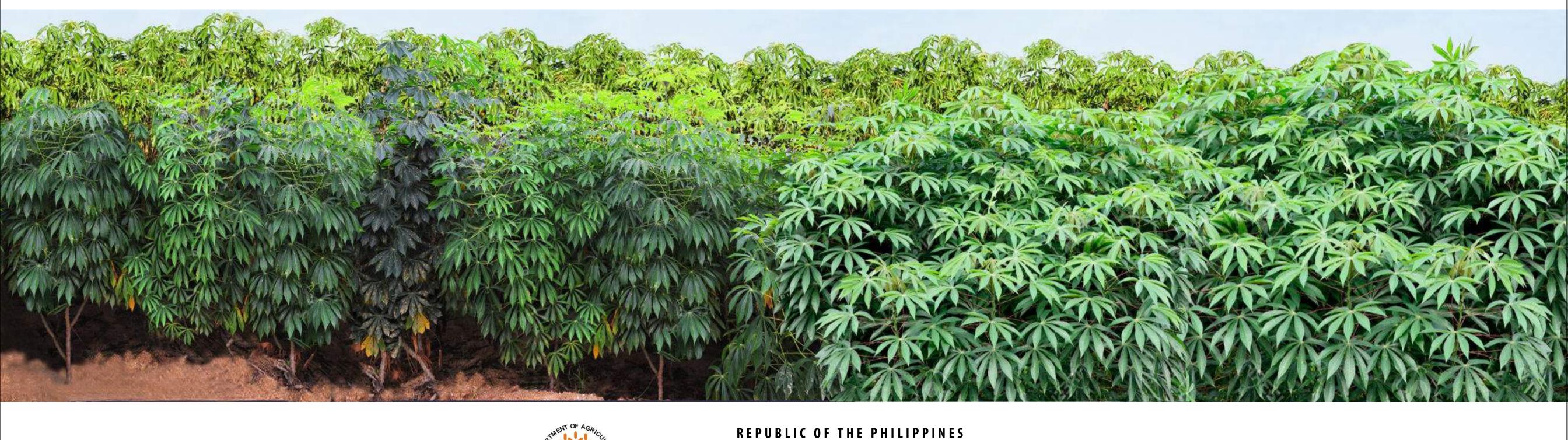


# LAND RESOURCES EVALUATION AND SUITABILITY **ASSESSMENT OF STRATEGIC PRODUCTION AREAS**





# LAND SUITABILITY MAP

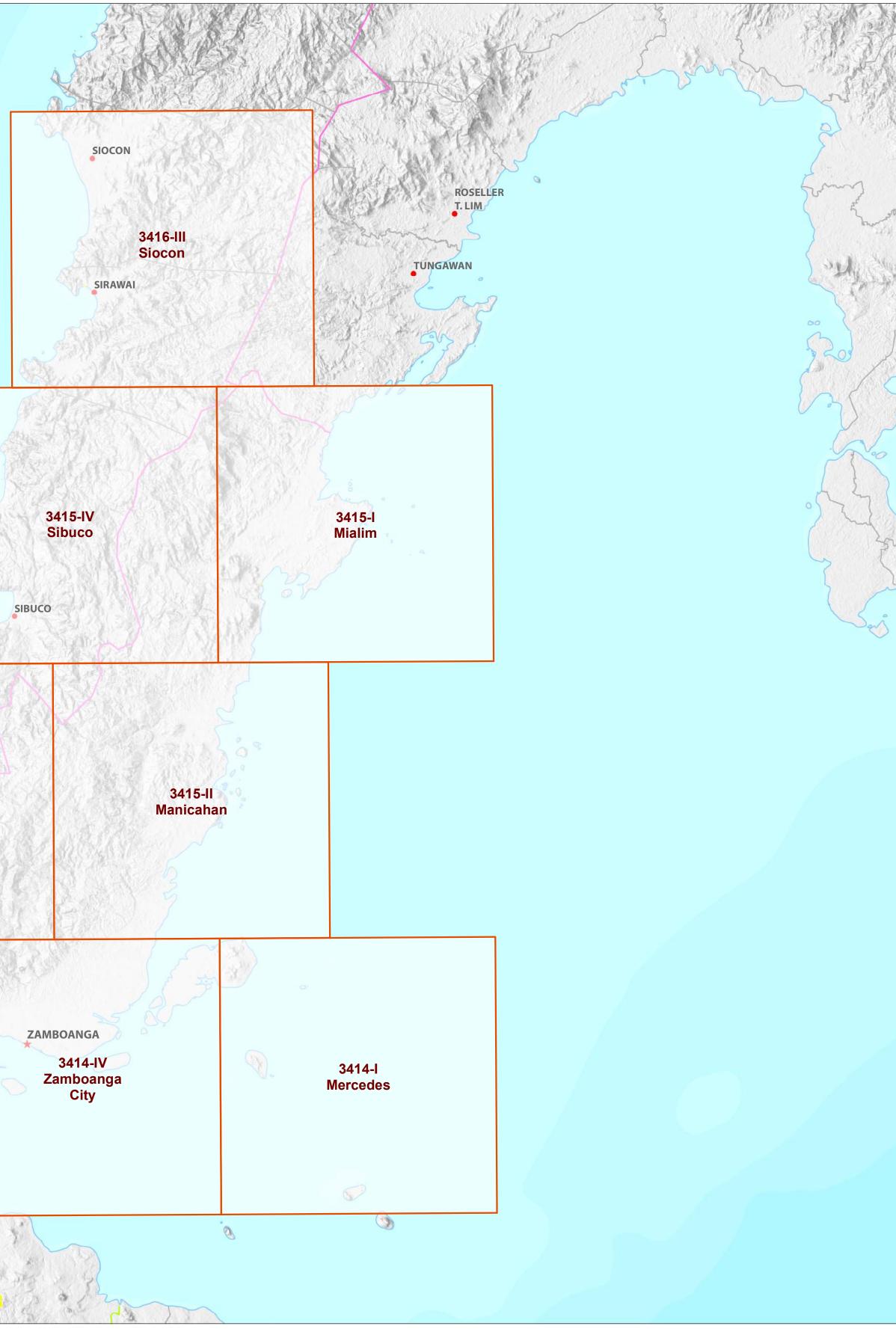
# CASSAVA

# **ZAMBOANGA CITY**

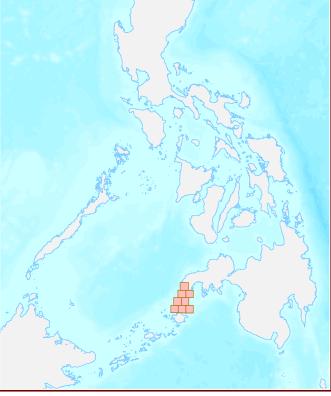


DEPARTMENT OF AGRICULTURE **BUREAU OF SOILS AND WATER MANAGEMENT** SRDC Bldg., Elliptical Road Cor. Visayas Avenue, Diliman, Quezon City 1101 Tel/Fax No.: (+632) 332-9534 E-mail: bswmclientcenter@yahoo.com

# **MAP INDEX** LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS ZAMBOANGA CITY 3416-III Siocon 3415-IV 3415-I Sibuco Mialim SIBUCO 3415-II 3415-III Manicahan Batorampon Point ZAMBOANGA 3414-IV 3314-l 3414-I Zamboanga Ayala Mercedes City Agricultural Research (BAR). ISABELA SRDC Bldg., Elliptical Road Cor. Visayas Avenue, B



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| ۲             | Capital City                    |
| *             | City                            |
| ۲             | Capital Town                    |
| •             | Town                            |
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|               | Regional                        |
|               | Provincial                      |
|               | City                            |
|               | Municipal                       |
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# LAND SUITABILITY MAP FOR CASSAVA

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS ZAMBOANGA CITY, REGION IX

# **EXTENT OF SUITABILITY FOR CASSAVA PRODUCTION BY MUNICIPALITY**

|                |                       |    |            | TOTAL<br>EXISTING<br>AREA (Ha) | EXPANSION AREA (Ha)      |        |                          |            |           |            | CONFLICT RESOLUTION AREA (Ha) |       |             |           |                        |           | TOTAL     |
|----------------|-----------------------|----|------------|--------------------------------|--------------------------|--------|--------------------------|------------|-----------|------------|-------------------------------|-------|-------------|-----------|------------------------|-----------|-----------|
| MUNICIPALITY   | EXISTING CASSAVA (Ha) |    | Coconut    |                                | Shrubland,<br>unmanaged* |        | Grassland,<br>unmanaged* |            | Corn      |            | Paddy rice,<br>non-irrigated  |       | Other crops |           | POTENTIAL<br>EXPANSION |           |           |
|                | <b>S1</b>             | S2 | <b>S</b> 3 |                                | <b>S1</b>                | S2     | <b>S1</b>                | <b>S</b> 2 | <b>S1</b> | <b>S</b> 2 | <b>S1</b>                     | S2    | <b>S1</b>   | <b>S2</b> | <b>S1</b>              | <b>S2</b> | AREA (Ha) |
| ZAMBOANGA CITY | -                     | -  | -          | -                              | 6,435                    | 16,006 | 1,148                    | 3,316      | 2,686     | 9,766      | 2,487                         | 1,378 | -           | -         | -                      | 8         | 43,228    |
|                |                       |    |            |                                |                          |        |                          |            |           |            |                               |       |             |           |                        |           |           |
| TOTAL          | -                     | -  | -          | -                              | 6,435                    | 16,006 | 1,148                    | 3,316      | 2,686     | 9,766      | 2,487                         | 1,378 | -           | -         | -                      | 8         | 43,228    |

Note: Delivery of cassava planting materials must be started on the onset of rainy season. \*establishment of shade trees prior to planting of cassava.

5 Sh2-Rc2

8 T2-El2

7 T2-E2-Sh2-Rc2

9 T2-El2-E3-Rc3

10 T2-El2-Sh2-Rc2

<u>6</u> T2

15 T3-E3

16 T3-E3-Rc2

17 T3-E3-Rc3

**18** T3-E3-Sh2-Rc2

**19** T3-E3-Sh2-Rc3

20 T3-E3-Sh3-Rc2

25 T3-El2-E3-Sh2-Rc3 35 T3-El3

26 T3-El2-E3-Sh3-Rc2 36 Tc

27 T3-El2-E3-Sh3-Rc3

28 T3-F2-D2

29 T3-F3-D2

<u>30</u> ТЗ

# **AGRONOMIC REQUIREMENT OF CASSAVA PRODUCTION**

| LAND<br>UTILIZATION<br>TYPE  | SUITABILITY<br>RATING  | SLOPE (%)  | SOIL DEPTH<br>(cm)  | SOIL TEXTURE   | SOIL<br>DRAINAGE   | SOIL<br>REACTION<br>(pH)                    | INHERENT<br>FERTILITY  |                                 | ODING<br>LASS                | EROSION<br>CLASS     | ROCK<br>OUTCROPS   | ELEVATION<br>(masl)                          | ANNUAL<br>RAINFALL<br>(mm) | CLIMAT<br>TYPE |
|--|--|--|---|--|--|---|--|---------------------------------|------------------------------|----------------------|--|--|----------------------------|----------------|
|  | S1   | <8   | >50   | FSL, L, SiL, CL, SiCL,<br>SCL, SC, SiC, C  | WD,MWD   | 5.6 -7.2                                    | high   | none                            | e-slight                     | none-slight          | none-few   | <500   | 1000-2000                  | I,II, III, I   |
| Cassava  | S2   | 8 - 18   | 30 - 50   | SL, HC   | SPD, PD  | 5.1 - 5.5<br>7.3 - 7.8                      | medium   | mod                             | derate                       | moderate             | common   | 500-1500                                     | 2001-4500                  | II             |
|  | S3   | 18 - 30  | <30   | S, LS, CSL   | VPD,ED   | <5.0 - > 7.9                                | low  | se                              | vere                         | severe               | many   | >1500  | <1000<br>>4500             |                |
| SLOPE (%)  |  |  | SOIL DRAIN  | NAGE   |  | SOIL REACTI                                 | ON (pH)  | ,                               |                              | SOIL TEXT            | URE  | 8  |                            | ·              |
| ) - 3 - leve   | el to gently sloping   | g  | ED -  | - excessively drained  |  | < 4.5 - e                                   | xtremely acid  |                                 |                              | Coarse               |  |  | Fine                       |                |
|  | tly sloping to und   | -  |   | - well drained   |  |   | ery strongly acid  |                                 |                              |                      | - sand   |  |                            | sandy clay     |
|  | lulating to rolling  | •  | MWD -   | - moderately well draine   | d  |   | trongly acid   |                                 |                              |                      | - loamy sand   |  |                            | silty clay     |
|  | ing to moderately  |  | SPD -   | - somewhat poorly drair  | led  |   | nedium acid  |                                 |                              |                      | - coarse sandy loan  | 1  |                            | clay           |
| 30 - 50 - stee   | ep   | -  | PD -  | - poorly drained   |  | 6.1 - 6.5 - sl                              | lightly acid   |                                 |                              | SL ·                 | - sandy loam   |  | HC -                       | heavy clay     |
|  | y steep  |  |   | - very poorly drained  |  |   | eutral   |                                 |                              | Medium               | 2  |  |                            | 5 5            |
|  |  |  |   |  |  |   | hildly alkaline  |                                 |                              | FSL ·                | - fine sandy loam  |  |                            |                |
| SOIL DEPTH (c  | m)   |  | SURFACE I   | MPEDIMENT  |  |   | noderately alkalin   | e                               |                              |                      | - loam   |  |                            |                |
| -  | y shallow  |  | ROCKOUTC  |  |  |   | trongly alkaline   |                                 |                              |                      | - silt loam  |  |                            |                |
| 30 - 50 - sha  | •  |  |   | - none - few   |  | - 0.0                                       | d'ongry anxanne  |                                 |                              |                      | - clay loam  |  |                            |                |
|  | derately deep  |  |   | - common   |  |   |  |                                 |                              |                      | - silty clay loam  |  |                            |                |
|  | p to very deep   |  |   | - many   |  |   |  |                                 |                              |                      | - sandy clay loam  |  |                            |                |
|  |  |  |   |  |  |   |  |                                 |                              |                      |  |  |                            |                |
| <b>ELEVATION</b><br>212 - 500 - 100  | <b>11TATION</b><br>200m or 2000 - 250<br>or > 2500m  |  | <b>SOIL DRAI</b><br>D2 - Sor  | ND COMBINAT<br>INAGE<br>mewhat poorly drained<br>ry poorly drained or exc  | to poorly drain  | ned   | <b>SOIL DEPTH</b><br>Sh2 - Shallow t<br>Sh3 - Very shal                          |                                 |                              | 30 - 100cm)          |  | <b>V</b><br>ate erosion<br>erosion           |                            |                |
| <b>ELEVATION</b><br>(12 - 500 - 100<br>(13 - < 500m c                                | 00m or 2000 - 250<br>or > 2500m  |  | <b>SOIL DRAI</b><br>D2 - Sor<br>D3 - Ver  | INAGE<br>mewhat poorly drained<br>ry poorly drained or exc   | to poorly drain  | ned<br>ed                                   | Sh2 - Shallow t<br>Sh3 - Very shal   | llow (< 30                      |                              | 30 - 100cm)          | E2 - Moder<br>E3 - Severe                                  | ate erosion                                  |                            |                |
| ELEVATION<br>12 - 500 - 100<br>13 - < 500m of<br>ELOPE/TOPOG                         | 00m or 2000 - 250<br>or > 2500m<br><b>RAPHY</b>  | 00m  | SOIL DRAI<br>D2 - Sor<br>D3 - Ver<br>SOIL TEXT  | INAGE<br>mewhat poorly drained<br>ry poorly drained or exc<br>FURE   | to poorly drain  | ned<br>ed                                   | Sh2 - Shallow t<br>Sh3 - Very shal<br>ROCK OUTCROP                               | llow (< 30<br><b>PS</b>         |                              | 30 - 100cm)          | E2 - Moder<br>E3 - Severe<br><b>FLOODING</b>               | ate erosion<br>erosion                       | ing                        |                |
| <b>ELEVATION</b><br>12 - 500 - 100<br>13 - < 500m of<br>ELOPE/TOPOG<br>12 - Undulati | 00m or 2000 - 250<br>or > 2500m  | 00m  | SOIL DRAI<br>D2 - Sor<br>D3 - Ver<br>SOIL TEXT  | INAGE<br>mewhat poorly drained<br>ry poorly drained or exc   | to poorly drain  | ned<br>ed                                   | Sh2 - Shallow t<br>Sh3 - Very shal   | llow (< 30<br><b>PS</b>         |                              | 30 - 100cm)          | E2 - Moder<br>E3 - Severe<br><b>FLOODING</b><br>F2 - Moder | ate erosion                                  | 0                          |                |
| ILEVATION         12       - 500 - 100         13       - < 500m c                   | 00m or 2000 - 250<br>or > 2500m<br><b>RAPHY</b><br>ng to moderately<br>very steep                          | 00m<br>steep   | SOIL DRAI<br>D2 - Sor<br>D3 - Ver<br>SOIL TEXT<br>Tc - Coa                              | INAGE<br>mewhat poorly drained<br>ry poorly drained or exc<br>FURE<br>arse texture   | to poorly drain<br>essively drain                                    | ned<br>ed                                   | Sh2 - Shallow t<br>Sh3 - Very shal<br>ROCK OUTCROP<br>Rc2 - Common<br>Rc3 - Many | llow (< 30<br><b>PS</b>         | Dcm)                         |                      | E2 - Moder<br>E3 - Severe<br><b>FLOODING</b><br>F2 - Moder | ate erosion<br>erosion<br>ate seasonal flood | 0                          |                |
| ELEVATION         12       - 500 - 100         13       - < 500m d                   | 00m or 2000 - 250<br>or > 2500m<br>RAPHY<br>ng to moderately<br>very steep<br>ITATION CC                   | 00m<br>steep<br>0DE LIMIT                                | SOIL DRAI<br>D2 - Sor<br>D3 - Ver<br>SOIL TEXT<br>Tc - Coa                              | INAGE<br>mewhat poorly drained<br>ry poorly drained or exc<br>FURE<br>arse texture<br>DE LIMITATION  | to poorly drain<br>essively drain<br>CODE                            | ned<br>ed<br>LIMITATION                     | Sh2 - Shallow t<br>Sh3 - Very shal<br>ROCK OUTCROP<br>Rc2 - Common<br>Rc3 - Many | llow (< 30<br>PS<br>CODE        | Dcm)                         | 30 - 100cm)<br>NDUSE | E2 - Moder<br>E3 - Severe<br><b>FLOODING</b><br>F2 - Moder | ate erosion<br>erosion<br>ate seasonal flood | 0                          |                |
| SLEVATION         12       - 500 - 100         13       - < 500m c                   | 00m or 2000 - 250<br>or > 2500m<br>RAPHY<br>ng to moderately<br>very steep<br>ITATION CO<br>Rc3 i          | 00m<br>steep<br>0DE LIMIT<br>11 T2-E12-Sh                | SOIL DRAI<br>D2 - Sor<br>D3 - Ver<br>SOIL TEXT<br>Tc - Coa<br>CATION CO<br>2-Rc3 2      | INAGEmewhat poorly drainedry poorly drained or excFUREarse textureDELIMITATION1T3-E3-Sh3-Rc3   | to poorly drain<br>essively drain<br>CODE<br><u>31</u> T             | ned<br>ed<br>LIMITATION<br>3-E3             | Sh2 - Shallow t<br>Sh3 - Very shal<br>ROCK OUTCROP<br>Rc2 - Common<br>Rc3 - Many | llow (< 30<br>PS<br>CODE<br>4 C | Dcm)                         |                      | E2 - Moder<br>E3 - Severe<br><b>FLOODING</b><br>F2 - Moder | ate erosion<br>erosion<br>ate seasonal flood | 0                          |                |
| I2       - 500 - 100         I2       - 500 m d         I3       - < 500m d          | D0m or 2000 - 250<br>or > 2500m<br>RAPHY<br>ng to moderately<br>very steep<br>ITATION CC<br>Rc3 2<br>Rc2 2 | 00m<br>steep<br>0DE LIMIT<br>11 T2-E12-Sh<br>12 T2-F2-D2 | SOIL DRAI<br>D2 - Sor<br>D3 - Ver<br>SOIL TEXT<br>Tc - Coa<br>CATION CO<br>2-Rc3 2<br>2 | INAGE<br>mewhat poorly drained<br>ry poorly drained or exc<br>TURE<br>arse texture<br>DE LIMITATION<br>1 T3-E3-Sh3-Rc3<br>2 T3-E12-E3                    | to poorly drain<br>essively drain<br>CODE<br>31 T:<br>32 T:          | ned<br>ed<br>LIMITATION<br>3-E3<br>3-E3-Rc3 | Sh2 - Shallow t<br>Sh3 - Very shal<br>ROCK OUTCROP<br>Rc2 - Common<br>Rc3 - Many | CODE 4 C<br>82 C                | Dcm)<br>LAN<br>Corn<br>Cacao | NDUSE                | E2 - Moder<br>E3 - Severe<br><b>FLOODING</b><br>F2 - Moder | ate erosion<br>erosion<br>ate seasonal flood | 0                          |                |
| <b>ELEVATION</b> 12       - 500 - 100         13       - < 500m c                    | 00m or 2000 - 250<br>or > 2500m<br>RAPHY<br>ng to moderately<br>very steep<br>ITATION CC<br>Rc3 1<br>Rc2 1 | 00m<br>steep<br>0DE LIMIT<br>11 T2-E12-Sh                | SOIL DRAI<br>D2 - Sor<br>D3 - Ver<br>SOIL TEXT<br>Tc - Coa<br>CATION CO<br>2-Rc3 2      | INAGE<br>mewhat poorly drained<br>ry poorly drained or exc<br>FURE<br>arse texture<br>DE LIMITATION<br>1 T3-E3-Sh3-Rc3<br>2 T3-E12-E3<br>3 T3-E12-E3-Rc3 | to poorly drain<br>essively drain<br>CODE<br>31 T:<br>32 T:<br>33 T: | ned<br>ed<br>LIMITATION<br>3-E3             | Sh2 - Shallow t<br>Sh3 - Very shal<br>ROCK OUTCROP<br>Rc2 - Common<br>Rc3 - Many | Illow (< 30                     | Dcm)                         | NDUSE                | E2 - Moder<br>E3 - Severe<br><b>FLOODING</b><br>F2 - Moder | ate erosion<br>erosion<br>ate seasonal flood | 0                          |                |

# **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.

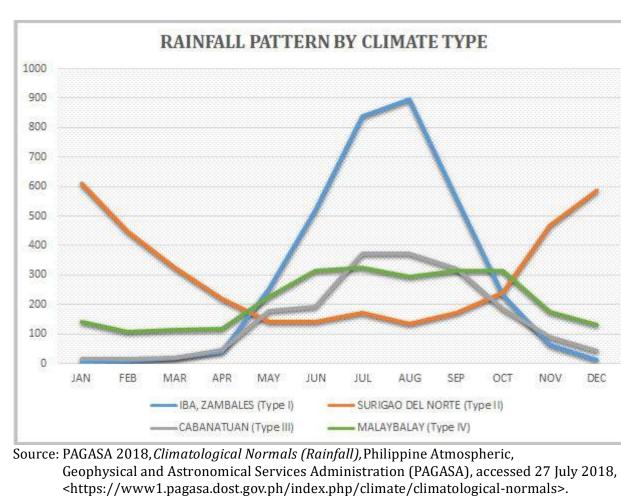
# Moderately Suitable (S2)

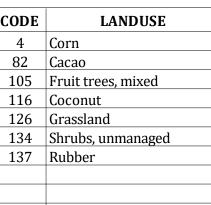
Land having limitation which in aggregate are moderately severe for sustained application of a given use; the limitation will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably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

| CLIM   | <b>CLIMATE TYPE</b> |  |  |  |  |  |  |  |
|--------|---------------------|--|--|--|--|--|--|--|
| ΤΥΡΕ Ι | : Two pronouce      |  |  |  |  |  |  |  |

- 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.

Whole part of Zamboanga City is classified as climatic Type III.





126 Grassland

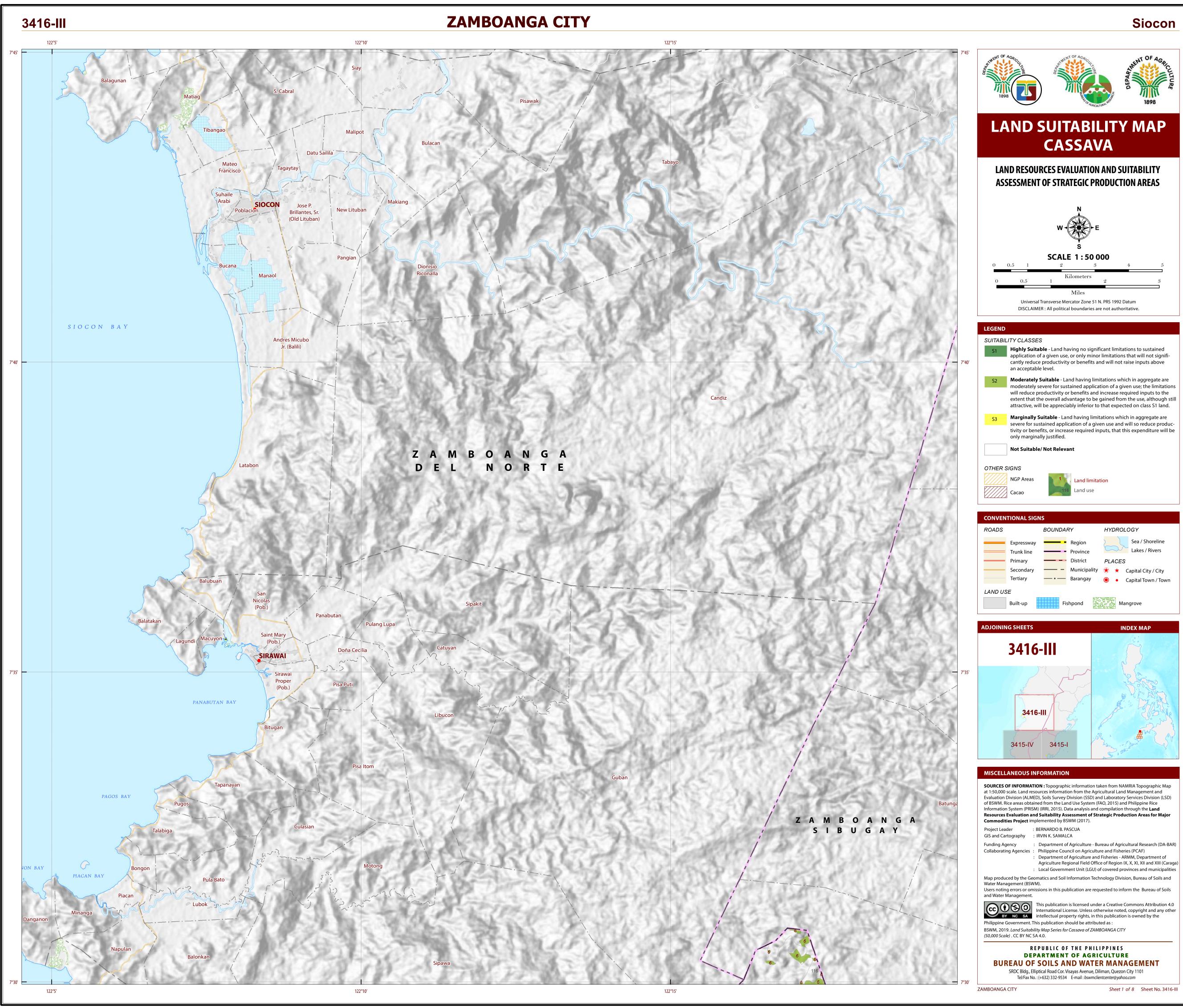
137 Rubber

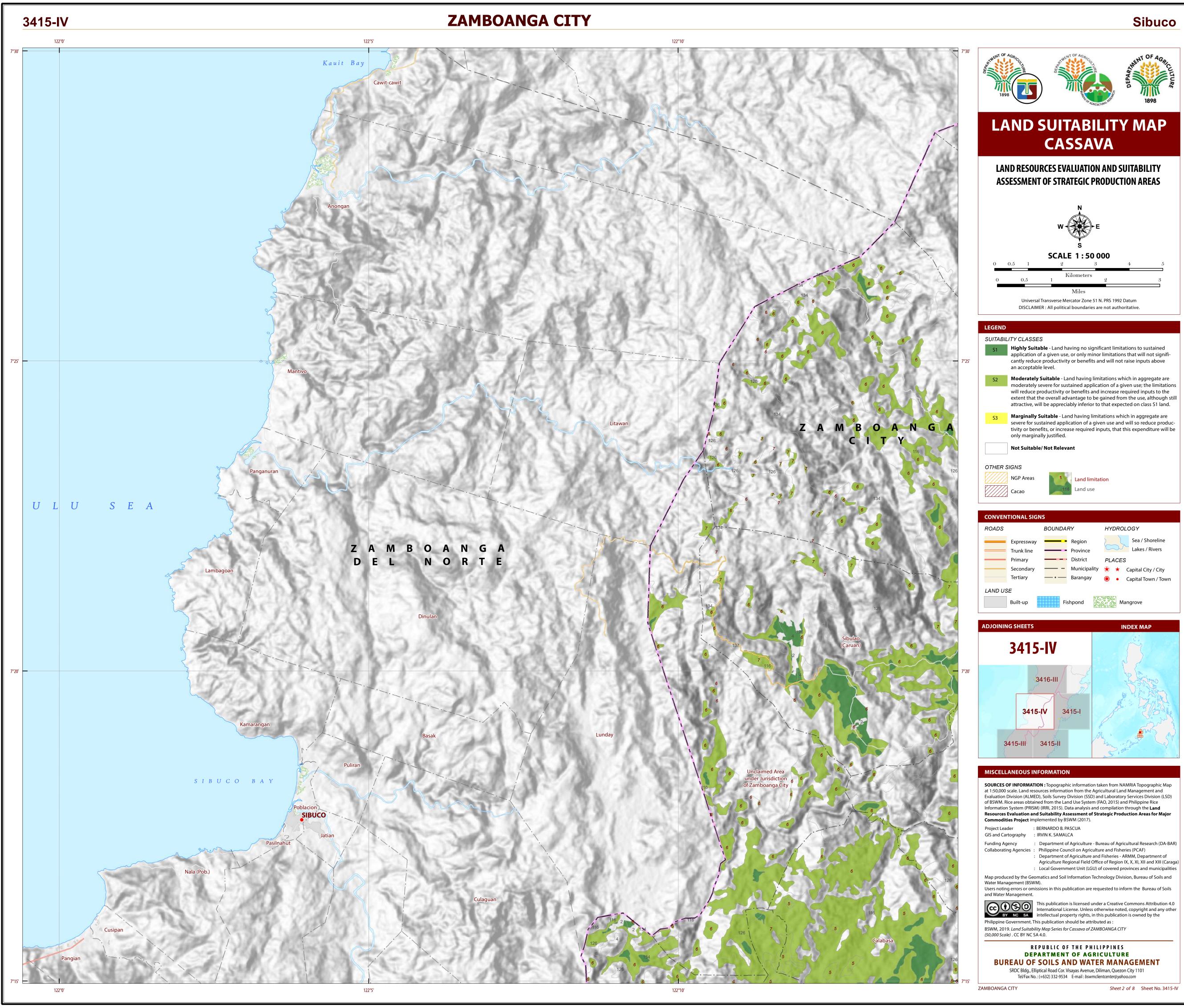
Marginally Suitable (S3) Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

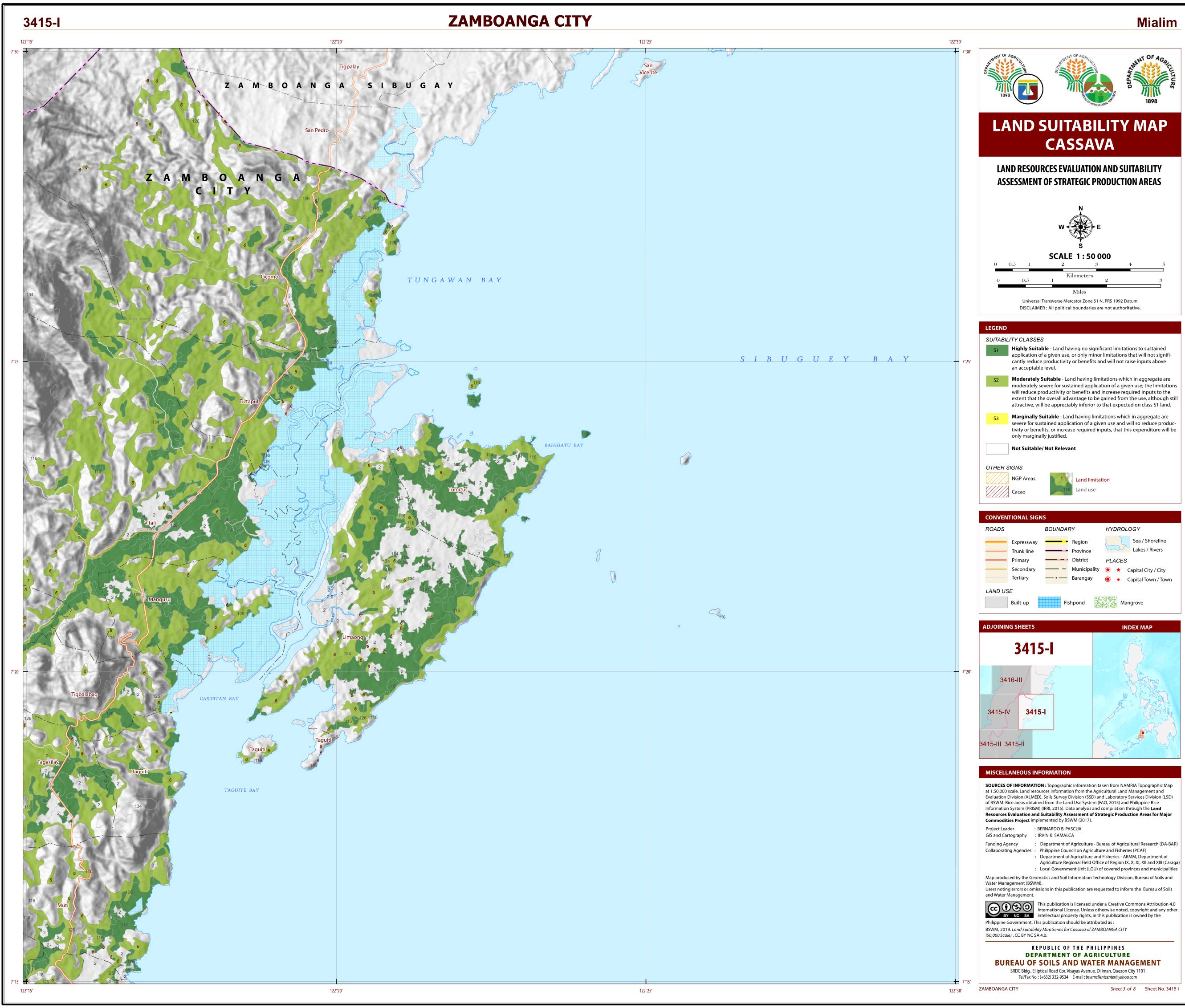
Not Suitable / Not Relevant Land having limitations which may be surmountable in time but which cannot be corrected with existing knowledge at currently acceptable cost; the limitations are so severe as to preclude successful sustained use of the land in the given manner. Existing forest, shrubland greater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

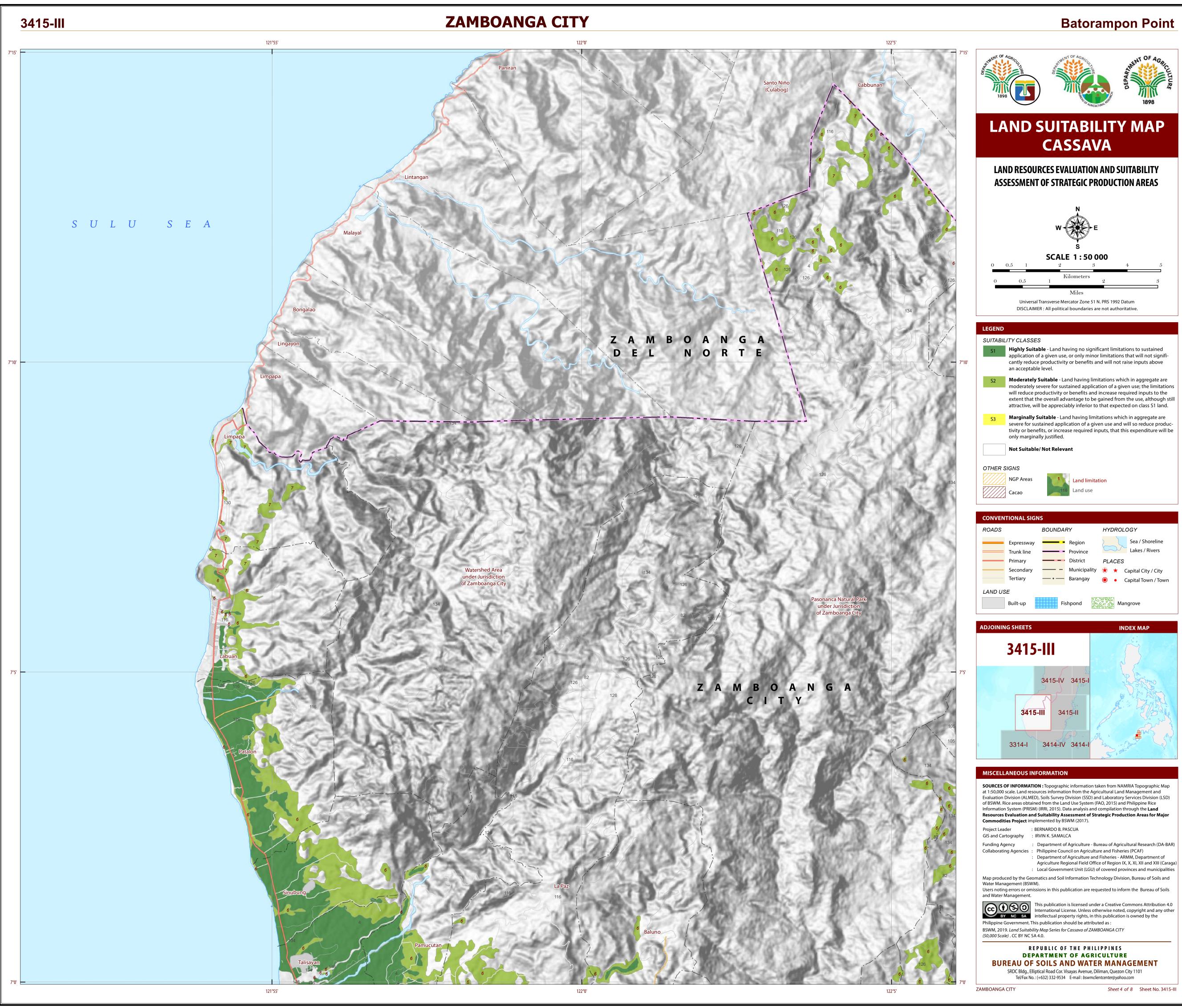
- ced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain period from December to February. There is not a single dry month. Maximum monthly rainfall occurs during the period from March to May.
  - **TYPE IV** : Rainfall is more or less evenly distributed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

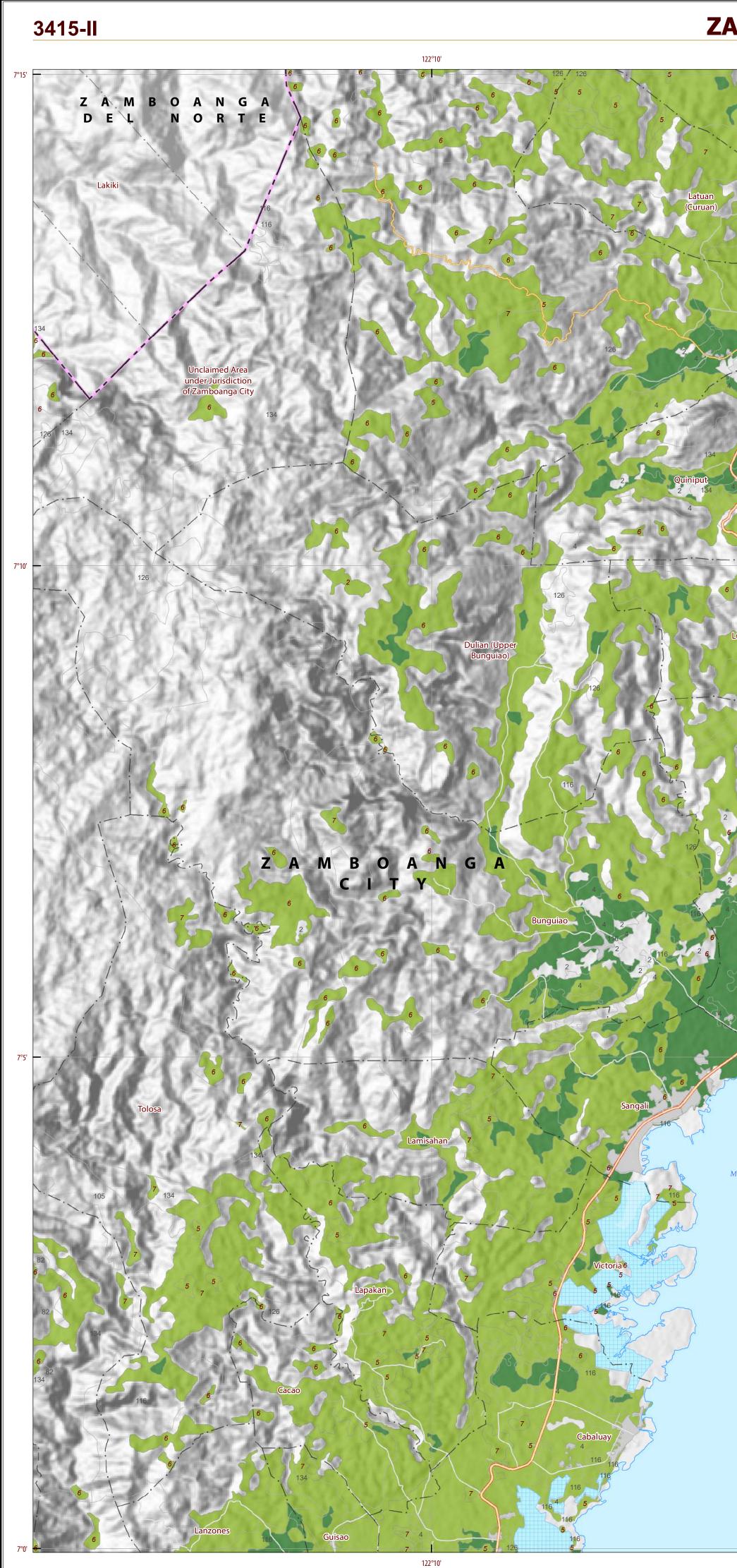












# **ZAMBOANGA CITY** 122°15' 122°20' - 7°5' MASUGAT BAY MORO GUL F

6 130 122°15'

122°20'

