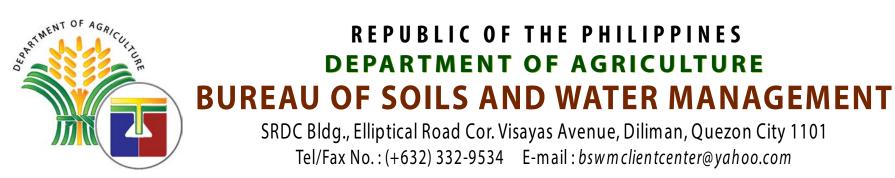
LAND SUITABILITY MAP

ARABICA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF QUEZON

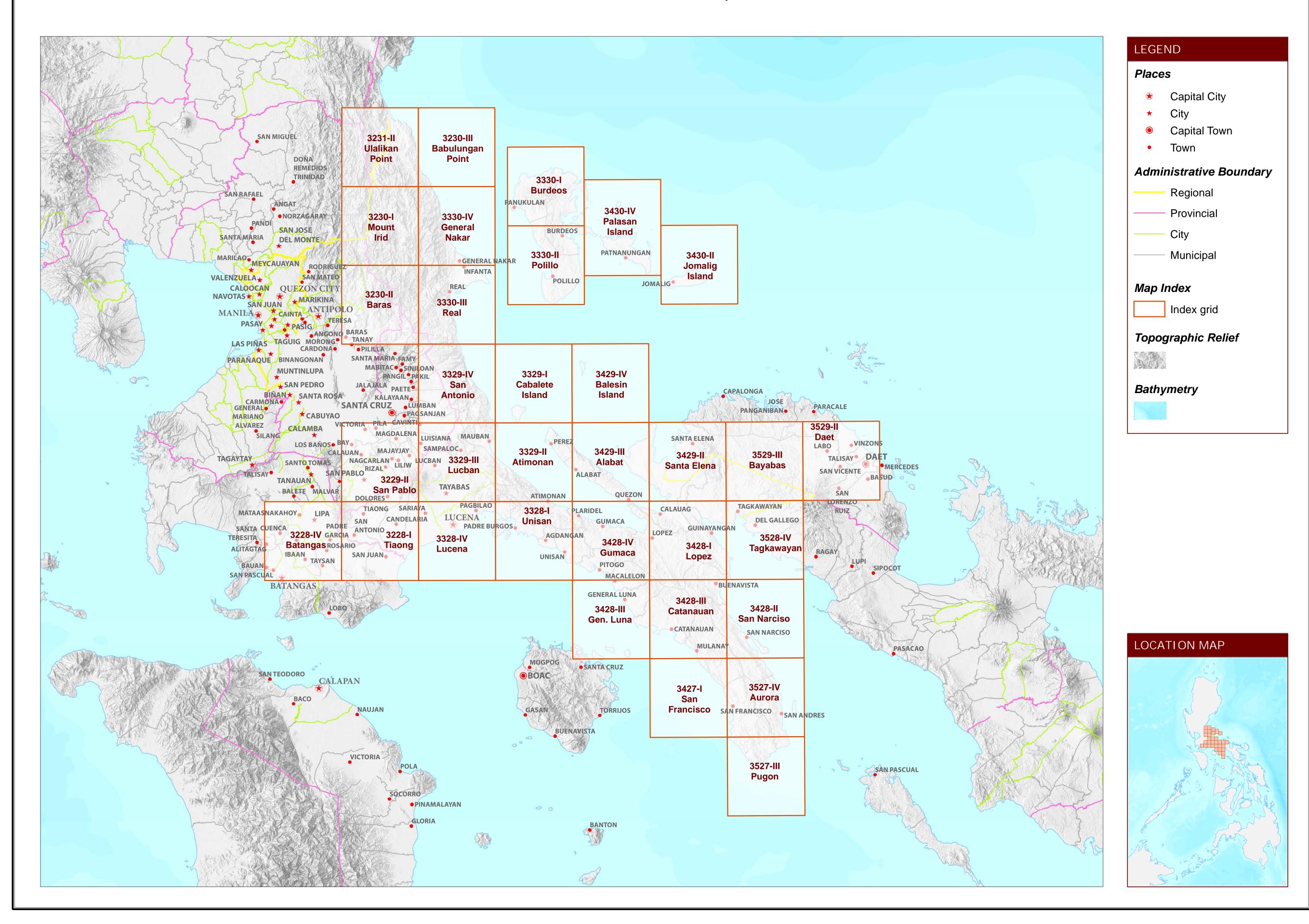




MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF QUEZON



LAND SUITABILITY MAP FOR ARABICA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

QUEZON, REGION IV-A

EXTENT OF SUITABILITY FOR ARABICA COFFEE PRODUCTION BY MUNICIPALITY

						EX	EXPANSION AREA (Ha) CONFLICT RESOLUTION (Ha		(Ha)		TOTAL						
MUNICIPALITY	EXISTI	NG COFFE	Е (На)	TOTAL EXISTING AREA (Ha)	Coco	onut	Shrul unmai	oland, naged*	Grass unman		Coi	rn	Rice paddy, non-irrigated Other crops		POTENTIAL EXPANSION AREA (Ha)		
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (IIa)
AGDANGAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALABAT	1	-	-	-		1	-	-	-	-	-	-	-	-	-	-	-
ATIMONAN	-	26	25	52	-	-	-	-	-	-	-	-	-	-	-	-	-
BUENAVISTA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BURDEOS	1	90	-	90		1	-	-	-	-	-	-	-	-	-	-	-
CALAUAG	-	23	-	23		-	-	-	-	-	-	-	-	-	-	-	-
CANDELARIA	-	35	16	50		16	-	81	-	-	-	32	-	-	-	-	129
CATANAUAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CITY OF TAYABAS	-	-	-	-	-	346	-	102	-	-	-	217	-	-	-	-	665
DOLORES	-	-	-	-	-	-	-	212	-	2	-	13	-	-	-	-	228
GENERAL LUNA	-	- 1	-	-	-	-	_	-		-	-	-	-	-	-	_	-
GENERAL NAKAR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GUINAYANGAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GUMACA	-	32	18	50	-	-	-	-	-	-	-	-	-	-	-	-	-
INFANTA	-	- 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JOMALIG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LOPEZ	-	114	120	234	-	-	-	-	-	-	-	-	-	-	-	-	-
LUCBAN	-	-	-	-	-	703	-	158	-	-	-	180	-	-	-	-	1,041
LUCENA CITY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MACALELON	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAUBAN	-	36	64	100	-	-	-	705	-	-	-	-	-	-	-	-	705
MULANAY	-	239	22	261	-	-	-	-	-	-	-	-	-	-	-	-	-
PADRE BURGOS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
PAGBILAO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
PANUKULAN	-	9	14	23	-	-	-	-	-	-	-	-	-	-	-	-	_
PATNANUNGAN	_	-	-	-	-	-	_	_	-	-	_	-	-	-	-	-	_
PEREZ	_	101	4	104	_	_	_	_	-	-	_	-	-	_	_	_	_
PITOGO	_	-	-	-	-	-	_	_	-	-	-	-	-	-	-		_
PLARIDEL	_	_	_	_	_	_	_	_	-	-	_	-	-	_	-	_	_
POLILLO	_	47	12	59		_		_	_	_	_	_	_	_	_		
QUEZON	_	-	-	-	_	_	_	_	_	_	_	_	_	_	_		
REAL	_	43	69	112	_	_	_	_	_	_	_	_	_	_	_		
SAMPALOC	-	-	-	-	_	_	_	318	_	_	_	_	_	_	_		318
SAN ANDRES	_	_	_	_		_	_	-	_	_	_	_	_	_	_		- 510
SAN ANTONIO	-	_	_		_	_		_	_	_	_	_	_	_	_	_	
SAN FRANCISCO	_	_	_			_		_	_	_	_	_	_	_	_		<u>-</u>
SAN NARCISO		- -				_		_			_						
SARIAYA		4	76	80		141		43		-	-	411					
TAGKAWAYAN		203	41	243	-	141	-	43	-		-	411	-	-		-	
TIAONG	-	203	41		-	-	-	4	-	-	-	-	-	-	-	-	- 4
UNISAN		53	16	69	-	-	-	4	-	-	-		-	-	-		4
	т -				-	1 206	-	1 (22	-	-	-	-	-	-	-	-	- 0.60=
TOTA	.L -	1,054	497	1,552	-	1,206	-	1,623	-	2	-	854	-	-	-	-	3,685

Note: Delivery of coffee planting materials must be started on the onset of rainy season.

*establishment of shade trees prior to planting of coffee.

AGRONOMIC REQUIREMENT OF ARABICA COFFEE PRODUCTION

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 RAINFALL (mm)	CLIMATIC TYPE
	S1	<8	>100	CL, SiCL, SCL, SC, SiC, C, HC	WD,MWD	5.6 -7.2	high	none-slight	none-slight	none-few	1000-2000	2001-4500	I, III, IV
Coffee (Arabica)	S2	8 - 30	30 - 100	FSL, L, SiL	SPD,PD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	500-1000 2000-2500	1000-2000	I, II
	S3	>30	<30	S, LS, CSL, SL	VPD,ED	<5.0 - > 7.9	low	severe	severe	many	<500 >2500	<1000 >4500	
SLOPE (%)	,		SOIL DRAINA	GE	•	SOIL REACTION	N (nH)		SOIL TEXTUR	RE			

	S3	>30	<30	S, LS, CSL, SL	VPD,ED	<5.0 - >	7.9 low	severe	severe	e many	>2500	>45	
SLOPE (%	%)		SOIL DRA	INAGE		SOIL REA	ACTION (pH)		SOIL TE	XTURE			
0 - 3	- level to gently sloping	J	ED	- excessively drained		< 4.5	- extremely acid		Coarse			Fine	
3 - 8	- gently sloping to undu	ılating	WD	- well drained		4.5 - 5.0	 very strongly acid 		S	- sand		SC	- sandy clay
8 - 18	- undulating to rolling		MWD	- moderately well draine	ed	5.1 - 5.5	- strongly acid		LS	- loamy sand		SiC	- silty clay
18 - 30	- rolling to moderately	steep	SPD	- somewhat poorly drain	ned	5.6 - 6.0	- medium acid		CSL	- coarse sandy loam		С	- clay
30 - 50	- steep		PD	- poorly drained		6.1 - 6.5	- slightly acid		SL	- sandy loam		HC	- heavy clay
> 50	- very steep		VPD	- very poorly drained		6.6 - 7.2	- neutral		Mediun	1			
						7.3 - 7.8	- mildly alkaline		FSL	- fine sandy loam			
SOIL DE	PTH (cm)		SURFACE	IMPEDIMENT		7.9 - 8.4	- moderately alkaline		L	- loam			
0 - 30	- very shallow		ROCK OUT	CROPS		> 8.5	- strongly alkaline		SiL	- silt loam			
30 - 50	- shallow		< 10%	- none - few					CL	- clay loam			
50 - 100	- moderately deep		10 - 30%	- common					SiCL	- silty clay loam			
> 100	- deep to very deep		> 30%	- many					SCL	- sandy clay loam			

LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

ELEV	/ATION
El2	- 500 - 1000m or 2000 - 2500m

El3 -<500 m or > 2500 m

SLOPE/TOPOGRAPHY T2 - Undulating to moderately steep T3 - Steep to very steep

D3 - Very poorly drained or excessively drained

SOIL DRAINAGE

Tc - Coarse texture

SOIL TEXTURE

D2 - Somewhat poorly drained to poorly drained

Sh2 - Shallow to moderately deep (30 - 100cm) Sh3 - Very shallow (< 30cm)

ROCK OUTCROPS

Rc2 - Common Rc3 - Many

SOIL EROSION

E2 - Moderate erosion E3 - Severe erosion

FLOODING F2 - Moderate seasonal flooding F3 - Severe seasonal flooding

SUITABILITY CLASSES:

acceptable level.

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

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.

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.

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.

CLIMATE TYPE

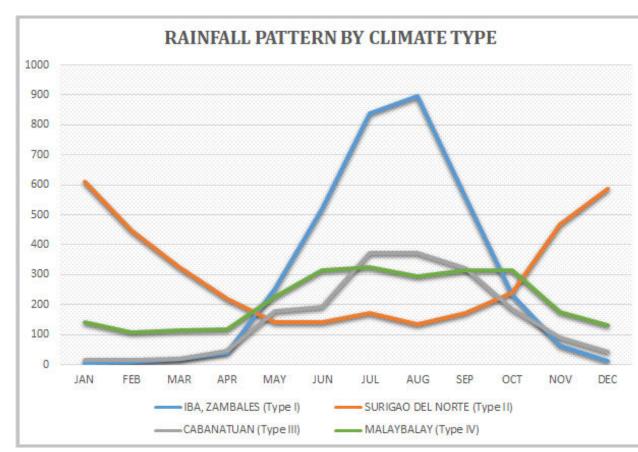
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

period from December to February. There is not a single dry month. Maximum monthly rainfall occurs during the period from March to May.

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.

TYPE IV: Rainfall is more or less evenly distributed throughout the year. This type resembles Type II since it has no dry

Western part of Quezon Province is classified as climatic Type II.



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

CODE	LAND LIMITATION	CODE	LAND LIMITATION	CODE	LAND LIMITATION	CODE	LAND LIMITATION
1	El2	11	Sh2-Rc3	21	T2-El2-F3-D2	31	T3-El2-E3-Sh3-Rc3
2	El2-E2-Sh2-Rc2	12	T2-E3-Sh2-Rc2	22	T3	32	T3-El2-F2-D2
3	El2-F2-D2	13	T2-E3-Sh2-Rc3	23	T3-E3-Sh3-Rc2	33	T3-El2-F3-D2
4	El2-F3-D2	14	T2-El2	24	T3-E3-Sh3-Rc3		
5	El2-Rc2	15	T2-El2-E3	25	T3-El2		
6	El2-Sh2	16	T2-El2-E3-Rc2	26	T3-El2-E3		
7	El2-Sh2-Rc2	17	T2-El2-E3-Rc3	27	T3-El2-E3-Rc2		
8	El2-Sh2-Rc3	18	T2-El2-E3-Sh2-Rc2	28	T3-El2-E3-Rc3		
9	El2-Tc	19	T2-El2-E3-Sh2-Rc3	29	T3-El2-E3-Sh2-Rc3		
10	Sh2-Rc2	20	T2-El2-F2-D2	30	T3-El2-E3-Sh3-Rc2		

CODE	LAND USE
2	Rice paddy, non-irrigated
4	Corn
34	Coffee
81	Cacao
82	Coconut
112	Grassland
116	Coconut
126	Grassland
134	Shrubland, unmanaged

