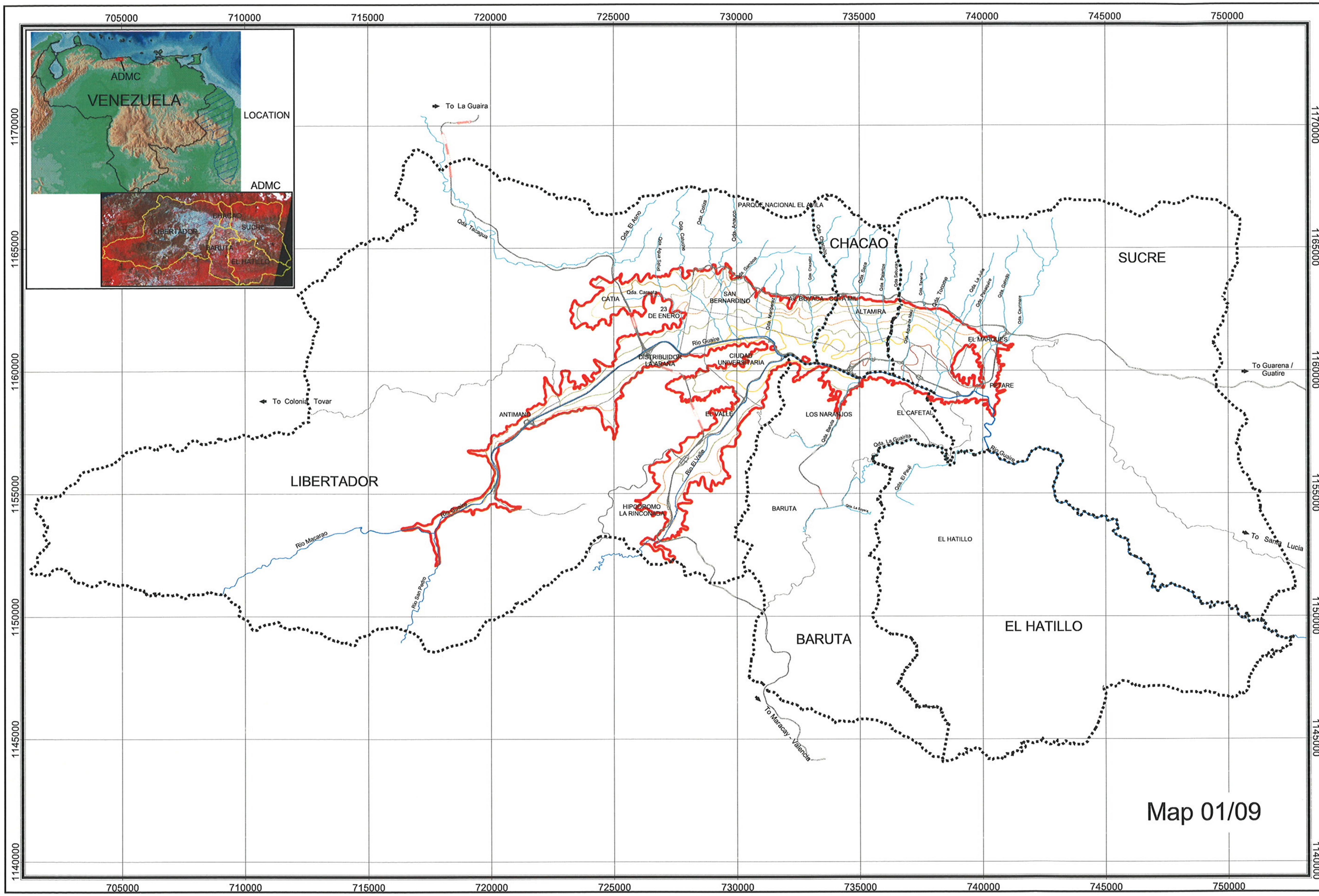


JICA

ALCALDIA Del Distrito Metropolitano De Caracas

N

Scale 1 : 150 000

1000 0 1000 2000 3000 Meters

LEGEND

- Municipality Boundary
- Major Road Network
- Tunnel
- Ground Water Boundary

Ground Water Level, m

840
860
880
900
920
940
960
980

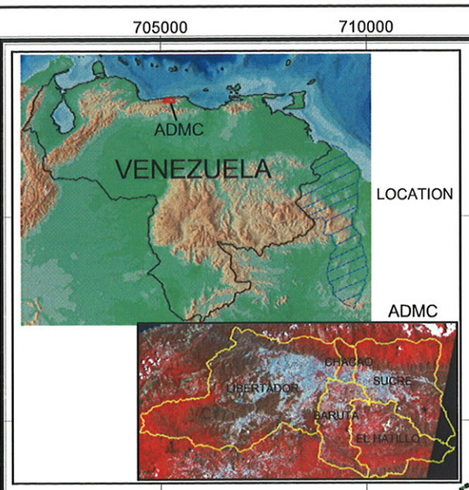
Source: MARN
Elaboration Date: 2004

MAP PROJECTION PARAMETERS

Projection System - Universal Transverse Mercator (UTM)
UTM Zone 19
Datum - Provisional South American 1956
Hemisphere - North

GROUND WATER

STUDY ON DISASTER PREVENTION BASIC PLAN IN THE METROPOLITAN DISTRICT OF CARACAS IN THE BOLIVARIAN REPUBLIC OF VENEZUELA



705000 710000 715000 720000 725000 730000 735000 740000 745000 750000

1170000 1165000 1160000 1155000 1150000 1145000 1140000

To La Guaira

Qda Tacagua

SUCRE

LA PASTORA

PARQUE NACIONAL EL AVILA

EL RECREO

CHACAO

LEONCIO MARTINEZ

SUCRE

PETARE

CAUCAGUITA

Qda Catuche

23 DE ENERO

CATEDRAL

LA CANDELARIA

SAN JUAN

SANTA TERESA

SAN AGUSTIN

SAN PEDRO

Rio Guaire

EL JUNQUITO

EL PARAISO

SANTA ROSALIA

To Colonia Tovar

To Guarena / Guatire

ANTIMANO

LA VEGA

EL CAFETAL

LA DOLORITA

MINAS DE BARUTA

Qda La Guairita

Rio El Valle

LIBERTADOR

COCHE

EL VALLE

NUESTRA SENORA DEL ROSARIO DE BARUTA

MACARAO

CARICUAO

Rio Macarao

Rio San Pedro

To Santa Lucia

FILA DE MARICHE

EL HATILLO

BARUTA

EL HATILLO

To Maracay - Valencia

Map 01/10

JICA

ALCALDIA Del Distrito Metropolitano De Caracas

N

Scale 1 : 150 000

1000 0 1000 2000 3000 Meters

LEGEND

- Municipality Boundary
- Parroquia Boundary
- Road Network
- Tunnel
- River
- Stream

Geological Formation

- Antimano
- Basicas Metamorfizadas
- Centro Poblado
- Las Brisas
- Las Mercedes
- Peña de Mora
- Ultrametafasica

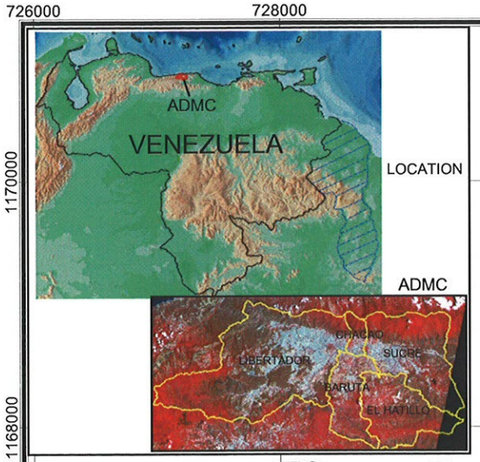
Source: FUNVISIS. 2000
Elaboration Date: 2004.

MAP PROJECTION PARAMETERS

Projection System - Universal Transverse Mercator (UTM)
UTM Zone 19
Datum - Provisional South American 1956
Hemisphere - North

GEOLOGICAL MAP

STUDY ON
DISASTER PREVENTION
BASIC PLAN IN THE
METROPOLITAN DISTRICT
OF CARACAS IN
THE BOLIVARIAN
REPUBLIC OF VENEZUELA



Lithology

Metamorphic Association La Costa (Mesozoic)

- CN — Nirgua Amphibolite

Meta-Sedimentary Association Caracas (Mesozoic)

- CaM — Las Mercedes Schist

Metamorphic Association Avila (Pre-Mesozoic)

- A — Metamorphic Association Avila
- AN — Naiguatá Metagranite
- ATc — Tócome Metaigneous
- ASJ — San Julian Complex
- ASJe — Quartz - Muscovitic Schist
- ASJa — Amphibolitic Schist and Plagioclase-Epidotic Schist
- ASJap — Amphibole-Plagioclase-Epidotic Schist
- ASJp — Plagioclase-Epidotic Schist
- ASJt — Metatonalites
- APM — Augengeiss Peña de Mora
- APMp — Plagioclase-Micaceous-Epidotic Augengeiss
- APMc — Plagioclase-Quartz-Micaceous Augengeiss

PARQUE NACIONAL EL AVILA

CHACAO

SUCRE

LIBERTADOR

SAN BERNARDINO

23 DE ENERO

ALTAMIRA

EL MARQUES

Av. BOYACA - COTA MIL

Qda. Caroata

Qda. Catuche

Qda. Cotiza

Qda. Anauco

Qda. Chacaito

Qda. Chapellin

Qda. Gamboa

Qda. Agua Salud

Qda. Mariperez

Qda. Seca

Qda. Pajaritos

Qda. Sebucan

Qda. Tenerife

Qda. Agua de Maiz

Qda. Tocome

Qda. La Julia

Qda. Pasaquire

Qda. Galindo

Qda. Caurimare

Rio Guaire

DISTRIBUIDOR LA ARAÑA

To Guarenas / Guatire

Map 01/11

JICA

ALCALDIA Del Distrito Metropolitano De Caracas

PC VENEZUELA

N

Scale 1 : 50 000

300 0 300 600 900 Meters

LEGEND

- Municipality Boundary
- Road Network
- Tunnel
- River
- Stream
- Sub Watershed Boundary

From FUNVISIS - IGVSB

- Thrust Fault
- Fault
- Inferred Fault
- Foliation
- Lithological Contact

From JICA Study

- Thrust Fault
- Fault
- Inferred Fault
- Foliation
- Lithological Contact

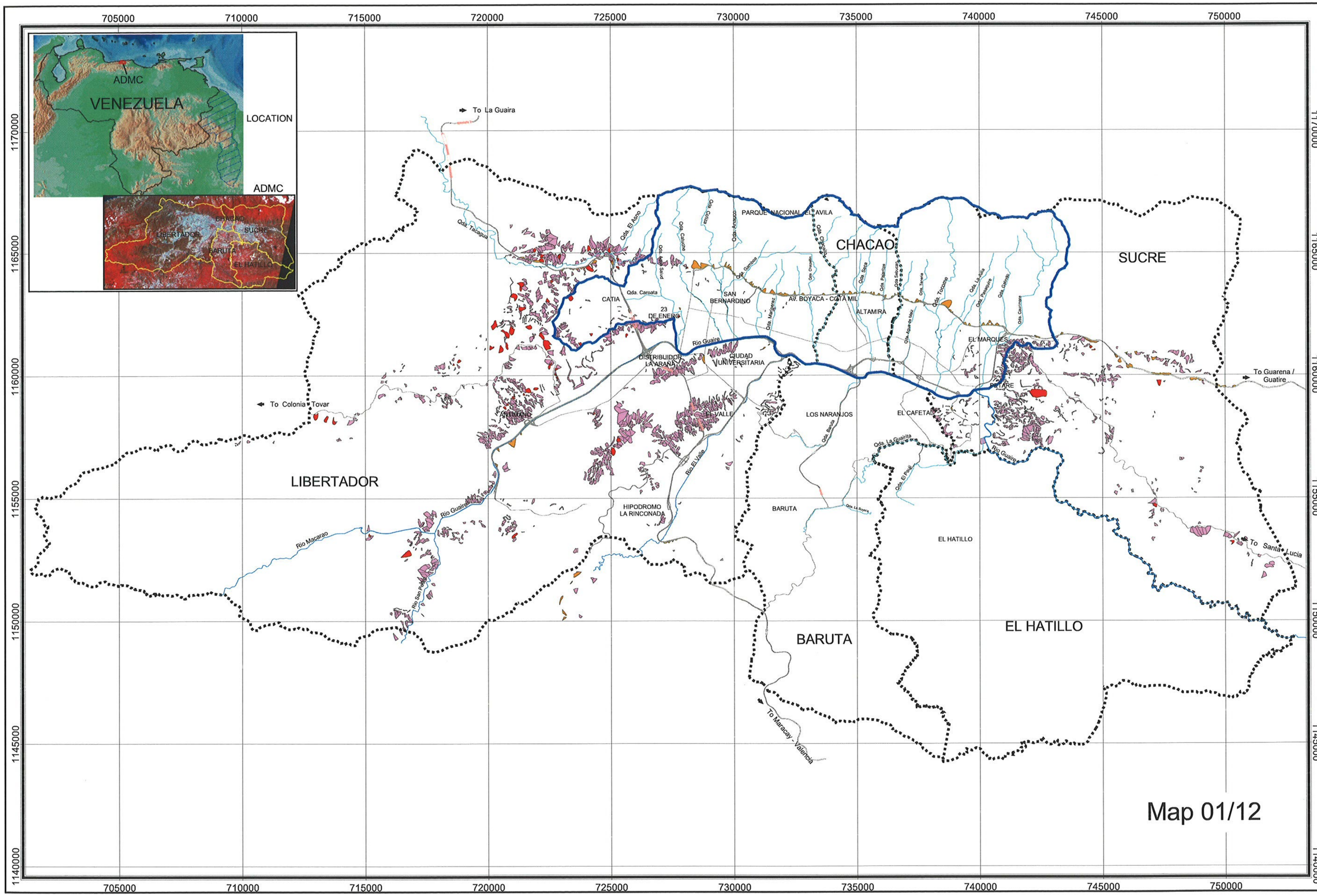
Source: JICA Study Team / FUNVISIS.
Elaboration Date: 2003

MAP PROJECTION PARAMETERS

Projection System - Universal Transverse Mercator (UTM)
UTM Zone 19
Datum - Provisional South American 1956
Hemisphere - North

GEOLOGY IN THE AVILA MOUNTAIN

STUDY ON
DISASTER PREVENTION
BASIC PLAN IN THE
METROPOLITAN DISTRICT
OF CARACAS IN
THE BOLIVARIAN
REPUBLIC OF VENEZUELA



jica

ALCALDIA Del Distrito Metropolitano De Caracas

N

Scale 1 : 150 000

1000 0 1000 2000 3000 Meters

LEGEND

- Municipality Boundary
- Road Network
- Tunnel
- River
- Stream
- Sediment Disaster Study Area

Slope Classifications

- Steep slope above house
- Steep slope above road
- Steep slope above stream
- Landslide

Remark: Slope and landslide in Municipality of Baruta and El Hatillo were not studied.

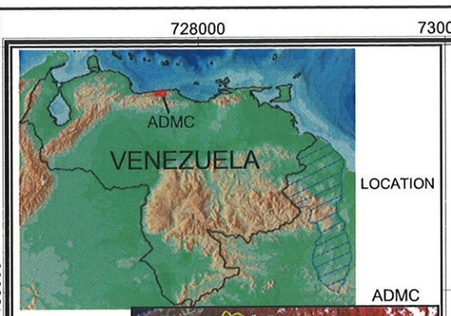
Source: JICA Study Team.
Elaboration Date: 2003

MAP PROJECTION PARAMETERS

Projection System - Universal Transverse Mercator (UTM)
UTM Zone 19
Datum - Provisional South American 1956
Hemisphere - North

SLOPE CLASSIFICATIONS

STUDY ON DISASTER PREVENTION BASIC PLAN IN THE METROPOLITAN DISTRICT OF CARACAS IN THE BOLIVARIAN REPUBLIC OF VENEZUELA



PARQUE NACIONAL EL AVILA

Qda. Catuche
Qda. Cotiza
Qda. Anauco
Qda. Chacaito
Qda. Agua Salud
Qda. Gamboa
Qda. Chapellin
Qda. Seca
Qda. Pajaritos
Qda Sebucan
Qda. Tenería
Qda. Tocome
Qda. La Julia
Qda. Pasaquire
Qda. Catuche
Qda. Caurimare
Av. BOYACA - COTA MIL
Qda. Mariperez
ALTAMIRA
Qda. Agua de Maiz
EL MARQUES
To Guarena / Guatire
Rio Guaire

Map 01/13

728000 730000 732000 734000 736000 738000 740000 742000

1170000 1168000 1166000 1164000 1162000 1160000

JICA

ALCALDIA Del Distrito Metropolitano De Caracas

PC VENEZUELA

N

Scale 1 : 50 000

250 0 250 500 750 1000 Meters

LEGEND

- Municipality Boundary
- Road Network
- Tunnel
- River
- Stream

Order of Stream

- 1st Order
- 2nd Order
- 3rd Order
- 4th Order
- 5th Order

- Unit Catchment (2nd Order)
- Unstable Sediment on Stream Bed

Source: JICA Study Team.
Date Elaboration: 2003

MAP PROJECTION PARAMETERS

Projection System - Universal Transverse Mercator (UTM)
UTM Zone 19
Datum - Provisional South American 1956
Hemisphere - North

UNSTABLE SEDIMENT ON STREAM BED

STUDY ON DISASTER PREVENTION BASIC PLAN IN THE METROPOLITAN DISTRICT OF CARACAS IN THE BOLIVARIAN REPUBLIC OF VENEZUELA