

BEIP-GIS

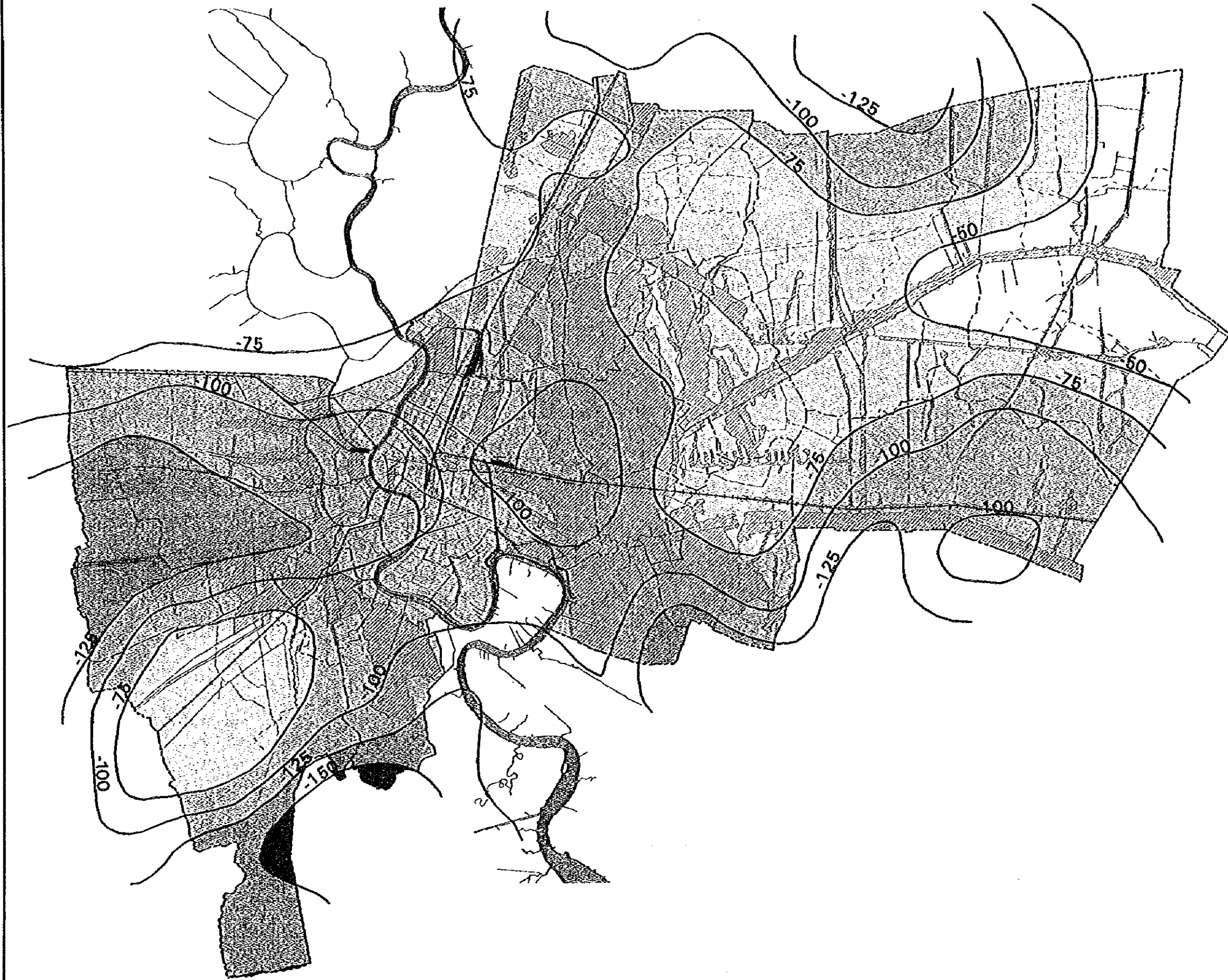
URBAN ENVIRONMENTAL PROBLEM ANALYSIS

PACIFIC CONSULTANTS INTERNATIONAL
SUURI-KEIKAKU CO., LTD.

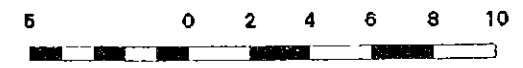
Problem Areas on Natural Constraints

Legend

- Less than -50 cm
- 50 to -75 cm
- 75 to -100 cm
- 100 to -125 cm
- 125 to -150 cm
- More than -150 cm
- Flooded Area in 1983
- Chaopraya River
- Railways
- BMA Boundary
- District Boundary
- Subdistrict Boundary



SCALE 1:235000



KILOMETERS

THE STUDY
ON
URBAN ENVIRONMENTAL IMPROVEMENT PROGRAM
IN
BANGKOK METROPOLITAN AREA (BEIP)


















BANGKOK METROPOLITAN ADMINISTRATION (BMA)
THE GOVERNMENT OF THE KINGDOM OF THAILAND

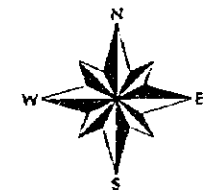


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

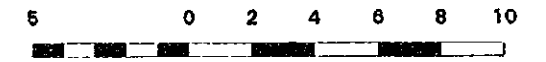
Densely Inhabited Area

Legend

-  0 to 20 persons/ha
-  20 to 60 persons/ha
-  60 to 100 persons/ha
-  100 to 200 persons/ha
-  200 to 300 persons/ha
-  300 to 400 persons/ha
-  400 to 500 persons/ha
-  500 to 700 persons/ha
-  More than 700 persons/ha
-  Less than 20 house/ha
-  20 to 30 house/ha
-  30 to 40 house/ha
-  40 to 50 house/ha
-  More than 50 house/ha
-  Chaopraya River



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




BANGKOK METROPOLITAN ADMINISTRATION (BMA)
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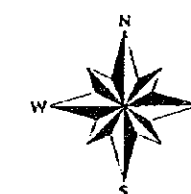
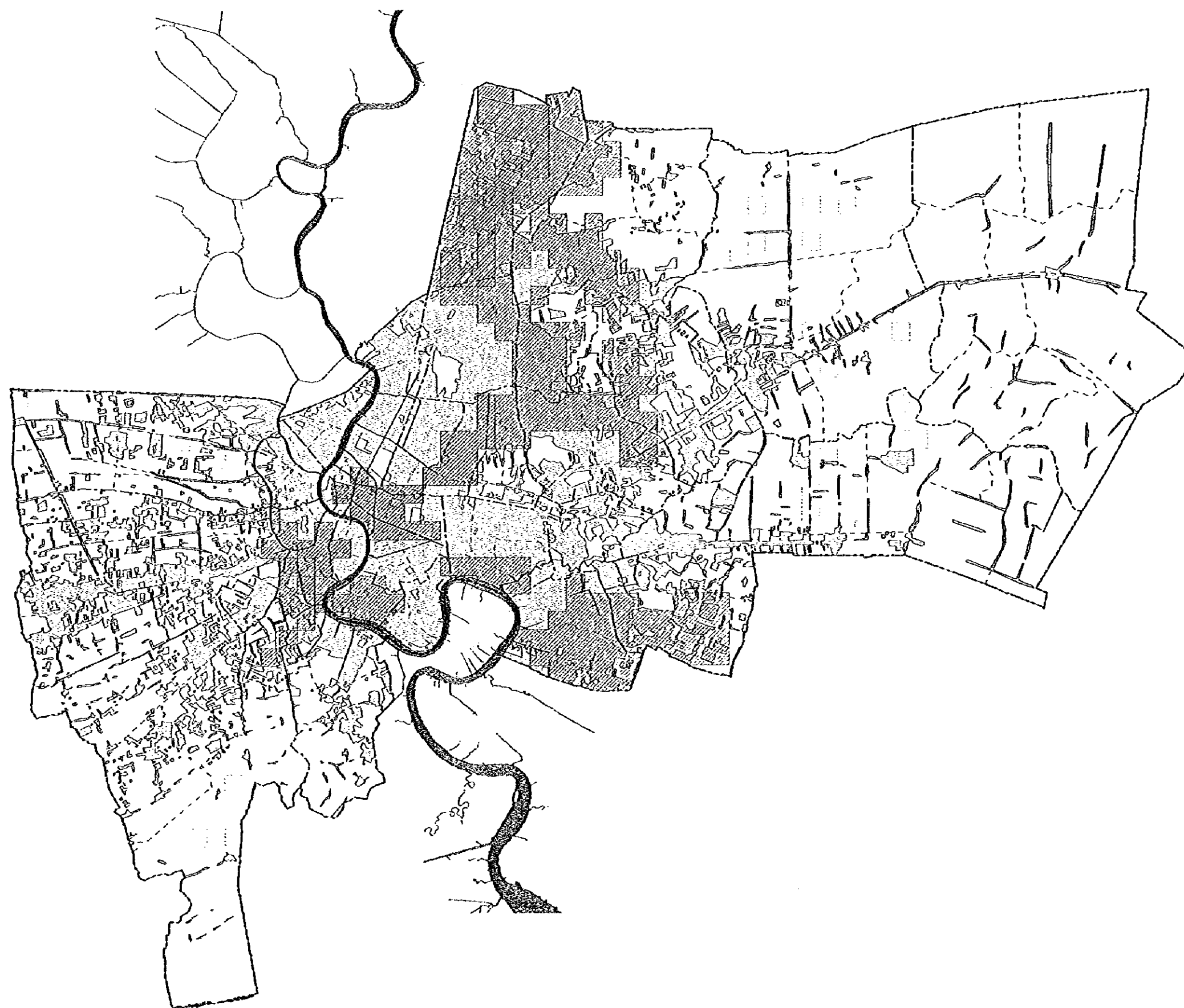


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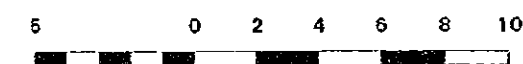
Problem Areas on Living Environment

Legend

-  Buildup Area
-  Densely Inhabited Area
-  Slum Problem Area
-  Urban Sprawl Area
-  Insufficient Park Accessibility Area
-  Chaopraya River
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary



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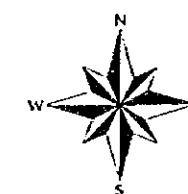


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

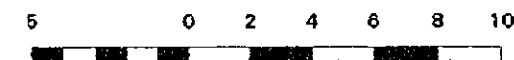
Level of Road Traffic Congestion (1995)

Legend

-  Provincial Boundary
-  Saturated
-  Heavily Congested
-  Congested
-  Acceptable
-  Under Capacity



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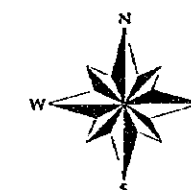
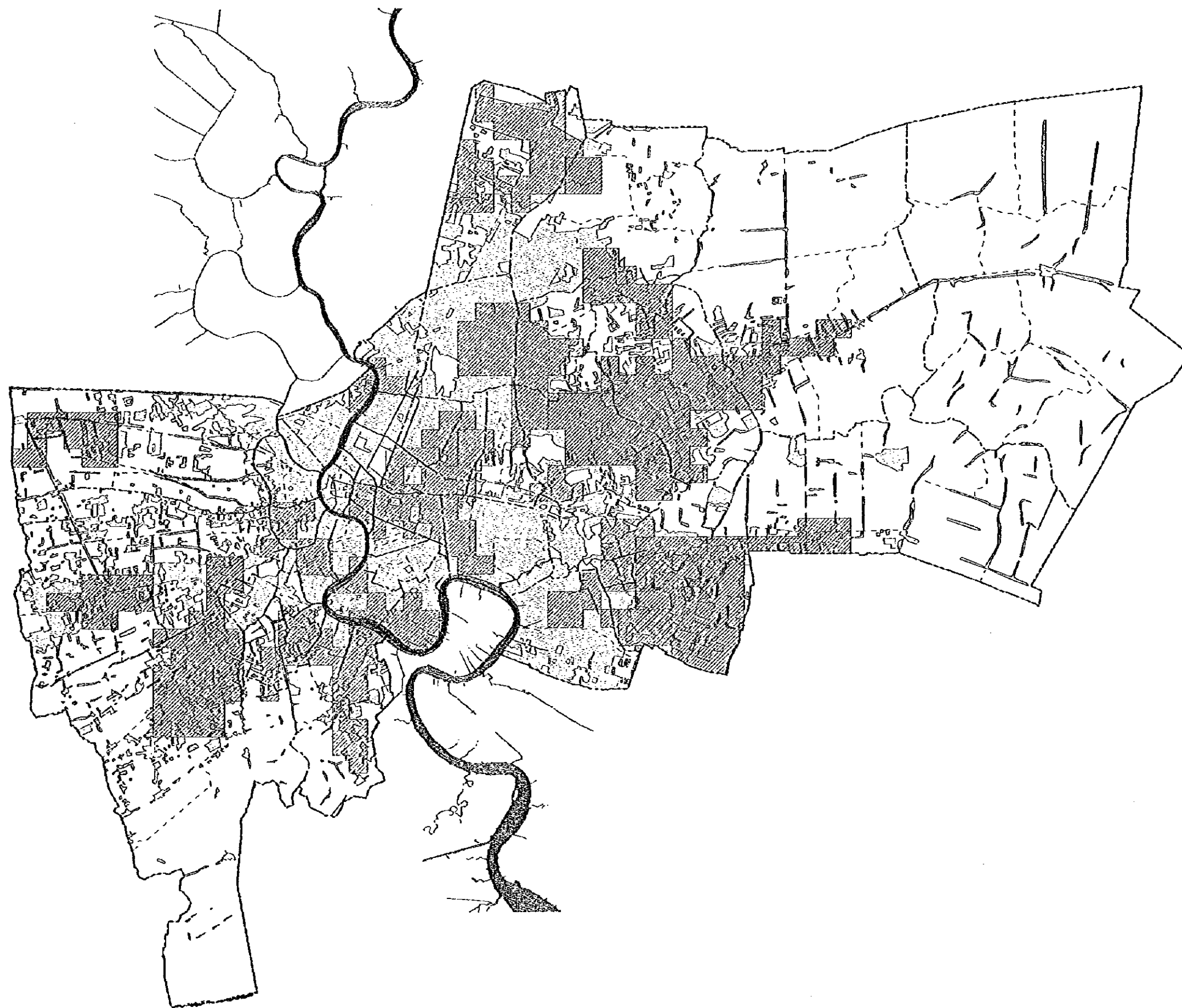


JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Problem Areas on Transport Environment

Legend

-  Buildup Area
-  Low Road Density Area
-  Traffic demand-Road Supply Gap Area
-  Time Loss Area by Traffic Congestion
-  Chaopraya River
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary



SCALE 1:235000



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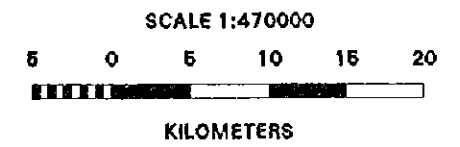
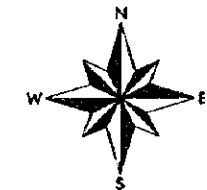
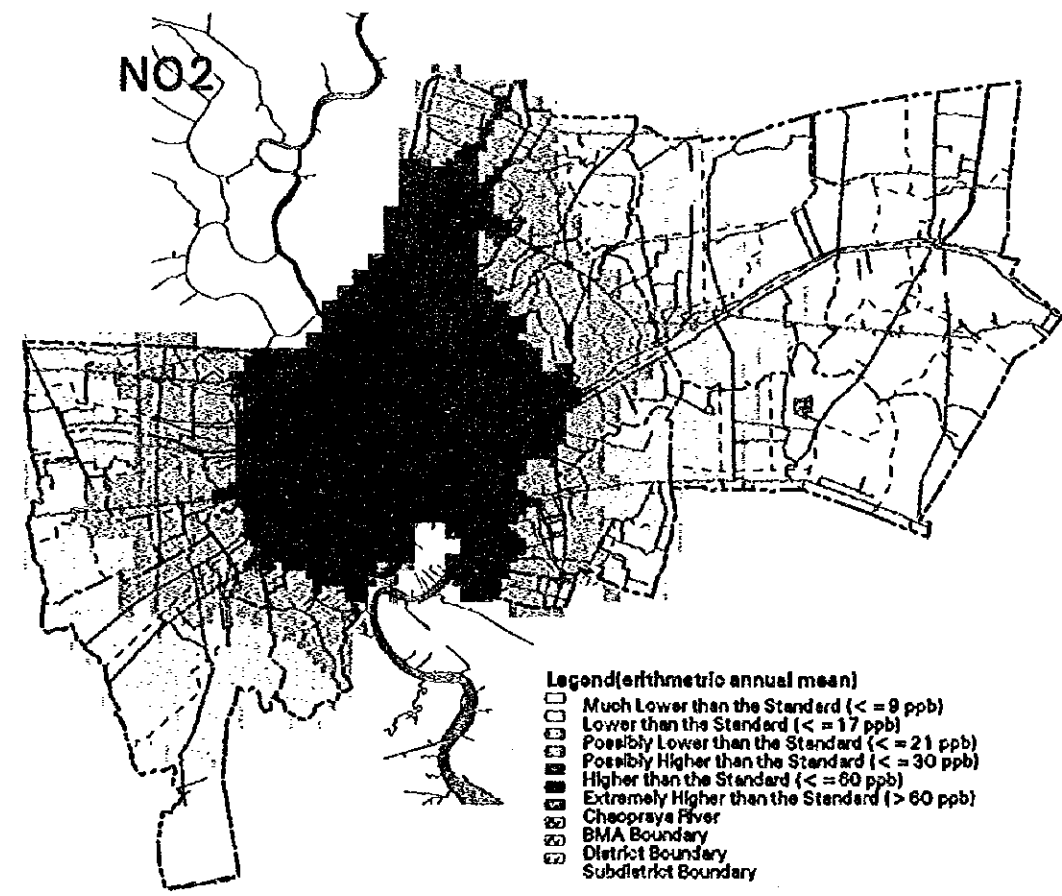
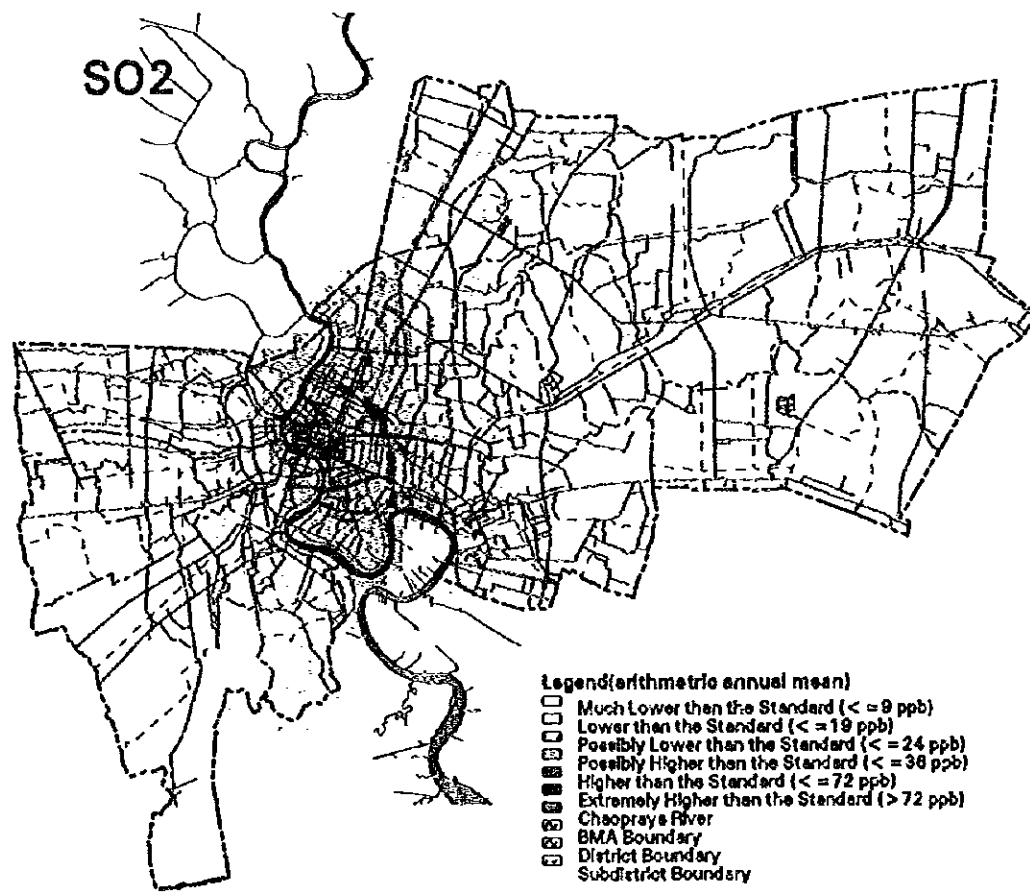
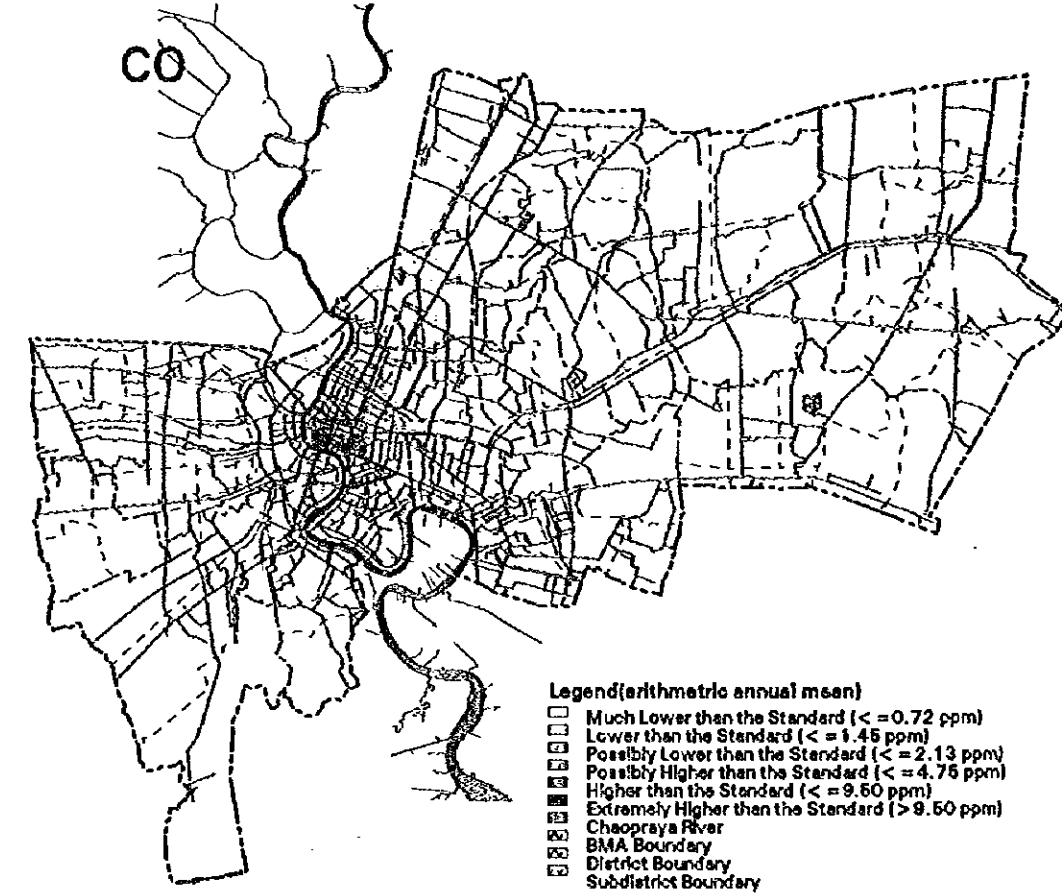
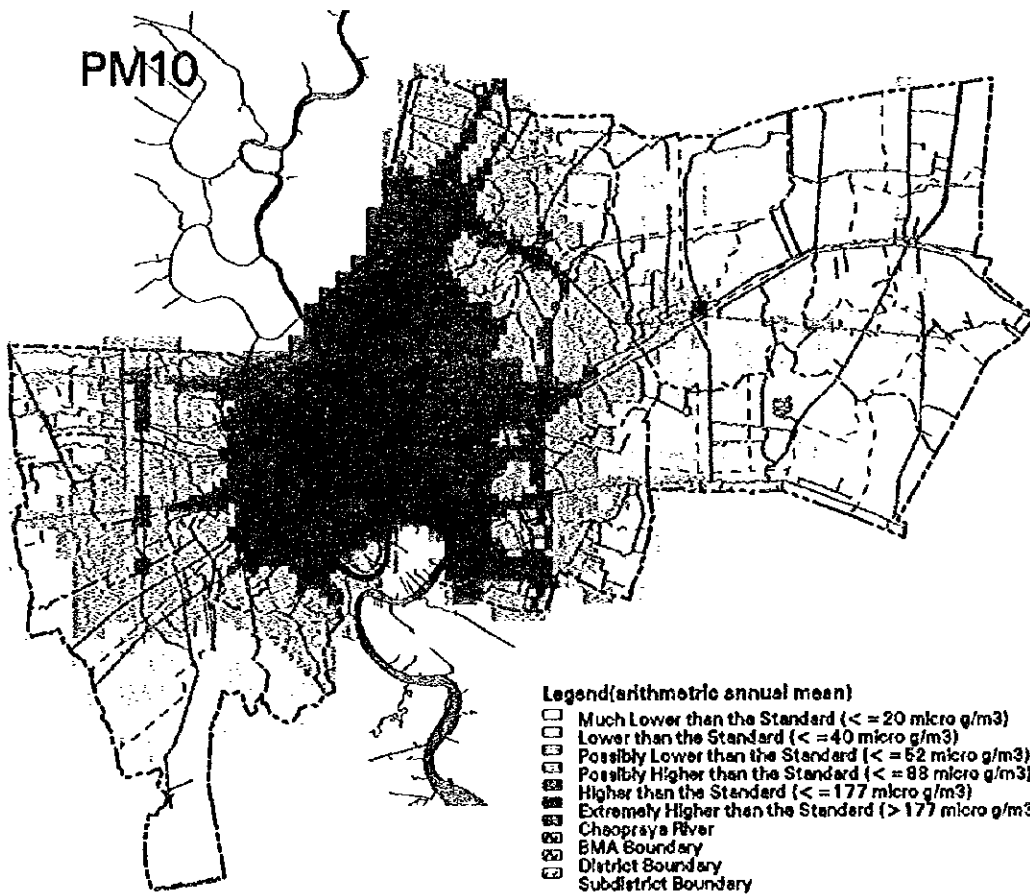


BANGKOK METROPOLITAN ADMINISTRATION (BMA)
THE GOVERNMENT OF THE KINGDOM OF THAILAND



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

A Simulation on Ambient Air Quality (1995)



THE STUDY
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
BANGKOK METROPOLITAN ADMINISTRATION (BMA)
THE GOVERNMENT OF THE KINGDOM OF THAILAND

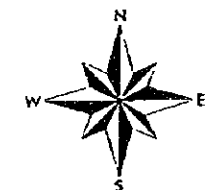
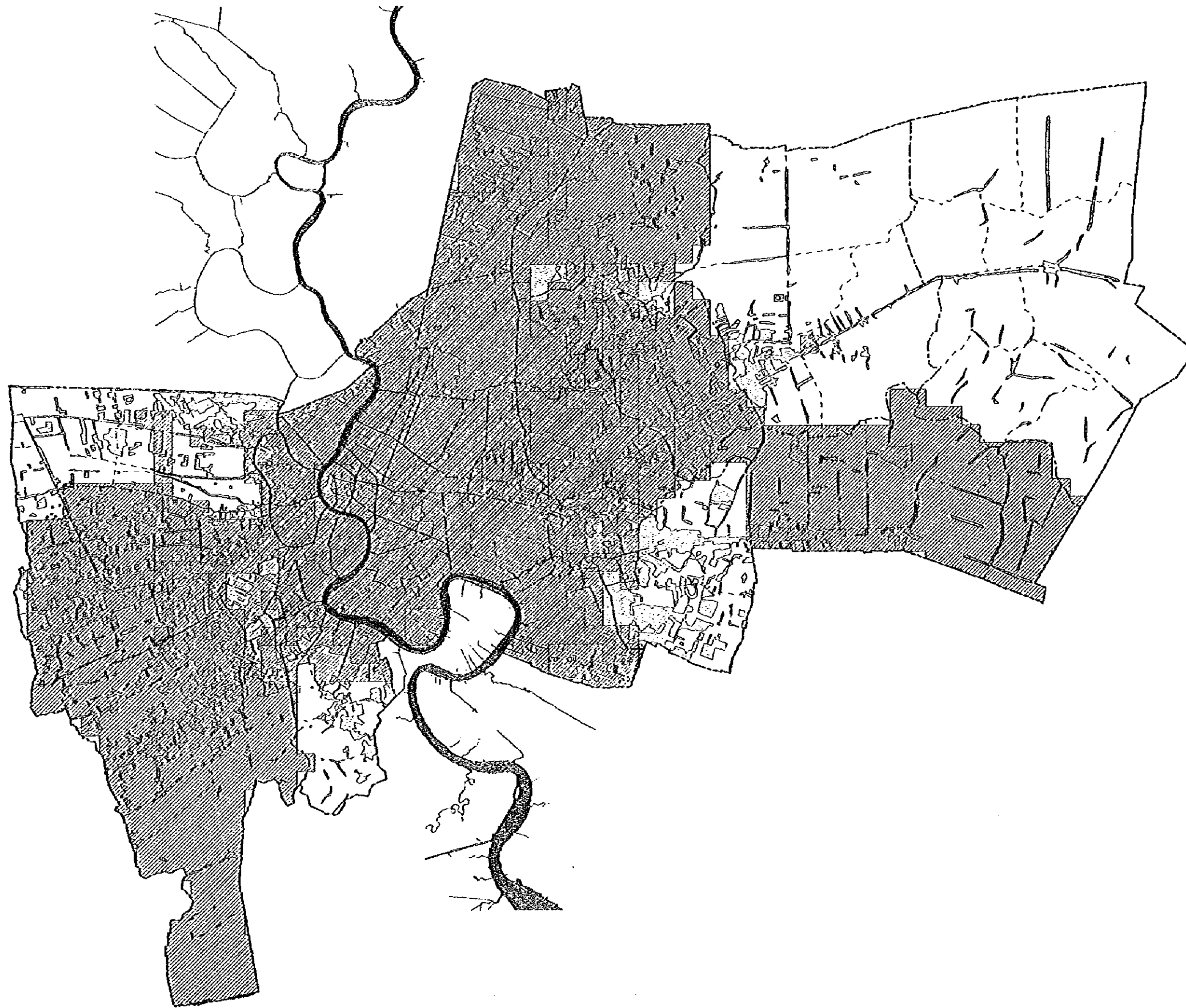


JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

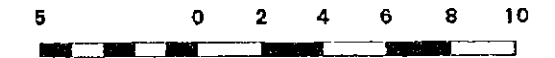
Problem Areas on Sanitary Environment

Legend

-  Buildup Area
-  Air Polluted Area(PM-10)
-  Khlong Water Polluted Area
-  Solid Waste Collection Problem Area
-  Chaopraya River
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary



SCALE 1:235000



KILOMETERS

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BANGKOK METROPOLITAN ADMINISTRATION(BMA)
THE GOVERNMENT OF THE KINGDOM OF THAILAND



JAPAN INTERNATIONAL COOPERATION AGENCY(JICA)











BEIP-GIS

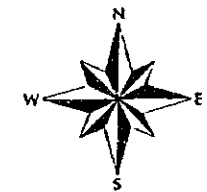
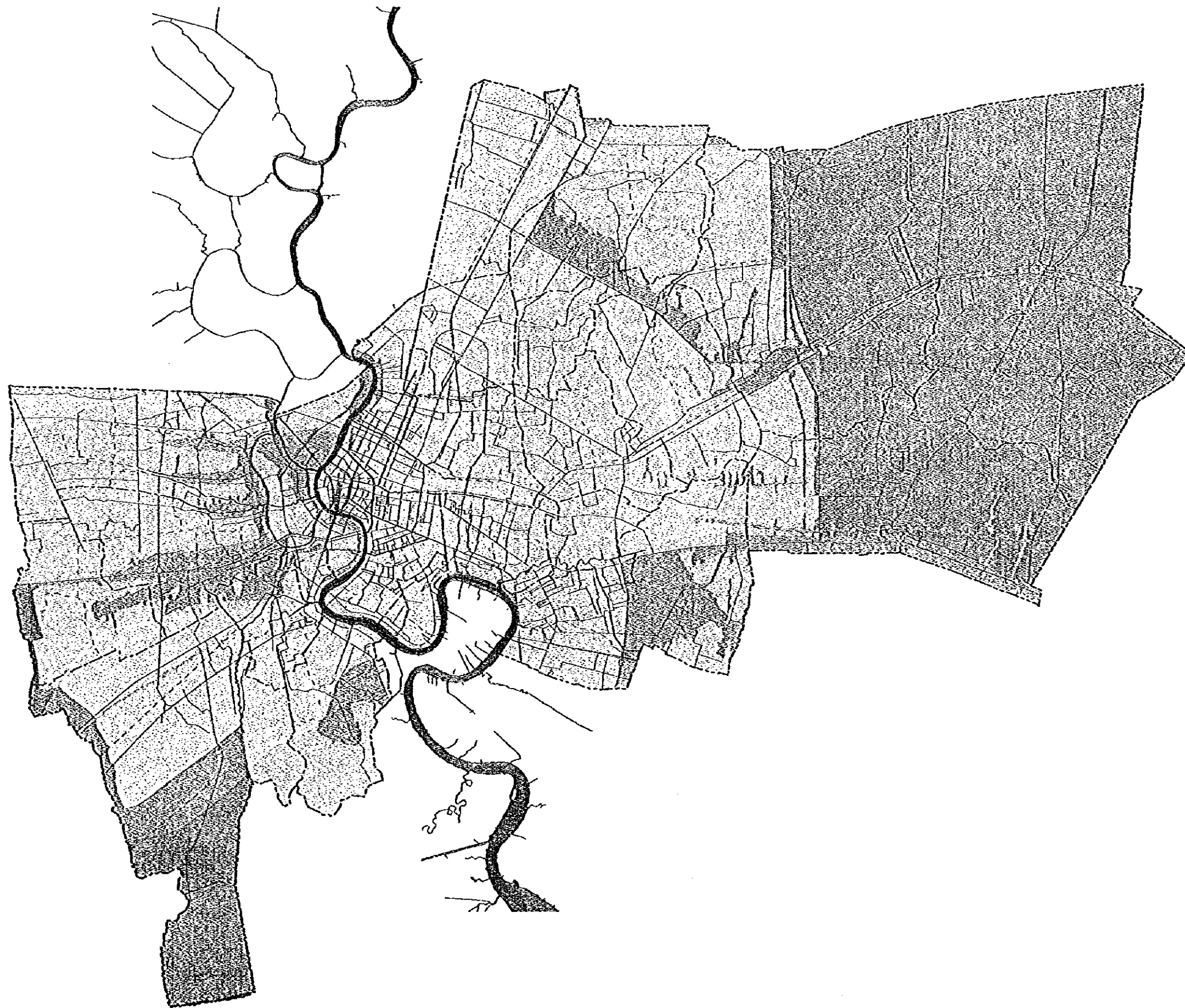
**SECONDARY DATA ANALYSIS
(LAND SUITABILITY ANALYSIS)**

PACIFIC CONSULTANTS INTERNATIONAL
SUURI-KEIKAKU CO., LTD.

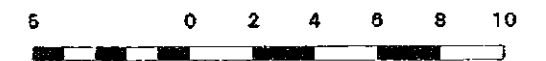
Assessment on Natural Conditions

Legend

-  -11 ~ -10 (High Constraints)
-  -9 ~ -8
-  -7 ~ -6 (Medium Constraints)
-  -5 ~ -3
-  -2 ~ 0 (Low Constraints)
-  Main Road
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary
-  Chaopraya River



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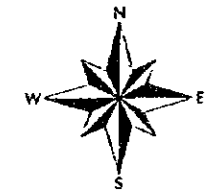


JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

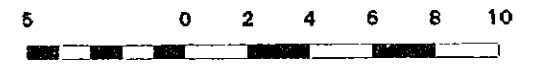
Assessment on Urban Services

Legend

- 1 ~ 2 (Low)
- 3 ~ 4
- 5 ~ 6 (Medium)
- 7 ~ 8
- 9 ~ 10 (High)
- Main Road
- BMA Boundary
- District Boundary
- Subdistrict Boundary
- Chaopraya River



SCALE 1:235000



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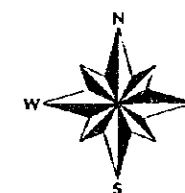
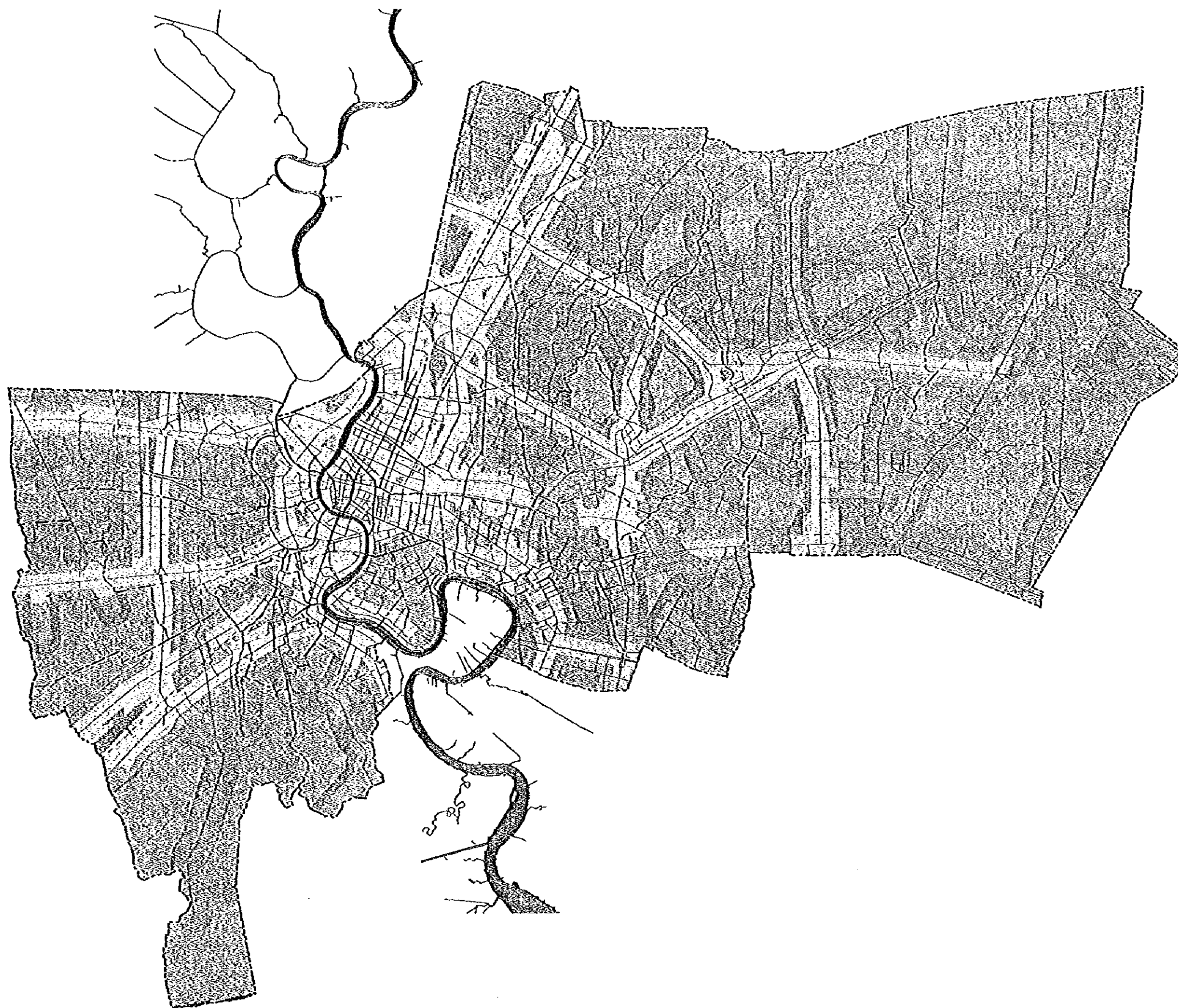


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

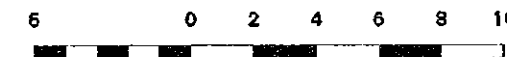
Assessment on Transport Services

Legend

- 1 ~ 3 (Low)
- 4 ~ 6
- 7 ~ 9 (Medium)
- 10 ~ 12
- 13 ~ 15 (High)
- Main Road
- BMA Boundary
- District Boundary
- Subdistrict Boundary
- Chaopraya River



SCALE 1:235000



KILOMETERS

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BANGKOK METROPOLITAN ADMINISTRATION (BMA)
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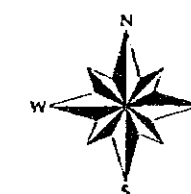


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Assessment on Urban Sanitary Services

Legend

- 0 (Low)
- 1 (Medium)
- 2 (High)
- Main Road
- BMA Boundary
- District Boundary
- Subdistrict Boundary
- Chaopraya River



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KILOMETERS

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BANGKOK METROPOLITAN ADMINISTRATION (BMA)
THE GOVERNMENT OF THE KINGDOM OF THAILAND

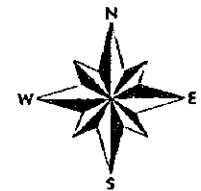


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

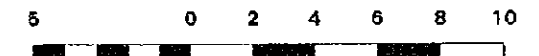
An overall Evaluation on Urbanization Suitability (1995)

Legend

-  ~ 0 (Low)
-  1 ~ 7
-  8 ~ 13 (Medium)
-  14 ~ 20
-  21 ~ (High)
-  Roads
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary
-  Chaopraya River



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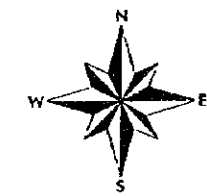
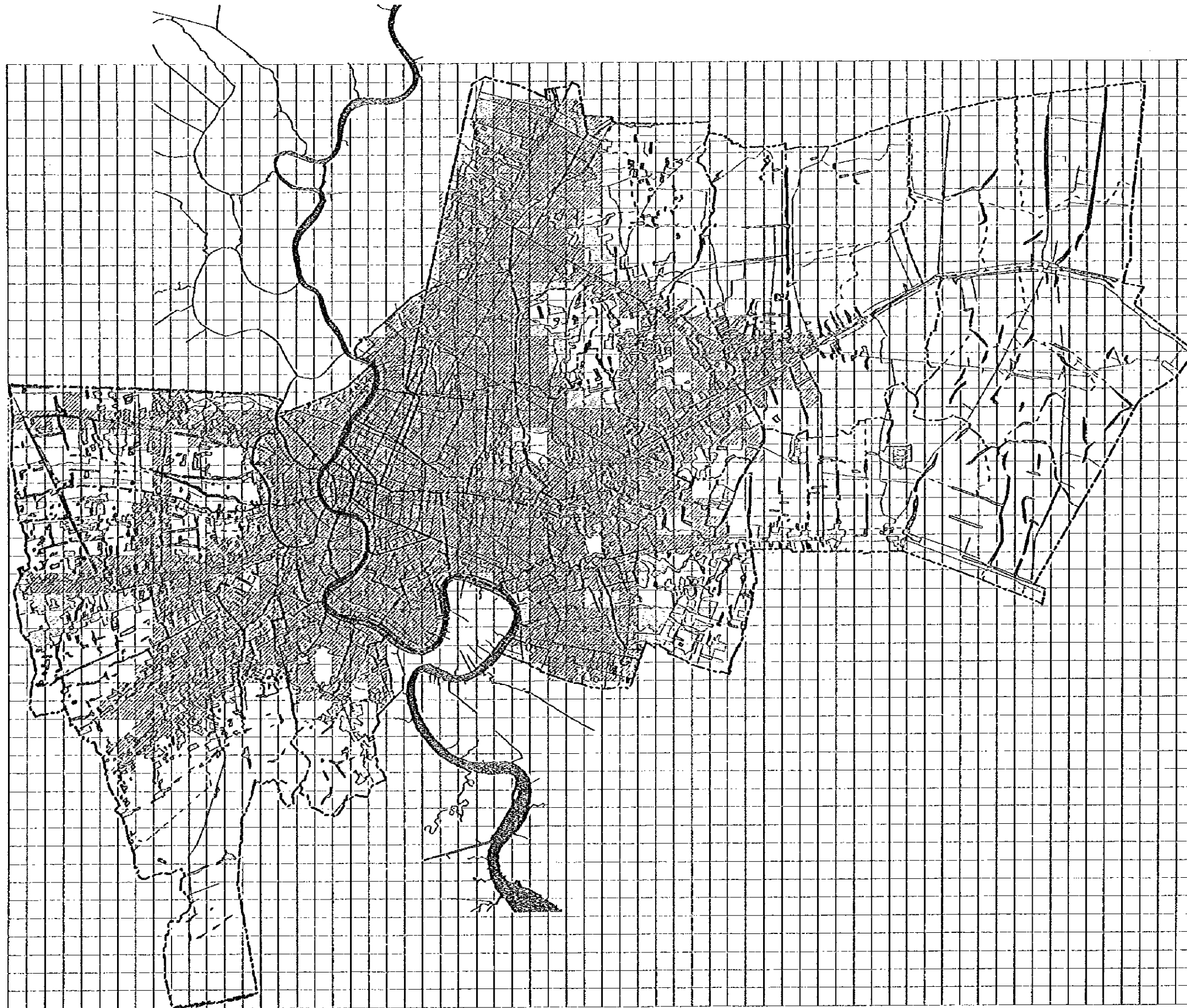


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

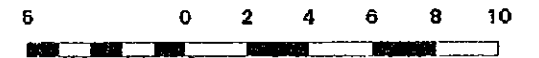
Simulated Urbanized Area (1995)

Legend

-  Chaopraya River
-  Buildup Area
-  Simulated Urbanized Area
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary



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







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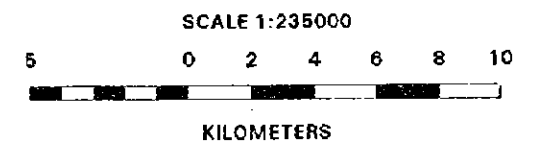
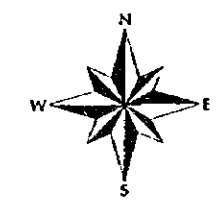
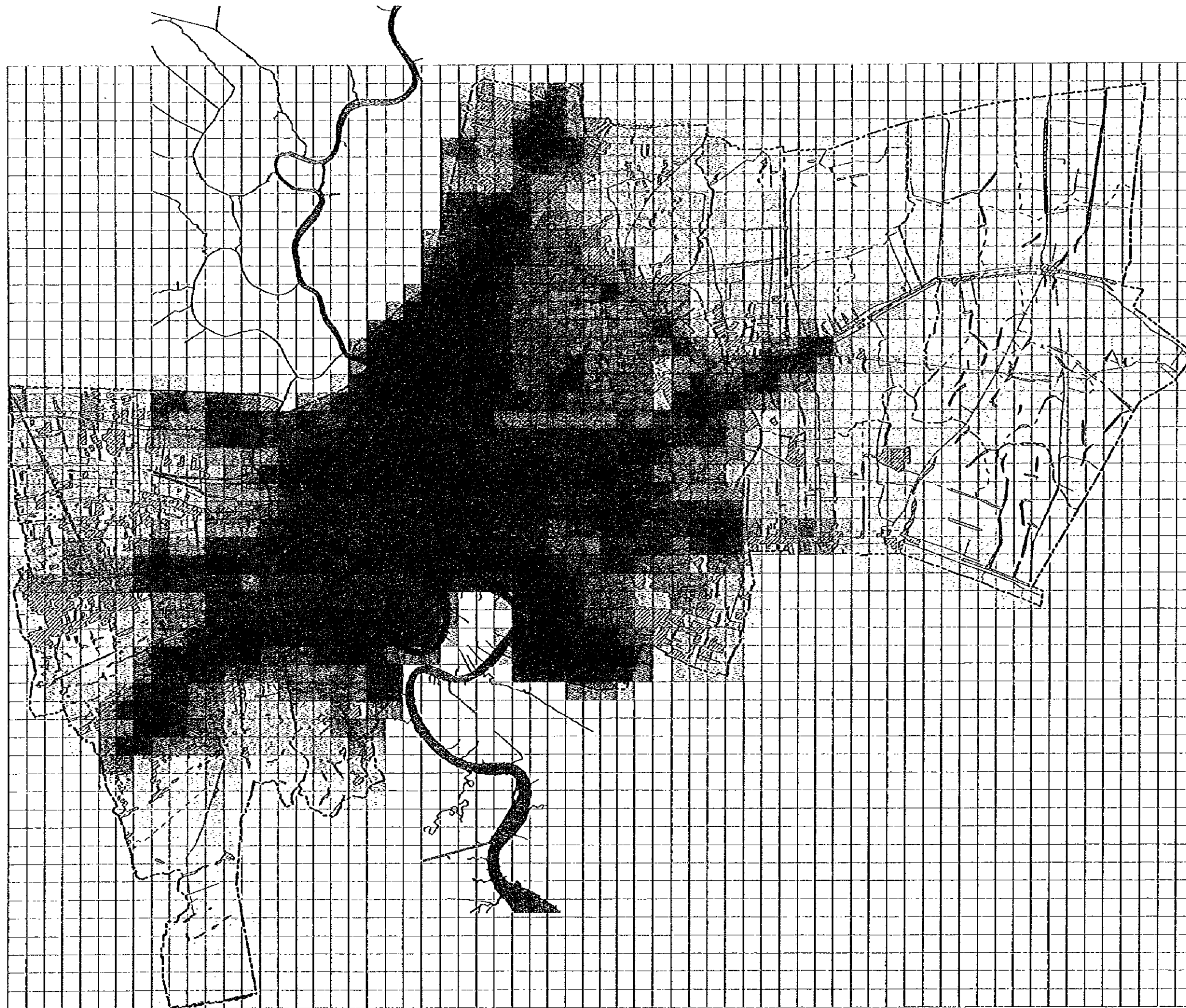


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Future Urbanization Potential(2011)

Legend

-  1: Highest Potential Area
-  2
-  3
-  4
-  5
-  6
-  7
-  8: Lowest Potential Area
-  Build-up Area
-  Chaopraya River
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary



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


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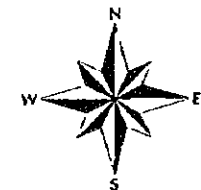
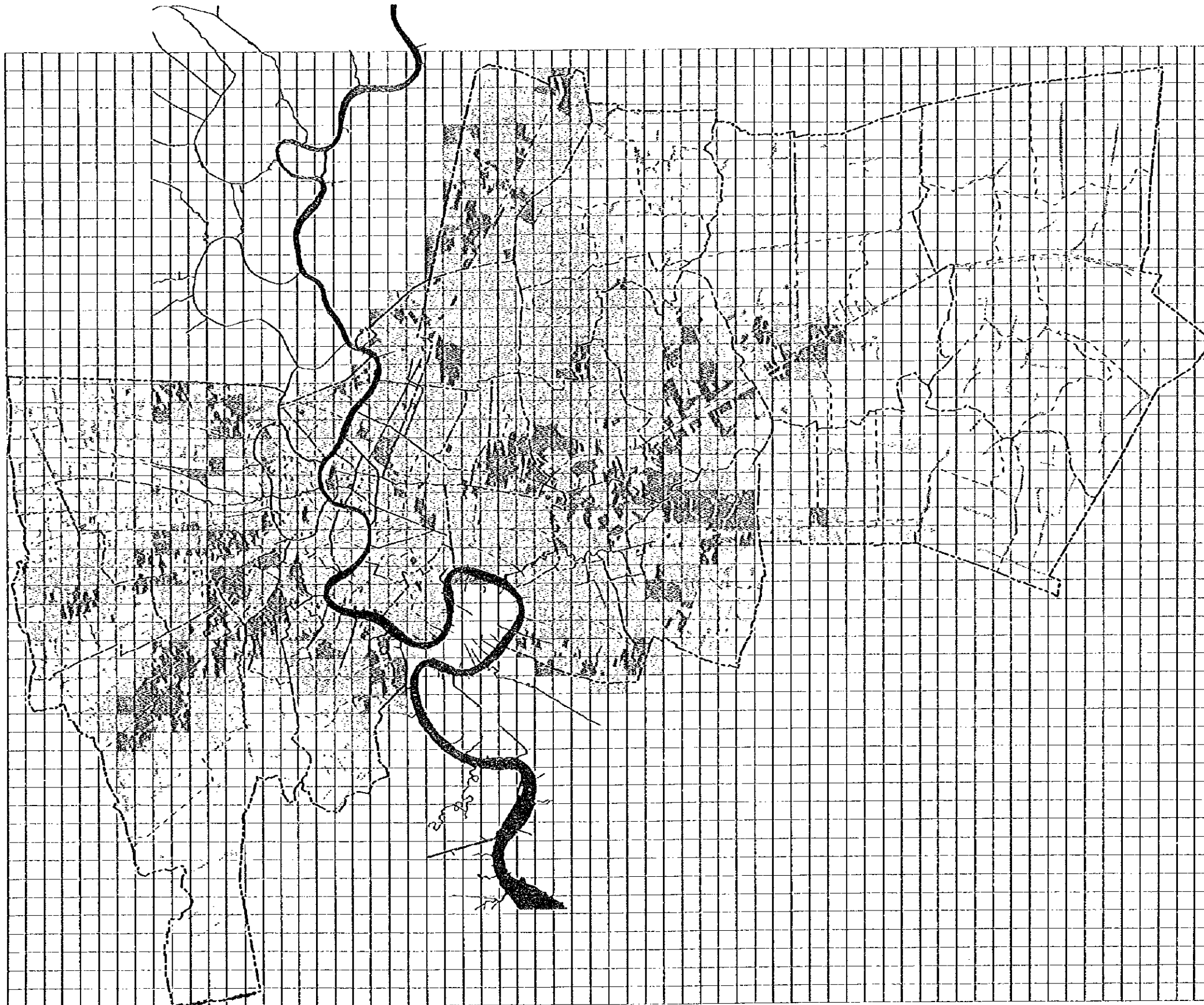


JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Future Land Use Simulation Trend Based Policy Free Case-1

Legend

-  Build-up Area
-  Urbanized Area in 2001
-  Urbanized Area in 2006
-  Urbanized Area in 2011
-  Chaopraya River
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary



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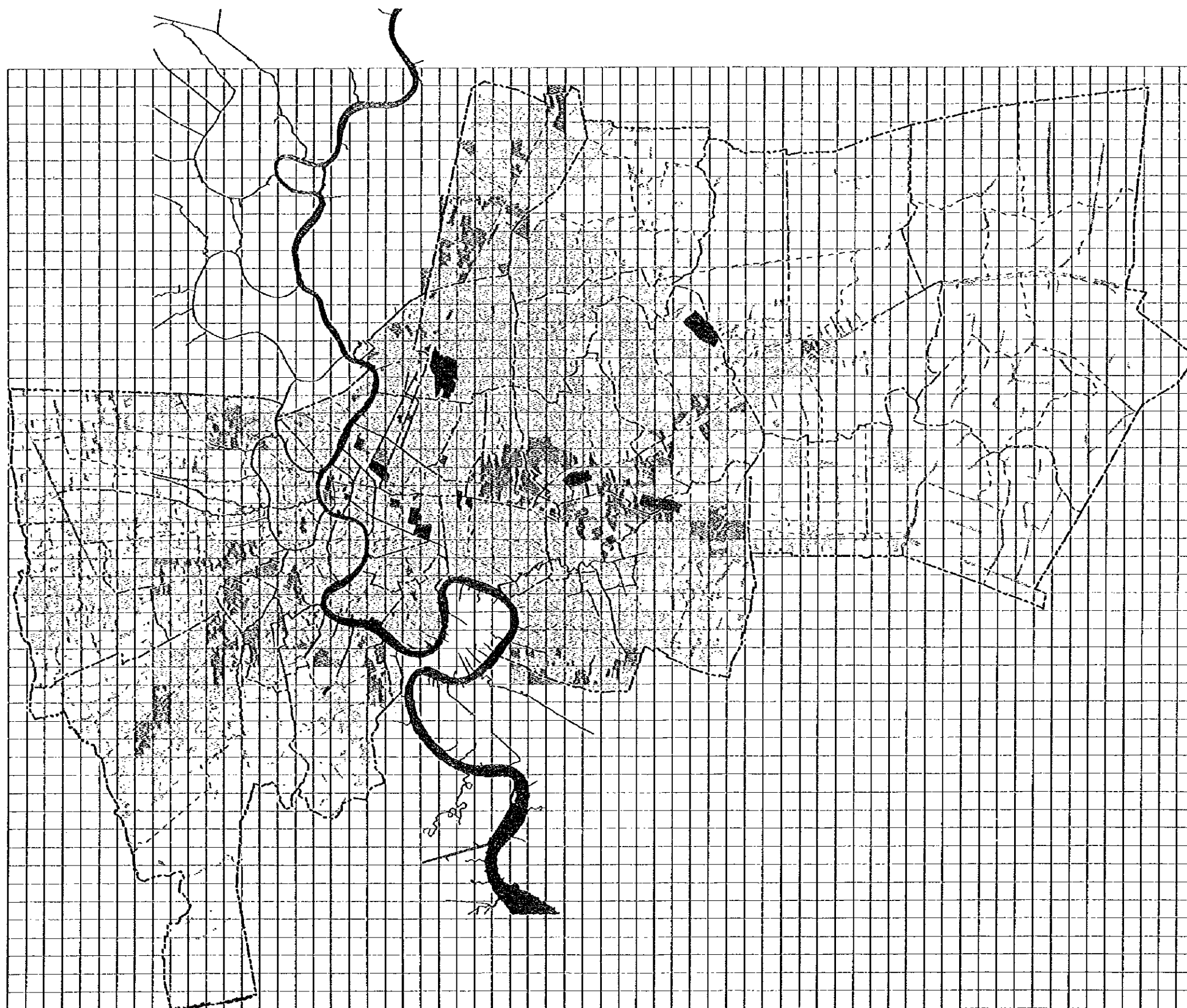


BANGKOK METROPOLITAN ADMINISTRATION (BMA)
THE GOVERNMENT OF THE KINGDOM OF THAILAND












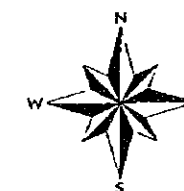
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Future Land Use Simulation Trend Based Policy Free Case-2

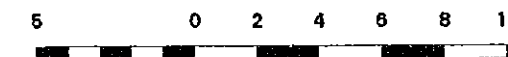


Legend

-  Build-up Area
-  Urbanized Area in 2001
-  Urbanized Area in 2006
-  Urbanized Area in 2011
-  Park
-  Chaopraya River
-  BMA Boundary
-  District Boundary
-  Subdistrict Boundary



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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)