

Table-C Photograph Sheet (Sheet No. 3-9)

Kind of Photograph	1. Bridge	2. Others	20-May-91 Photograph By: H. Nakano	
Location / Place :	Hellogoer	Kharin Bridge	Date of Photograph	Location / Place :
				Comment of Photo

**Table-A Bridge Inventory Sheet (Sheet No. 4-1)**

Name of Bridge	Bridge No.4 (Tsenkher River)		Crossing River/Road		*River (Tsenkher)		Date of Inspection	Apr.18.24, 2001	Inspection by	Y.Takai, B.Enkhtaivan	
Km Post	211.1 km		Construction by		Mongolian/Russian		Date of Construction	1962	Maintenance by		
Type of Bridge	Superstructure	Wooden deck slab, wooden beam		Design Loading			Russian Standard, H-18	Load limitation	No	*Yes	
	Substructure	Abutment		Design Standard							
Length of Bridge		Pier	wooden pile		Skew of Bridge		*Square	Skew	Curve (deg.R= )		
			30.7m Span		Condition of Crossing		Road	Width	m	Clearance	m
Width of Bridge	Overall		5.9m	Carriage: 5.6m	Pedestrian		*River	Width of River	Depth	Free Board	Design Quantity (1/50)
	Kind			Number				30m	0.3m	1.2m	300 m <sup>3</sup> /sec.
Traffic Volume		356	Veh./day	Ratio of Heavy Veh. 4.8% (17)		Others					
Final Record of Repair	Pavement	Deck Slab	Main Beam	Painting	Expansion Joint	Bearing	Drainage	Railing	Curb	Affixed Articles	
	Substructure	Substructure									

Component	Conditions Of Damage	Rating	Component	Conditions of Damage	Rating
Pavement	Good, Wave, Rut, Crack, Pothole, Others *(Broken wooden board)	4	Abutment	Good, Crack, Spall, *Deformation, Rebar-exposed, *Broken, *Settlement, *Scouring, Others	4
(Type: None)			(Type: Wooden)		
Curb	Good, Scale, Crack, Spall, Rebar-exposed, Others	4	Abutment	Good, Crack, Spall, Deformation, Rebar-exposed, Broken, Settlement, Scouring, Others	4
(Type: Wooden beam)			(Type: )		
Railing	Good, Scale, Crack, Spall, Rebar-exposed, Others	4	Pier	Good, Crack, Spall, *Deformation, Rebar-exposed, *Broken, *Settlement, Scouring, Others *(Inclined)	4
(Type: Wooden beam)			(Type: Wooden)		
Deck slab	Good, Honeycombs, Crack, *Deformation, Rebar-exposed, Other *Settlement	4	Pier	Good, Crack, Spall, Deformation, Rebar-exposed, Broken, Settlement, Scouring, Others	
(Type: Wooden board)			(Type: )		
Main Beam	Good, Honeycombs, Crack, *Deformation, Rebar-exposed, Other *Settlement	4	(Type: )		
(Type: Wooden)			(Type: )		
Cross Beam	Good, Crack, *Deformation, Rebar-exposed, Others	4	(Type: )		
(Type: Wooden)			(Type: )		
Painting	Condition		SOUNDNESS EVALUATION RATING		
Exp.Joint	Good, Abnormal Sound, Deformation, Gap, Broken, Others		1. No damage detected on the basis of the inspection results.		
(Type: )			2. Damage has been detected and a follow-up survey is required.		
Shoe	Good, Abnormal Sound, Deformation, Gap, Broken, Others		3. There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.		
(Type: )			4. There is significant damage and urgent repair is required or the bridge/culvert has to be closed to traffic or restriction on vehicle weight to be imposed.		
Drainage	Good, Clogged Leakage, Broken, Others		(or to be re-constructed new bridge/culvert)		
(Type: )					
<Exiting conditions of bridge/culvert> See Table-C photograph					
<Remarks> Mark * : Correspond Defects The heavy vehicles are passing the river at present due to broken deck board and settlement of bridge.					

## General View and Damage Conditions



Dimension: centimeter

### A-A (4) Scale 1:100

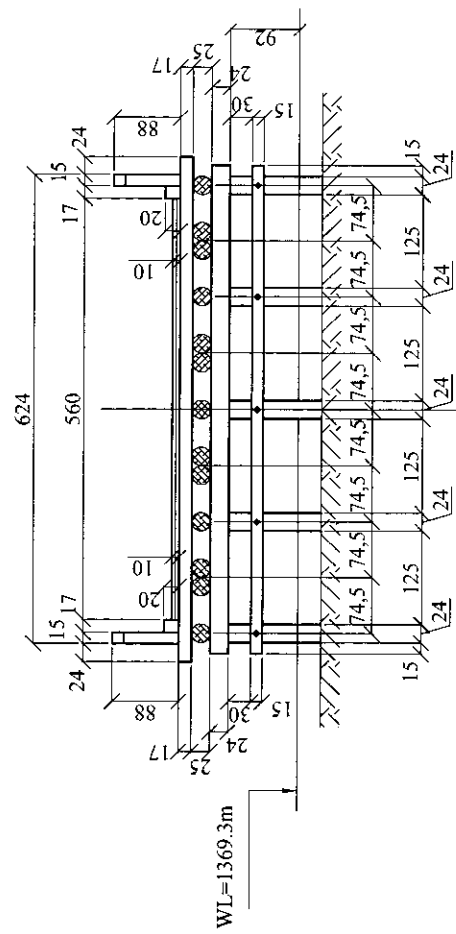




Table-C Photograph Sheet (Sheet No. 4-4)


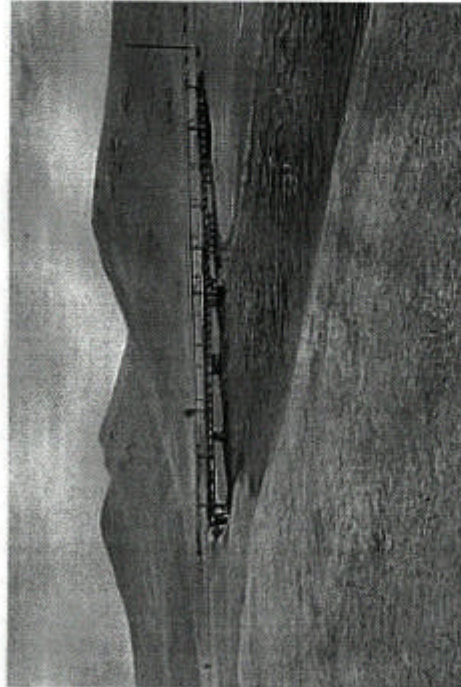
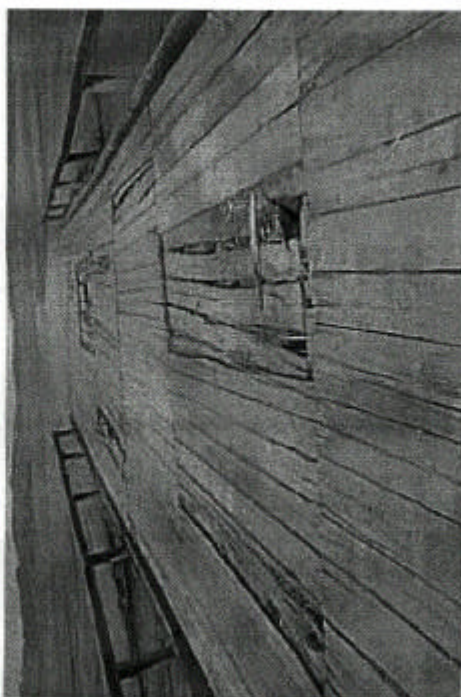

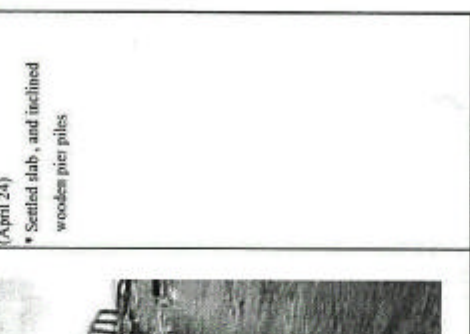

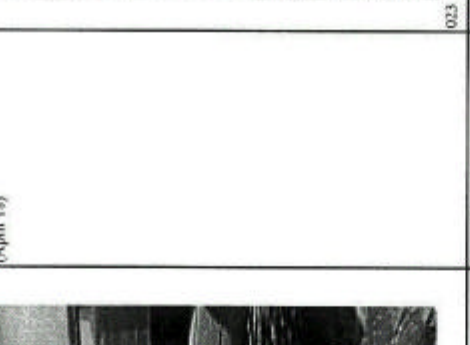
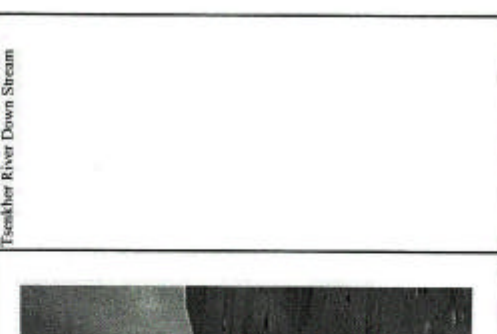

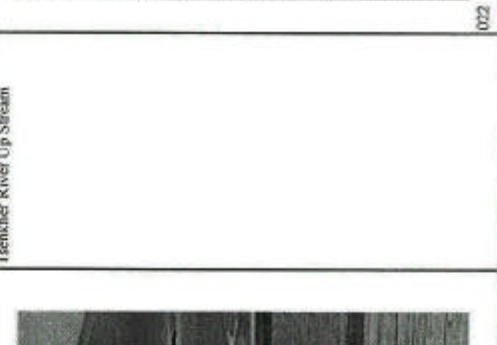
Kind of Photograph	1. Bridge No.4	2. Others	Date of Photograph	Apr 18, 24, 2001	Photograph By: Y. Takai	Comment of Photo
Location / Place:	Location / Place:	Location / Place:	Location / Place:	Location / Place:	Location / Place:	Location / Place:
	<p>Comment of Photo</p> <p>Bridge Surface</p> <ul style="list-style-type: none"> <li>* Gap between approach and bridge surface</li> <li>* Impassable for heavy truck, and trailer etc</li> </ul>		<p>Comment of Photo</p> <p>Profile (from down stream)</p>	<p>65</p>	<p>66</p>	
	<p>Comment of Photo</p> <p>Bridge Surface</p> <ul style="list-style-type: none"> <li>* Damaged Wooden Slab</li> </ul>		<p>Comment of Photo</p> <p>No Protection at Abutment</p> <ul style="list-style-type: none"> <li>* Gap and Scoured at Abutment approach</li> </ul>	<p>69</p>	<p>68</p>	



Table-C Photograph Sheet (Sheet No. 4-5)

Kind of Photograph	1. Bridge	2. Others	Date of Photograph	Photograph By: Y. Takai
Location / Place :	Tsenkher River Bridge (Wooden bridge)		Apr. 18, 24, 2001	
Location / Place :			Location / Place :	
	<p>Comment of Photo</p> <p>Wooden Beam and Pier (April 18)</p>			<p>Comment of Photo</p> <p>Pier Pile and Slab (April 24)</p> <ul style="list-style-type: none"> <li>Settled slab, and inclined wooden pier piles</li> </ul>
70	Location / Place :	Location / Place :	Location / Place :	71
	<p>Comment of Photo</p> <p>Tsenkher River Up Stream</p>			<p>Comment of Photo</p> <p>Tsenkher River Down Stream</p>
				72

**Table-A Bridge Inventory Sheet (Sheet No. 5-1)**

Name of Bridge		Bridge No.5 (Murun River)		Crossing River/Road		*River (Murun)		Date of inspection		Apr.18,24, 2001		Inspection by		Y.Takai, B.Enkhaivan	
Km Post		315.1km		Construction by		Mongolia/Russian		Date of Construction		1962		Maintenance by			
Type of Bridge		Superstructure		Wooden deck slab, wooden beam		Design Loading		Russian Standard		H-18		Load limitation		No	
		Substructure		Abutment		Wooden pile, wooden board		Design Standard						*Yes	
				Pier		Wooden pile		Skew of Bridge							
Length of Bridge				19.6m Span		5@3.92m		Condition of Crossing				Road		Width m Skew deg.	
Width of Bridge		Overall		5.9m		Carriage: 5.6m		Pedestrian				*River		Width of River Depth Free Board	
Affixed articles		Kind		256 Veh./day		Ratio of Heavy Veh. 7.8% (20)		Others				20m		0.3m 1.3m 330 m3/sec	
Traffic Volume															
Final Record of Repair		Pavement		Deck Slab		Main Beam		Painting		Bearing		Drainage		Railing	
Substructure										Expansion Joint		Curb		Affixed Articles	

Component	Conditions Of Damage	Rating	Component	Conditions of Damage	Rating
Surface	Pavement	4	Super-Str	Abutment	4
	(Type: None)			(Type: Wooden)	
	Curb			(Type: Wooden)	
	(Type: wooden beam)			(Type: Wooden)	
	Railing			(Type: Wooden)	
Super-Str	Deck slab	4	Accessories	Expansion Joint	4
	(Type: Wooden board)			Shoe	4
	Main Beam	4		Drainage	4
	(Type: Wooden)			(Type: )	
	Cross Beam	4		(Type: )	
Accessories	(Type: wooden beam)	4	SOUNDNESS EVALUATION RATING		
	Painting		1. No damage detected on the basis of the inspection results.		
	Exp Joint		2. Damage has been detected and a follow-up survey is required.		
	(Type: )		3. There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.		
	Shoe		4. There is significant damage and urgent repair is required or the bridge/culvert has to be closed to traffic or restriction on vehicle weight to be imposed (or to be re-constructed new bridge/culvert)		

<Existing conditions of bridge/culvert> See Table-C photograph		<Remarks> Mark * : Correspond Defects Approach and abutments are scoured and broken. The heavy vehicles can not pass on the bridge from view point of durability.	
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## General View and Damage Conditions





Table B Bridge Sketch Sheet (Sheet No. 5-3)

## General View and Damage Conditions

Dimension: centimeter

Section. Scale 1:100

B-B (5)

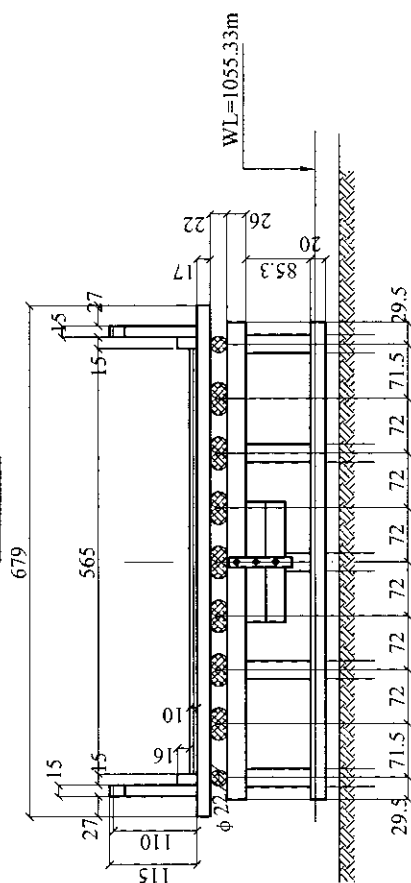
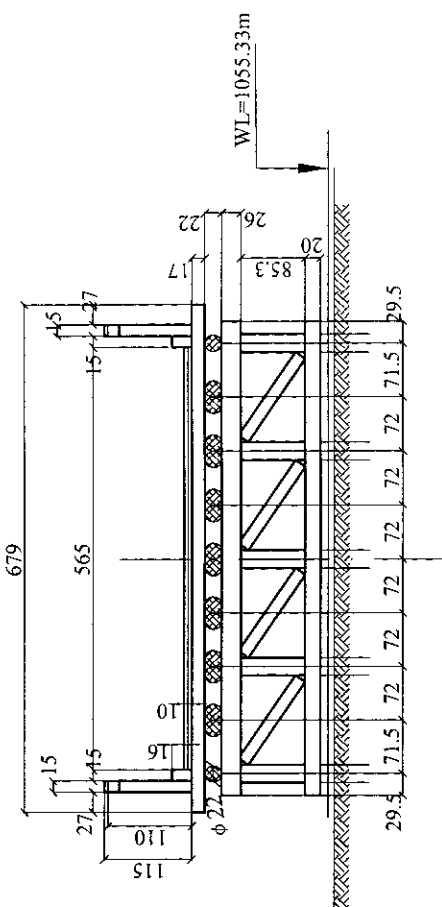
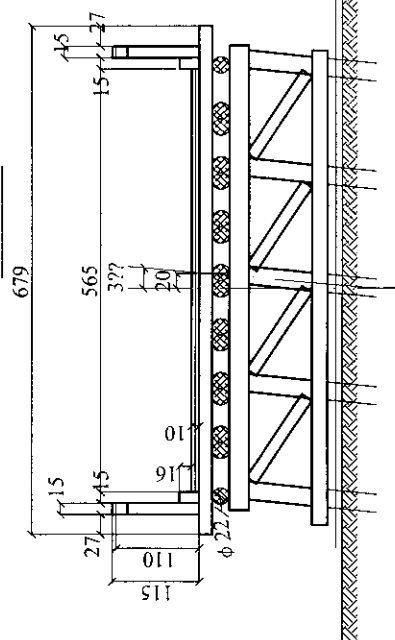
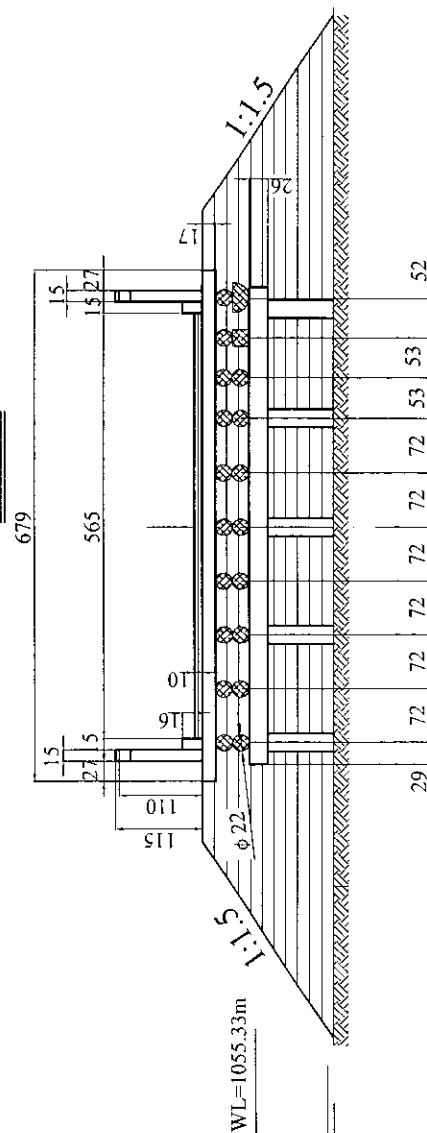
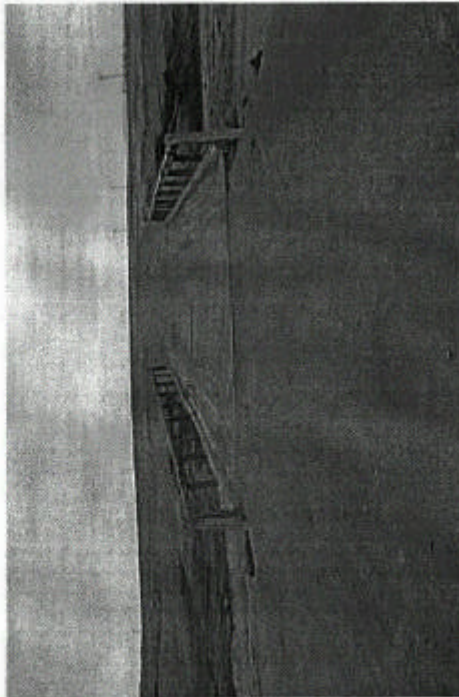
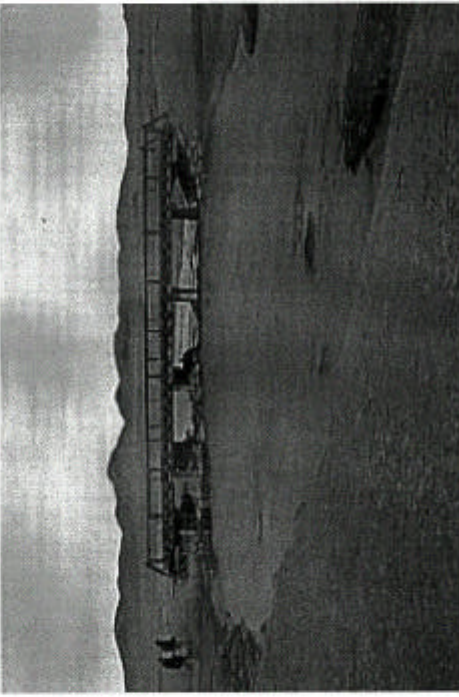


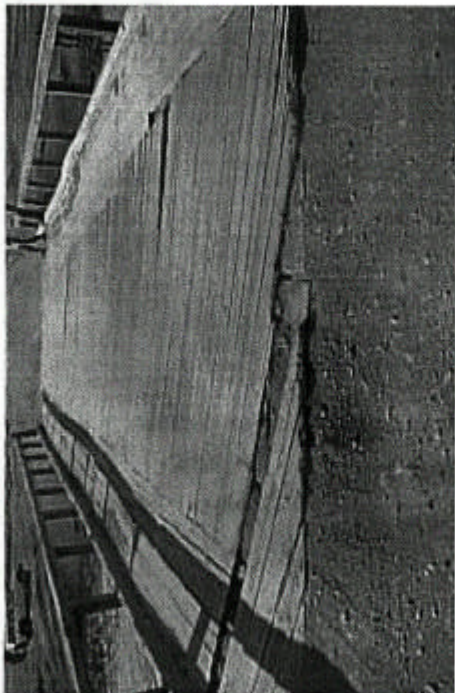
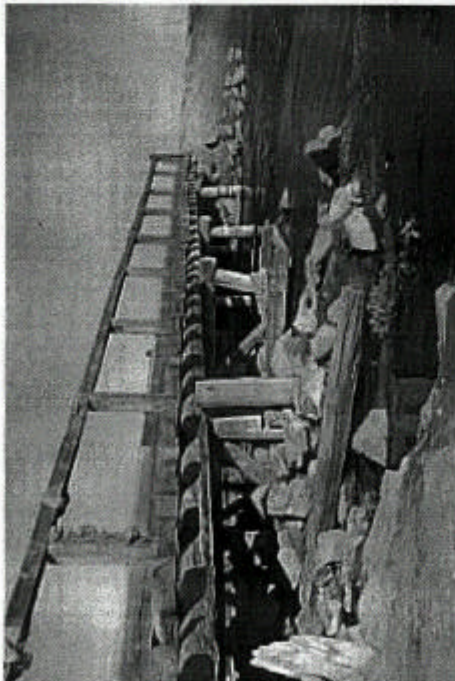
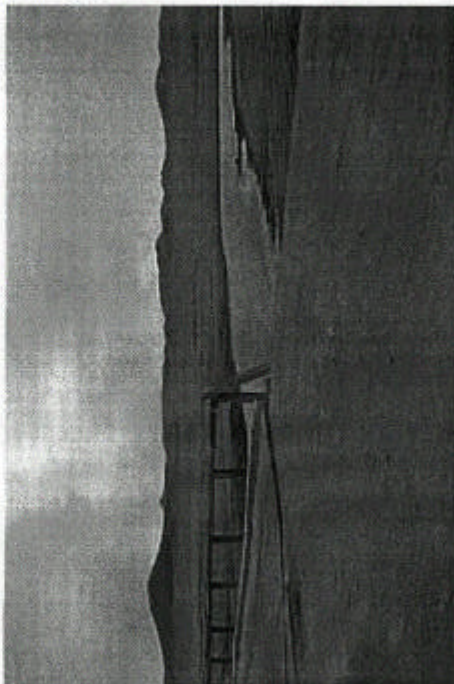
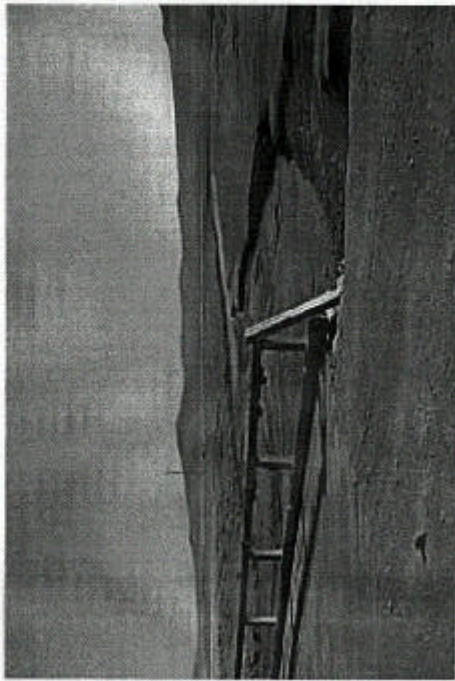
C-C (4)D-D (2)

Table-C Photograph Sheet (Sheet No. 5-4)

Table C Photograph Sheet (Sheet No. 77)		Photograph By: Y. Takai	
Kind of Photograph	Date of Photograph	Location / Place	Comment of Photo
1. Bridge No.5 Marum River Bridge (Wooden Bridge) 315.1 km	Apr 18, 24, 2001	Location / Place :	Profile (from Down Stream)
	<p>Comment of Photo</p> <p>Bridge Surface (Wooden Surface)</p>		
78	Location / Place:	Location / Place:	Comment of Photo
	<p>Comment of Photo</p> <p>Wooden Structure and Inclined Pier Pile (April 18)</p>		<p>Approach and Abutment</p> <p>* Scoured approach parts</p>
80			



**Table-C Photograph Sheet (Sheet No. 5-5)**

Kind of Photograph		Date of Photograph		Photograph By: Y. Takai	
Location / Place :		Apr. 18, 24, 2001			
1. Bridge		2. Others			
Location / Place :		Location / Place :		Comment of Photo	
 <p>030</p>	<p>Location / Place :</p>	 <p>029</p>	<p>Location / Place :</p>	<p>Comment of Photo</p> <p>Wooden Beam and Inclined Pier Piling (April 24)</p>	
 <p>031</p>	<p>Location / Place :</p>	 <p>028</p>	<p>Location / Place :</p>	<p>Comment of Photo</p> <p>Muram River Down Stream</p>	