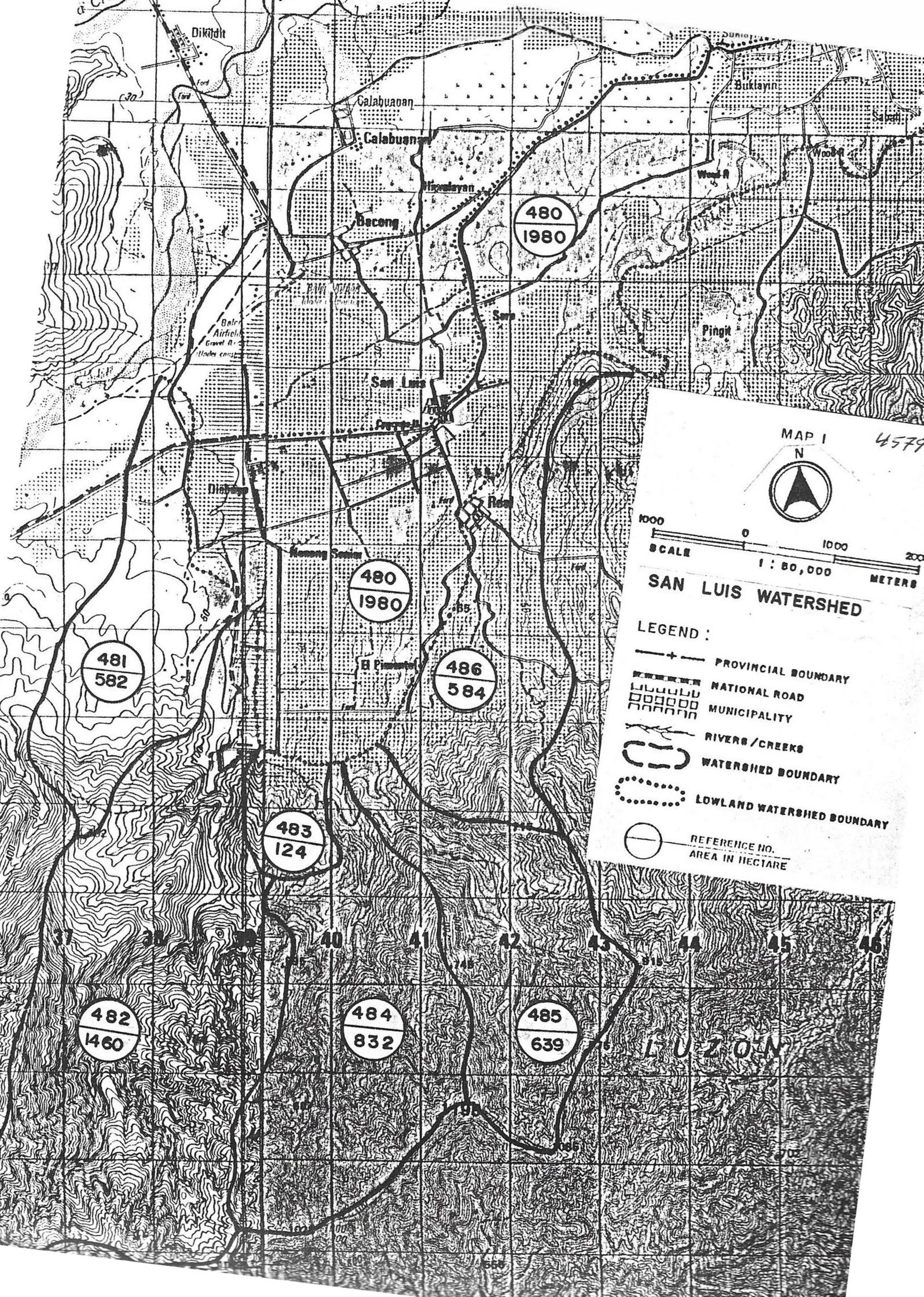


AURORA INTEGRATED AREA DEVELOPMENT PROJECT
BALER, AURORA

ENVIRONMENTAL RESOURCES
DATA BASE

SAN LUIS WATERSHED



MAP I 4579

N

1000 0 1000 2000

SCALE 1 : 80,000 METERS

SAN LUIS WATERSHED

LEGEND :

- +— PROVINCIAL BOUNDARY
- ▬▬▬▬ NATIONAL ROAD
- ▭▭▭▭ MUNICIPALITY
- ~~~ RIVERS / CREEKS
- — — WATERSHED BOUNDARY
- ⋯⋯⋯ LOWLAND WATERSHED BOUNDARY
- REFERENCE NO. AREA IN HECTARE

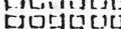
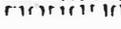


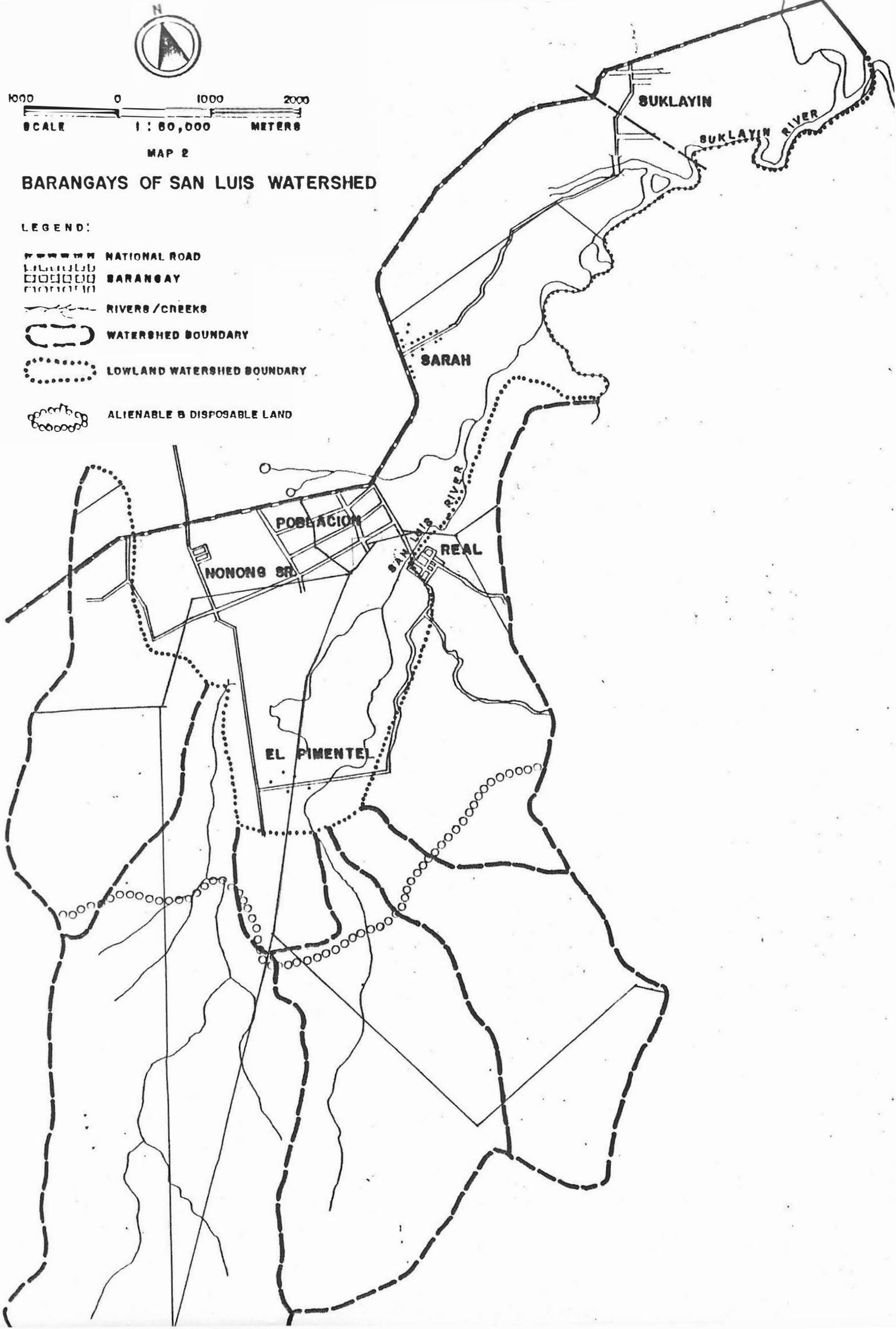
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SCALE 1 : 80,000 METERS

MAP 2

BARANGAYS OF SAN LUIS WATERSHED

LEGEND:

-  NATIONAL ROAD
-  BARANGAY
-  RIVERS / CREEKS
-  WATERSHED BOUNDARY
-  LOWLAND WATERSHED BOUNDARY
-  ALIENABLE & DISPOSABLE LAND

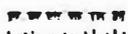
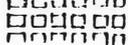


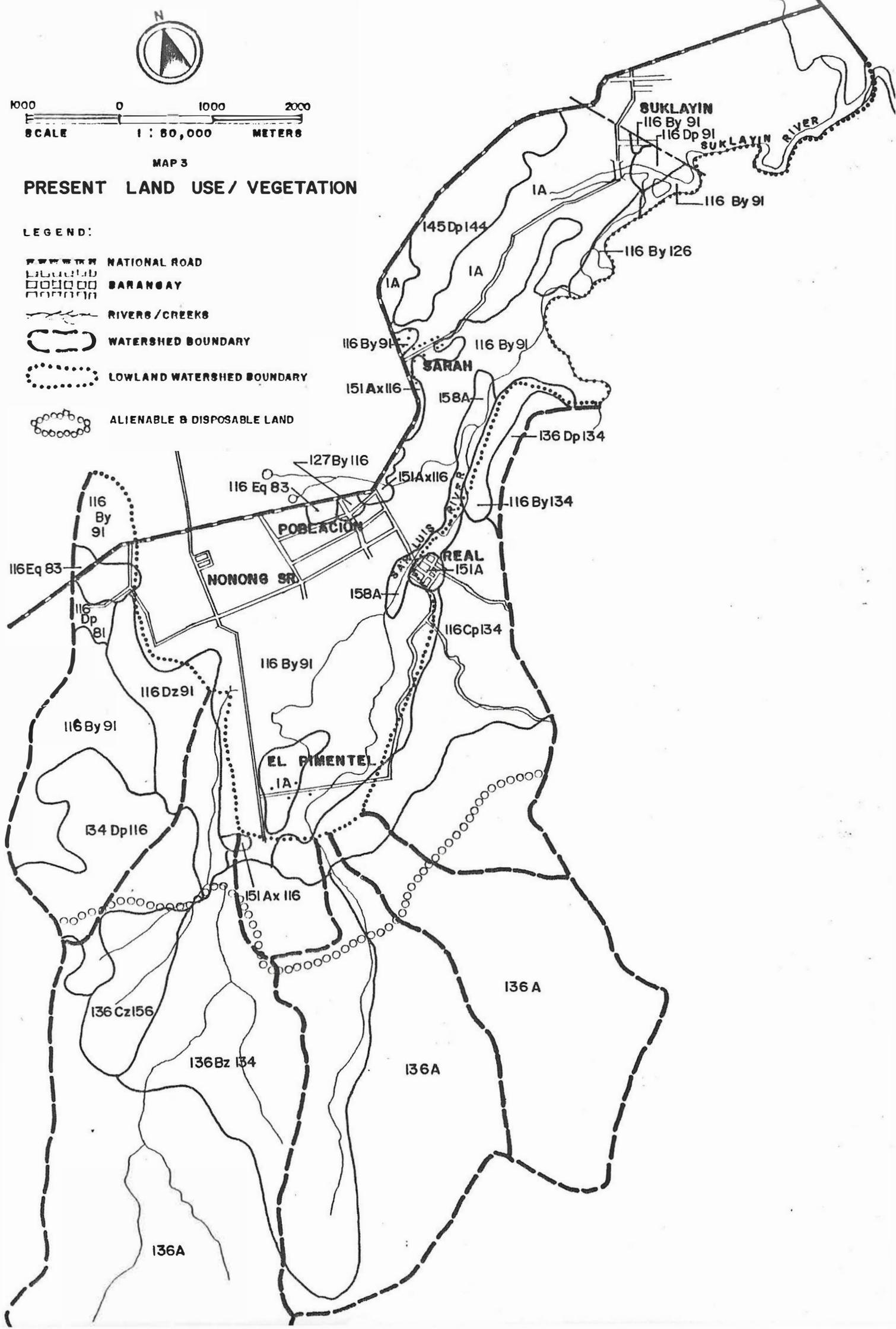


MAP 3

PRESENT LAND USE / VEGETATION

LEGEND:

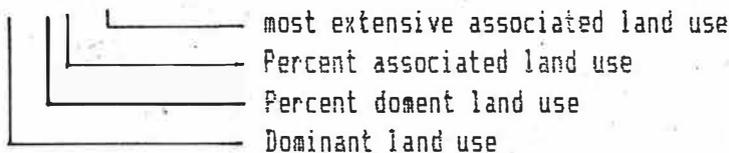
-  NATIONAL ROAD
-  BARANGAY
-  RIVERS / CREEKS
-  WATERSHED BOUNDARY
-  LOWLAND WATERSHED BOUNDARY
-  ALIENABLE & DISPOSABLE LAND



MAP 3/ATT.3 - LEGEND FOR PRESENT LAND USE AND VEGETATION

LAND USE SYMBOL	DESCRIPTION	AREA (HAS)	%
145Dp 144	Swamps, 60-70%; 20-30% Inland Marsh	21	0.3
1A	Paddy rice irrigated, 90 - 100%	561	9.1
116By 126	Coconut, 80-90%; 5-10% grassland	26	0.4
116Dp 91	Coconut, 60-70%; 20-30% banana	44	0.7
158A	Riverwash, 90-100%	74	1.2
116By 91	Coconut, 80-90%;5-10% banana	1321	21.3
116By 134	Coconut, 80-90%;5-10% shrubland	40	0.6
116Eq 83	Coconut, 50-60%;above 30% citrus	52	1.8
116Dz 91	Coconut, 60-70%; 10-20% banana	150	2.4
151Ax 116	Built-up areas, 90-100% below 5% coconut	56	0.9
158Cp 126	Riverwash, 70-80%; 20-30% grassland	33	0.5
116Dp 81	Coconut, 60-70%; 20-30% Coffee	29	0.5
136A	Forest, 90-100%	2175	35
134Dp 116	Shrubland, 60-70%;	329	5.3
136Cz 156	Forest, 70-80%; 10-20%, Kaingin	144	2.3
136Bz 134	Forest, 80-90%; 10-20%, Shrubland	821	13.2
116Cp 134	Coconut; 70-80%; 20-30%, shrubland	292	5
136Dp 134	Forest, 60-70%; 20-30%, shrubland	33	0.5
TOTAL		6201	100

145 Dp 144

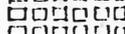
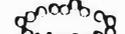


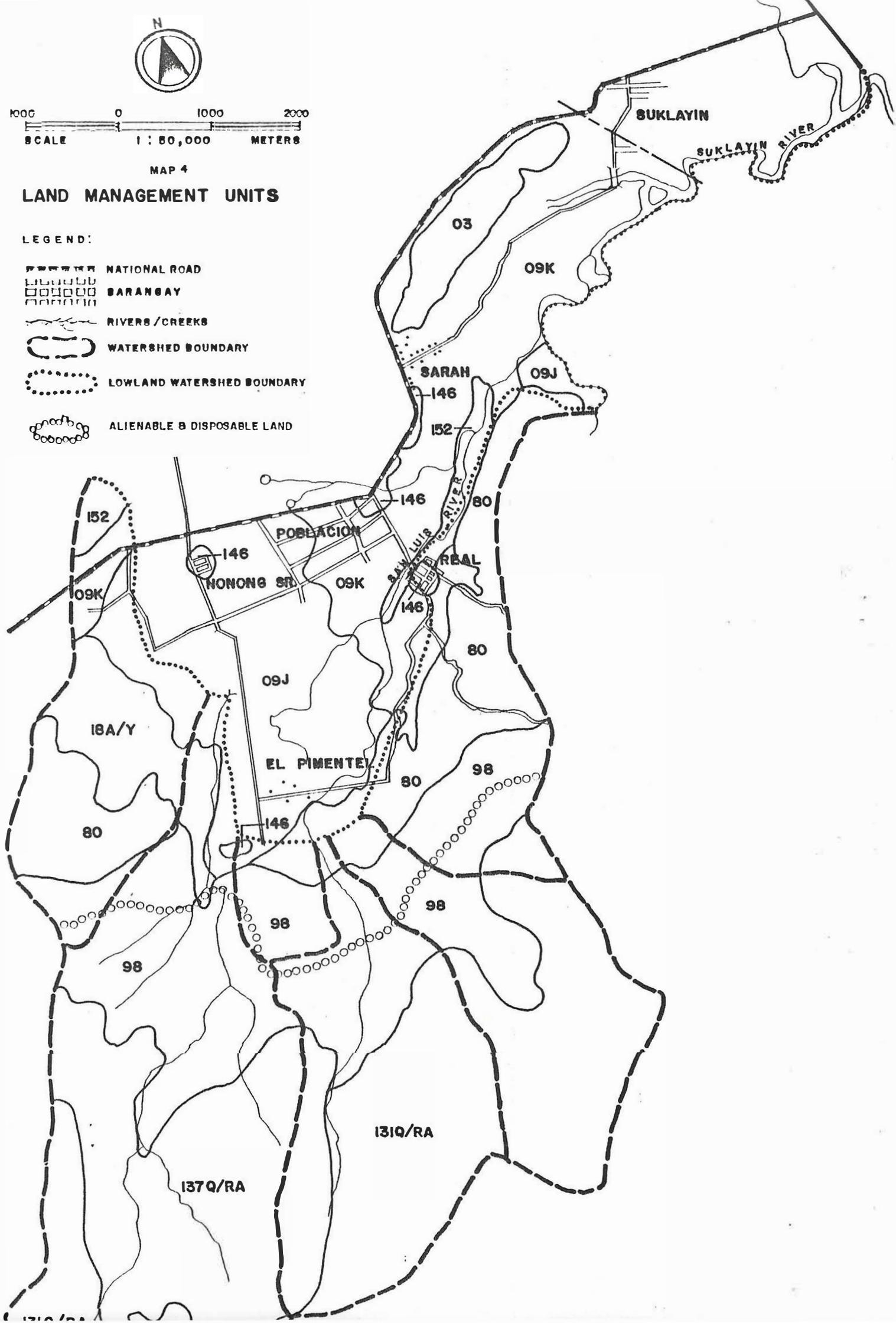


MAP 4

LAND MANAGEMENT UNITS

LEGEND:

-  NATIONAL ROAD
-  BARANGAY
-  RIVERS / CREEKS
-  WATERSHED BOUNDARY
-  LOWLAND WATERSHED BOUNDARY
-  ALIENABLE & DISPOSABLE LAND



MAP4/ATT 4. LAND MANAGEMENT UNIT

LAND MANAGEMENT UNIT CATEGORIES	AREA (HAS)	%
1. Warm Lowland Pedo-Ecological Zone (>25 C)		
03 Swamps	364	6
09J Broad alluvial plains, none to slight flooding	878	14
09K Broad alluvial plains, subject to moderate flooding (seasonally flooded due to overflow and run-off)	907	15
18 AY Collu-alluvial fans, shallow/gravelly phase	215	3.5
2. Warm Cool Upland Pedo-Ecological Zone (22.5 C - 25 C)		
80 slightly to moderately dissected low volcanic hills with complex smooth and sharp ridges, undulating to rolling slopes	582	9
3. Warm Cool Hilly Pedo-Ecological Zone (22.5 C - 25 C)		
98 Severely dissected high volcanic hills with complex and sharp ridges, rolling to very steep slopes	1032	17
4. Cool Highland Pedo-Ecological Zone (less than 22.5 C)		
131 Q/RA Severely dissected metamorphic mountains, steep to very steep slopes, shallow soils	1245	20
137 Q/RA	859	14
5. Miscellaneous land type		
146 Built-Up Areas	82	1
152 Riverwash	37	0.5
TOTAL	6209	100

MAP 4/ATT 4.1 LAND USE SUITABILITY OPTIONS

MAPPING UNIT CODE		LAND USE OPTIONS UNDER CONSIDERATION									
LSU	ELU	LKU	AQUACULTURE	PADDY	ANNUAL CROPS	TREE CROPS	AGROFORESTRY	FORESTRY	PROTECTION		
2	SWM	03	\$	\$N	N	N	N	\$N	S		
4	APN	09J*	N	S	S	S	S	S	N		
4	APM	09K*	N	S	S	S	S	S	N		
6	CFS	10AY**	N	S	S	S	S	S	N		
7	MVH	80	N	N	\$N	\$N	S	S	S		
9	SVH	96	N	N	N	N	\$N	\$	S		
10	MDM	131Q/RAI	N	N	N	N	\$N	\$N	S		
10	SVM	137Q/RAI	N	N	N	N	\$N	\$N	S		
11	BVA	146	N	N	N	N	N	N	N		
12	RVM	152	N	N	N	N	N	N	N		

LEGEND:

- S - suitable
- \$ - suitable with high investment and annual input
- N - not suitable
- LSU - Land Suitable Unit
- LMU - Land Management Unit
- ELU - Existing Landform Unit
- * - poorly-drained areas
- ** - well-drained areas

NOTE: For ELU refer to the next sheet for descriptions

MAP 4/ATT. 4.2 DESCRIPTION OF THE EXISTING LAND USE

- SWM - Swamps
- APN - Broad alluvial plains, none or slight seasonal flooding
- APM - Broad alluvial plains, moderate seasonal flooding
- CFS - Collu-alluvial fans, shallow soils
- MVH - Slight to moderate dissected, low volcanic hills complex smooth and sharp ridges; undulating to rolling slopes.
- SVH - Severely dissected high volcanic hills; complex and sharp ridges; rolling to very steep slopes.
- MDM - Moderately dissected, dioritic mountains; rolling to moderately steep slopes
- SVM - Severely dissected, complex volcanic; mountains, sharp ridges; steep to very steep slopes; shallow soils.
- BUA - Built-Up Areas
- RVM - Riverwash

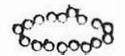


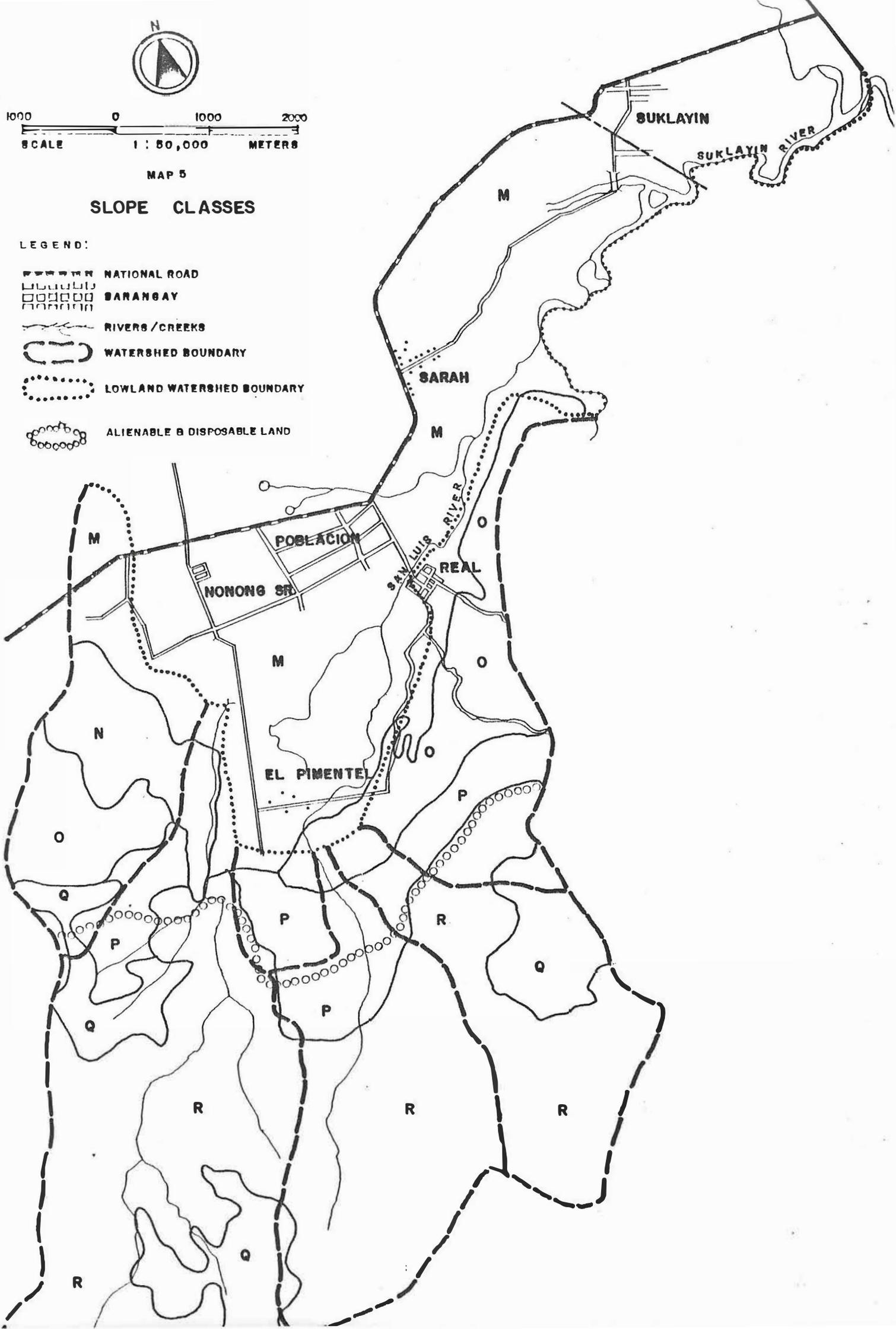
1000 0 1000 2000
SCALE 1 : 80,000 METERS

MAP 5

SLOPE CLASSES

LEGEND:

-  NATIONAL ROAD
-  BARANGAY
-  RIVERS / CREEKS
-  WATERSHED BOUNDARY
-  LOWLAND WATERSHED BOUNDARY
-  ALIENABLE & DISPOSABLE LAND



MAP 5/ATT.5. SLOPE CLASSES

SYMBOL	SLOPE CLASSES (%)	DESCRIPTION	AREA (HAS)	%
M	0 - 3	Level to nearly level	2272	37
N	3 - 8	Gently sloping to Undulating	250	4
O	8 - 18	Undulating to Rolling	530	9
P	18 - 30	Rolling to Moderately steep	451	7
Q	30 - 50	Steep Hills and Mountains	494	8
R	> 50	Very steep Hills and Mountains	2204	35
TOTAL			6201	100



MAP 6

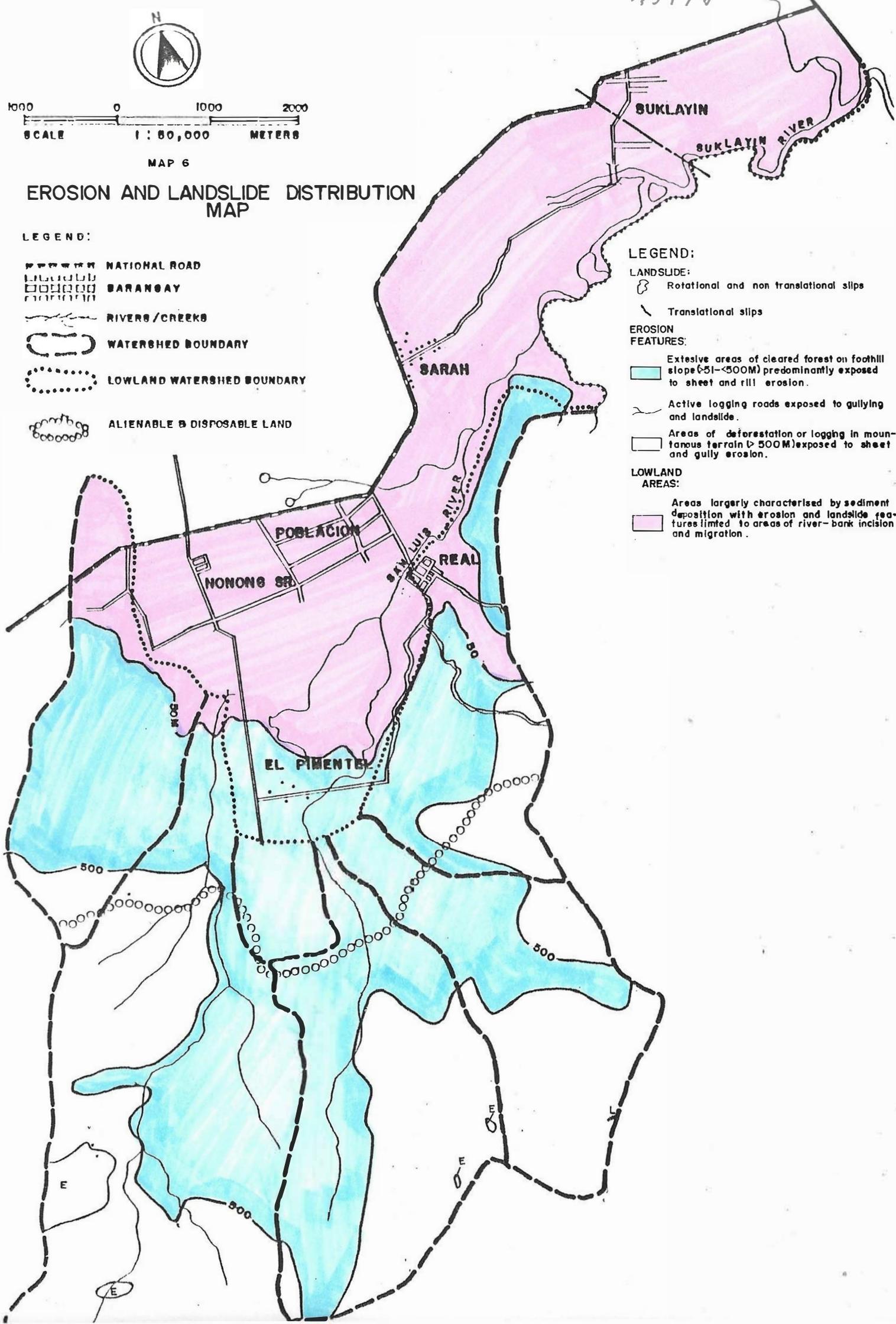
EROSION AND LANDSLIDE DISTRIBUTION MAP

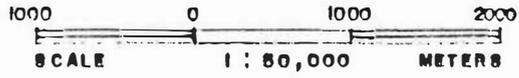
LEGEND:

- NATIONAL ROAD
- BARANGAY
- RIVERS/CREEKS
- WATERSHED BOUNDARY
- LOWLAND WATERSHED BOUNDARY
- ALIENABLE & DISPOSABLE LAND

LEGEND:

- LANDSLIDE:**
 - Rotational and non translational slips
 - Translational slips
- EROSION FEATURES:**
 - Extensive areas of cleared forest on foothill slope (5°-30°) predominantly exposed to sheet and rill erosion.
 - Active logging roads exposed to gullying and landslide.
 - Areas of deforestation or logging in mountainous terrain (> 500M) exposed to sheet and gully erosion.
- LOWLAND AREAS:**
 - Areas largely characterised by sediment deposition with erosion and landslide features limited to areas of river-bank incision and migration.



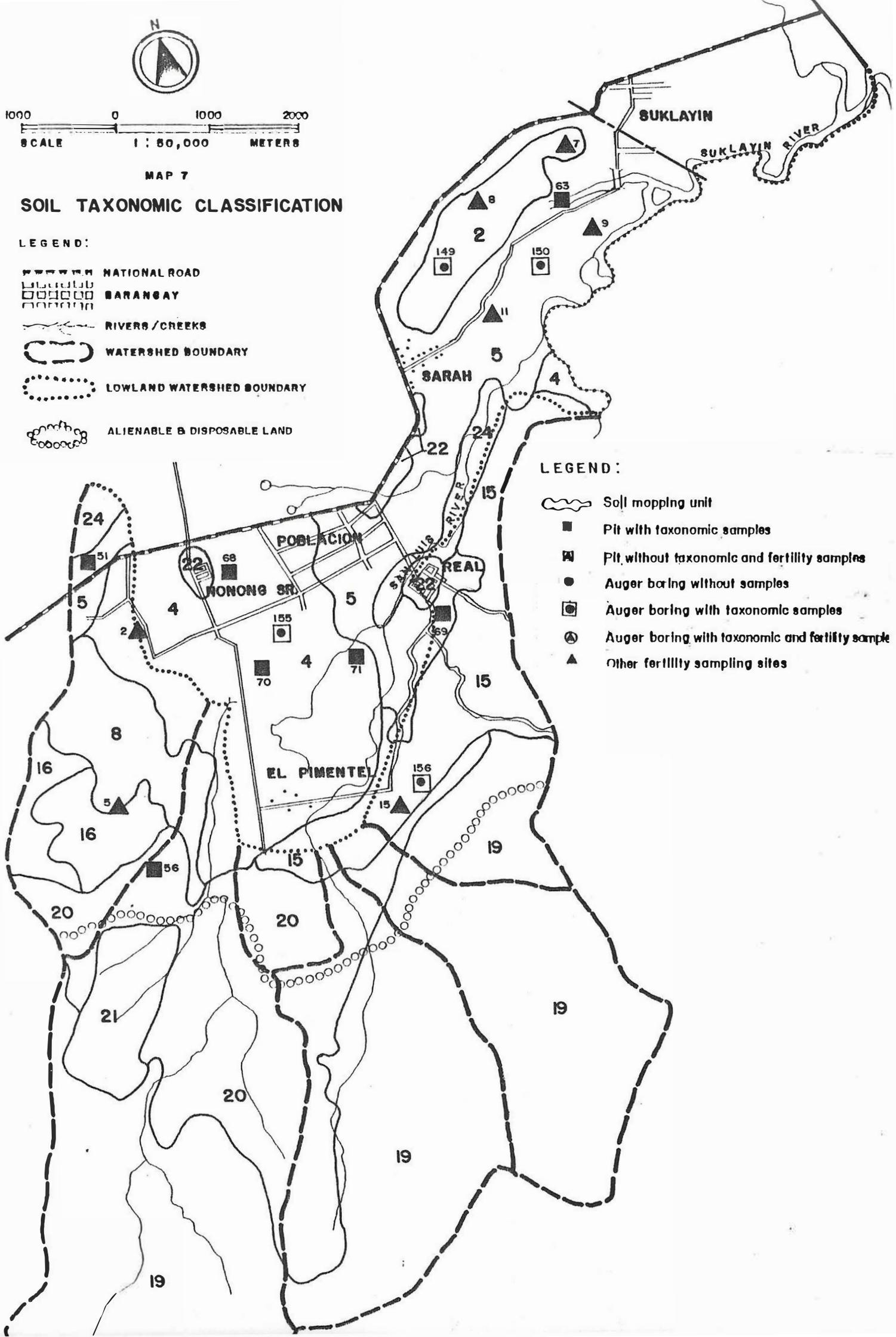


MAP 7

SOIL TAXONOMIC CLASSIFICATION

LEGEND:

- NATIONAL ROAD
- BARANGAY
- RIVERS / CREEKS
- WATERSHED BOUNDARY
- LOWLAND WATERSHED BOUNDARY
- ALIENABLE & DISPOSABLE LAND



LEGEND:

- Soil mapping unit
- Pit with taxonomic samples
- Pit without taxonomic and fertility samples
- Auger boring without samples
- Auger boring with taxonomic samples
- Auger boring with taxonomic and fertility sample
- Other fertility sampling sites

MAP 7/ATT.7. SOIL FAMILIES, ASSOCIATIONS, MAPPING UNITS, PHYSIOGRAPHIC POSITIONS AND THEIR CORRESPONDING AREAS AND PERCENTAGES

PHYSIOGRAPHIC UNIT	SOIL MAP CODE	LAND MANAGEMENT UNIT	SOIL TAXONOMIC SYMBOL	SOIL TAXONOMIC NAME/CLASSIFICATION	AREA (HAS)	%
1. Soils of the Lowland swamps/marshes	2	03	<u>Ejth</u> Af4	Fine clayey, Typic Hydrogents, 0.0 to 2.0 percent slopes, very severely flooded.	120	2
Blood-alluvial plains	4	095,146	<u>IgfE</u> Af1	Fine loamy, Fluventic Eutropepts 0.0 to 2.0 percent slopes, slightly flooded	805	13
plains	5	091C, 146	<u>EgeE</u> Af2	Fine loamy, Fluvaquentic Eutropepts, 0.2% slopes, moderately flooding	1100	18
Collu-alluvial fans	8	1BAY,	Infe Af0	Clayey over fragmental, Fluventic Eutropepts 0.0 to 2.0 percent slopes no flooding	200	3
II Soils of the Upland Undulating to rolling slightly to moderately dissected low volcanic, metamorphic and dioritic hills	15	80	<u>UK-IE</u> DE/C2	Kandiudults-Eutropepts, Associations, complex slopes, 8-25 percent (DE), moderately eroded	80	1
	16	80	<u>UK-IE</u> DE/e2	Kandiudults-Eutropepts, Associations, complex slopes, 8 to 25 percent (DE), moderately eroded	248	4
III Soils of the Hills and mountains	19	98,1310/RA, 1370/RA	<u>UK-AD-ID</u> EPG/e1	Kandiudults-Hapludalfs-Distropepts Associations, complex slopes, greater than 18 percent (EPG), slightly	2140	35
Rolling to very steep metamorphic, dioritic and volcanic hills mountains	20	98	UK-AD-ID	Kandiudults-Hapludalfs-Dystropepts Association, complex slopes, greater than 18 percent (EPG), slightly	908	15
	21	98,1370/RA,1310/RA	<u>UK-AD-ID</u> EPG/e3	Kandiudults-Hapludalfs-Dystropepts Association, complex slopes, greater than 18% (EPG), severely eroded	152	2
IV Miscellaneous Land types	22	146	Ba		64	1
	24	152	RW	Riverwash	384	6
TOTAL					6201	100

II. SOIL ASSOCIATION

e.g. $\frac{UK - AD - ID}{EFG/e_3}$ = "KANDIUDULTS-HAPLUDALFS-DYSTROPEPTS Association;
complex slopes, greater than 18.0% (EFG);
severely eroded."

UK = KANDIUDULTS

AD = HAPLUDALFS

ID = DYSTROPEPTS

IE = EUTROPEPTS

EFG = Complex slopes >18%

(Slope classes as in (5) above)

E₃ = Severely eroded

(Erosion classes as in (6) above)

TABLE M. 7b SUMMARIZED INFORMATION ON THE SOIL MAPPING UNITS OF SAN LUIS WATERSHED

SMU 2 Fine clayey, Typic Hydraquents, 0.0 to 2.0 percent slopes, very severely flooded.

The soils of this unit is similar to the typifying redon of Typic Hydraquents. It has a prior to very poor drainage condition.

SMU 4 "Fine loamy Fluventic Eutropepts; 0-2% slopes slightly flooded."

The Fluventic Eutropepts are moderately deep, well drained alluvial soils found mainly in the broad alluvial plain, but areas of the slightly undulating collu-alluvial fans, with slopes from 0-5% are similarly classified. They represent one of the most extensive soils utilized for agriculture, having favorable tillage properties permitting their use for a wide variety of crops under upland agriculture. The Fluventic Eutropepts have low to moderate inherent fertility; primary minerals are only slightly weathered in these soils.

SMU 5 "Fine loamy Fluvaquentic Eutropepts; 0-2% slopes, moderately flooded".

Fluvaquentic Eutropepts are soils developed from recent alluvium occurring on level to nearly level river terraces and broad alluvial plains. They are moderately deep to deep, well drained, medium textured soils. Water-Tables, however, are relatively shallow and fluctuate between 25cms. and 100 cms below the surface. This is reflected in a gleyed subsoil. Exchangeable basis are moderately high, usually exceeding 50% base-saturation.

SMU 8 "Clayey over fragmental, Fluventic Eutropepts; 0-2% slopes; no flooding."

Fluventic Eutropepts have already been described under soil mapping unit 7.

SMU 8 soils are heavier-textured in the control section and are derived from desposition of basic soil materials coming from surrounding higher land. These soils are moderately fertile with moderately high base contents.

SMU 15 Kandiudults-Eutropepts Association; complex slopes 8-25%. slightly eroded."

Kandiudults occur on the undulating to very steep volcanic, metamorphic, and dioritic hills and mountains, but also on undulating to rolling low hills of the uplands. They are moderately deep to very deep soils with well-drained profiles generally reddish in colour and of very fine clayey texture, developing an argillic horizon. They are extremely weathered soils with a low supply of bases. Soil field reaction varies from 5.0 to 5.4.

Eutropepts are moderately deep to deep, well drained soils classified not only in the hills and mountains, but also in the lowland plains and intermediate uplands within Aurora province. They are high base soils of moderate to high soil fertility derived from the weathering of basic rock materials dominantly basalt and diorite. Solum depth varies from 50-100 cms./ Textures are usually loam. They are moderately well-drained and are frequently used for kaingin cultivation.

SMU 16 "Kandiudults-Eutropepts Association; complex slopes, 8-25%, moderately eroded.

General description of the great groups Kandiudults and Eutropepts are given above for soil mapping unit 15. SMU 16 is a similar association, but exhibits more erosion. This association occurs on undulating to rolling, moderately dissected low hills of the uplands, and is developed from volcanic, metamorphic and dioritic materials. This mapping unit includes soil which are described as gently sloping, slightly to severely eroded, and found along footslopes, rivers, and creeks. Vegetation is usually secondary-growth forest, shrub, and cogon grass.

MSU 17 "Kandiudults-Hapludalfs-Dystropepts Association, complex slopes greater than 18%; slightly eroded."

Kandiudults are as described under SMU 15.

Hapludalfs are the main soil great group in the limestone hills and massive crystalline limestone mountains. They occupy rolling to very steep slopes (18-40%). Soils are moderately deep to deep when un-eroded, but become shallower when eroded. Profiles comprise well-drained light-clays to clays with brown, dark brown matrix colours, and appreciable amounts of translocated clay. Argillic horizons have exceptionally high base-status. Soils structure is moderate, fine angular block to sub-angular blocky. Weathered rock fragments occur in the sub-soil.

Hapludalfs are associated with Kandiodults and dystropepts in the rolling to very steep volcanic, metamorphic, and dioritic hills and mountains. (Kandiodults are characterized by low cation exchange capacity with at the same time presence of an argillic horizon; Dystropepts are differentiated from the other base-saturation-less than 35%)

Dystropepts are soils that occur in hilly to mountainous country with relief varying from rolling to very steep (over 18%). They are derived from metamorphic, dioritic, and volcanic materials and usually occur on complex slopes at elevations more than 200 m above mean sea-level. They are moderately deep to deep, well drained soils. Base saturation is low to moderate and pH between 5.0 and 5.5. Textures are moderately heavy-sandy clay loam to clay. Colours are usually yellowish red to light red, and may rock fragments occur in the sub-stratum.

SMU 20 "Kandiodults-Hapludalfs-Dystropepts Association, complex slopes, greater than 18%; moderately eroded.

This mapping unit is, as described for SMU 19.

SMU 21 "Kandiodults-Hapludalfs-Dystropepts Association; complex slopes greater than 18%; severely eroded."

(Kandiodults-use the description as under SMU 15. Hapludalfs, Dystropepts--use the general description as given under SMU 19.)

The characteristics of SMU 21 differ slightly from those described above by having slightly thinner surface horizons due to severe erosion. This association occurs in dissected, rolling to very steep, metamorphic, dioritic and volcanic parent-materials on complex slopes. Included re lithic sub-groups of the soils in the association. The mapping unit also includes soils with very thin surface underlain by tuffaceous bedrock on the steeper slopes.

SMU 22 "Built-up areas"

SMU 24 "Riverwash."

This miscellaneous landtype is essentially barren, alluvial land commonly gravely, sandy, or stony, formed along streams and rivers, and subject to river floods during rainy seasons resulting in the formation of small islands within or adjacent to

these streams. This landtype has little or no vegetative cover. Soils of SMU 24 are mainly used for filling materials or for construction purposes.

S.S.D. TECHNICAL FORM NO. _____

TABLE NO. M7C MORPHOLOGICAL CHARACTERISTICS OF THE SOILS.

Typifying Pedon No: Pt 56

Taxonomic Classification(Family Level) Ured. isohyperthermic Entropepts

Soil Mapping Unit Symbol: UK-AD-1D/EFGe2

Location: Sitio: _____
Municipality: San Isidro

Barrio: La Bamental
Province: Antioquia

Coordinates: Latitude: 15° 41' 25"
Longitude: 121° 20' 10"

Topo Sheet No: 3567-III

Parent Material: Residuum (volcanic)

Landform: OP Severely dissected high volcanic hills with complex and sharp ridges, rolling to very steep slopes

SOIL MAPPING UNIT SYMBOL	HORIZON	DEPTH (cm.)	MATRIX COLOR				TEXTURE	MOTTLING				STRUCTURES			CONSISTENCY			OTHER DIAGNOSTIC FEATURE Clay skins, Cutans Concretions, Krotovina	PORES			ROCK & MINERAL				ROOTS	HORIZON BOUNDARY		SOIL REACTION (pH)		
			Name	hue	Value	Chroma		Abundance	Size	Contrast	Sharpness	Color	Grade	Size	Form	Wet	Moist		Dry	Abundance	Size	Shape	Abundance	Size	Shape		Nature	Wet		Topography	
UK-AD-1D EFGe2	A	0-12	5YR	7.5YR	5	8	C	f	f	d	c	10YR 5/8	w	fm	a	s	fi	-	-	-	-	-	-	-	-	-	-	mf fc	c	B	5.5
	B _A	12-58	5YR	7.5YR	5	6	CL	-	-	-	-	-	w	m	a	s	fi	-	-	-	c	fm	-	ws mf	fvf	c	S	5.7			
	B _w	58-110	YR	5YR	5	8	C	-	-	-	-	-	m	fm	a	s	fi	-	-	-	m	fm	t	c	fm	-	ws mf	fvf vfvf	d	w	5.6
	B _C	110-150	YR	5YR	5	8	CL	-	-	-	-	-	s	-	a	s	fi	-	-	-	-	-	-	fm	fm	a	ws mf	-	-	-	5.6

S.S.D. TECHNICAL FORM NO. _____

TABLE NO. M.76 MORPHOLOGICAL CHARACTERISTICS OF THE SOILS.

Typifying Pedon No: Pt 70

Taxonomic Classification (Family Level): Coarse loamy, mixed, isohyperthermic Oxic Dystrochrepts

Soil Mapping Unit Symbol: TgfE/Af1

Location: Sitio: _____

Barrio: Nonong "Sr.

Municipality: San Luis

Province: Antaya

Coordinates: Latitude: 15° 42' 40"

Topo Sheet No: 3267-II

Longitude: 121° 28' 50"

Parent Material: Alluvium

Landform: Old flood alluvial plain none to slight

SOIL MAPPING UNIT SYMBOL	HORIZON	DEPTH (cm.)	MATRIX COLOR				TEXTURE	MOTTLING				STRUCTURES			CONSISTENCY			OTHER DIAGNOSTIC FEATURE		PORES			ROCK & MINERAL				ROOTS		SOIL REACTION (pH)
			Name	Hue	Value	Chroma		Abundance	Size	Contrast	Sharpness	Color	Grade	Size	Form	Wet	Moist	Dry	Cloyskins, Cutans Concretions, Krotovinas	Abundance	Size	Shape	Abundance	Size	Shape	Nature	Width	Topography	
<u>TgfE</u> <u>Af1</u>	A	0-19	10YR 3	4	SCL	-	-	-	-	-	w	f	a	ss	fi	-	-	-	-	-	-	-	-	-	mf	c	w	5.1	
	Bw	19-49	10YR 5	6	SICL	-	-	-	-	-	w	f	a	ss	fi	-	-	-	-	-	-	-	-	-	cf	d	w	5.5	
	BC	49-78	10YR 5	4	PSL	-	-	-	-	-	w	f	g	so	fr	-	-	-	-	-	-	-	-	-	cf	d	w	5.5	
	C	78-99	10YR 5	6	SL	-	-	-	-	-	w	f	g	so	fr	-	-	-	-	f	f	-	g	mmc	-	-	5.7		
		Below 99 cm - Mixture of sand and gravels.																											

TABLE NO. M.7H MORPHOLOGICAL CHARACTERISTICS OF THE SOILS.

Typifying Pedon No: 12 149

Taxonomic Classification (Family Level) Fine clayey, fixed, isohumic, acidic Eptic Udorthents

Soil Mapping Unit Symbol: Ej4/Af4

Location: Sitio _____

Barrio: Becong

Municipality: San Telesforo

Province: Surigao

Coordinates: Latitude: 15° 44' 21" N

Topo Sheet No: 3365-III

Longitude: 121° 21' 30" E

Parent Material: alluvium

Landform: of Swamps and marshes

SOIL MAPPING UNIT SYMBOL	HORIZON	DEPTH (cm.)	MATRIX COLOR				TEXTURE	MOTTLING				STRUCTURES			CONSISTENCY			OTHER DIAGNOSTIC FEATURE	PORES			ROCK & MINERAL				ROOTS	HORIZON BOUNDARY		SOIL REACTION (pH)		
			Name	Hue	Value	Chroma		Abundance	Size	Contrast	Sharpness	Color	Grade	Size	Form	Wet	Moist		Dry	Abundance	Size	Shape	Abundance	Size	Shape		Nature	Width		Topography	
<u>Ej4/Af4</u>	Ge1	0-10	5Y	2.5	4	4	I	-	-	-	-	-	-	-	ss	sp	-	Presence of fer decomposed and undecomposed plant residues	-	-	-	-	-	-	-	-	-	-	-	-	4.5
	Ge2	10-40	5Y	3	2	0	0	-	-	-	-	-	-	-	s	fi	-	Presence of partly and highly decomposed plant residues	-	-	-	-	-	-	-	-	-	-	-	4.4	
		40-120	5Y	6	1	fine	0	-	-	-	-	-	-	-	-	-	-	Few patchy decomposed plant residues	-	-	-	-	-	-	-	-	-	-	-	4.7	

Ej4/Af4 Soil mapping unit symbol

S.S.D. TECHNICAL FORM NO. _____

TABLE NO. M.7J MORPHOLOGICAL CHARACTERISTICS OF THE SOILS.

Typifying Pedon No: 1P 150

Taxonomic Classification (Family Level) Ribe clayey, ferralitic, isohyperthermic Eptic Ferroaqueous

Soil Mapping Unit Symbol: TGEE 144

Location: Sitio: _____ Barrio: Zorob

Municipality: San Luis Province: Aurora

Coordinates: Latitude: 15° 44' 29" Topo Sheet No: 3367-III

Longitude: 121° 32' 00"

Parent Material: Alluvium Landform: QRT Broad alluvial plain, subject to moderately flooded

SOIL MAPPING UNIT SYMBOL	HORIZON	DEPTH (cm.)	MATRIX COLOR				TEXTURE	MOTTLING					STRUCTURES			CONSISTENCY			OTHER DIAGNOSTIC FEATURE	PORES			ROCK & MINERAL				ROOTS		HORIZON BOUNDARY		SOIL REACTION (pH)
			Name	Mue	Value	Chroma		Abundance	Size	Contras	Sharpness	Color	Grade	Size	Form	Wet	Moist	Dry	Clay skins, Cutans, Concretions, Krotovinas	Abundance	Size	Shape	Abundance	Size	Shape	Feature	Width	Tolerance			
<u>TGEE 144</u>	<u>A</u>	<u>0-30</u>	<u>10YR 10/2</u>	<u>5</u>	<u>1</u>	<u>Sic</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>c</u>	<u>10YR 5/2</u>	-	-	-	<u>S</u>	<u>14</u>	-	-	-	-	-	-	-	-	-	-	<u>ctn</u>	-	-	<u>5.0</u>	
	<u>B₁</u>	<u>30-60</u>	<u>10YR 5/1</u>	<u>3</u>	<u>1</u>	<u>Sic</u>	-	-	-	-	-	-	-	-	<u>S</u>	<u>14</u>	-	-	-	-	-	-	-	-	-	<u>ctn</u>	-	-	<u>5.1</u>		
	<u>B₂</u>	<u>60-90</u>	<u>10YR 5/1</u>	<u>4</u>	<u>1</u>	<u>Sic</u>	-	-	-	-	-	-	-	-	<u>S</u>	<u>12</u>	-	-	-	-	-	-	-	-	-	-	-	-	<u>4.9</u>		
<u>NOTE:</u>		<u>Color 90 cm depth cannot draw samples due to over soil saturation</u>																													

27 Soil mapping unit symbol

SS.D. TECHNICAL FORM NO. _____

TABLE NO. M.7K MORPHOLOGICAL CHARACTERISTICS OF THE SOILS.

Typifying Pedon No: AP 156

Taxonomic Classification (Family Level) Very fine, mixed, isohyperthermic Typic Epludalfs

Soil Mapping Unit Symbol: UK-1E/DEe1

Location: Sitio: Igeva

Barrio: Real

Municipality: San Isidro

Province: Antioque

Coordinates: Latitude: 15° 41' 52"

Topo Sheet No: 3367-III

Longitude: 121° 31' 10"

Parent Material: Residium (basalts)

Landform: 80 Slightly to moderately dissected low volcanic hills with complex smooth and sharp ridges undulating to rolling slopes

SOIL MAPPING UNIT SYMBOL	HORIZON	DEPTH (cm.)	MATRIX COLOR				TEXTURE	MOTTLING					STRUCTURES			CONSISTENCY			OTHER DIAGNOSTIC FEATURE		PORES			ROCK & MINERAL				ROOTS	HORIZON BOUNDARY		SOIL REACTION (pH)			
			Name	Mue	Value	Chroma		Abundance	Size	Contrast	Sharpness	Color	Grade	Size	Form	Wet	Moist	Dry	Clay skins, Cutans, Concretions, Krotovinas	Abundance	Size	Shape	Abundance	Size	Shape	Nature	Width		Topography					
UK-1E DEe1	A	0-25	DYER	10YR	4	4	C	f	f	d	c	2.5YR 6/6	-	-	-	E	fi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.2
	B1	25-60	SBY	7.5YR	5	8	C	f	f	f	d	7.5YR 6/4	-	-	-	S	fi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4	
	B2	60-100	HR	5YR	5	8	C	f	f	d	c	2.5YR 5/6	-	-	-	E	fi	-	-	-	-	-	-	C	-	sb	G	-	-	-	-	5.4		
	B3	100-120	HR	7.5YR	5	6	C	f	f	f	e	5YR 5/6	-	-	-	S	fi	-	-	-	-	-	-	-	C	-	sb	G	-	-	-	-	5.6	
	C	120-150	Bottled				C																											5.2

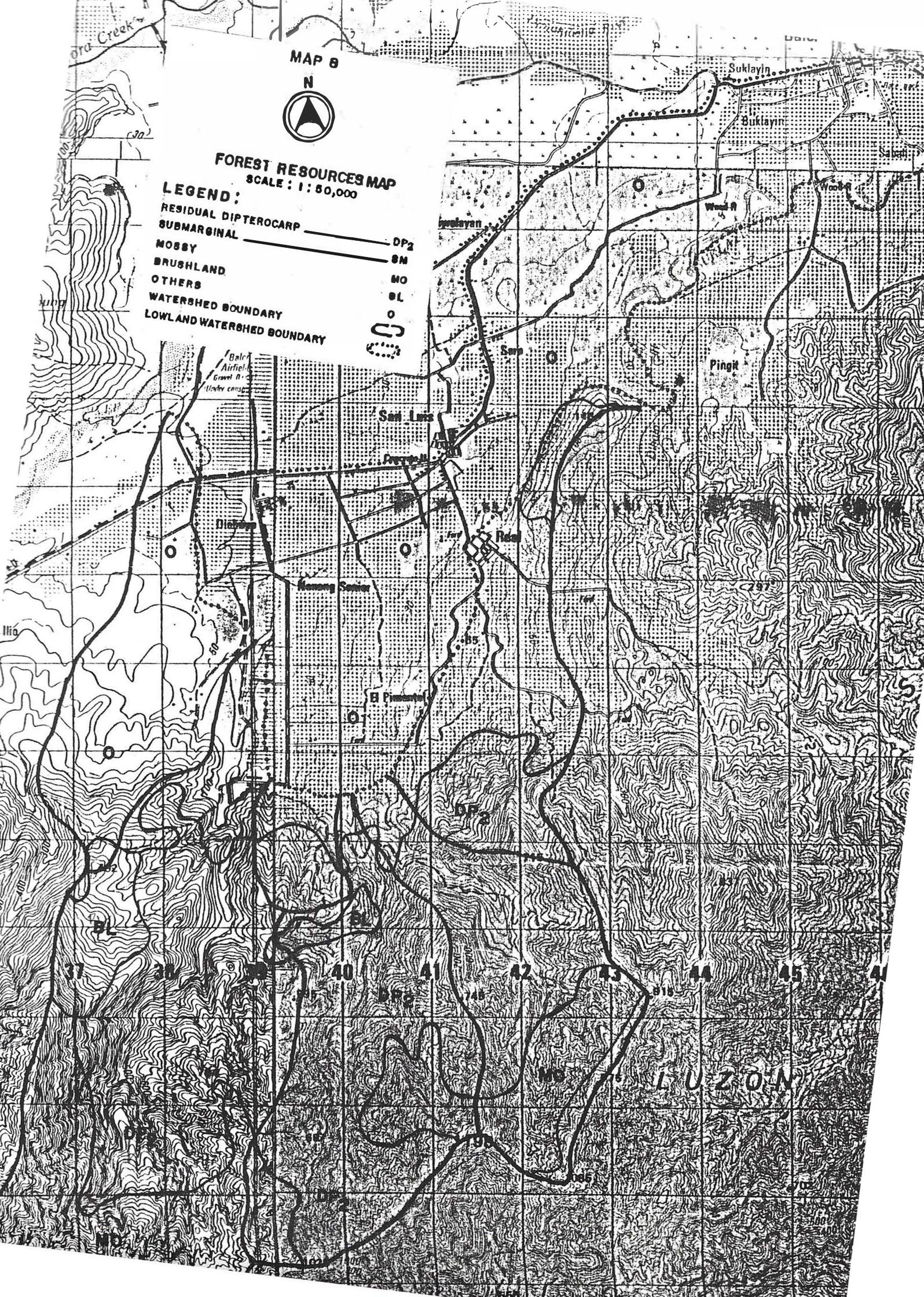
Final mapping unit symbol

MAP 8



FOREST RESOURCES MAP
SCALE: 1:50,000

- LEGEND:**
- RESIDUAL DIPTEROCARP ——— DP2
 - SUBMARGINAL ——— SM
 - MOSSY ——— MO
 - BRUSHLAND ——— BL
 - OTHERS ——— O
 - WATERSHED BOUNDARY ——— (solid line)
 - LOWLAND WATERSHED BOUNDARY ——— (dotted line)



LUZON

MAP 8/ATT.8.1 FOREST RESOURCES

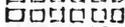
SYMBOL	DESCRIPTION	AREA (HAS)	%
Dp2	Residual Dipterocarp	2099	34
BL	Brushland	141	2
MO	Mussy	743	12
O	Others	3218	52
TOTAL		6201	100

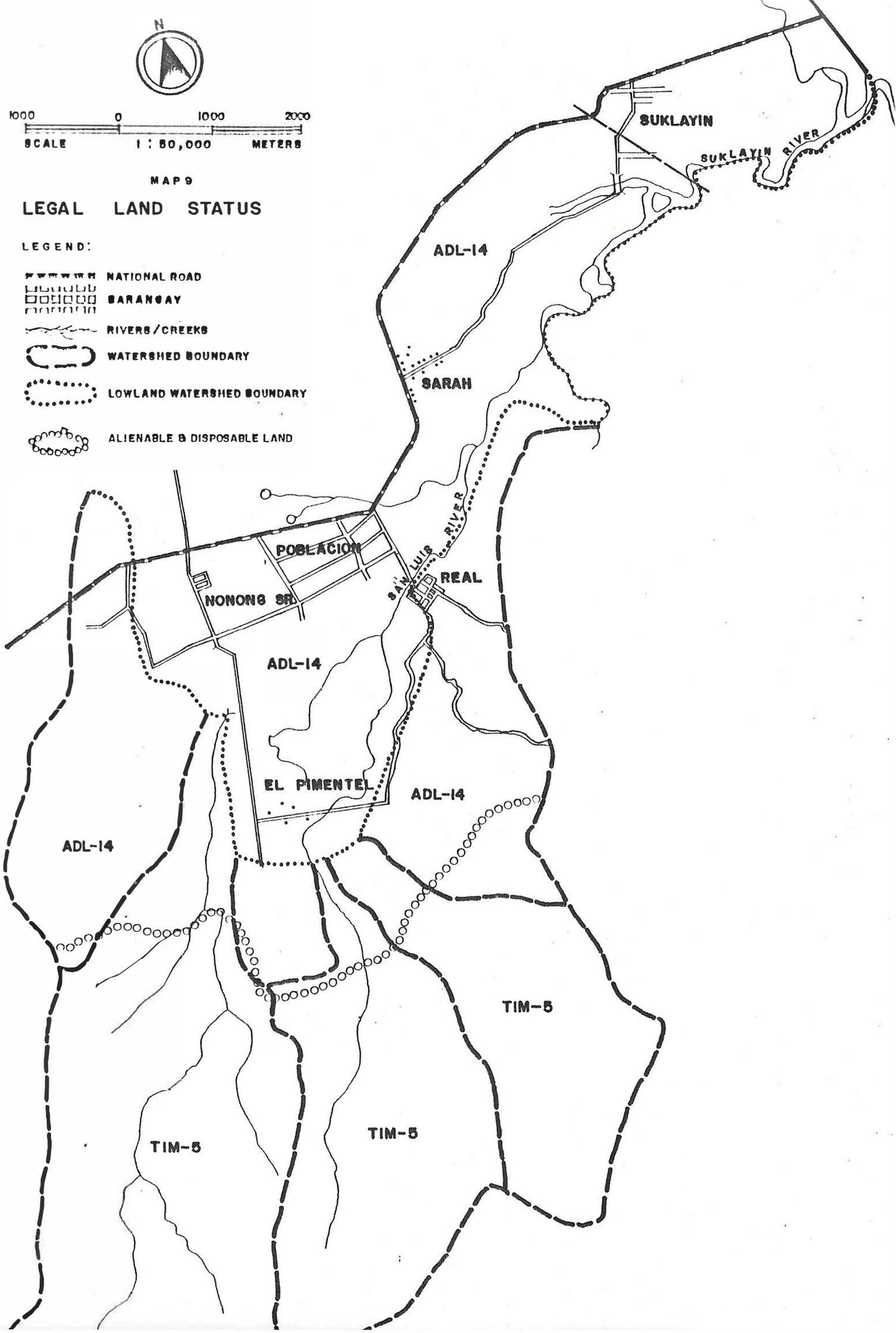


MAP 9

LEGAL LAND STATUS

LEGEND:

-  NATIONAL ROAD
-  BARANGAY
-  RIVERS / CREEKS
-  WATERSHED BOUNDARY
-  LOWLAND WATERSHED BOUNDARY
-  ALIENABLE & DISPOSABLE LAND



MAP 9/ATT.9 LEGAL LAND STATUS DESCRIPTIONS

SYMBOL	DESCRIPTION	AREA (HAS)	%
TIM	Timberland Without Timber License Agreement	2664	43
ADL	Alienable and dispo- sable land	3537	57
TOTAL		6201	100