

**Legend**

- Basin Limit
- Annual Rainfall ( mm / year )

PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOODS

# Annual Rainfall - Chira River Basin

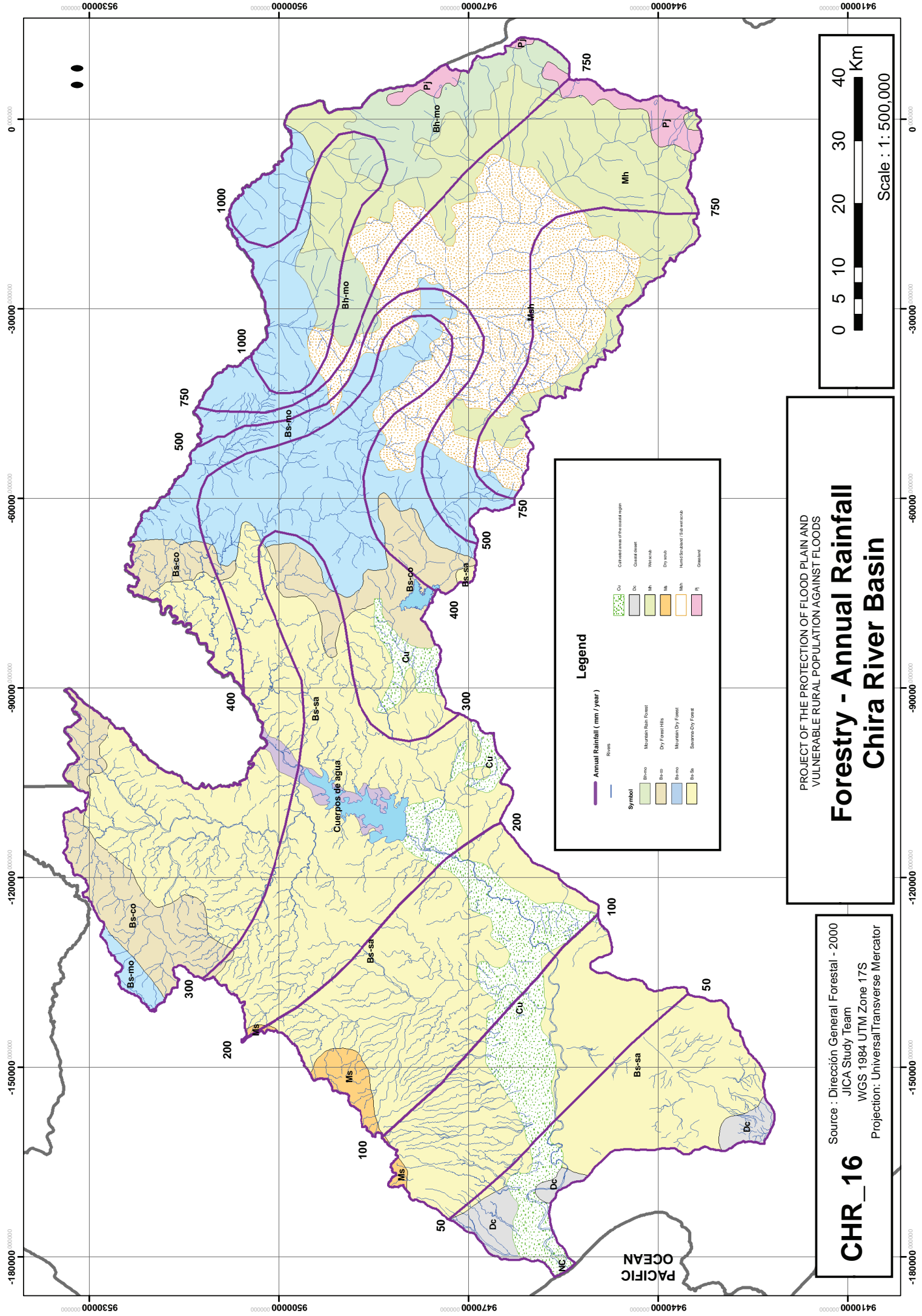
**CHR\_15**

Source: SENAMHI 65-74  
WGS 1984 UTM Zone 17S  
Projection: Universal Transverse Mercator

Scale : 1 : 500,000

ECUADOR

PACIFIC OCEAN



PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
VULNERABLE RURAL POPULATION AGAINST FLOODS

# Forestry - Annual Rainfall Chira River Basin

**CHR\_16**

Source : Dirección General Forestal - 2000  
 JICA Study Team  
 WGS 1984 UTM Zone 17S  
 Projection: Universal Transverse Mercator

**Legend**

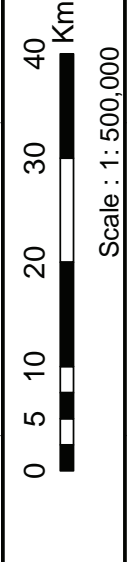
Annual Rainfall ( mm / year )

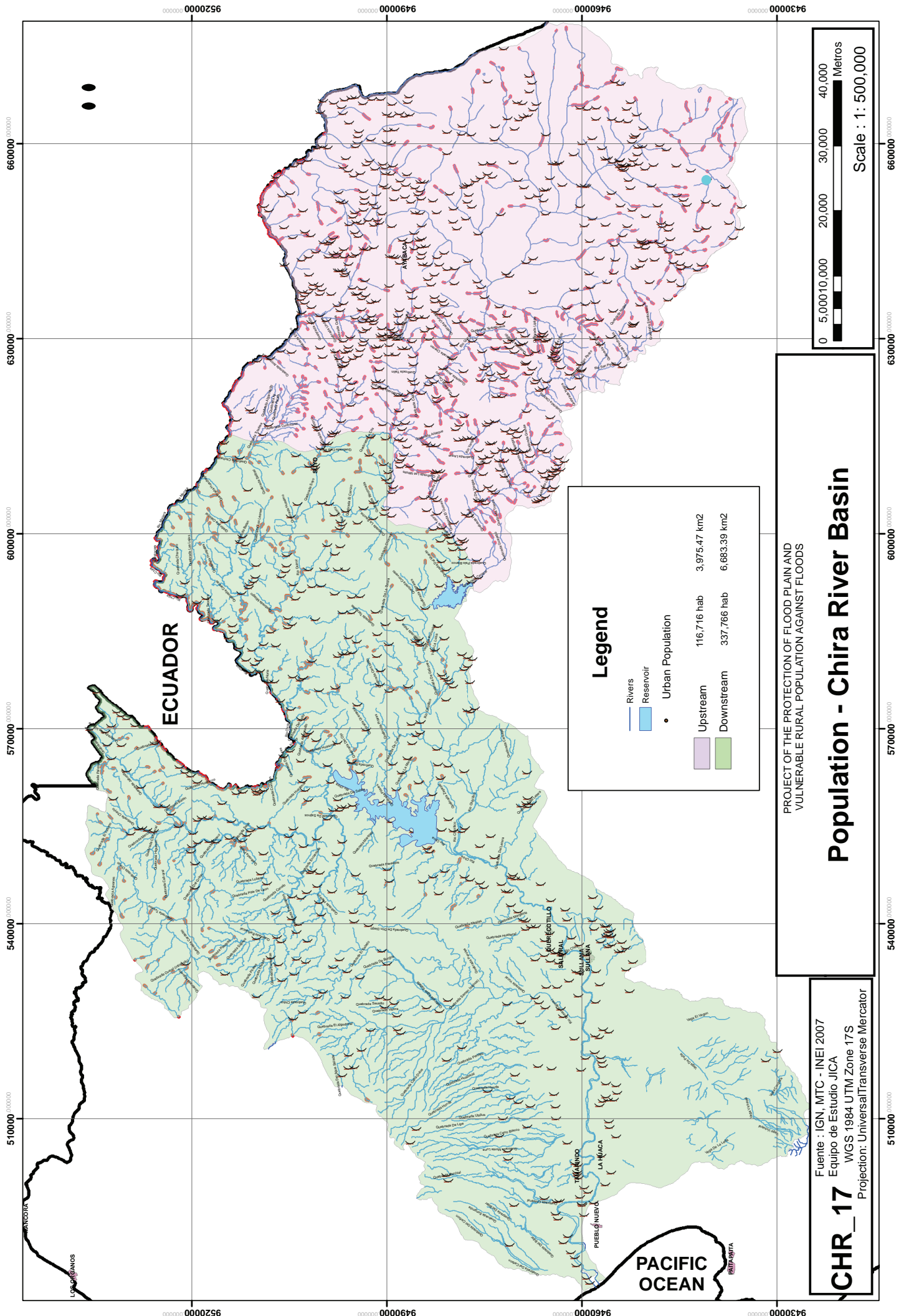
|    |     |     |     |     |     |     |      |
|----|-----|-----|-----|-----|-----|-----|------|
| 50 | 100 | 200 | 300 | 400 | 500 | 750 | 1000 |
|----|-----|-----|-----|-----|-----|-----|------|

Rivers

|        |                      |                  |                     |                    |                |             |                            |
|--------|----------------------|------------------|---------------------|--------------------|----------------|-------------|----------------------------|
| Symbol | Green                | Orange           | Yellow              | Light Green        | Light Blue     | Light Green | Light Green                |
|        | Mountain Rain Forest | Dry Forest Hills | Mountain Dry Forest | Savanna Dry Forest | Cu             | Dc          | Mh                         |
|        |                      |                  |                     |                    | Coastal forest | Wet scrub   | Dry scrub                  |
|        |                      |                  |                     |                    |                |             | Hard Scrubland (Bunhuacab) |
|        |                      |                  |                     |                    |                |             | Grassland                  |

Cu: Cultivated areas of the coastal region

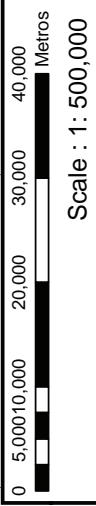




**ECUADOR**

**Legend**

- Rivers
  - Reservoir
  - Urban Population
- |  |            |             |                          |
|--|------------|-------------|--------------------------|
|  | Upstream   | 116,716 hab | 3,975.47 km <sup>2</sup> |
|  | Downstream | 337,766 hab | 6,683.39 km <sup>2</sup> |

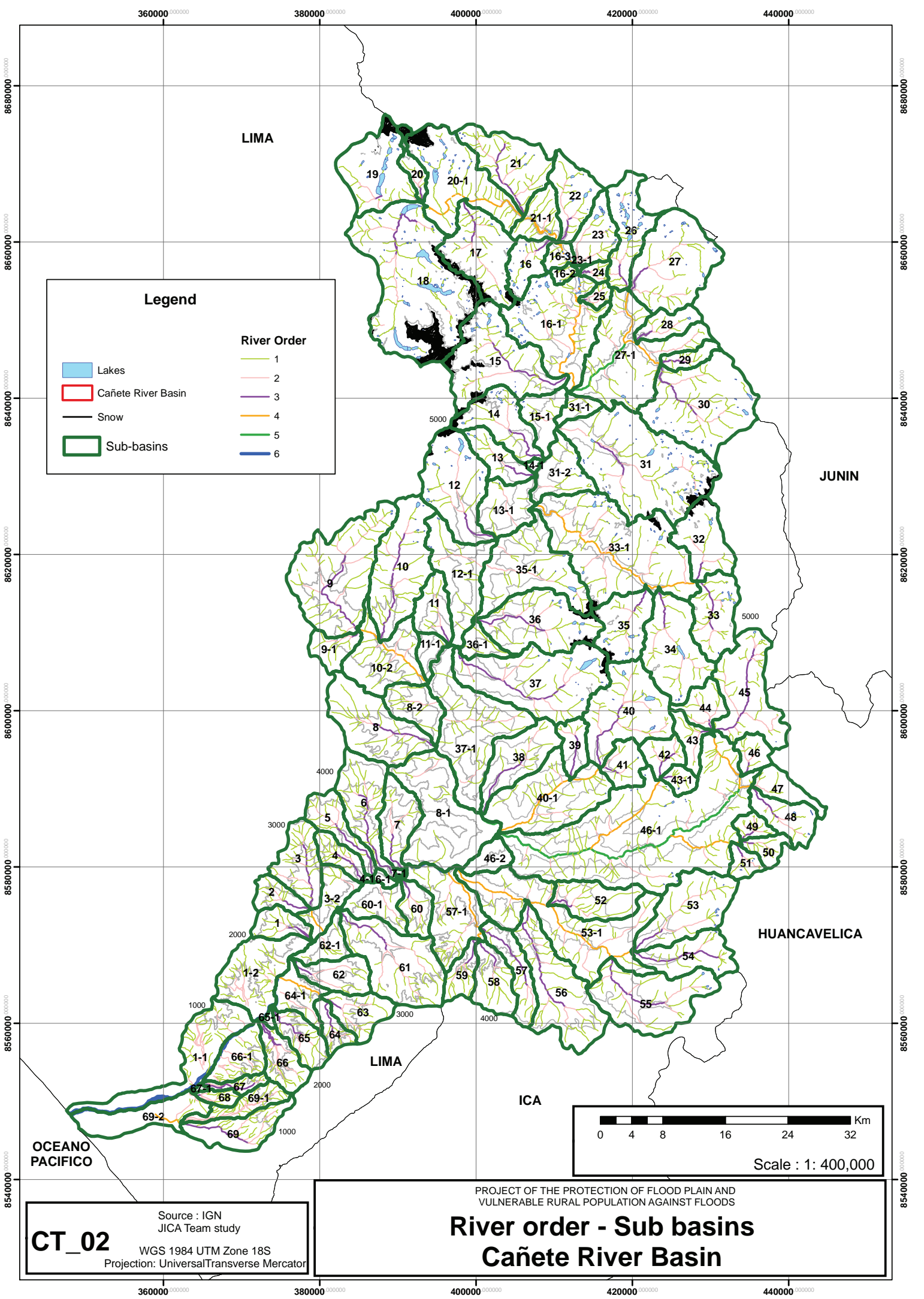


PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
VULNERABLE RURAL POPULATION AGAINST FLOODS











**Population - Chira River Basin**

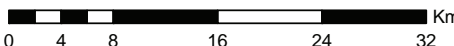
**CHR\_17**  
 Fuente : IGN, MTC - INEI 2007  
 Equipo de Estudio JICA  
 WGS 1984 UTM Zone 17S  
 Projection: Universal Transverse Mercator

**PACIFIC OCEAN**



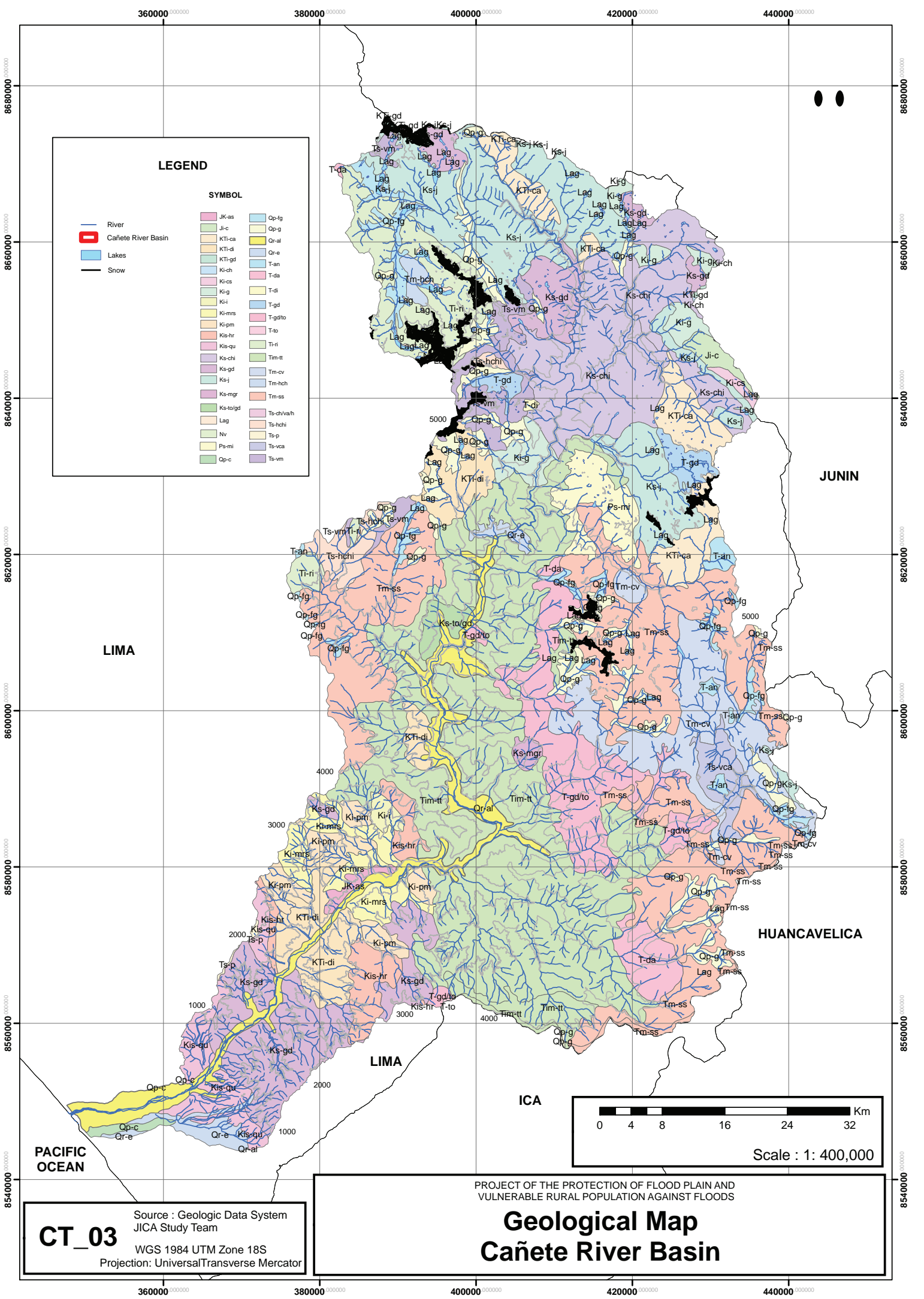
**Legend**

|   |                    |   |   |
|---|--------------------|---|---|
|  | Lakes              |  | 1 |
|  | Cañete River Basin |  | 2 |
|  | Snow               |  | 3 |
|  | Sub-basins         |  | 4 |
|   |                    |  | 5 |
|   |                    |  | 6 |

 Km  
0 4 8 16 24 32  
Scale : 1: 400,000

**CT\_02**  
Source : IGN  
JICA Team study  
WGS 1984 UTM Zone 18S  
Projection: Universal Transverse Mercator

PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
VULNERABLE RURAL POPULATION AGAINST FLOODS  
**River order - Sub basins**  
**Cañete River Basin**



**LEGEND**

**SYMBOL**

- River
  - Cañete River Basin
  - Lakes
  - Snow
- |          |            |
|----------|------------|
| JK-as    | Qp-fg      |
| Ji-c     | Qp-g       |
| KTI-ca   | Qr-al      |
| KTI-di   | Qr-e       |
| KTI-gd   | T-an       |
| Ki-ch    | T-da       |
| Ki-cs    | T-di       |
| Ki-g     | T-gd       |
| Ki-i     | T-gd/to    |
| Ki-mrs   | T-to       |
| Ki-pm    | Ti-ri      |
| Kis-hr   | Tim-tt     |
| Kis-qu   | Tm-cv      |
| Kis-chi  | Tm-hch     |
| Kis-gd   | Tm-ss      |
| Kis-j    | Ts-ch/va/h |
| Kis-mgr  | Ts-hchi    |
| Ks-to/gd | Ts-p       |
| Lag      | Ts-vca     |
| Nv       | Ts-vm      |
| Ps-mi    |            |
| Qp-c     |            |

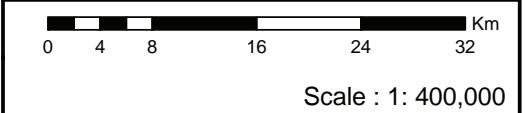
LIMA

JUNIN

HUANCAMELICA

ICA

PACIFIC OCEAN

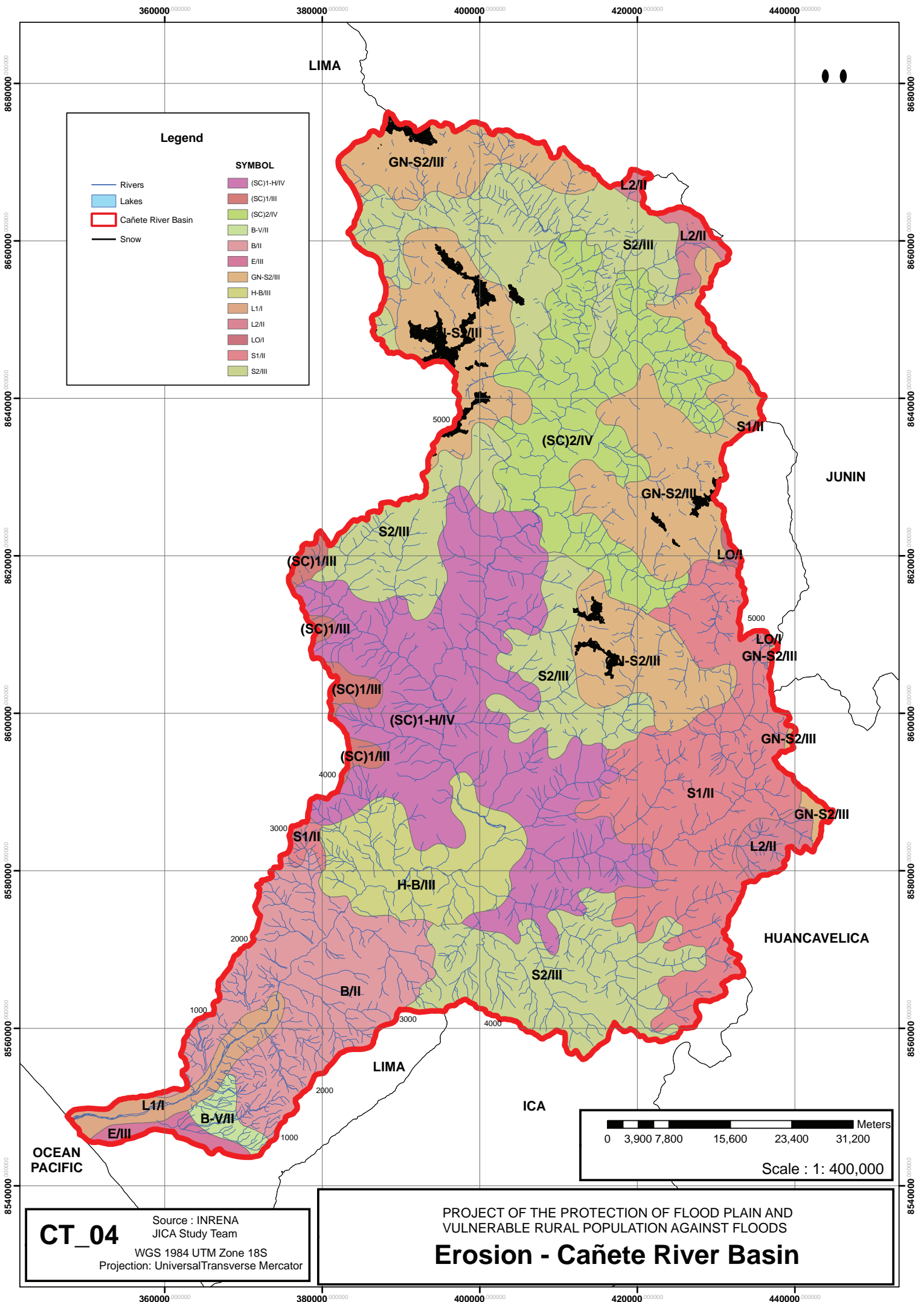


**CT\_03**

Source : Geologic Data System  
 JICA Study Team  
 WGS 1984 UTM Zone 18S  
 Projection: Universal Transverse Mercator

PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
 VULNERABLE RURAL POPULATION AGAINST FLOODS

**Geological Map  
 Cañete River Basin**

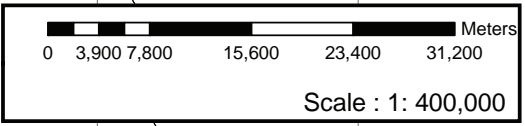


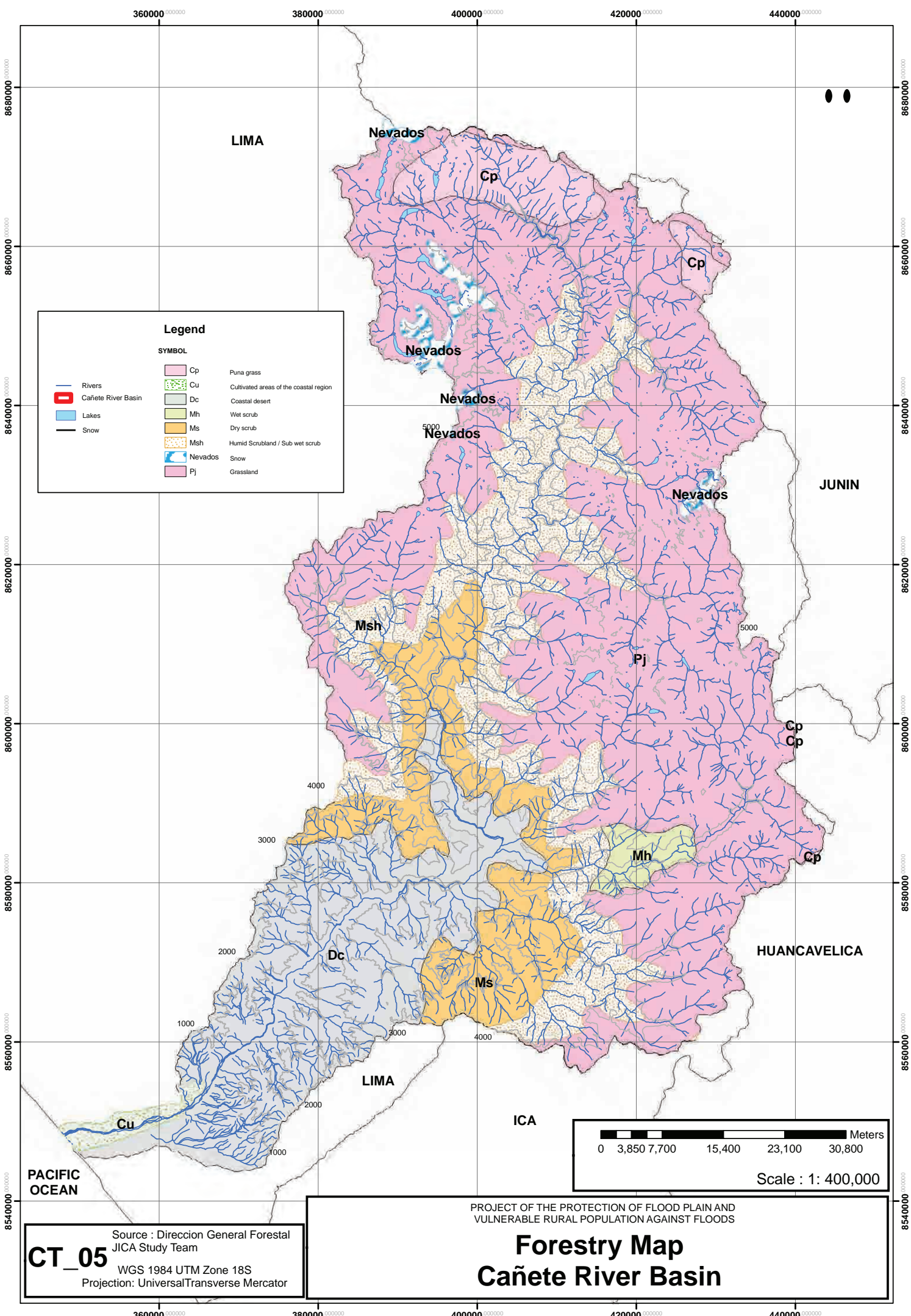
**Legend**

|  |                    |  |            |
|--|--------------------|--|------------|
|  | Rivers             |  | (SC)1-H/IV |
|  | Lakes              |  | (SC)1/III  |
|  | Cañete River Basin |  | (SC)2/IV   |
|  | Snow               |  | B-V/II     |
|  |                    |  | B/II       |
|  |                    |  | E/III      |
|  |                    |  | GN-S2/III  |
|  |                    |  | H-B/III    |
|  |                    |  | L1/I       |
|  |                    |  | L2/II      |
|  |                    |  | LO/I       |
|  |                    |  | S1/II      |
|  |                    |  | S2/III     |

**CT\_04**  
 Source : INRENA  
 JICA Study Team  
 WGS 1984 UTM Zone 18S  
 Projection: Universal Transverse Mercator

PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
 VULNERABLE RURAL POPULATION AGAINST FLOODS  
**Erosion - Cañete River Basin**





**Legend**

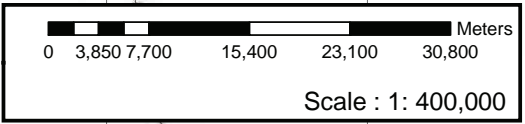
| SYMBOL |   |
|--------|---|
|        | Rivers                                    |
|        | Cañete River Basin                        |
|        | Lakes                                     |
|        | Snow                                      |
|        | Cp Puna grass                             |
|        | Cu Cultivated areas of the coastal region |
|        | Dc Coastal desert                         |
|        | Mh Wet scrub                              |
|        | Ms Dry scrub                              |
|        | Msh Humid Scrubland / Sub wet scrub       |
|        | Nevados Nevados                           |
|        | Pj Grassland                              |

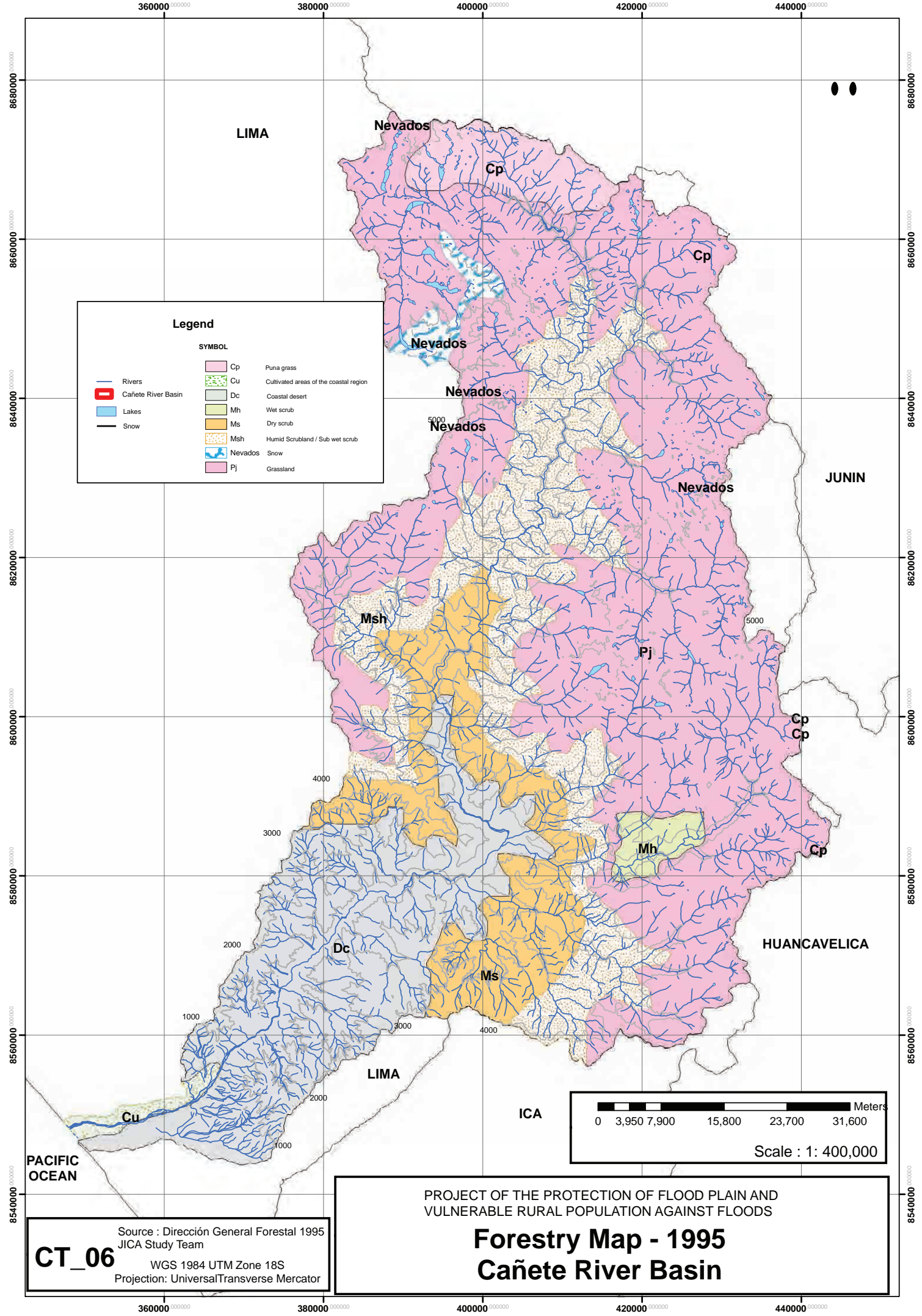
**CT\_05**  
 Source : Direccion General Forestal  
 JICA Study Team  
 WGS 1984 UTM Zone 18S  
 Projection: Universal Transverse Mercator

PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
 VULNERABLE RURAL POPULATION AGAINST FLOODS

# Forestry Map

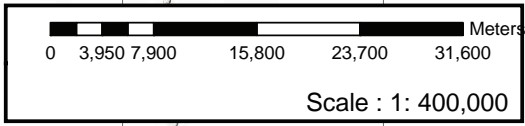
## Cañete River Basin





**Legend**

| SYMBOL |                    |  |
|--------|--------------------|--|
|        | Rivers             |  |
|        | Cañete River Basin |  |
|        | Lakes              |  |
|        | Snow               |  |
|        | Cp                 | Puna grass                             |
|        | Cu                 | Cultivated areas of the coastal region |
|        | Dc                 | Coastal desert                         |
|        | Mh                 | Wet scrub                              |
|        | Ms                 | Dry scrub                              |
|        | Msh                | Humid Scrubland / Sub wet scrub        |
|        | Nevados            | Snow                                   |
|        | Pj                 | Grassland                              |



**CT\_06**  
 Source : Dirección General Forestal 1995  
 JICA Study Team  
 WGS 1984 UTM Zone 18S  
 Projection: UniversalTransverse Mercator

PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
 VULNERABLE RURAL POPULATION AGAINST FLOODS  
**Forestry Map - 1995**  
**Cañete River Basin**



