7.4 Bridge Condition

7.4.1 Bridge Inventory

The MOPC has no bridge inventory for all national roads in Paraguay. Therefore in this study a bridge inventory along the study area on National Roads 2 and 7 between San Lorenzo and Caaguazú has been prepared. A location map and an inventory have been prepared for the twenty four bridges in this section, as shown in Figure 7.4.1.

7.4.2 Result of Bridge Visual Investigation

The existing bridges have been investigated in order to assess the present condition of about seventeen items of importance for the bridges, river revetments and road approaches. The bridge conditions were assessed in accordance with the following three categories:

- O : Fair condition of bridge, river and road approaches
- Δ : Deterioration of parts which, though not seriously damaged, require timely repair
- X : Deterioration of parts which are seriously damaged and therefore urgent repair is necessary

The results of the inspection of bridge conditions are shown in Table 7.4.1. As a result, 12 out of all the bridges inspected have been recommended for repair of some parts. Among the 12 bridges, 2 bridges will be reconstructed to replace the bridge and 2 bridges should be partly repaired urgently. The parts that require urgent repair on 4 bridges are shown below.

- 1) Bridge N° 6 needs a replacement of bearings and repair of revetments.
- 2) Bridge N° 21 needs a reconstruction of bridge's damaged beams, slab and bearing, also the embankment slope and parts of the shoulder for road approach have slid out.
- 3) Bridge N° 22 needs a reconstruction of bridge's damaged beams and bearings.
- 4) Bridge N° 24 needs a partial repair of deck slab and repair of revetments



Figure 7.4.1 Location Map of Existing Bridges

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Road Inventory 1

	Bridge No.	No.1
	Location (km)	15.60
	River Crossing	Ao. San Larenzo
	Construction Year	
	Design Load	
	Width of Bridge	22.3m
	Span / Length	5.7m(box)
		11.8m(Pipe)
	Type of Structure	Culvert
	Diameter of Pipe	1.0m
	Number of Pipe	3
	Bridge No.	No.2
	Location (km)	20.75
7	River Crossing	Ao. Paso Mburica
- Alleria	Construction Year	
C PEPPEPEPERENT	Design Load	
AND ADDRESS OF THE OWNER OWN	Width of Bridge	22.3m
	Span / Length	6.3+6.0+6.3
		/18.6m
	Type of Superstructure	RC Slab
A REAL PROPERTY AND A REAL	Type of Abutment	Masonry
	Type of Pier	RC Rigid Frame
	Number of Pier	2
	Bridge No.	No.3
	Location (km)	24.55
	River Crossing	Ao. Carumbe Cua
	Construction Year	
	Design Load	
	Width of Bridge	22.3m
	Span / Length	6.3+6.0+6.3
		/ 18.6m
	Type of Superstructure	RC Slab
	Type of Abutment	RC
	Type of Pier	RC Rigid Frame
	Number of Pier	2

Bridge Inventory 2

	Bridge No.	No.4
	Location (km)	24.80
	River Crossing	Ao. Mbaepirunga
	Construction Year	
	Design Load	
	Width of Bridge	22.3m
	Span / Length	6.3+6.0+6.3
		/ 18.6m
	Type of Superstructure	RC Slab
	Type of Abutment	RC
	Type of Pier	RC Rigid Frame
	Number of Pier	2
	Bridge No.	No.5
1 della	Location (km)	28.55
ARE AND	River Crossing	Ao. Yuquyry
	Construction Year	
A DESCRIPTION OF TAXABLE AND A DESCRIPTION OF	Design Load	
	Width of Bridge	22.3m
	Span / Length	6.3+6.0+6.3
		/ 18.6m
	Type of Superstructure	RC Slab
AND THE REPORT OF THE PARTY OF	Type of Abutment	RC
	Type of Pier	RC Rigid Frame
	Number of Pier	2
	Bridge No.	No.6
	Location (km)	38.90
And a second sec	River Crossing	Ao. Y Pucu
	Construction Year	
	Design Load	
THEN HAD BEEN THE TOTAL	Width of Bridge	22.3m
	Span / Length	4.0+16.5+4.0
		/ 24.5m
	Type of Superstructure	RC-T Girder
	Type of Abutment	RC
	Type of Pier	Double Pillar
	Number of Pier	2

Bridge Inventory 3

	Bridge No.	No.7
	Location (km)	39.5
	River Crossing	Ao. Yagua Resa-u
	Construction Year	
	Design Load	
	Width of Bridge	22.3m
	Span / Length	4 x 6.0m
		/ 24.0m
	Type of Superstructure	RC Slab
	Type of Abutment	RC
	Type of Pier	RC Rigid Frame
	Number of Pier	3
	Bridge No.	No.8
	Location (km)	40.50
and the second s	River Crossing	Ao. Pirayu I
	Construction Year	
A STATE OF THE REAL PROPERTY AND	Design Load	
	Width of Bridge	10.5m
	Span / Length	5x6.0m+2x3.0m / 36.0m
	Type of Superstructure	RC Slab
	Type of Abutment	RC
	Type of Pier	RC Rigid Frame
	Number of Pier	6
	Bridge No.	No.9
	Location (km)	54.25
	River Crossing	Ao. Tobati
States and a state of the second	Construction Year	
<mark>┟┶╼╢╾┽╼<mark>╢╾</mark>╤╗╔╼╗╔╼╗┍┱┍┱┍┱┍┱┍┱</mark>	Design Load	
	Width of Bridge	10.5m
	Span / Length	4.0+16.5+4.0
		/ 24.5 m
	Type of Superstructure	RC-T Girder
	Type of Abutment	RC
	Type of Pier	Double Pillar
	Number of Pier	2