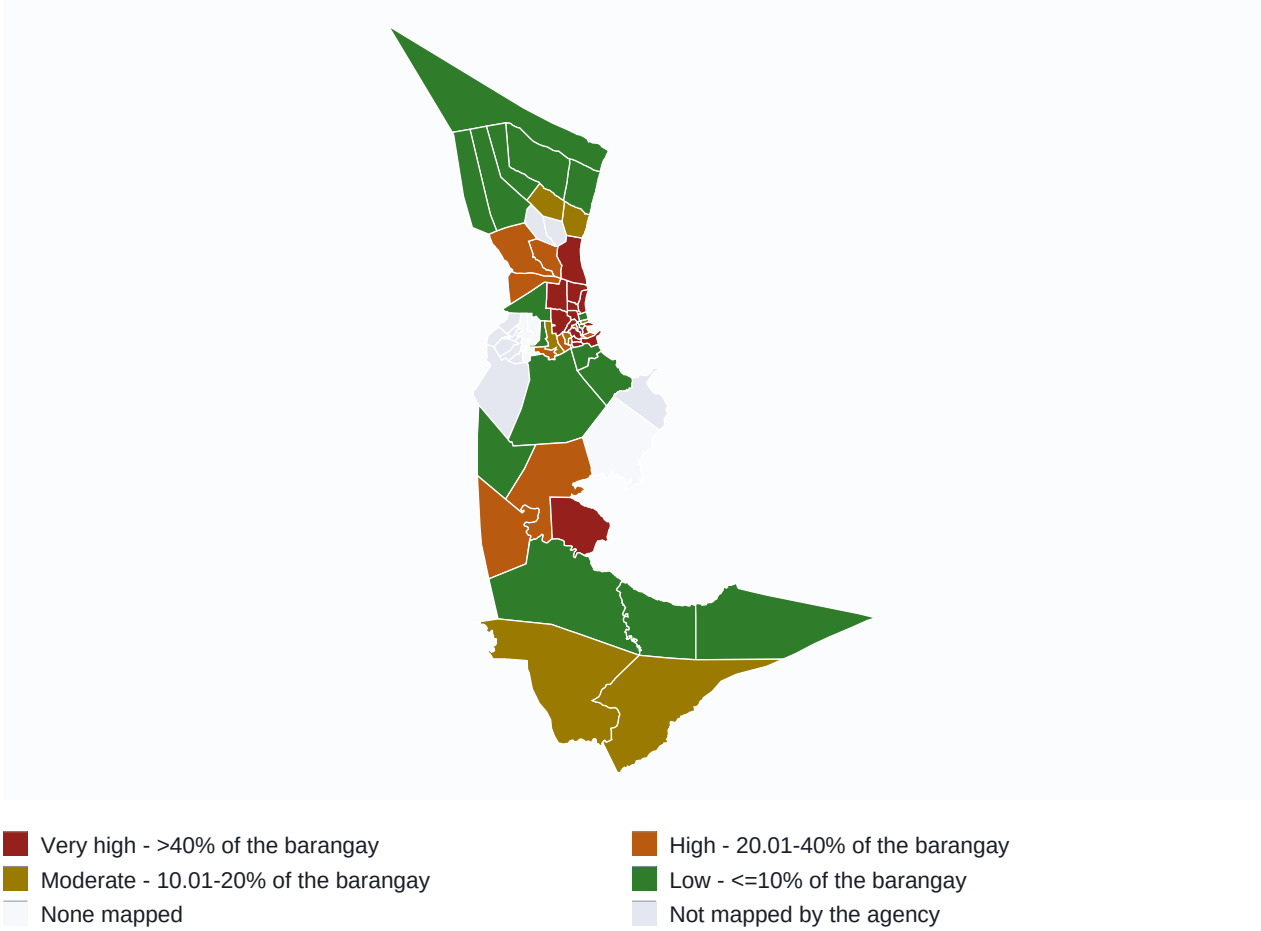

Figure 2. Flood susceptibility by barangay, banded to the DHSUD exposure scores.

Table 4.1. Flood: susceptible share by barangay

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 10 - Cabugao	3.4	0.0%	LF	1
Bgy. 12 - Tula-tula	12.1	0.0%	LF	1
Bgy. 13 - Ilawod West Pob.	3.5	0.0%	LF	1
Bgy. 14 - Ilawod Pob.	8.8	0.0%	LF	1
Bgy. 15 - Ilawod East Pob.	26.2	36.9%	HF	3
Bgy. 16 - Kawit-East Washington Drive	48.9	0.0%	LF	1
Bgy. 17 - Rizal Street., Ilawod	31.5	0.0%	HF	1
Bgy. 18 - Cabagñan West	49.0	15.9%	HF	2
Bgy. 19 - Cabagñan	19.7	29.6%	HF	3
Bgy. 20 - Cabagñan East	10.6	18.6%	VHF	2
Bgy. 21 - Binanuahan West	4.6	25.6%	HF	3
Bgy. 22 - Binanuahan East	7.7	67.5%	VHF	4
Bgy. 23 - Imperial Court Subd.	6.2	49.6%	VHF	4
Bgy. 24 - Rizal Street	16.0	74.1%	VHF	4

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 25 - Lapu-lapu	6.1	42.3%	VHF	4
Bgy. 26 - Dinagaan	4.5	5.2%	VHF	1
Bgy. 27 - Victory Village South	7.3	34.1%	VHF	3
Bgy. 28 - Victory Village North	6.3	58.0%	VHF	4
Bgy. 29 - Sabang	4.7	51.9%	HF	4
Bgy. 30 - Pigcale	4.0	14.7%	HF	2
Bgy. 31 - Centro-Baybay	9.9	7.6%	HF	1
Bgy. 32 - San Roque	24.8	63.6%	VHF	4
Bgy. 33 - PNR-Peñaranda St.-Iraya	15.6	66.7%	VHF	4
Bgy. 34 - Oro Site-Magallanes St.	14.6	54.3%	VHF	4
Bgy. 35 - Tinago	2.8	28.7%	VHF	3
Bgy. 36 - Kapantawan	11.3	76.8%	VHF	4
Bgy. 37 - Bitano	60.7	57.0%	VHF	4
Bgy. 38 - Gogon	90.6	61.5%	VHF	4
Bgy. 39 - Bonot	47.7	99.9%	VHF	4
Bgy. 40 - Cruzada	145.0	0.9%	VHF	1
Bgy. 41 - Bogtong	131.0	27.0%	VHF	3
Bgy. 42 - Rawis	157.5	66.0%	VHF	4
Bgy. 43 - Tamaoyan	111.1	34.8%	VHF	3
Bgy. 44 - Pawa	272.1	32.3%	VHF	3
Bgy. 47 - Arimbay	108.1	17.4%	VHF	2
Bgy. 48 - Bagong Abre	127.3	13.0%	VHF	2
Bgy. 49 - Bigaa	204.0	10.0%	VHF	1
Bgy. 50 - Padang	1,143.0	9.0%	VHF	1
Bgy. 51 - Buyuan	398.4	4.3%	VHF	1
Bgy. 52 - Matanag	208.8	9.4%	VHF	1
Bgy. 53 - Bonga	399.8	9.8%	VHF	1
Bgy. 54 - Mabinit	330.6	8.7%	VHF	1
Bgy. 56 - Taysan	939.5	0.5%	HF	1
Bgy. 57 - Dap-dap	22.7	43.4%	VHF	4
Bgy. 58 - Buragwis	74.2	7.4%	VHF	1
Bgy. 59 - Puro	235.8	3.5%	HF	1
Bgy. 61 - Maslog	637.1	0.0%	LF	1
Bgy. 62 - Homapon	711.5	24.2%	VHF	3
Bgy. 63 - Mariawa	436.5	5.4%	HF	1

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 64 - Bagacay	379.1	44.9%	VHF	4
Bgy. 65 - Imalnod	573.7	22.2%	VHF	3
Bgy. 66 - Banquerohan	1,501.7	8.0%	VHF	1
Bgy. 67 - Bariis	1,590.7	13.7%	HF	2
Bgy. 68 - San Francisco	642.0	0.3%	VHF	1
Bgy. 69 - Buenavista	1,329.6	4.5%	HF	1
Bgy. 7 - Baño	7.1	0.0%	LF	1
Bgy. 70 - Cagbacong	1,390.8	12.3%	HF	2
Bgy. 8 - Bagumbayan	36.8	0.0%	LF	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. 70 of the 70 barangays carry at least one susceptibility class. The measurement used 5 features retrieved on 2026-09-04 from the LndslideSusc field.

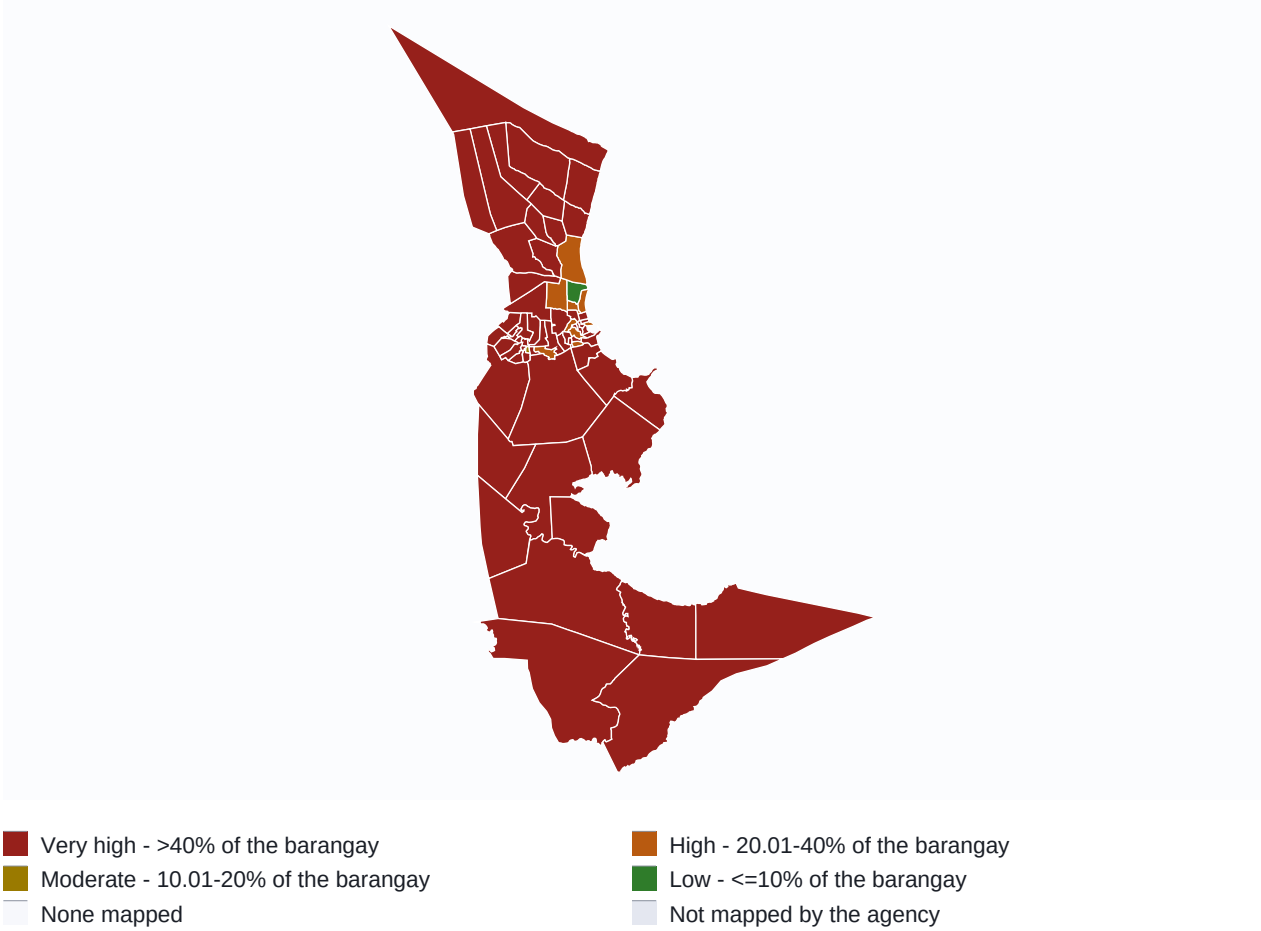

Figure 3. Rain-induced Landslide susceptibility by barangay, banded to the DHSUD exposure scores.

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

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 1 - Em's Barrio	43.1	100.0%	ML	4
Bgy. 10 - Cabugao	3.4	84.9%	ML	4
Bgy. 11 - Maoyod Pob.	17.6	100.0%	HL	4
Bgy. 12 - Tula-tula	12.1	78.9%	HL	4
Bgy. 13 - Ilawod West Pob.	3.5	18.6%	HL	2
Bgy. 14 - Ilawod Pob.	8.8	71.4%	HL	4
Bgy. 15 - Ilawod East Pob.	26.2	30.1%	HL	3
Bgy. 16 - Kawit-East Washington Drive	48.9	88.8%	HL	4
Bgy. 17 - Rizal Street., Ilawod	31.5	82.5%	HL	4
Bgy. 18 - Cabagñan West	49.0	72.4%	HL	4
Bgy. 19 - Cabagñan	19.7	49.5%	HL	4
Bgy. 2 - Em's Barrio South	36.4	100.0%	HL	4
Bgy. 20 - Cabagñan East	10.6	80.5%	HL	4
Bgy. 21 - Binanuahan West	4.6	72.0%	HL	4
Bgy. 22 - Binanuahan East	7.7	29.9%	HL	3
Bgy. 23 - Imperial Court Subd.	6.2	50.5%	HL	4
Bgy. 24 - Rizal Street	16.0	26.0%	HL	3
Bgy. 25 - Lapu-lapu	6.1	57.7%	HL	4
Bgy. 26 - Dinagaan	4.5	96.8%	HL	4
Bgy. 27 - Victory Village South	7.3	64.5%	HL	4
Bgy. 28 - Victory Village North	6.3	41.8%	HL	4
Bgy. 29 - Sabang	4.7	31.7%	HL	3
Bgy. 3 - Em's Barrio East	8.7	100.0%	ML	4
Bgy. 30 - Pigcale	4.0	84.9%	HL	4
Bgy. 31 - Centro-Baybay	9.9	92.4%	HL	4
Bgy. 32 - San Roque	24.8	35.0%	HL	3
Bgy. 33 - PNR-Peñaranda St.-Iraya	15.6	34.8%	HL	3
Bgy. 34 - Oro Site-Magallanes St.	14.6	45.8%	HL	4
Bgy. 35 - Tinago	2.8	69.0%	HL	4
Bgy. 36 - Kapantawan	11.3	23.1%	HL	3
Bgy. 37 - Bitano	60.7	42.8%	HL	4
Bgy. 38 - Gogon	90.6	38.7%	HL	3
Bgy. 39 - Bonot	47.7	0.0%	HL	1
Bgy. 4 - Sagpon Pob.	11.3	100.0%	HL	4

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 40 - Cruzada	145.0	99.2%	HL	4
Bgy. 41 - Bogtong	131.0	72.7%	HL	4
Bgy. 42 - Rawis	157.5	31.9%	HL	3
Bgy. 43 - Tamaoyan	111.1	65.0%	HL	4
Bgy. 44 - Pawa	272.1	67.3%	HL	4
Bgy. 45 - Dita	84.6	100.0%	HL	4
Bgy. 46 - San Joaquin	70.1	100.0%	HL	4
Bgy. 47 - Arimbay	108.1	82.3%	HL	4
Bgy. 48 - Bagong Abre	127.3	86.9%	HL	4
Bgy. 49 - Bigaa	204.0	89.0%	HL	4
Bgy. 5 - Sagmin Pob.	5.3	100.0%	ML	4
Bgy. 50 - Padang	1,143.0	91.2%	VHL	4
Bgy. 51 - Buyuan	398.4	95.8%	HL	4
Bgy. 52 - Matanag	208.8	91.0%	HL	4
Bgy. 53 - Bonga	399.8	90.0%	HL	4
Bgy. 54 - Mabinit	330.6	91.7%	HL	4
Bgy. 55 - Estanza	465.3	97.6%	HL	4
Bgy. 56 - Taysan	939.5	86.5%	HL	4
Bgy. 57 - Dap-dap	22.7	50.2%	HL	4
Bgy. 58 - Buragwis	74.2	69.2%	HL	4
Bgy. 59 - Puro	235.8	88.8%	HL	4
Bgy. 6 - Bañadero Pob.	37.6	100.0%	HL	4
Bgy. 60 - Lamba	232.4	78.3%	HL	4
Bgy. 61 - Maslog	637.1	89.0%	HL	4
Bgy. 62 - Homapon	711.5	72.4%	HL	4
Bgy. 63 - Mariawa	436.5	94.7%	HL	4
Bgy. 64 - Bagacay	379.1	53.4%	HL	4
Bgy. 65 - Imalnod	573.7	70.3%	HL	4
Bgy. 66 - Banquerohan	1,501.7	62.3%	HL	4
Bgy. 67 - Bariis	1,590.7	75.8%	HL	4
Bgy. 68 - San Francisco	642.0	99.2%	HL	4
Bgy. 69 - Buenavista	1,329.6	93.3%	HL	4
Bgy. 7 - Baño	7.1	69.2%	HL	4
Bgy. 70 - Cagbacong	1,390.8	86.9%	HL	4
Bgy. 8 - Bagumbayan	36.8	100.0%	HL	4

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 9 - Pinaric	26.4	100.0%	HL	4

Source: DENR-Mines and Geosciences Bureau

4.3 Drought

No automated source is wired up for this hazard yet.

4.4 Storm Surge

No automated source is wired up for this hazard yet.

4.5 Sea Level Rise

No automated source is wired up for this hazard yet.

4.6 Ground Shaking

The publishing agency will not serve this layer for computation, so susceptibility has to be entered per barangay by the planner.

4.7 Liquefaction

Susceptibility polygons published by PHIVOLCS were clipped to each barangay and the share of the barangay in each susceptibility class measured. 66 of the 70 barangays carry at least one susceptibility class. The measurement used 6 features retrieved on 2026-09-04 from the lccode field.

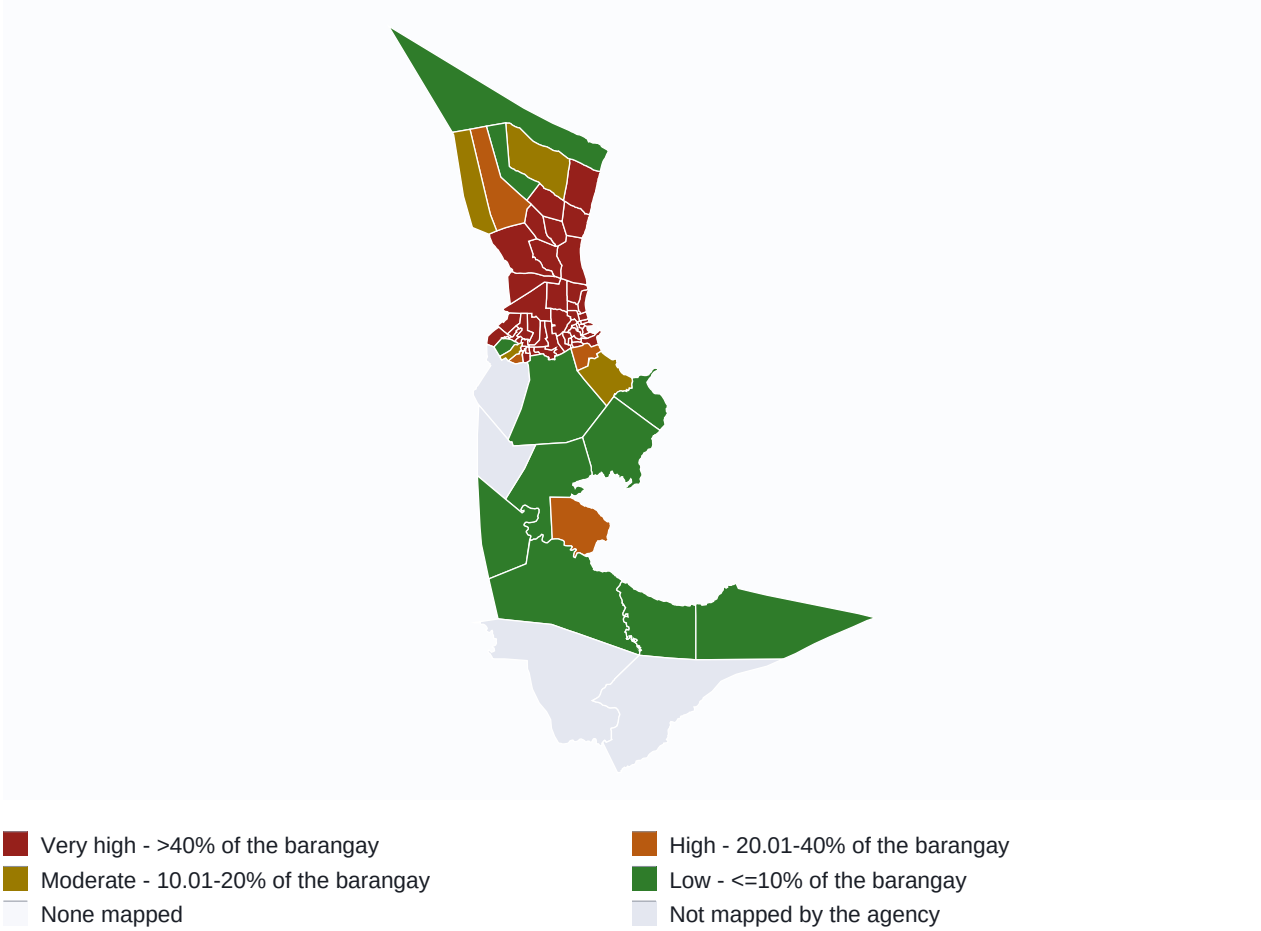

Figure 4. Liquefaction susceptibility by barangay, banded to the DHSUD exposure scores.

Table 4.7. Liquefaction: susceptible share by barangay

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 1 - Em's Barrio	43.1	100.0%	Highly Susceptible	4
Bgy. 10 - Cabugao	3.4	78.5%	Least Susceptible	4
Bgy. 11 - Maoyod Pob.	17.6	20.0%	Least Susceptible	3
Bgy. 12 - Tula-tula	12.1	48.7%	Least Susceptible	4
Bgy. 13 - Ilawod West Pob.	3.5	91.8%	Least Susceptible	4
Bgy. 14 - Ilawod Pob.	8.8	56.8%	Least Susceptible	4
Bgy. 15 - Ilawod East Pob.	26.2	98.5%	Moderately Susceptible	4
Bgy. 16 - Kawit-East Washington Drive	48.9	100.0%	Highly Susceptible	4
Bgy. 17 - Rizal Street., Ilawod	31.5	100.0%	Highly Susceptible	4
Bgy. 18 - Cabagñan West	49.0	93.8%	Highly Susceptible	4
Bgy. 19 - Cabagñan	19.7	100.0%	Highly Susceptible	4
Bgy. 2 - Em's Barrio South	36.4	51.4%	Least Susceptible	4
Bgy. 20 - Cabagñan East	10.6	100.0%	Highly Susceptible	4
Bgy. 21 - Binanuahan West	4.6	100.0%	Highly Susceptible	4

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 22 - Binanuahan East	7.7	99.7%	Highly Susceptible	4
Bgy. 23 - Imperial Court Subd.	6.2	100.0%	Highly Susceptible	4
Bgy. 24 - Rizal Street	16.0	100.0%	Highly Susceptible	4
Bgy. 25 - Lapu-lapu	6.1	100.0%	Highly Susceptible	4
Bgy. 26 - Dinagaan	4.5	100.0%	Highly Susceptible	4
Bgy. 27 - Victory Village South	7.3	73.5%	Highly Susceptible	4
Bgy. 28 - Victory Village North	6.3	99.9%	Highly Susceptible	4
Bgy. 29 - Sabang	4.7	100.0%	Highly Susceptible	4
Bgy. 3 - Em's Barrio East	8.7	100.0%	Highly Susceptible	4
Bgy. 30 - Pigcale	4.0	100.0%	Highly Susceptible	4
Bgy. 31 - Centro-Baybay	9.9	99.9%	Highly Susceptible	4
Bgy. 32 - San Roque	24.8	99.9%	Highly Susceptible	4
Bgy. 33 - PNR-Peñaranda St.-Iraya	15.6	100.0%	Highly Susceptible	4
Bgy. 34 - Oro Site-Magallanes St.	14.6	100.0%	Highly Susceptible	4
Bgy. 35 - Tinago	2.8	100.0%	Highly Susceptible	4
Bgy. 36 - Kapantawan	11.3	100.0%	Highly Susceptible	4
Bgy. 37 - Bitano	60.7	100.0%	Highly Susceptible	4
Bgy. 38 - Gogon	90.6	100.0%	Highly Susceptible	4
Bgy. 39 - Bonot	47.7	100.0%	Highly Susceptible	4
Bgy. 4 - Sagpon Pob.	11.3	96.9%	Highly Susceptible	4
Bgy. 40 - Cruzada	145.0	100.0%	Moderately Susceptible	4
Bgy. 41 - Bogtong	131.0	70.8%	Highly Susceptible	4
Bgy. 42 - Rawis	157.5	100.0%	Highly Susceptible	4
Bgy. 43 - Tamaoyan	111.1	100.0%	Highly Susceptible	4
Bgy. 44 - Pawa	272.1	100.0%	Highly Susceptible	4
Bgy. 45 - Dita	84.6	99.9%	Least Susceptible	4
Bgy. 46 - San Joaquin	70.1	100.0%	Least Susceptible	4
Bgy. 47 - Arimbay	108.1	100.0%	Highly Susceptible	4
Bgy. 48 - Bagong Abre	127.3	75.0%	Least Susceptible	4
Bgy. 49 - Bigaa	204.0	94.3%	Highly Susceptible	4
Bgy. 5 - Sagmin Pob.	5.3	95.4%	Moderately Susceptible	4
Bgy. 50 - Padang	1,143.0	8.7%	Highly Susceptible	1
Bgy. 51 - Buyuan	398.4	13.2%	Least Susceptible	2
Bgy. 52 - Matanag	208.8	7.0%	Least Susceptible	1

Barangay	Area (ha)	Susceptible share	Worst class	Exposure score
Bgy. 53 - Bonga	399.8	21.7%	Least Susceptible	3
Bgy. 54 - Mabinit	330.6	16.0%	Least Susceptible	2
Bgy. 56 - Taysan	939.5	6.7%	Highly Susceptible	1
Bgy. 57 - Dap-dap	22.7	55.7%	Highly Susceptible	4
Bgy. 58 - Buragwis	74.2	24.8%	Highly Susceptible	3
Bgy. 59 - Puro	235.8	13.8%	Highly Susceptible	2
Bgy. 6 - Bañadero Pob.	37.6	6.6%	Least Susceptible	1
Bgy. 60 - Lamba	232.4	1.8%	Highly Susceptible	1
Bgy. 61 - Maslog	637.1	8.5%	Least Susceptible	1
Bgy. 62 - Homapon	711.5	6.8%	Highly Susceptible	1
Bgy. 64 - Bagacay	379.1	34.7%	Highly Susceptible	3
Bgy. 65 - Imalnod	573.7	0.1%	Least Susceptible	1
Bgy. 66 - Banquerohan	1,501.7	4.4%	Highly Susceptible	1
Bgy. 68 - San Francisco	642.0	0.0%	Highly Susceptible	1
Bgy. 69 - Buenavista	1,329.6	0.1%	Highly Susceptible	1
Bgy. 7 - Baño	7.1	100.0%	Moderately Susceptible	4
Bgy. 8 - Bagumbayan	36.8	100.0%	Highly Susceptible	4
Bgy. 9 - Pinaric	26.4	12.5%	Least Susceptible	2

Source: DOST-PHIVOLCS (as of July 2018)

4.8 Earthquake-induced Landslide

The publishing agency will not serve this layer for computation, so susceptibility has to be entered per barangay by the planner.

4.9 Ground Rupture

No automated source is wired up for this hazard yet.

4.10 Tsunami

The publishing agency will not serve this layer for computation, so susceptibility has to be entered per barangay by the planner.

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	Liquefaction
Bgy. 1 - Em's Barrio	-	100.0% (4)	100.0% (4)
Bgy. 10 - Cabugao	0.0% (1)	84.9% (4)	78.5% (4)
Bgy. 11 - Maoyod Pob.	-	100.0% (4)	20.0% (3)
Bgy. 12 - Tula-tula	0.0% (1)	78.9% (4)	48.6% (4)
Bgy. 13 - Ilawod West Pob.	0.0% (1)	18.6% (2)	91.8% (4)
Bgy. 14 - Ilawod Pob.	0.0% (1)	71.4% (4)	56.8% (4)
Bgy. 15 - Ilawod East Pob.	36.9% (3)	30.1% (3)	98.5% (4)
Bgy. 16 - Kawit-East Washington Drive	0.0% (1)	88.8% (4)	100.0% (4)
Bgy. 17 - Rizal Street., Ilawod	0.0% (1)	82.5% (4)	100.0% (4)
Bgy. 18 - Cabagñan West	15.9% (2)	72.4% (4)	93.8% (4)
Bgy. 19 - Cabagñan	29.6% (3)	49.5% (4)	100.0% (4)
Bgy. 2 - Em's Barrio South	-	100.0% (4)	51.4% (4)
Bgy. 20 - Cabagñan East	18.6% (2)	80.5% (4)	100.0% (4)
Bgy. 21 - Binanuahan West	25.6% (3)	72.0% (4)	100.0% (4)
Bgy. 22 - Binanuahan East	67.5% (4)	29.9% (3)	99.7% (4)
Bgy. 23 - Imperial Court Subd.	49.6% (4)	50.5% (4)	100.0% (4)
Bgy. 24 - Rizal Street	74.1% (4)	26.0% (3)	100.0% (4)
Bgy. 25 - Lapu-lapu	42.3% (4)	57.7% (4)	100.0% (4)
Bgy. 26 - Dinagaan	5.2% (1)	96.8% (4)	100.0% (4)
Bgy. 27 - Victory Village South	34.1% (3)	64.5% (4)	73.5% (4)
Bgy. 28 - Victory Village North	58.0% (4)	41.8% (4)	99.9% (4)
Bgy. 29 - Sabang	51.9% (4)	31.7% (3)	100.0% (4)
Bgy. 3 - Em's Barrio East	-	100.0% (4)	100.0% (4)
Bgy. 30 - Pigcale	14.7% (2)	84.9% (4)	100.0% (4)
Bgy. 31 - Centro-Baybay	7.6% (1)	92.4% (4)	99.9% (4)
Bgy. 32 - San Roque	63.6% (4)	35.0% (3)	99.9% (4)
Bgy. 33 - PNR-Peñaranda St.-Iraya	66.7% (4)	34.8% (3)	100.0% (4)
Bgy. 34 - Oro Site-Magallanes St.	54.3% (4)	45.8% (4)	100.0% (4)
Bgy. 35 - Tinago	28.7% (3)	69.0% (4)	100.0% (4)
Bgy. 36 - Kapantawan	76.8% (4)	23.1% (3)	100.0% (4)
Bgy. 37 - Bitano	57.0% (4)	42.8% (4)	100.0% (4)
Bgy. 38 - Gogon	61.5% (4)	38.7% (3)	100.0% (4)
Bgy. 39 - Bonot	99.9% (4)	0.0% (1)	100.0% (4)
Bgy. 4 - Sagpon Pob.	-	100.0% (4)	96.9% (4)

Barangay	Flood	Rain-induced Landslide	Liquefaction
Bgy. 40 - Cruzada	0.9% (1)	99.2% (4)	100.0% (4)
Bgy. 41 - Bogtong	27.0% (3)	72.7% (4)	70.8% (4)
Bgy. 42 - Rawis	66.0% (4)	31.9% (3)	100.0% (4)
Bgy. 43 - Tamaoyan	34.8% (3)	65.0% (4)	100.0% (4)
Bgy. 44 - Pawa	32.3% (3)	67.3% (4)	100.0% (4)
Bgy. 45 - Dita	-	100.0% (4)	99.9% (4)
Bgy. 46 - San Joaquin	-	100.0% (4)	100.0% (4)
Bgy. 47 - Arimbay	17.4% (2)	82.3% (4)	100.0% (4)
Bgy. 48 - Bagong Abre	13.0% (2)	86.9% (4)	75.0% (4)
Bgy. 49 - Bigaa	10.0% (1)	89.0% (4)	94.3% (4)
Bgy. 5 - Sagmin Pob.	-	100.0% (4)	95.4% (4)
Bgy. 50 - Padang	8.9% (1)	91.2% (4)	8.7% (1)
Bgy. 51 - Buyuan	4.2% (1)	95.8% (4)	13.2% (2)
Bgy. 52 - Matanag	9.4% (1)	91.0% (4)	7.0% (1)
Bgy. 53 - Bonga	9.8% (1)	90.0% (4)	21.7% (3)
Bgy. 54 - Mabinit	8.7% (1)	91.7% (4)	16.0% (2)
Bgy. 55 - Estanza	-	97.6% (4)	-
Bgy. 56 - Taysan	0.5% (1)	86.5% (4)	6.7% (1)
Bgy. 57 - Dap-dap	43.4% (4)	50.2% (4)	55.7% (4)
Bgy. 58 - Buragwis	7.4% (1)	69.2% (4)	24.8% (3)
Bgy. 59 - Puro	3.5% (1)	88.8% (4)	13.8% (2)
Bgy. 6 - Bañadero Pob.	-	100.0% (4)	6.6% (1)
Bgy. 60 - Lamba	-	78.3% (4)	1.8% (1)
Bgy. 61 - Maslog	0.0% (1)	89.0% (4)	8.5% (1)
Bgy. 62 - Homapon	24.2% (3)	72.3% (4)	6.8% (1)
Bgy. 63 - Mariawa	5.4% (1)	94.7% (4)	-
Bgy. 64 - Bagacay	44.9% (4)	53.4% (4)	34.7% (3)
Bgy. 65 - Imalnod	22.2% (3)	70.3% (4)	0.1% (1)
Bgy. 66 - Banquerohan	8.0% (1)	62.3% (4)	4.4% (1)
Bgy. 67 - Bariis	13.7% (2)	75.8% (4)	-
Bgy. 68 - San Francisco	0.3% (1)	99.2% (4)	0.0% (1)
Bgy. 69 - Buenavista	4.5% (1)	93.3% (4)	0.1% (1)
Bgy. 7 - Baño	0.0% (1)	69.2% (4)	100.0% (4)
Bgy. 70 - Cagbacong	12.3% (2)	86.9% (4)	-
Bgy. 8 - Bagumbayan	0.0% (1)	100.0% (4)	100.0% (4)

Barangay	Flood	Rain-induced Landslide	Liquefaction
Bgy. 9 - Pinaric	-	100.0% (4)	12.5% (2)

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.

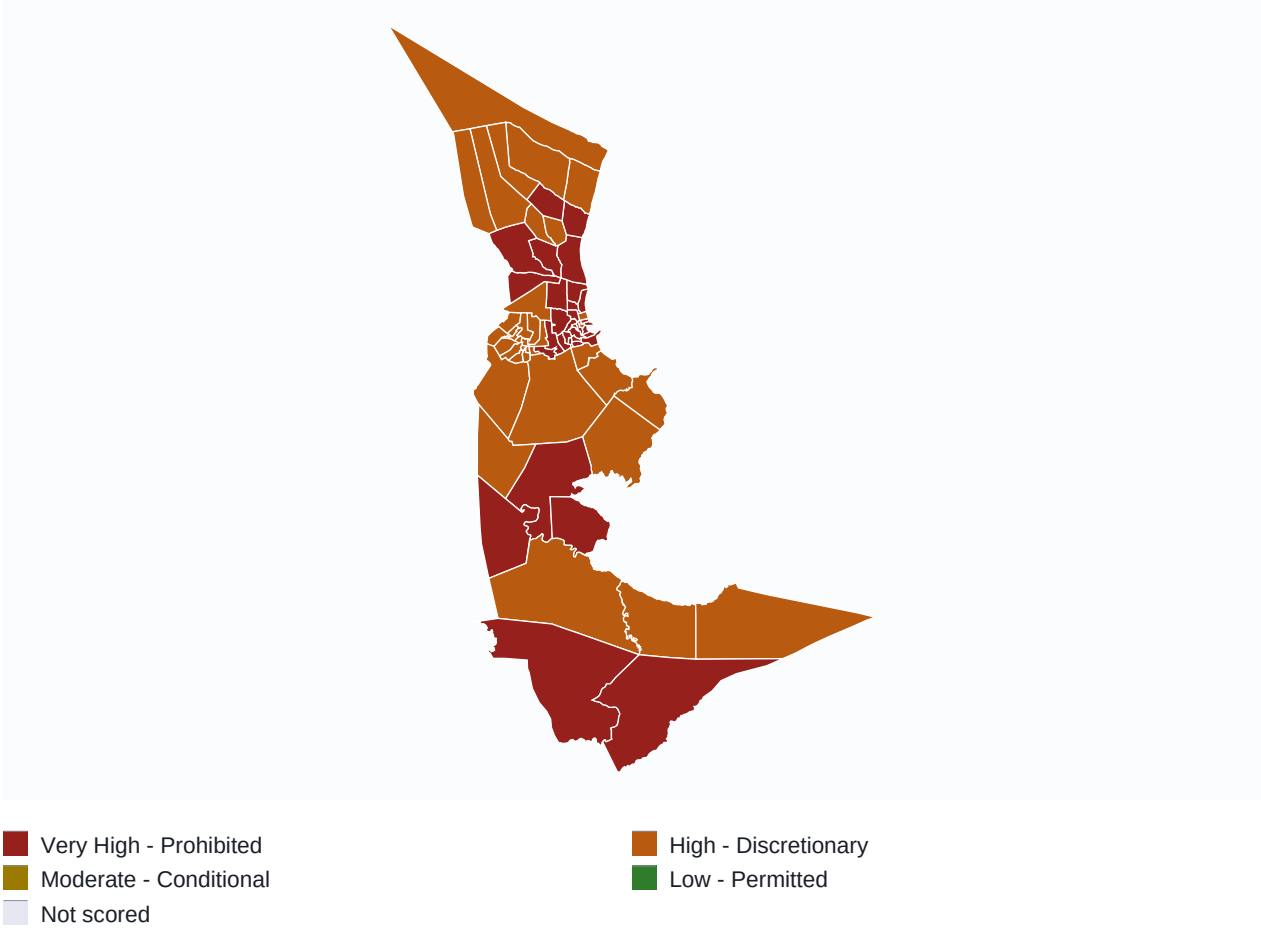

Figure R. Highest risk category reached in each barangay, across all hazards and exposure units.

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

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 10 - Cabugao	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 10 - Cabugao	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Bgy. 12 - Tula-tula	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 12 - Tula-tula	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 13 - Ilawod West Pob.	Flood	Population	1	4	3	0.75	4	2.00	8.00	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 13 - Ilawod West Pob.	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 14 - Ilawod Pob.	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 14 - Ilawod Pob.	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 15 - Ilawod East Pob.	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 15 - Ilawod East Pob.	Flood	Urban Use Areas	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 16 - Kawit-East Washington Drive	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 16 - Kawit-East Washington Drive	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 17 - Rizal Street., Ilawod	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 17 - Rizal Street., Ilawod	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 18 - Cabagñan West	Flood	Population	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 18 - Cabagñan West	Flood	Urban Use Areas	2	3	3	0.50	4	2.00	8.00	High
Bgy. 19 - Cabagñan	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 19 - Cabagñan	Flood	Urban Use Areas	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 20 - Cabagñan East	Flood	Population	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 20 - Cabagñan East	Flood	Urban Use Areas	2	3	3	0.50	4	2.00	8.00	High
Bgy. 21 - Binanuahan West	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 21 - Binanuahan West	Flood	Urban Use Areas	3	3	3	0.50	4	2.50	10.00	High
Bgy. 22 - Binanuahan East	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 22 - Binanuahan East	Flood	Urban Use Areas	4	2	3	0.50	4	3.00	12.00	Very High
Bgy. 23 - Imperial Court Subd.	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 23 - Imperial Court Subd.	Flood	Urban Use Areas	4	2	3	0.50	4	3.00	12.00	Very High
Bgy. 24 - Rizal Street	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 24 - Rizal Street	Flood	Urban Use Areas	4	3	3	0.50	4	3.00	12.00	Very High
Bgy. 25 - Lapu-lapu	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 25 - Lapu-lapu	Flood	Urban Use Areas	4	3	3	0.50	4	3.00	12.00	Very High
Bgy. 26 - Dinagaan	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 26 - Dinagaan	Flood	Urban Use Areas	1	4	3	0.75	4	2.00	8.00	High
Bgy. 27 - Victory Village South	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 27 - Victory Village South	Flood	Urban Use Areas	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 28 - Victory Village North	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 28 - Victory Village North	Flood	Urban Use Areas	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 29 - Sabang	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 29 - Sabang	Flood	Urban Use Areas	4	3	3	0.50	4	3.00	12.00	Very High
Bgy. 30 - Pigcale	Flood	Population	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 30 - Pigcale	Flood	Urban Use Areas	2	2	3	0.50	4	2.00	8.00	High
Bgy. 31 - Centro-Baybay	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 31 - Centro-Baybay	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Bgy. 32 - San Roque	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 32 - San Roque	Flood	Urban Use Areas	4	3	3	0.50	4	3.00	12.00	Very High
Bgy. 33 - PNR-Peñaranda St.-Iraya	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 33 - PNR-Peñaranda St.-Iraya	Flood	Urban Use Areas	4	3	3	0.50	4	3.00	12.00	Very High
Bgy. 34 - Oro Site-Magallanes St.	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 34 - Oro Site-Magallanes St.	Flood	Urban Use Areas	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 35 - Tinago	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 35 - Tinago	Flood	Urban Use Areas	3	3	3	0.50	4	2.50	10.00	High
Bgy. 36 - Kapantawan	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 36 - Kapantawan	Flood	Urban Use Areas	4	3	3	0.50	4	3.00	12.00	Very High
Bgy. 37 - Bitano	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 37 - Bitano	Flood	Urban Use Areas	4	3	3	0.50	4	3.00	12.00	Very High
Bgy. 38 - Gogon	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 38 - Gogon	Flood	Urban Use Areas	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 39 - Bonot	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 39 - Bonot	Flood	Urban Use Areas	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 40 - Cruzada	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 40 - Cruzada	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 41 - Bogtong	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 41 - Bogtong	Flood	Urban Use Areas	3	2	3	0.50	4	2.50	10.00	High
Bgy. 42 - Rawis	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 42 - Rawis	Flood	Urban Use Areas	4	2	3	0.50	4	3.00	12.00	Very High
Bgy. 43 - Tamaoyan	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 43 - Tamaoyan	Flood	Urban Use Areas	3	2	3	0.50	4	2.50	10.00	High
Bgy. 44 - Pawa	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 44 - Pawa	Flood	Urban Use Areas	3	3	3	0.50	4	2.50	10.00	High
Bgy. 47 - Arimbay	Flood	Population	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 47 - Arimbay	Flood	Urban Use Areas	2	4	3	0.75	4	2.50	10.00	High
Bgy. 48 - Bagong Abre	Flood	Population	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 48 - Bagong Abre	Flood	Urban Use Areas	2	3	3	0.50	4	2.00	8.00	High
Bgy. 49 - Bigaa	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 49 - Bigaa	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 50 - Padang	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 50 - Padang	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Bgy. 51 - Buyuan	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 51 - Buyuan	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 52 - Matanag	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 52 - Matanag	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 53 - Bonga	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 53 - Bonga	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 54 - Mabinit	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 54 - Mabinit	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Bgy. 56 - Taysan	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 56 - Taysan	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 57 - Dap-dap	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 57 - Dap-dap	Flood	Urban Use Areas	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 58 - Buragwis	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 58 - Buragwis	Flood	Urban Use Areas	1	4	3	0.75	4	2.00	8.00	High
Bgy. 59 - Puro	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 59 - Puro	Flood	Urban Use Areas	1	4	3	0.75	4	2.00	8.00	High
Bgy. 61 - Maslog	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 61 - Maslog	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Bgy. 62 - Homapon	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 62 - Homapon	Flood	Urban Use Areas	3	2	3	0.50	4	2.50	10.00	High
Bgy. 63 - Mariawa	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 63 - Mariawa	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 64 - Bagacay	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 64 - Bagacay	Flood	Urban Use Areas	4	3	3	0.50	4	3.00	12.00	Very High
Bgy. 65 - Imalnod	Flood	Population	4	4	3	0.75	4	3.50	14.00	Very High
Bgy. 65 - Imalnod	Flood	Urban Use Areas	3	3	3	0.50	4	2.50	10.00	High
Bgy. 66 - Banquerohan	Flood	Population	2	4	3	0.75	4	2.50	10.00	High
Bgy. 66 - Banquerohan	Flood	Urban Use Areas	1	4	3	0.75	4	2.00	8.00	High
Bgy. 67 - Bariis	Flood	Population	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 67 - Bariis	Flood	Urban Use Areas	2	3	3	0.50	4	2.00	8.00	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 68 - San Francisco	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 68 - San Francisco	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 69 - Buenavista	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 69 - Buenavista	Flood	Urban Use Areas	1	4	3	0.75	4	2.00	8.00	High
Bgy. 7 - Baño	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 7 - Baño	Flood	Urban Use Areas	1	2	3	0.50	4	1.50	6.00	Moderate
Bgy. 70 - Cagbacong	Flood	Population	3	4	3	0.75	4	3.00	12.00	Very High
Bgy. 70 - Cagbacong	Flood	Urban Use Areas	2	2	3	0.50	4	2.00	8.00	High
Bgy. 8 - Bagumbayan	Flood	Population	1	4	3	0.75	4	2.00	8.00	High
Bgy. 8 - Bagumbayan	Flood	Urban Use Areas	1	3	3	0.50	4	1.50	6.00	Moderate
Bgy. 1 - Em's Barrio	Liquefaction	Population	3	4	3	0.75	3	3.00	9.00	High
Bgy. 1 - Em's Barrio	Liquefaction	Urban Use Areas	2	1	3	0.25	3	1.50	4.50	Moderate
Bgy. 10 - Cabugao	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 10 - Cabugao	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 11 - Maoyod Pob.	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 11 - Maoyod Pob.	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 12 - Tula-tula	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 12 - Tula-tula	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 13 - Ilawod West Pob.	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 13 - Ilawod West Pob.	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 14 - Ilawod Pob.	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 14 - Ilawod Pob.	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 15 - Ilawod East Pob.	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 15 - Ilawod East Pob.	Liquefaction	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 16 - Kawit-East Washington Drive	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 16 - Kawit-East Washington Drive	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 17 - Rizal Street., Ilawod	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 17 - Rizal Street., Ilawod	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 18 - Cabagñan West	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 18 - Cabagñan West	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 19 - Cabagñan	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 19 - Cabagñan	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 2 - Em's Barrio South	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 2 - Em's Barrio South	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 20 - Cabagñan East	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 20 - Cabagñan East	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 21 - Binanuahan West	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 21 - Binanuahan West	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 22 - Binanuahan East	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 22 - Binanuahan East	Liquefaction	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 23 - Imperial Court Subd.	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 23 - Imperial Court Subd.	Liquefaction	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 24 - Rizal Street	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 24 - Rizal Street	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 25 - Lapu-lapu	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 25 - Lapu-lapu	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 26 - Dinagaan	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 26 - Dinagaan	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 27 - Victory Village South	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 27 - Victory Village South	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 28 - Victory Village North	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 28 - Victory Village North	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 29 - Sabang	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 29 - Sabang	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 3 - Em's Barrio East	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 3 - Em's Barrio East	Liquefaction	Urban Use Areas	4	1	3	0.25	3	2.50	7.50	High
Bgy. 30 - Pigcale	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 30 - Pigcale	Liquefaction	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 31 - Centro-Baybay	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 31 - Centro-Baybay	Liquefaction	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 32 - San Roque	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 32 - San Roque	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 33 - PNR-Peñaranda St.-Iraya	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 33 - PNR-Peñaranda St.-Iraya	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 34 - Oro Site-Magallanes St.	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 34 - Oro Site-Magallanes St.	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 35 - Tinago	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 35 - Tinago	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 36 - Kapantawan	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 36 - Kapantawan	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 37 - Bitano	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 37 - Bitano	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 38 - Gogon	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 38 - Gogon	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 39 - Bonot	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 39 - Bonot	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 4 - Sagpon Pob.	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 4 - Sagpon Pob.	Liquefaction	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 40 - Cruzada	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 40 - Cruzada	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 41 - Bogtong	Liquefaction	Population	3	4	3	0.75	3	3.00	9.00	High
Bgy. 41 - Bogtong	Liquefaction	Urban Use Areas	2	2	3	0.50	3	2.00	6.00	Moderate
Bgy. 42 - Rawis	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 42 - Rawis	Liquefaction	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 43 - Tamaoyan	Liquefaction	Population	3	4	3	0.75	3	3.00	9.00	High
Bgy. 43 - Tamaoyan	Liquefaction	Urban Use Areas	2	2	3	0.50	3	2.00	6.00	Moderate
Bgy. 44 - Pawa	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 44 - Pawa	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 45 - Dita	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 45 - Dita	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 46 - San Joaquin	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 46 - San Joaquin	Liquefaction	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 47 - Arimbay	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 47 - Arimbay	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 48 - Bagong Abre	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 48 - Bagong Abre	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 49 - Bigaa	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 49 - Bigaa	Liquefaction	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Bgy. 5 - Sagmin Pob.	Liquefaction	Population	2	4	3	0.75	3	2.50	7.50	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 5 - Sagmin Pob.	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 50 - Padang	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 50 - Padang	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 51 - Buyuan	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 51 - Buyuan	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 52 - Matanag	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 52 - Matanag	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 53 - Bonga	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 53 - Bonga	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 54 - Mabinit	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 54 - Mabinit	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 56 - Taysan	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 56 - Taysan	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 57 - Dap-dap	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 57 - Dap-dap	Liquefaction	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 58 - Buragwis	Liquefaction	Population	2	4	3	0.75	3	2.50	7.50	High
Bgy. 58 - Buragwis	Liquefaction	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 59 - Puro	Liquefaction	Population	2	4	3	0.75	3	2.50	7.50	High
Bgy. 59 - Puro	Liquefaction	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 6 - Bañadero Pob.	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 6 - Bañadero Pob.	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 60 - Lamba	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 60 - Lamba	Liquefaction	Urban Use Areas	1	1	3	0.25	3	1.00	3.00	Moderate
Bgy. 61 - Maslog	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 61 - Maslog	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 62 - Homapon	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 62 - Homapon	Liquefaction	Urban Use Areas	1	2	3	0.50	3	1.50	4.50	Moderate
Bgy. 64 - Bagacay	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 64 - Bagacay	Liquefaction	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Bgy. 65 - Imalnod	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 65 - Imalnod	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 66 - Banquerohan	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 66 - Banquerohan	Liquefaction	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 68 - San Francisco	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 68 - San Francisco	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 69 - Buenavista	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 69 - Buenavista	Liquefaction	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 7 - Baño	Liquefaction	Population	2	4	3	0.75	3	2.50	7.50	High
Bgy. 7 - Baño	Liquefaction	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
Bgy. 8 - Bagumbayan	Liquefaction	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 8 - Bagumbayan	Liquefaction	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 9 - Pinaric	Liquefaction	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 9 - Pinaric	Liquefaction	Urban Use Areas	1	3	3	0.50	3	1.50	4.50	Moderate
Bgy. 1 - Em's Barrio	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 1 - Em's Barrio	Rain-induced Landslide	Urban Use Areas	4	1	3	0.25	3	2.50	7.50	High
Bgy. 10 - Cabugao	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 10 - Cabugao	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 11 - Maoyod Pob.	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 11 - Maoyod Pob.	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 12 - Tula-tula	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 12 - Tula-tula	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 13 - Ilawod West Pob.	Rain-induced Landslide	Population	3	4	3	0.75	3	3.00	9.00	High
Bgy. 13 - Ilawod West Pob.	Rain-induced Landslide	Urban Use Areas	2	3	3	0.50	3	2.00	6.00	Moderate
Bgy. 14 - Ilawod Pob.	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 14 - Ilawod Pob.	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 15 - Ilawod East Pob.	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 15 - Ilawod East Pob.	Rain-induced Landslide	Urban Use Areas	3	4	3	0.75	3	3.00	9.00	High
Bgy. 16 - Kawit-East Washington Drive	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 16 - Kawit-East Washington Drive	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 17 - Rizal Street., Ilawod	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 17 - Rizal Street., Ilawod	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 18 - Cabagñan West	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 18 - Cabagñan West	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 19 - Cabagñan	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 19 - Cabagñan	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 2 - Em's Barrio South	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 2 - Em's Barrio South	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 20 - Cabagñan East	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 20 - Cabagñan East	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 21 - Binanuahan West	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 21 - Binanuahan West	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 22 - Binanuahan East	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 22 - Binanuahan East	Rain-induced Landslide	Urban Use Areas	3	2	3	0.50	3	2.50	7.50	High
Bgy. 23 - Imperial Court Subd.	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 23 - Imperial Court Subd.	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 24 - Rizal Street	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 24 - Rizal Street	Rain-induced Landslide	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Bgy. 25 - Lapu-lapu	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 25 - Lapu-lapu	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 26 - Dinagaan	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 26 - Dinagaan	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 27 - Victory Village South	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 27 - Victory Village South	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 28 - Victory Village North	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 28 - Victory Village North	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 29 - Sabang	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 29 - Sabang	Rain-induced Landslide	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Bgy. 3 - Em's Barrio East	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 3 - Em's Barrio East	Rain-induced Landslide	Urban Use Areas	4	1	3	0.25	3	2.50	7.50	High
Bgy. 30 - Pigcale	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 30 - Pigcale	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 31 - Centro-Baybay	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 31 - Centro-Baybay	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 32 - San Roque	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 32 - San Roque	Rain-induced Landslide	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Bgy. 33 - PNR-Peñaranda St.-Iraya	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 33 - PNR-Peñaranda St.-Iraya	Rain-induced Landslide	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Bgy. 34 - Oro Site-Magallanes St.	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 34 - Oro Site-Magallanes St.	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 35 - Tinago	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 35 - Tinago	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 36 - Kapantawan	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 36 - Kapantawan	Rain-induced Landslide	Urban Use Areas	3	3	3	0.50	3	2.50	7.50	High
Bgy. 37 - Bitano	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 37 - Bitano	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 38 - Gogon	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 38 - Gogon	Rain-induced Landslide	Urban Use Areas	3	4	3	0.75	3	3.00	9.00	High
Bgy. 39 - Bonot	Rain-induced Landslide	Population	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 39 - Bonot	Rain-induced Landslide	Urban Use Areas	1	4	3	0.75	3	2.00	6.00	Moderate
Bgy. 4 - Sagpon Pob.	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 4 - Sagpon Pob.	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 40 - Cruzada	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 40 - Cruzada	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 41 - Bogtong	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 41 - Bogtong	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 42 - Rawis	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 42 - Rawis	Rain-induced Landslide	Urban Use Areas	3	2	3	0.50	3	2.50	7.50	High
Bgy. 43 - Tamaoyan	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 43 - Tamaoyan	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 44 - Pawa	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 44 - Pawa	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 45 - Dita	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 45 - Dita	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 46 - San Joaquin	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 46 - San Joaquin	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 47 - Arimbay	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 47 - Arimbay	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 48 - Bagong Abre	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 48 - Bagong Abre	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 49 - Bigaa	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 49 - Bigaa	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 5 - Sagmin Pob.	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 5 - Sagmin Pob.	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 50 - Padang	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 50 - Padang	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 51 - Buyuan	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 51 - Buyuan	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 52 - Matanag	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 52 - Matanag	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 53 - Bonga	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 53 - Bonga	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 54 - Mabinit	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 54 - Mabinit	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 55 - Estanza	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 55 - Estanza	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 56 - Taysan	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 56 - Taysan	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 57 - Dap-dap	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 57 - Dap-dap	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 58 - Buragwis	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 58 - Buragwis	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 59 - Puro	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 59 - Puro	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 6 - Bañadero Pob.	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 6 - Bañadero Pob.	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 60 - Lamba	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 60 - Lamba	Rain-induced Landslide	Urban Use Areas	4	1	3	0.25	3	2.50	7.50	High
Bgy. 61 - Maslog	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 61 - Maslog	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 62 - Homapon	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 62 - Homapon	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 63 - Mariawa	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 63 - Mariawa	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 64 - Bagacay	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High

Barangay	Hazard	Unit	E	S	AC	V	L	Sev	Risk	Category
Bgy. 64 - Bagacay	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 65 - Imalnod	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 65 - Imalnod	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 66 - Banquerohan	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 66 - Banquerohan	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 67 - Bariis	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 67 - Bariis	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 68 - San Francisco	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 68 - San Francisco	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 69 - Buenavista	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 69 - Buenavista	Rain-induced Landslide	Urban Use Areas	4	4	3	0.75	3	3.50	10.50	High
Bgy. 7 - Baño	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 7 - Baño	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 70 - Cagbacong	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 70 - Cagbacong	Rain-induced Landslide	Urban Use Areas	4	2	3	0.50	3	3.00	9.00	High
Bgy. 8 - Bagumbayan	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 8 - Bagumbayan	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High
Bgy. 9 - Pinaric	Rain-induced Landslide	Population	4	4	3	0.75	3	3.50	10.50	High
Bgy. 9 - Pinaric	Rain-induced Landslide	Urban Use Areas	4	3	3	0.50	3	3.00	9.00	High

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
Municipal Hall	Bgy. 1 - Em's Barrio	Flood	-	-	-
Police Station	Bgy. 1 - Em's Barrio	Flood	-	-	-
Municipal Health Centre	Bgy. 1 - Em's Barrio	Flood	-	-	-
Fire Station	Bgy. 1 - Em's Barrio	Flood	-	-	-
Central Elementary School	Bgy. 1 - Em's Barrio	Flood	-	-	-
Covered Court Evacuation Centre	Bgy. 10 - Cabugao	Flood	-	-	-
Public Market	Bgy. 10 - Cabugao	Flood	-	-	-
District High School	Bgy. 11 - Maoyod Pob.	Flood	-	-	-
Barangay Health Station	Bgy. 12 - Tula-tula	Flood	LF	-	-
Water Pumping Station	Bgy. 13 - Ilawod West Pob.	Flood	LF	-	-
Municipal Hall	Bgy. 1 - Em's Barrio	Liquefaction	Least Susceptible	-	-
Police Station	Bgy. 1 - Em's Barrio	Liquefaction	Least Susceptible	-	-
Municipal Health Centre	Bgy. 1 - Em's Barrio	Liquefaction	Least Susceptible	-	-
Fire Station	Bgy. 1 - Em's Barrio	Liquefaction	Least Susceptible	-	-
Central Elementary School	Bgy. 1 - Em's Barrio	Liquefaction	Least Susceptible	-	-
Public Market	Bgy. 10 - Cabugao	Liquefaction	Least Susceptible	-	-
Covered Court Evacuation Centre	Bgy. 10 - Cabugao	Liquefaction	Least Susceptible	-	-
District High School	Bgy. 11 - Maoyod Pob.	Liquefaction	Least Susceptible	-	-
Barangay Health Station	Bgy. 12 - Tula-tula	Liquefaction	Least Susceptible	-	-
Water Pumping Station	Bgy. 13 - Ilawod West Pob.	Liquefaction	Least Susceptible	-	-
Police Station	Bgy. 1 - Em's Barrio	Rain-induced Landslide	ML	-	-
Municipal Health Centre	Bgy. 1 - Em's Barrio	Rain-induced Landslide	ML	-	-
Fire Station	Bgy. 1 - Em's Barrio	Rain-induced Landslide	ML	-	-

Facility	Barangay	Hazard	Susceptibility	Risk	Category
Central Elementary School	Bgy. 1 - Em's Barrio	Rain-induced Landslide	ML	-	-
Municipal Hall	Bgy. 1 - Em's Barrio	Rain-induced Landslide	ML	-	-
Public Market	Bgy. 10 - Cabugao	Rain-induced Landslide	ML	-	-
Covered Court Evacuation Centre	Bgy. 10 - Cabugao	Rain-induced Landslide	ML	-	-
District High School	Bgy. 11 - Maoyod Pob.	Rain-induced Landslide	ML	-	-
Barangay Health Station	Bgy. 12 - Tula-tula	Rain-induced Landslide	-	-	-
Water Pumping Station	Bgy. 13 - Ilawod West Pob.	Rain-induced Landslide	-	-	-

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
Storm Surge	A hazard source	No automated source is wired up for this hazard yet.	Everything for this hazard
Sea Level Rise	A hazard source	No automated source is wired up for this hazard yet.	Everything for this hazard
Ground Shaking	Per-barangay susceptibility class, entered by the planner	The publishing agency will not serve this layer for computation, so susceptibility has to be entered per barangay by the planner.	Exposure, and therefore risk, for this hazard
Earthquake-induced Landslide	Per-barangay susceptibility class, entered by the planner	The publishing agency will not serve this layer for computation, so susceptibility has to be entered per barangay by the planner.	Exposure, and therefore risk, for this hazard
Ground Rupture	A hazard source	No automated source is wired up for this hazard yet.	Everything for this hazard

Area	What is needed	Why it is missing	What it blocks
Tsunami	Per-barangay susceptibility class, entered by the planner	The publishing agency will not serve this layer for computation, so susceptibility has to be entered per barangay by the planner.	Exposure, and therefore risk, 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-maps	PSGC 2023-12-31 (PSA/NAMRIA via faeldon, MIT)	-	City outline, barangay polygons, all area computations
Earthquake-induced Landslide	PHIVOLCS	DOST-PHIVOLCS	2026-09-04 16:28	Susceptibility class share per barangay
Tsunami Hazard	PHIVOLCS	DOST-PHIVOLCS	2026-09-04 16:28	Susceptibility class share per barangay
Liquefaction Susceptibility	PHIVOLCS	DOST-PHIVOLCS (as of July 2018)	2026-09-04 16:28	Susceptibility class share per barangay
Rain-induced Landslide Susceptibility	DENR-MGB	DENR-Mines and Geosciences Bureau	2026-09-04 16:28	Susceptibility class share per barangay
Ground Shaking (Deterministic)	PHIVOLCS	DOST-PHIVOLCS	2026-09-04 16:28	Susceptibility class share per barangay
Flood Susceptibility	DENR-MGB	DENR-Mines and Geosciences Bureau	2026-09-04 16:27	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: (exposure + 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.