

Bridge Inventory No.	Road No.	Road Name				Province	District	AA DT (No./Day)	No. of Lanes of Road Proposed by RDA	Construction Plan of Road to/ from Bridge		Environmental Condition
	B403	Thallady - Arippu - Marichchukaddy South Coast Road				Northern	Mannar	921	2	Road improvement by foreign fund		ok
166	Bridge No.	Bridge Length (m)	Bridge Width (m)		No. of Lane	Bridge Type		No. of Span	Comple-tion Year	Bridge Soundness		Flood Records
	21/1	Arippu Causeway	70.00	Overall Curb-to-Curb		4.20	4.20			Super-structure Multiple Pipe Culvert	Abutment	



< PRESENT CONDITIONS >

[BRIDGE]
 Narrow for 2-lane traffic
 Insufficient causeway elevation for floods
 [SOUNDNESS]**
 - Superstructure Poor RATE 3
 - Substructure RATE
 - Others

[SURROUNDING AREA]



< PROPOSAL >

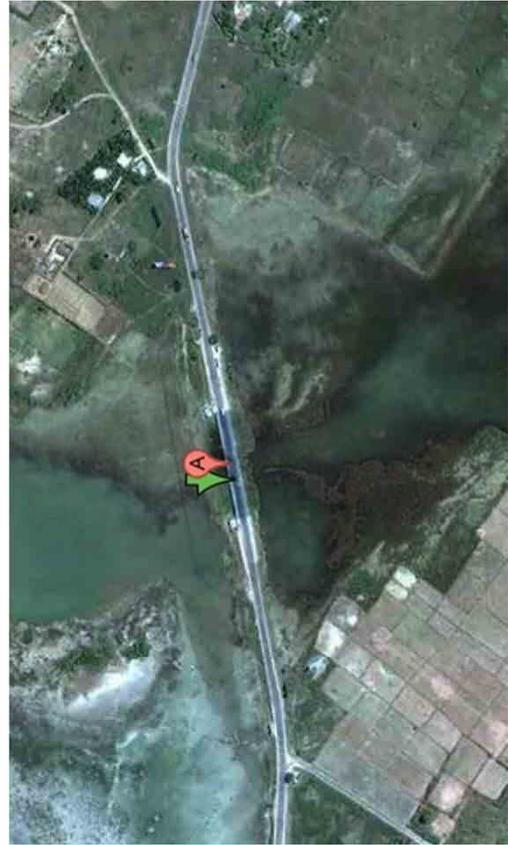
New bridge at R-side of the existing causeway

Bridge Length: 4@15.0 =60m
 Approach Length: NS: 200m FS: 150m
 Superstructure: Precast PC Girder
 Substructure: Wall Type Abutment Wall Type Pier
 Foundation: Cast-in-place concrete pile foundation
 Resettlement: Less than 20 households

** SOUNDNESS RATE

- RATE 1: Good condition
- RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
- RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
- RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No. 167	Road No. AA009	Road Name Kandy-Jaffna		Province Northern	District Jaffna	AADT (No./Day)	No. of Lanes of Road Proposed by RDA 2	Construction Plan of Road to/ from Bridge Road improvement by foreign fund		Environmental Condition
	Bridge No. 309/1	Bridge Name Kaithady	Bridge Length (m) 81.00	No. of Lane 2	Bridge Type RC Wall Type	No. of Span 3	Comple-tion Year Approx. 10 years ago	Super-structure Fair	Bridge Soundness Sub-structure Good Loading Capacity Sufficient	Flood Records none
		Bridge Width (m) Overall 9.10	Curb-to-Curb 7.30	Super-structure Bailey Bridge	Pier RC Wall Type					



< PRESENT CONDITIONS >

[BRIDGE]
Sufficient for 2-lane traffic

[SOUNDNESS]**
- Superstructure Fair RATE 2
- Substructure Good RATE 1
- Others

[SURROUNDING AREA]

< PROPOSAL >
Reconstruction is not recommended.

Bridge Length:
Superstructure:
Substructure:
Foundation:
Resettlement:
Approach Length:

** SOUNDNESS RATE

- RATE 1: Good condition
- RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
- RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
- RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No. 168	Road No. AA009	Road Name Kandy-Jaffna		Province Northern	District Jaffna	AA DT (No./Day) 921	No. of Lanes of Road Proposed by RDA 2	Construction Plan of Road to/ from Bridge Road improvement by foreign fund		Environmental Condition ok
	Bridge No. 314/2	Bridge Name Navathuli	Bridge Length (m) 81.00	Bridge Width (m) Overall 9.10 Curb-to-Curb 7.30	No. of Lane 2	Super-structure Bailey Bridge	Bridge Type RC Wall Type	No. of Span 3	Comple-tion Year Approx. 10 years ago	Bridge Soundness Super-structure Fair Sub-structure Good Loading Capacity Sufficient



< PRESENT CONDITIONS >

[BRIDGE]
Sufficient for 2-lane traffic

[SOUNDNESS]**
- Superstructure Good RATE 1
- Substructure Good RATE 1
- Others

[SURROUNDING AREA]



< PROPOSAL >

New bridge on the existing alignment Recommended by RDA

Bridge Length: 4@25.0 =100m
Approach Length: NS: 100m FS: 100m
Superstructure: Pos I-Girder
Substructure: Wall Type Abutment Wall Type Pier
Foundation: Cast-in-place concrete pile foundation
Resettlement: A few

** SOUNDNESS RATE

RATE 1: Good condition
RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No. 169	Road No. AB019	Road Name Jaffna - Pannai - Kayts		Province Northern	District Jaffna	AA DT (No./Day)	No. of Lanes of Road Proposed by RDA 2	Construction Plan of Road to/ from Bridge		Environmental Condition	
	Bridge No. -	Bridge Name Pannay	Bridge Length (m) 27.00	Bridge Width (m) Overall 9.10 Curb-to-Curb 7.30	No. of Lane 2	Super-structure Bailey Bridge	Bridge Type Abutment RC Wall Type	Pier	No. of Span 1	Approx. 10 years ago	Bridge Soundness Super-structure Fair Sub-structure Good Loading Capacity Sufficient



< PRESENT CONDITIONS >

[BRIDGE]
Curb-to-Curb of 7.30m wide is sufficient for 2-lane traffic of Class AB Road.

- [SOUNDNESS]**
- Superstructure Fair RATE 2
- Substructure Good RATE 1
- Others

[SURROUNDING AREA]



< PROPOSAL >

Reconstruction is not recommended.

- Bridge Length:
Superstructure:
Substructure:
Foundation:
Resettlement:
Approach Length:

** SOUNDNESS RATE

- RATE 1: Good condition
RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No. 170	Road No. AA035	Road Name Parantan - Mulaitive Highway		Province Northern	District Mulaitive	AADT (No./Day)	No. of Lanes of Road Proposed by RDA 2	Construction Plan of Road to/ from Bridge Road improvement by foreign fund		Environmental Condition ok
	Bridge No. (33/3)	Bridge Length (m) 22.00	Bridge Width (m) Overall 8.00 Curb-to-Curb 6.00	No. of Lane 2	Bridge Type Abutment Stone Masonry Pier Stone Masonry	No. of Span 3	Comple-tion Year	Bridge Soundness Sub-structure Poor Loading Capacity Insufficient	Flood Records	



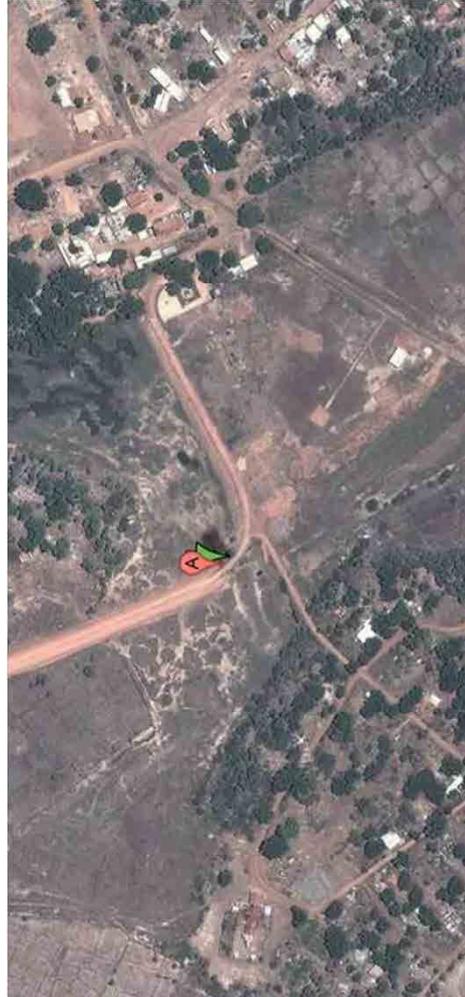
< PRESENT CONDITIONS >

[BRIDGE]
Narrow for 2-lane traffic
Insufficient causeway elevation for floods
[SOUNDNESS]**
- Superstructure RATE 4
Re-bar rusted severely
- Substructure RATE 3
Poor
- Others
[SURROUNDING AREA]

< PROPOSAL >

(New bridge at the R-side of the existing bridge)
Eliminated by LOT size

Bridge Length:
Superstructure:
Substructure:
Foundation:
Resettlement:
Approach Length:



** SOUNDNESS RATE

- RATE 1: Good condition
- RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
- RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
- RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No.	Road No.	Road Name				Province	District	AADT (No./Day)		No. of Lanes of Road Proposed by RDA		Construction Plan of Road to/ from Bridge		Environmental Condition
	AA002	Colombo - Galle - Hambantota - Wellawaya (CGHW)				Western	Colombo	80,000		6				ok
172	Bridge No.	Bridge Name	Bridge Length (m)	Bridge Width (m)		No. of Lane	Bridge Type		No. of Span	Completion Year	Bridge Soundness		Flood Records	
	1/1	Baira Lake	36.60	Overall	Curb-to-Curb		6	Super-structure			Abutment	Pier		Super-structure
				30.00	18.47		Steel I Beam/ RC Slab	RC/ Brick Wall Type	RC/ Brick Wall Type		Critical	Poor	Insufficient	



< PRESENT CONDITIONS >

[BRIDGE]

Curb-to-Curb of 18.47m wide is sufficient for 6-lane traffic of Class A Road.
Insufficient soffit level for floods

[SOUNDNESS]**

- Superstructure RATE 4
- Steel I Beams corroded seriously
- Re-bars of RC Slab exposed and corroded seriously
- Substructure RATE 3
- Poor
- Others

[SURROUNDING AREA]



< PROPOSAL >

Reconstruction on the existing alignment
The existing stonework retaining walls to be remained

- Bridge Length: 3@15.0 =45m
- Approach Length: NS: 100m FS: 100m
- Superstructure: Precast PC Girder
- Substructure: SRC Pile Bent Abutment / SRC Pile Bent Pier
- Foundation: Cast-in-place concrete pile foundation
- Resettlement: No

** SOUNDNESS RATE

- RATE 1: Good condition
- RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
- RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
- RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No. 173	Road No. AA002	Road Name Colombo - Galle - Hambantota - Wellawaya (CGHW)		Province Western	District Kaluthara	AAADT (No./Day) 24,775	No. of Lanes of Road Proposed by RDA 4		Construction Plan of Road to/ from Bridge		Environmental Condition ok
	Bridge No. 53/1	Bridge Name Maggona 2	Bridge Length (m) 22.20	No. of Lane 2	Super-structure PC I Girder	Bridge Type RC Wall Type	Completion Year	Super-structure Poor	Sub-structure Poor	Loading Capacity Sufficient	Flood Records none
		Bridge Width (m) Overall 13.70	Curb-to-Curb 9.70			No. of Span 1					



< PRESENT CONDITIONS >

[BRIDGE]

Curb-to-Curb of 9.70m wide is sufficient for 2-lane traffic of Class A Road.
Insufficient soffit level for floods

[SOUNDNESS]**

- Superstructure Poor RATE 3
- Substructure Poor RATE 3
- Others

[SURROUNDING AREA]

< PROPOSAL >

Reconstruction at R-side of the existing bridge

- Bridge Length: 2@20.0 =40m
- Approach Length: NS: 150m FS: 200m
- Superstructure: Pos I Girder
- Substructure: Wall Type Abutment Wall Type Pier
- Foundation: Cast-in-place concrete pile foundation
- Resettlement: A few



** SOUNDNESS RATE

- RATE 1: Good condition
- RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
- RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
- RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No. 174	Road No. AA004	Road Name Colombo - Ratnapura - Wellawaya - Batticaloa				Province Western	District Colombo	AA DT (No./Day)	No. of Lanes of Road Proposed by RDA 2 Additional	Construction Plan of Road to/ from Bridge		Environmental Condition ok
	Bridge No. 42/1	Bridge Name Wak Oya	Bridge Length (m) 27.00	Bridge Width (m) Overall 11.10 Curb-to-Curb 9.00	No. of Lane 2	Super-structure Precast PC Girder	Bridge Type Abutment Stonework Pier RC Wall Type	No. of Span 2	Comple- tion Year	Bridge Soundness Sub- structure Good Loading Capacity Sufficient	Flood Records none	

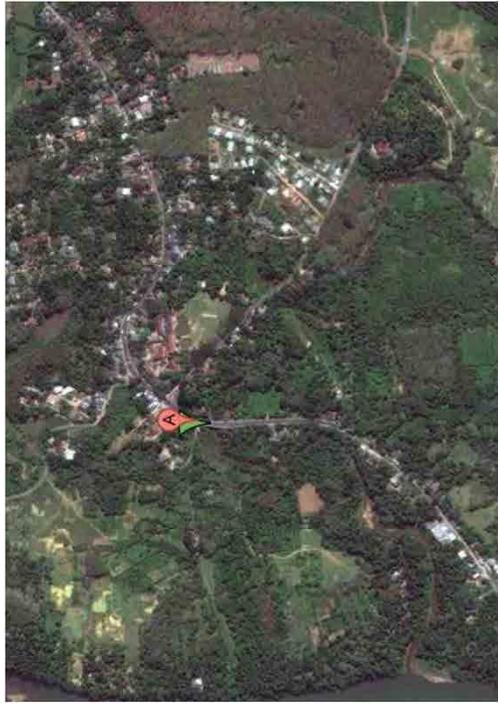


< PRESENT CONDITIONS >

[BRIDGE]
Curb-to-Curb of 9.00m wide is sufficient for 2-lane traffic of Class A Road.

- [SOUNDNESS]**
- Superstructure Good RATE 1
- Substructure Good RATE 1
- Others

[SURROUNDING AREA]



< PROPOSAL >
Reconstruction is not recommended.
Approach Length:
Bridge Length:
Superstructure:
Substructure:
Foundation:
Resettlement:

** SOUNDNESS RATE

- RATE 1: Good condition
RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No. 175	Road No. AA004	Road Name Colombo - Ratnapura - Wellawaya - Batticaloa		Province Western	District Colombo	AA DT (No./Day)	No. of Lanes of Road Proposed by RDA 2 Additional		Construction Plan of Road to/ from Bridge		Environmental Condition ok
	Bridge No. 49/1	Bridge Name Rubbur Kade	Bridge Length (m) 21.80	No. of Lane 2	Bridge Type Abutment RC Wall Type	No. of Span 2	Completion Year	Super-structure Fair	Sub-structure Fair	Loading Capacity Sufficient	Flood Records
		Bridge Width (m) Overall 8.30	Curb-to-Curb 7.30	Super-structure Precast PC Girder	Pier Pile Bent Type						



< PRESENT CONDITIONS >

[BRIDGE]

Curb-to-Curb of 7.30m wide is sufficient for 2-lane traffic of Class A Road.

[SOUNDNESS]**

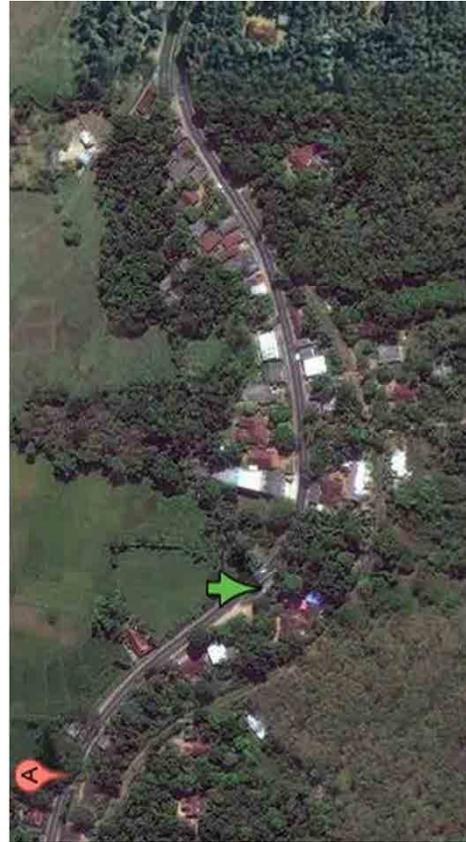
- Superstructure Fair RATE 2
- Substructure Fair RATE 2
- Others

[SURROUNDING AREA]

< PROPOSAL >

Reconstruction is not recommended.

- Bridge Length: Approach Length:
- Superstructure:
- Substructure:
- Foundation:
- Resettlement:



** SOUNDNESS RATE

RATE 1: Good condition

RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.

RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.

RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No. 176	Road No. AA004	Road Name Colombo - Ratnapura - Wellawaya - Batticaloa		Province Western	District Ratnapura	AAADT (No./Day) 21,119	No. of Lanes of Road Proposed by RDA 2 Additional		Construction Plan of Road to/ from Bridge		Environmental Condition ok
	Bridge No. 64/1	Bridge Length (m) 24.50	Bridge Width (m) Overall 8.46 Curb-to-Curb 6.50	No. of Lane 2	Bridge Type Abutment Stone/RC Wall Pier RC Wall Type	No. of Span 2	Completion Year	Superstructure Good	Bridge Soundness Sub-structure Good Loading Capacity Sufficient	Flood Records none	



< PRESENT CONDITIONS >

[BRIDGE]

Curb-to-Curb of 6.50m wide is sufficient for the time being for 2-lane traffic of Class A Road.

[SOUNDNESS]**

- Superstructure
Good
RATE 1

- Substructure
Good
RATE 1

- Others

[SURROUNDING AREA]



< PROPOSAL >

Additional 2-lane bridge at R-side of the existing bridge
The existing bridge to be used for the time being

Bridge Length: 1@45.0m = 45m
Approach Length: NS: 150m FS: 150m
Superstructure: Steel Girder
Substructure: Wall Type Abutment Wall Type Pier
Foundation: Cast-in-place concrete pile foundation

Resettlement: No

** SOUNDNESS RATE

RATE 1: Good condition

RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.

RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.

RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No.	Road No.	Road Name				Province	District	AADT (No./Day)	No. of Lanes of Road Proposed by RDA	Construction Plan of Road to/ from Bridge		Environmental Condition
	B435	Orugodawata-Ambatale				Northern	Vavuniya		2			ok
177	Bridge No.	Bridge Length (m)	Bridge Width (m)		No. of Lane	Bridge Type		Completion Year	Bridge Soundness		Flood Records	
	3/1	40.10	Overall	Curb-to-Curb	2	Super-structure	Pier		Super-structure	Sub-structure		Loading Capacity
		WALLAMPITIYA Bridge	13.50	10.30		Precast PC beam	RC Wall Type	1960	Good	Fair	Insufficient	Flood water level is 0.6m below the soffit.



< PRESENT CONDITIONS >

- [BRIDGE]
 Busy condition for 2-lane traffic
- [SOUNDNESS]**
 - Superstructure RATE 1
 - Substructure RATE 2
 Horizontal crack at A2
 Sufficient condition at present
 - Others
- [SURROUNDING AREA]
 Bus stop on L-side of bridge



< PROPOSAL >

Reconstruction is not recommended.

- Bridge Length: Approach Length:
 Superstructure:
 Substructure:
 Foundation:
 Resettlement:

** SOUNDNESS RATE

- RATE 1: Good condition
 RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
 RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
 RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No.	Road No.	Road Name				Province	District	AA DT (No./Day)	No. of Lanes of Road Proposed by RDA	Construction Plan of Road to/ from Bridge		Environmental Condition
178	AA001	Colombo-Kandy				Western	Colombo		4			ok
	Bridge No.	Bridge Length (m)	Bridge Width (m)		No. of Lane	Bridge Type		Completion Year	Bridge Soundness		Flood Records	
	6/1	17.30	Overall	Curb-to-Curb	4	Super-structure	Abutment		Super-structure	Sub-structure	Flood water level is enough below the soffit.	
		Doguru Kacle Bridge	24.60	17.00		Precast girder	RC wall Type		Fair	Fair	Insufficient	
							RC Wall Type					



< PRESENT CONDITIONS >

[BRIDGE]

Busy condition for 4-lane traffic

[SOUNDNESS]**

- Superstructure RATE 2
Visually polluted bottom face of precast girders
- Substructure RATE 2
Sufficient condition for structure
- Others
Vertical crack on the surface of abutments
Sufficient condition for structure

[SURROUNDING AREA]

< PROPOSAL >

Reconstruction is not recommended.

- Bridge Length: Approach Length:
- Superstructure:
- Substructure:
- Foundation:
- Resettlement:



** SOUNDNESS RATE

- RATE 1: Good condition
- RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
- RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
- RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No.	Road No.	Road Name				Province	District	AADT (No./Day)	No. of Lanes of Road Proposed by RDA	Construction Plan of Road to/ from Bridge		Environmental Condition
	B416	Thihariya - Warapalana				Western	Gampaha	2,206	2			
179	Bridge No.	Bridge Name	Bridge Length (m)	Bridge Width (m)	No. of Lane	Super-structure	Bridge Type	No. of Span	Completion Year	Super-structure	Sub-structure	Loading Capacity
	2/6	KALATUJAWA Bridge	39.20	Overall Curb-to-Curb 5.30 4.20	1	Lattice Truss	Pier bent Pile bent Type	2	1964	Poor	Good	Insufficient



< PRESENT CONDITIONS >

- [BRIDGE]
Narrow for 2-lane traffic
- [SOUNDNESS]**
- Superstructure Fair RATE 3
- Substructure RATE 1
- Others
- [SURROUNDING AREA]

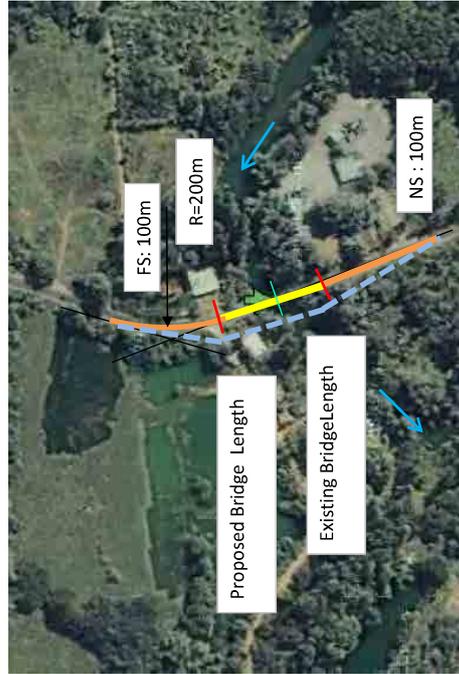
< PROPOSAL >

Reconstruction at the existing bridge
Using temporary bridge at R-side under reconstruction

- Bridge Length: 1@45.0 = 45m
 Approach Length: NS: 100m FS: 100m
 Superstructure: Steel I-Girder
 Substructure: Wall Type Abutment Wall Type Pier
 Foundation: Spread Foundation
- Resettlement: a few

** SOUNDNESS RATE

- RATE 1: Good condition
 RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
 RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
 RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.



Bridge Inventory No.	Road No.	Road Name				Province	District	AAADT (No./Day)	No. of Lanes of Road Proposed by RDA	Construction Plan of Road to/ from Bridge		Environmental Condition
	B304	Nagoa-Kalawaellawa-Bellapitiya				Western	Kaluthana	3,572	2	Road improvement by foreign fund		ok
180	Bridge No.	Bridge Length (m)	Bridge Width (m)		No. of Lane	Bridge Type		Completion Year	Bridge Soundness			Flood Records
	35/4	42.20	Overall	Curb-to-Curb		Super-structure	Abutment		Pier	Super-structure	Sub-structure	
		ALLUKATIYA Bridge	5.80	4.60	1	Pre RC Girder	Stone work Type	1984	Fair	Fair	Insufficient	none



< PRESENT CONDITIONS >

[BRIDGE]
Narrow for 2-lane traffic

- [SOUNDNESS]**
 - Superstructure Re-bar of girders corroded. RATE 2
 - Substructure Fair RATE 2
 - Others

[SURROUNDING AREA]

< PROPOSAL >

Reconstruction at L-side of the existing bridge

- Bridge Length: 2@40.0 = 80m
 Approach Length: NS: 100m FS: 100m
 Superstructure: Steel I-Girder
 Substructure: Wall Type Abutment Wall Type Pier
 Foundation: Spread Foundation

Resettlement: a few

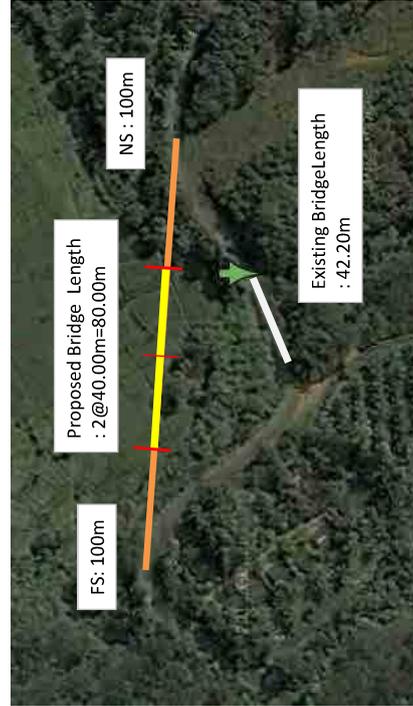
** SOUNDNESS RATE

RATE 1: Good condition

RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.

RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.

RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.



Bridge Inventory No.	Road No.	Road Name		Province	District	AAADT (No./Day)	No. of Lanes of Road Proposed by RDA	Construction Plan of Road to/ from Bridge		Environmental Condition	
	AA001	Colombo - Kandy	Sabaragamuwa	Kegalle		2					
181	Bridge No.	Bridge Length (m)	Bridge Width (m)	No. of Lane	Bridge Type	No. of Span	Completion Year	Super-structure	Sub-structure	Bridge Soundness	Flood Records
	60/1	Ambepussa Junction Bridge	Overall Curb-to-Curb	2	Super-structure Precast PC beam+Brick arch	4		Good	Fair	Insufficient	none



< PRESENT CONDITIONS >

[BRIDGE]

Busy condition for 2-lane traffic

[SOUNDNESS]**

- Superstructure

RATE 1

- Substructure

L-side arch structure is old.

Sufficient for present service

- Others

RATE 2

[SURROUNDING AREA]



< PROPOSAL >

Reconstruction is not recommended.

Bridge Length:

Superstructure:

Substructure:

Foundation:

Resettlement:

many

Approach Length:

** SOUNDNESS RATE

RATE 1: Good condition

RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.

RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.

RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.

Bridge Inventory No.	Road No.	Road Name				Province	District	AADT (No./Day)	No. of Lanes of Road Proposed by RDA	Construction Plan of Road to/ from Bridge		Environmental Condition
	B279	Mawanella - Hemmathagama - Gampala				Sabaragamuwa	Kegalle	2,751	2			
183	Bridge No.	Bridge Length (m)	Bridge Width (m)		No. of Lane	Bridge Type		Completion Year	Bridge Soundness			Flood Records
	12/2	20.40	Overall	Curb-to-Curb	1	Super-structure	Pier		Super-structure	Sub-structure	Loading Capacity	



< PRESENT CONDITIONS >

[BRIDGE]
 Narrow for 2-lane traffic , Insufficient alignment Causeway
 [SOUNDNESS]**
 - Superstructure RATE 2
 Causeway Sufficient for present service
 - Substructure RATE 2
 Causeway Sufficient for present service
 - Others
 [SURROUNDING AREA]

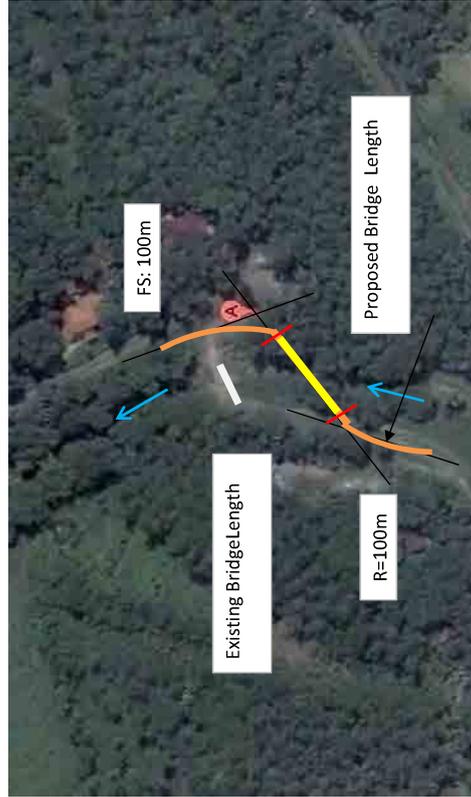
< PROPOSAL >

New construction L-side at the existing bridge Improving alignment

Bridge Length: 1@45.0 = 45m
 Approach Length: NS: 100m FS: 100m
 Superstructure: Steel I-Girder
 Substructure: Wall Type Abutment Wall Type Pier
 Foundation: Spread Foundation
 Resettlement: a few

** SOUNDNESS RATE

RATE 1: Good condition
 RATE 2: Fair condition with minor natures: Periodical maintenance is required. No urgent repair is needed.
 RATE 3: Significant damages: Damaged portion(s) are to be repaired immediately.
 RATE 4: Critical damages: Urgent improvement, reconstruction or restriction of heavy vehicles is required.



Bridge Inventory No. 184	Road No. B279	Road Name Mawanella - Hemmathagama - Gampala		Province Sabaragamuwa	District Kegalle	AADT (No./Day) 2,751	No. of Lanes of Road Proposed by RDA 2	Construction Plan of Road to/ from Bridge		Environmental Condition ok
	Bridge No. 11/2	Bridge Name Wagoilla Bridge	Bridge Length (m) 36.00	No. of Lane 1	Super-structure Bailey Bridge	Bridge Type RC Wall Type	Completion Year 2010	Super-structure Fair	Bridge Soundness Sub-structure Fair	Flood Records none
		Bridge Width (m) Overall 6.00	Curb-to-Curb 4.20							



< PRESENT CONDITIONS >

[BRIDGE]

- Narrow for 2-lane traffic
- Temporary bridge
- [SOUNDNESS]**
- Superstructure RATE 2
- Temporary bridge Sufficient condition at present
- Substructure RATE 2
- Others

[SURROUNDING AREA]

< PROPOSAL >

Reconstruction at L-side of the existing bridge

- Bridge Length: 1@45.00 = 45m
- Approach Length: NS: 100m FS: 100m
- Superstructure: Steel I-Girder
- Substructure: Wall Type Abutment
- Foundation: Spread Foundation

Resettlement: A few

** SOUNDNESS RATE

RATE 1: Good condition

RATE 2: Fair condition with minor natures. Periodical maintenance is required. No urgent repair is needed.

RATE 3: Significant damages. Damaged portion(s) are to be repaired immediately.

RATE 4: Critical damages. Urgent improvement, reconstruction or restriction of heavy vehicles is required.



CHAPTER 4 SRI LANKAN LAWS AND REGULATIONS OF ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

4.2 Land Acquisition and Resettlement

4.2.2 JICA Policy of Resettlement

The key principle of JICA policies on involuntary resettlement is summarized below.

I. Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.

II. When, population displacement is unavoidable, effective measures to minimize the impact and to compensate for losses should be taken.

III. People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels

IV. Compensation must be based on the full replacement cost as much as possible

V. Compensation and other kinds of assistance must be provided prior to displacement.

VI. For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. It is desirable that the resettlement action plan include elements laid out in the World Bank Safeguard Policy, OP 4.12, Annex A.

VII. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance. When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people.

VIII. Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans.

IX. Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.

Above principles are complemented by World Bank OP 4.12, since it is stated in JICA Guideline that “JICA confirms that projects do not deviate significantly from the World Bank’s Safeguard Policies”. Additional key principle based on World Bank OP 4.12 is as follows.

X. Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advantage of such benefits.

XI. Eligibility of Benefits include, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying.

XII. Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based.

XIII. Provide support for the transition period (between displacement and livelihood restoration).

XIV. Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.

XV. For projects that entail land acquisition or involuntary resettlement of fewer than 200 people, abbreviated resettlement plan is to be prepared.

In addition to the above core principles on the JICA policy, it also laid emphasis on a detailed resettlement policy inclusive of all the above points; project specific resettlement plan; institutional framework for implementation; monitoring and evaluation mechanism; time schedule for implementation; and, detailed Financial Plan etc.

4.2.3 Gap Analysis between JICA Guidelines and GOSL Laws and Policy

Table 4.2.3-1 The Gap between JICA Guidelines and the GOSL Laws and Policy

No.	JICA Guidelines	Stipulation by LAA and NIRP With Section Nos.	Identified Gaps between JICA Guidelines and LAA/NIRP
1.	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. (JICA GL)	No specification under LAA. However, LAA is invoked only after the minister responsible decides that the land is needed for a public purpose. NIRP states: "Involuntary resettlement should be avoided or reduced as much as possible by reviewing alternatives to as well as alternatives within the project".	LAA is to acquire lands for the public purpose and does not mention about involuntary resettlement. However, LAA has provisions even to compensate any damage to any land or anything thereon during investigations carried out on any land. NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.
2.	When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken. (JICA GL)	There is no specific statement in LAA describing "minimizing the impact". However, LAA has provisions to consider "all interested parties" to such land to be compensated. This includes damages to land or anything thereon during investigations. NIRP states: "where involuntary resettlement is unavoidable, affected people should be assisted to reestablish themselves and improve their quality of life".	Provisions in LAA to consider all interested parties to such land for compensation and NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.
3.	People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels. (JICA GL)	LAA states that compensation will be paid to land or the servitude which is to be acquired at "Market value" NIRP policy states: "where involuntary resettlement is unavoidable, affected people should be assisted to re-establish themselves and improve their quality of life".	LAA is to acquire lands for public purpose and does not mention about involuntary resettlement. Payment of compensation to land and servitude which is to be acquired at "Market value" under LAA and NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.

No.	JICA Guidelines	Stipulation by LAA and NIRP With Section Nos.	Identified Gaps between JICA Guidelines and LAA/NIRP
4.	Compensation must be based on the full replacement cost as much as possible. (JICA GL)	<p>Section 3 of LAA provides compensation for damages done during investigations carried out on any land.</p> <p>LAA new regulations (2008) have provisions, in case of buildings to pay difference between “reconstruction cost and the value of the buildings” based on market value.</p> <p>In addition, LAA has provisions for compensation for disturbances based on the ‘value to owner’.</p> <p>NIRP policy principles states: “compensation for loss of land, structures, other assets and income should be based on full replacement cost and should be paid promptly”.</p>	<p>LAA as a whole attempts to pay replacement cost of properties, especially with revisions of 2008.</p> <p>Due to its legal phenomena, the LAA has limitations in making resettlement focused approach which is covered by NIRP.</p> <p>NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.</p>
5.	Compensation and other kinds of assistance must be provided prior to displacement. (JICA GL)	<p>Possession of land to be taken under section 38 of LAA, where under normal circumstances the possession of land to be taken at any time after an award is made under section 17.</p> <p>However under section 38 (a) proviso, the minister may take an order where it becomes necessary to take immediate possession of any land on the ground of any urgency, at any time after a notice under section 2 is exhibited for the first time in the area in which that land is situated or at any time after a notice under section 4 is exhibited for the first time on or near that land is all three languages.</p> <p>LAA also expedites (discourages delays) compensation payments by imposing ‘payment of interests’ (under section 35 of LAA) in addition to principle amount of compensation if payment is delayed.</p> <p>There is no provision under NIRP stating that compensation and other kind of assistance should be provided prior to displacement.</p> <p>RDA’s general customary practice is not to remove APs before paying compensation and other concessions. But there is no assurance on this depending on urgencies.</p>	<p>There’s no provision to bridge the gap between JICA policy and legal regulations of Sri Lanka in this regard.</p> <p>It is suggested that a clause to be included in the loan agreement stating that adequate compensation to be paid with other kinds of assistance before displacement of any affected person to fill the existing gap in this regard.</p>

No.	JICA Guidelines	Stipulation by LAA and NIRP With Section Nos.	Identified Gaps between JICA Guidelines and LAA/NIRP
6.	For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. (JICA GL)	<p>No reference in LAA.</p> <p>NIRP requires a comprehensive Resettlement Plan if project exceeds displacement of 20 or more families.</p> <p>If number of families displaced is less than 20, NIRP requires a lesser detail Resettlement Plan.</p> <p>Under the National Environmental Act (NEA) there is another provision on resettlement which is described as follows;</p> <p>“Involuntary resettlement exceeding 100 families other than resettlement effected under emergency situations.” Such project is considered as a prescribed project which requires undergoing EIA process. Under the TOR for EIA the project approving agency may request a Resettlement Plan as part of the EIA study (but not mandatory).</p>	LAA is to acquire lands and does not mention about involuntary resettlement. NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.
7.	In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance. (JICA GL)	<p>Under section 4 of LAA the minister is empowered to call “objections to intended acquisition”. But this is limited to the owner/s of the land to be acquired.</p> <p>NIRP policy principles states: “affected persons should be fully involved in the selection of resettlement sites, livelihood compensation and development options at the earliest opportunity”.</p> <p>As per NIRP, consultative, transparent and accountable involuntary resettlement process needs to be put in place.</p>	LAA only provides an opportunity for the owner/s of the land to object the intended acquisition. It does not have provisions to view public opinion on the intended acquisition or suggestions of alternates. NIRP Provides a window for the public and all stakeholders (including affected people) to express their views on the intended development project and resettlement matters which arise due it. Therefore, provisions in NIRP on consultation will bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.

No.	JICA Guidelines	Stipulation by LAA and NIRP With Section Nos.	Identified Gaps between JICA Guidelines and LAA/NIRP
8.	When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people. (JICA GL)	<p>Section 2 of LAA (in the opening of the process) clearly states that the acquiring officer of the district where the intended land is located should display/ exhibit a notice in some conspicuous places in that area in Sinhala, Tamil and English. LAA statutorily imposes all communication to be made in all three languages, publicly announce legal notifications in print media, and through home to home deliveries of announcements by GN officers. NIRP guides to have participatory approaches in all stages of resettlement planning.</p> <p>Under the National Environmental Act (NEA) there is another provision on public consultation; i.e. as per the regulations of to carry out EIA process for prescribed projects, an EIA report which is in line with the TOR (for the study) should be kept open to the public and any interested party/ies for a time period of 30 working days in order to express their views and concerns about the project.</p>	<p>LAA has provisions to inform the public about the intended land acquisition and the need of such acquisition. However, this initial notice does not provide any information on compensation and resettlement. And subsequent sections of LAA cover compensation but not resettlement.</p> <p>For legal announcements, LAA emphasizes use of all three languages in the country and promotes formal communication with all concerned parties in inquiries, discussions and meetings.</p> <p>NIRP guidelines focus attention on resettlement planning, implementation and monitoring following participatory approaches which encourage continuous dialogue between APs and officers, promoting undisturbed understanding of problems, issues and situations faced by APs. NIRP emphasis the need of using all three languages in the consultation approach (in different media).</p>
9.	Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans. (JICA GL)	<p>This scope is outside to LAA. This area is covered by NIRP strongly; as stated in NIRP “affected persons should be fully involved in the selection of resettlement sites, livelihood compensation and development options at the earliest opportunity” and participatory measures should have to be designed and implemented to integrate affected people in to host communities. In monitoring and evaluation, displaced persons need to be consulted.</p>	<p>This scope is outside to LAA. NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.</p>

No.	JICA Guidelines	Stipulation by LAA and NIRP With Section Nos.	Identified Gaps between JICA Guidelines and LAA/NIRP
10.	Appropriate and accessible grievance mechanisms must be established for the affected people and their communities. (JICA GL)	LAA has provisions for formal appeals in the country's legal system. One of the objectives of NIRP is to "make all affected people aware of processes available for the redress of grievances that are easily accessible and immediately responsive." Establishment of a project based GRM is an explicit objective of NIRP.	Both LAA and NIRP go in line with JICA policy.
11.	Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advance of such benefits. (WB OP4.12 Para.6)	Under LAA, the identification of title owners starts with the land acquisition process and non title owners can apply for their rights under section 9 inquiries. LAA process includes identification of APs, assets and ownership of properties formally in its process. After Section 2 notice of LAA (cut –off date), an influx of encroachers is not considered. This is an early phase of the process. NIRP states the need of the resettlement plan which has to be based on a comprehensive census on APs, and detail on land and structures, and socioeconomic status of them which is the baseline for future assessments.	Both LAA and NIRP go in line with JICA policy.
12.	Eligibility of benefits includes, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying. (WB OP4.12 Para.15)	LAA consider only titleholders and tenants protected under Rent Act 1972. NIRP policy principles states that affected persons who do not have documented titles to land should receive fair and just treatment.	Both LAA and NIRP go in line with JICA policy.
13.	Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. (WB OP4.12 Para.11)	No specification under LAA. NIRP policy principles states: "Replacement land should be an option for compensation in the case of loss of land".	This is not within the scope of LAA. NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.

No.	JICA Guidelines	Stipulation by LAA and NIRP With Section Nos.	Identified Gaps between JICA Guidelines and LAA/NIRP
14.	Provide support for the transition period (between displacement and livelihood restoration). (WB OP4.12 Para.6)	New revision to LAA has considerations for transition period, like paying expenses for finding alternative accommodation etc and other payments for disturbances. NIRP does not specifically mention of transition period, but provides provision for livelihood restoration.	LAA and NIRP go in line with JICA policy.
15.	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc. (WB OP4.12 Para.8)	The scope is outside the LAA. NIRP policy principles states: "vulnerable groups should be identified and given appropriate assistance to substantially improve their living standards."	NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.
16.	For projects that entail land acquisition or involuntary resettlement of fewer than 200 people, abbreviated resettlement plan is to be prepared. (WB OP4.12 Para.25)	No specification under LAA. NIRP states that a resettlement plan needs to be prepared to a lesser level of detail if less than 20 people are affected.	NIRP guidelines bridge the gap between JICA policy and Sri Lankan legislation on involuntary resettlement.

4.2.5 Proposed Project Entitlement Matrix

The project Entitle Matrix below is proposed for the “Primary Bridges on National Roads” Project to be financed by JICA, taking into account of NIRP and procedures and “JICA Guidelines for Environmental and Social Considerations”. The right-most column used to indicate “Responsible Organizations” is not shown, however, they are PMU, RDA and Divisional Secretary of jurisdictional power over the territory of respective bridge location.

Table 4.2.5-1 Proposed Entitlement Matrix

Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
1.	Permanent loss of agricultural land	Legal owner(s) of land	<ul style="list-style-type: none"> i Land-for-land or cash-for-land and other assets lost at replacement cost. ii Livelihood / income improvement / restoration. iii Grant/skills and vocational training. iv Living allowance until livelihood or income sources are restored. v Land registration expenses and taxes, if any. vi If opted by AP, the remainder land will be acquired at replacement cost. 	<ul style="list-style-type: none"> a. Assessment of quantity and quality of land by the Survey Department b. Assessment of Compensation at replacement cost by Valuation Department c. Verification of title of the affected persons d. APs will be fully informed of the entitlements and procedures regarding payments e. Payment of Statutory Compensation under LAA f. Additional cash grant to be paid to cover the current market price of land compensation based new regulations of LAA and NIRP
2.	Loss of access to cultivable land by owner cultivator/s	Legal owner(s) of land	<ul style="list-style-type: none"> vii Livelihood / income improvement / restoration. viii Grant/skills and vocational training. ix Living allowance until livelihood or income sources are restored. x Land registration expenses and taxes, if any. xi If opted by AP, the remainder land will be acquired at replacement cost. 	<ul style="list-style-type: none"> g. Assessment of Compensation at replacement cost by Valuation Department h. Verification of title of the affected persons i. APs will be fully informed of the entitlements and procedures regarding payments j. Payment of Statutory Compensation under LAA k. Additional cash grant to be paid to cover the current market price of land compensation based new regulations of LAA and NIRP

DATA COLLECTION SURVEY ON PRIMARY BRIDGES ON NATIONAL ROADS AND MAINTENANCE SYSTEM OF BRIDGES

FINAL REPORT (Appendix)

Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
3.	Loss of access to cultivable land by tenant/ sharecropper	Tenant/s, sharecropper/s, grower/s, socially recognized owner/s, lessee/s, unauthorized occupant of land	xii No payment for the land xiii Cash payment for loss of standing crops, trees or any other development on land at market prices, if cultivated by tenant or user with lease; xiv AND Cash payment for loss of net income for portion of land affected for the remaining leased/ assigned period. xv For sharecroppers, Transition subsistence (in cash or kind) allowance equivalent to loss of crop or harvest for portion of land affected for the remaining period of sharecropping agreement.	l.Lack of documentation/ records m.AP to request compensation at section 9 inquiries
4.	Loss of homestead/ residential/ commercial/ CPR plots by owners/Authorities	Legal owner(s) of the land	xvi Payment of compensation at replacement cost. xvii If remaining portion of plot is not sufficient/ stable for residing, the remainder plot will be acquired at replacement cost (with the consent of AP). xviii Moving/shifting allowance, if displaced (even setback in same land) xix Salvageable materials belong to the establishment owner. xx Additional grant to cover the market value of land at market price to be determined.	n.Valuation Department to decide compensation as per the provisions of LAA.

Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
5.	Loss of Trees/ Perennials / livestock	i. Person with Legal Ownership of the land ii. Socially recognized owner/ Unauthorized occupant of the trees/ live stock (cattle, goats)	xxi For owner, payment for crops and trees at market prices; xxii For tenant, payment for crops (Development to the land) shall be paid to tenant; xxiii For sharecropper, payment for crops (Development to the land) shall be shared between owner and sharecropper according to the sharecropping agreement; xxiv An advance notice will be made to all entitled persons to harvest crop; AND xxv Payment for net value of crops where harvesting is not possible; AND xxvi Cash payment for loss of trees and standing crops at market prices; AND xxvii Rights to resources from privately owned trees (i.e. timber or firewood) xxviii Payment of compensation for the loss of income due to loss of any livestock	o.Valuation Department to decide compensation as per the provisions of LAA. p.AP to request compensation at section 9 inquiries q.Lack of documentation
6.	Loss of residential /commercial structure by owner(s)	Legal Titleholder Owner(s) of structures	xxix Payment for the structure at replacement cost xxx For commercial owners compensation for the loss of earning from business and advertising cost (based on the provisions of LAA) xxxi If remaining portion of structure is not sufficient/ stable for residing or to carry out the commercial activity, the remainder of the structure will be acquired at replacement cost (with the consent of AP). xxxii Moving/shifting allowance, if displaced (even setback in same land) xxxiii Salvageable materials belong to the establishment owner. xxxiv Payment for any other expenses incurred due to acquisition.	r.Valuation Department to decide compensation as per the provisions of LAA.

DATA COLLECTION SURVEY ON PRIMARY BRIDGES ON NATIONAL ROADS AND MAINTENANCE SYSTEM OF BRIDGES

FINAL REPORT (Appendix)

Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
7.	Loss of residential /commercial structure by squatters and unauthorized occupants	Informal settlers / squatters / non-tilted APs occupying public land without title/ or squatting on Government or private land	xxxv No compensation for the land xxxvi Payment for the structure/ development to land at replacement cost xxxvii For commercial owners payment of compensation for the loss of earning from business and advertising cost xxxviii Payment for the expenses incurred for transport and all other expenses due to acquisition	s. Lack of documentation (issue) t. Valuation Department to decide compensation as per the provisions of LAA.
8.	Loss of access to Residential houses/ commercial structures (Owners/rented or leased)	Tenants of rented/ leased properties	xxxix Cash payment for the expenses incurred for shifting to an alternate accommodation xi Cash payment for the expenses incurred for transport and all other expenses due to acquisition.	u. Lack of documentation (issue) v. Valuation Department to decide compensation as per the provisions of LAA.
9.	Loss of business by CBEs due to dislocation	Owner/operator of the business	xli Payment of compensation for the loss of earning from business and advertising cost	w. Lack of documentation (issue) x. Valuation Department to decide compensation as per the provisions of LAA.
10.	Loss of Income and work days due to displacement	Household head / Employees of different commercial activities	xlii Payment of compensation for three months for loss of salary	y. Valuation Department to decide compensation as per the provisions of LAA.
11.	Poor and vulnerable households	Poor and vulnerable households including informal settler, squatters / women headed household, households without elderly son, households with aged household heads	xliii A special grant to the household to improve living standard. xliv Any non monetary assistance required.	z. Valuation Department to decide compensation as per the provisions of LAA.

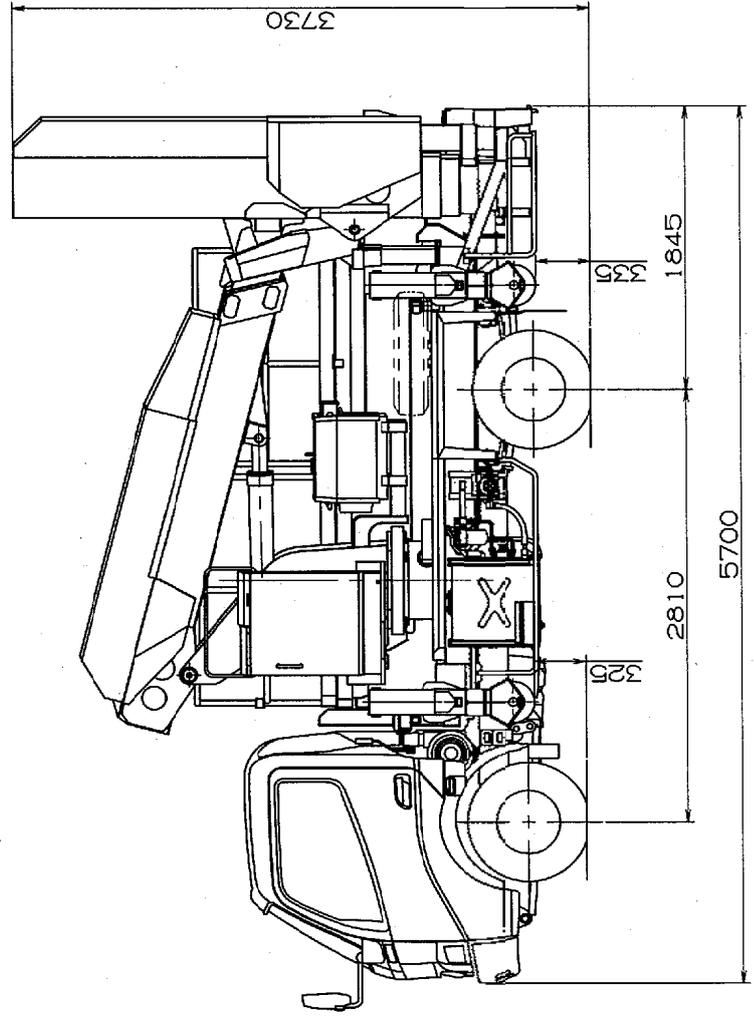
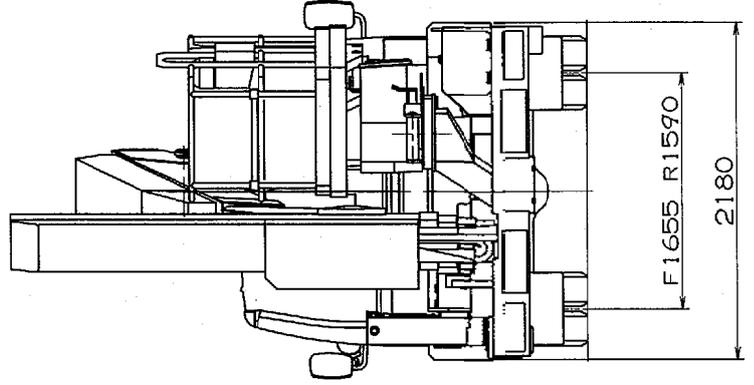
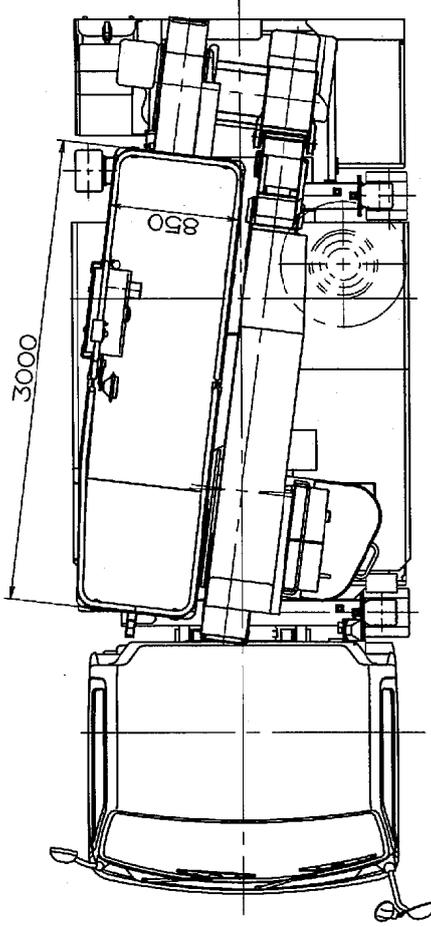
Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
12.	Displacement of community structure (CPR)	Community structure representative as identified RDA, Valuation officer and Divisional Secretary	xlv Restoration in existing location of affected community buildings, structures, infrastructure and common property resources to original or better condition, in consultation with relevant representatives of the community or local authority. xlvi OR replacement in alternative location identified in consultation with affected communities and relevant authorities; xvii OR (Cash) Payment at full replacement cost; AND restoration of buildings, structures, infrastructure, services or other community resources.	aa. Valuation Department to decide compensation as per the provisions of LAA.
13.	Removal of tombs and tombstones	Relatives of the deceased person	xviii Removal and restoring the tomb/ tombstone at a location acceptable to the relatives of the deceased person. xlix Payment of compensation for removing of tombstone.	bb. Valuation Department to decide compensation as per the provisions of LAA.
14.	Temporary impact during construction	Community / Individual affected	l Payment of compensation repairing lost assets as agreed between the owner/ care taker li Payment of damages under the provisions of third party insurance obtained by contractor	cc. Carryout a property condition survey of structures located within close proximity of construction site/ material extraction site
15.	Unforeseen impact	Concerned APs	Any unanticipated consequence of the project will be documented and mitigated based on the spirit of the principles agreed upon in this policy framework and advised by the Supervision Consultant and RDA.	

Source) Study Team

CHAPTER 10 BRIDGE OPERATION AND MAINTENANCE

10.6.4 Technical Cooperation Project (Proposal)

APPENDIX-1 Bridge inspection vehicles.



10.6.7 RDA Attitude for the Technical Cooperation Project (Proposal)

APPENDIX-2 Project Format

PROJECT CONCEPT FORMAT

ERD Reference Number

(for ERD use only)

Concept ID

(For ERD use only)

Previous Concept ID (if any)

(For ERD use only)

Please refer “Project Concept Format Filling Guidelines” before continue.

1. Project Information

1.1) **Concept Date** : 14th September 2012

1.2) **Project Title**

Major Bridges Construction Project of National Road Network

1.3) **Thematic Area**

Rehabilitation and Reconstruction

Human Resources Development, Capacity Building and Institutional Strengthening
Poverty Reduction
Rehabilitation & Reconstruction
Rural & Regional Development
Women & Children Differently Able

1.4) **Total Project Cost** = Rs. 26, 927 Mn (US\$ 207 Mn)

1.5) **Proposed Duration of the Project**

(a) **Unit** : years

(b) **Duration** : 7 (including maintenance period)

1.6) Sector and Sub sector

Main Sector	Sub Sector	Main Sector	Sub Sector	
Agriculture	Plantation	Information and Communication	Postal Services	
	Food Crop Development		Telecommunications	
	Minor Export Crops		Media	
	Livestock Development		Information Technology	
Budgetary/ Balance of Payments Support	Horticulture	Industrial Development		
	Agriculture Extension / Research			
	Irrigation			
Culture and Heritage		Labour and Employment		
Education	General Education	Power and Energy	Power Generation	
	Higher Education		Power Transmission & Distribution	
	Technical/Vocational Education		Energy Conservation	
	Non-formal Education		Oil and Gas	
Environment and Natural Resources	Forestry	Private sector Development	Renewable Energy Source	
	Wild Life / Conversation			
	Water Resource			
	Protected Area			
	Coastal Resources			
	Land Development			
	Industrial Pollution			
	Marine Pollution			
	Disaster Management			
	Urban Environment			
	Flood Protection			
	Solid Waste Management			
	Banking		Tourism	
	Capital Market & Funds			
SME Financing				
Micro Financing				
Fisheries and Aquatic Resources	Marine Fisheries	Trade		
	Inland Fisheries			
	Fisheries Harbour			
General		Transportation	Roads & Highways	
			Railways	
			Aviation	
Governance	Economic Management	Water Sanitation and Drainage	Ports & Shipping	
	Public Administration		Land Transport	
	Law and Order		Water / Sea Transport	
	Human Rights		Water Supply	
	Foreign Affairs		Sewerage	
			Strom Water Drainage	
Health , Nutrition and Social Protection	Health Care	Local Government		
	Nutrition			
	Social Protection			
	Public Health			
Housing	Indigenous Medicine	Youth Affairs		
			Sports	
Urban Development				

1.7) Type of the Proposal

(Tick one project type only. In case where more than one is involved, indicate the type with the largest component)

- i. Project Type Assistance
 - Goods, Services and Equipment Supply
 - Facilities Construction
 - Both
- ii. Feasibility Study
 - Pre-feasibility / Basic study
 - Feasibility
- iii. Technical Assistance
 - Master Plan for Development
 - Training and Human Resources Development
 - Project Development

2. Applicant's Information .

(Consist of brief introduction of the agency that creates and owns the project concept /forwarding ministry/Provincial Councils/stand alone organizations covering Organizational and personnel details)

2.1) Host Country /Applicant : Government of Sri Lanka

2.2) Project Proponent

2.2a) Name of the Agency : Road Development Authority

2.2b) Address : Road Development Authority, 1st Floor, Sethsiripaya, Battaramulla.

2.2c) Phone : 011-2862795

2.2d) Fax : 011-2872272

2.2e) Contact Person 1

- i.) Title : Dr / Rev / Mr / Mrs / Miss
- ii.) Name : W.A.S. Weerasinghe
- iii.) Designation : Director General, Road Development Authority.
- iv.) Phone : 011-2862795
- v.) Fax : 011-2872272
- vi.) E-mail id : gmo@rda.gov.lk

2.2f) Contact Person 2

- i.) Title : Dr / Rev / Mr / Mrs / Miss
- ii.) Name : H.M.K.G.G. Bandara
- iii.) Designation : Director (Planning), Road Development Authority
- iv.) Phone : 011-2882995
- v.) Fax : 011-2882990
- vi.) E-mail id : plann@rda.gov.lk

2.3) Forwarding Ministry / Provincial Council

- 2.3a) Name of the Agency : Road Development Authority
2.2b) Address : Road Development Authority, 1st Floor, “Sethsiripaya”, Battaramulla.
2.2c) Phone : 011-2862795
2.2d) Fax : 011-2872272
- 2.3e) Contact Person 1
- i.) Title : Dr / Rev / Mr / Mrs / Miss
 - ii.) Name : R.W.R.Pemasiri
 - iii.) Designation : Secretary, Ministry of Ports and Highways
 - iv.) Phone : 011 – 2887462 / 011- 2862739
 - v.) Fax : 011 - 2862705
 - vi.) E-mail id : hiwaysec@sltnet.lk
- 2.3f) Contact Person 2
- i.) Title : Dr / Rev / Mr / Mrs / Miss / Ms
 - ii.) Name : G.J.C. Gunathilaka
 - iii.) Designation: Additional Secretary (Engineering), Ministry of Ports and Highways
 - iv.) Phone : 011 - 2868703
 - v.) Fax : 011 - 2864958
 - vi.) E-mail id : addleng@mohsl.gov.lk

3. Project Rationale

(Do not indicate/explain the objective of the project. Answer to each sub section should be in brief.)

3.1) Introduction to the Project (General sector information and information specific to the area)

In Sri Lanka, road transport is the pre-dominant mode of transport with the road transport catering for about 92% of the passenger demand and 98% of freight demand. However, the transport system of the country is far from satisfactory level with poor operating speeds, delays, accidents, and high operating costs due to the poor condition of the road infrastructures and inadequate capacity of the transport system.

An efficient transport system is a prerequisite for the rapid economic development of the country and for improving quality of life of people. To maintain economic growth at about 8%, the country has its policies in order to develop and expand the national road network across the country.

There are around 4, 200 bridges on the National Road Network and the poor condition of the bridges will affect the road transportation system. Some of the existing bridges are presently in structurally weak condition while some having inadequate capacity to cater to the present demand. Due to the weak & narrow condition of these bridges it is required to restrict the movement of heavy vehicles, long containers with heavy loads and industrial and construction equipments across these bridges resulting negative effects to the economy of the country to a substantial degree.

Attachments (if any): None

3.2) Specific Problem to be Addressed by the Project

These 40 bridges have been selected from Western, Southern, Northern, Eastern, North Western, North Central & Uva provinces and 39 bridges are on National Roads while one is on a provincial road. At present, actions have already been taken to take over this provincial road also to National Road Network considering its national importance. All these roads are carrying high volume of traffic with high percentage of heavy vehicles.

Replacements of most of these existing bridges are required due to their dilapidated or weak structural condition and inadequacy in width to cater to present traffic demand.

Once the roads are improved, these narrow bridge locations become the traffic bottlenecks and black spot locations. Most of the selected bridges are more than 50 years old. Hence these old bridges have limitations in load carrying capacity and inadequacies in width. Particularly heavy containers, industrial & construction equipment are unable to travel on most of these bridges, resulting unfavourable economic impact to the country.

Hence reconstruction of these bridges is a prime requirement to maintain the flow of traffic on the National Highway Network at substantial level of service.

Attachments (if any): None

3.3) Mode of Intervention in Terms of this Project (Justification)

This project is to construct or replace 40 bridges on the National road network with improved facilities such as foot walks, utility ducts etc. and safety standards.

3.4) Composition of Target Beneficiaries/Stakeholders (indicate Gender Ratio)

	Beneficiary / Stakeholder	Description	Gender Ratio	
			Male	Female
1	All road users		50	50

3.5) Relationship of the Project to Government Policy Framework /Plan

The road rehabilitation, improvement and bridge construction is one of the top priorities of the government policy, which can provide acceptable level of mobility and low vehicle operating cost. During the past two decades the sectoral development policy of the government was to rehabilitate the existing roads, road structures etc. In providing enhanced transport facilities to the people. During the period, several bridge construction projects were undertaken in addition to the new road construction projects which are aiming to improve the transport system of the country with efficient mobility.

Name of the Government Policy Framework /Plan :

In the “Mahinda Chinthana : Vision of New Sri Lanka” – A Ten year Horizon Development Framework 2006 – 2016

3.6) Coherence with Sectoral Policies and Strategies

Some of the government objectives in this sector are:

- Improve the quality of road by using cost effective and innovative techniques of design for construction, maintenance, and rehabilitation of roads and bridges.
- Eliminate traffic congestion through proper traffic management.
- Provide easy accessibility and faster mobility.
- Adequately meet the transport needs of the country, both of passenger and freight, taking into consideration of current and projected future transport demands.
- Improve the Traffic management measures of the existing roads
- An ambitious program for traffic management and increasing road safety will be launched
- The road sector development will continue to assist the nation's poverty reduction effort.

3.7) Considered Project Alternatives and Reasons for Rejection

(Indicate the identified possible alternatives to achieve the project objectives and explain the reasons for rejecting them)

As this is a project for the reconstruction of bridges, the alternatives can be considered in design stage.

3.8) Whether a Feasibility Study for the Project has been carried out

Yes No

4 Project Objective & Purpose

(Indicate the main objective and the purpose of the project without adding project justification)

4.1) Goal of the Proposed Project

No ...1.... is the Primary Objective

No2. & .3 is the Secondary Objectives

(Select and Indicate the Number(s) Pertaining to the Primary Objective and the Secondary Objective from List below)

1. Economic Development/ Reform for Economic Growth
2. Poverty Alleviation
3. Social Development
4. Environmental Management
5. Capacity Building/ Institutional Strengthening

4.2) Purpose of the Project

The purpose of the project is to provide efficient, comfortable & safer transport service and thereby

1. Enhance the connectivity between two main towns
2. Facilitate the development of other sectors such as health, education etc.
3. Reduce the vehicle operating cost
4. Reduce the travel time, travel cost of road users

5. Increase the load carrying capacity
6. Giving more opportunities to the investors to invest on agricultural and industrial based projects
7. Provide connectivity across rivers, streams and lagoons by way of constructing new bridges instead of operating ferries

Attachments (if any): None

5. Project Outputs, Activities and Duration

5.1) Expected Project Outputs

	Output	Unit of Measure	Quantity
1	Construction/ Replacement of bridges	No.	40

Attachments (if any): None

5.2) Project Activities

	Activity	Unit of Measure	Quantity
1	Investigation and Detail design	No.	40
2	Construction bridges (substructure & superstructure)	No.	40
3	Supervision	No.	40

5.3) Proposed Duration of the Project

4.3.a) Unit : years

4.3.b) Duration : 07 (including maintenance period)

6. Project Location & Land Requirement

6.1) Is the Project Location in Island wide or Area Specific:

Island wide

Area Specific

6.2) Total Land Requirement : Not relevant for this stage.
Unit of Measurement :

6.3) Specify the Project Location

(Indicate the place(s) where project activities take place.)

Provide additional description if boundary cannot be demarcated clearly:

Site	Province	District	DS Division	No of Bridges	Land Required? (Y/N)	Extent
1	Eastern	Ampara, Trincomalee	Maha – Oya, Karativu, Samanturai, Thambalagamuwa	05 Bridges	Yes	Approximately 42,000 m ²
5	Northern	Kilinochchi, Mannar, Vavuniya, Mulativu	Pooneryn, Mantai West, Musali, Nanaddan, Vengala Cheddikulam, Martitime pattu	08 Bridges	Yes	
10	North Central	Anuradhapura, Polonnaruwa	Nochchiyagama, Dehiattakandiya	02 Bridges	Yes	
12	North Western	Kurunegala, Puttalam	Mahawa & Wariyapola, Ridigama, Arachchikattuwa	03 Bridges	Yes	
15	Uva	Monaragala	Thanamalwila	01 Bridges	No	
16	Sabaragamuwa	Ratnapura	Imbulpe	01 Bridges	Yes	
17	Southern	Galle, Matara	Baddegama, Bope Poddala, Habaraduwa, Hakmana, Weligama, Welipitiya	09 Bridges	Yes	
23	Western	Colombo, Kalutara	Colombo, Hanwella, Homagama, Kaduwela, Kolonnawa, Beruwela, Madurawela, Moratuwa	11 Bridges	Yes	

Attachments (if any): List of bridges is attached as Annex – 01
Location map is attached as Annex – 02

7. Environment and Environment Impact

7.1) Please Indicate if any of the Following Land Uses are Within the Project Site or Within 1 km Distance from any Boundary of the Project Site :

National reserves, Sanctuaries, Forest reserves and proposed forest reserves, National Heritage wilderness areas, Coastal zones, flood areas and flood protection areas, Reserves, Ancient protected monuments, Schools, Religious places and Hospitals

Yes, one or more of the above land uses are within the site boundary

Yes, one of more of the above land uses are within 1 km of the site boundary

No, none of the above land uses are within the project boundary or within a 1 km distance from any boundary of the project site.

If the answer to this question is affirmative, please list land use(s) and provide a map (1:50,000 or smaller scale) showing the project boundary and a distance of 1 km from each boundary.

Attachments (if any): None

7.2) What are the Possible Environment and Natural Resources Constraints to the Existing Activities due to the Proposed Project?

Not Applicable

7.3) **Indicate which of the Following Resources may be required for the Project.** If possible, specify quantities and from what sources (i.e., name of source or location if available).

Resource	Required for this Project	Unit of measurement	Extent (if known)	Location (if known)
Surface Water	No			
Groundwater	No			
Quarry Stone or Earth fill	Yes			
Energy:	No			
Forests	No			
Other(Specify).....				

7.4) **Will the Project Require Relocating 100 or more Families?** Yes No

7.5) **Whether the Project Location is Inside the Costal Buffer Zone?** Yes..... No

7.6) **Is the Proposed Project a Prescribed Project?** (Please refer to Sri Lanka Government Gazette Extraordinary – 772/22 of 1993.06.24. and the Gazette Extraordinary No 1104/22 of 1999.11.05 You are advised to consult CEA to verify the Prescribed status).

Yes No

8. Gender Perspective

8.1) **Does the Project Identify any Gender Gaps? If so Describe.**

Not applicable

8.2) **Is there any Strategy in the Project to Address the Gender Imbalances**

Not applicable

8.3) **Which Project Activities are Designed to Bridge such Gender Gaps and What will be their Impact on Gender Imbalance?**

Not applicable

9. Cost & Financing

9.1) Total Project Cost in LKR (Mn) : Rs. 26, 927 Mn (US\$ 207 Mn)

9.2) Cost Components :

Component	Activity	Cost in Local Currency (LKR mn)
1	Construction Cost	20, 861
2	Land acquisition & utility service Cost	450
3	Administration Cost	1, 638
4	Tax & VAT	3, 978
	Total	26, 927

9.3) Financing Plan

Financial Source	Cost
	Local Currency (LKR mn)
External Source	20, 861
Proponent (Implementing Agency) Funding	-
Beneficiary Contribution	-
Consolidated Fund	6, 066
Other (Specify).....	-
Total	26, 927

9.3.1) Prospective Donors for the Proposed Project

Japan International Co-operation Agency

9.4) Details of Already Offered External Assistance to Projects in the Related Sector in the Last Five Years

Donor	Related Field	Project Title: Assistance Already Offered	Amount USD (mn)	Year of Commencement	State whether Completed or Ongoing
JICA	Bridge	Construction of new highway bridge at Manampitiya	10	2006	Completed
JICA	Bridge	Construction of new Mannar bridge and Improvement of Causeway	22	2007	Completed
JICA	Roads & Bridge	Pro – Poor Eastern Infrastructure Development Project	39	2007	Road works completed, bridge Ongoing
JICA	Bridge	Reconstruction of five bridges in Eastern Province	13	2011	Ongoing

10. Project Implementation

(If the Project Proponent is the Implementing Agency the Information at 2.2 should Appear Here)

10.1) Implementing Agency with Overall Responsibility.

10.1a) Name of the Agency: Road Development Authority

10.1b) Address: Road Development Authority, 1st Floor, Sethsiripaya, Battaramulla

10.1c) Phone: 011-2862795

10.1d) Fax: 011-2872272

10.1e) Contact Person 1:

- i.) Title : Dr / Rev / Mr / Mrs / Miss
- ii.) Name : W.A.S. Weerasinghe
- iii.) Designation : Director General, Road Development Authority
- iv.) Phone : 011-2862795
- v.) Fax : 011-2872272
- vi.) E-mail id : gmo@rda.gov.lk

10.1f) Contact Person 2:

- i.) Title : Dr / Rev / Mr / Mrs / Miss
- ii.) Name : H.M.K.G.G. Bandara
- iii.) Designation : Director (Planning), Road Development Authority
- iv.) Phone : 011-2882995
- v.) Fax : 011-2882990
- vi.) E-mail id : plann@rda.gov.lk

10.2) Functions of the Implementing Agency with Overall Responsibility

The implementation organization is the Road Development Authority (RDA), which is a statutory body incorporated under the RDA Act No. 73, of 1981 under Ministry of Highways & Road Development.

The RDA is the premier highway authority in the country and is entrusted with the responsibility to maintaining and developing the national highway network, which comes under the purview of central government. The National Highway Network consists of 4,221 km of "A" class roads and 7,944 km of "B" class roads and around 4,200 bridges. The functions performed by the RDA consist mainly maintenance and development of roads and bridges in the National Highway Network including planning, design and construction of new highways, bridges and expressways to augment the existing network.

10.3) Implementing Agency / Agencies and Their Functions and Prior Experience with Similar Projects / Activities

	Implementing Agency/Agencies	Functions	Prior Experience
1	RDA	Implementation	Prior experience in construction bridges
2	Ministry of Ports and Highways	Overall responsibility	-do-

10.4) Responsibilities of Other Entities (Other Relevant Agency)

10.4.a) Applicable / ~~Not applicable~~

Other relevant agencies are responsible to shift their utility services such as water supply lines, telecommunication lines, electricity lines and poles etc. where they are required.

10.4.b) Narration: Not Applicable

10.5) Staff Availability for Implementing the Proposed Project (Specify any Additional Staff Required)

Implementing Agency	No of Staff Members Available
RDA	Available
	Additional Staff Required
	No additional staff are required

.....
H M K G G Bandara
 Director (Planning)
 Road Development Authority

.....
W A S Weerasinghe
 Director General
 Road Development Authority

Project summary	Index	Acquisition means	External conditions
Goal <ul style="list-style-type: none"> Gain sound knowledge to properly carry-out Bridge maintenance Management for Bridges in Sri Lanka. 	<ul style="list-style-type: none"> The ratio (Budget sufficiency rate) of a demand and actual allocation of the amount for a bridge maintenance management budget will be 50% or more. 	<ul style="list-style-type: none"> The amount of a demand, allocation and enforcement of bridge maintenance management 	<ul style="list-style-type: none"> Bridge maintenance management budget is secured (Trust fund system of road maintenance management is functional.)
Project target <ul style="list-style-type: none"> Improvement of the bridge maintenance management capability of RDA 	<ul style="list-style-type: none"> Inspection of the main bridges on a national highway will be completed until the end of the project. 	<ul style="list-style-type: none"> Record of the bridge inspection results 	
Result Result 1) Improves Bridge maintenance management capability of Planning Division in RDA Result 2) Improves bridge maintenance management capability of local staff of RDA. Result 3) The contents of the bridge maintenance management manual will be improved & updated. Result 4) The equipments used for bridge maintenance & inspection will be improved and replace with latest equipment.	Result 1) The person in charge of headquarters participates in OJT, and examination of a inspection results can be practiced. Result 2) The person in charge of the local office participates in OJT and bridge inspection work at site can be practiced. Result 3) Bridge maintenance management manual is utilized on site. Result 4) The donated inspection equipments are utilized	Result 1) OJT attendance record and implementation record of actual work Result 2) OJT attendance record and implementation record of actual work Result 3) OJT attendance record about bridge maintenance management-Collect comment from the person in charge on Maintenance management manual. Result 4) Implementation record of inspection	
Action Result 1) The bridge maintenance management capability of headquarters of RDA improves. <ul style="list-style-type: none"> -1 Examination of the inspection results according to the maintenance management manual and database preparation work -2 Evaluation of inspection results and planning -3 OJT enforcement concerning the above mentioned works Result 2) RDA bridge maintenance management capability of a local office improves (Field work capability) <ul style="list-style-type: none"> -1 Inspection works and preparation of inspection sheet at site -2 A proper report of the inspection result to the headquarters -3 Implementation of maintenance management work -4 OJT enforcement concerning the above mentioned Result 3) The contents of the bridge maintenance management manual is improved <ul style="list-style-type: none"> -1The review of a present manual and understanding of current status. -2 Preparation of revised manual plan -3 Institutionalization of the manual in RDA -4 Seminars for diffusion Result 4) The use equipment about bridge maintenance management is improved. <ul style="list-style-type: none"> -1 Selection of required equipments according to the maintenance management manual -2 Procurement of required equipments -3 OJT enforcement of equipments -4 Preparation of an equipment ledger 			
	Input Japan 【Specialist】 <u>Long term: 1 people</u> <ul style="list-style-type: none"> Road/Bridge maintenance management 24M/M <u>Short term:5 people</u> <ul style="list-style-type: none"> Bridge maintenance management plan 21M Bridge inspection technology 12 M/M Total 57-MM	Sri Lanka 【Counter part】 <u>「Bridge Assessment Unit」 :13 people (plan)</u> <ul style="list-style-type: none"> Unit leader : 1 people Deputy unit leader :2 people (Inspection, Construction supervision) In charge of the team : 10people (Inspection, Asset management, data analysis, maintenance management plan, Construction method, Construction supervision, Final inspection team) 	

	<p>Input</p> <p>Japan</p> <p>【Equipment】</p> <p><u>Bridge inspection vehicle</u> about 25,000 thousand yen</p> <p><u>Bridge Inspection equipment</u> Core cutting machine, 3 sets of reinforcement survey instruments (each 3PD office)</p> <p>Schmidt hammer, 9 sets of neutralization examination kits (each PD office)</p> <p>【Training in Japan and study abroad】</p> <p><u>Training:</u> Bridge inspection, <u>(Study abroad:</u> Study of bridge asset management)</p>	<p>Precondition</p> <ul style="list-style-type: none"> • Bridge Assessment Unit" which serves as a C/P organization of RDA in the project is founded. • "Bridge Assessment Unit" which serves as a C/P organization of RDA and their related post (Planning department, engineering service department, maintenance management department, PD office, CE office, EE office) cooperate appropriately in project implementation. • The members of "Bridge Assessment Unit" which serves as a C/P organization are not changed during the project • The equipments for bridge inspection are supplied certainly and used appropriately
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