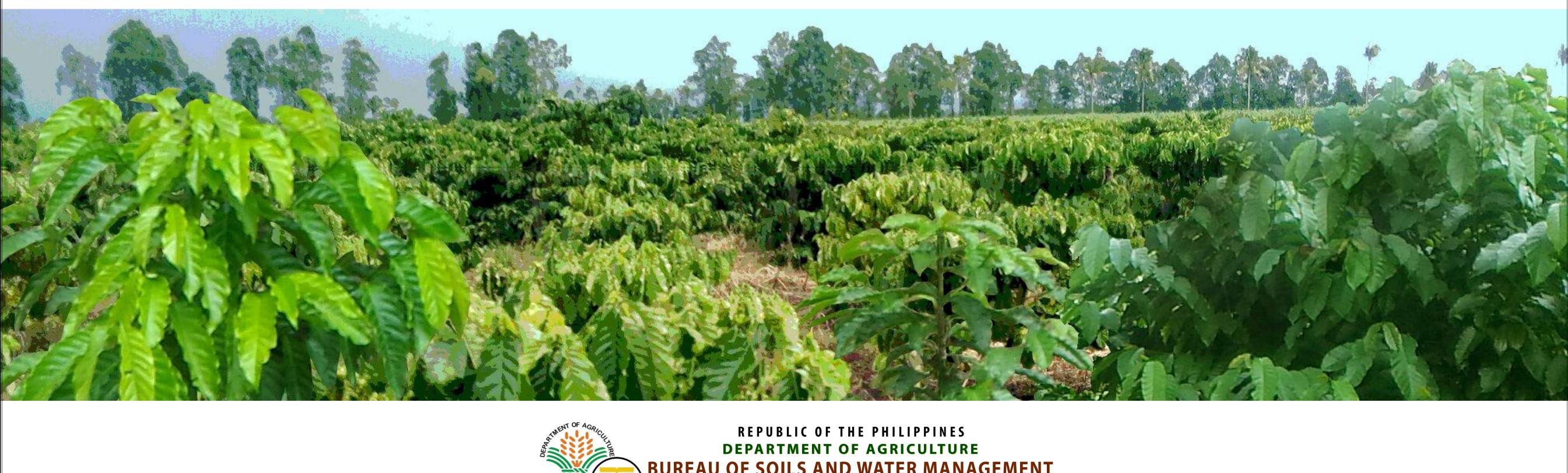
# **ROBUSTA, LIBERICA AND EXCELSA COFFEE**

## LAND RESOURCES EVALUATION AND SUITABILITY **ASSESSMENT OF STRATEGIC PRODUCTION AREAS**



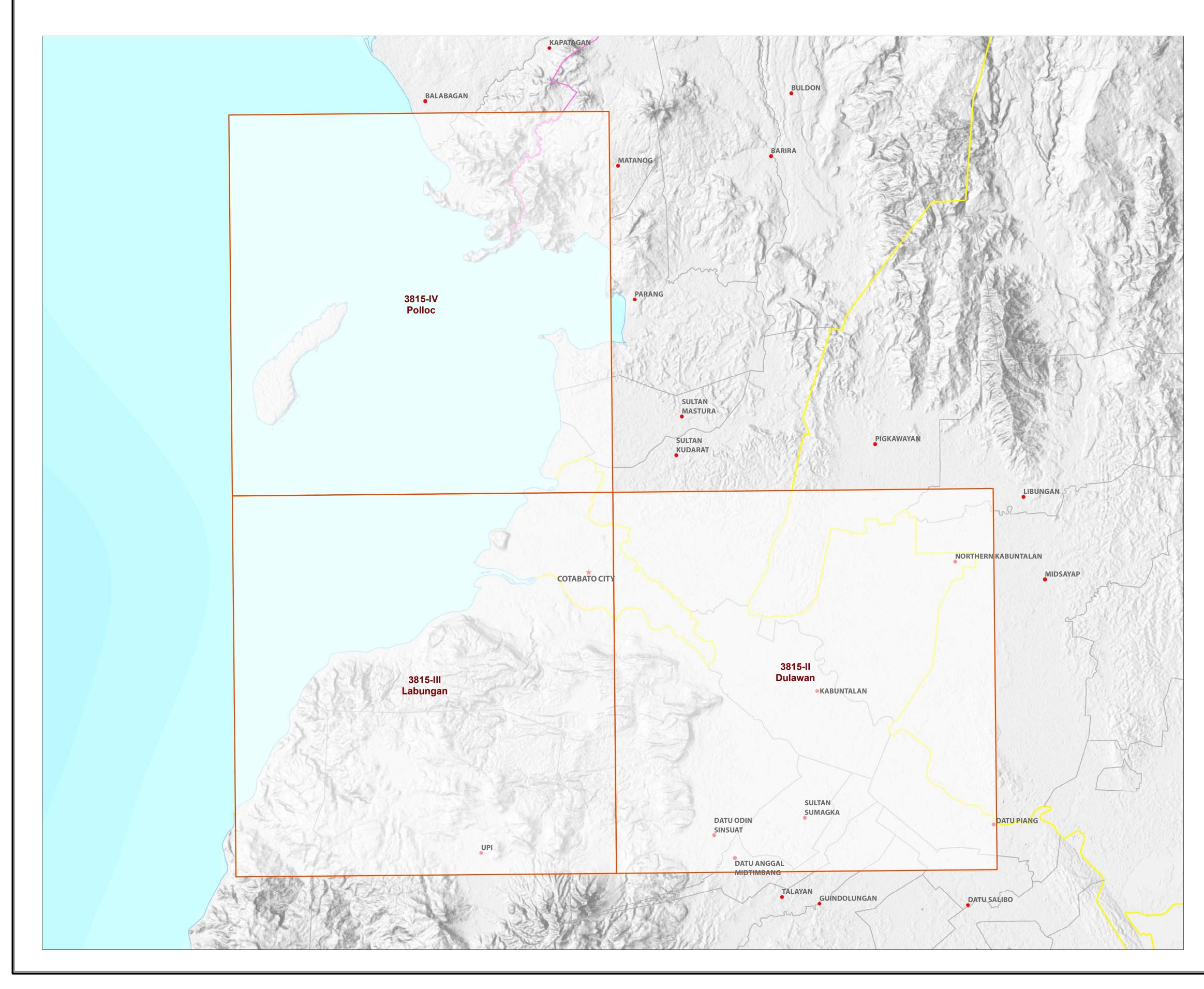
# LAND SUITABILITY MAP

## **COTABATO CITY**



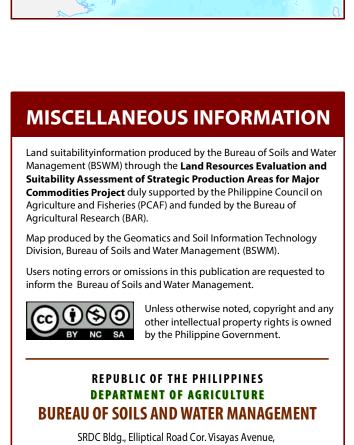
**BUREAU OF SOILS AND WATER MANAGEMENT** SRDC Bldg., Elliptical Road Cor. Visayas Avenue, Diliman, Quezon City 1101 Tel/Fax No.: (+632) 332-9534 E-mail: bswmclientcenter@yahoo.com

### LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS COTABATO CITY



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LEGEN	D
Places	
* •	Capital City City Capital Town Town
Adminis	strative Boundary
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	Index grid
Topogra	aphic Relief
Bathym	etry
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Diliman, Quezon City 1101 Philippines Tel/Fax No. : (+632) 332-9534 E-mail : bswmclientcenter@yahoo.com

## LAND SUITABILITY MAP FOR **ROBUSTA, LIBERICA AND EXCELSA COFFEE**

## LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS **COTABATO CITY, REGION XII**

### EXTENT OF SUITABILITY FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE PRODUCTION BY MUNICIPALITY

MUNICIPALITY	EXISTI			TOTAL EXISTING AREA (Ha)	Coconut			AREA (H and, aged*		sland, naged*	CONFLIC		T RESOLUTION ARE Paddy rice, non-irrigated		EA (Ha) Other crops		TOTAL POTENTIAL EXPANSION AREA (Ha)
	<b>S1</b>	S2	<b>S</b> 3		<b>S1</b>	S2	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S</b> 2	<b>S1</b>	<b>S2</b>	<b>S1</b>	S2	AREA (IIA)
COTABATO CITY	-	-	-	-	-	-	4	-	-	-	-	-	-	-		-	4
TOTAL	-	-	-	-	-	-	4	-	-	_	-	-	-	-	-	-	4
Note: Delivery of robusta coffee p	lantina m	aterials m	ust he star	ted on the onset of	rainv seas	on.					*		,	*			

Note: Delivery of robusta coffee planting materials must be started on the onset of runny seaso \*establishment of shade trees prior to planting of coffee robusta.

### ACDONOMIC DEGLIDEMENT OF DOBLISTA TIREDICA AND EXCELSA COFFEE DOODLICTION

LAND UTILIZATION TYPE	SUITABILITY RATING	SLOPE (%)	SOIL DEPTH (cm)	SOIL TEXTURE	SOIL DRAINAGE	SOIL REACTION (pH)	INHERENT FERTILITY	FLOODING CLASS	EROSION CLASS	ROCK OUTCROPS	ELEVATION (masl)	ANNUAL RAINFALI (mm)	
Coffee	S1	<8	>100	CL, SiCL, SCL, SC, SiC, C, HC	WD,MWD	5.6 -7.2	high	none-slight	none-slight	none-few	<1000	2001-450	0 I, III, IV
(Robusta, Excelsa,	S2	8 - 30	30 - 100	FSL, L, SiL	SPD,PD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	1000-2000	1000-200	0 I, II
Liberica)	S3	>30	<30	S, LS, CSL, SL	VPD,ED	<5.0 -> 7.9	low	severe	severe	many	>2000	<1000 >4500	
SLOPE (%)			SOIL DRAIN	AGE		SOIL REACTION	ON (pH)		SOIL TEXT	URE			
0-3 - leve	el to gently sloping	g	ED -	excessively drained		< 4.5 - ex	tremely acid		Coarse			Fine	
3 - 8 - gen	ntly sloping to und	ulating	WD -	well drained		4.5 - 5.0 - ve	ery strongly acid		S	- sand		SC	- sandy clay
8 - 18 - und	dulating to rolling		MWD -	moderately well drai	ned	5.1 - 5.5 - st	rongly acid		LS	- loamy sand		SiC	- silty clay
18 - 30 - roll	ling to moderately	r steep	SPD -	somewhat poorly dra	ained	5.6 - 6.0 - m	edium acid		CSL	- coarse sandy loam		С	- clay
30 - 50 - stee	ер		PD -	poorly drained			ightly acid		SL	- sandy loam		HC	- heavy clay
>50 - ver	ry steep		VPD -	very poorly drained			eutral		Medium				
						7.3 - 7.8 - m	ildly alkaline		FSL	- fine sandy loam			
SOIL DEPTH (c	cm)		SURFACE IN	<b>IPEDIMENT</b>		7.9 - 8.4 - m	oderately alkaline		L	- loam			
0-30 - ver	y shallow		ROCK OUTCH	ROPS		> 8.5 - st	rongly alkaline		SiL	- silt loam			
30 - 50 - sha	allow		< 10% -	none - few					CL	- clay loam			
			10 - 30% -	common					SiCL	- silty clay loam			
50 - 100 - mo	derately deep		10-3070 -	common									
	derately deep ep to very deep			many					SCL	- sandy clay loam			
> 100 - dee	ep to very deep	S DESCRI	> 30% -		ATIONS				SCL				
> 100 - dee	ep to very deep	S DESCRI	> 30% -	many	ATIONS		SOIL DEPTH		SCL				
> 100 - dee	ep to very deep	S DESCRI	> 30% - PTION AN soil drai	many				moderately deep		- sandy clay loam SOIL EROSION	te erosion		
> 100 - dee <b>LAND LIN</b> ELEVATION El2 - 1000m -	ep to very deep MITATION 2000m	S DESCRI	> 30% - PTION AN SOIL DRAID D2 - Son	many ID COMBINA NAGE	d to poorly draine	d	Sh2 - Shallow to	moderately deep ow (< 30cm)		- sandy clay loam SOIL EROSION	te erosion		
> 100 - dee <b>LAND LIN</b> <b>ELEVATION</b> El2 - 1000m - El3 - > 2000m <b>SLOPE/TOPOG</b>	ep to very deep MITATION 2000m n RAPHY		> 30% - PTION AN SOIL DRAIL D2 - Son D3 - Ver SOIL TEXT	many ID COMBINA NAGE newhat poorly draine y poorly drained or e URE	d to poorly draine	d	Sh2 - Shallow to Sh3 - Very shallo ROCK OUTCROPS	ow (< 30cm)		- sandy clay loam <b>SOIL EROSION</b> E2 - Modera E3 - Severe of <b>FLOODING</b>	te erosion erosion	ling	
> 100 - dee <b>LAND LIN</b> <b>ELEVATION</b> El2 - 1000m - El3 - > 2000m <b>SLOPE/TOPOG</b> F2 - Undulati	ep to very deep MITATION 2000m		> 30% - PTION AN SOIL DRAIL D2 - Son D3 - Ver SOIL TEXT	many JD COMBINA NAGE newhat poorly drained y poorly drained or e	d to poorly draine	d I	Sh2 - Shallow to Sh3 - Very shallo	ow (< 30cm)		- sandy clay loam <b>SOIL EROSION</b> E2 - Modera E3 - Severe of <b>FLOODING</b> F2 - Modera	te erosion	0	
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### **SUITABILITY CLASSES:**



Highly Suitable (S1) Land having no significant limitation to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.

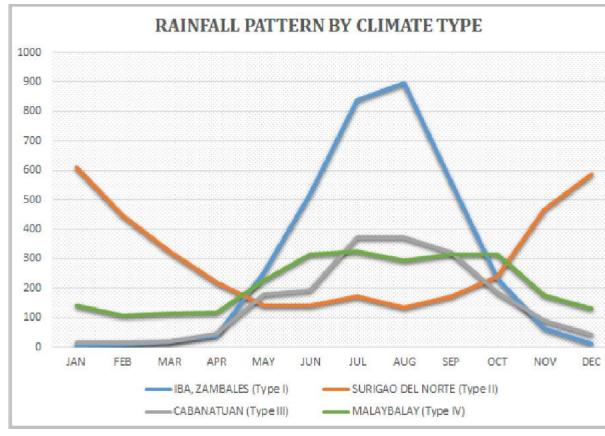
### Moderately Suitable (S2)

Land having limitation which in aggregate are moderately severe for sustained application of a given use; the limitation will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.

**CLIMATE TYPE** 

- **TYPE I** : Two pronouced season, dry from November to April and **TYPE II** : No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September
- **TYPE III**: No very pronounced maximum rain period, with a dry season lasting only from one to three months, either during the period from December to February or from March to May. This type resembles Type I since it has a short dry season.

Western part of Cotabato City is classified as climatic Type IV and Eastern part is Type III.



Source: PAGASA 2018, *Climatological Normals (Rainfall)*, Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), accessed 27 July 2018, <a href="https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals">https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals</a>>.

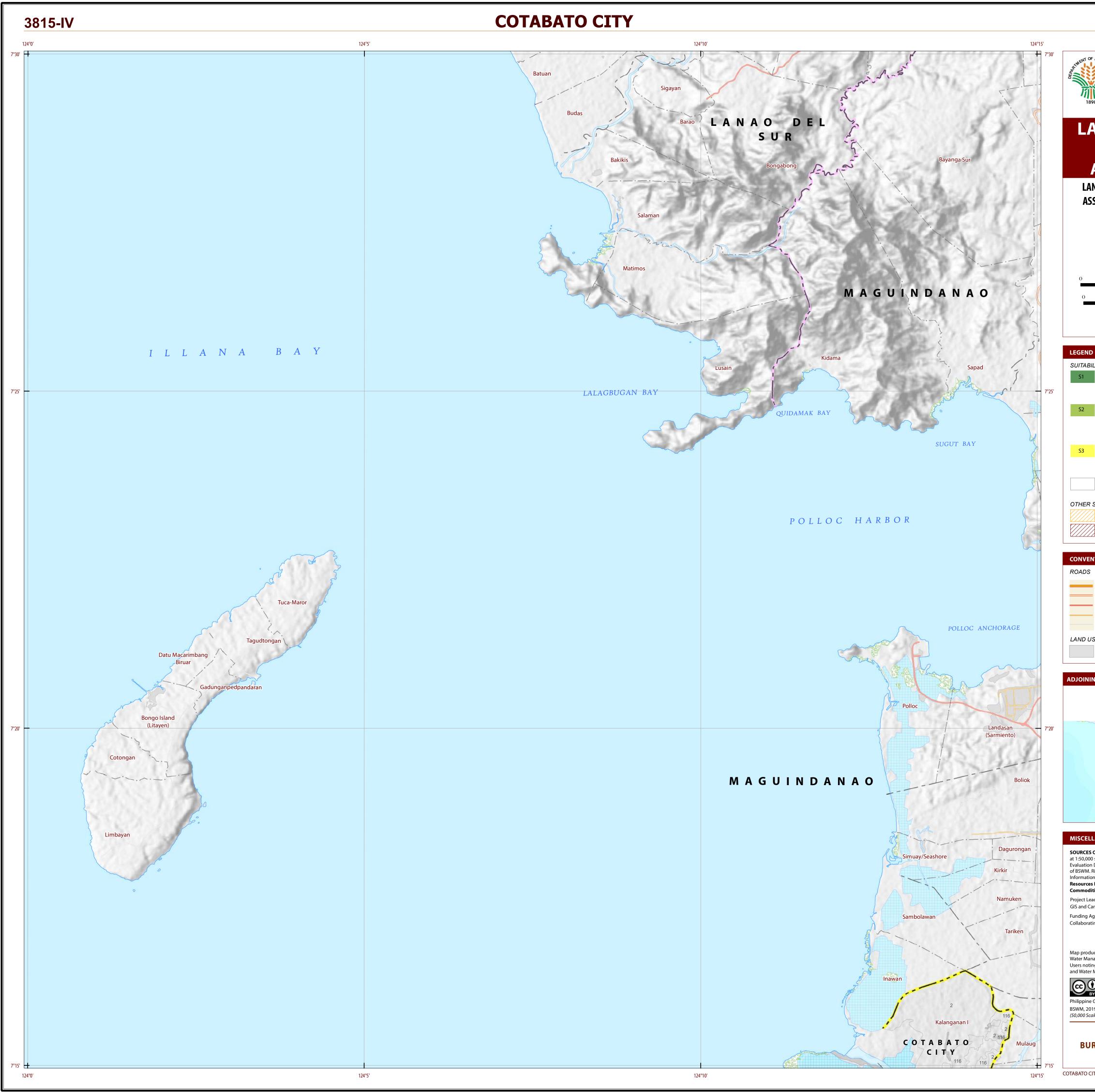


Marginally Suitable (S3) Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

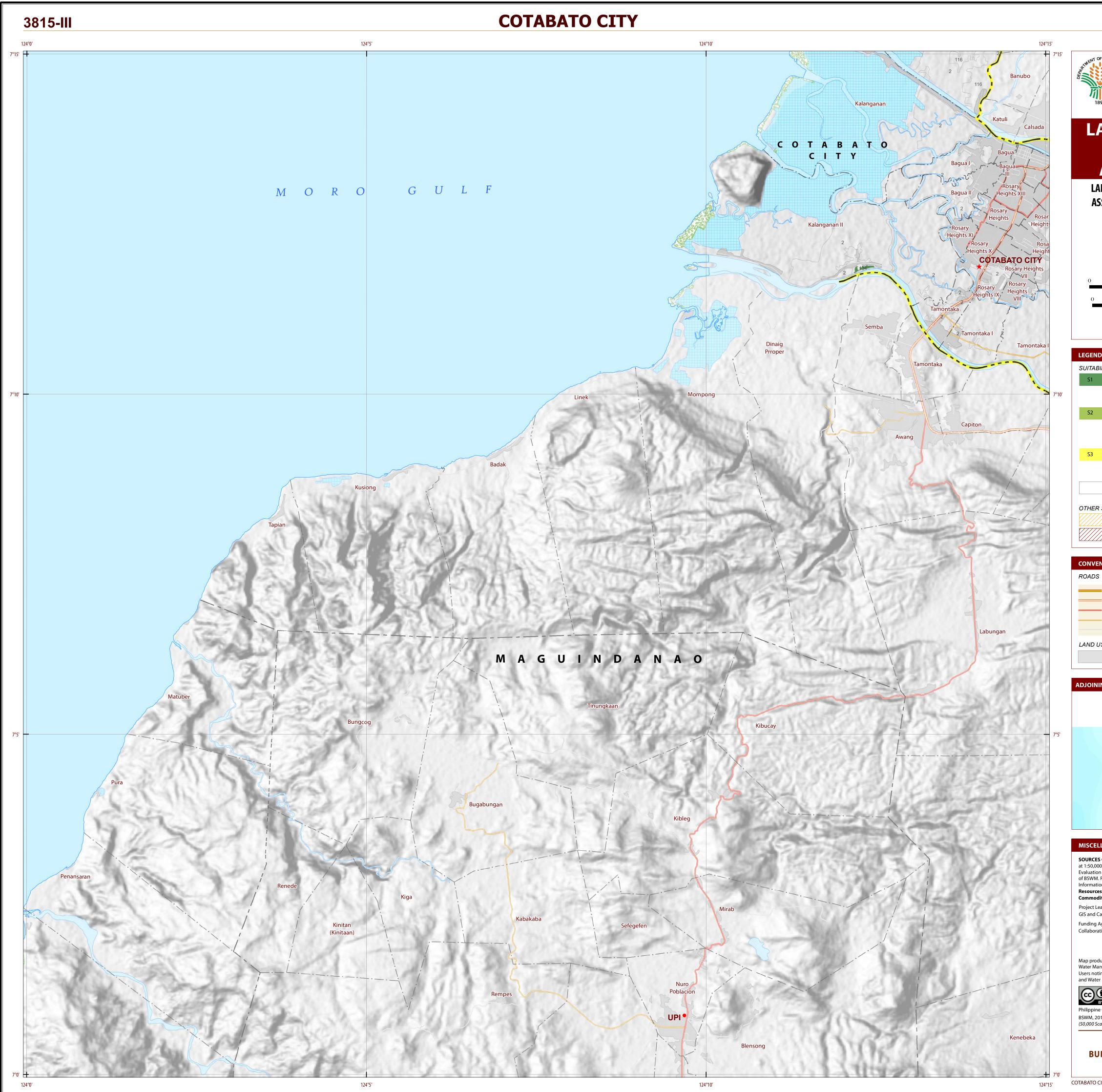
Not Suitable / Not Relevant Land having limitations which may be surmountable in time but which cannot be corrected with existing knowledge at currently acceptable cost; the limitations are so severe as to preclude successful sustained use of the land in the given manner. Existing forest, shrubland greater than 18% slope, irrigated paddy rice and miscellaneous land types such as built up areas, roads, etc are considered as not relevant.

- period from December to February. There is not a single dry month. Maximum monthly rainfall occurs during the period from March to May.
- **TYPE IV** : Rainfall is more or less evenly distributed throughout the year. This type resembles Type II since it has no dry season.

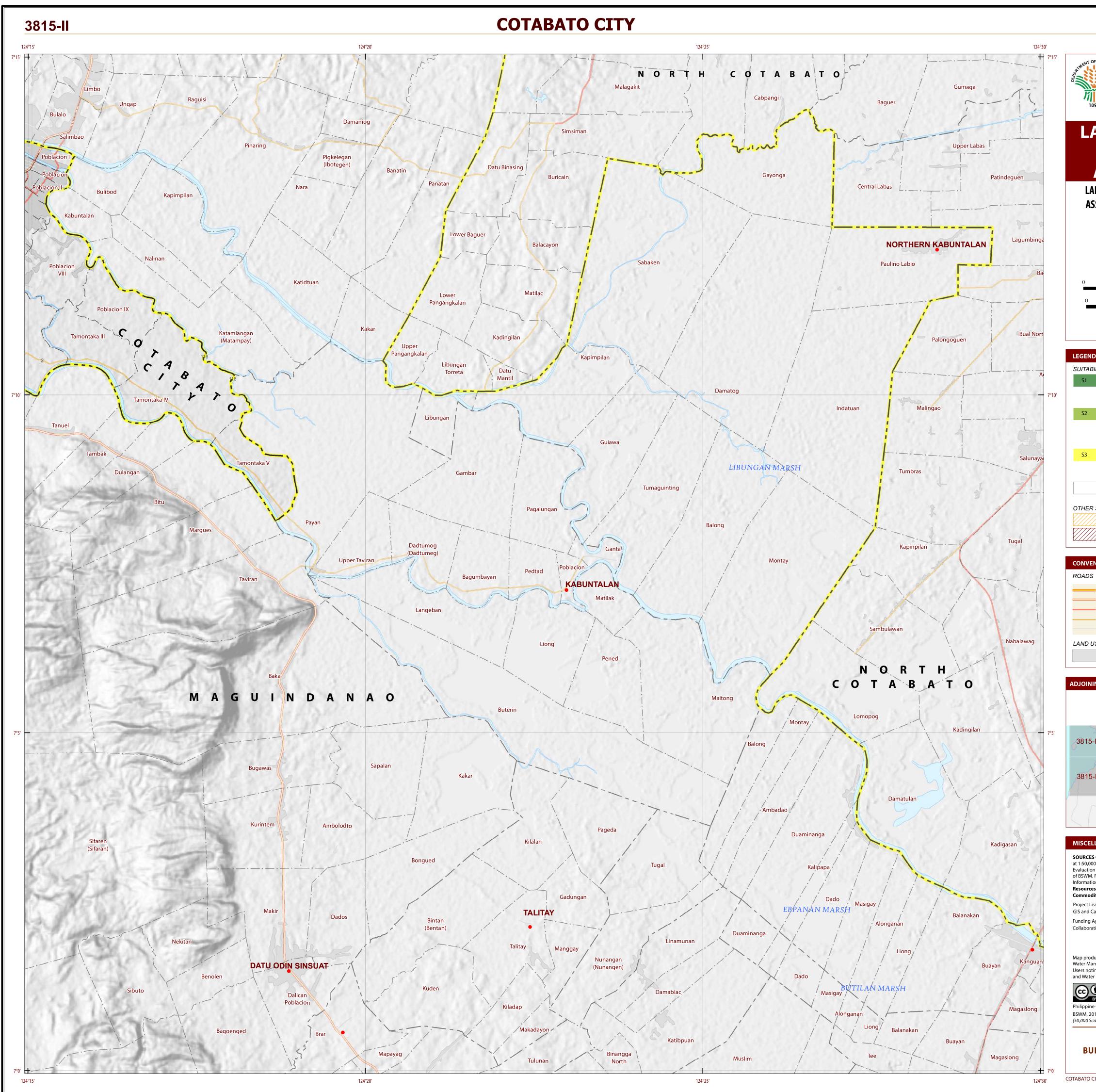




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Highly Suitable - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significant limitations that will not significant limitations above an acceptable level.   Moderately Suitable - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations which in aggregate are diversed for sustained application of a given use; the limitations the verail advantage to be gained from the use; although still the overail advantage to be gained from the use; although still with the severe for sustained application of a given use; the limitations the verait advantage to be gained from the use; although still with the overail advantage to be gained from the use; although still with the severe for sustained application of a given use; and will so predictive productive will be appreciably inferior to that expected on class S1 land.   SIGNS No Sustable / Not Relevant   SIGNS No Pareas   Cacao DUNDARY HYDROLOGY   Primary Private Private Province   Primary Province Praces   Secondary Province Praces   Primary District FLACES   Bull vup Battor Fshpord   States Nuncipality   Gistes Nuncipality   Gistes Nuncipality   Gistes Nuncipality   Bull vup Battor   States Nuncipality   Gistes Nuncipality   States Nuncipality   Gistes Nuncipality   Gistes Nuncipality   States Nuncipality   States Nuncipality<	)	
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NGP Areas       Land limitation         Cacao       MIDI Land use         NTIONAL SIGNS       HYDROLOGY         Expressway       Region         Trunk line       Province         Primary       District         Secondary       Municipality         Tettary       Expressway         Builtup       Fishpond         Secondary       Fishpond         Secondary       Fishpond         Secondary       Mangrove    Not SHEETS          Not SHEETS       INDEX MAP         Secondary       Fishpond         Secondary       Secondary         Jasto-IV       Secondary         Secondary       Secondary         Secondary       Secondary         Jasto-IV       Secondary         Jasto-IV       Secondary         Secondary       Secondary         Jasto-IV       Secondary         Secondary       Secondary	attractive, will be appreciably inferior to that exp <b>Marginally Suitable</b> - Land having limitations w severe for sustained application of a given use a tivity or benefits, or increase required inputs, that only marginally justified.	pected on class S1 land. which in aggregate are nd will so reduce produc-
BOUNDARY       HYDROLOGY         Expressivery       Province       Sea / Shoreline         Primary       District       PLACES         Secondary       Winicipality       Capital City / City         Built-up       Fishpond       Expressivery         Built-up       Fishpond       Expressivery         Magnetic       Fishpond       Expressivery         Built-up       Fishpond       Expressivery         Magnetic       State       Fishpond         State       State       Fishpond       Fishpond         State       State	NGP Areas	
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