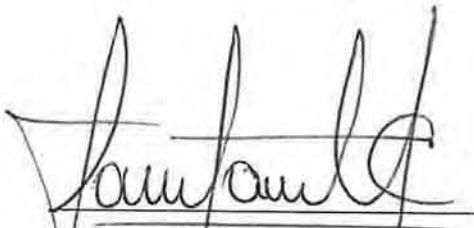


Appendix 7

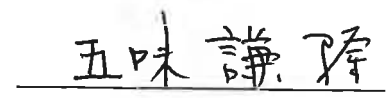
MINUTES OF MEETING ON SPECIFICATION FOR BASIC GIS DATA FOR THE STUDY
ON THE FORMULATION OF GEOGRAPHIC DATA BASE OF THE PRINCIPAL CITIES IN
THE ATLANTIC COAST IN REPUBLIC OF COLOMBIA (7th November, 2006)

MINUTES OF MEETING
ON
SPECIFICATION FOR BASIC GIS DATA
FOR
THE STUDY
ON
THE FORMULATION OF GEOGRAPHIC DATA BASE
OF THE PRINCIPAL CITIES IN THE ATLANTIC COAST
IN REPUBLIC OF COLOMBIA
AGREED UPON BETWEEN
THE INSTITUTO GEOGRÁFICO AGUSTÍN CODAZZI
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Bogota D.C, 7th November, 2006



Ing. Jaime Alberto Duarte Castro
Jefe, Division de Fotogrammetria
Instituto Geográfico Agustín Codazzi (IGAC)



Yoshitaka Gomi
Leader of the JICA Study Team

The Team for the Study on the Formulation of Geographic Data Base of the Principal Cities in the Atlantic Coast in Republic of Colombia (hereinafter referred to as “the Study Team”) organized by Japan International Cooperation Agency (hereinafter referred to as “JICA”) arrived at Bogotá on July 9, 2006 to start the second stage of the Study in Colombia.

A series of meetings related to the confirmation of the symbols of 1/2000 scale topographic maps and the Specifications for Basic GIS Data were held between the Study Team and IGAC. And we have concluded the specifications and were accepted by the Colombia side. During the meeting, the following points were confirmed among the parties. A list of participants is attached in Appendix.1.

1. Confirmation of the symbols of 1/2000 scale topographic maps

JICA Study Team proposed some changes in symbols and the following things were confirmed.

1.1 Vegetation symbol

(1) Change of boundary of vegetation

Vegetation boundary was solid lines. Therefore, sometime it is difficult to differentiate them from solid lines for other geographic features. It was decided that broken line is used for vegetation.

(2) Change of vegetation symbol

For “Pasto” and “Cultivo”, new symbols are used.

(3) Other changes

- For Matorral, symbol of Bosque is used to show the extent of the Matorral area and text “Matorral” is added.
- For Bosque, symbol of Bosque is used to show the extent of the Bosque area and text “Bosque” is added.
- For Platano, density of symbol is decreased and also finer line is used in its symbol.

(4) Density of vegetation symbol

Vegetation symbol is placed at the corners of 80 meters (or 40mm in the 1/2000 scale) grid and also on the centers of the grids.

1.2 Railway symbol

Symbols for railway is the same one for cable car.

1.3 River symbol

As for rivers which undergo roads, river lines do not touch road lines. A small space is placed between road lines and river lines.

1.4 Direction of water flow

In canals arrows are drawn to indicate water flow direction. However, it is difficult to judge water flows in artificial drainage located in oil plant and airfield. Therefore, no direction arrow will be shown in them.

1.5 Expression of wall (A fort in Cartagena)

A sample will be sent from Japan.

1.6 Font for "Isla" and "Punta"

The same font is used for both "Isla" and "Punta".

The changed symbols will be sent to IGAC by e-mail and IGAC will confirm the design.

2. Specifications for basic GIS

2.1 Feature dataset

GIS Basic Data are classified into next five Feature datasets. Each Feature dataset consists of point, line or polygon (Appendix2).

- Datos Basicos (Consist of 12 Feature Class)
- Elemento Divisorio (Consist of 2 Feature Class)
- Planeación Uso Suelo Urbano (Consist of 4 Feature Class)
- Relive (Consist of 2 Feature Class)
- Infraestructura (Consist of 3 Feature Class)

2.2 Feature Class and their design

(1) Feature Class and their design are as follows.

- Feature Class (Point)

Nombre	Alias	Tipo	Longitud	Formato del numero
OBJECTID		Object ID	4	
Shape		Point		
F_Code	Feature Code	String	7	
F_Nombre	Feature Nombre	String	50	

- Feature Class (Line)

Nombre	Alias	Tipo	Longitud	Formato del numero
OBJECTID		Object ID	4	
Shape		Point		
F_Code	Feature Code	String	7	
F_Nombre	Feature Nombre	String	50	
Shape_Length	Shape Length	Double	8	Numeric
Shape_Area	Shape Area	Double	8	Numeric

- Feature Class (Polygon)

Nombre	Alias	Tipo	Longitud	Formato del numero
OBJECTID		Object ID	4	
Shape		Point		
F_Code	Feature Code	String	7	
F_Nombre	Feature Nombre	String	50	
Shape_Length	Shape Length	Double	8	Numeric

(2) As for road and rivers, their names are entered as attribute. And as for height points and contour lines their respective values are entered as attributes. If there is an official name and common name, both names are entered.

- Punto deControl

Nombre	Alias	Tipo	Longitud	Formato del numero
OBJECTID		Object ID	4	
Shape		Point		
F_Code	Feature Code	String	7	
F_Nombre	Feature Nombre	String	50	
Nombre	Nombre	String	50	

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- Curva de Nivel

Nombre	Alias	Tipo	Longitud	Formato del numero
OBJECTID		Object ID	4	
Shape		Point		
F_Code	Feature Code	String	7	
F_Nombre	Feature Nombre	String	50	
Elevation	Altura	Double	8	Numeric
Shnape_Length	Shape Length	Double	8	Numeric

- Centro de Vía

Nombre	Alias	Tipo	Longitud	Formato del numero
OBJECTID		Object ID	4	
Shape		Point		
F_Code	Feature Code	String	7	
F_Nombre	Feature Nombre	String	50	
Nombre	Nombre	String	50	
Nombre_2	Nombre 2	String	50	
Shape_Length	Shape Length	Double	8	Numeric

Nombre Nombre oficial

Nombre_2 Nombre común

- Canal Doble, Canal Secillo, Drenaje Doble, Drenaje Secillo

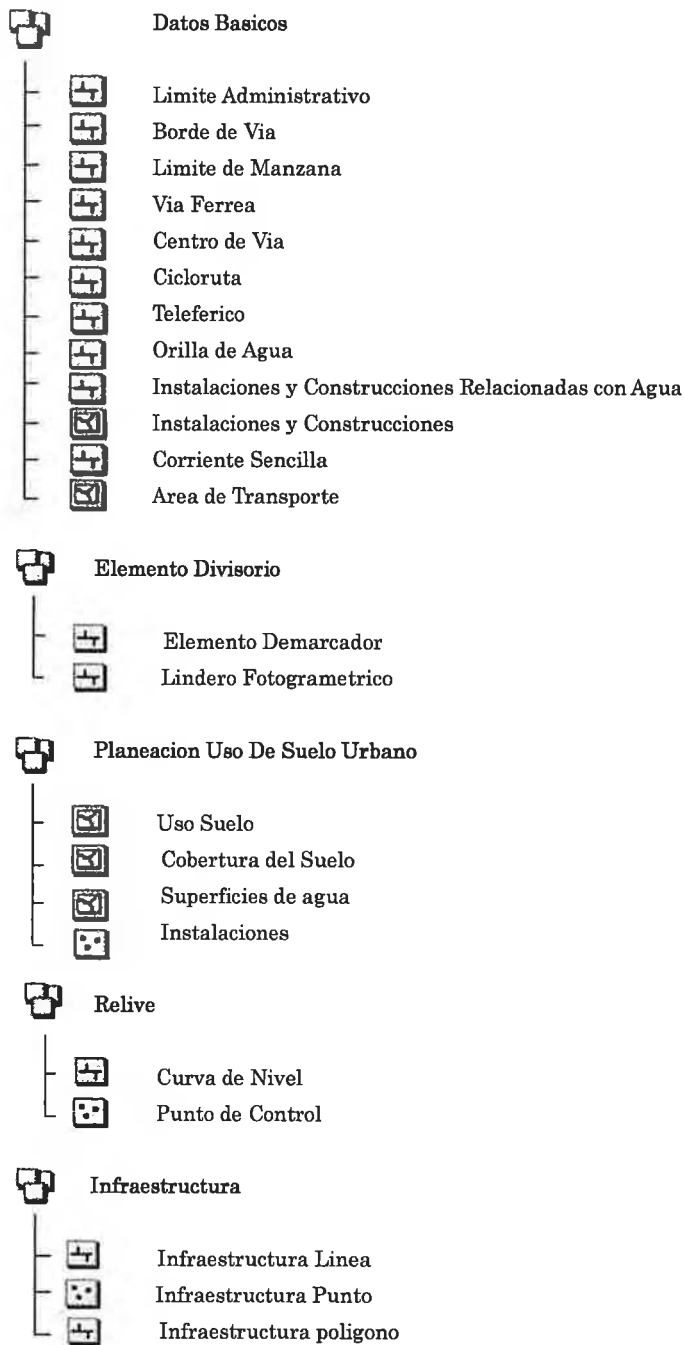
Nombre	Alias	Tipo	Longitud	Formato del numero
OBJECTID		Object ID	4	
Shape		Point		
F_Code	Feature Code	String	7	
F_Nombre	Feature Nombre	String	50	
Nombre	Nombre	String	50	
Nombre_2	Nombre 2	String	50	
Shape_Length	Shape Length	Double	8	Numeric

Nombre Nombre

Nombre_2 Nombre

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(4) Contents of a feature class



(3) Attribute has Feature Name and Feature Code. Feature Name is to distinguish feature and without any accent. Feature Code displays with seven columns of texts with six columns of numbers and alphabets (P, L, R) that agreed in Specification for Topographic map data with.

3.Result article of digital data

Result article is as follows.

- Digital cartographic data file (1/2,000digital map) (DGN format)
- GIS Basic data (Geodatabase format)

Appendix.1

List of Attendants

Colombia

Instituto Geográfico Agustín Codazzi de Colombia (IGAC)

Jaime Alberto Duarte Castro :Jefe, Division Fotogrametria

Ediberto Niño:Coordinador de Restitución y Aerotriangulación Supervisor

Alexander Páez:Coordinador de cartografía alternativa

Wilffy Cecilia Galvis Lagos: Coordinadora de calidad gráfico

Olga Cecilia Villamarin: Coordinadora de control de calidad digital

Japan

The Study Team

Yoshitaka Gomi: Team Leader

Shigeru Ono: Self Sustainability Analysis

Yoshiteru Matsushita: Digital Compilation and Map Symborization

Catalina Blanco:GIS

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Appendix.2

Estructura datos basicos SIG



Datos Basicos

【Feature Nombre】

☒ Limite Administrativo / Administrative boundary	
Limite de Nacion / National Boundary	Limite de Nacion
Limite de Departamento / Department Boudary	Limite de Departamento
Limite de Municipio / Municipal Boundary	Limite de Municipio

☒ Borde de Via / Road Border	
Limite de Via / Road Border	Limite de Via
Limite de Via (Aproximada) / Road Border (Approximate)	Limite de Via Aproximada
Separador / Road Divider	Separador
Via Peatonal Urbano / Urban Pedestrian Crossing	Via Peatonal Urbano

☒ Limite de Manzana / Block border	
Limite de Manzana / Block border	Limite de Manzana
Limite de Manzana (Aproximada) / Block border (Approximate)	Limite de Manzana Aproximada

☒ Via Ferrea / Railroad	
Via Ferrea (Metro) / Railroad (subway)	Metro
Via Ferrea (Funicular) / Railroad (Funicular)	Funicular
Via Ferrea (Ordinario) / Railroad (Ordinary)	Via Ferrea

☒ Centro de Via / Road Axis	
Eje Vial.(Camino) / Road Axis (Track)	Camino
Eje Vial.(En construccion) / Road Axis (In construction)	Via En Construccion
Eje Vial.(Sendero) / Road Axis (Path)	Sendero
Eje Vial.(Sin clasificar) / Road Axis (Unclassified)	Via Sin Clasificar
Eje Vial.(Cat1) / Road Axis (Cat1)	Via Tipo 1
Eje Vial.(Cat2) / Road Axis (Cat2)	Via Tipo 2
Eje Vial.(Cat3) / Road Axis (Cat3)	Via Tipo 3
Eje Vial.(Cat4) / Road Axis (Cat4)	Via Tipo 4
Eje Vial.(Cat5) / Road Axis (Cat5)	Via Tipo 5

☒ Cicloruta / Cycling Road	
Cicloruta / Cycling Road	Cicloruta

☒ Teleferico / Cable car	
Teleferico / Cable Car	Teleferico

【Feature Nombre】

☒ Orilla de Agua / Bordar of Water	
Canal Doble / Double Channel	Canal Doble
Construccion Agua (Malecon) / Construction Water (Pier)	Malecon
Drenaje Doble / Double Drainage	Drenaje Doble
Embalse / Reservoir	Embalse
Isla / Island	Isla
Jaguey (Aljibe) / Pit	Jaguey Aljibe
Laguna / Lagoon	Laguna
Linea Costera / Coastal Line	Linea Costera
Manantial / Spring	Manantial

☒ Instalaciones y Construcciones Relacionadas con Agua / Water Related Facilities and Constructions	
Construccion Agua (Compuerta) / Construction Water (Floodgate)	Compuerta
Construccion Agua (Dique) / Construction Water (Dike)	Dique
Construccion Agua (Presa) / Construction Water (Dam)	Presa
Construccion Agua (Malecon) / Construction Water (Pier)	Malecon

☒ Instalaciones y Construcciones / Constructions and Facilities	
Construccion Anexa / Annexed Construction	Construccion Anexa
Construccion / Edification	Construccion
Edificio Terminal pasajeros / Terminal building fr passenges	Edificio Terminal Pasajeros
Paramento / Footprint	Paramento
Peaje / Toll gate	Peaje
Tanque / Tank	Tanque
Subestacion / Electrica	Subestacion Electrica

☒ Corriente Sencilla / Single Stream	
Canal Sencillo / Single Channel	Canal Sencillo
Drenaje Sencillo Intermitente / Intermittent single drainage	Drenaje Sencillo Intermitente
Drenaje Sencillo Permanente / Permanent single drainage	Drenaje Sencillo Permanente

☒ Area de Transporte / Area of Transportation	
Aeropuerto / Air port	Aeropuerto
Zona Ferroviaria / Railroad	Zona Ferroviaria

**Elemento Divisorio**

【Feature Nombre】

+ Elemento Demarcador / Demarcation Element	
Cerca de Alambre / Wire fence	Cerca de Alambre
Cerca Viva / Alive fence	Cerca Viva
Muro / Wall	Muro

+ Lindero Fotogrametrico / Photogrametric Boundary	
Lote Fotogrametrico / Photogrametric Boundary	Lote Fotogrametrico

**Planeacion Uso De Suelo Urbano**

【Feature Nombre】

+ Uso Suelo / Land Use	
Area de Desecho / Waste area	Area de Desecho
Area Terreno Sin Uso / Unused land	Area Terreno Sin Uso
Cantera / Quarry	Cantera
Cementerio / Cemetery	Cementerio
Parque / Park	Parque
Zona Deportiva / Sport area	Zona Deportiva

+ Cobertura del Suelo / Land Cover	
Banco de arena / Sand bank	Banco de arena
Bosque / Forest	Bosque
Cultivo / Cultivation	Cultivo
Grupo de Arboles / Group of trees	Grupo de Arboles
Manglar / Mangrove swamp	Manglar
Matorral / Scrub	Matorral
Pantano / Swamp	Pantano
Pasto / Grassland	Pasto
Zona verde / Green area	Zona Verde

【Feature Nombre】

+ Superficies de agua / Water Body	
Canal Doble / Double channel	Canal Doble
Cienaga / Marsh	Cienaga
Drenaje Doble / Double drainage	Drenaje Doble
Embalse / Reservoir	Embalse
Jaguey (Aljibe) / Pit	Jaguey Aljibe
Laguna / Lagoon	Laguna
Manantial / Spring	Manantial
Mar / Sea	Mar

+ Instalaciones / Facilities	
Centro Educativo / School	Centro Educativo
Hospital - Clinica / Hospital - Clinic	Hospital - Clinica
Iglesia / Church	Iglesia

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Relive

【Feature Nombre】

[-] Curva de Nivel / Contour Line	
Curva Indice / Index Contour Line	Curva Indice
Curva Intermedia / Intermediate Contour Line	Curva Intermedia
Curva de Nivel (Suplementaria) / Supplementary Contour Line	Curva de Nivel Suplementaria
Curva Indice Depression / Index of Depression Contour Line	Curva Indice Depression
Curva Intermedia de Depression / Intermediate of Depression Contour Line	Curva Intermedia De Depression

[-] Punto de Control / Control Point	
Punto de Aerotriangulacion / Aerotriangulation Point	Punto de Aerotriangulacion
Punto Estereoscopico / Stereoscopic Point	Punto Estereoscopico
Punto de Cota fotografica / Photogrametric Elevation Point	Punto de Cota Fotografica



Infraestructura

【Feature Nombre】

[-] Infraestructura Linea/ Line of Infrastructure	
Muelle / Jetty	Muelle
Pista / Landing stripe	Pista
Puente (Ferreo) / Bridge (Railway)	Puente Ferreo
Puente (Peatonal) / Bridge (Pedestrian)	Puente Peatonal
Puente (Sin clasificar) / Bridge (Unclassified)	Puente Sin Clasificar
Puente (Vehicular) / Bridge (Traffic)	Puente Vehicular
Red Alta Tension / High Tension Network	Red Alta Tension
Terraplen - Jarillon / Embankment - Mound	Terraplen - Jarillon
Tuberia (Agua) / Pipeline (Water)	Tuberia de Agua
Tuberia (Combustible) / Pipeline (Fuel)	Tuberia de Combustible
Tuberia (Petroleo) / Pipeline (Petroleum)	Tuberia de Petroleo
Tuberia (Gas) / Pipeline (Gas)	Tuberia de Gas
Tuberia (Otros) / Pipeline (Others)	Tuberia de Otros
Tunel / Tunnel	Tunel

[-] Infraestructura Punto/ Point of Infrastructure	
Antena / Antennae	Antena
Arbol / Tree	Arbol
Helipuerto / Heliport	Helipuerto
Monumento / Monument	Monumento
Paso a nivel / Grade Crossing	Paso a Nivel
Pozo / Well	Pozo
Torre / Tower	Torre

[-] Infraestructura poligono / Polygon of Infrastructure	
Piscina / Swimming Pool	Piscina

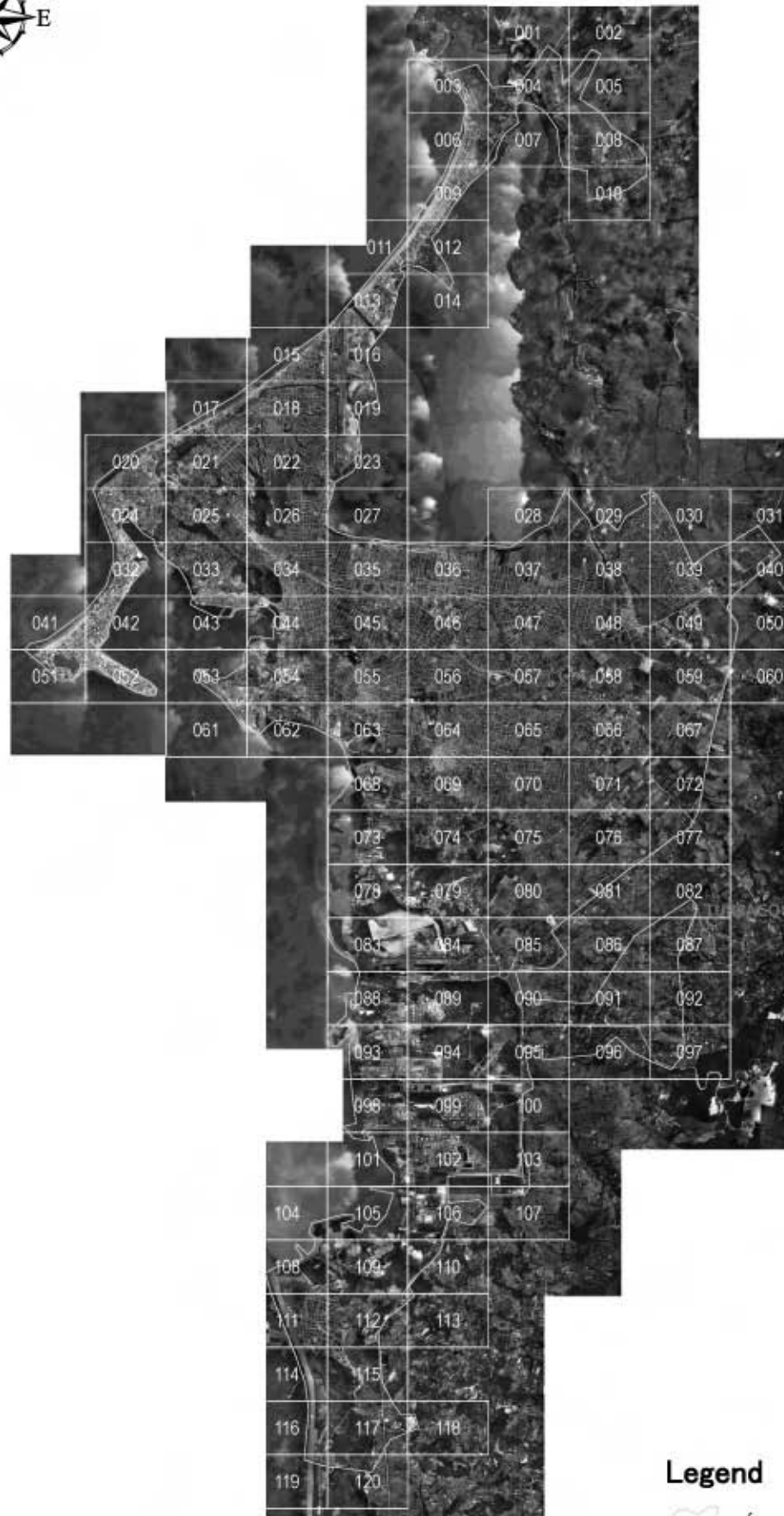
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Appendix 8

INDEX MAP (CARTAGENA, METROPOLITAN AREA OF BARRANQUILLA, SANTA
MARTA)

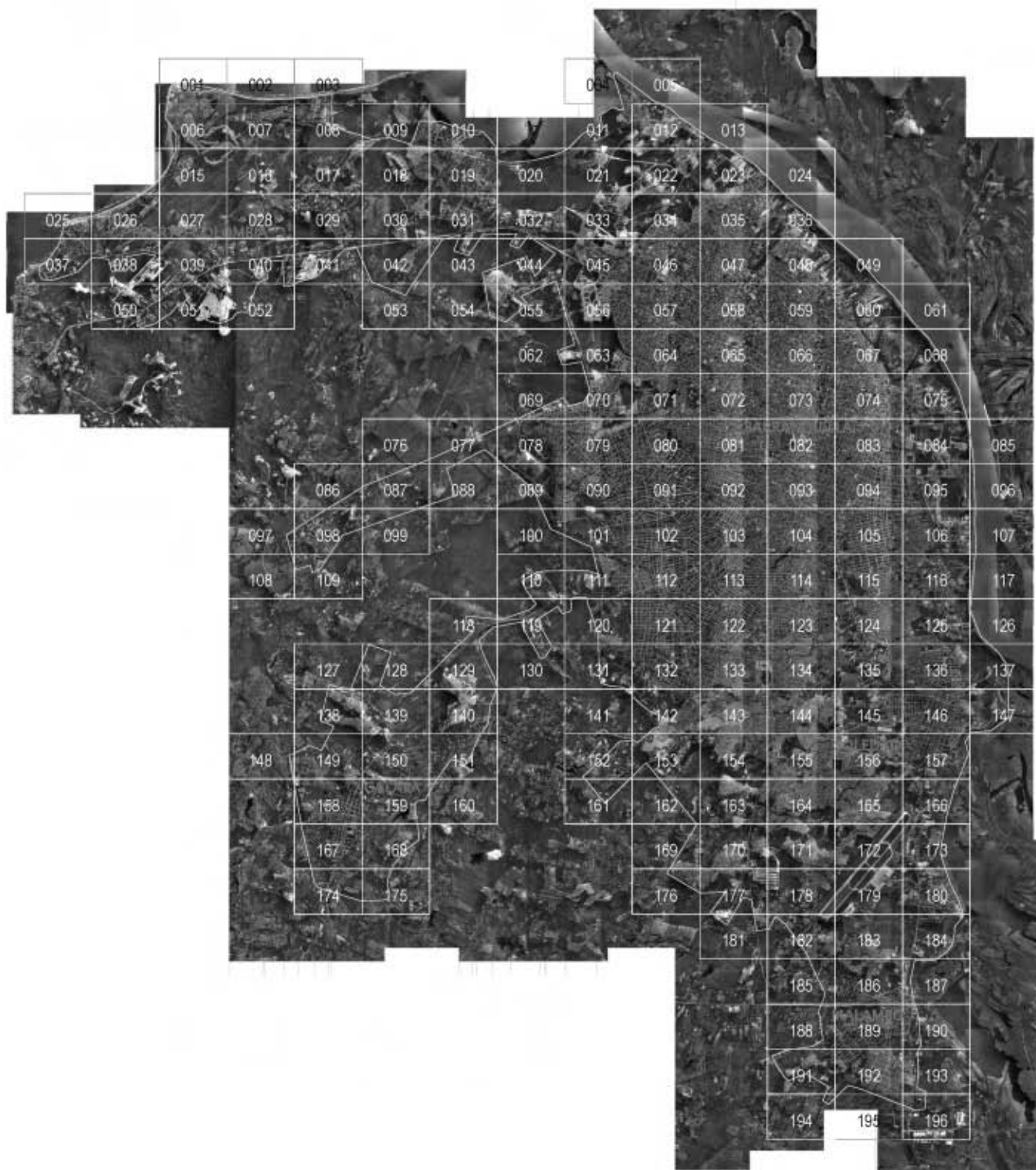
ÍNDICE DE HOJAS PROYECTO CARTAGENA (CARTAGENA, TURBACO)



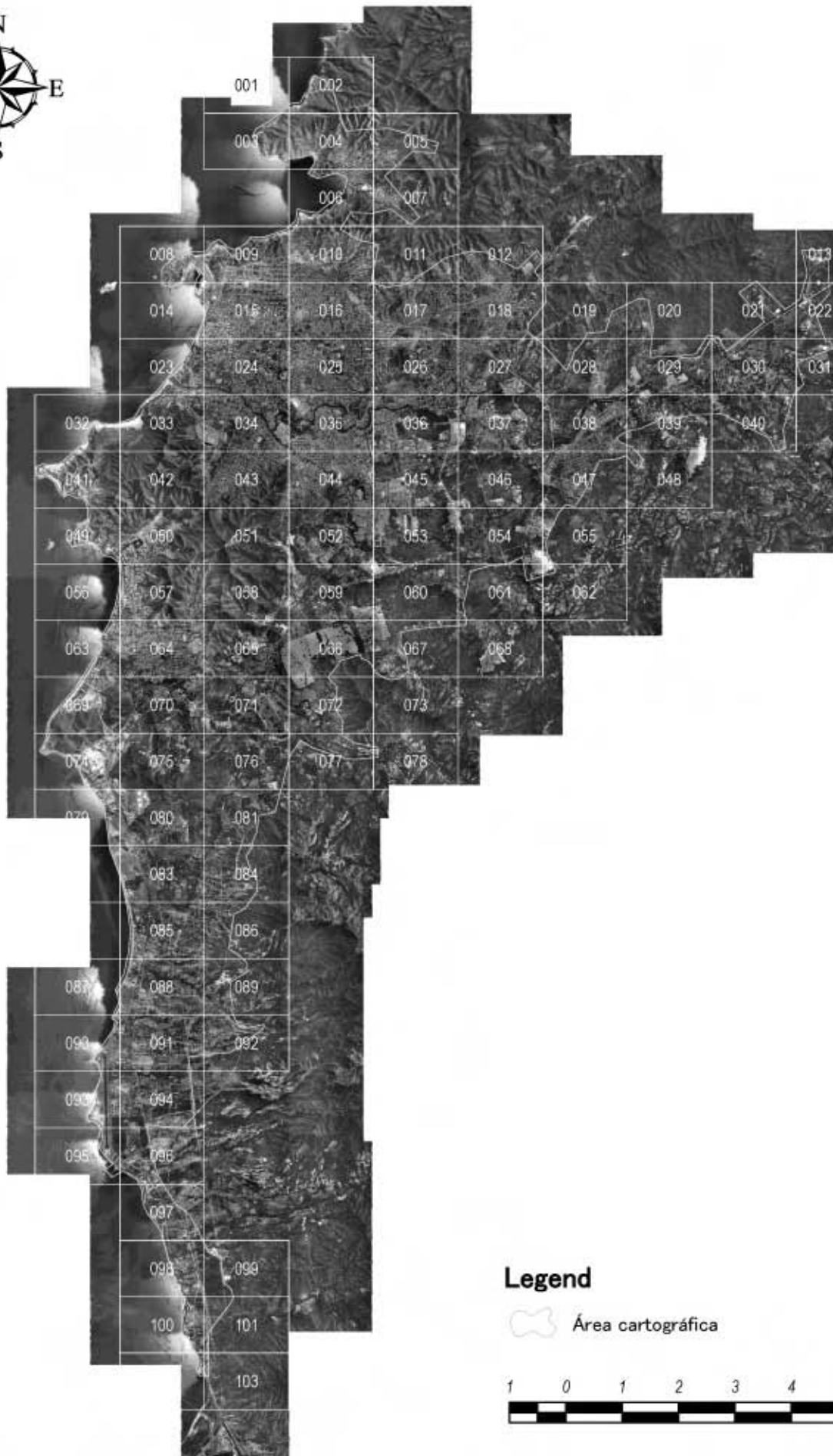
Legend

 Área cartográfica


ÍNDICE DE HOJAS PROYECTO BARRANQUILLA (BARRANQUILLA, GALAPA, PUERTO COLOMBIA, MALAMBO, SOLEDAD)



ÍNDICE DE HOJAS PROYECTO SANTA MARTA (SANTA MARTA)



Legend

 Área cartográfica

