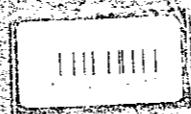


ESTABLISHMENT OF GRAPHIC INFORMATION BASE PROJECT
FOR
THE NATIONAL CAPITAL REGION
THE REPUBLIC OF THE PHILIPPINES
1985 ~ 1988

URBAN LAND USE
AND
LAND CONDITION MAPS
SCALE 1:10,000



JAPAN INTERNATIONAL
COOPERATION AGENCY (JICA)



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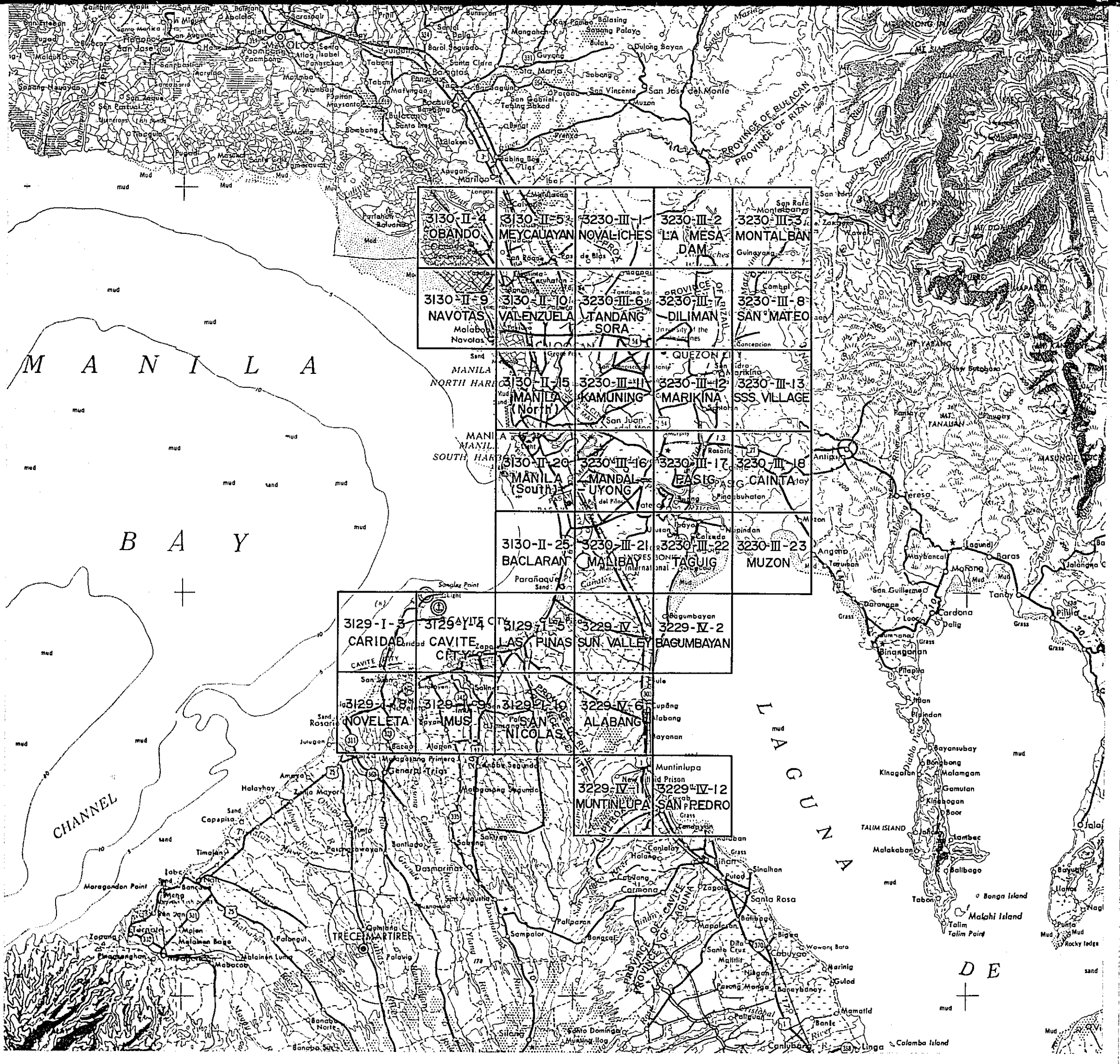
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3130-II-9 NAVOTAS	3130-II-10 VALENZUELA	3230-III-6 TANDANG SORA	3230-III-7 DILIMAN	3230-III-8 SAN MATEO
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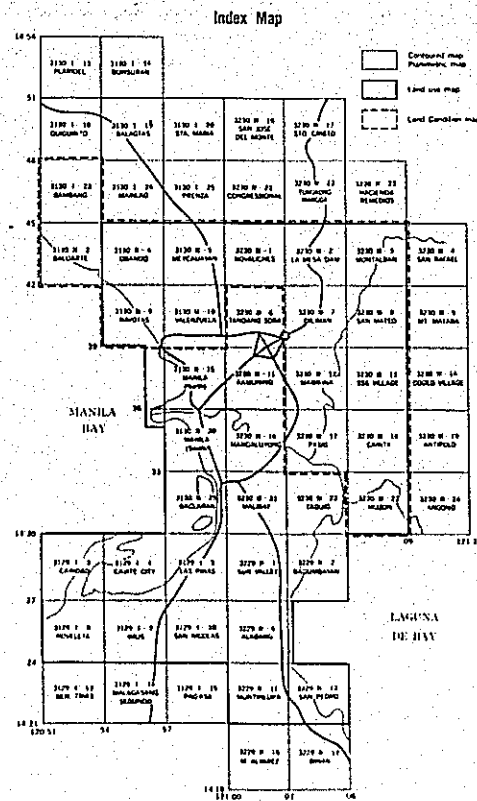




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METRO MANILA LAND USE MAP
SCALE 1 : 10,000

**INFORMATION AND USAGE OF
THE LAND USE MAP**



5. Criteria for Representation on the Land Use Map

The criteria for representing the land use classification on the 1:10,000 land use map are as follows:

- 5-1 Where buildings or facilities occupy a common compound, the land use classification is represented by the main usage of the compound.
- 5-2 The minimum area for representation in the Built-up Areas is generally 3mm×3mm on the maps. As for the Commercial and Mixed in the Built-up Areas, however, consideration is given to represent about 1.5mm×1.5mm areas on the maps because of their important functions.
- 5-3 The minimum area considered for the representation of the Military, Agricultural Land, Forest and Water Related is generally 5mm×5mm.
- 5-4 In 2-story buildings whose usages are both Residential and some other categories (Commercial, Industrial and Business), the classification is of the latter.
- 5-5 In buildings of 3-story or more whose usages are multipurpose, the classification is Mixed and falls under one of the following four categories according to the main usage of the buildings:
 - Commercial and Residential,
 - Business and Commercial,
 - Industrial and Residential,
 - Business and Residential
- 5-6 The land use boundaries are represented by red colored lines. In case these boundary lines coincide with roads, railways, rivers, etc., the latter prevail.

REPUBLIC OF THE PHILIPPINES

2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

It is possible to recognize the existing land use together with various features (roads, railways, buildings, contour lines, coastal lines, annotations and others) shown on the base map.

It is expected that this land use map will be utilized as follows:

- 2-1 Administrative organizations can use this map for planning the re-development of built-up areas, development of suburban areas, improvement of transportation systems, housing development, disaster prevention, etc.
- 2-2 Survey and research organizations (universities, institutes, etc.) can use it for academic researches on geography, regional planning, civil engineering, etc.
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4. Land Use Survey

- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.

- 4-2 As for the major changes of land use patterns brought about after

1. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1981 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 4-year technical cooperation program starting in 1985.

- 1-1 Outline of those maps is as follows:

Contoured map (Topographic map)	1 : 10,000	1,500km ² (57 sheets)
Planimetric map	1 : 10,000	1,500km ² (57 sheets)
Land use map	1 : 10,000	82.3km ² (33 sheets)
Land condition map	1 : 10,000	476km ² (16 sheets)

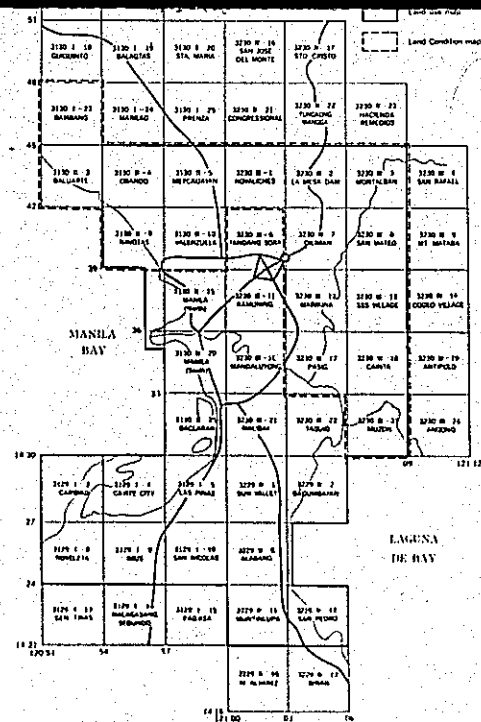
(see Index Map)

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- 1-3 The planimetric map was completed in 1987 by the combination of color separation plates of the contoured map.
- 1-4 The land use map was completed in 1989 using the contoured map as the base and integrating mainly the interpretation of the aerial photographs taken in 1982 and the results of field identification conducted in 1985.
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- 5-7 Printing was conducted with 7 color separation plates (red, orange, blue, yellow, green, brown and black) and their combinations to make the land use patterns easily identifiable.

Residential (Multi-story Housing, Residential, Temporary Housing, Mixed Commercial-Residential):	Red
Land Use Boundary:	Red
Business, Commercial, Public (Educational and Cultural):	Orange
Industrial (Large-scale Industrial, Small-scale Industrial, Mixed Industrial-Residential):	Blue-red
Mixed (Mixed Business-Commercial, Mixed Business-Residential):	Red-orange
Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics):	Brown
Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest:	Green
Agricultural Land:	Yellow-brown
Water Related:	Blue
Base Map and Annotation:	Black

INFORMATION AND USAGE OF THE LAND USE MAP



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4. Land Use Survey

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 - Mixed (Mixed Business-Commercial, Mixed Business-Residential): Red-orange
 - Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics): Brown
 - Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest: Green
 - Agricultural Land: Yellow-brown
 - Water Related: Blue
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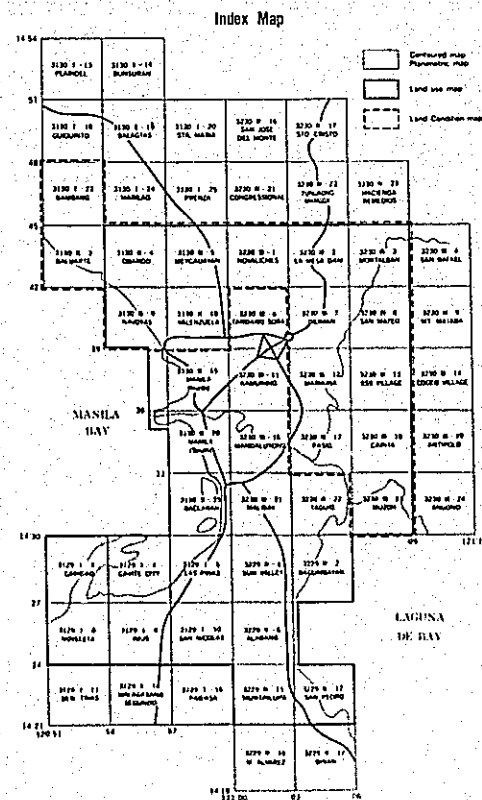
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METRO MANILA LAND USE MAP
SCALE 1 : 10,000

INFORMATION AND USAGE OF
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REPUBLIC OF THE PHILIPPINES

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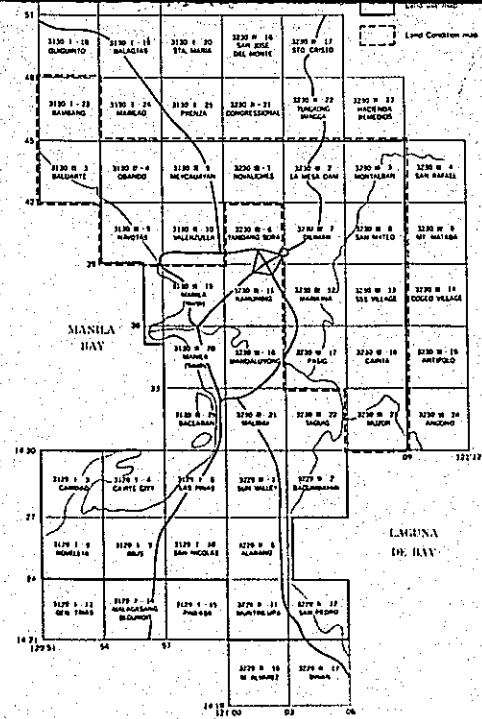
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INFORMATION AND USAGE OF THE LAND USE MAP



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Orange

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Red-orange

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Brown

Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest:

Green

Agricultural Land:

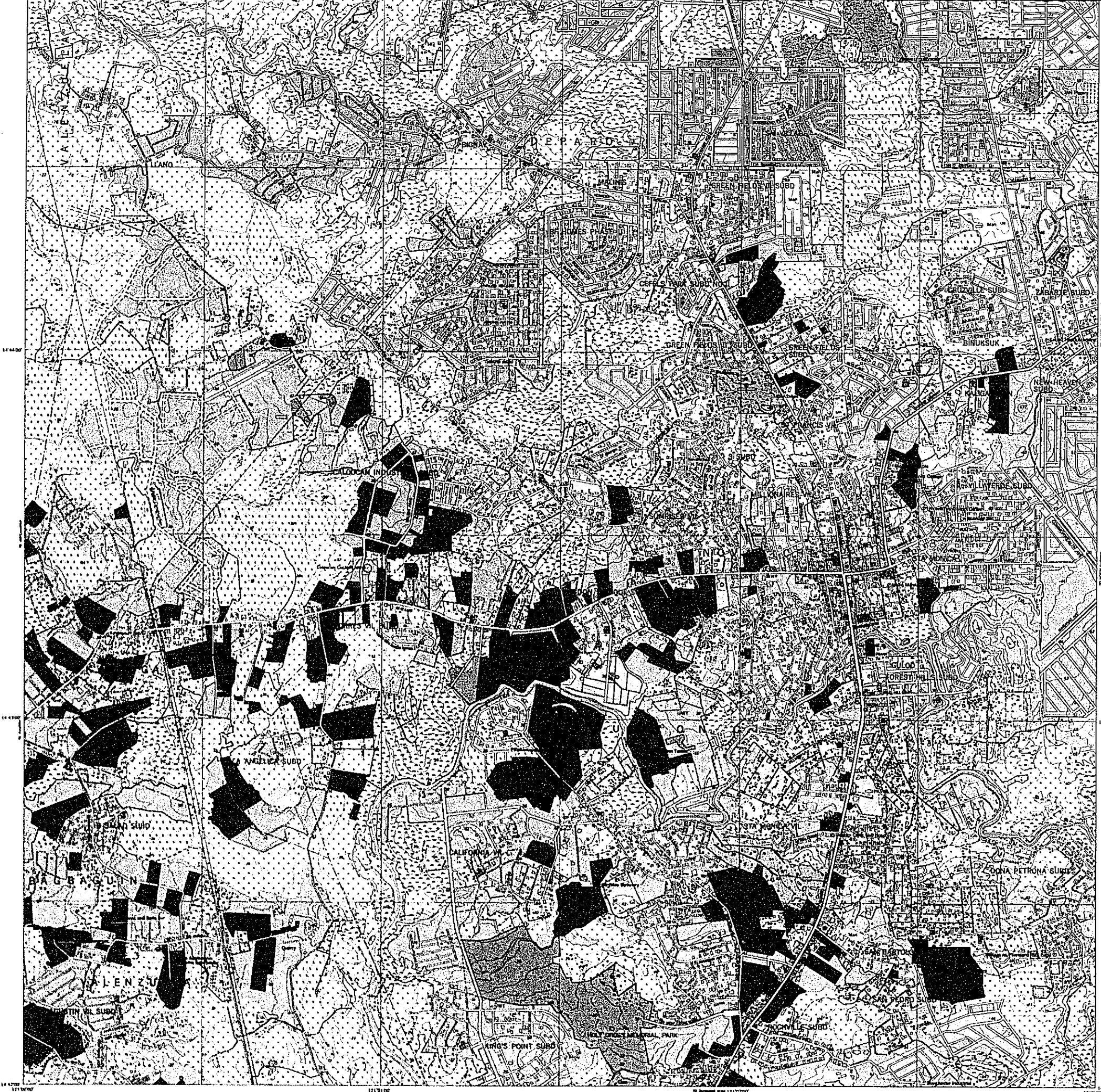
Yellow-brown

Water Related:

Blue

Base Map and Annotation:

Black

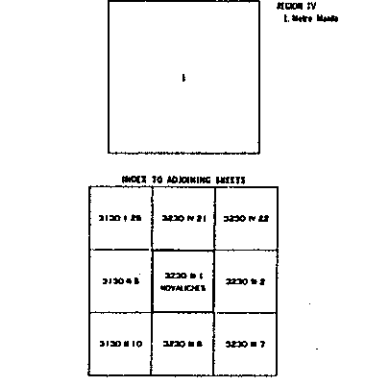


RESIDENTIAL		PUBLIC LAND		UNCLASSIFIED	
Mid-story Housing		Government		Unclassified	
One-story Housing		Public Land		Residential	
Temporary Housing		Barangay		Health and Welfare	
Industrial		Provincial		Park and Recreation	
Commercial		National		Religious and Cemetery	
Special Commercial/Industrial		Department		Transportation	
Small Business-Commercial		Central		Service	
Small Business-Industrial		Regional		Sports and Athletics	
Large-scale Industrial		City		Military	
Small-scale Industrial		Municipal			
Small Industrial-Residential					

2. AGRICULTURAL LAND AND FOREST			
Rice Fields		Forest	
Cropland		Shrub / Palm	
Pruned and Fenced Range		Open Area	
Pasture		Wetland	
Hayland		Barren Land	
Swamp		Barren Land	
Wetland			
Agri-Industrial			

3. OTHERS			
Water Surface		Water-Related Vegetation	
Bay/Inlet		Swamp	
Canal		Open Area	
Canal / Trench		Drainage	
Marina / Dock		Drainage	
Tank / Dam			
Land Use Boundary			

4. TOPOGRAPHIC FEATURES			
Stream		Fish Ponds	
Bank Aisle		Embodied Street	
Play Area		Sewerage	
Wharf / Boatland		Industrial	
Power / Storage		Industry	
Power / Storage (High)		Church, Cemetery	
Power / Storage (Low)		Food Store, etc.	
Power / Storage (Very Low)			
Power / Storage (Underground)			
Power / Storage (Overhead)			
Power / Storage (Cable)			
Power / Storage (Pole)			
Power / Storage (Tower)			
Power / Storage (Mast)			
Power / Storage (Antenna)			
Power / Storage (Other)			
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This map was prepared under a cooperative understanding between the Department of the Interior and the Department of the Environment and the Department of Urban Development and Planning.

SCALE 1:10,000
0 100 200 300 400 500 1000 meters

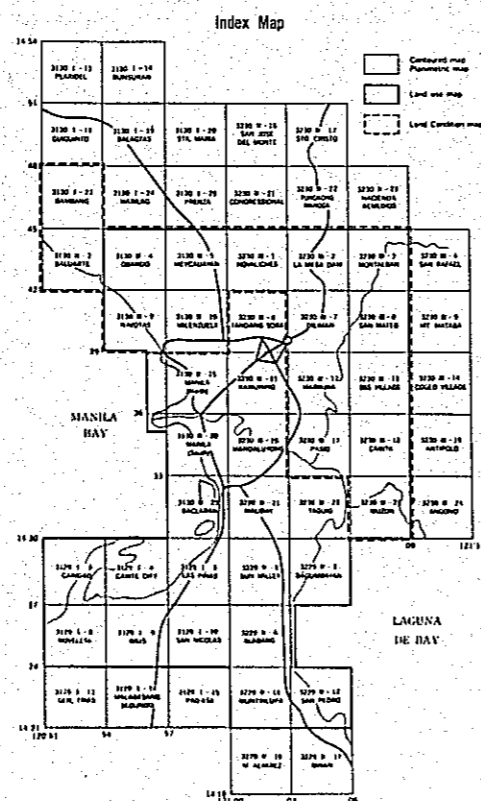
UNIVERSAL TRANSVERSE MERCATOR PROJECTION
ZONE 51 CLARKE SPHEROID 1866 LUZON DATUM
VERTICAL DATUM: MSL FOR HEIGHTS MLW FOR DEPTHS
CONTOUR INTERVAL 4 METERS

NOVALE
Sheet No. 3230-III-1



METRO MANILA LAND USE MAP
SCALE 1 : 10,000

INFORMATION AND USAGE OF
THE LAND USE MAP



5. Criteria for Representation on the Land Use Map

The criteria for representing the land use classification on the 1:10,000 land use map are as follows:

- 5-1 Where buildings or facilities occupy a common compound, the land use classification is represented by the main usage of the compound.
- 5-2 The minimum area for representation in the Built-up Areas is generally 3mm×3mm on the maps. As for the Commercial and Mixed in the Built-up Areas, however, consideration is given to represent about 1.5mm×1.5mm areas on the maps because of their important functions.
- 5-3 The minimum area considered for the representation of the Military, Agricultural Land, Forest and Water Related is generally 5mm×5mm.
- 5-4 In 2-story buildings whose usages are both Residential and some other categories (Commercial, Industrial and Business), the classification is of the latter.
- 5-5 In buildings of 3-story or more whose usages are multipurpose, the classification is Mixed and falls under one of the following four categories according to the main usage of the buildings:
 - Commercial and Residential,
 - Business and Commercial,
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- 5-6 The land use boundaries are represented by red colored lines. In case these boundary lines coincide with roads, railways, rivers, etc., the latter prevail.

REPUBLIC OF THE PHILIPPINES

2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

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- 4-2 As for the major changes of land use patterns brought about after

1. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1984 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 4-year technical cooperation program starting in 1985.

1-1 Outline of these maps is as follows:

Contoured map (Topographic map)	1 : 10,000	1,500km ² (57 sheets)
Planimetric map	1 : 10,000	1,500km ² (57 sheets)
Land use map	1 : 10,000	823km ² (33 sheets)
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(see Index Map)

1-2 The contoured map was completed in 1987. The aerial photographs taken in 1982 were used for field identification and stereo plotting. As for the major changes after aerial photography, the results of field completion conducted in 1986 and the interpretation of the aerial photographs taken in the same year were integrated.

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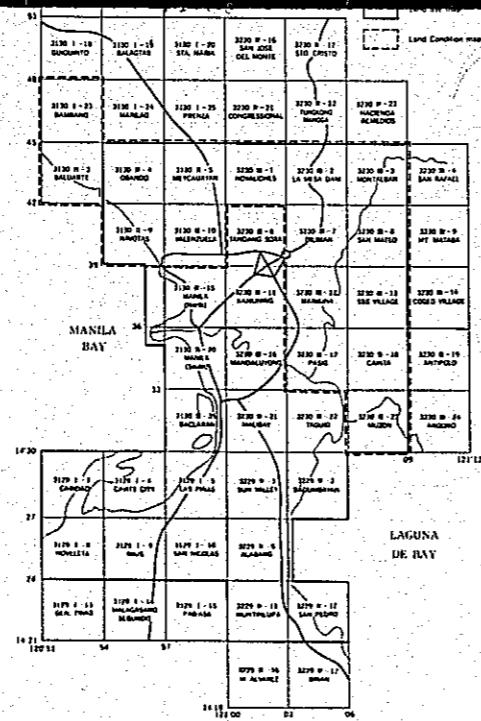
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INFORMATION AND USAGE OF THE LAND USE MAP



REPUBLIC OF THE PHILIPPINES

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2. Utilization of Land Use Map

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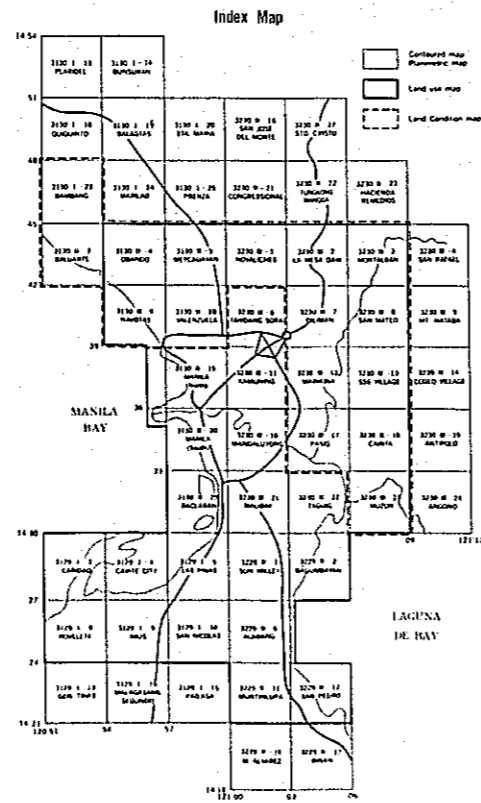
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METRO MANILA LAND USE MAP
SCALE 1 : 10,000

INFORMATION AND USAGE OF
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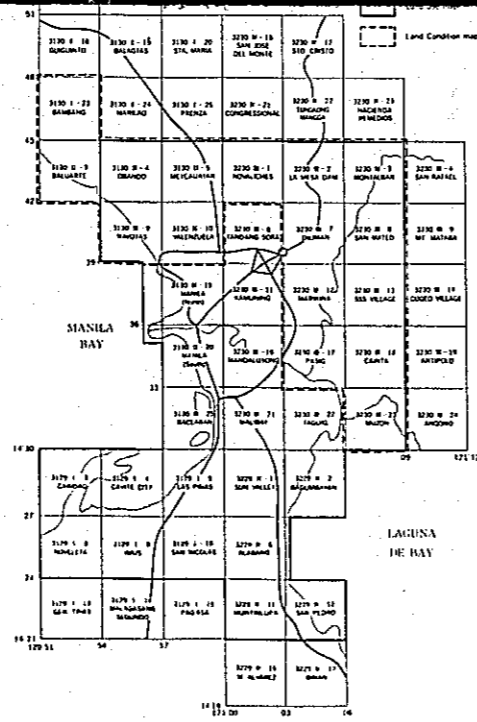
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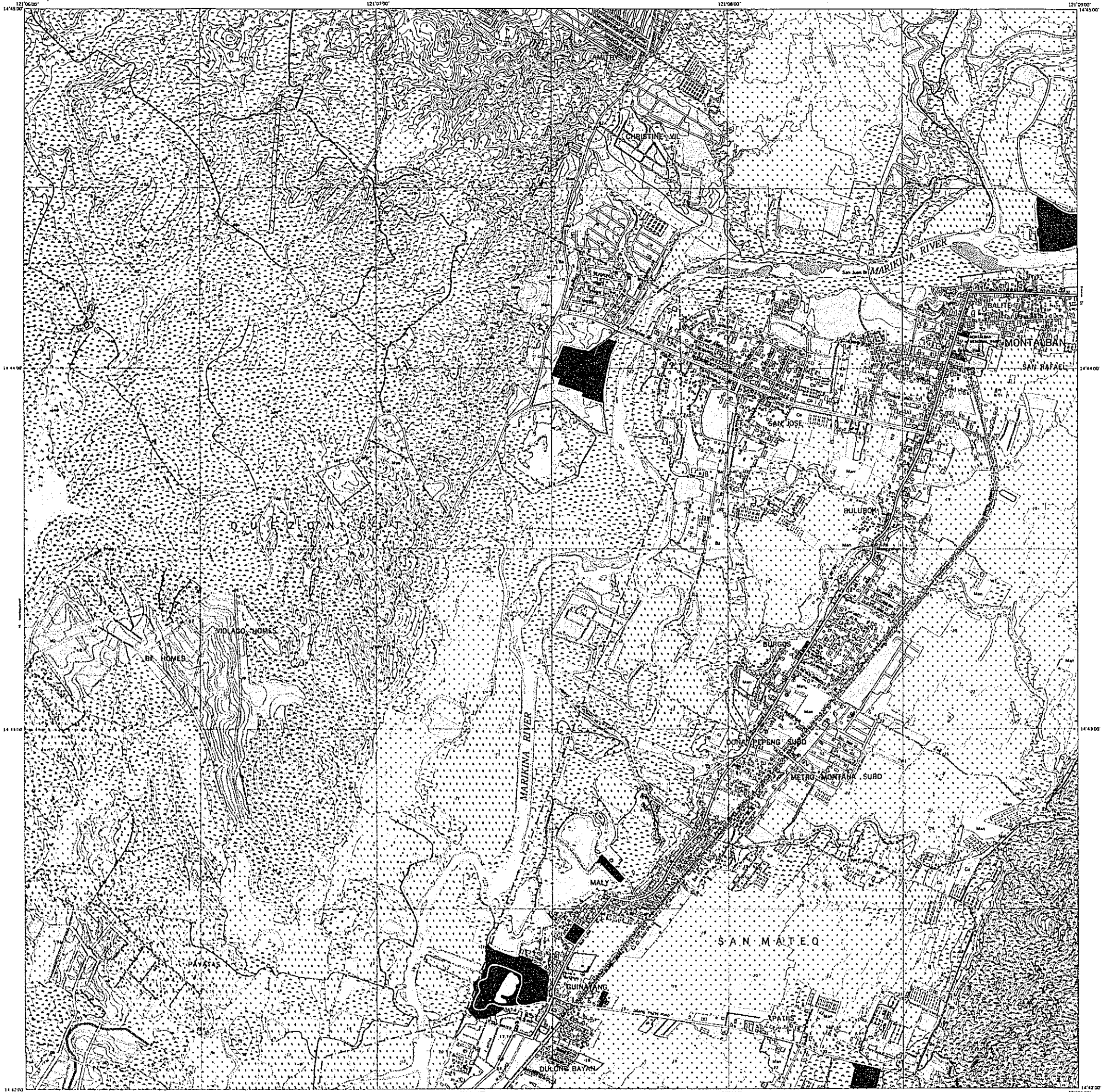
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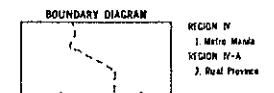
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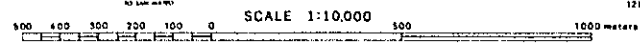


1. BUILT-UP AREA	
RESIDENTIAL	<ul style="list-style-type: none"> Multi-story Housing Detached Temporary Housing
COMMERCIAL AND BUSINESS	<ul style="list-style-type: none"> Business Commercial Mixed Commercial-Residential Mixed Business-Commercial Mixed Business-Industrial Large-scale Industrial Small-scale Industrial Mixed Industrial-Residential
INDUSTRIAL	<ul style="list-style-type: none"> Governmental and Quasi-Public Educational and Cultural Health and Welfare Park and Recreational Religious and Cemetery Transportation Service Sports and Amusement Military
2. AGRICULTURAL LAND AND FOREST	
AGRICULTURAL LAND	<ul style="list-style-type: none"> Rice Paddy Coconut Plantation and Farmland Open Barren Land Forest Agri-Industrial
3. OTHERS	
WATER BODIES	<ul style="list-style-type: none"> Water Course Canal Swamp Marsh Shallow Pond Lot, Bad
4. TOPOGRAPHIC FEATURES	
<ul style="list-style-type: none"> Shoreline Rock Outcrop Power Line Water / Irrigation Power Line San. / Sewer (Single Line) San. / Sewer (Double Line) Water / Sewer (Double Line) Regulated Boundary City and Municipal Boundary Fence Precedent Boundary Dashed Boundary (Utility) Abandoned / Precedent Road Abey Trench Ditch Drainage Powerline Substation Barren Shrub Dunes Light Rail Crossing Railway Station 	<ul style="list-style-type: none"> High Peak Stepped Street Breakwater Intersect Canals, Conduits Flood Gate, Weir Precedent Boundary Wall / Fence Activity Isolated Building House Building Minimum Public Station Abandoned / Precedent City / Municipal Road State Separation Protection Barrier Tid Canal Free Land Road Power Transmission Line Pipeline / Water Pipeline Syphon Sewerage Outfall Power Station Level Crossing Interpass Length
<ul style="list-style-type: none"> Government Building Post Office Market Spring / Hot Spring Water Pump Power Station Theater, Casino Multi-Storey Tower Black, Telegraph Transmission Water Tower Windmill Arch Bridge 	<ul style="list-style-type: none"> Public Station Water Supply Market Church / Mosque Health Center Bank Factory Sports Center Railway Light Tower Water Tank Steel Pipe Wind Arch Bridge Bus Station Fry Station School Market Hotel / Motel Relay Storage Tank Cave Mineral Bus Terminal
<ul style="list-style-type: none"> Cutting Dike Depression Water Control Secondary Control Intermediate Control Normal Control Station Low Height 	<ul style="list-style-type: none"> Embankment Dam DFT, Rock Retainment Depth Curve Control Valve Vertical Control Station Abutment Street Lighting Pole



INDEX TO ADJOINING SHEETS

3230 W 22	3230 W 23	
3230 W 2	3230 W 3 MONTALBAN	3230 W 4
3230 W 7	3230 W 8	3230 W 9

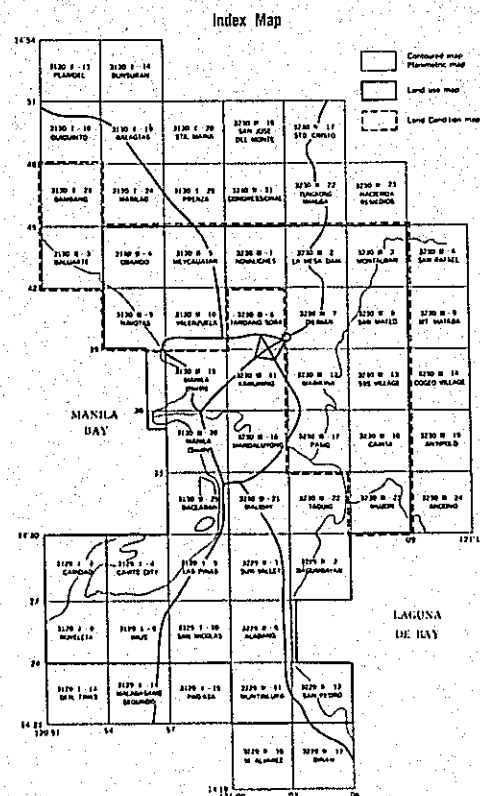


UNIVERSAL TRANSVERSE MERCATOR PROJECTION

This map was produced under a cooperative undertaking between the Government of the Republic of the Philippines and the Government of Japan.

METRO MANILA LAND USE MAP
SCALE 1 : 10,000

INFORMATION AND USAGE OF
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- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.

- 5-7 Printing was conducted with 7 color separation plates (red, orange, blue, yellow, green, brown and black) and their combinations to make the land use patterns easily identifiable.
 - Residential (Multi-story Housing, Residential, Temporary Housing, Mixed Commercial-Residential),
Land Use Boundary: Red
 - Business, Commercial, Public (Educational and Cultural): Orange
 - Industrial (Large-scale Industrial, Small-scale Industrial, Mixed Industrial-Residential): Blue-red
 - Mixed (Mixed Business-Commercial, Mixed Business-Residential): Red-orange
 - Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics): Brown
 - Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest: Green
 - Agricultural Land: Yellow-brown
 - Water Related: Blue
 - Base Map and Annotation: Black

REPUBLIC OF THE PHILIPPINES

1. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1984 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 1-year technical cooperation program starting in 1985.

1-1 Outline of these maps is as follows:

Contoured map (Topographic map)	1 : 10,000	1,500km ² (57 sheets)
Planimetric map	1 : 10,000	1,500km ² (57 sheets)
Land use map	1 : 10,000	82.3km ² (33 sheets)
Land condition map	1 : 10,000	476km ² (16 sheets)

(see Index Map)

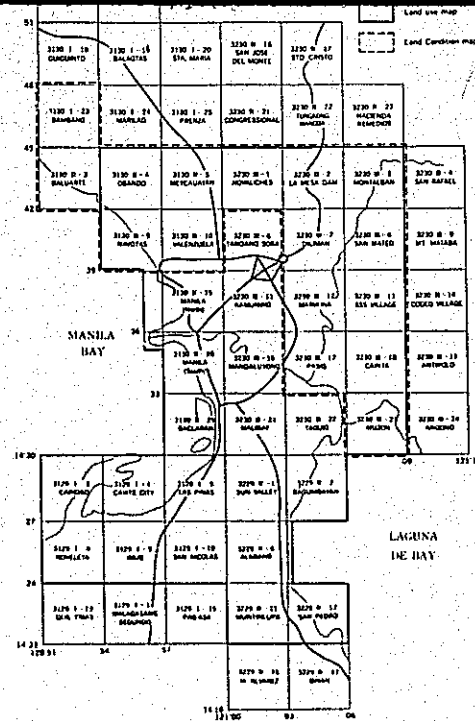
1-2 The contoured map was completed in 1982. The aerial photographs taken in 1982 were used for field identification and stereo plotting. As for the major changes after aerial photography, the results of field completion conducted in 1986 and the interpretation of the aerial photographs taken in the same year were integrated.

1-3 The planimetric map was completed in 1987 by the combination of color separation plates of the contoured map.

1-4 The land use map was completed in 1989 using the contoured map as the base and integrating mainly the interpretation of the aerial photographs taken in 1982 and the results of field identification conducted in 1985.

1-5 The land condition map was completed in 1989 to represent landform classification, ground elevation, organization and facilities using the contoured map as the base. The representation was made mainly on the basis of the interpretation of the aerial photographs taken in 1982

INFORMATION AND USAGE OF THE LAND USE MAP



- 5-1 Where buildings or facilities occupy a common compound, the land use classification is represented by the main usage of the compound.
- 5-2 The minimum area for representation in the Built-up Areas is generally 3mm×3mm on the maps. As for the Commercial and Mixed in the Built-up Areas, however, consideration is given to represent about 1.5mm×1.5mm areas on the maps because of their important functions.
- 5-3 The minimum area considered for the representation of the Military, Agricultural Land, Forest and Water Related is generally 5mm×5mm.
- 5-4 In 2-story buildings whose usages are both Residential and some other categories (Commercial, Industrial and Business), the classification is of the latter.
- 5-5 In buildings of 3-story or more whose usages are multipurpose, the classification is Mixed and falls under one of the following four categories according to the main usage of the buildings:
 - Commercial and Residential,
 - Business and Commercial,
 - Industrial and Residential,
 - Business and Residential
- 5-6 The land use boundaries are represented by red colored lines. In case these boundary lines coincide with roads, railways, rivers, etc., the latter prevail.

REPUBLIC OF THE PHILIPPINES

2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

It is possible to recognize the existing land use together with various features (roads, railways, buildings, contour lines, coastal lines, annotations and others) shown on the base map:

It is expected that this land use map will be utilized as follows:

- 2-1 Administrative organizations can use this map for planning the re-development of built-up areas, development of suburban areas, improvement of transportation systems, housing development, disaster prevention, etc.
- 2-2 Survey and research organizations (universities, institutes, etc.) can use it for academic researches on geography, regional planning, civil engineering, etc.
- 2-3 Public organizations and private enterprises can use it for the proper selection and development of sites for their activities.
- 2-4 It can be more effectively used, together with the land condition map, for verifying the suitability of the present land use as well as for planning of the proper land development.

3. Classification of Land Use

The land use is classified into the following three major categories:

- Built-up Area,
- Agricultural Land and Forest
- Others

These are then divided into 33 sub-classifications.

- 3-1 The category "Built-up Area" is classified into Residential, Commercial and Business, Industrial, Public and Government, Facilities, etc. on the basis of the main usage of the buildings.
- 3-2 The category "Agricultural Land" is divided into Rice Field, Cropland, Plantation, etc. and the category "Forest" is classified into Forest, Grassland and Bare Land. The warehouses for agricultural products and food processing factories are included in Agro-industrial.
- 3-3 The category "Others" consists of "Water Related" and "Open Space", and the "Water Related" includes Marine Pond, Salt Bed and Water-related Vegetation.

4. Land Use Survey

- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.
- 4-2 As for the major changes of land use patterns brought about after 1985, the interpretation of the aerial photographs taken in 1986 and the field completion conducted in 1987 were integrated.

- 5-7 Printing was conducted with 7 color separation plates (red, orange, blue, yellow, green, brown and black) and their combinations to make the land use patterns easily identifiable.

Residential (Multi-story Housing, Residential,

Temporary Housing, Mixed Commercial-Residential),

Land Use Boundary:

Red

Business, Commercial, Public (Educational and Cultural):

Orange

Industrial (Large-scale Industrial,

Small-scale Industrial,

Mixed Industrial-Residential):

Blue-red

Mixed (Mixed Business-Commercial,

Mixed Business-Residential):

Red-orange

Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics):

Brown

Public and Government (Health and Welfare,

Religious and Cemetery, Park and

Recreational), Forest:

Green

Agricultural Land:

Yellow-brown

Water Related:

Blue

Base Map and Annotation:

Black

1. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1984 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 4-year technical cooperation program starting in 1985.

1-1 Outline of these maps is as follows:

Contoured map (Topographic map)	1 : 10,000	1,500km ² (57 sheets)
Planimetric map	1 : 10,000	1,500km ² (57 sheets)
Land use map	1 : 10,000	823km ² (33 sheets)
Land condition map	1 : 10,000	476km ² (16 sheets)

(see Index Map)

1-2 The contoured map was completed in 1987. The aerial photographs taken in 1982 were used for field identification and stereo plotting. As for the major changes after aerial photography, the results of field completion conducted in 1986 and the interpretation of the aerial photographs taken in the same year were integrated.

1-3 The planimetric map was completed in 1987 by the combination of color separation plates of the contoured map.

1-4 The land use map was completed in 1989 using the contoured map as the base and integrating mainly the interpretation of the aerial photographs taken in 1982 and the results of field identification conducted in 1985.

1-5 The land condition map was completed in 1989 to represent landform classification, ground elevation, organization and facilities using the contoured map as the base. The representation was made mainly on the basis of the interpretation of the aerial photographs taken in 1982 and 1986, the field identification conducted in 1985 and the data provided by the agencies concerned in the Philippines.



RESIDENTIAL Multi-story building Residential Temporary building Business Commercial Mixed Commercial/Residential Mixed Business/Commercial Mixed Business/Residential Large-scale industrial Small-scale industrial Mixed Industrial/Residential		PUBLIC USE Educational and Cultural Health and Welfare Park and Recreational Religious and Community Transportation Sports and Amusements Military	
2. AGRICULTURAL LAND AND FOREST			
AGRICULTURAL LAND Rice Paddy Orchard Plantation and Farmland Irrigation Pasture Forest Swamp Agro-Industrial		FOREST Forest Mangrove Swamp Pasture Orchard Rice Land Wetland	
3. OTHERS			
WATER RELATED Water Surface Waterway Canal Tidal Canal Marsh Salt Bed		WATER RELATED Water-related Vegetation Wetland Marsh Swamp Water Construction LAND USE BOUNDARY	
4. TOPOGRAPHIC FEATURES			
Elevation, Contour, Spot Elevation, Contour Interval, etc.			
5. UTILITIES			
Power Lines, Telephone Lines, Gas Lines, Sewer Lines, etc.			
6. NAVIGATION			
Buoy, Beacon, Light, etc.			
7. BOUNDARY DIAGRAM			
Diagram showing sheet boundaries and grid lines.			

This map was produced under a cooperative understanding between the Department of the Interior and the Department of Public Works and Highways and the Government of Navotas.
 Data was collected by NAVOTAS in 1952-1953 and 1954-1955.
 Aerial Photography: 1952 & 1954
 Photo Interpretation: 1952 & 1954
 Field Surveys: 1952 & 1954
 Distributed by National Mapping and Research Institute
 Scale: 1:10,000
 © COPYRIGHT 1955

SCALE 1:10,000

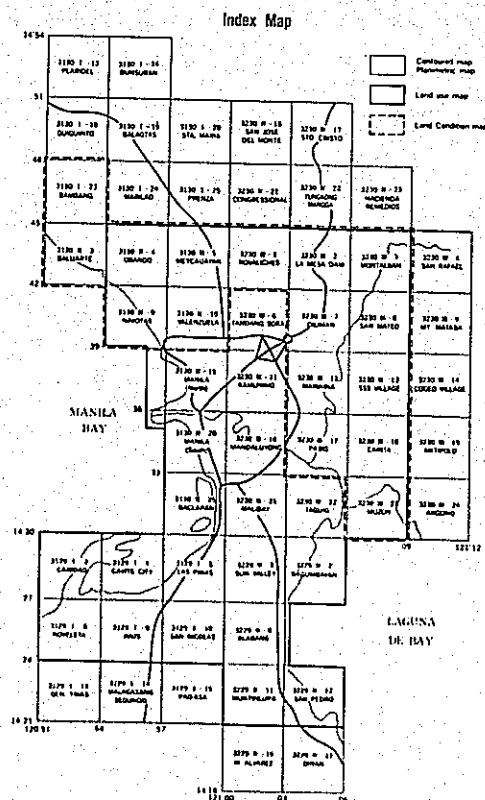
UNIVERSAL TRANSVERSE MERCATOR PROJECTION
 ZONE 51 CLARKE SPHEROID 1866 LUZON DATUM
 VERTICAL DATUM: MSL FOR HEIGHTS MLW FOR DEPTHS
 CONTOUR INTERVAL: 4 METERS

NAVOTAS
 Sheet No. 3130-II-9



METRO MANILA LAND USE MAP
SCALE 1 : 10,000

INFORMATION AND USAGE OF
THE LAND USE MAP



5. Criteria for Representation on the Land Use Map

The criteria for representing the land use classification on the 1:10,000 land use map are as follows:

- 5-1 Where buildings or facilities occupy a common compound, the land use classification is represented by the main usage of the compound.
- 5-2 The minimum area for representation in the Built-up Areas is generally 3mm x 3mm on the maps. As for the Commercial and Mixed in the Built-up Areas, however, consideration is given to represent about 1.5mm x 1.5mm areas on the maps because of their important functions.
- 5-3 The minimum area considered for the representation of the Military, Agricultural Land, Forest and Water Related is generally 5mm x 5mm.
- 5-4 In 2-story buildings whose usages are both Residential and some other categories (Commercial, Industrial and Business), the classification is of the latter.
- 5-5 In buildings of 3-story or more whose usages are multipurpose, the classification is Mixed and falls under one of the following four categories according to the main usage of the buildings:
 - Commercial and Residential,
 - Business and Commercial,
 - Industrial and Residential,
 - Business and Residential
- 5-6 The land use boundaries are represented by red colored lines. In case these boundary lines coincide with roads, railways, rivers, etc., the latter prevail.

2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

It is possible to recognize the existing land use together with various features (roads, railways, buildings, contour lines, coastal lines, annotations and others) shown on the base map.

It is expected that this land use map will be utilized as follows:

- 2-1 Administrative organizations can use this map for planning the re-development of built-up areas, development of suburban areas, improvement of transportation systems, housing development, disaster prevention, etc.
- 2-2 Survey and research organizations (universities, institutes, etc.) can use it for academic researches on geography, regional planning, civil engineering, etc.
- 2-3 Public organizations and private enterprises can use it for the proper selection and development of sites for their activities.
- 2-4 It can be more effectively used, together with the land condition map, for verifying the suitability of the present land use as well as for planning of the proper land development.

3. Classification of Land Use

The land use is classified into the following three major categories:

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- Others

These are then divided into 33 sub-classifications.

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- 3-2 The category "Agricultural Land" is divided into Rice Field, Cropland, Plantation, etc. and the category "Forest" is classified into Forest, Grassland and Bare Land. The warehouses for agricultural products and food processing factories are included in Agro-industrial.
- 3-3 The category "Others" consists of "Water Related" and "Open Space," and the "Water Related" includes Marine Pond, Salt Bed and Water-related Vegetation.

4. Land Use Survey

- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.
- 4-2 As for the major changes of land use patterns brought about after

- 5-7 Printing was conducted with 7 color separation plates (red, orange, blue, yellow, green, brown and black) and their combinations to make the land use patterns easily identifiable.

Residential (Multi-story Housing, Residential, Temporary Housing, Mixed Commercial-Residential), Land Use Boundary:	Red
Business, Commercial, Public (Educational and Cultural):	Orange
Industrial (Large-scale Industrial, Small-scale Industrial, Mixed Industrial-Residential):	Blue-red
Mixed (Mixed Business-Commercial, Mixed Business-Residential):	Red-orange
Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics):	Brown
Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest:	Green
Agricultural Land:	Yellow-brown
Water Related:	Blue
Base Map and Annotation:	Black

REPUBLIC OF THE PHILIPPINES

1. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1984 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 4-year technical cooperation program starting in 1985.

1-1 Outline of these maps is as follows:

Contoured map (Topographic map) 1 : 10,000	1,500km ² (57 sheets)
Planimetric map 1 : 10,000	1,500km ² (57 sheets)
Land use map 1 : 10,000	82.3km ² (33 sheets)
Land condition map 1 : 10,000	47.6km ² (16 sheets)

(see Index Map)

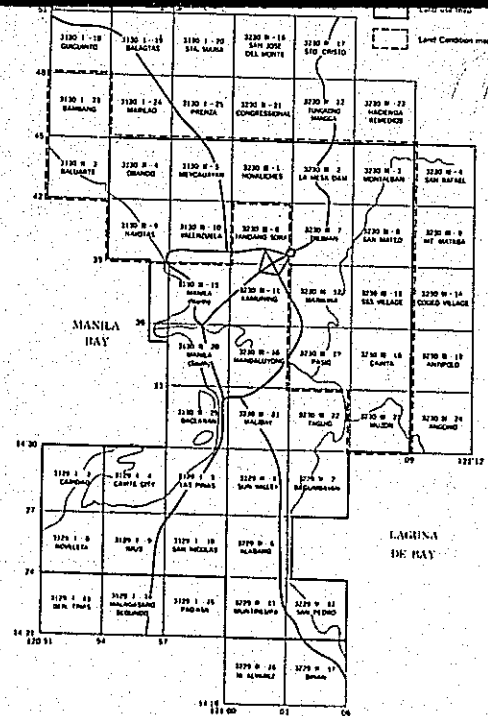
1-2 The contoured map was completed in 1987. The aerial photographs taken in 1982 were used for field identification and stereo plotting. As for the major changes after aerial photography, the results of field completion conducted in 1986 and the interpretation of the aerial photographs taken in the same year were integrated.

1-3 The planimetric map was completed in 1987 by the combination of color separation plates of the contoured map.

1-4 The land use map was completed in 1989 using the contoured map as the base and integrating mainly the interpretation of the aerial photographs taken in 1982 and the results of field identification conducted in 1985.

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INFORMATION AND USAGE OF THE LAND USE MAP



REPUBLIC OF THE PHILIPPINES

I. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1981 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 3-year technical cooperation program starting in 1985.

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2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

It is possible to recognize the existing land use together with various features (roads, railways, buildings, contour lines, coastal lines, annotations and others) shown on the base map.

It is expected that this land use map will be utilized as follows:

- 2-1 Administrative organizations can use this map for planning the re-development of built-up areas, development of suburban areas, improvement of transportation systems, housing development, disaster prevention, etc.
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3. Classification of Land Use

The land use is classified into the following three major categories:

- Built-up Area,
- Agricultural Land and Forest
- Others

These are then divided into 33 sub-classifications.

- 3-1 The category "Built-up Area" is classified into Residential, Commercial and Business, Industrial, Public and Government, Facilities, etc. on the basis of the main usage of the buildings.
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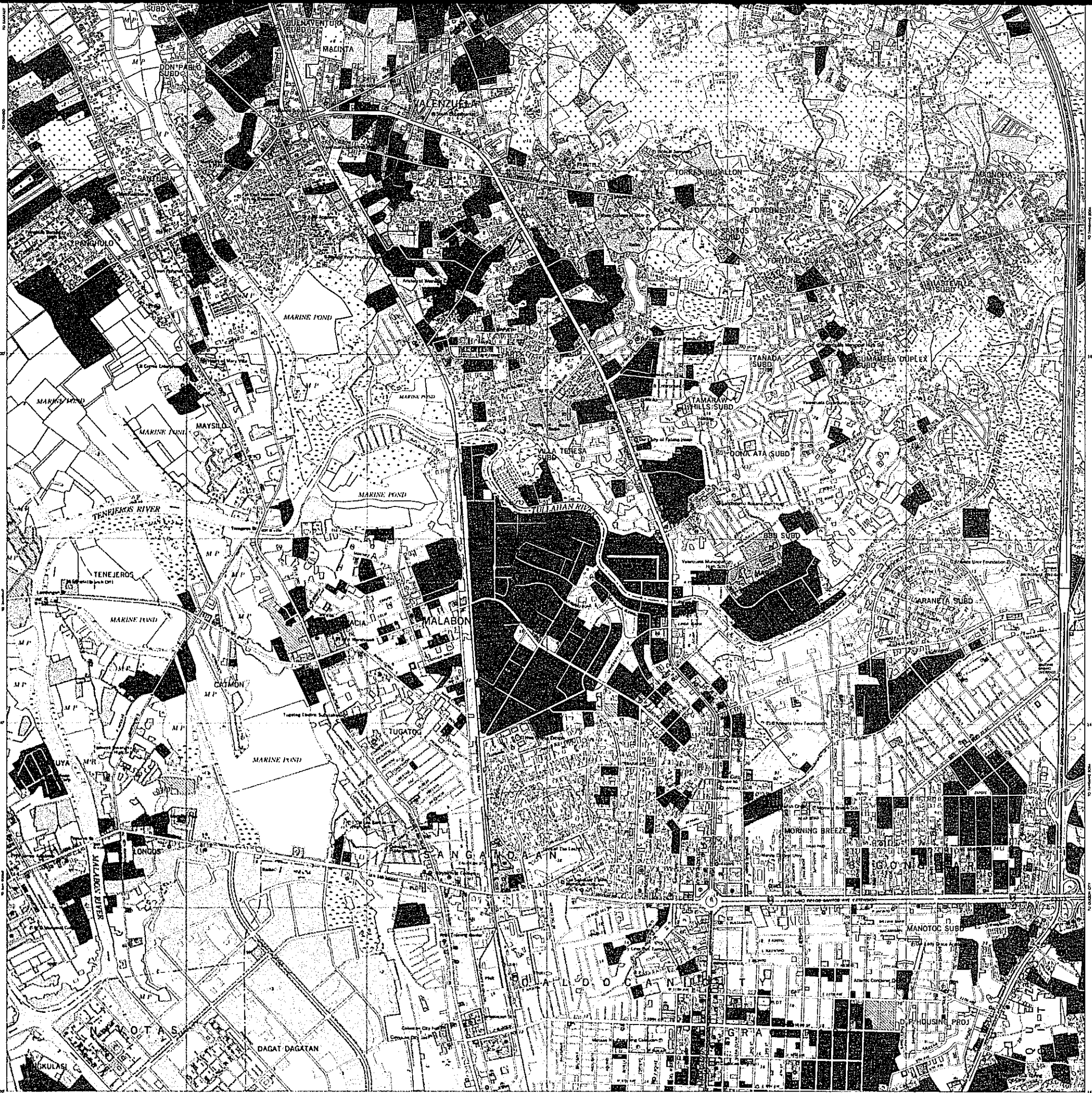
4. Land Use Survey

- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.
- 4-2 As for the major changes of land use patterns brought about after 1985, the interpretation of the aerial photographs taken in 1986 and the field completion conducted in 1987 were integrated.

- 5-1 Where buildings or facilities occupy a common compound, the land use classification is represented by the main usage of the compound.
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 - Industrial and Residential,
 - Business and Residential
- 5-6 The land use boundaries are represented by red colored lines. In case these boundary lines coincide with roads, railways, rivers, etc., the latter prevail.

- 5-7 Printing was conducted with 7 color separation plates (red, orange, blue, yellow, green, brown and black) and their combinations to make the land use patterns easily identifiable.

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Business, Commercial, Public (Educational and Cultural):	Orange
Industrial (Large-scale Industrial, Small-scale Industrial, Mixed Industrial-Residential):	Blue-red
Mixed (Mixed Business-Commercial, Mixed Business-Residential):	Red-orange
Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics):	Brown
Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest:	Green
Agricultural Land:	Yellow-brown
Water Related:	Blue
Base Map and Annotation:	Black



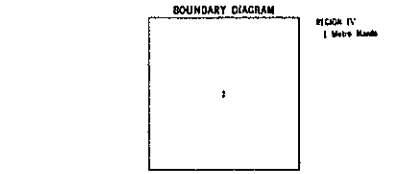
RESIDENTIAL	Public Use	Public Use
Medium-Density Residential	Public Office	Libraries and Cultural
High-Density Residential	Police Station	Health and Welfare
Low-Density Residential	Fire Station	Park and Recreation
Commercial Residential	Religious and Charitable	Transportation
Mixed Commercial-Residential	Service	Warehouses and Cold Storage
Mixed Business-Residential	Stores and Offices	Industry
Large-scale Industry	Warehouses	
Small-scale Industry		
Mixed Industrial-Residential		

2. AGRICULTURAL LAND AND FOREST		
Barangay	Forest	Barangay
Barangay	Barangay	Barangay
Barangay	Barangay	Barangay
Barangay	Barangay	Barangay
Barangay	Barangay	Barangay
Barangay	Barangay	Barangay
Barangay	Barangay	Barangay
Barangay	Barangay	Barangay
Barangay	Barangay	Barangay
Barangay	Barangay	Barangay

3. OTHERS		
Water	Water	Water
Water	Water	Water
Water	Water	Water
Water	Water	Water
Water	Water	Water
Water	Water	Water
Water	Water	Water
Water	Water	Water
Water	Water	Water
Water	Water	Water

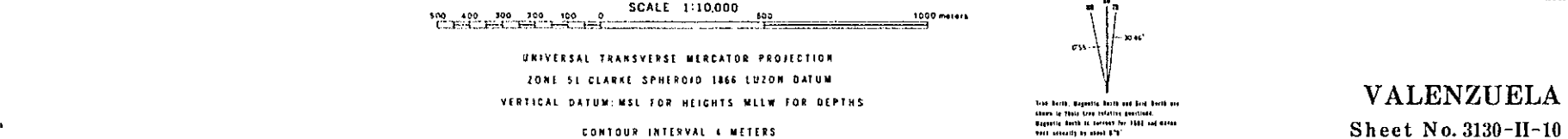
4. TOPOGRAPHIC FEATURES		
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary
City Boundary	City Boundary	City Boundary

Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office
Public Office	Public Office	Public Office	Public Office



INDEX TO ADJOINING SHEETS			
3130 II 4	3130 II 5	3230 II 1	
3130 II 8	3130 II 10 VALENZUELA	3230 II 6	
	3130 II 9	3230 II 1	

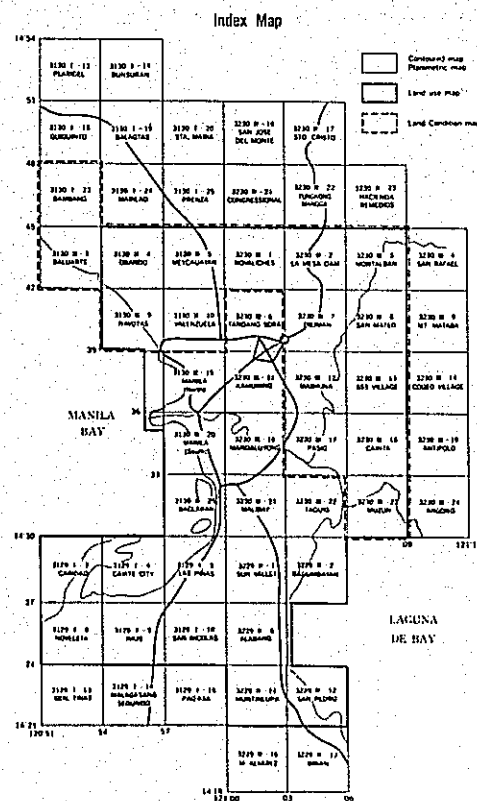
This map was produced under a cooperative understanding between the Government of the Republic of the Philippines and the Government of Japan.
 Date: 1975
 Scale: 1:10,000
 Projection: UTM
 Datum: 1966 Luzon Datum
 Contour Interval: 4 meters



VALENZUELA
Sheet No. 3130-II-10

METRO MANILA LAND USE MAP
SCALE 1 : 10,000

INFORMATION AND USAGE OF
THE LAND USE MAP



REPUBLIC OF THE PHILIPPINES

1. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1984 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

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Planimetric map	1 : 10,000	1,500km ² (57 sheets)
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Land condition map	1 : 10,000	476km ² (16 sheets)

(see Index Map)

1-2 The contoured map was completed in 1987. The aerial photographs taken in 1982 were used for field identification and stereo plotting. As for the major changes after aerial photography, the results of field completion conducted in 1986 and the interpretation of the aerial photographs taken in the same year were integrated.

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2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

It is possible to recognize the existing land use together with various features (roads, railways, buildings, contour lines, coastal lines, annotations and others) shown on the base map.

It is expected that this land use map will be utilized as follows:

- 2-1 Administrative organizations can use this map for planning the re-development of built-up areas, development of suburban areas, improvement of transportation systems, housing development, disaster prevention, etc.
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4. Land Use Survey

- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.
- 4-2 As for the major changes of land use patterns brought about after

5. Criteria for Representation on the Land Use Map

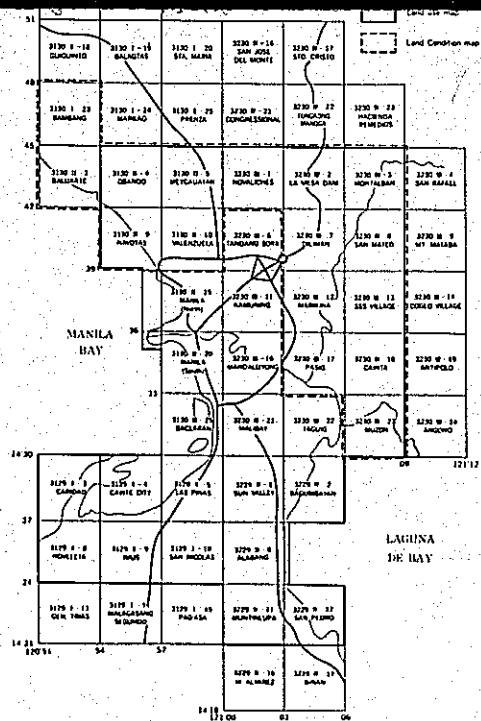
The criteria for representing the land use classification on the 1:10,000 land use map are as follows:

- 5-1 Where buildings or facilities occupy a common compound, the land use classification is represented by the main usage of the compound.
- 5-2 The minimum area for representation in the Built-up Areas is generally 3mm×3mm on the maps. As for the Commercial and Mixed in the Built-up Areas, however, consideration is given to represent about 1.5mm×1.5mm areas on the maps because of their important functions.
- 5-3 The minimum area considered for the representation of the Military, Agricultural Land, Forest and Water Related is generally 5mm×5mm.
- 5-4 In 2-story buildings whose usages are both Residential and some other categories (Commercial, Industrial and Business), the classification is of the latter.
- 5-5 In buildings of 3-story or more whose usages are multipurpose, the classification is Mixed and falls under one of the following four categories according to the main usage of the buildings:
 - Commercial and Residential,
 - Business and Commercial,
 - Industrial and Residential,
 - Business and Residential
- 5-6 The land use boundaries are represented by red colored lines. In case these boundary lines coincide with roads, railways, rivers, etc., the latter prevail.

- 5-7 Printing was conducted with 7 color separation plates (red, orange, blue, yellow, green, brown and black) and their combinations to make the land use patterns easily identifiable.

Residential (Multi-story Housing, Residential, Temporary Housing, Mixed Commercial-Residential),	Land Use Boundary:	Red
Business, Commercial, Public (Educational and Cultural):		Orange
Industrial (Large-scale Industrial, Small-scale Industrial, Mixed Industrial-Residential):		Blue-red
Mixed (Mixed Business-Commercial, Mixed Business-Residential):		Red-orange
Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics):		Brown
Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest:		Green
Agricultural Land:		Yellow-brown
Water Related:		Blue
Base Map and Annotation:		Black

INFORMATION AND USAGE OF
THE LAND USE MAP



REPUBLIC OF THE PHILIPPINES

2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

It is possible to recognize the existing land use together with various features (roads, railways, buildings, contour lines, coastal lines, annotations and others) shown on the base map.

It is expected that this land use map will be utilized as follows:

- 2-1 Administrative organizations can use this map for planning the re-development of built-up areas, development of suburban areas, improvement of transportation systems, housing development, disaster prevention, etc.
- 2-2 Survey and research organizations (universities, institutes, etc.) can use it for academic researches on geography, regional planning, civil engineering, etc.
- 2-3 Public organizations and private enterprises can use it for the proper selection and development of sites for their activities.
- 2-4 It can be more effectively used, together with the land condition map, for verifying the suitability of the present land use as well as for planning of the proper land development.

3. Classification of Land Use

The land use is classified into the following three major categories:

- Built-up Area.
- Agricultural Land and Forest
- Others

These are then divided into 33 sub-classifications.

- 3-1 The category "Built-up Area" is classified into Residential, Commercial and Business, Industrial, Public and Government, Facilities, etc. on the basis of the main usage of the buildings.
- 3-2 The category "Agricultural Land" is divided into Rice Field, Cropland, Plantation, etc. and the category "Forest" is classified into Forest, Grassland and Bare Land. The warehouses for agricultural products and food processing factories are included in Agro-industrial.
- 3-3 The category "Others" consists of "Water Related" and "Open Space," and the "Water Related" includes Marine Pond, Salt Bed and Water-related Vegetation.

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- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.
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- 5-3 The minimum area considered for the representation of the Military, Agricultural Land, Forest and Water Related is generally 5mm×5mm.
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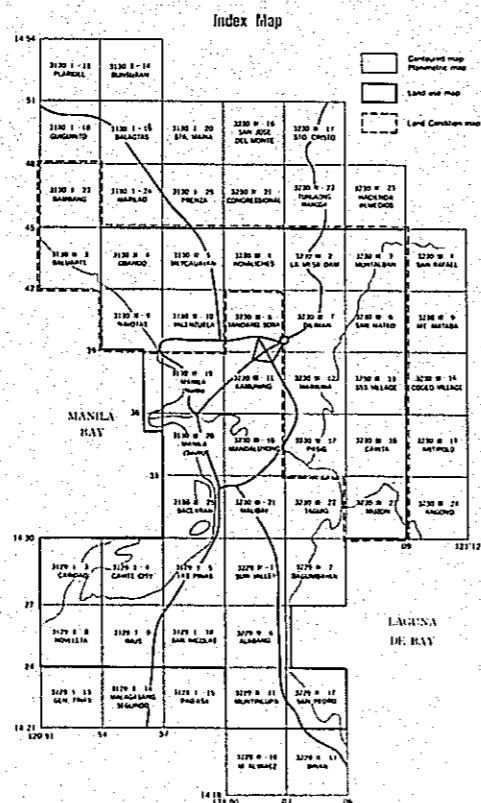
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 - Business, Commercial, Public (Educational and Cultural): Orange
 - Industrial (Large-scale Industrial, Small-scale Industrial, Mixed Industrial-Residential): Blue-red
 - Mixed (Mixed Business-Commercial, Mixed Business-Residential): Red-orange
 - Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics): Brown
 - Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest: Green
 - Agricultural Land: Yellow-brown
 - Water Related: Blue
 - Base Map and Annotation: Black

- 1. Background
 - To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1984 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.
 - In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 4-year technical cooperation program starting in 1985.
 - 1-1 Outline of those maps is as follows:

Contoured map (Topographic map)	1 : 10,000	1,500km ² (57 sheets)
Planimetric map	1 : 10,000	1,500km ² (57 sheets)
Land use map	1 : 10,000	823km ² (33 sheets)
Land condition map	1 : 10,000	478km ² (16 sheets)

 (see Index Map)
 - 1-2 The contoured map was completed in 1987. The aerial photographs taken in 1982 were used for field identification and stereo plotting. As for the major changes after aerial photography, the results of field completion conducted in 1986 and the interpretation of the aerial photographs taken in the same year were integrated.
 - 1-3 The planimetric map was completed in 1987 by the combination of color separation plates of the contoured map.
 - 1-4 The land use map was completed in 1989 using the contoured map as the base and integrating mainly the interpretation of the aerial photographs taken in 1982 and the results of field identification conducted in 1985.
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METRO MANILA LAND USE MAP
SCALE 1 : 10,000



INFORMATION AND USAGE OF
THE LAND USE MAP

5. Criteria for Representation on the Land Use Map.

The criteria for representing the land use classification on the 1:10,000 land use map are as follows:

- 5-1 Where buildings or facilities occupy a common compound, the land use classification is represented by the main usage of the compound.
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 - Industrial and Residential,
 - Business and Residential
- 5-6 The land use boundaries are represented by red colored lines. In case these boundary lines coincide with roads, railways, rivers, etc., the latter prevail.

REPUBLIC OF THE PHILIPPINES

2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

It is possible to recognize the existing land use together with various features (roads, railways, buildings, contour lines, coastal lines, annotations and others) shown on the base map.

It is expected that this land use map will be utilized as follows:

- 2-1 Administrative organizations can use this map for planning the re-development of built-up areas, development of suburban areas, improvement of transportation systems, housing development, disaster prevention, etc.
- 2-2 Survey and research organizations (universities, institutes, etc.) can use it for academic researches on geography, regional planning, civil engineering, etc.
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- 3-3 The category "Others" consists of "Water Related" and "Open Space," and the "Water Related" includes Marine Pond, Salt Bed and Water-related Vegetation.

4. Land Use Survey

- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.

1. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1981 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 4-year technical cooperation program starting in 1985.

1-1 Outline of these maps is as follows:

Contoured map (Topographic map)	1 : 10,000	1,500km ² (57 sheets)
Planimetric map	1 : 10,000	1,500km ² (57 sheets)
Land use map	1 : 10,000	823km ² (33 sheets)
Land condition map	1 : 10,000	176km ² (16 sheets)

(see Index Map)

1-2 The contoured map was completed in 1987. The aerial photographs taken in 1982 were used for field identification and stereo plotting. As for the major changes after aerial photography, the results of field completion conducted in 1986 and the interpretation of the aerial photographs taken in the same year were integrated.

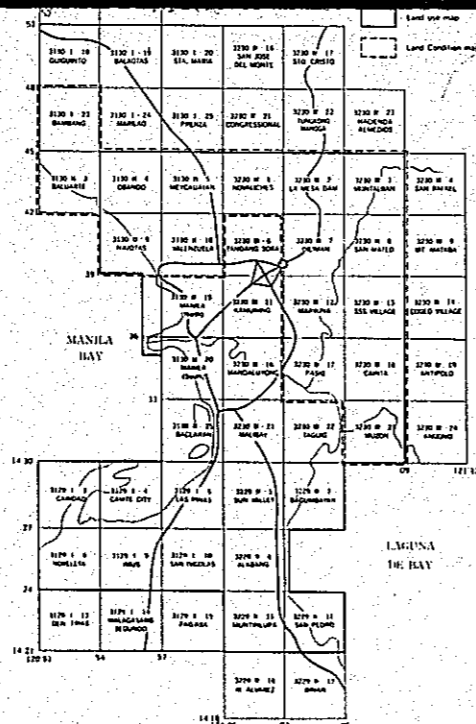
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5-7 Printing was conducted with 7 color separation plates (red, orange, blue, yellow, green, brown and black) and their combinations to make the land use patterns easily identifiable.

Residential (Multi-story Housing, Residential, Temporary Housing, Mixed Commercial-Residential),	Red
Land Use Boundary:	Red
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Agricultural Land:	Yellow-brown
Water Related:	Blue
Base Map and Annotation:	Black



INFORMATION AND USAGE OF THE LAND USE MAP

REPUBLIC OF THE PHILIPPINES

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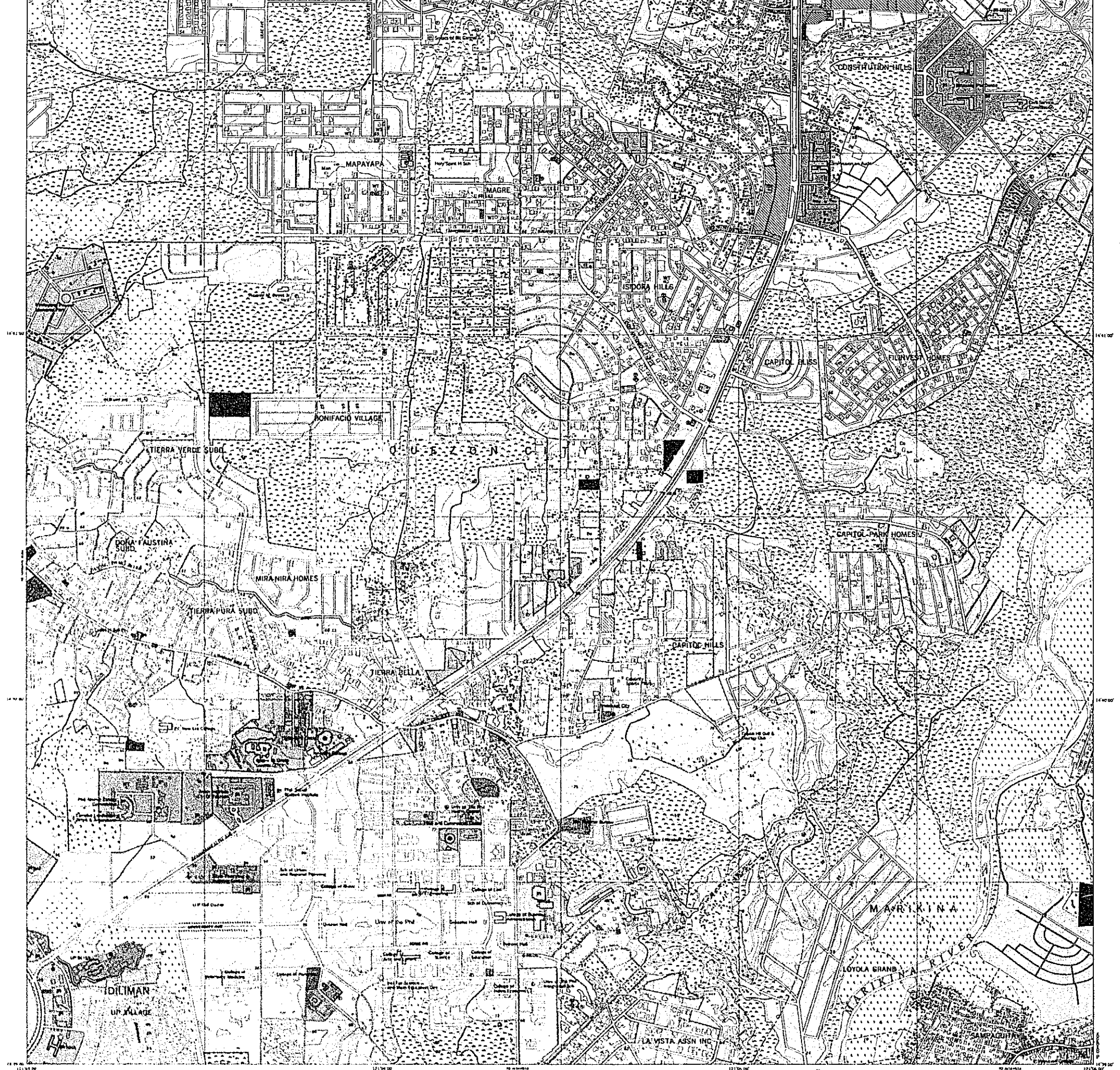
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Residential (Multi-story Housing, Residential, Temporary Housing, Mixed Commercial-Residential),	Red
Land Use Boundary:	Red
Business, Commercial, Public (Educational and Cultural):	Orange
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Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest:	Green
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Water Related:	Blue
Base Map and Annotation:	Black

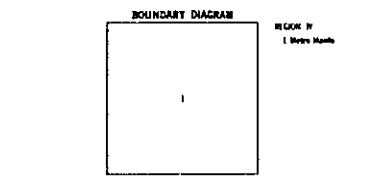


GENERAL		PUBLIC AND UTILITIES	
Residential	Industrial and Cultural	Water Supply	Electricity
Temporary Housing	Health and Welfare	Public Buildings	Telecommunications
Business	Park and Recreation	Police and Fire Stations	Transportation
Commercial	Religious and Community	Embassies and Consulates	Ports
Mixed Commercial/Residential	Transportation	Embassies and Consulates	Airports and Airfields
Mixed Business/Commercial	Ports	Embassies and Consulates	Military
Mixed Business/Industrial	Water Supply	Embassies and Consulates	
Large-scale Industrial	Electricity	Embassies and Consulates	
Small-scale Industrial	Telecommunications	Embassies and Consulates	
Mixed Industrial/Residential	Transportation	Embassies and Consulates	

2. AGRICULTURAL LAND AND FOREST	
Rice Paddy	Forest
Coconut	Timber
Plantation and Farmland	Other Forest
Wheat	Shrubland
Soybean	Open Land
Other Cereals	Swamp
Other Crops	Wetland
Agro-forestry	Wetland

3. OTHERS	
Water Courses	Water-related Vegetation
Wells	Wells
Canals	Canals
Other Water Features	Other Water Features
Water Ponds	Water Ponds
Land Use Boundary	Land Use Boundary

4. TOPOGRAPHIC FEATURES	
Spot Height	Spot Height
Contour Interval	Contour Interval
Spot Elevation	Spot Elevation
Contour Lines	Contour Lines
Spot Elevation	Spot Elevation
Contour Lines	Contour Lines
Spot Elevation	Spot Elevation
Contour Lines	Contour Lines



INDEX TO ADJOINING SHEETS		
3230 III-1	3230 III-2	3230 III-3
3230 III-4	3230 III-5	3230 III-6
3230 III-7	3230 III-8	3230 III-9

This map was prepared under a cooperative understanding between the Department of the Interior and the Department of Health, Education and Culture. It was prepared by the National Mapping and Research Institute, Manila, Philippines, under the supervision of the Director, National Mapping and Research Institute, Manila, Philippines. The map was prepared by the National Mapping and Research Institute, Manila, Philippines, under the supervision of the Director, National Mapping and Research Institute, Manila, Philippines.

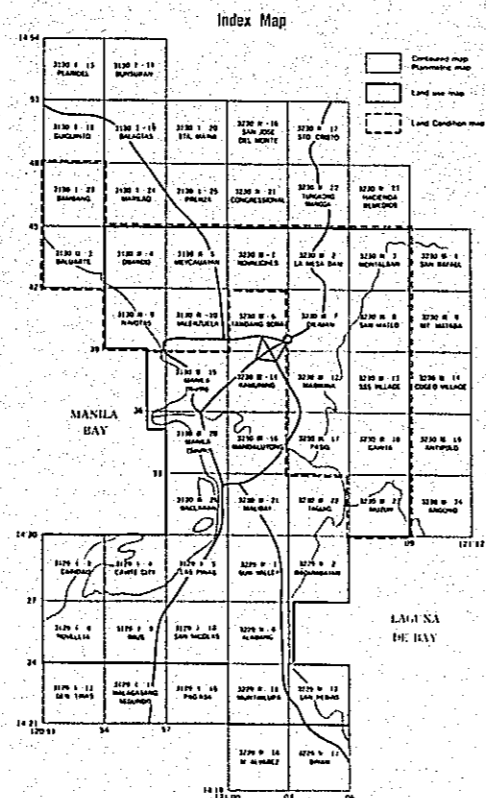
SCALE 1:10,000
 UNIVERSAL TRANSVERSE MERCATOR PROJECTION
 ZONE 51 CLARKE SPHEROID 1986 LUZON DATUM
 VERTICAL DATUM: MSL FOR HEIGHTS MLLW FOR DEPTHS
 CONTOUR INTERVAL 4 METERS

DILIMAN
 Sheet No. 3230-III-7



METRO MANILA LAND USE MAP
SCALE 1 : 10,000

INFORMATION AND USAGE OF
THE LAND USE MAP



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The criteria for representing the land use classification on the 1:10,000 land use map are as follows:

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REPUBLIC OF THE PHILIPPINES

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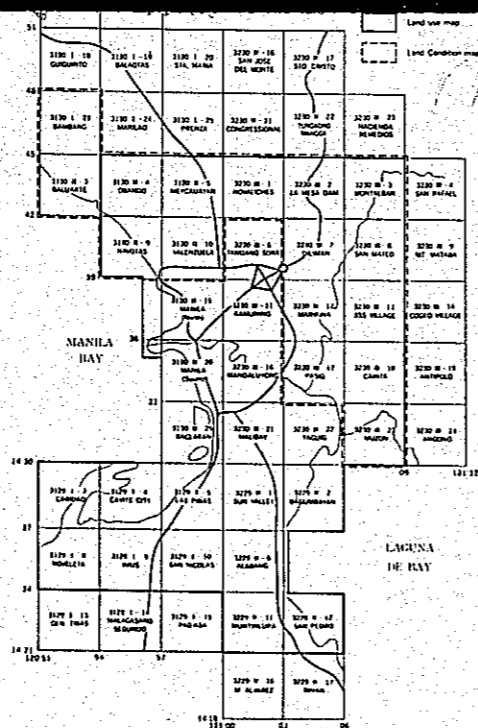
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INFORMATION AND USAGE OF THE LAND USE MAP



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REPUBLIC OF THE PHILIPPINES

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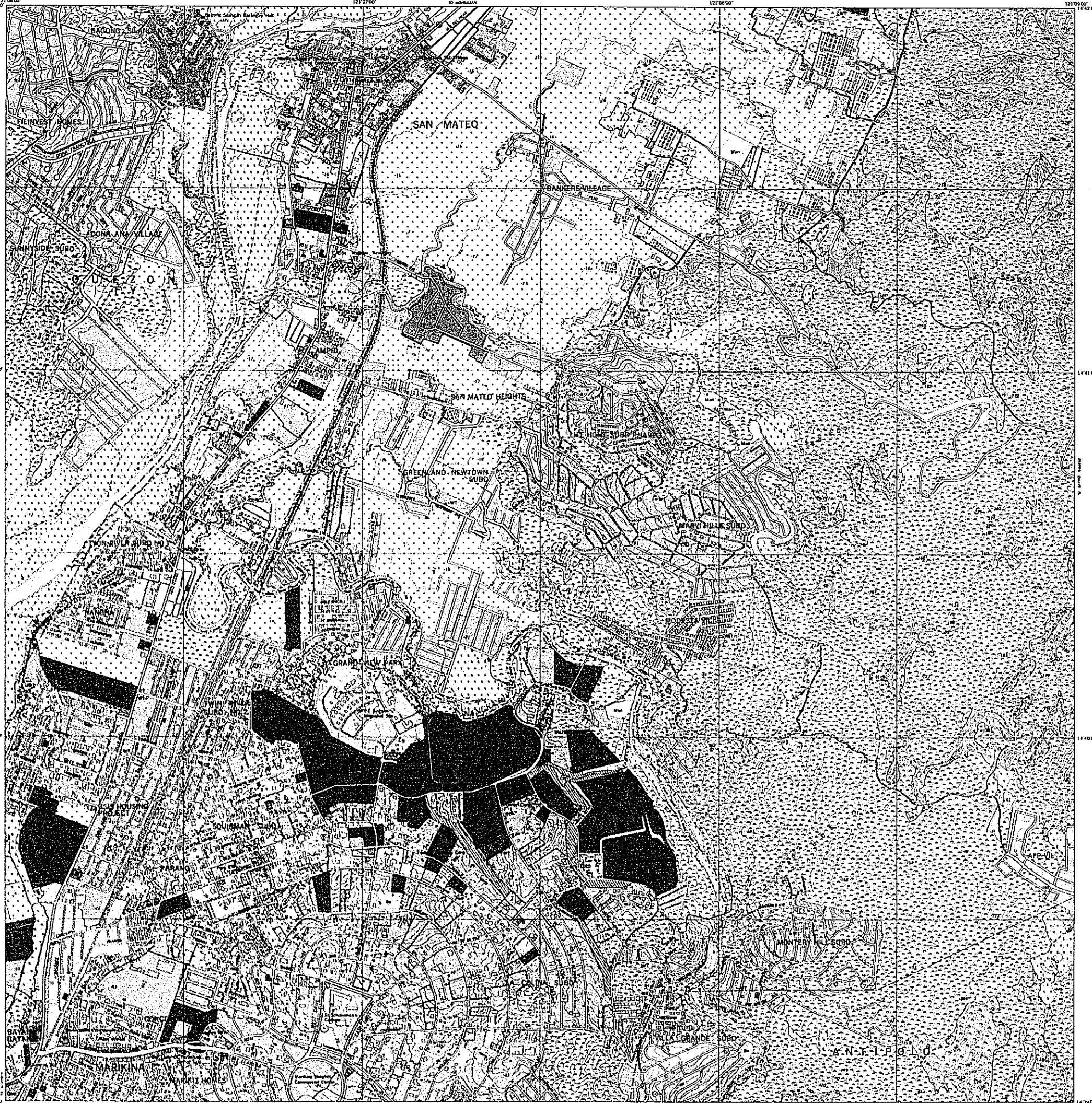
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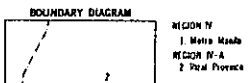
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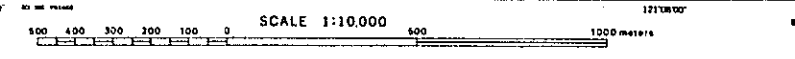
1. BUILT-UP AREA			
RESIDENTIAL	Multi-story Housing		Commercial and Social Public
	Residential		Entertainment and Cultural
	Temporary Housing		Health and Welfare
COMMERCIAL AND BUSINESS	Business		Park and Recreation
	Commercial		Religious and Cemetery
	Hotel Commercial/Residential		Transportation
	Hotel Business/Commercial		Service
INDUSTRIAL	Large-scale Industrial		Sports and Recreation
	Small-scale Industrial		Military
	Hotel Industrial/Residential		
PUBLIC LAND CONCEPTS			
2. AGRICULTURAL LAND AND FOREST			
AGRICULTURAL LAND	Open Fields		Forest
	Cropland		Timber
	Preservation and Cultural Sites		Wetland
	Forest		Barren Land
	Highway		Barren Land
	Forest		Barren Land
	Forest		Barren Land
	Forest		Barren Land
	Forest		Barren Land
	Forest		Barren Land
3. OTHERS			
WATER RELATED	Water Surface		Water-related Vegetation
	Water		Water-related Vegetation
	Water		Water-related Vegetation
	Water		Water-related Vegetation
LAND USE BOUNDARY	Water		Water-related Vegetation
	Water		Water-related Vegetation
4. TOPOGRAPHIC FEATURES			
Shading	Shading		Shading
	Shading		Shading
	Shading		Shading
	Shading		Shading
	Shading		Shading
	Shading		Shading
	Shading		Shading
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	Shading		Shading
	Shading		Shading



INDEX TO ADJOINING SHEETS

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3230 III-7	3230 III-8 SAN MATEO	3230 III-9
3230 III-12	3230 III-13	3230 III-14

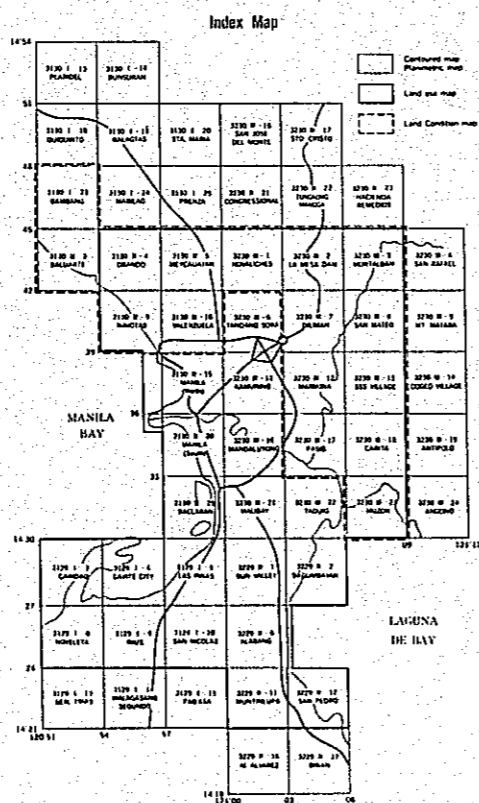
This map was produced under a cooperative understanding between the Government of the Republic of the Philippines and the Government of Japan



METRO MANILA LAND USE MAP
SCALE 1 : 10,000

**INFORMATION AND USAGE OF
THE LAND USE MAP**

REPUBLIC OF THE PHILIPPINES



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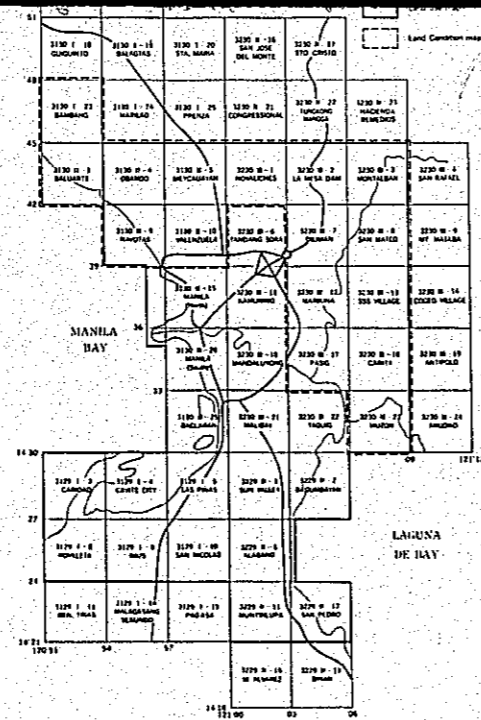
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INFORMATION AND USAGE OF THE LAND USE MAP



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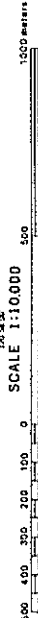
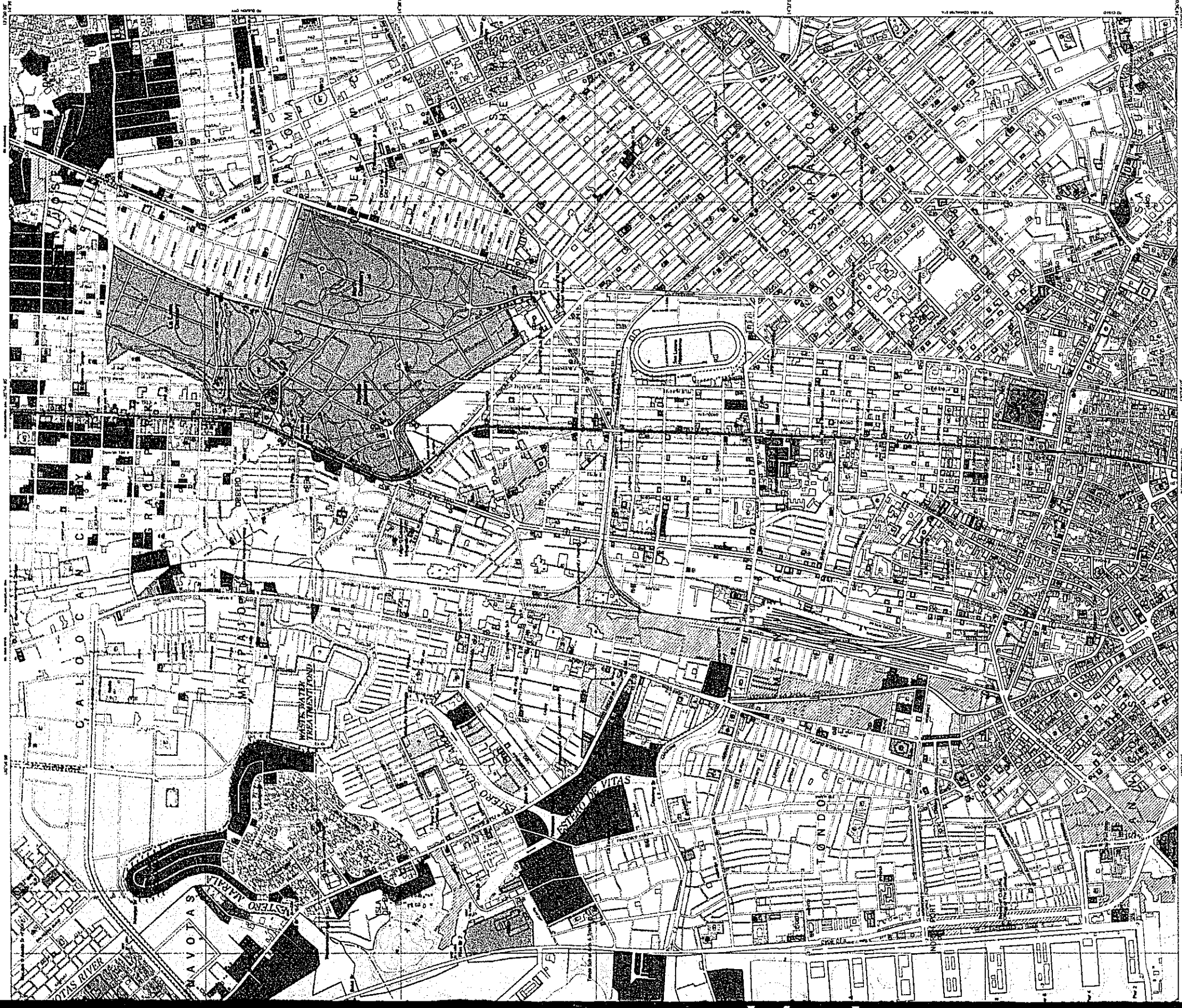
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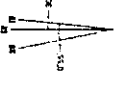
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MANILA (NORTH)

Land Use Map No. 3130-II-15
Edition I 1988



UNIVERSAL TRANSVERSE MERCATOR PROJECTION
ZONE 51 CLARKE SPHEROID 1866 LUZON DATUM
VERTICAL DATUM: MSL FOR HEIGHTS MLLW FOR DEPTHS
CONTOUR INTERVAL 4 METERS

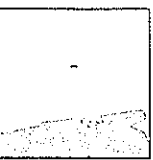


Use North Arrow as a guide only for
areas of their first survey period.
Elevations based on datum for 1988 are given
and adjusted to mean sea level.

LEGEND

1. BUILT UP AREA		2. AGRICULTURAL LAND AND FOREST		3. WATERS		4. TOPOGRAPHIC FEATURES	
Industrial	Commercial	Forest	Barangay	Water	Contour	Spot Elevation	Spot Height
Residential	Public	Barangay	Barangay	Canal	Spot Elevation	Spot Height	Spot Height
...

BOUNDARY DIAGRAM
Scale 1:100,000



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3130-18	3130-19
3130-20	3130-21
3130-22	3130-23



MANILA (North)
Sheet No. 3130-II-15

N.C.R. PROJECT
1:10,000

MANILA (NORTH)



SCALE 1:10,000

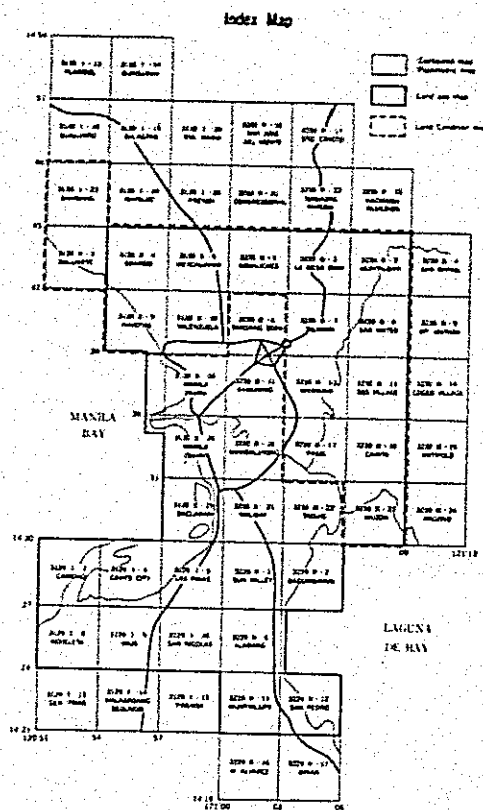
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VERTICAL DATUM: MSL FOR HEIGHTS MLLW FOR DEPTHS
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INFORMATION AND USAGE OF
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REPUBLIC OF THE PHILIPPINES



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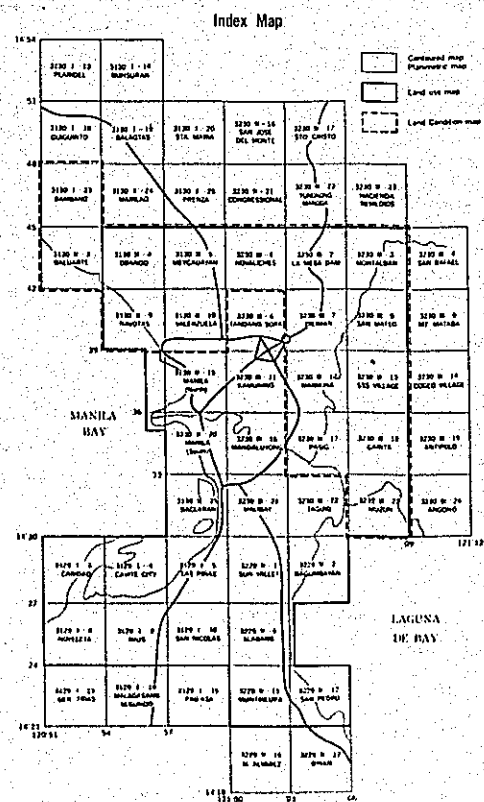
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1-1 Outline of these maps is as follows:

Contoured map (Topographic map)	1 : 10,000	1,500km ² (57 sheets)
Planimetric map	1 : 10,000	1,500km ² (57 sheets)
Land use map	1 : 10,000	823km ² (33 sheets)
Land condition map	1 : 10,000	476km ² (16 sheets)

(see Index Map)

1-2 The contoured map was completed in 1987. The aerial photographs taken in 1982 were used for field identification and stereo plotting. As for the major changes after aerial photography, the results of field completion conducted in 1986 and the interpretation of the aerial photographs taken in the same year were integrated.

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1-5 The land condition map was completed in 1989 to represent landform classification, ground elevation, organization and facilities using the contoured map as the base. The representation was made mainly on the basis of the interpretation of the aerial photographs taken in 1982

2. Utilization of Land Use Map

This land use map is prepared using the 1:10,000 contoured map as the base on which the existing land use patterns are printed in 7 colors.

It is possible to recognize the existing land use together with various features (roads, railways, buildings, contour lines, coastal lines, annotations and others) shown on the base map.

It is expected that this land use map will be utilized as follows:

- 2-1 Administrative organizations can use this map for planning the redevelopment of built-up areas, development of suburban areas, improvement of transportation systems, housing development, disaster prevention, etc.
- 2-2 Survey and research organizations (universities, institutes, etc.) can use it for academic researches on geography, regional planning, civil engineering, etc.
- 2-3 Public organizations and private enterprises can use it for the proper selection and development of sites for their activities.
- 2-4 It can be more effectively used, together with the land condition map, for verifying the suitability of the present land use as well as for planning of the proper land development.

3. Classification of Land Use

The land use is classified into the following three major categories:

- Built-up Area,
- Agricultural Land and Forest
- Others

These are then divided into 33 sub-classifications.

- 3-1 The category "Built-up Area" is classified into Residential, Commercial and Business, Industrial, Public and Government, Facilities, etc. on the basis of the main usage of the buildings.
- 3-2 The category "Agricultural Land" is divided into Rice Field, Cropland, Plantation, etc. and the category "Forest" is classified into Forest, Grassland and Bare Land. The warehouses for agricultural products and food processing factories are included in Agro-industrial.
- 3-3 The category "Others" consists of "Water Related" and "Open Space," and the "Water Related" includes Marine Pond, Salt Bed and Water-related Vegetation.

4. Land Use Survey

- 4-1 The classification of land use patterns was mainly carried out by the interpretation of the aerial photographs taken in 1982 and by field identification conducted in 1985.

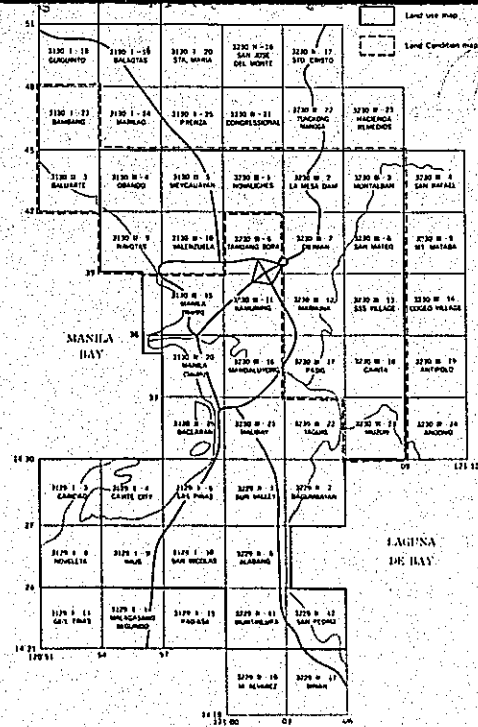
5. Criteria for Representation on the Land Use Map

The criteria for representing the land use classification on the 1:10,000 land use map are as follows:

- 5-1 Where buildings or facilities occupy a common compound, the land use classification is represented by the main usage of the compound.
- 5-2 The minimum area for representation in the Built-up Areas is generally 3mm×3mm on the maps. As for the Commercial and Mixed in the Built-up Areas, however, consideration is given to represent about 1.5mm×1.5mm areas on the maps because of their important functions.
- 5-3 The minimum area considered for the representation of the Military, Agricultural Land, Forest and Water Related is generally 5mm×5mm.
- 5-4 In 2-story buildings whose usages are both Residential and some other categories (Commercial, Industrial and Business), the classification is of the latter.
- 5-5 In buildings of 3-story or more whose usages are multipurpose, the classification is Mixed and falls under one of the following four categories according to the main usage of the buildings:
 - Commercial and Residential,
 - Business and Commercial,
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 - Business and Residential
- 5-6 The land use boundaries are represented by red colored lines. In case these boundary lines coincide with roads, railways, rivers, etc., the latter prevail.

- 5-7 Printing was conducted with 7 color separation plates (red, orange, blue, yellow, green, brown and black) and their combinations to make the land use patterns easily identifiable.

Residential (Multi-story Housing, Residential, Temporary Housing, Mixed Commercial-Residential), Land Use Boundary:	Red
Business, Commercial, Public (Educational and Cultural):	Orange
Industrial (Large-scale Industrial, Small-scale Industrial, Mixed Industrial-Residential):	Blue-red
Mixed (Mixed Business-Commercial, Mixed Business-Residential):	Red-orange
Public and Government (Government and Quasi-public) and Facilities (Transportation, Service, Sports and Athletics):	Brown
Public and Government (Health and Welfare, Religious and Cemetery, Park and Recreational), Forest:	Green
Agricultural Land:	Yellow-brown
Water Related:	Blue
Base Map and Annotation:	Black



INFORMATION AND USAGE OF THE LAND USE MAP

REPUBLIC OF THE PHILIPPINES

1. Background

To cope with many urban problems prevailing in the National Capital Region, the Philippine Government requested the Japanese Government in March 1984 for technical cooperation in the preparation of urban base maps, which represent the existing conditions of the Region in detail, as basic materials for the implementation of various public works as well as the establishment of diverse plans concerning disaster prevention, land use, urban redevelopment, etc.

In response to the request for technical cooperation, the Japanese Government sent preliminary survey teams to Manila in January through March 1985 for discussions with the authorities concerned in the Philippine Government and for field survey and data collection in the Region. The Japanese Government consequently agreed on a 4-year technical cooperation program starting in 1985.

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2. Utilization of Land Use Map

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