

**Legend**

- Basin Limit
- Lakes
- Rivers

**Slope Percentages (%)**

- 0.00 - 2.00
- 2.00 - 15.00
- 15.00 - 35.00
- 35.00 - Mas

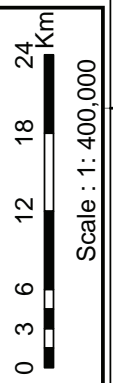
Porcentaje - Pendientes	Area ( km2 )
0-2	173.3
2 - 15	948.38
15 - 35	1418.79
Over 35	1731.62
<b>TOTAL</b>	<b>4272.09</b>

**PI\_14**

Source: Direccion Forestal / DEM 30 x 30 Nasa  
 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

## Slope Basin - Pisco River Basin



8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

8475000 8500000 8525000 8550000 8575000

350000 400000 425000 450000 475000 500000

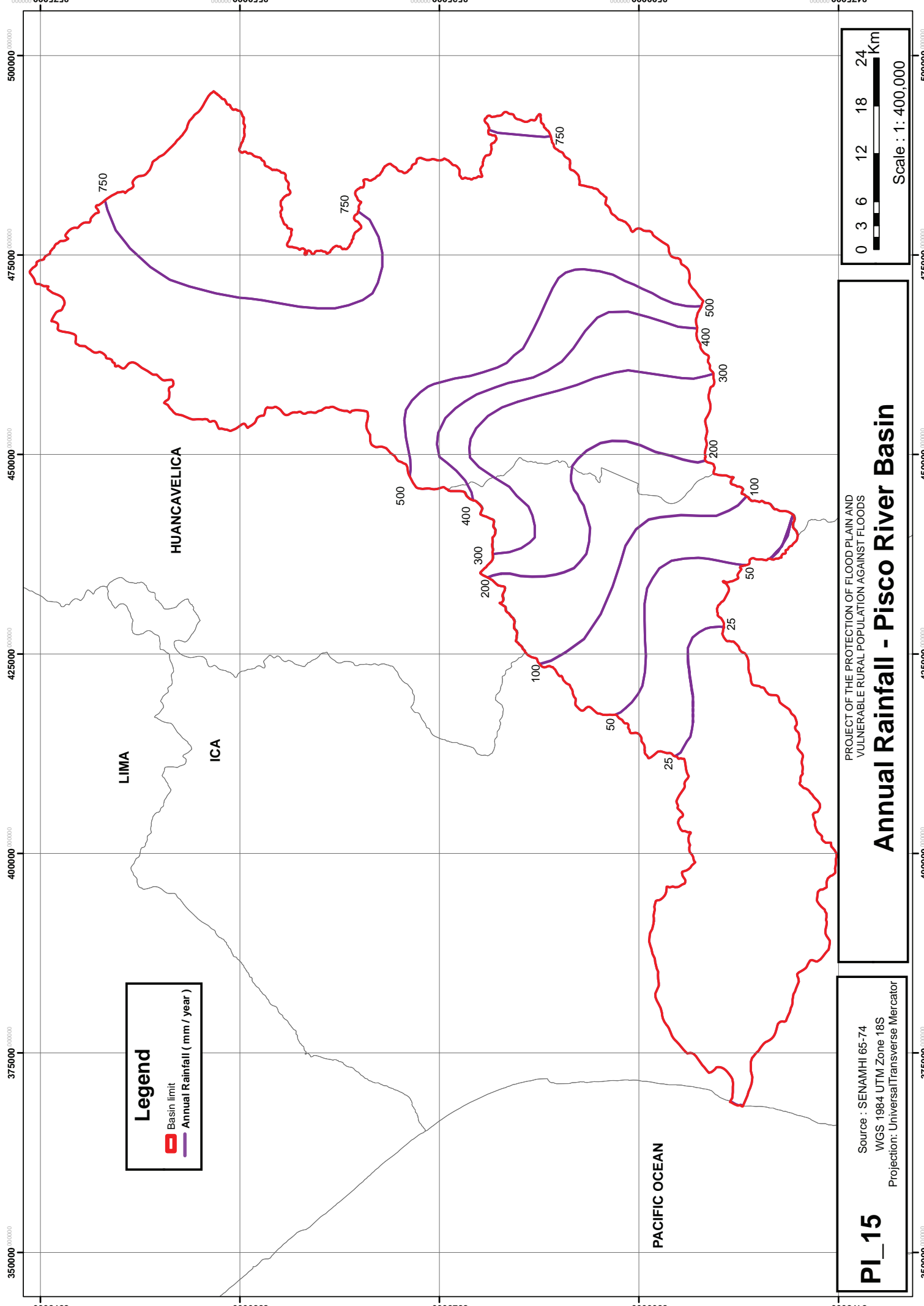
LIMA  
ICA  
HUANCAVELICA

PACIFIC OCEAN

4000  
3000

4000  
3000  
2000  
1000

4000  
3000  
2000  
1000



**Legend**

-  Basin limit
-  Annual Rainfall ( mm / year )

**PI\_15**

Source : SENAMHI 65-74  
 WGS 1984 UTM Zone 18S  
 Projection: Universal Transverse Mercator

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

**Annual Rainfall - Pisco River Basin**

0 3 6 12 18 24 Km

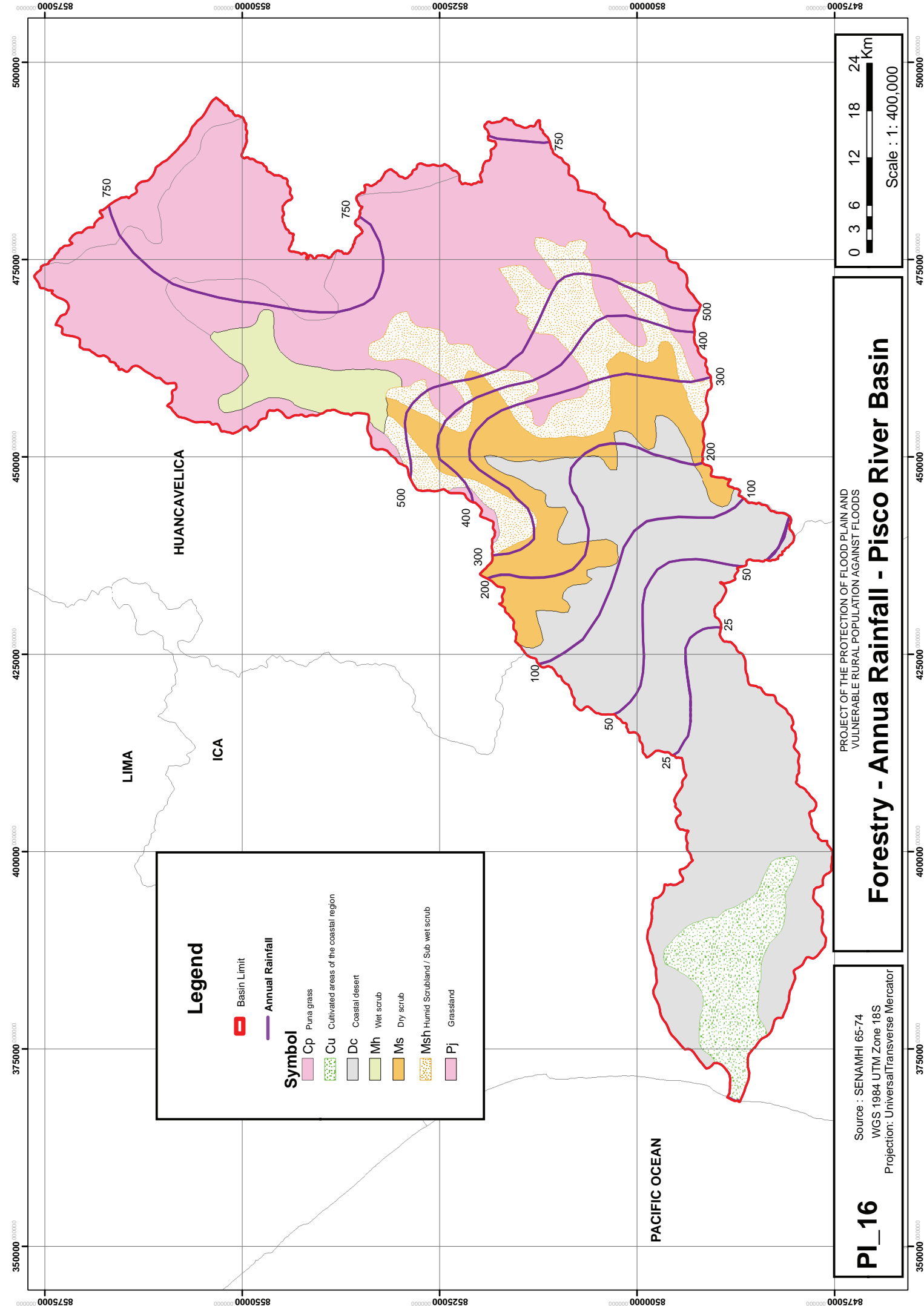
Scale : 1 : 400,000

8575000 8550000 8525000 8500000 8475000

500000 475000 450000 425000 400000 375000 350000

8575000 8550000 8525000 8500000 8475000

500000 475000 450000 425000 400000 375000 350000



### Legend

▬ Basin Limit

▬ Annual Rainfall

#### Symbol

<span style="display: inline-block; width: 15px; height: 15px; background-color: #f08080; border: 1px solid black;"></span> Cp	Puna grass
<span style="display: inline-block; width: 15px; height: 15px; background-color: #90ee90; border: 1px solid black;"></span> Cu	Cultivated areas of the coastal region
<span style="display: inline-block; width: 15px; height: 15px; background-color: #d3d3d3; border: 1px solid black;"></span> Dc	Coastal desert
<span style="display: inline-block; width: 15px; height: 15px; background-color: #c8e6c9; border: 1px solid black;"></span> Mh	Wet scrub
<span style="display: inline-block; width: 15px; height: 15px; background-color: #ffcc80; border: 1px solid black;"></span> Ms	Dry scrub
<span style="display: inline-block; width: 15px; height: 15px; background-color: #e0e0e0; border: 1px solid black; border-style: dotted;"></span> Msh	Humid Scrubland / Sub wet scrub
<span style="display: inline-block; width: 15px; height: 15px; background-color: #f08080; border: 1px solid black;"></span> Pj	Grassland



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

## Forestry - Annual Rainfall - Pisco River Basin

**PI\_16**

Source : SENAMHI 65-74  
WGS 1984 UTM Zone 18S  
Projection: UniversalTransverse Mercator

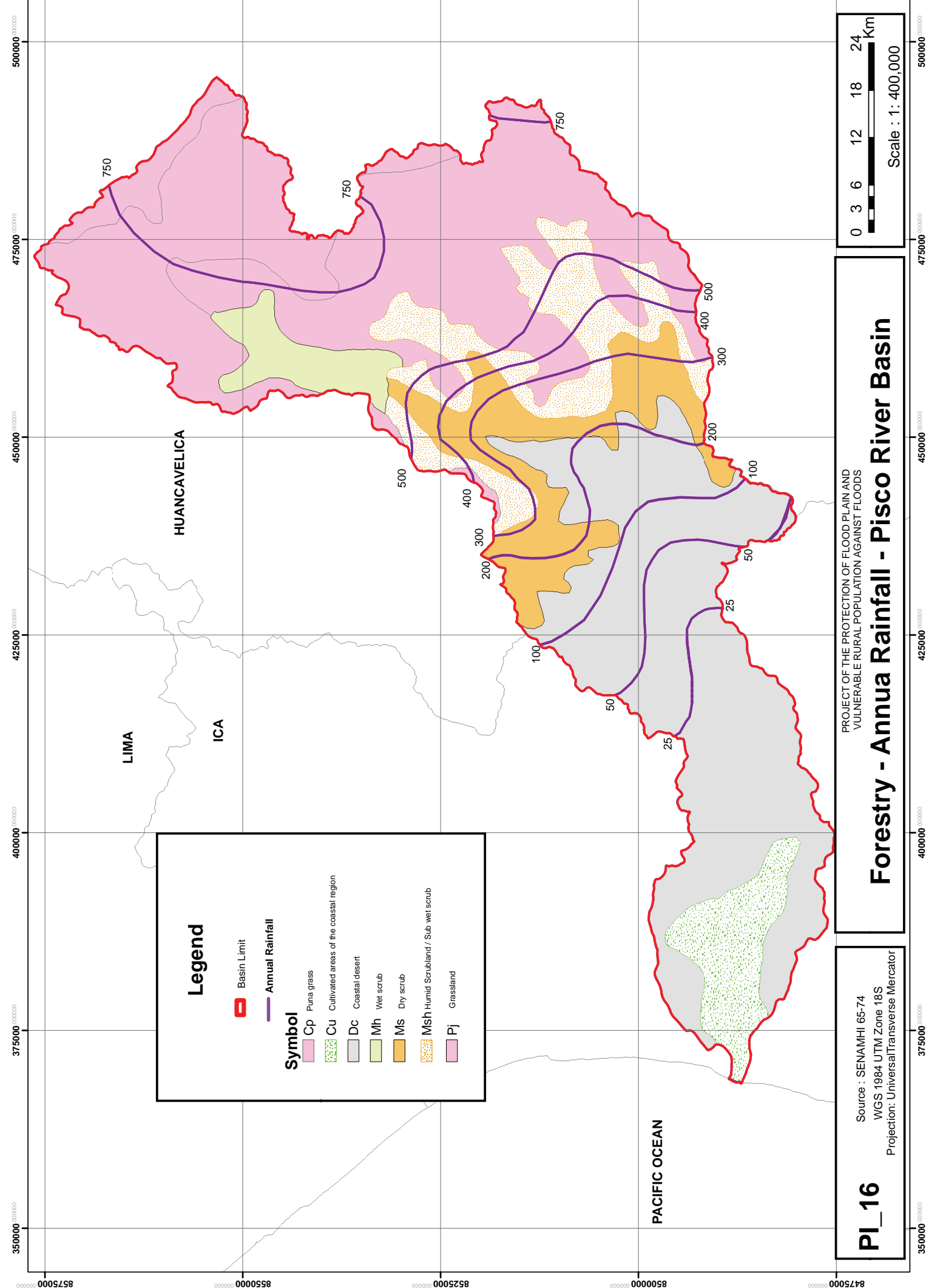
LIMA

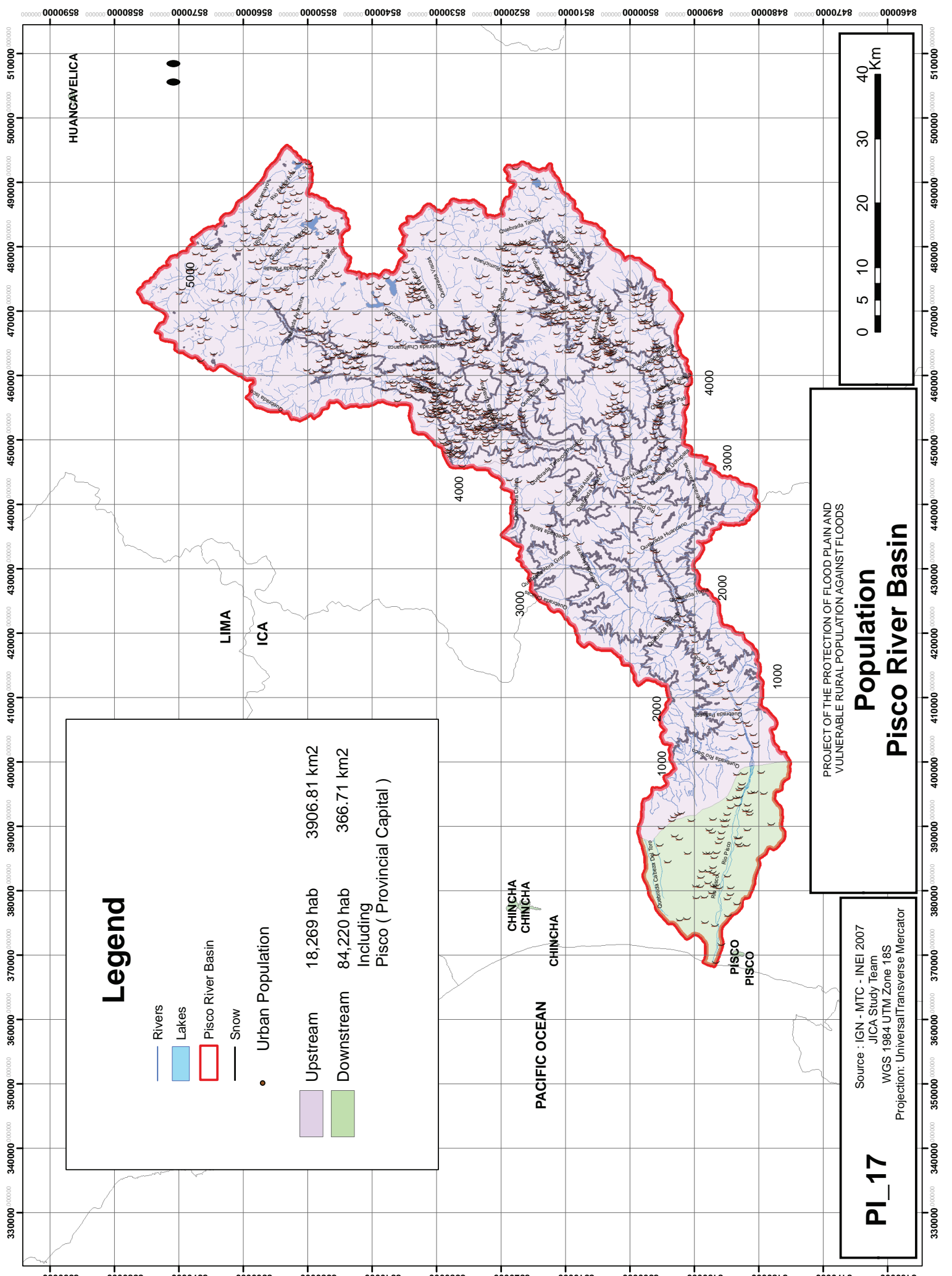
ICA

HUANCVELICA

PACIFIC OCEAN

8575000 8550000 8525000 8500000 8475000





# Legend

- Rivers
  - Lakes
  - Pisco River Basin
  - Snow
  - Urban Population
- |            |            |                         |
|------------|------------|-------------------------|
| Upstream   | 18,269 hab | 3906.81 km <sup>2</sup> |
| Downstream | 84,220 hab | 366.71 km <sup>2</sup>  |
- Including Pisco ( Provincial Capital )

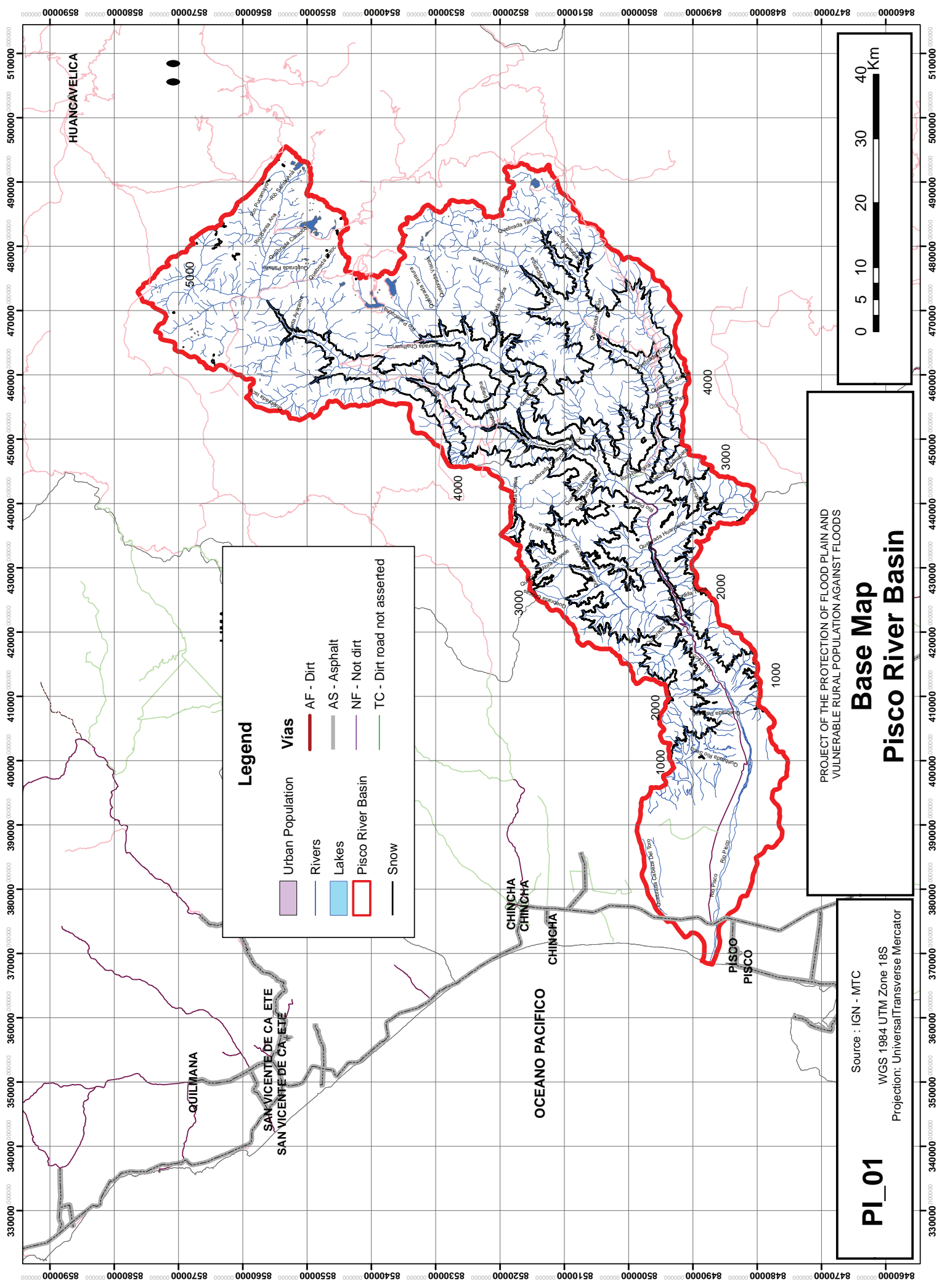
PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
VULNERABLE RURAL POPULATION AGAINST FLOODS

## Population Pisco River Basin

**PI\_17**

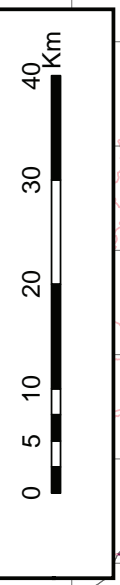
Source : IGN - MTC - INEI 2007  
JICA Study Team  
WGS 1984 UTM Zone 18S  
Projection: Universal Transverse Mercator





**Legend**

	Urban Population		Vías AF - Dirt
	Rivers		AS - Asphalt
	Lakes		NF - Not dirt
	Pisco River Basin		TC - Dirt road not asserted
	Snow		



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

# Base Map

## Pisco River Basin

**PI\_01**

Source : IGN - MTC

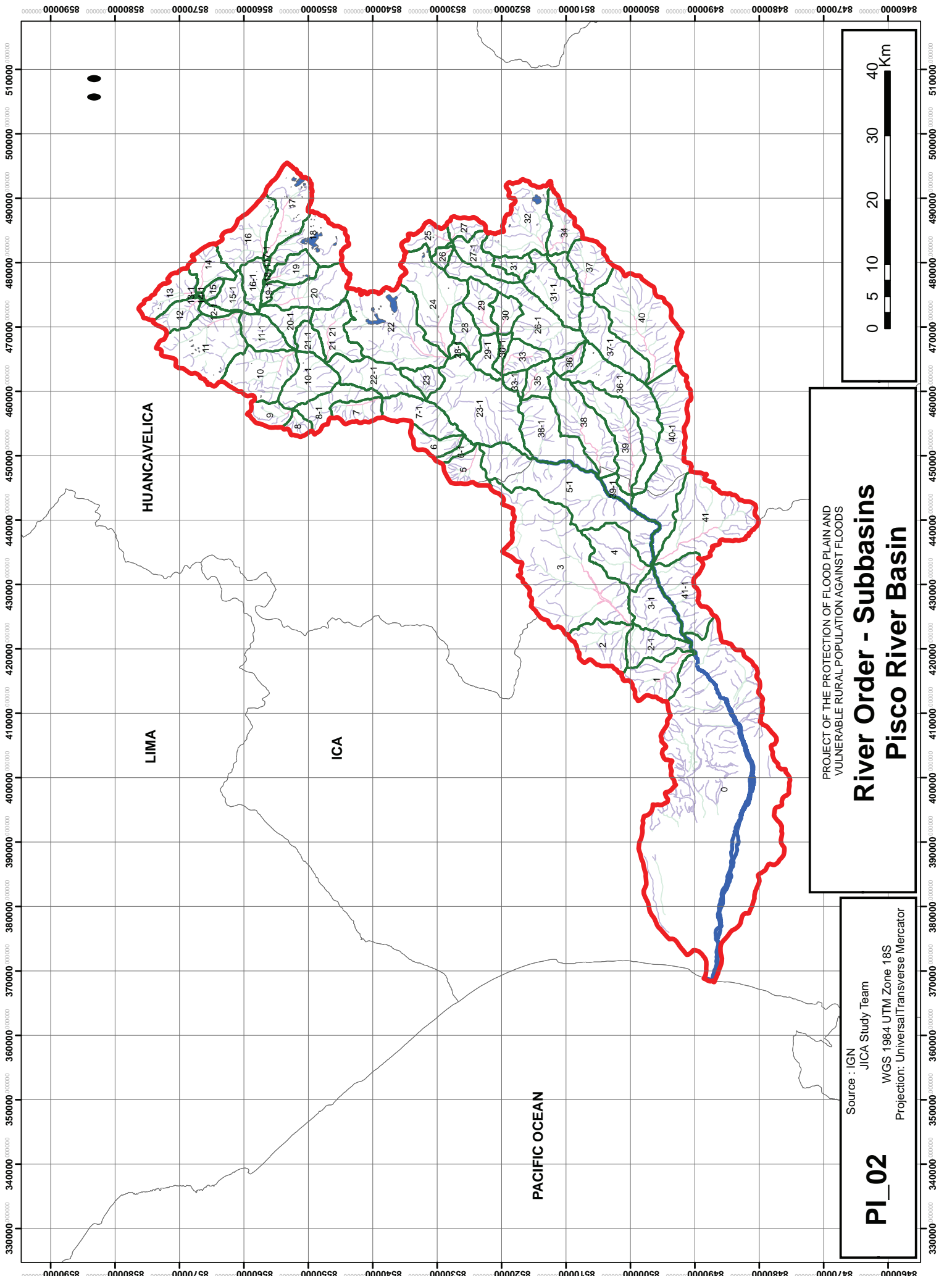
WGS 1984 UTM Zone 18S

Projection: UniversalTransverse Mercator

8460000 8470000 8480000 8490000 8500000 8510000 8520000 8530000 8540000 8550000 8560000 8570000 8580000 8590000

330000 340000 350000 360000 370000 380000 390000 400000 410000 420000 430000 440000 450000 460000 470000 480000 490000 500000 510000

8460000 8470000 8480000 8490000 8500000 8510000 8520000 8530000 8540000 8550000 8560000 8570000 8580000 8590000



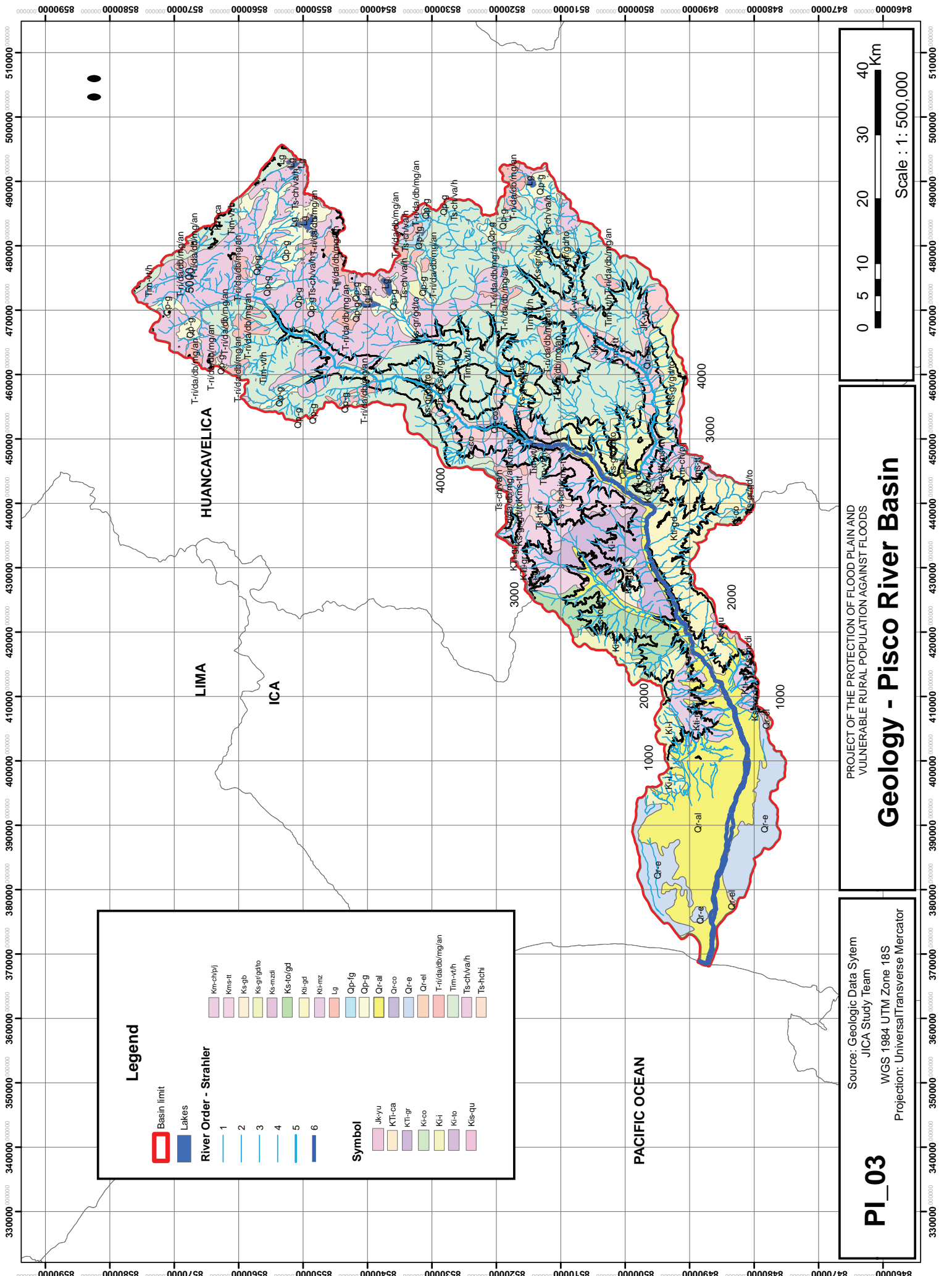
PROJECT OF THE PROTECTION OF FLOOD PLAIN AND  
VULNERABLE RURAL POPULATION AGAINST FLOODS

# River Order - Subbasins

## Pisco River Basin

**PI\_02**

Source : IGN  
JICA Study Team  
WGS 1984 UTM Zone 18S  
Projection: Universal Transverse Mercator



**Legend**

Basin limit

Lakes

**River Order - Strahler**

- 1
- 2
- 3
- 4
- 5
- 6

**Symbol**

<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Jk-yu	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Ken-chipaj
<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> KIT-ca	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Kms-itt
<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> KIT-gr	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Ks-gb
<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Kico	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Ks-gr/gdlo
<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> KH	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Ks-mzdi
<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Ki-to	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Ks-to/gd
<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Kis-qu	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Kti-gd
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Kti-mz
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Lg
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Qp-fg
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Qp-g
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Qr-sl
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Qr-co
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Qr-e
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Qr-el
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> T-rida/db/mg/an
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Tim-vjh
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Ts-ch/va/h
	<span style="display: inline-block; width: 15px; height: 10px; background-color: #e0b0ff; vertical-align: middle;"></span> Ts-hcti

0 5 10 20 30 40 Km

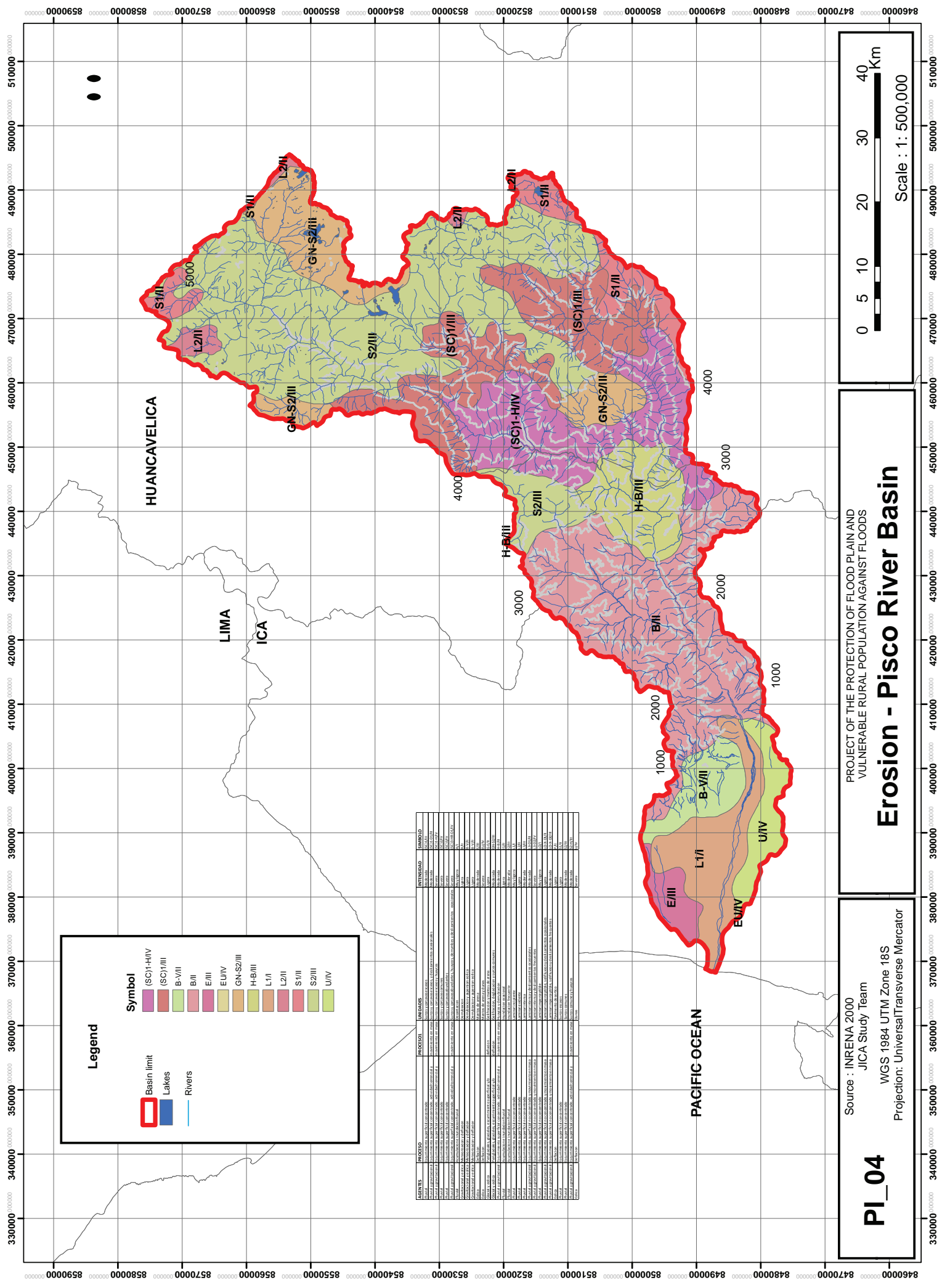
Scale : 1 : 500,000

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

# Geology - Pisco River Basin

**PI\_03**

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



**Legend**

- Basin limit
- Lakes
- Rivers

**Symbol**

- (SC)1-H/IV
- (SC)1/III
- B-V/II
- B/II
- E/III
- E/IV
- GN-S2/III
- H-B/III
- L1/II
- L2/II
- S1/II
- S2/III
- U/IV

AGENTES	PROCESO	UNIDADES	INTENSIDAD	IMPACTO
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...

Scale : 1 : 500,000

0 5 10 20 30 40 Km

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

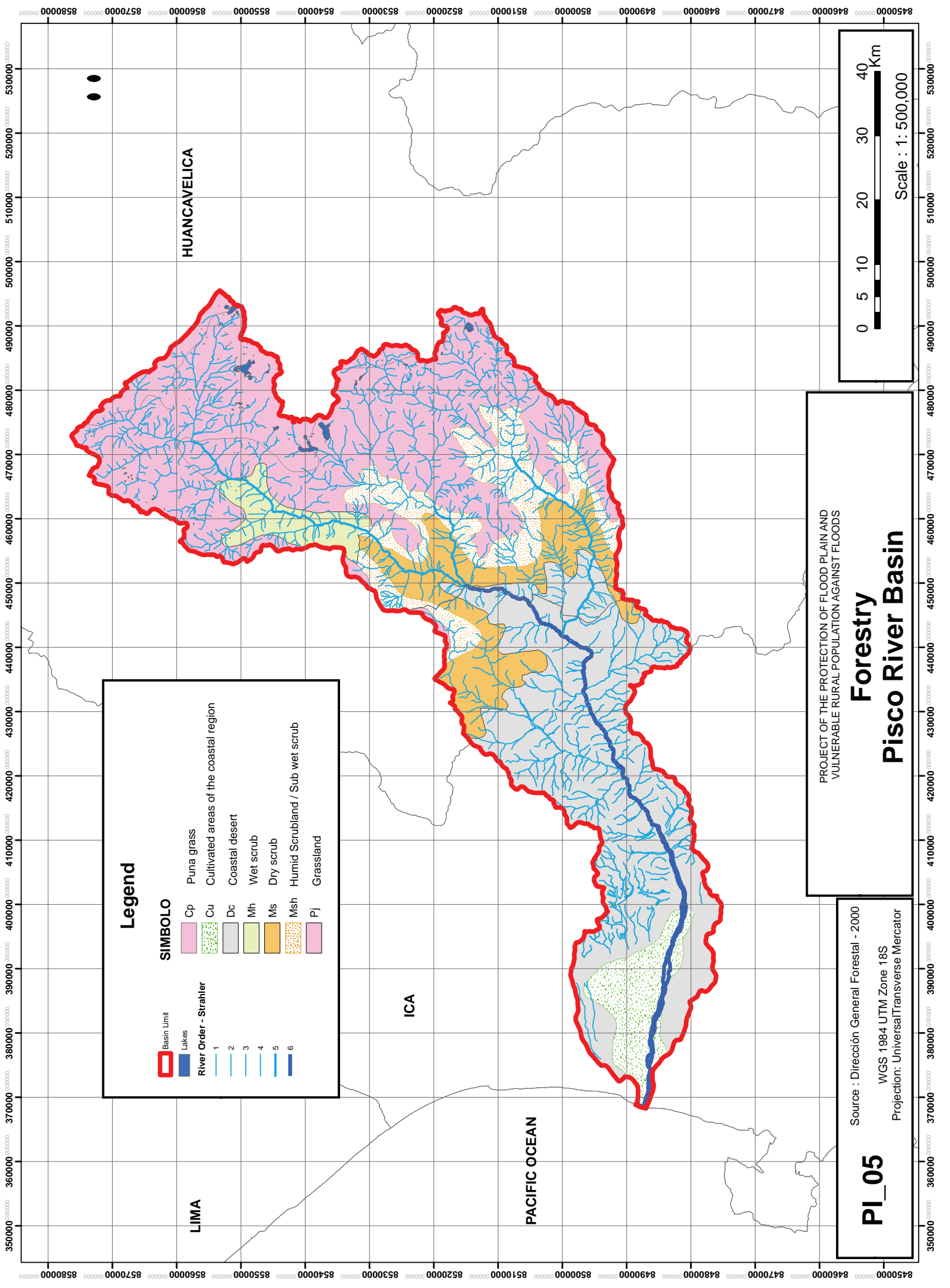
## Erosion - Pisco River Basin

**PI\_04**

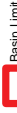






















Source : INRENA 2000  
JICA Study Team

WGS 1984 UTM Zone 18S  
Projection: Universal Transverse Mercator





### Legend

	Basin Limit		Cp		Cu		Dc		Mh		Ms		Msh		Pj
	Lakes		Puna grass		Cultivated areas of the coastal region		Coastal desert		Wet scrub		Dry scrub		Humid Scrubland / Sub wet scrub		Grassland
	River Order - Strahler		1		2		3		4		5		6		

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

## Forestry Pisco River Basin

**PI\_05**

Source : Dirección General Forestal - 2000  
WGS 1984 UTM Zone 18S  
Projection: UniversalTransverse Mercator

Scale : 1 : 500,000

