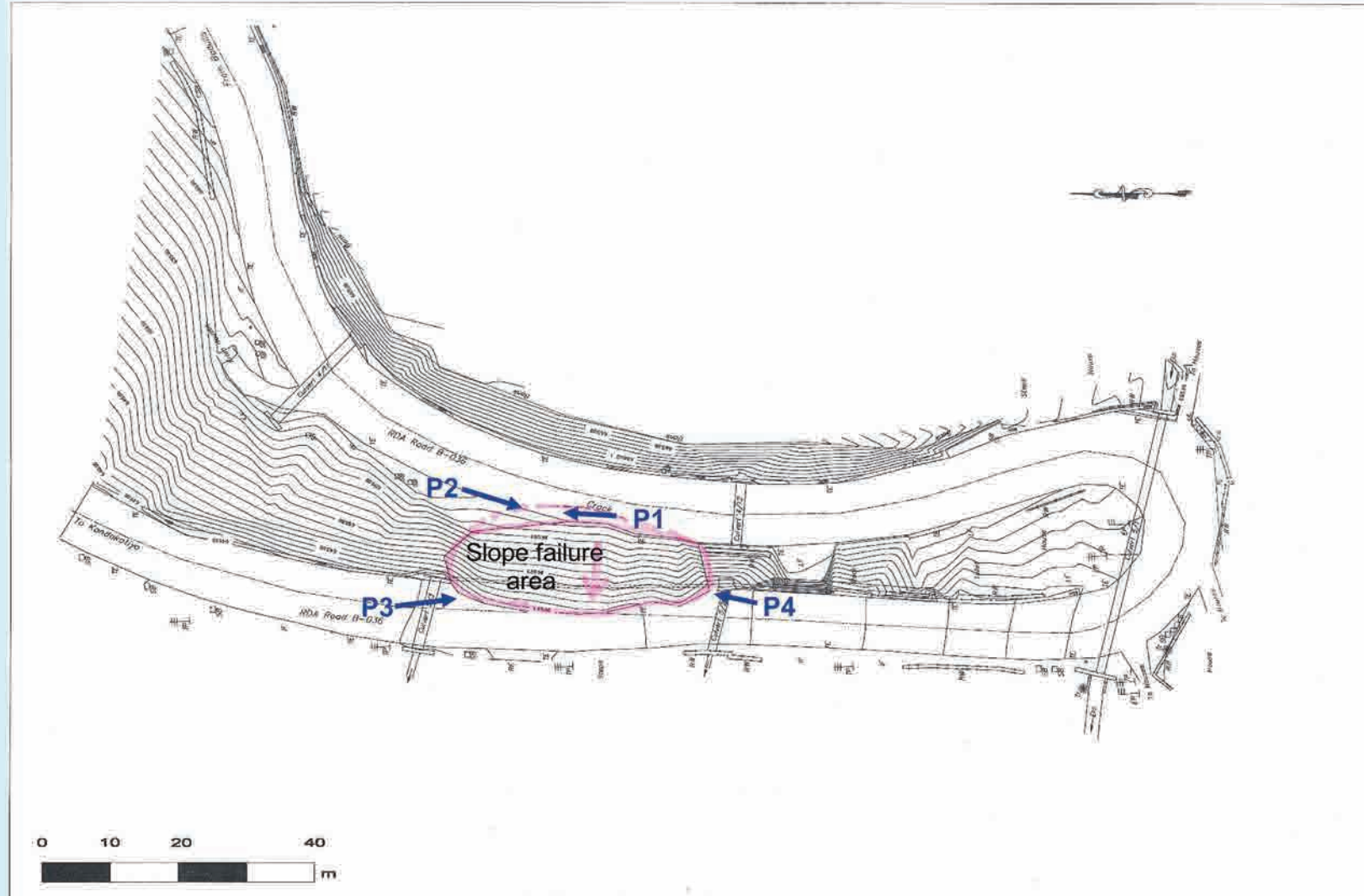


Inventory Sheet A

District	Badulla		Management office	Badulla		Road No	B-036	Road Name	Badulla - Karametiya - Andaulpotha road					
Site No.	37		Disaster Type	Slope Failure		Location	Start	3+985	End	4+130	latitude	7° 1'11.7"N	longitude	81° 3'12.9"E
Main body	Both	Traffic control		Hourly	mm	Traffic volume	Week day	2423/12h	holiday		Bus route		Detour	

Topo map/Sketch



A4-102
Plan

Site No.	37
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Inventory Sheet B

(Slope Failure, Rock Fall)

Checked by	Yang Pucai
Organization	JICA Survey Team

[Cause] (Ai)		Item	Cause	Classification	Point	score			
Topography	Topography with factor of	G1 : Talus slope		G1	3	5			
		G2 : Collapsed slope, Clear knick line		Not G1	0				
		G3 : Terrace scarp, Overhung slope		G2 and G3	3				
		Catachment slope, debris flow deposit		G2 oe G3	2				
					0	(6)			
Geological conditions	Soil property	Erodable soil (Mainly arenaceous soil)		Conspicuous	8	8			
		Silty sand, silty clay, clay		Slightly consequenous	4				
		Cobble, pebble		None	0				
						0	(8)		
	Rock character	Jointed rock, rocks that are weak against erosion and weathering.			Conspicuous	12	12		
					Slight conspicuous	6			
				None	0				
					0	(12)			
Geological Structure	Dip slope (bedding, weak plane)			Conspicuous	8	6			
				None	0				
				Conspicuous	6				
				Slightly conspicuous	4				
					0	(14)			
Surface condition	Surface soil, boulder, rock			Unstable	12	6			
				Slightly unstable	6				
				Stabel	0				
						0	(12)		
	Spring water			Natural water spring	8	0			
				Water seepage scar	4				
				Nil	0				
						0	(8)		
	Vegetation			No-vegetation, Grassland	5	3			
				Complex (grass, structure)	3				
				Structure	1				
						0	(5)		
Geometry	Height (H), gradient (i)	soil	H>30m		18	15			
			H<30, i > 30°		15				
			i < 30°, 15<H<30m		10				
			i < 30°, H<15m		5				
	rock	H>50m		18	18				
		30<H<50m		16					
		15<H<30m		12					
		H<15m		10					
							0	(18)	
		Deformation	Deformation of the survey slope (small soil and rock falls, gully erosion, scouring, depression, bulge, fallen tree, cracks, etc.)				More than one clear evidences	12	8
				Obscure evidence	8				
				No evidence	0				
					0	(18)			
Deformation of the adjacent slope (Rock fall, collapse, cracks, bulge, and other deformation)				More than one clear evidences	5	3			
				Obscure evidence	3				
			No evidence	0					
					0	(5)			
Total					(A)	60			

[Countermeasure] (B) = (A) +α or (A) ×0

Well effective against the potential slope failure and rock fall.	×0	
Effective but not completely against the potential rock fall and slope failure.	-20	
Not completely protected from the potential slope failure and rock fall.	-10	
No countermeasure was constructed, or the existing countermeasure cannot be expected effective.	±0	✓
Total		(B) 60

[History] (C)

Disaster history	point	check
The disaster has caused a traffic disturbance or closure after the recent implementation of countermeasures.	100	
No tramic disturbance has occurred but there is a record or comparatively serious rock falls and slope failures that reached to the road.	70	✓
There is a record of rock falls and slope failures on a small scale that that did not reach to the road.	40	
No disaster records	0	
(C)	70	

(D) = MAX (B,C)

Score from cause	(B)	60
Score from history	(c)	70
Among (B)&(C), large one.	(D)=MAX(B,C)	70

[Description]

Road is mendering in relatively large gradient at the site. Relatively to moderately weathered rock exposed at mountain side slope, however sediment of debris appear to be embanked at valley side slope. Spilt groundwater might reach tothe bedrock and flows in the debris sediment over bedrock, subsequently might damage stability of the road.

Site No.	37	Inventory Sheet C	Date	July 4, 2019
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P1 The slope failure occurring along the shoulder on the valley side slope of the road



P3 The collapsed materials reaching the central line of the road



P2 Cracks observed near the central line of the road, showing a potential for further slope failure

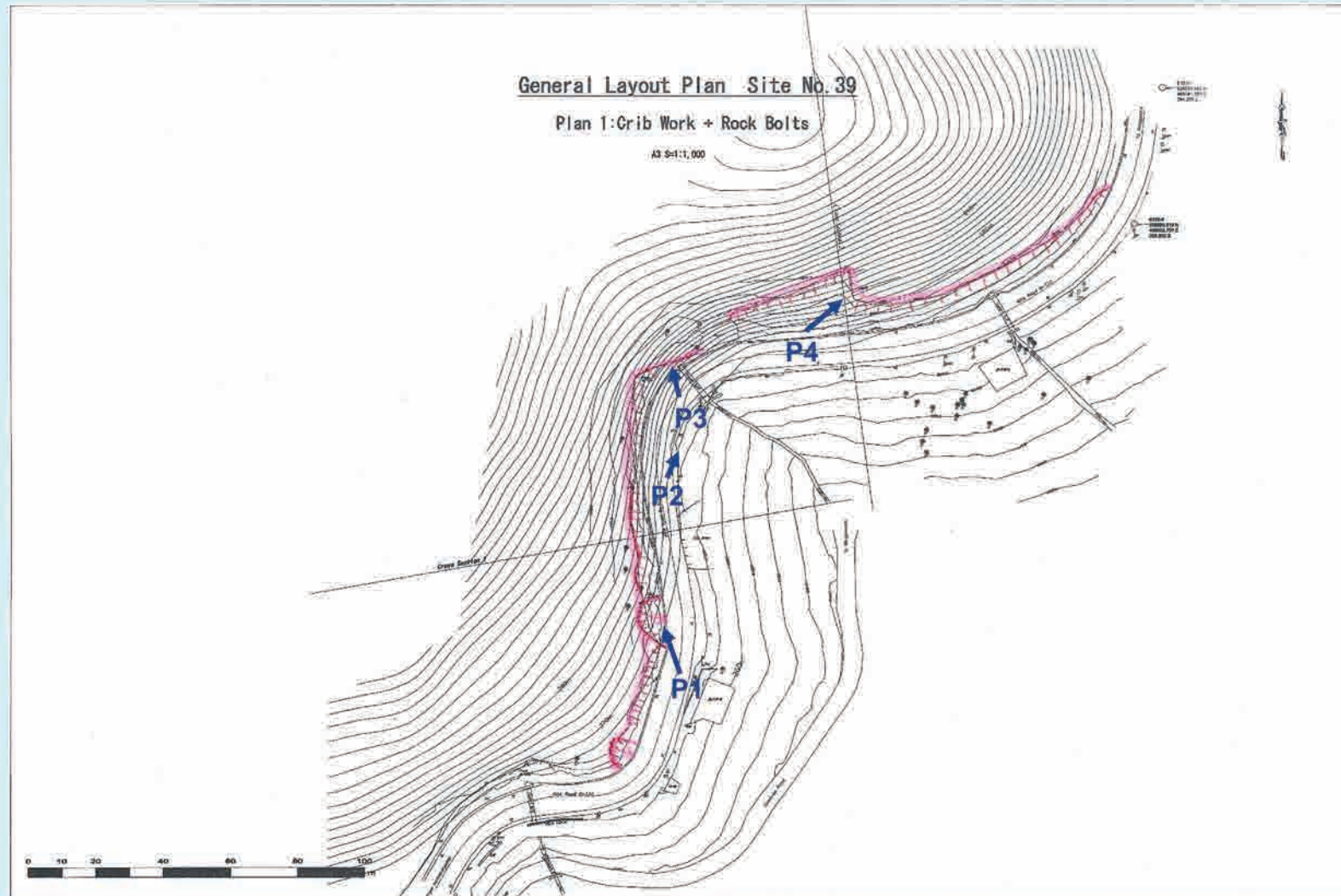


P4 Near-vertical joints observed near the slope failure, showing potential vertical failure surface

Inventory Sheet A

District	Kandy		Management office	Kandy		Road No	B-122	Road Name	Galagedara - Rambukkana					
Site No.	39		Disaster Type	Slope Failure		Location	Start	8/2	End	8/4	latitude	7°21'07.3"N	longitude	80°29'09.9"E
Main body	Mountain side	Traffic control		Hourly	mm	Traffic volume	Week day	2355/12h	holiday		Bus route		Detour	

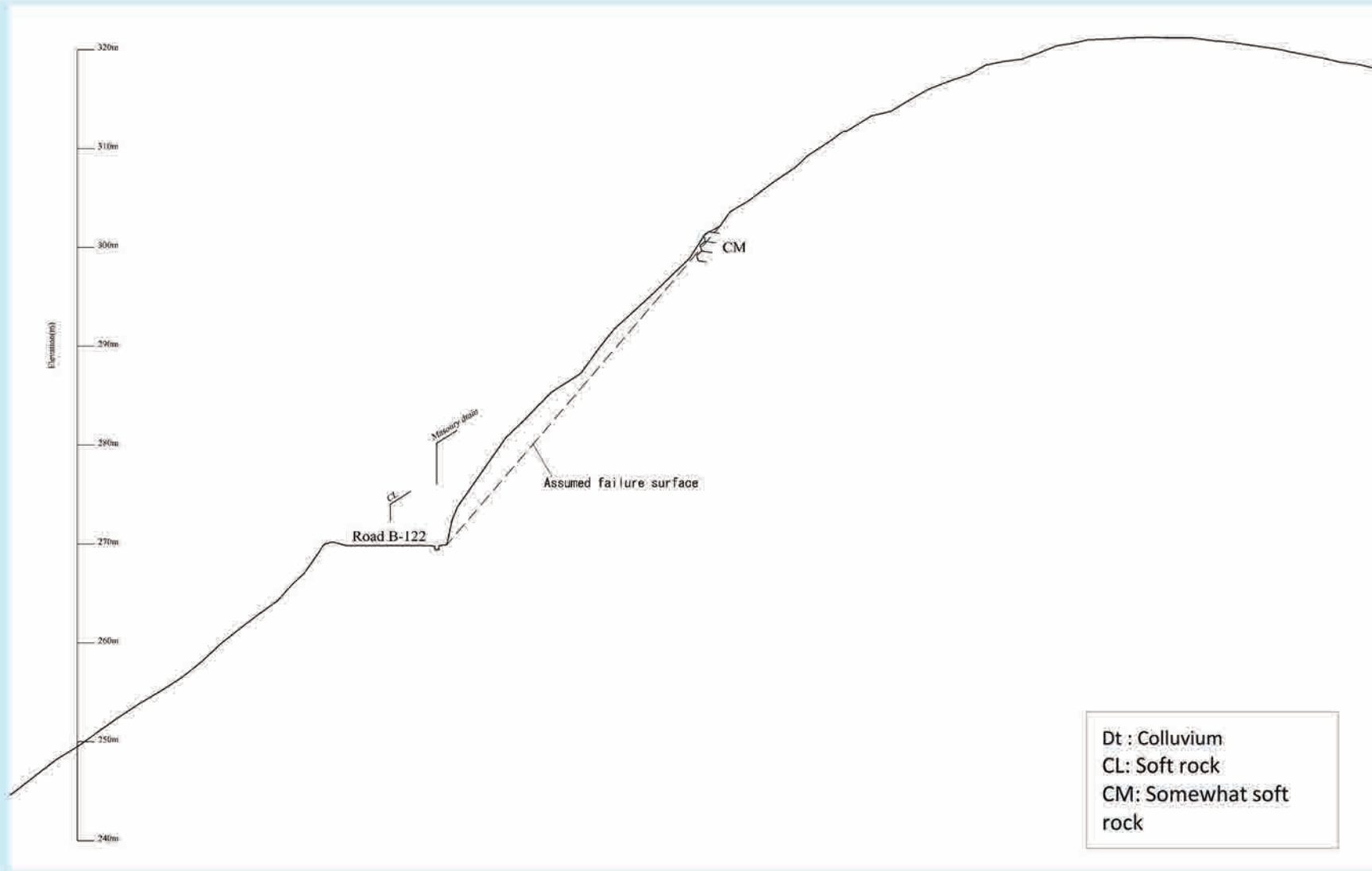
Topo map/Sketch



Plan A4-106

Inventory Sheet A

Cross Section



Cross Section

Site No.	39
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Inventory Sheet B

(Slope Failure • Rock Fall)

Checked by	Yang Pucai
Organization	JICA Survey Team

[Cause] (A)					
Item	Cause	Classification	Point	score	
Topography	Topography with factor of	G1 : Talus slope	3	5	
		G2 : Collapsed slope, Clear knick line	0		
		G3 : Terrace scarp, Overhung slope	3		
		Catachment slope, debris flow deposit	2		
			0	(6)	
Geological conditions	Soil property	Erodable soil (Mainly arenaceous soil)	8	4	
		Silty sand, silty clay, clay	4		
		Cobble, pebble	0		
	Rock character	Jointed rock, rocks that are weak against erosion and weathering.	12	12	
		Slight conspicuous	6		
		None	0		
Geological Structure	Dip slope (bedding, weak plane)	Conspicuous	8	4	
		None	0		
	Soft soil coverline baserock, Hard rock overlies weak rock, Others	Conspicuous	6		
		Slightly conspicuous	4		
			0	(14)	
Surface condition	Surface soil, boulder, rock	Unstable	12	6	
		Slightly unstable	6		
		Stabel	0		
	Spring water	Natural water spring	8	4	
		Water seepage scar	4		
		Nil	0		
Vegetation	No-vegetation, Grassland	5	3		
	Complex (grass, structure)	3			
	Structure	1			
			0	(5)	
Geometry	Height (H), gradient (i)	soil	H>30m	18	15
			H<30, i > 30°	15	
		rock	i < 30°, 15<H<30m	10	
			i < 30°, H<15m	5	
	rock	H>50m	18		
		30<H<50m	16		
		15<H<30m	12		
		H<15m	10		
			0	(18)	
Deformation	Deformation of the survey slope (small soil and rock falls, gully erosion, scouring, depression, bulge, fallen tree, cracks, etc.)	More than one clear evidences	12	8	
		Obscure evidence	8		
		No evidence	0		
	Deformation of the adjacent slope (Rock fall, collapse, cracks, bulge, and other deformation)	More than one clear evidences	5	3	
		Obscure evidence	3		
		No evidence	0		
			0	(5)	
Total			(A)	60	

[Countermeasure] (B) = (A) +α or (A) ×0

Well effective against the potential slope failure and rock fall.	×0	
Effective but not completely against the potential rock fall and slope failure.	-20	
Not completely protected from the potential slope failure and rock fall.	-10	
No countermeasure was constructed, or the existing countermeasure cannot be expected effective.	±0	✓
Total		(B) 60

[History] (C)

Disaster history	point	check
The disaster has caused a traffic disturbance or closure after the recent implementation of countermeasures.	100	
No traffic disturbance has occurred but there is a record of comparatively serious rock falls and slope failures that reached to the road.	70	
There is a record of rock falls and slope failures on a small scale that that did not reach to the road.	40	✓
No disaster records	0	
(C)		40

(D) = MAX (B,C)

Score from cause	(B)	60
Score from history	(c)	40
Among (B)&(C), large one.	(D)=MAX(B,C)	60

[Description]

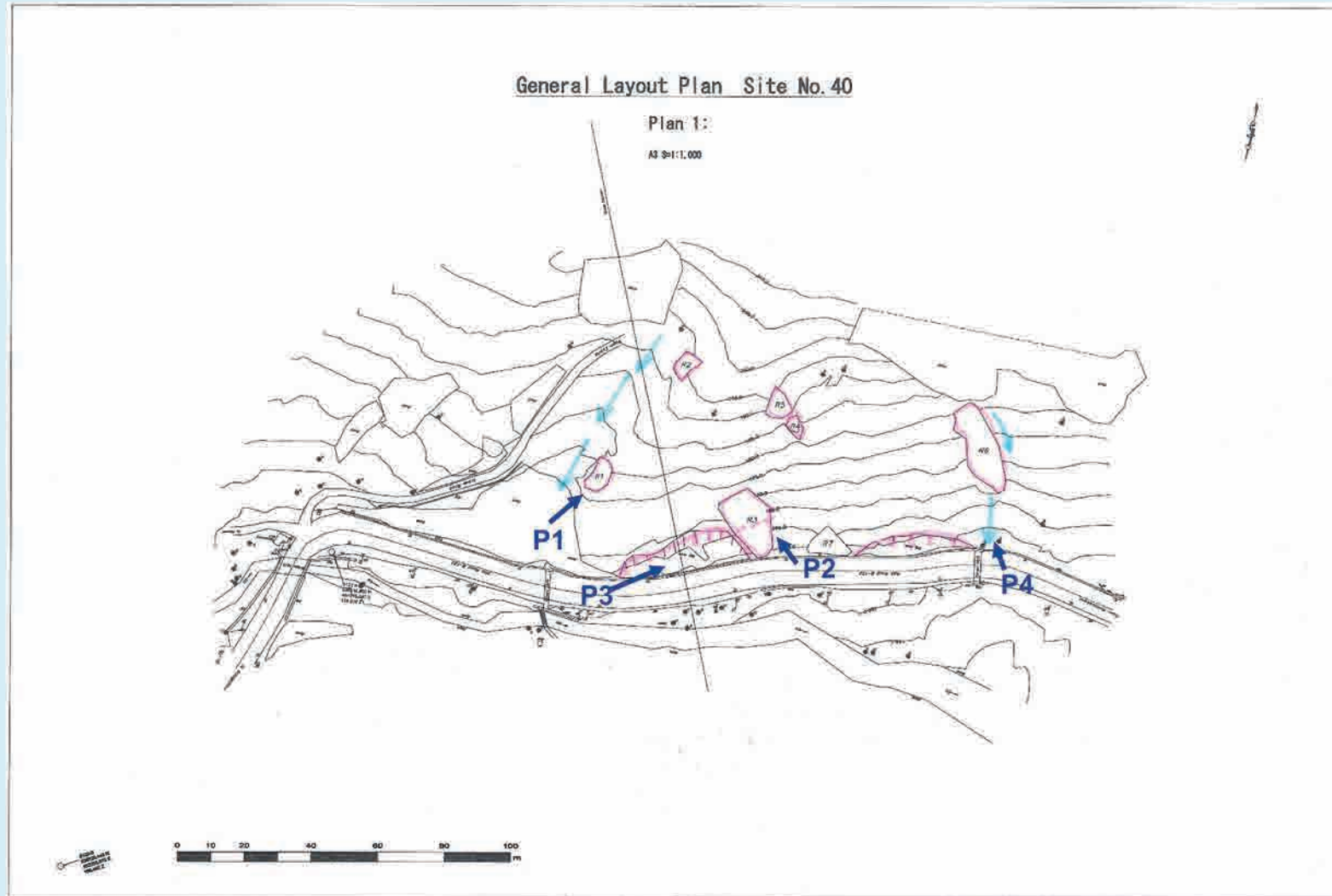
Slopes are relatively steep and composed mainly of weathered rock. Large to small scale of slope failures are observed at places along the road.

Site No.	39	Inventory Sheet C		Date	July 3, 2019
					
<p>P1 The slope failure occurring on the cut slope above the road (failure depth: 2~3m)</p>		<p>P3 The situation of the cut slope around the mountain stream</p>			
					
<p>P2 A small slope failure on the valley side slope below the road</p>		<p>P4 The slope failure occurring on the cut slope above the road (failure high: about 20m)</p>			

Inventory Sheet A

District	Kandy		Management office	Kandy		Road No	B-122	Road Name	Galagedara - Rambukkana					
Site No.	40		Disaster Type	Slope Failure		Location	Start	18/3	End	18/5	latitude	7°19'53.8"N	longitude	80°25'39.5"E
Main body	Mountain side	Traffic control		Hourly	mm	Traffic volume	Week day	2355/12h	holiday		Bus route		Detour	

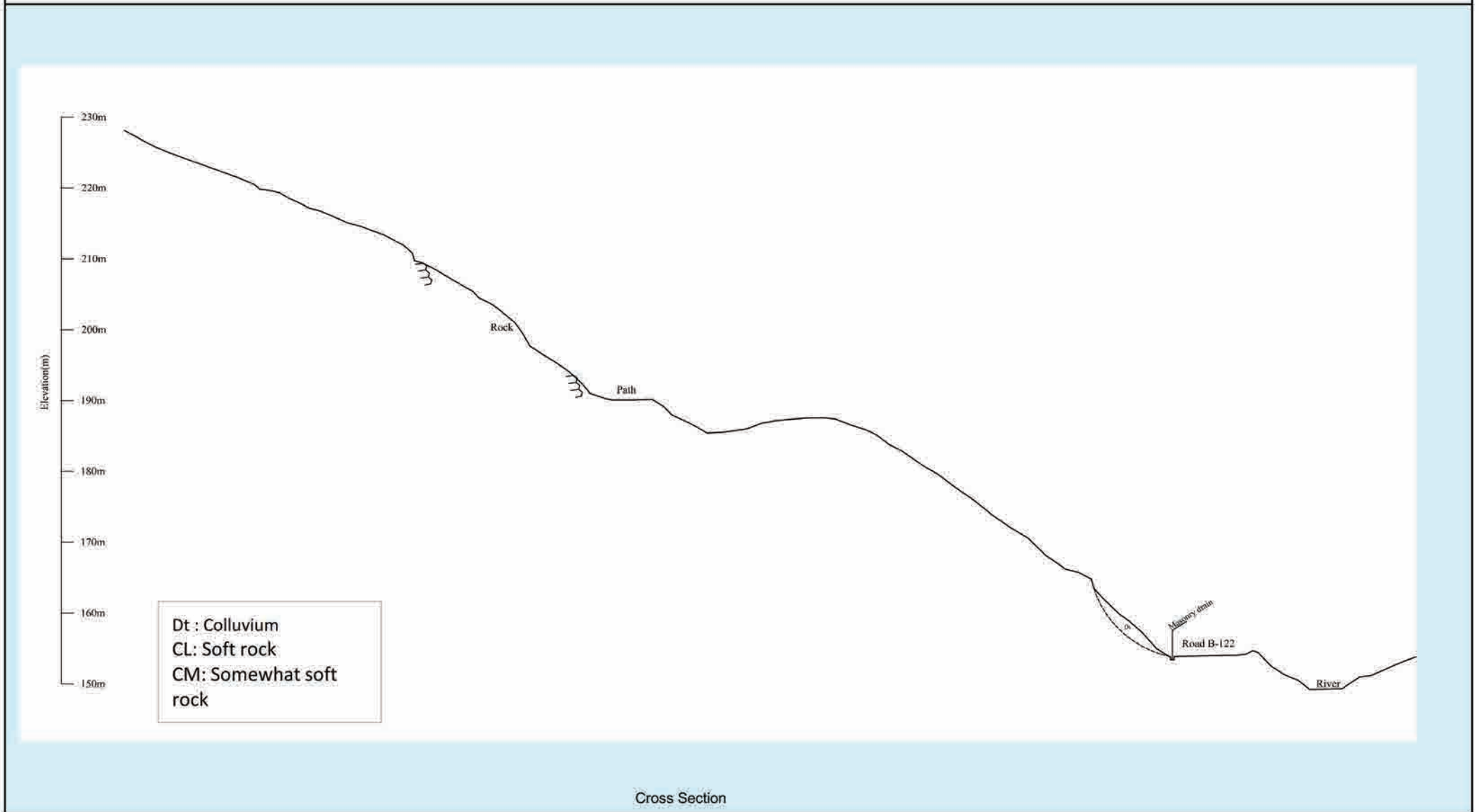
Topo map/Sketch



Plan A4-110

Inventory Sheet A

Cross Section



Cross Section

Site No.	40
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Inventory Sheet B

(Slope Failure, Rock Fall)

Checked by	Yang Pucal
Organization	JICA Survey Team

[Cause] (A)							
Item	Cause	Classification	Point	score			
Topography	Topography with factor of	G1 : Talus slope	3	5			
		G2 : Collapsed slope, Clear knick line	0				
		G2 and G3	3				
		G3 : Terrace scarp, Overhung slope	2				
		Catachment slope, debris flow deposit	0				
		No G2 and G3	0				
			(6)				
Soil property	Erodable soil (Mainly arenaceous soil)	Conspicuous	8	8			
		Slightly consequenous	4				
		Cobble , pebble	0				
					(8)		
		Rock character	Jointed rock, rocks that are weak against erosion and weathering.		Conspicuous	12	6
					Slight conspicuous	6	
None	0						
			(12)				
Geological Structure	Dip slope (bedding, weak plane)	Conspicuous	8	14			
		None	0				
					(8)		
		Soft soil coverline baserock, Hard rock overlies weak rock, Others	Conspicuous		6	14	
			Slightly conspicuous		4		
			None		0		
			(14)				
Surface condition	Surface soil, boulder, rock	Unstable	12	12			
		Slightly unstable	6				
		Stabel	0				
				(12)			
	Spring water	Natural water spring	8	4			
		Water seepage scar	4				
		Nil	0				
				(8)			
	Vegetation	No-vegetation, Grassland	5	3			
Complex (grass, structure)		3					
Structure		1					
			(5)				
Geometry	Height (H), gradient (i)	soil	H>30m	18	10		
			H<30, i > 30°	15			
			i < 30°, 15<H<30m	10			
			i <30°, H<15m	5			
		rock	H>50m	18			
			30<H<50m	16			
			15<H<30m	12			
			H<15m	10			
			(18)				
Deformation	Deformation of the survey slope (small soil and rock falls, gully erosion, scouring, depression, bulge, fallen tree, cracks, etc.)	More than one clear evidences	12	12			
		Obscure evidence	8				
		No evidence	0				
				(18)			
	Deformation of the adjacent slope (Rock fall, collapse, cracks, bulge, and other deformation)	More than one clear evidences	5	3			
		Obscure evidence	3				
No evidence		0					
			(5)				
Total			(A)	63			

[Countermeasure] (B) = (A) +α or (A) ×0

Well effective against the potential slope failure and rock fall.	×0	
Effective but not completely against the potential rock fall and slope failure.	-20	
Not completely protected from the potential slope failure and rock fall.	-10	
No countermeasure was constructed, or the existing countermeasure cannot be expected effective.	±0	✓
Total		(B) 63

[History] (C)

Disaster history	point	check
The disaster has caused a traffic disturbance or closure after the recent implementation of countermeasures.	100	
No trafic disturbance has occurred but there is a record of comparatively serious rock falls and slope failures that reached to the road.	70	✓
There is a record of rock falls and slope failures on a small scale that that did not reach to the road.	40	
No disaster records	0	
(C)		70

(D) =MAX (B,C)

Score from cause	(B)	63
Score from history	(c)	70
Among (B)&(C), large one.	(D)=MAX(B,C)	70

[Description]

Slopes are relatively low height of less than 10m in general. Slopes consist of relatively fresh to moderately weathered rocks and failures are observed at places along the road. Boulders of relatively large more than 2m in diameter are observed at places around the road.

Site No.	40	Inventory Sheet C	Date	July 3, 2019
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P1 Unstable huge rock block around the mountain stream



P3 The slope failure occurring on the cut slope above the road (failure high: about 15m)



P2 Huge rock blocks fractured by cracks, showing a potential for rockfall

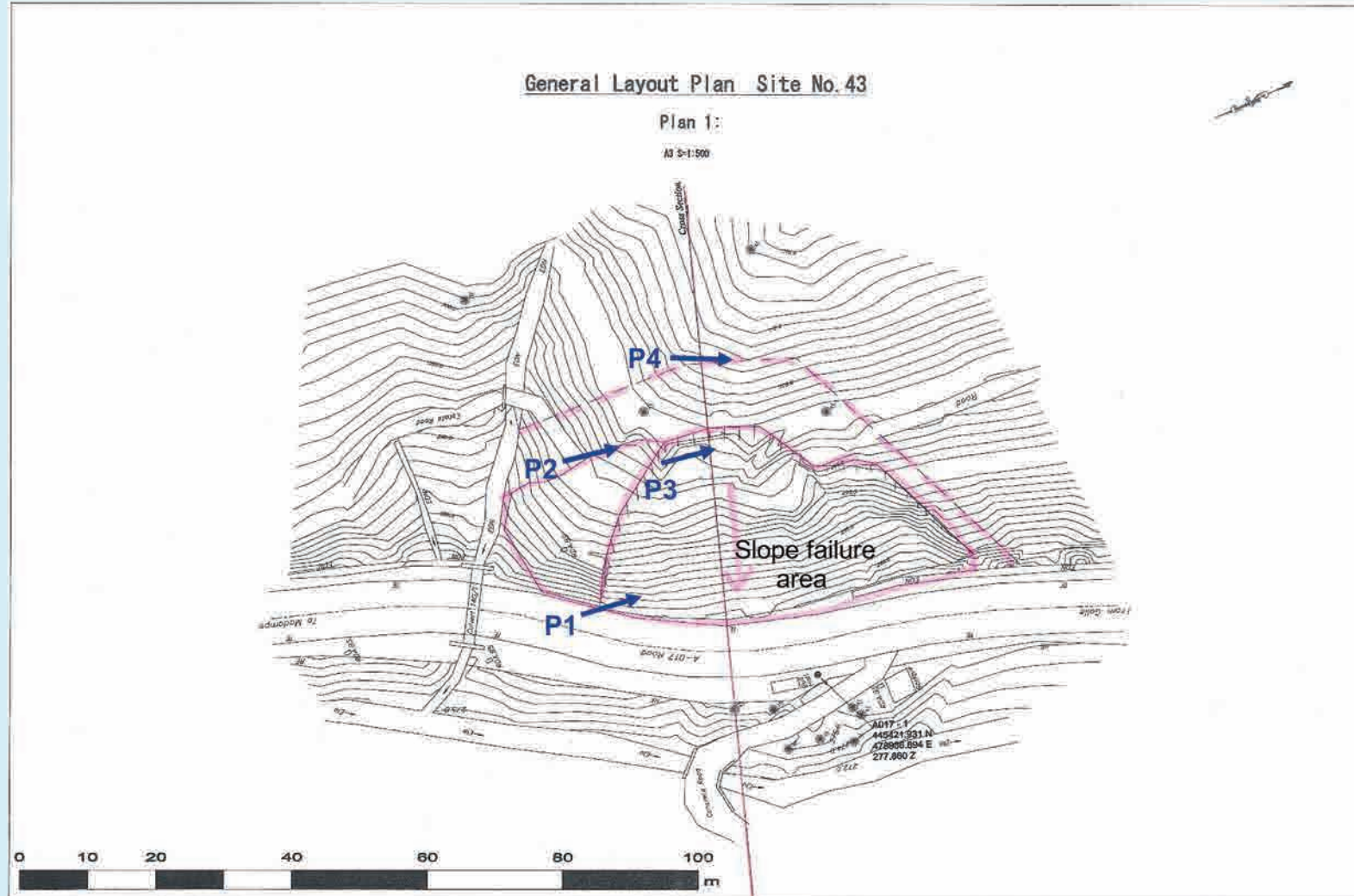


P4 Trace of the surface flow, which removed the sediments around the huge boulders and thus promoted instability

Inventory Sheet A

District	Ratnapura	Management office	Pelmadulla	Road No	A-017	Road Name	Galle-Deniyaya-Madampe road							
Site No.	43		Disaster Type	Slope Failure		Location	Start	139	End	140/1	latitude	6°30'26.2"N	longitude	80°35'02.3"E
Main body	Mountain side	Traffic control	Hourly	mm	Traffic volume	Week day	3457/12h	holiday		Bus route		Detour		

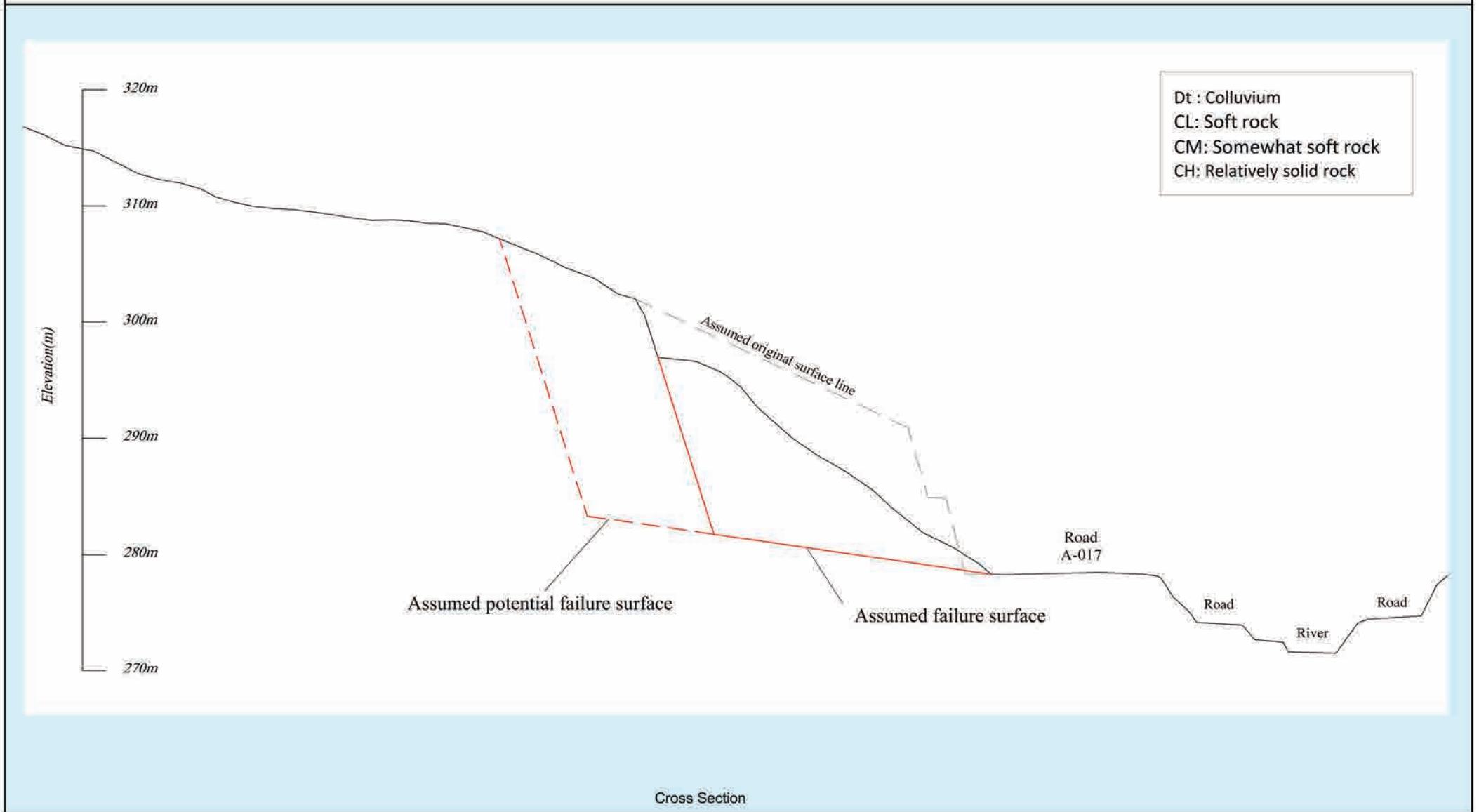
Topo map/Sketch



Plan A4-114

Inventory Sheet A

Cross Section



Site No.	43
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Inventory Sheet B

(Slope Failure) Rock Fall)

Checked by	Yang Pucai
Organization	JICA Survey Team

[Cause] (A)					
Item	Cause	Classification	Point	score	
Topography Topography with factor of	G1 : Talus slope	G1	3	5	
	G2 : Collapsed slope, Clear knick line	Not G1	0		
	G3 : Terrace scarp, Overhung slope	G2 and G3	3		
		Catachment slope, debris flow deposit	G2 or G3		2
	No G2 and G3	0	(6)		
Geological conditions Soil property	Erodable soil (Mainly arenaceous soil)	Conspicuous	8	8	
	Silty sand, silty clay, clay	Slightly consequenous	4		
		Cobble , pebble	None		0
	Rock character	Jointed rock, rocks that are weak against erosion and weathering.	Conspicuous	12	6
			Slight conspicuous	6	
			None	0	
Geological Structure	Dip slope (bedding, weak plane)	Conspicuous	8	4	
		None	0		
	Soft soil coverline baserock, Hard rock overlies weak rock, Others	Conspicuous	6		
		Slightly conspicuous	4		
None	0	(14)			
Surface condition	Surface soil, boulder, rock	Unstable	12	12	
		Slightly unstable	6		
		Stabel	0		(12)
	Spring water	Natural water spring	8	4	
		Water seepage scar	4		
		Nil	0		(8)
	Vegetation	No-vegetation, Grassland	Complex (grass, structure)	5	3
Structure			3		
1			(5)		
Geometry	Height (H), gradient (i)	soil	H>30m	18	15
			H<30, i > 30°	15	
		rock	i < 30°, 15<H<30m	10	
			i <30°, H<15m	5	
	rock	H>50m	18		
		30<H<50m	16		
		15<H<30m	12		
H<15m	10	(18)			
Deformation	Deformation of the survey slope (small soil and rock falls, gully erosion, scouring, depression, bulge, fallen tree, cracks, etc.)	More than one clear evidences	12	12	
		Obscure evidence	8		
		No evidence	0		(18)
	Deformation of the adjacent slope (Rock fall, collapse, cracks, bulge, and other deformation)	More than one clear evidences	5	3	
		Obscure evidence	3		
		No evidence	0		(5)
Total score			(A)	68	

[Countermeasure] (B) = (A) +α or (A) ×0

Well effective against the potential slope failure and rock fall.	×0	
Effective but not completely against the potential rock fall and slope failure.	-20	
Not completely protected from the potential slope failure and rock fall.	-10	
No countermeasure was constructed, or the existing countermeasure cannot be expected effective.	±0	✓
sum total	(B)	68

[History] (C)

Disaster history	point	check
The disaster has caused a traffic disturbance or closure after the recent implementation of countermeasures.	100	
No trafic disturbance has occurred but there is a record of comparatively serious rock falls and slope failures that reached to the road.	70	
There is a record of rock falls and slope failures on a small scale that that did not reach to the road.	40	✓
No disaster records	0	
(C)	40	

(D) =MAX (B,C)

Score from cause	(B)	68
Score from history	(c)	40
Among (B)&(C), large one.	(D)=MAX(B,C)	68

[Description]

Slopes are relatively gentle and consist of moderately to highly weathered rocks. Talus deposits and sediments of debris are distributed both sides of the road. A failure of around 40m in width is observed at 139km point. The site is in the tea plantation area.

Site No.	43	Inventory Sheet C	Date	July 23, 2019
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P1 Whole view of the slope failure looking upper slope from the road



P3 The main scarp of the slope failure (scarp high: about 6m)



P2 The failure scarp and cracks along the slope failure

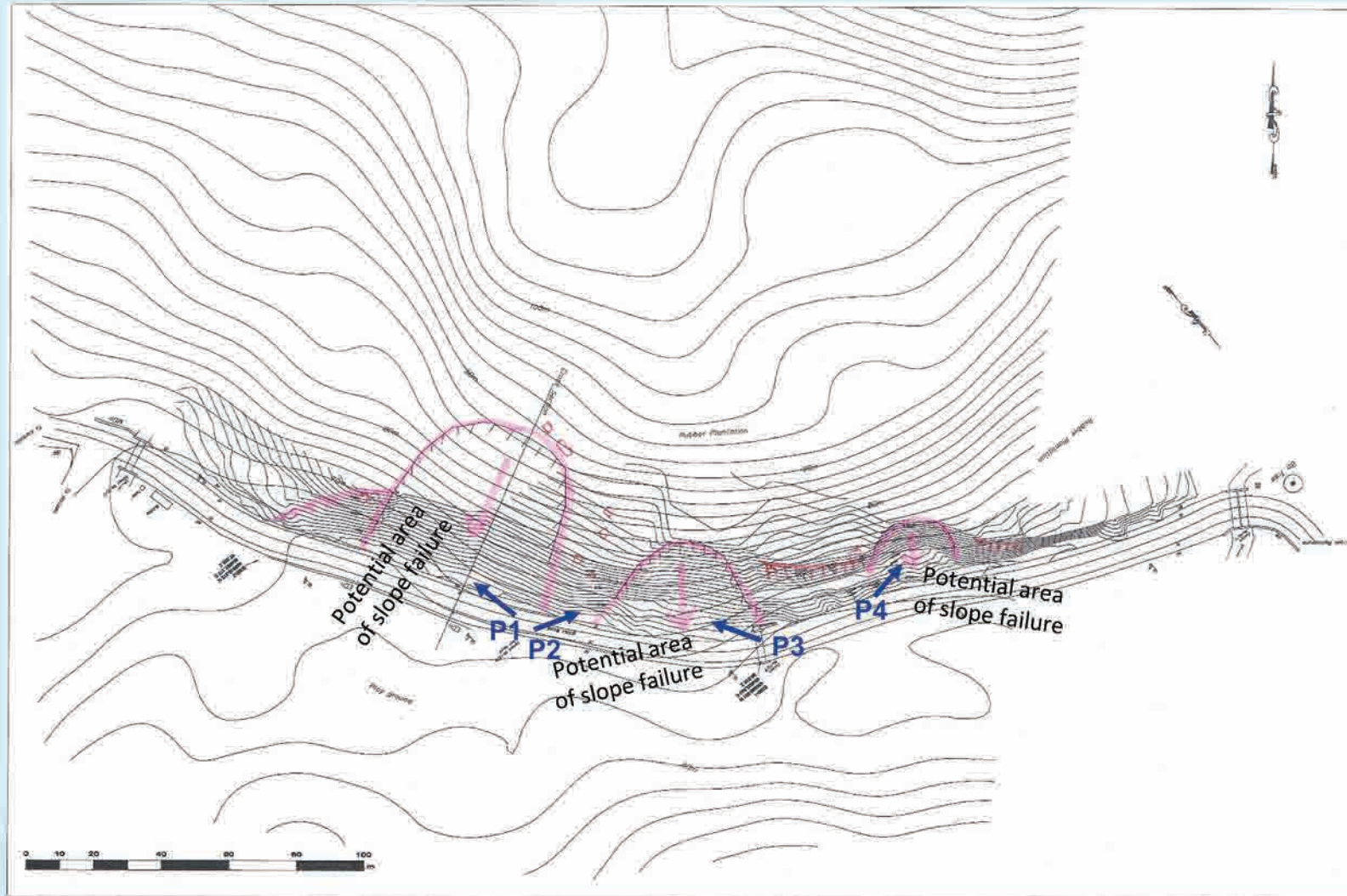


P4 Stepped landform above the slope failure, showing potential instability toward the upper slope

Inventory Sheet A

District	Rathnapura	Management office	Rathnapura	Road No	B-390	Road Name	Ratnapura- Palawela- Karavita Road							
Site No.	48		Disaster Type	Slope Failure		Location	Start	12/4	End	12/7	latitude	6°37'41.5"N	longitude	80°21'46.2"E
Main body	Mountain side	Traffic control		Hourly	mm	Traffic volume	Week day	7888/12h	holiday		Bus route		Detour	

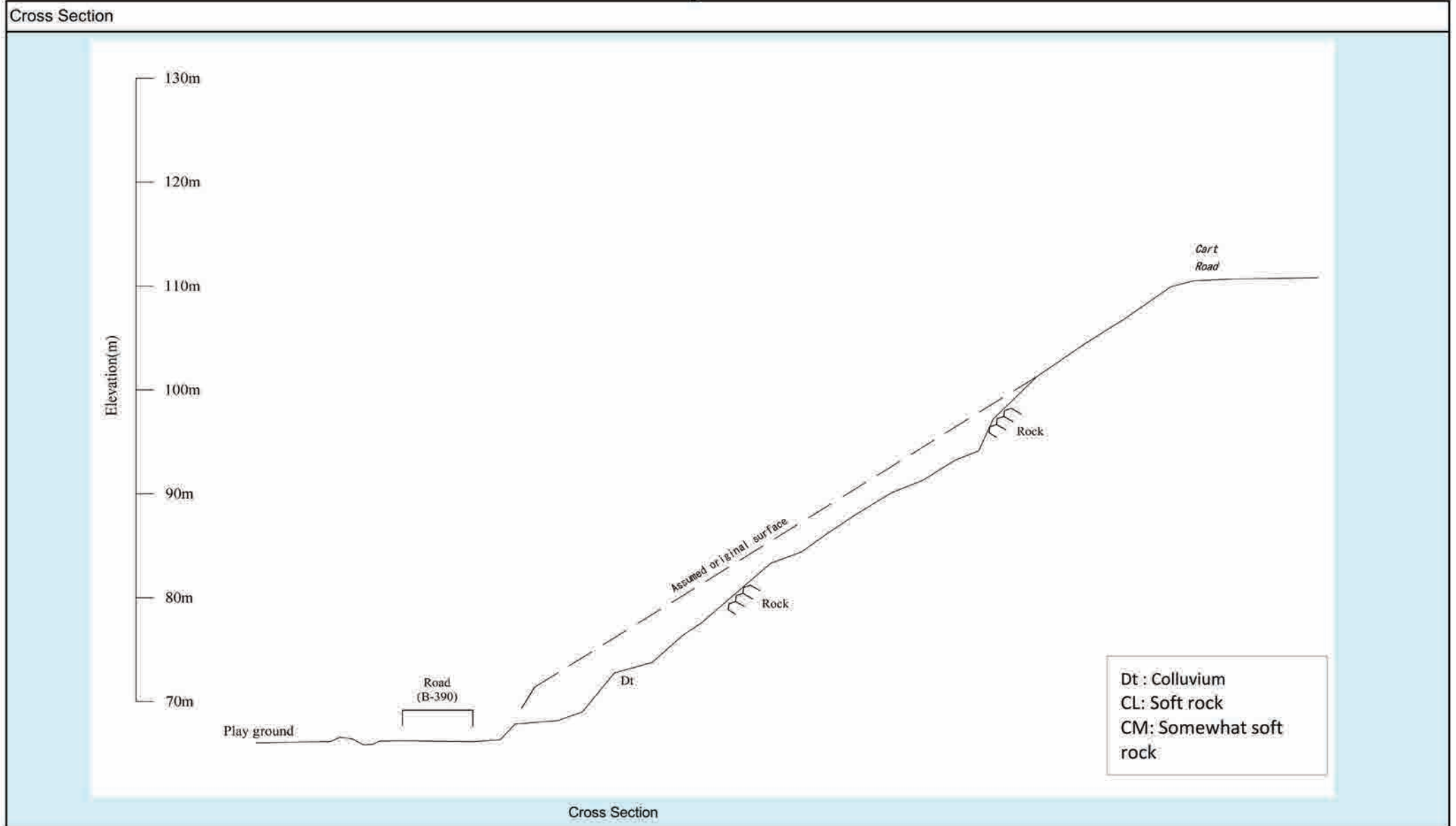
Topo map/Sketch



Plan

A4-118

Inventory Sheet A



Site No.	48
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Inventory Sheet B

(Slope Failure) Rock Fall)

Checked by	Yang Pucai
Organization	JICA Survey Team

[Cause] (A)					
Item	Cause	Classification	Point	score	
Topography	Topography with factor of	G1 : Talus slope	3	5	
		G2 : Collapsed slope, Clear knick line	0		
		G3 : Terrace scarp, Overhung slope	3		
		Catachment slope, debris flow deposit	2		
			0	(6)	
Geological conditions	Soil property	Erodable soil (Mainly arenaceous soil)	8	8	
		Silty sand, silty clay, clay	4		
		Cobble, pebble	0		
	Rock character	Jointed rock, rocks that are weak against erosion and weathering.	12	6	
		Slight conspicuous	6		
		None	0		
			0	(12)	
Geological Structure	Dip slope (bedding, weak plane)	Conspicuous	8	0	
		None	0		
	Soft soil coverline baserock, Hard rock overlies weak rock, Others	Conspicuous	6		
		Slightly conspicuous	4		
			0	(14)	
Surface condition	Surface soil, boulder, rock	Unstable	12	12	
		Slightly unstable	6		
		Stabel	0		
				0	(12)
	Spring water	Natural water spring	8	8	
		Water seepage scar	4		
		Nil	0		
				0	(8)
	Vegetation	No-vegetation, Grassland	Complex (grass, structure)	5	3
			Structure	3	
Structure			1		
			0	(5)	
Geometry	Height (H), gradient (i)	soil	H>30m	18	15
			H<30, i > 30°	15	
			i < 30°, 15<H<30m	10	
			i <30°, H<15m	5	
		rock	H>50m	18	
			30<H<50m	16	
			15<H<30m	12	
			H<15m	10	
			0	(18)	
Deformation	Deformation of the survey slope (small soil and rock falls, gully erosion, scouring, depression, bulge, fallen tree, cracks, etc.)	More than one clear evidences	12	12	
		Obscure evidence	8		
		No evidence	0		
				0	(12)
	Deformation of the adjacent slope (Rock fall, collapse, cracks, bulge, and other deformation)	More than one clear evidences	5	3	
		Obscure evidence	3		
No evidence		0			
			0	(5)	
Total			(A)	78	

[Countermeasure] (B) = (A) +α or (A) ×0

Well effective against the potential slope failure and rock fall.	×0	
Effective but not completely against the potential rock fall and slope failure.	-20	
Not completely protected from the potential slope failure and rock fall.	-10	
No countermeasure was constructed, or the existing countermeasure cannot be expected effective.	±0	✓
Total		(B) 78

[History] (C)





Disaster history	point	check
The disaster has caused a traffic disturbance or closure after the recent implementation of countermeasures.	100	
No traffic disturbance has occurred but there is a record of comparatively serious rock falls and slope failures that reached to the road.	70	✓
There is a record of rock falls and slope failures on a small scale that that did not reach to the road.	40	
No disaster records	0	
(C)		70

(D) =MAX (B,C)

Score from cause	(B)	78
Score from history	(c)	70
Among (B)&(C), large one.	(D)=MAX(B,C)	78

[Description]

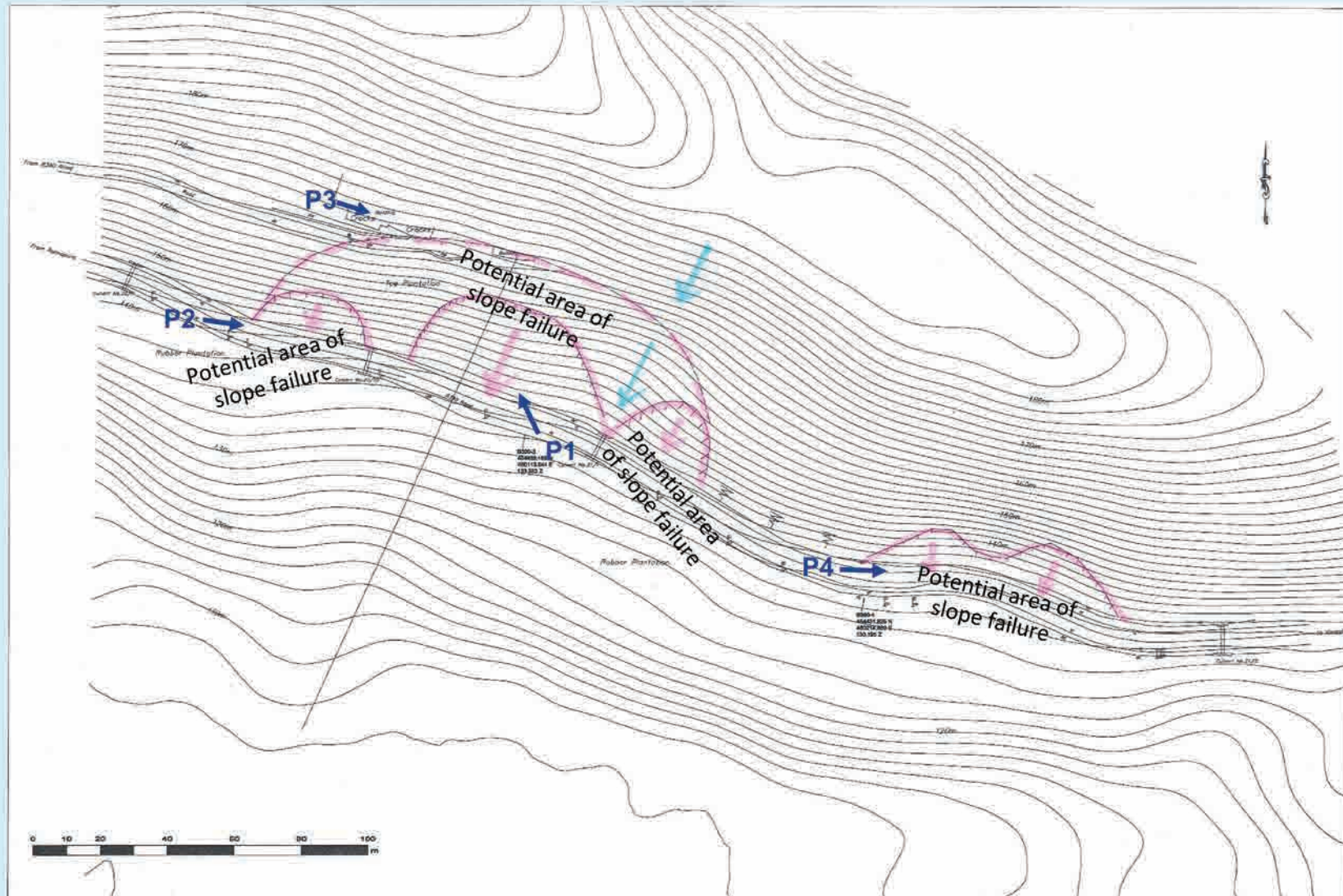
Slopes of relatively gentle gradient with large boulders 1 to 5m in diameter are observed on the slope. Bedrock is outcropped upper part of slope. Unconsolidated talus deposits and overburden debris are widely distributed, and unconsolidated materials are spilt into the road section at places. Some boulders are also observed in upper part of the road. Relatively flat area is distributed in the other side of the road.

Site No.	48	Inventory Sheet C		Date	July 23, 2019
					
<p>P1 Whole view of the slope failure, showing economical plantation above the slope failure.</p>		<p>P3 The progress of the slope failure toward the upper slope of the road cut slope on the upper part of strongly weathered rocks</p>			
					
<p>P2 The cut slope situation above the road</p>		<p>P4 The slope failure on the cut slope above the road (failure height: about 12m)</p>			

Inventory Sheet A

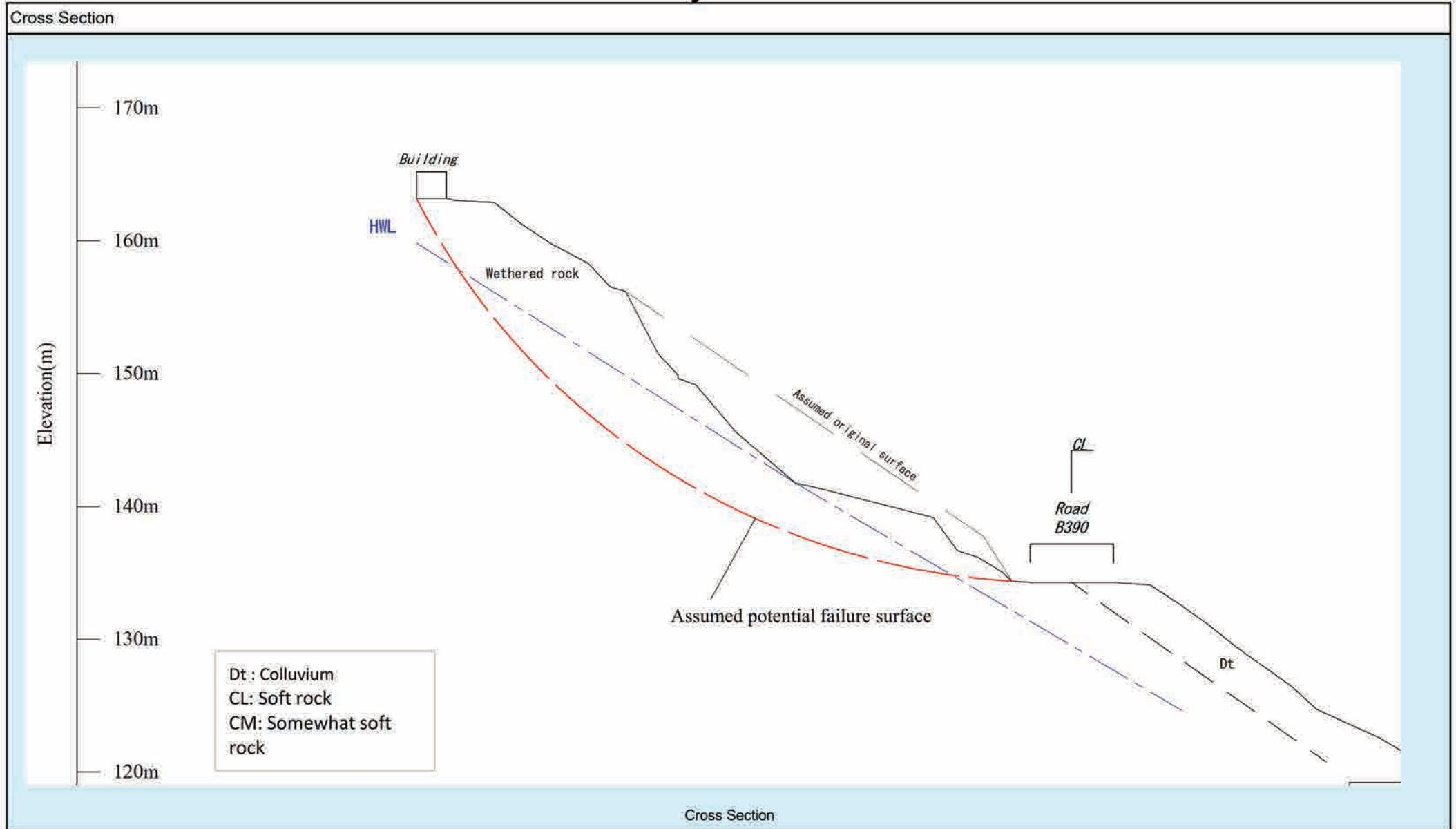
District	Rathnapura	Management office	Rathnapura	Road No	B-390	Road Name	Rathnapura- Palawela- Karavita Road						
Site No.	49	Disaster Type	Landslide	Location	Start	20/9	End	21/3	latitude	6°35'20.7"N	longitude	80°24'46.4"E	
Main body	Mountain side	Traffic control	Hourly	mm	Traffic volume	Week day	7888/12h	holiday		Bus route		Detour	

Topo map/Sketch



A4 J22
Plan

Inventory Sheet A



Site No.	49
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Inventory Sheet B

(Landslide)

Checked by	Yang Pucai
Organization	JICA Survey Team

[Factor] (A)

Item	Check Point		check	score
Landslide Topography	A scarp, hilly topography or gentle slope, disorder of contour lines, bulge on river bank is observed.	Clear	30	15 (30)
		Fairly clear	15	
		Unclear	7	
Geological conditions	Geological structure	Fault, shered zone	18	14
		Volcanic alteration zone	18	
		Dip slope	14	
		Opposite dip slope	7	
		Intrusive structure, Cap rock structure	3	
		Others	0	
	Geological material	Mesozoic/palaeozonic formations	7	7
		Tertiary formation (sedimentary rocks)	7	
		Quaternary formation (mudstone, etc)	3	
		Others (Volcanic rock, Igneous rock)	0	
	Spring Water	Present	5	5
Absent		0	(5)	
Total			41	

(C)=MAX(A,B)

Score evaluated from cause	(A)	41
Score evaluated from history	(B)	100
Among (B)&(C), large one.	(C)=MAX(A,B)	100

[Countermeasure] (D) = (c) + α or (c) x 0

Category		point (α)	check
No countermeasure		±0	✓
Effectiveness of countermeasure	No effect	±0	
	Slight effect	-30	
	High effect	x0	
Total		(D)	100

[History] (B)

Item	Check Point		check	score
Landslide history	Record (documental or patrimony)	Present	100	100 (100)
		Absent	0	
Landslide deformation	Scarp in slope, Bulge and depression, Subsidence, Upheaval and cracks on road surface, Deformation of countermeasure works	Clear	100	75 (100)
		Fairly clear	75	
		Unclear	0	
Total			(B)	100

[Description]

Slopes of relatively gentle gradient are observed on the slope. Weathered bedrock is outcropped upper part of the slope. Unconsolidated talus deposits and overburden debris are widely distributed, and unconsolidated materials are spill into the road section at places.

Site No.	49	Inventory Sheet C	Date	July 23, 2019
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P1 Whole view of the landslide occurring on the cut slope above the road



P3 Cracks observed on the house guard above the landslide area



P2 The deformation situation of the cut slope above the road, showing abundant springs

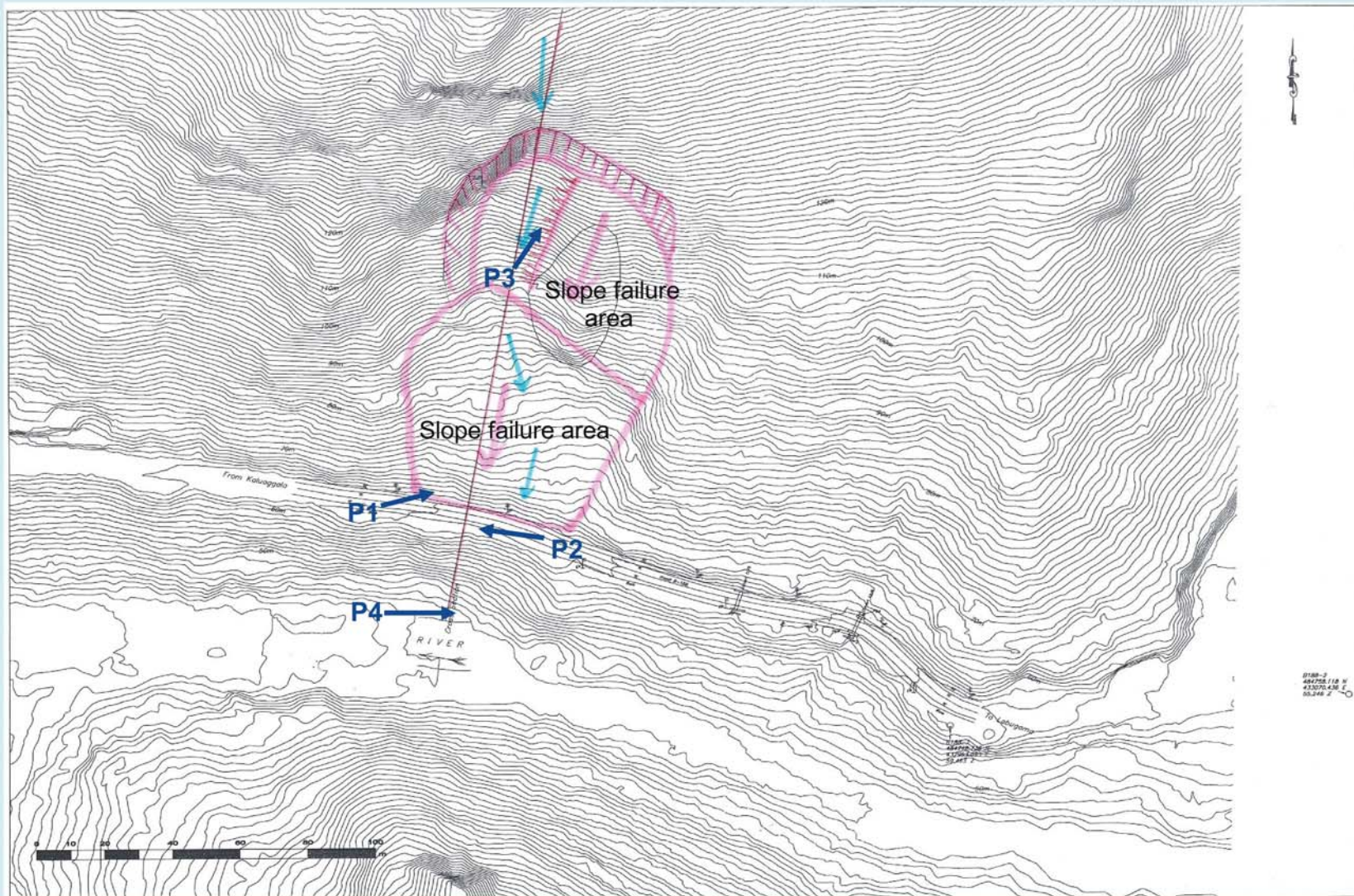


P4 Local surface failures occurring on the cut slope above the road.

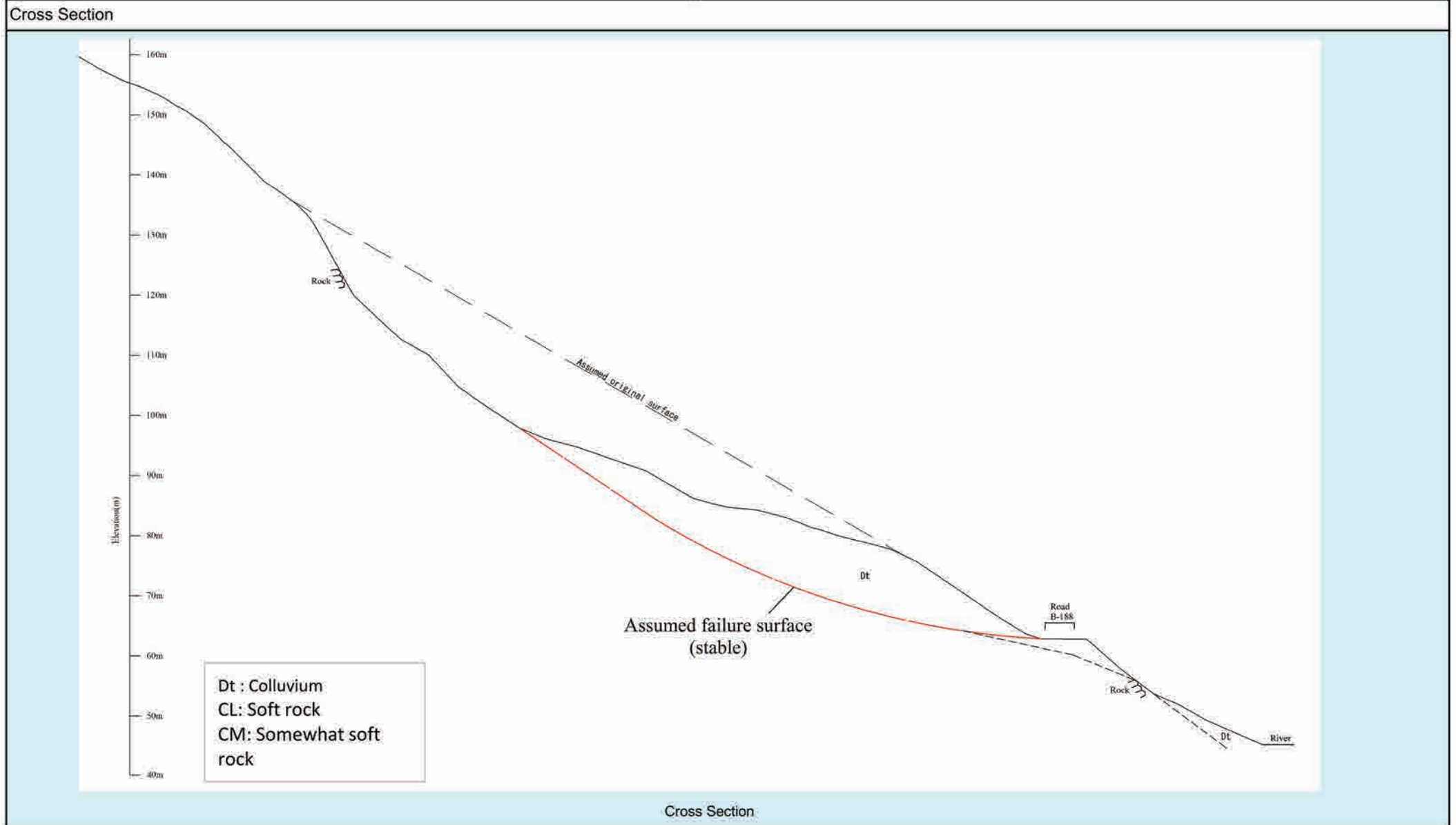
Inventory Sheet A

District	Colombo	Management office	Avissawella	Road No	B-188	Road Name	Kaluaggala - Labugama road						
Site No.	51		Disaster Type	Slope Failure	Location	Start	12/4	End	12/5	latitude	6°51'47.1"N	longitude	80°09'57.2"E
Main body	Mountain side	Traffic control	Hourly	mm	Traffic volume	Week day	3618/12h	holiday		Bus route		Detour	

Topo map/Sketch



Inventory Sheet A



Site No.	51
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Inventory Sheet B

(Slope Failure) Rock Fall)

Checked by	Yang Pucal
Organization	JICA Survey Team

[Cause] (A)					
Item	Cause	Classification	Point	score	
Topography Topography with factor of	G1 : Talus slope	G1	3	5	
	G2 : Collapsed slope, Clear knick line	Not G1	0		
	G3 : Terrace scarp, Overhung slope	G2 and G3	3		
	Catachment slope, debris flow deposit	G2 or G3	2		
		No G2 and G3	0	(6)	
Soil property	Erodable soil (Mainly arenaceous soil)	Conspicuous	8	8	
	Silty sand, silty clay, clay	Slightly consequenous	4		
	Cobble , pebble	None	0		(8)
Rock character	Jointed rock, rocks that are weak against erosion and weathering.	Conspicuous	12	6	
		Slight conspicuous	6		
		None	0		(12)
Geological Structure	Dip slope (bedding, weak plane)	Conspicuous	8	6	
		None	0		
	Soft soil coverline baserock, Hard rock overlies weak rock, Others	Conspicuous	6		
		Slightly conspicuous	4		
		None	0	(14)	
Surface condition	Surface soil, boulder, rock	Unstable	12	6	
		Slightly unstable	6		
		Stabel	0		(12)
	Spring water	Natural water spring	8	8	
		Water seepage scar	4		
		Nil	0		(8)
Vegetation	No-vegetation, Grassland	5	3		
	Complex (grass, structure)	3			
	Structure	0		(5)	
Geometry	Height (H), gradient (i)	soil	H>30m	18	18
			H<30, i > 30°	15	
		rock	i < 30°, 15<H<30m	10	
			i <30°, H<15m	5	
	rock	H>50m	18		
		30<H<50m	16		
		15<H<30m	12		
		H<15m	10	(18)	
Deformation	Deformation of the survey slope (small soil and rock falls, gully erosion, scouring, depression, bulge, fallen tree, cracks, etc.)	More than one clear evidences	12	8	
		Obscure evidence	8		
		No evidence	0		(18)
	Deformation of the adjacent slope (Rock fall, collapse, cracks, bulge, and other deformation)	More than one clear evidences	5	0	
		Obscure evidence	3		
		No evidence	0		(5)
Total			(A)	62	

[Countermeasure] (B) = (A) +α or (A) ×0

Well effective against the potential slope failure and rock fall.	×0	
Effective but not completely against the potential rock fall and slope failure.	-20	
Not completely protected from the potential slope failure and rock fall.	-10	
No countermeasure was constructed, or the existing countermeasure cannot be expected effective.	±0	✓
Total		(B) 62

[History] (C)

Disaster history	point	check
The disaster has caused a traffic disturbance or closure after the recent implementation of countermeasures.	100	
No trafic disturbance has occurred but there is a record of comparatively serious rock falls and slope failures that reached to the road.	70	
There is a record of rock falls and slope failures on a small scale that that did not reach to the road.	40	
No disaster records	0	✓
(C)		0

(D) =MAX (B,C)

Score from cause	(B)	62
Score from history	(c)	0
Among (B)&(C), large one.	(D)=MAX(B,C)	62

[Description]

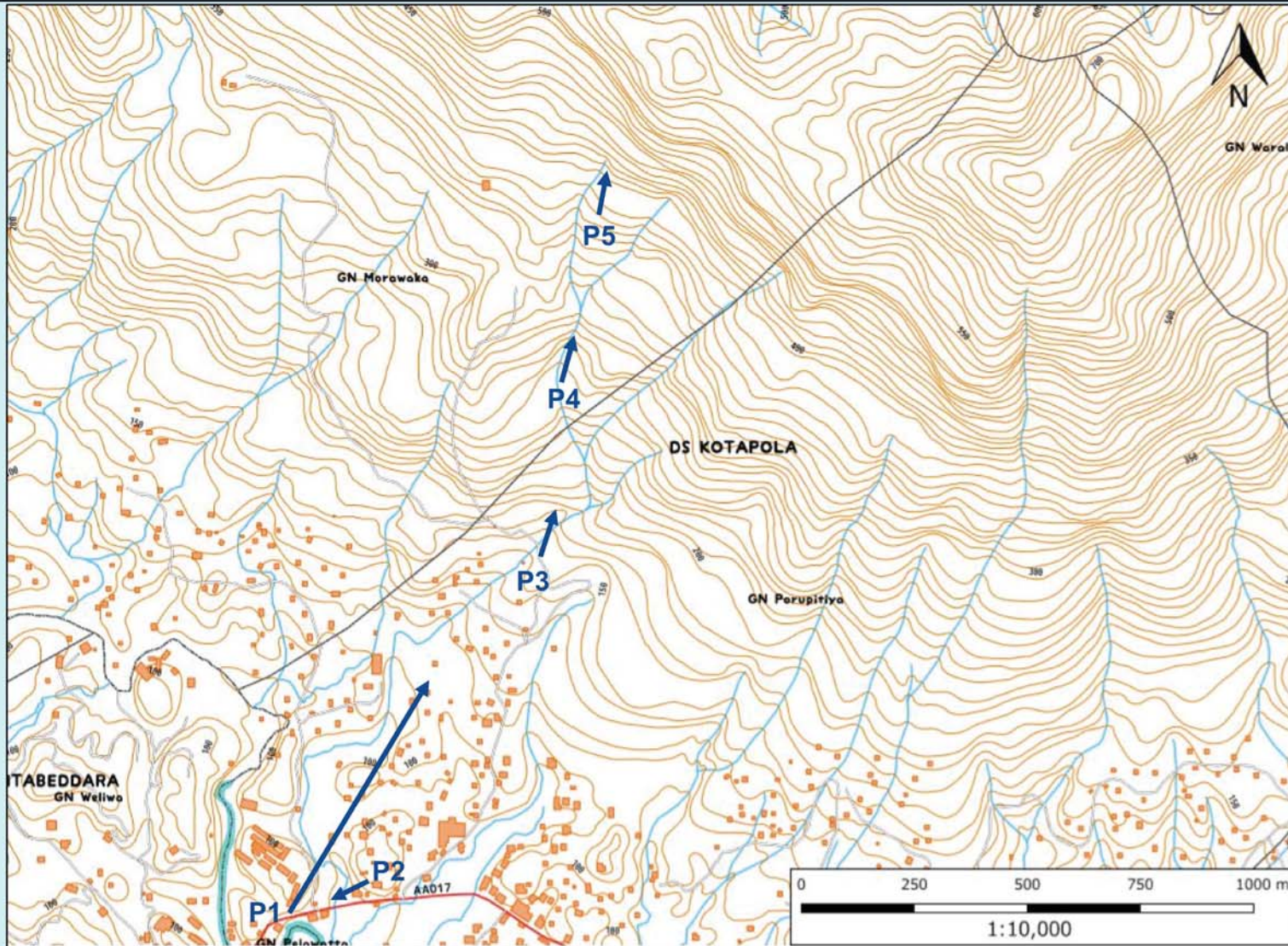
Slopes of relatively steep gradient are observed on the slope. Weathered bedrock is outcropped upper part of the slope. Unconsolidated deposits and overburden debris are widely distributed close to the road, and unconsolidated materials appears to be spilt into the road section at places. River of 20 to 25m in width flows 10 to 15m below the road section.

Site No.	51	Inventory Sheet C	Date	July 12, 2019
				
P1 Whole view of the slope failure looking upper slope from the road	P3 Deep surface failure occurring on bedrock, showing that the right part consists of colluvium and its underlying bedrock			
				
P2 The road surface situation, showing the paved road width of about 3m	P4 The collapsed materials distributed around the river, showing the remaining huge boulders after erosion by the river flow			

Inventory Sheet A

District	Galle	Management office	Deniyaya	Road No	A-017	Road Name	Galle-Deniyaya-Madampe road (Morawakkanda Landslide)						
Site No.	53		Disaster Type	Debris flow	Location	Start	62km	End	62.25km	latitude	6°16'12.1"N	longitude	80°29'55.7"E
Main body	Both	Traffic control	Hourly	mm	Traffic volume	Week day	3457/12h	holiday	1000/12h	Bus route		Detour	

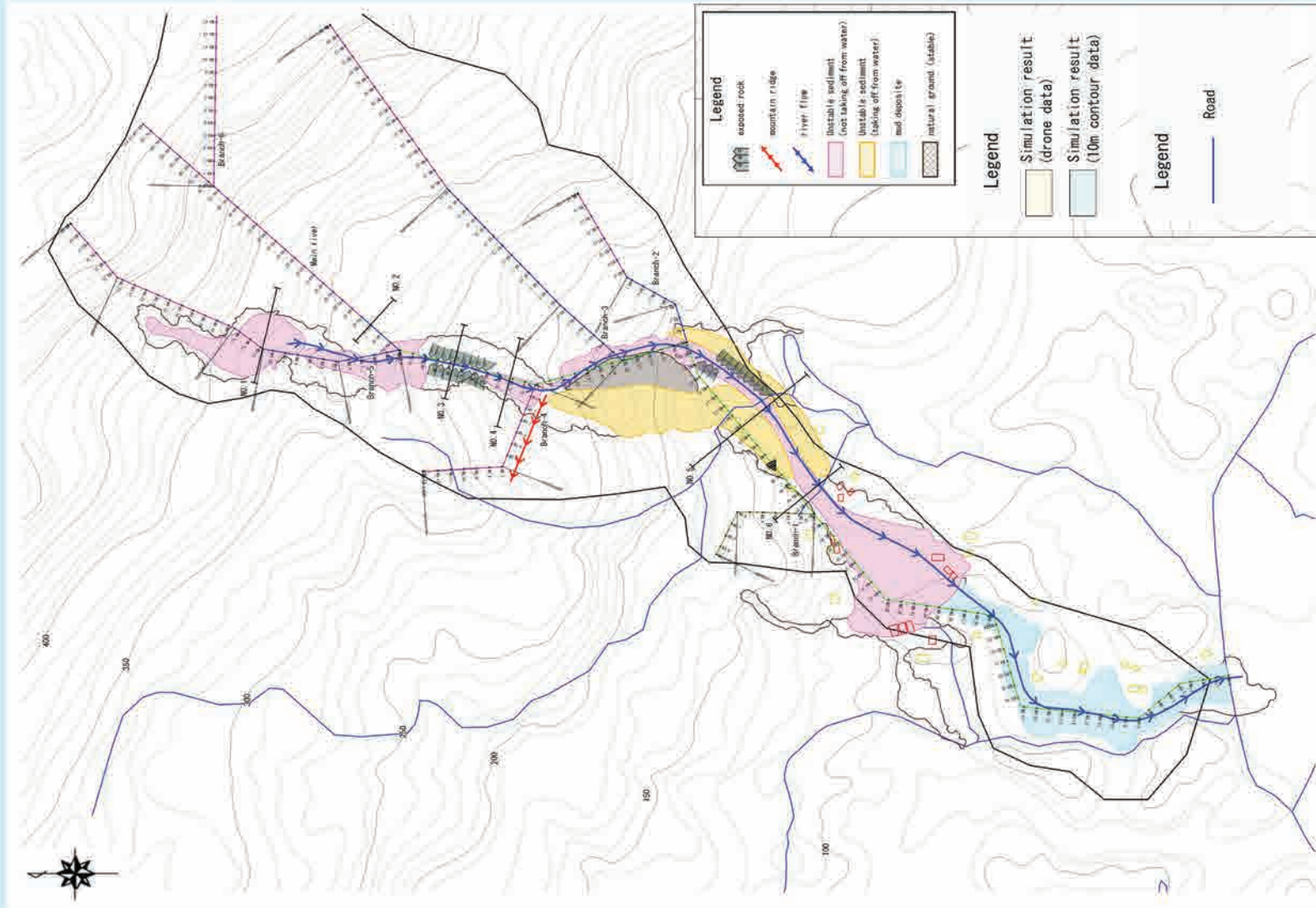
Topo map/Sketch



A4-130
Plan

Inventory Sheet A

Plan



Legend

- exposed rock
- mountain ridge
- river flow
- river flow
- instable sediment (not taking off from water)
- instable sediment (taking off from water)
- mud deposit
- natural ground (arable)

Legend

- Simulation result (drone data)
- Simulation result (10m contour data)
- Road

Legend

- Completely damaged house
- Partially damaged house

Plan

Site No.	53
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Inventory Sheet B

(debris flow)

Checked by	Yang Pucai
Organization	JICA Survey Team

[Causes](A)

Item	Cause	Classification	point	score	
Stream Characteristics	Drainage area above the depositional area (Stream gradient : More than 15°)	Over 0.50 km ²	10	10	
		0.15 to 0.50 km ²	8		
		Less than 0.15 km ²	4		
	The steepest gradient of stream	Over 40°	10	10	
30° to 40°		5			
Less than 30°		0			
Characteristics of Slope	The area of slope with gradient over 30°	Over 0.20 km ²	8	8	
		0.08 to 0.20 km ²	6		
		Less than 0.08 km ²	2		
	The area covered by grass and shrub in drainage area	0.20 km ² or more	8	8	
		0.02 to 0.2 km ²	4		
		Less than 0.02 km ²	0		
			0		
	Earthworks with unstable soils	Present	5	0	
		Absent	0		
			0		
		0			
Newly-formed scarps	Present	5	5		
	Absent	0			
History of large-scale collapse	Present	10	10		
	Absent	0			
sum total			(A)	(56)	
					51

[Countermeasure](B)

Classification		Total score (A)				
		Over 20	15 to 20	10 to 15	Less than 10	
Effect of the existing countermeasures	None or less	100	70	50	30	(B) 100
	Normal	70	50	30	10	
	High	50	30	10	0	
	Enough		0			

[Road structure](C) = (B) + α

Structure	Classification	point (α)	score
Stream width	Over 10m	-40	-30
	5m to 10m	-30	
	3m to 5m	-20	
	Less than 3m	±0	
Height of girder	Less than 1m or no bridge/culvert	±0	-30
	1m to 2m	-5	
	2m to 3m	-15	
	3m to 5m	-30	
	Over 5m	-40	
Total score (C)		40	

[Assumed type of disaster]

Damage of bridge/culvert	✓
Outflow of embankment	
Debris spread on the road	

[Description]

Large boulders are seen near the A17 road bridge which is not directly neighbouring to the debris flow, however some debris and logs reached at the bridge and closed the river flows and subsequently damage the bridge as well as its foundation.
The volume of sediments accumulated due to debris flow seems to exceed capacity of storage assumed between the end of the debris flow and the road bridge along A17 route.
Treatment of the debris flow is judged to be essential to avoid further damage to the road bridge and appurtenant facilities.

[History](D)

Classification	point	check
There a record of debris flow that caused traffic block or closure.	90	✓
There is a record of debris flow but no damage or disruption to traff..	40	
No record of debris flow	0	
(D)	90	

(E) = MAX(C,D)

Score from cause (C)	40
Score from history (D)	90
Among (C)&(D), large one. (E) = MAX(C,D)	90

Site No.	53	Inventory Sheet C	Date	June 20, 2019
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Source: JICA Long-term Expert,
Photographed in 2017

P1 Whole view of the debris flow including source area, flow path and deposition area

Site No.	53	Inventory Sheet C	Date	June 20, 2019
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P2 The temporary bridge built before the debris flow occurring in 2017



P4 Unstable debris flow materials remaining in the upper stream



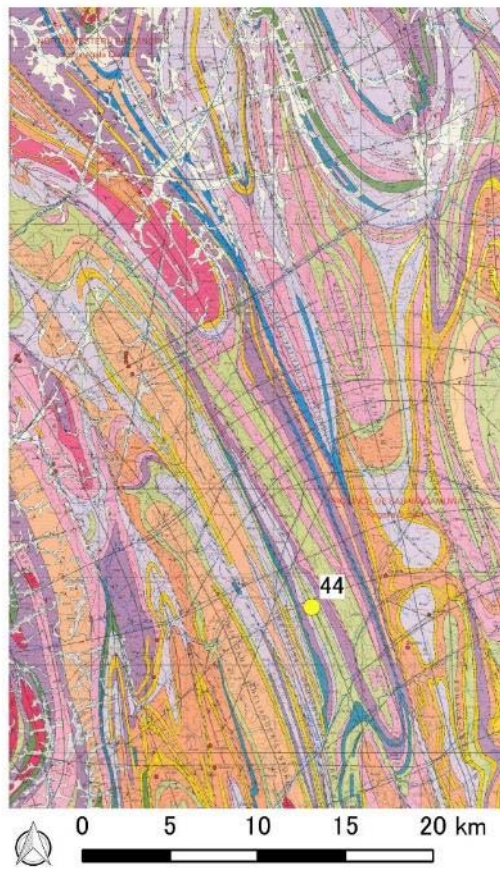
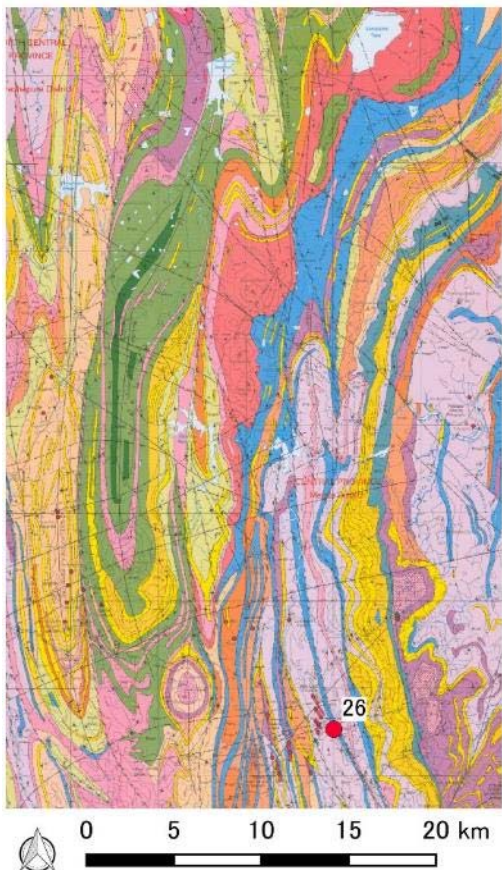
P3 The debris fan containing huge boulders of 3m in diameter



P5 The slope failure occurring in the source area

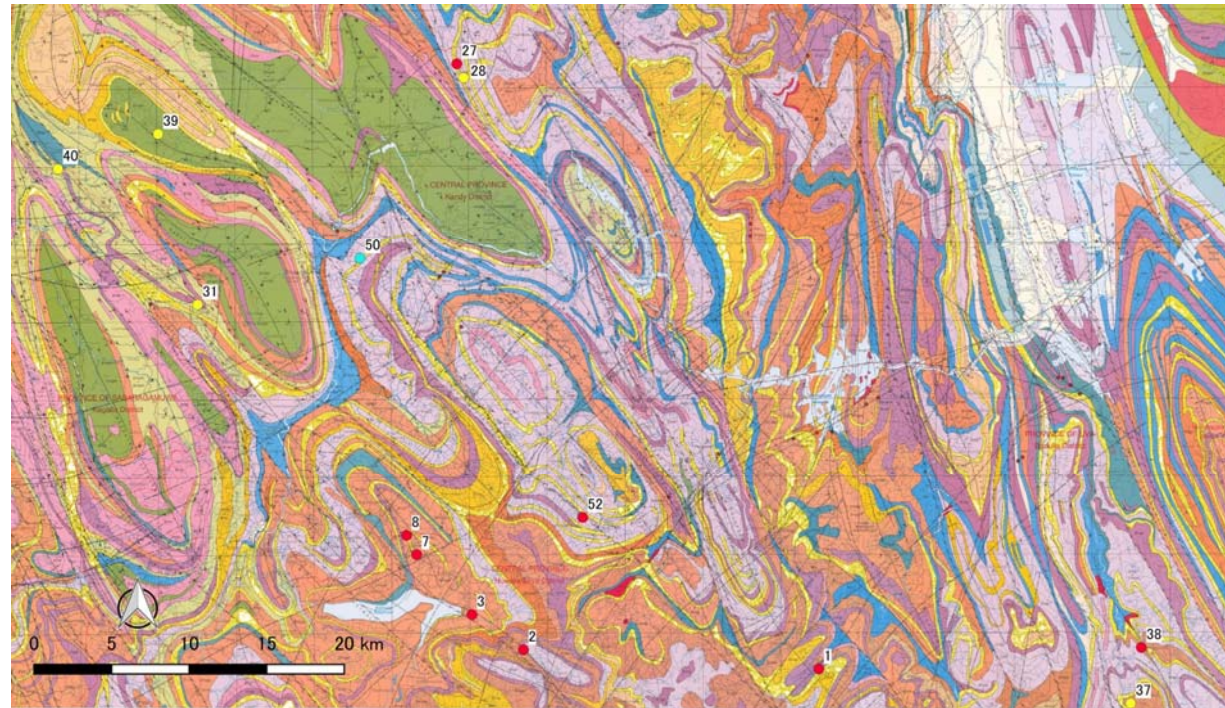
Preparatory Survey
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the National Road Network Phase 2
in
Sri Lanka
FINAL REPORT

Appendix 5 Geological Map



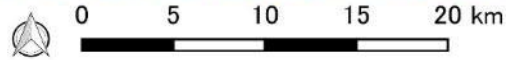
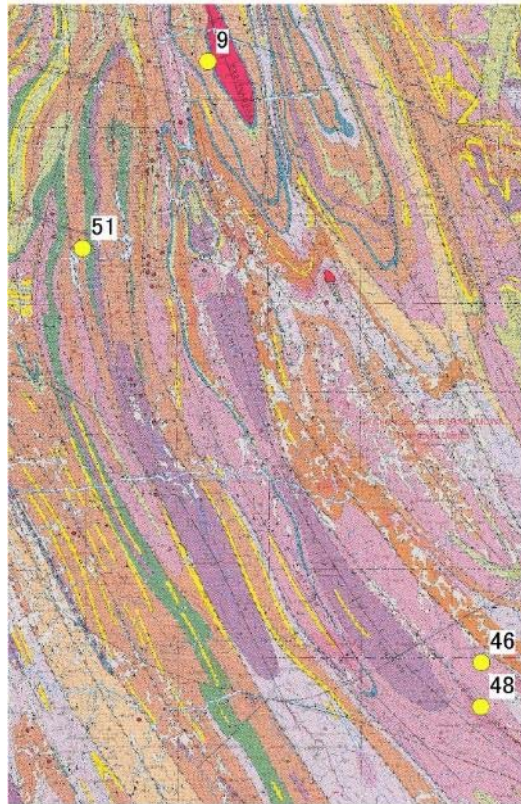
- Alluvium
- Landslip
- Microcline gneiss
- Granodioritic gneiss
- Granite gneiss
- Pegmatitic granitoid gneiss
- Hornblendes-biotite gneiss
- Hornblendes-biotite migmatite
- Biotite-hornblende gneiss
- Biotite-hornblende migmatites
- Hornblende gneiss or amphibolite
- Metagabbro
- Quartzofeldspathic gneiss
- Quartzites
- Impure quartzites and quartz schists
- Garnetiferous quartzofeldspathic gneiss
- Garnet-sillimanite-biotite gneiss±graphite
- khondalite
- Tectonically layered charnockitised biotite-hornblende gneiss with thin quartzites
- Marble
- Calc-gneisses and/or granulites
- Cordierite gneiss
- Undifferentiated calc-gneisses
- Biotite gneiss
- Dambulla-Habarana migmatitic gneisses
- Undifferentiated charnockitic biotite gneisses
- Polonnaruwa-Mahiyangana gneisses
- Charnockitic gneisses
- Undifferentiated paragneisses
- Quartz-syenite pegmatite
- Pegmatite
- Serpentinite
- Dolomite
- Vein quartz

- Laterite
- Sandy, lateritic gravel
- Alluvium
- Stiff brown or blue-grey organic rich clays
- Lagoonal and estuarine deposits
- Beach sand
- Dune sand
- Beachrock
- Terrace gravel
- Grey and White Sands
- Unconsolidated brown and grey coastal sands
- Granite Gneiss
- Pegmatitic granitoid gneiss
- Alkali feldspar granite/gneiss/migmatite
- Hornblende-biotite gneiss
- Biotite-hornblende gneiss
- Metagabbro
- Undifferentiated Proterozoic gneisses
- Undifferentiated felsic orthogneisses
- Garnetiferous quartzofeldspathic gneiss
- Garnet-sillimanite-biotite gneiss ± graphite
- Quartzites
- Impure quartzites and quartz schists
- Marble
- Calc-gneisses and/or granulite
- Cordierite gneiss
- Undifferentiated charnockitic biotite gneisses
- Charnockitic biotite gneisses
- Undifferentiated paragneisses
- Pegmatites

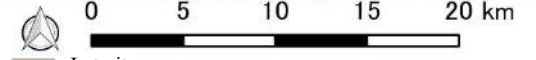
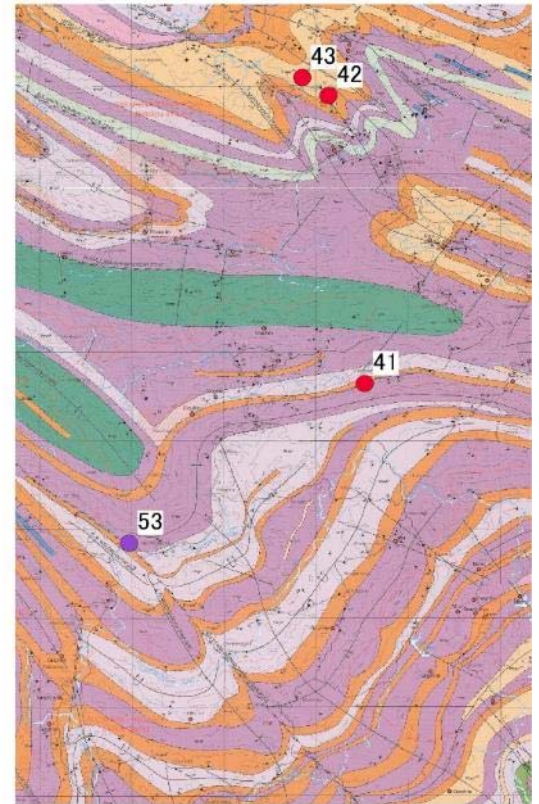


- Marble, usually coarse-grained and dolomitic, locally high calcite marble present
- Calc-gneisses and/or granulites
- Cordierite gneiss
- Undifferentiated calc-gneisses
- Undifferentiated charnockitic biotite gneisses
- Palonnaruwa-Mahiyangana gneisses
- Charnockitic gneiss
- Undifferentiated paragneisses
- Pegmatites
- Vein quartz

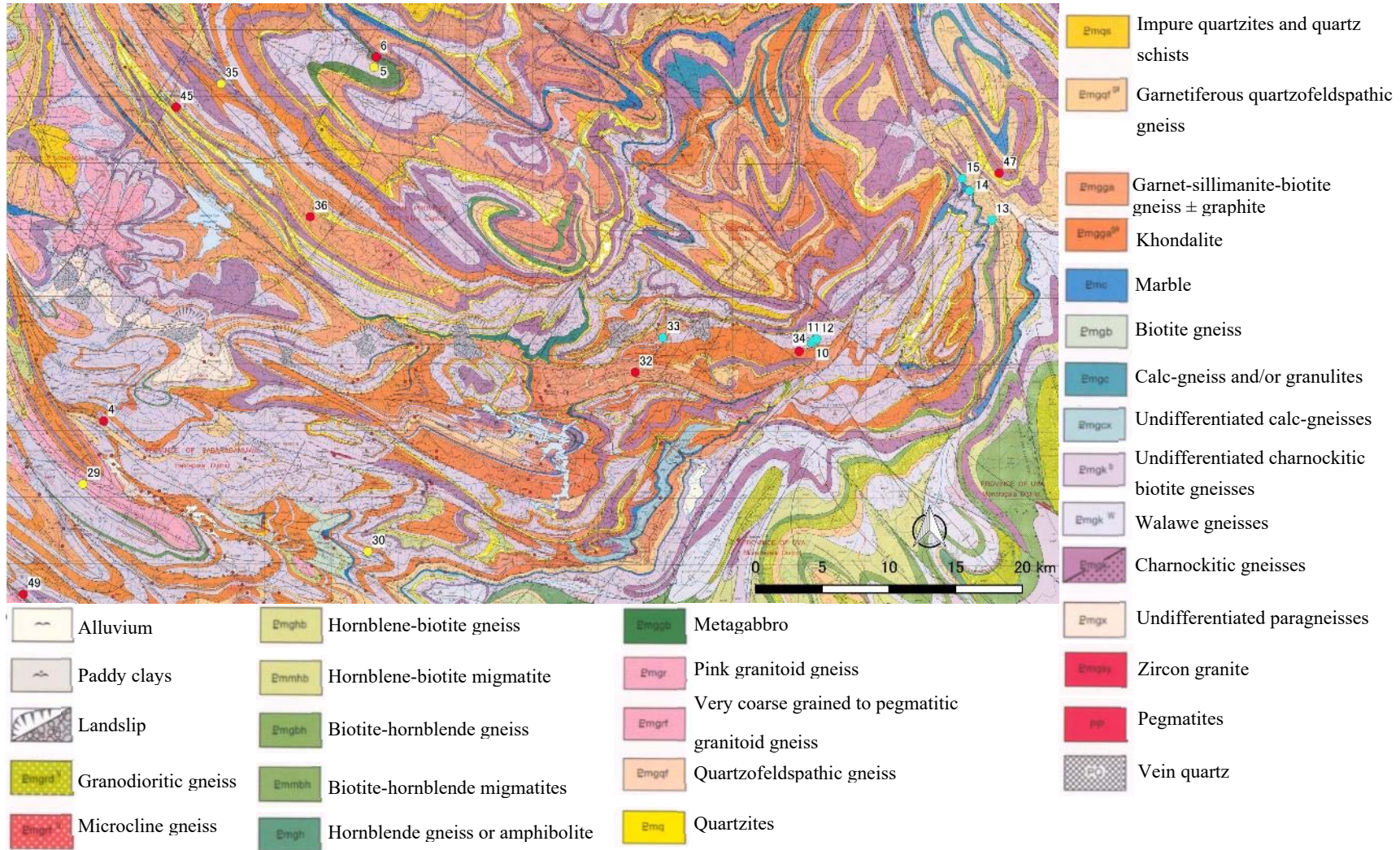
- | | | |
|--|---|---|
| Alluvium | Hornblende-biotite migmatite | Quartzite |
| Microcline gneiss | Biotite-hornblende gneiss | Impure quartzites and quartz schists |
| Granodioritic gneiss | Biotite-hornblende migmatite | Garnetiferous quartzofeldspathic gneiss |
| Granite gneiss | Hornblende gneiss or amphibolite | Garnet-sillimanite-biotite gneiss±graphite |
| Hornblende-biotite gneiss | Quartzofeldspathic gneiss | Garnet-sillimanite-biotite gneiss±graphite with up to 30% large (1-3cm) red garnet |

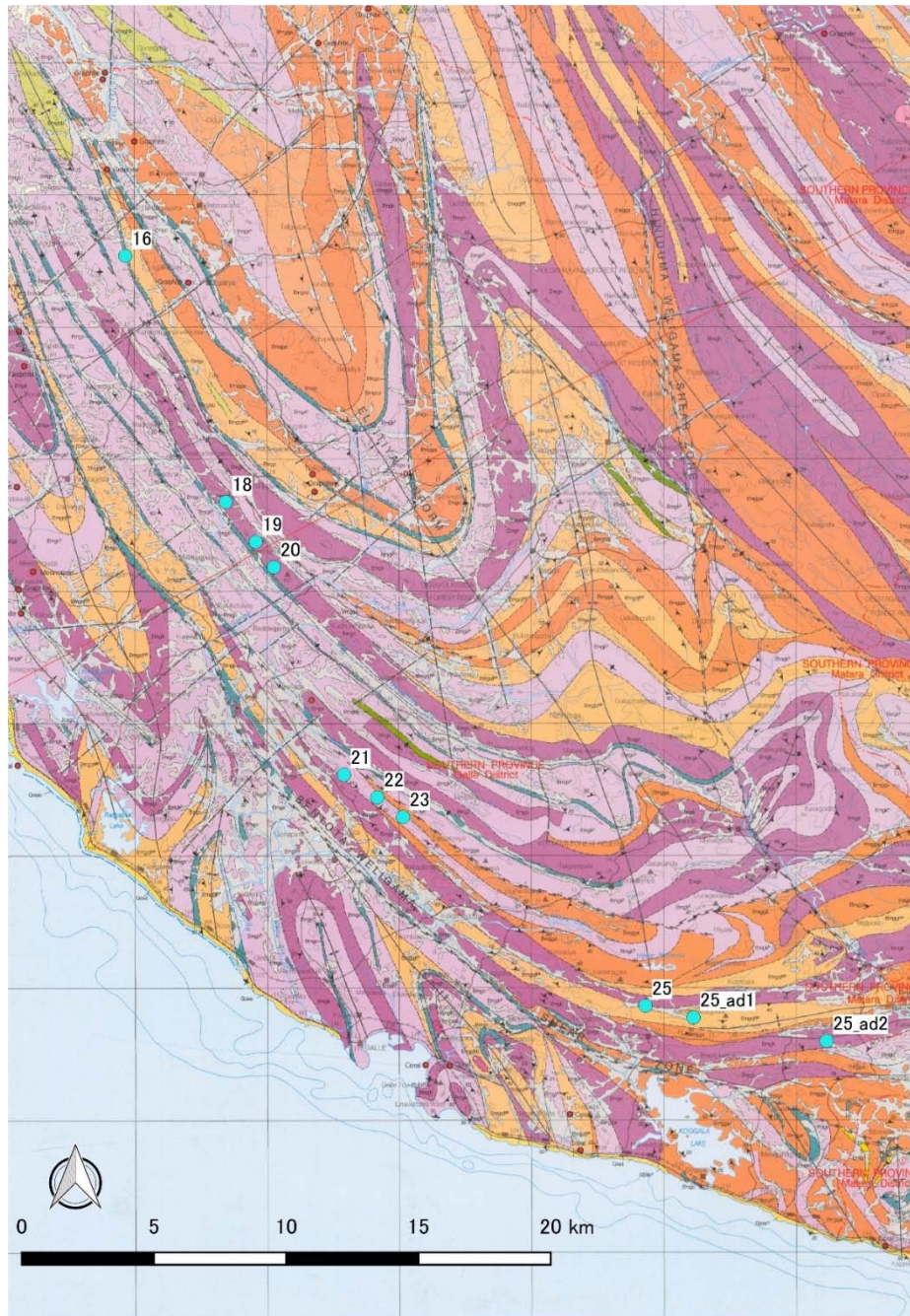






















- Laterite
- Sandy, lateritic gravel
- Alluvium
- Paddy clays
- Lagoonal and estuarine deposits
- Beach sand
- Dune sand
- Beach rock
- Grey and White Sands
- Unconsolidated brown and grey coastal sands
- Granite gneiss
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- Hornblende-biotite gneiss
- Biotite-hornblende gneiss
- Undifferentiated Proterozoic gneisses
- Garnet-sillimanite-biotite gneiss±graphite
- Garnet-sillimanite-biotite gneiss±graphite
- Quartzites
- Marble
- Calc-gneisses and/or granulites
- Cordierite gneiss
- Undifferentiated charnockitic biotite gneisses
- Charnockitic gneisses
- Pegmatites
- Vein quartz



- Laterite
- Alluvium
- Beach sand
- Dune sand
- Granodioritic gneiss
- Granite gneiss
- Hornblende-biotite gneiss
- Hornblende-biotite migmatite
- Biotite-hornblende gneiss
- Biotite-hornblende migmatite
- Hornblende gneiss or amphibolite
- Metagabro
- Quartzofeldspathic gneiss
- Quartzite
- Garnet granulite
- khondalite
- Garnet-biotite gneiss±graphite
- Biotite gneiss
- Marble
- Calc-gneiss and/or granulite
- Undifferentiated calc-gneiss
- Charnockitic gneiss and charnockitic biotite gneiss
- Charnockite
- Pegmatite
- Serpentinites





	Laterite		Charnockitic gneiss and charnockitic biotite gneiss
	Alluvium		Charnockite
	Paddy clay		Hornblende granite and gneiss
	Beach sand		Biotite-hornblende gneiss
	Dune sand		Hornblende-biotite gneiss
	Beach rock		Granitic gneiss or granitoid gneiss
	Grey and white sand		Hornblende gneiss or amphibolite
	Unconsolidated brown and Grey coastal sand		
	Garnet-sillimanite-biotite± Graphite pelitic schist or gneiss		
	Garnet-sillimanite-biotite± cordierite -graphite pelitic schist or gneiss		
	Quartzite		
	Calc-gneiss		
	Garnet-bearing quartzofeldspathic rock		

Preparatory Survey
on
Landslide Disaster Protection Project of
the National Road Network Phase 2
in
Sri Lanka
FINAL REPORT

Appendix 6_1 A-RAP Report

Democratic Socialist Republic of Sri Lanka

**Preparatory Survey on Landslide Disaster
Protection Project of
the National Road Network Phase 2**

**Abbreviated Resettlement Action Plan
(Draft)**

December, 2019

Japan International Cooperation Agency (JICA)

Nippon Koei Co., Ltd.

Earth System Science Co. Ltd.

ABBREVIATIONS

AC	Appeal Court
AHH	Affected House Hold
AO	Acquisition Officer
CBO	Community Based Organization
CDO	Community Development Officer
CEA	Central Environmental Authority
CSC	Construction Supervision Consultants
CV	Chief Valuer
DD	Detailed Design
DRO	Disaster Relief Officer
DG	Director General
DS	Divisional Secretary
DMC	Disaster Management Centre
DSS	Divisional Secretaries
EAC	Entitlement Assessment Committee
EM	Entitlement Matrix
GIS	Geographic Information System
GN	Gamma Niladhari
GOSL	Government of Sri Lanka
GRC	Grievance Redress Committee
HH	House Hold
HHH	House Hold Head
HRC	Human Rights Commission
IEE	Initial Environmental Examination
IGP	Independent Group Panel
IR	Income Restoration
IRP	Income Restoration Program
JICA	Japan International Cooperation Agency
Km	Kilometer
LAA	Land Acquisition Act
LARB	Land Acquisition Review Board
LARC	Land Acquisition and Resettlement Committee
LARS	Land Acquisition and Resettlement Survey
LD	Land Division of RDA
LDPP	Landslide Disaster Protection Project
LKR	Lankan Rupees
LRC	Local Resettlement Committee
MC	Municipal Council
M&E	Monitoring and Evaluation
MHIP	Ministry of Higher Education and Highways
MIS	Management Information System
MLLD	Ministry of Land and Land Development
MOA	Memorandum of Agreement

NBRO	National Building Research Organization
NCW	National Charter of Women
NEA	National Environmental Act
NGO	Non-Governmental Organization
NIRP	National Involuntary Resettlement Policy
O&M	Operations and Maintenance
PAP	Project Affected Person
PC	Provincial Council
PCPA	Public Consultation and Participation
PD	Project Director
PEA	Project Executing Agency
PIC	Public Information Centre
PMU	Project Management Unit
PO	Parliament Ombudsmen
PPP	Parliamentary Petition Committee
PS	Pradeshia Sabha
R&R	Resettlement and Rehabilitation
RA	Resettlement Assistant
RAP	Resettlement Action Plan
RDA	Road Development Authority
RDA/ESDD	Road Development Authority/ Environment and Social Development Division
ROW	Right of Way
RR	Resettlement and Rehabilitation
SC	Supreme Court
SD	Survey department
SDO	Social Development Officer
SES	Socio Economic Survey
SIA	Social Impact Assessment
SIMO	Social Impact Monitoring Officer
SLLRDC	Sri Lanka Land Reclamation and Development Cooperation
SLR	Sri Lanka Railway Department
SM	Samatha Mandalaya
SMF	Social Management Framework
TL	Team Leader
TOR	Terms of Reference
UC	Urban Council
UDA	Urban Development Authority
USGS	United State Geological Survey
UNCEDAW	United Nations Charter on Elimination of All forms of Discrimination Against Women
UNDP	United Nations Development Programme
UPVC	Plasticized Poly Vinyl Chloride
USD	United States Dollar
VD	Valuation Department

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TERMS OF GLOSSARY

Affected Person (or household)	People (households) affected by project related changes in use of land, water or other natural resources
Compensation	Cash or payment in kind to which the people affected are entitled in order to replace the lost asset resource or income.
Emergency situation	Natural disasters, civil, and political conflict situation
Entitlements	A range of measures including compensation, income restoration, payments for loss of income and employment assistance, relocation and other benefits that is due to affected people, depending on the nature of their losses, to improve their economic and social base.
Expropriation	Government taking possession of property or changing property rights in order to execute or facilitate development projects
Gender Equality	Is the state of equal ease of access to resources and opportunities regardless of gender including economic participation and decision making, and the state of valuing different behaviors 'aspirations and needs equally regardless of gender
Host population	Immediate community where the displaced people to be relocated
Income Restoration	Re-establishing income sources and livelihoods of people affected
Involuntary resettlement	Results in development induced resettlement where people are forced to vacate their residences due to acquisition of the properties.
Rehabilitation	Re-establishing and improving incomes, livelihoods, living and social systems
Relocation	Moving affected persons and their movable assets and rebuilding housing, structures, improvements to land, and public infrastructures in another location.
Replacement Cost	Cost of replacing the lost assets to the same status that existed prior to acquisition and incomes, including cost of transactions.
Resettlement action plan	A time-bound action plan with budget, setting out resettlement strategy, objectives, options, entitlements, action, approvals,

responsibilities, monitoring and evaluation.

Resettlement budget

A detailed breakdown of all the costs of a resettlement action plan phased over the implementation period.

Resettlement effect

Loss of physical and non-physical assets including homes, communities, productive land, income earning assets and sources, subsistence, resources, cultural sites, social structures, networks and ties, cultural identify and mutual help mechanisms.

Social preparation

Process of consultation with affected persons undertaken before key resettlement decisions are made, to build their capacity to deal with resettlement.

Vulnerable groups

Distinct groups of people who might suffer disproportionately from resettlement effects such as the old, the young, the handicapped, the poor, isolated groups and single parent households. Vulnerable groups include: women-headed HH without reasonable income, elderly-headed HH without reasonable income, poor, disabled-headed HH and indigenous peoples.

EXECUTIVE SUMMARY

Introduction

Roads are the arteries that move goods and services across the country. Road closures due to natural calamities cause severe disruptions to the people and the economy. Landslides have been one of the major causes for road closures. The government with the financial assistance of the Japan International Cooperation Agency (JICA) has embarked on a project to build counter measures to landslide prone locations on main roads. The first phase of this program named as Landslide Disaster Protection Project (LDPP) has been completed and the project had addressed the landslide issues on 16 locations in 11 DS Divisions on route Nos. A4, A5, A7, A16 and A113.

Description of the Project

The Project LDPP Phase 2, envisages to provide counter measures to prevent the scourge of landslides in 30 locations in 22 DS Divisions in 9 districts in 5 provinces (Central, Uva, Sabaragamuwa, Western and Southern). These locations are situated on highways, Colombo-Kandy (A001), Colombo-Rathnapura-Wellawaya-Batticaloa (A004), Peradeniya-Badulla-Chenkaladi (A005), Avissawella-Hatton-Nuwaraeliya (A007), Beragala-Haiela (A016), Galle-Deniyaya-Madampe (A017) Matara -Kottawa Express Way (E001) and at 9 B class roads. The causes of landslides vary from slippage of earth (landslide) slope failure, rockfall, rockfall landslides and debris flow. Countermeasures planned are ground anchor, steel pile with ground anchor, horizontal drain boreholes, drainage well, surface drainage, retaining plate, retaining wall, gabion, steel gabion, crib work, earthwork (cutting), wire rope, rock bolts, foot protection and bonding, concrete spraying, protection fence, rope-fixation rockfall prevention method, high energy absorption rockfall protection fence/net, Sabo dam, etc. (see **Table 1.2**).

Objectives of RAP

According to National Involuntary Resettlement Policy (NIRP), if over 20 families are displaced, a comprehensive Resettlement Action Plan (RAP) will be prepared and obtain the concurrence of the Japan International Cooperation Agency (JICA) if the project is to receive financial assistance from the JICA. In the case of LDPP Phase2 (LDPP2), no displacement is expected. According to NEA No.47 of 1980, if the displacement is less than 20 families an abbreviated RAP is sufficient. And according to JICA policies, if the number of displaced people is less than 200, an abbreviated RAP should be prepared. Therefore, LDPP2 is required the preparation of an abbreviated RAP. RAP is the instrument that would guide the Project Management Unit (PMU) to implement the resettlement programme. RAP is a planning document. The main objective of the Resettlement Plan is to use it as an instrument to address the issues confronting the affected people adequately in order to better their lives after resettlement/acquisition of assets or at least assist them to achieve the levels of lives they enjoyed prior to the project. This is the minimum but the project will strive to improve project affected people (PAPs) beyond their pre project living standards.

Methodology Adopted for the Survey

The survey was mainly conducted by an experienced local team (the LARS & SES Team) of trained enumerators under close supervision of a resettlement specialist employed by the JICA Preparatory Survey Team for LDPP2 (the JICA Survey Team). Firstly, preliminary discussion was conducted between the JICA Survey Team and the local resettlement specialist to share the understanding of the parameters of the project. Before venture onto the project sites, a meeting was held with the senior staff attached to the LDPP project office of the PMU at Kandy on 24 July, 2019 to obtain their views and information that should be included in the RAP. A draft of the questionnaire to be used for the collection of data on loss of assets and socio-economic and demographic information of the “would be

affected people” was submitted to the JICA Survey Team for comments, and the comments were taken into consideration. The LARS & SES Team visited the project sites for an initial screening. With the help of a Geographical Information Officer, the divisional secretariats where the project sites are located were identified. Using the layout plans of the countermeasures against landslide disasters, the extents of permanent and temporary lands to be required for the construction of countermeasures were ascertained.

Consultations were held with project affected people to seek their opinions on the proposed project, and the team explained the benefit that would accrue to them due to the countermeasures that will minimise impacts caused by landslide disasters.

Key persons of the relevant areas were interviewed to ascertain their views on the proposed project and to solicit their cooperation for the successful completion of the project (the notes of the interviews are attached as Annex 1). Socio economic information and data on impacts were obtained by the enumerators of the team using the prepared questionnaire. Collected data were analysed and relevant information was gathered to develop the RAP.

Impacts Due to the Implementation of Countermeasures

Number of permanently affected private (individual) land owners are 40 and the extent of land affected permanently is 1,041 perches (2.6 ha), and temporarily affected private land owners are 47 and the extent of land affected temporarily 6,169 perches (15.6 ha). The number of plantation estate land owners affected is 7 impacting on 645 perches (1.6 ha) permanently and 11 plantation estate land owners impacting on 1,577 perches (4.0 ha) temporarily. The number of state (government) lands affected is 15 permanently constituting 1,532 perches (3.9 ha) and 17 temporarily constituting 4,231 perches (10.7 ha) temporarily (see **Table 2.1** and **Table 2.2**). The number of private building affected is two (2) and the extent affected is 1,650 sq. ft. of floor area. Public utilities that are identified for shifting is 109 electric posts, 60 water lines belonging to the PAPs and 115 telephone posts (see **Table 2.3**).

Socio-Economic Profile

The project directly benefits in 22 DSDs. The number of PAPs families considered for analysis is 40 comprising 72 males and 76 females. The ethnic composition is 124 Sinhalese, 17 Tamils and 7 Muslims. Religious composition is 123 Buddhists, 14 Hindus, 7 Muslims and 4 Catholics. Children below 05 years are 11 constituting 7.4% of the total population almost on par with national % of children below 05 years. Senior citizens (>60years) is 12.8%, little above the national percentage of 12.4. Number of male household heads is 34 and female 6. Number of PAPs married is 66, number unmarried is 28 (18.92%). There are 7 (4.7%) widowed PAPs. The PAPs below the marriageable age is 47. The educational standard of the PAPs is moderate. The success at the GCE ‘O Level is 28.4% above the national percentage of 13.7, but the GCE A’ Level achievement of 10.8% is below the national percentage of 12.3. Income wise 13 males and 8 females are in receipt of between Rs.25,001-50,000, the mean of Rs.37,500. Of the affected people of employable age, 42 males and 22 females are in primary employment. The Labor Force Participation Ratio (LFPR) of 70.3 % is higher than the national LFPR of 53.8.(Source National Census 2012). Weighted Average of monthly income of a family and expenditure of APs is Rs61,125 and Rs.45,349 respectively.

The vulnerable number of households is 10. Judging from the response of the APs they are in favor of the project and it is a favorable sign that the project could be implemented without much social pressure.

Legal Frame Work and Policy

Land acquisition is governed by the Land Acquisition Act (LAA) of 1950, which was amended periodically to meet the emerging needs of the country but did not revise the valuation system that was existing from the inception of the Act.

Introduction of Land Acquisition and Resettlement Committee (LARC) system after National Involuntary Resettlement Policy (NIRP) adopted in 2001 to pay compensation for the affected was based on a policy decision taken by the Cabinet in 2001, immensely benefitted the affected people as they received market value for the land and replacement cost for the structures in addition to other allowances for disturbances. While 2008 regulations for payment of compensation was in force which abolished the LARC system, in 2013 a set of rules were enacted in parliament to re-establish the LARC for projects approved by the Cabinet of Ministers. Where the replacement cost for land and structures valued by the Chief Valuer could be re-examined by LARC and Super LARC. For the payment of compensation for affected assets in LDPP2, the 2013 regulations will apply.

Legislative Provisions and Policy Gap Analysis

There are several mismatches between LAA, NIRP and JICA policies in respect of payment of compensation and other assistance. The regulations enacted in Parliament in 2013 and made effective by the Government Gazette No.1837/47 of 22nd November 2013 addressed the anomalies that existed in the payment of compensation which is an improvement from the relief afforded by 2008 regulations. These gaps have been addressed in this report.

Entitlements

Those affected with titles to their land are entitled to receive compensation at market value for land and replacement cost for structures. The maximum compensation payable for loss of income is the average net profit for 03 years immediately preceding the acquisition but for this project. Land Division of RDA will decide on the compensation payable for loss of income.

Entitlement Matrix

The EM covers all compensation the affected people are entitled, due to the acquisition of their properties (if acquisition trigger) for the construction of countermeasures for the identified landside prone locations. The Entitlement Matrix is based on the regulations under LAA on compensation enacted in the year 2013, in Parliament by the Minister of Land and Land Development.

Consultation, Public Participation and Grievance Redress Mechanism

Consultation, information dissemination and disclosure requirements were conducted with affected people and other stakeholders through multiple approaches namely (i) reconnaissance visit (ii) social screening (iii) focus group meetings (iv) key informant interviews (v) one to one discussions with affected people. Opinions of the relevant Divisional Secretaries were also obtained.

Consultants made a reconnaissance visit to the project area to get a general view of the project and randomly met few people in the area to obtain their views on the project followed by a social screening visit to assess roughly the extent of impact on the households. Discussions were held with some households on their perception for the improvement proposed to counteract landslides.

Cut-off Date

For title holders the date to qualify for receipt of compensation is the date of publication of Sec 02 notice under LAA. For non-titled people the first date of the conduct of socio-economic survey and the inventory of assets survey. This is 24th July, 2019

Grievance Redress Mechanism

A grievance redress mechanism will be in place for the PAPs to present their grievances for redress. The Grievance Redress will be handled at 05 stages beginning with the Resident Engineer (RE) If he fails to provide a suitable solution to the satisfaction of the PAP, the grievance will be referred to the Local Resettlement Committee chaired by a member nominated by PAPs at the local level. If the PAP is still not satisfied with the decision, the issue will be directed to the Grievance Redress Committee (GRC) chaired by the relevant Divisional Secretary. If the matter still remain unresolved, the committee headed by the Project Director will intervene and if the PAP is still not satisfied with the decision of the stage 04 team, he could appeal to the highest forum under the grievance redress process designated as Independent Grievance Panel (IGP) chaired by a retired senior civil servant assisted by a team of eminent persons.

Samatha Mandalaya and Human Rights Commission are two popular institutions that are available for people to present their grievances for redress outside the internal mechanism provided. Those who are aggrieved have the option to seek justice from judicial system of the country with the Supreme Court being the apex forum.

Relocation

No relocation is involved. Though one (1) family that will lose a portion of the land and two buildings they are occupying only for a small business, they will move to another location in the same premises and rebuild the buildings there to continue the business.

Income Improvement Strategies

No businesses are lost. PAPs who lose trees will be compensated for losses and felled trees will be handed over to them. Productivity losses from the cultivable lands and temporary disruption of a business due to construction activities are eligible for compensation.

Institutional Framework for Resettlement

The overall implementation responsibility rests with the Road Development Authority. The senior engineer from PMU will coordinate the resettlement activities with the help of subject specialists. The Acquiring Officer (DS) has a major role to play in acquiring land for the project if acquisition triggers on behalf of the government, Ministry of Land and Land Development (MLLD), Survey Department, Valuation Department, and Government Printer are the main responsible institutions. The construction programme will be undertaken by the RDA through PMU that is to be established to execute the activities of LDPP2.

Resettlement Budget and Financing

Resettlement budget has been prepared by taking into consideration the market values for land and replacement cost for structures and for disturbances, the rates approved by RDA based on 2013 regulations on compensation approved by parliament. In deciding on the market values and replacement cost, opinions of the APs, GNs, property dealers and Department of Valuation will be sought.

The total resettlement budget with provision for contingencies amounts to Rs.141,534,800 or US Dollars 804,175.

Implementation Schedule

Resettlement activities will be commenced from the date of appointment of the consultants if needed to prepare the SIA and RAP. Before commencement of the construction activities, PAPs will be consulted once again, paid compensation in full, time given and agreed upon with those who are

expected to hand over their lands. The land acquisition will be completed by September 2023 if triggered and the period is from December 2021 to September 2023.

Monitoring and Evaluation

Monitoring and evaluation are an essential requirement of a project. There are two types of monitoring, internal and external. Internal monitoring is normally done by in house staff and external monitoring (EM) by an independent person or a company not attached to the project. Internal monitoring helps the management to keep the project on course and take early remedial measures to correct any short fall or short comings that affect the ultimate objectives of the project.

The evaluation differs from monitoring due to its broader scope in assessing resettlement efficiency, effectiveness impact and sustainability thereby drawing lessons as a guide to future resettlement planning. Monitoring and evaluation are based on three vital themes (a) Process, (b) Impact and (c) Output.

CHAPTER 1 PROJECT DESCRIPTION

1.1 Background of the Project

A landslide is defined as the movement of a mass of rock, debris and earth down a slope. Landslides are a type of “mass wasting” which denotes any downward slope movement of soil and rock under the direct influence of gravity. (Source: United States Geological Survey (USGS))

Sri Lanka is relatively a safe place from natural disasters. It is not located in a region where earthquakes often occur. Tsunamis are a rare occurrence. The tsunami that struck 2/3rd of the coastal belt on 26th December 2004 was after a lapse of 2000 years according to historians. Occurrence of gales, storms, hurricanes are rare and far between. During the recent past Sri Lanka was faced with prolonged droughts and flash floods due to change in temperature patterns. The government has taken initiative to implement projects with the assistance of the World Bank aimed at mitigating impact on vagaries of climate. Sri Lanka receives a rain fall of nearly 1500 mms during normal years from the two monsoons, Southwest and North East. The wet zone of Sri Lanka receives rainfall during both monsoons but the bulk of the precipitation is by the south west monsoonal rains. Dry zone benefits mostly from the north east monsoonal rains. When it rains incessantly in the wet zone especially in hilly areas it triggers landslides and floods. Natural reasons like unstable soil, steep lands and situations created due to indiscriminate clearing of natural vegetation and exposing soil for agricultural and other economic activities are the main causes of landslides and floods. In the recent past there were number of incidents with devastating effects to life and property due to landslides.” Landslides in Kegalle District in 2016, 2017 & 2018 are some of the worst calamities that were experienced by the country.

When landslides occur close to highways, the road closures are inevitable resulting in inconvenience to road users. Often it is a threat to human lives and possible damages to vehicles. The Landslide Disaster Protection Project (LDPP) initiated by the Road Development Authority in coordination with the National Building Research Organization (NBRO) with the assistance of the Japan International Cooperation Agency (JICA) is an attempt to minimize such disasters.

1.1.1 Landslide Disaster Protection Project -Phase 1

With the assistance of the Japan International Cooperation Agency (JICA), the Government of Sri Lanka implemented a landslide disaster protection project through the Road Development Authority to arrest landslides in 16 sites located in 11 Divisional Secretary’ Divisions in 03 provinces recently and having observed the beneficial effects of the counter measures taken to arrest the devastation caused by the landslides in the candidate locations ,the GOSL was encouraged to take counter measures in another 30 identified locations with the financial assistance expected from JICA.

1.1.2 Scope

Implementation of landslide countermeasures work for the major national roads with high landslide risk in 22 divisional secretary’s divisions in nine districts and five provinces and further improve the safety of road networks and the livelihoods of the residents, thereby contributing to socioeconomic development in Sri Lanka.

1.2 Locations of the Project in LDPP 2

Landslides have been a recurring scourge in Sri Lanka. Large number of lives and resources had been lost due to this phenomenon. When landslides occur close to the highways, it disrupts the movement

of vehicles causing heavy inconvenience to the road users, it affects the distribution of goods and services and other connected economic activities. With the assistance of the Japan International Corporation Agency (JICA) a preparatory study has been undertaken to implement second phase of the LDPP project to mitigate the impacts of landslides on important highways in Sri Lanka. The preparatory survey is to assess the socio-economic impacts of the community living in the construction area and the near vicinity to mitigate impacts of landslides. The second phase of the (LDPP) covers 5 provinces, 09 districts 22 divisional secretary 'areas and 30 landslide prone locations.

Table 1.1 Locations of the Project Sites

Item (Site) No.	Road Class	Route No.	Location		DS Division	District	Coordinates	
			Start (km/cul.)	End (km/cul.)			Lat. (N) (deg.)	Long. (E) (deg.)
1	B	B-413	66.75km	67km	Walapane	Nuwaraeliya	7.0399444	80.8716944
2	A	A-005	46/2	46/3	Kotmale	Nuwaraeliya	7.051072	80.699297
4	B	B-391	11.9km	12.0km	Ratnapura	Ratnapura	6.706606	80.467297
6	B	B-412	30/9	30/11	Nuwaraeliya	Nuwaraeliya	6.953353	80.65193
7	A	A-005	30/9	30/11	Udawalpata	Kandy	7.106271	80.63697
8	A	A-005	28/4	28/6	Udawalpata	Kandy	7.117468	80.631148
9	A	A-007	3/3	3/5	Dehiwita	Kegalle	6.958803	80.22781
10	A	A-016	3.85km	4.2km	Haldummulla	Badulla	6.759434	80.946995
11	A	A-016	5/2	5/4	Haldummulla	Badulla	6.761056	80.948389
12	A	A-016	5/6	5/8	Haldummulla	Badulla	6.761917	80.950369
19	E	E-001	76.7km	77.2km	Welivita-Diwithura	Galle	6.203284	80.180298
20	E	E-001	77.9km	79.0km	Welivita-Diwithura	Galle	6.19462	80.18647
22	E	E-001	88.0km	88.8km	Baddegama	Galle	6.115943	80.221822
23	E	E-001	89.3km	89.6km	Bopepoddala	Galle	6.109191	80.2306
25	E	E-001	101.3km	101.7km	Imaduwa	Galle	6.0447	80.313388
25_ad2	E	E-001	108.6	108.7	Imaduwa	Galle	6.032668	80.375222
26	B	B-274	11/2	11/4	Raththota	Matale	7.521896	80.681381
27	B	B-462	6+030	6+100	Ukuwela	Matale	7.393034	80.660396
31	A	A-001	99/8	99km	Mawanella	Kegalle	7.252182	80.509151
33	A	A-004	171/5	171/7	Haldummulla	Badulla	6.76309	80.846155
34	A	A-004	183km	185/14	Haldummulla	Badulla	6.753744	80.938605
36	B	B-149	9.000	9.100	Ambagamuwa	Nuwaraeliya	6.845022	80.607247
37	B	B-036	4/11	5/3	Soranathota	Badulla	7.019934	81.053608
39	B	B-122	8/2	8/4	Hatharaliyadda	Kandy	7.352047	80.486089
40	B	B-122	18/3	18/5	Hatharaliyadda	Kandy	7.331612	80.427656
43	A	A-017	139	140/1	Godakawela	Ratnapura	6.507285	80.583998
48	B	B-390	12/4	12/7	Elapatha	Ratnapura	6.6282	80.362859
49	B	B-390	20/9	21/3	Niwithigala	Ratnapura	6.589088	80.412915
51	B	B-188	12/4	12/6	Padukka	Colombo	6.863087	80.16589
53	A	A-017	62km	62.25km	Kotapola	Matara	6.270053	80.4988111

km/cul.: Kilometer post or Culvert No.

Source: JICA Survey Team

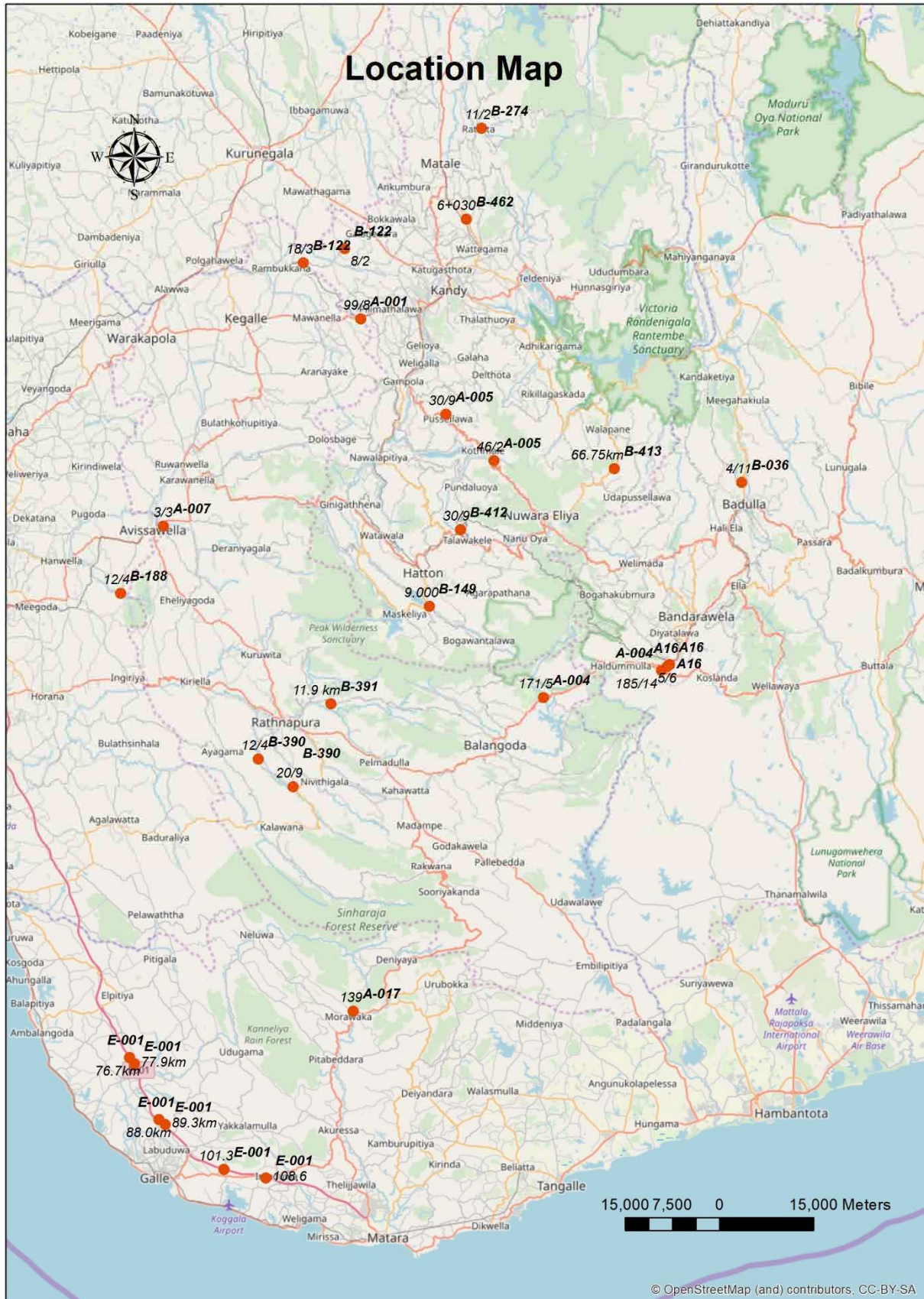


Figure 1.1 Location Map of the Project Sites

1.3 Measures to Mitigate the Impact of Landslides

Extract from the Studies conducted by the United Nations Development Programmed (UNDP) on the impact of Landslides occurred between years 2000-2012 in Sri Lanka is quoted below.

“Occurrence of landslides has become a frequent natural phenomenon in the hill country causing severe damages to life and property. Landslides in urban centers in hill country have a greater economic impact where human settlements, infrastructure facilities and people are concentrated. Though heavy rainfall is the triggering factor of landslides, geological and topographical characteristics as well as improper land use and cropping practices, unplanned human settlements in unstable areas have caused substantial increase in landslides. Significant decrease in loss of human lives has recorded since 2003) as a result of continuous awareness programme conducted, identification of probable landslide hot spots, and introduction of early warning systems by National Building Research Organization (NBRO) with the assistance of Disaster Management Centre (DMC) and other stakeholders. However, increase in property damages, economic losses as well as provision of relief to victims during last decade is significant. NBRO also has reported increasing trend in cutting failures compared to landslides and has introduced the regulatory measures for developments in local authority areas, based on hazard profile data (www.hazard.lk) making it mandatory to have NBRO permission to construct buildings in landslide prone areas. Collecting of real time rainfall data in landslide prone areas and issuing warning in time is extremely important in reducing landslide risks while improving land use management in sensitive areas.

Communities are to be empowered to read the rain gauges and landslide potential maps so that they themselves can make evacuation decisions even the central level early warnings do not reach them. In addition, communities are to know how to identify the signs of potential landslides (cracked walls and floor or angling of trees and light/telephone poles etc.) and inform authorities in advance. NBRO is in the process of installing automatic rain gauges and alarm systems based on rainfall, geological factors and other data to warn people in high landslide hazard areas and train communities.

Also, it is timely to carry out a number of multi-disciplinary studies, consultations and advocacy sessions to policy makers highlighting the socio-economic aspects of landslides as well as the linkages between land use, water availability and landslide potential and nexus among drought, flood and landslide management

The landscape and water distribution of Sri Lanka and its positioning in the Indian Ocean requires the country to practice integrated disaster management. “

Site No.49: Route B390-20/9-21/3- (Ratnapura-Palawela-Karawita)



Site No.36: Route B149 9.0km-9.1 km (Maskeliya Hatton Delhouse Road)



Site No.43: Route A-017 139-140/1Galle – Diniyaya -madampe Road



Figure 1.2 General Views of the Project Sites

Table 1.2 Proposed Countermeasures against Landslide Disasters

[Hidden in pre-release version]

1.4 Objectives of a Resettlement Action Plan

In development induced involuntary resettlement, according to National Involuntary Resettlement Policy (NIRP), if over 20 families is displaced, and as per JICA Guidelines for Environmental and Social Considerations (April 2014) (JICA Guidelines), a full RAP is required if the displaced is over 200 people, over 10 % of any holding and relocation. In the case of LDPP2, no displacement is expected. According to NEA No.47 of 1980, if the displacement is less than 20 families an abbreviated RAP is sufficient. According to JICA policies, if the number of displaced people is less than 200, an abbreviated RAP should be prepared. Therefore, LDPP2 is required the preparation of an abbreviated RAP. The RAP for the Project is developed based on the data collected at Land Acquisition and Resettlement Survey (LARS) and Socio-Economic Survey (SES) conducted by the experienced local team (the LARS & SES Team) of trained enumerators under close supervision of a resettlement specialist employed by the JICA Survey Team.

The main objectives of the Resettlement Action Plan is to use it as an instrument to address the issues confronting the affected and displaced people adequately in order to better their lives after resettlement or at least assist them to achieve the levels of lives they enjoyed prior to the project. This is the minimum but project will strive to improve PAPs beyond their pre project living standards. RAP guides the PMU to pay compensation to the affected assets based on the NIRP, JICA Social Safe Guard Policy, Land Acquisition Act (LAA) and regulations enacted under the LAA in the year 2013.

In order to achieve this main objective, following measures which is the essence of the RAP will be implemented effectively and timely.

- All possible avenues will be explored to avoid involuntary resettlement. If it is not feasible to avoid, measures will be taken to minimize resettlement. In this project action will be taken to minimize acquisition and impacts to buildings where ever feasible after finalization of the design.
- Since some degree of discomforts and impacts will be faced by the affected adequate funds to be provided to compensate for the losses and temporary disruptions promptly.
- Those who lose their dwellings fully to be compensated at replacement cost or provide them with alternate accommodation at their discretion. But in this project only one permanent building is affected and the project affected person could rebuild the affected structure at the same premise.
- To disseminate information on compensation and entitlements.
- To maintain a continuous dialogue with the affected and to ensure they are being consulted in the process of preparing the RAP and during implementation.
- To clearly identify the different types of impacts, physical, economic and social to be incorporated in the RAP.
- Ascertain rates to be paid to each and every category of impacts to reflect the current replacement costs and transactional costs.
- To develop a mechanism for the redress of grievances.
- To develop a comprehensive budget to meet the expenses involved in the resettlement plan.

- To disclose the entitlement matrix to the affected and other stake holders.
- To monitor the implementation plan to make it stay in the correct course.
- To identify severely affected and prepare a programme to assist them
- project to be considered as a development opportunity for the affected

1.4.1 Methodology Adopted for the Survey

The survey was mainly conducted by an experienced local team (the LARS & SES Team) of trained enumerators under close supervision of a resettlement specialist employed by the JICA Survey Team. Firstly, preliminary discussion was conducted between the JICA Survey Team and the local resettlement specialist to discuss the background of the project and to share any data/information available on the project. Before venture onto the project sites, a meeting was held with the senior staff attached to the project office of the PMU at Kandy on 24 July, 2019 to obtain their views and information that should be included in the RAP. A draft of the questionnaire to be used for the collection of data on loss of assets and socio-economic and demographic information of the “would be affected people” was submitted to the JICA Survey Team for comments, and the comments were taken into consideration. The LARS & SES Team visited the project sites for an initial screening on 24, 26, 27, 28th of July and 3rd, 4th of August, 2019 to study the degree of impacts due to the project on the environment and the communities and to identify the DS divisions where the project sites are located.

With the help of a Geographical Information Officer, the divisional secretariats where the project sites are located were identified. After identifying the relevant divisional secretariats, the project sites were visited again prior to the meetings with the DSS to study on the ground, the degree of damages that would be caused due to landslides, and to apprise their field officers on the proposed landslide disaster protection project and to seek their opinions. After the completion of the conceptual design, bearing the layout plans of the countermeasures against landslide disasters, the project sites were revisited to improve on the data collected during the previous visits to the sites and identify any project affected people who were not yet covered during the previous visits.

Consultations were held with project affected people to seek their opinions on the proposed project, and the team explained the benefit that would accrue to them due to the countermeasures that will minimise impacts caused by landslide disasters.

Key persons of the relevant areas were interviewed to ascertain their views on the proposed project and to solicit their cooperation for the successful completion of the project (the notes of the interviews are attached as Annex 1). Collected data were analysed and relevant information was gathered to develop the RAP.

Socio economic information and data on impacts were obtained by the enumerators of the team using the prepared questionnaire. The following items were covered during the socio-economic survey.

- (a).Extents and types of lands required for the project (b) Number of persons and households to be displaced/affected (disaggregated by physically, economically, partially, fully, temporarily, permanently) due to land acquisition(c) Ownership of the land to be acquired/obtained (e.g. private land with titles, public property, encroached etc.(d) loss of employment ,income, livelihood sources ,(e) displaced persons who require

relocation/resettlement, persons who would be impoverished or become vulnerable due to loss of incomes, experience social disintegration etc.

- (f) A socio-economic profile of the persons/households affected/displaced disaggregated by gender, other social groupings (e.g. poor, middle, rich), vulnerabilities etc. This section covered an analysis of the socio-demographic characteristics of the affected population, their economic and livelihood activities, household incomes and expenditures, and poverty and gender issues in the project impact area. to assess the projects impacts, both positive and negative, temporary and permanent in terms of i) population displacements, ii) resettlements iii) access to common property resources iv) access to utility services and public infrastructure such as transport services v) women and vulnerable groups and vi) poverty reduction and improvements to health and environment. vii) to maintain a continuous dialogue with the affected and to ensure they are being consulted in the process of project implementation.

The data collected were fed into excel sheets to obtain the required information and compile tables to include in the RAP.

CHAPTER 2 IMPACTS DUE TO IMPLEMENTATION OF COUNTERMEASURES

There are three (3) categories of land that are affected (i) The land owned by individual PAPs (ii) the land owned by plantation estate companies (iii) government owned lands. All these lands can be divided into two uses. One is permanently required land for construction of countermeasures at the project site, and the other is temporarily required land for construction facilitating activities e.g. opening access roads or storing construction materials.

Types and extents of lands affected by the project are shown in **Table 2.1**. Permanently required land for all 30 sites to be acquired from individual private PAPs is 1,041 perches (2.6 ha). If an understanding cannot be achieved with the owners of the lands to return the lands back to them after the construction of countermeasures to arrest landslides which will benefit them mostly, the lands may have to be acquired. But many PAPs are willing to sacrifice few perches of their lands for a worthy cause according to the discussion the LARS & SES team had with them. On an average approximately 35 perches (0.09 ha) is required to construct the countermeasures in each site, this is very small extent compared with land acquired for other projects. Temporarily required land from individual private PAPs is 6,169 perches (15.6 ha) and this land will be returned to the PAPs after the completion of construction work. Of this extent, 4,233 perches (10.7 ha) is required for the Site No.53 (A017-62.0km-62.25km) since three Sabo Dams are planned to be constructed at three different elevations from the road to arrest landslides.

Permanently required land from plantation estates is 645 perches (1.6 ha), and 1,577 perches (4.0 ha) for temporarily required land from plantation estates. Permanently required land from government lands is 1,532 perches (3.9 ha), and 4,231 perches (10.7 ha) for temporarily required land from government lands. There is no acquisition or payment of compensation for state owned lands but a request from the RDA through MOHRDPRD to the relevant state institution which owns the land is necessary.

In total, permanently required land is 3,218 perches (8.1 ha) and temporarily required land is 11,977 perches (30.3 ha).

Number of project affected units (PAUs) and affected persons (PAPs) are summarized in **Table 2.2**. None of PAUs or PAPS is required for displacement permanently and temporarily. The number of families losing land permanently for the project is 40, and temporarily 47. In each project site, both permanently affected families and temporarily affected families reside in the same communities. Therefore, only the permanently affected families are taken for socio economic analysis. The number of plantation estate losing land permanently for the project is 7, and temporarily 11

The total number of permanently affected PAPs in the private land is 148, and temporarily affected 183. The number of PAPs of plantation estate land comprises owners of the plantation estates and their employees.

Table 2.1 Type and Extent of Lands Affected

Item (Site) No.	District	DSD	Route No.	Location		Private Lands Affected				Estate Lands Affected				Government Lands Affected			
						Permanently		Temporarily		Permanently		Temporarily		Permanently		Temporarily	
				Start	End	No. of Households	Extent (perches)	No. of Households	Extent (perches)	No. of Estates	Extent (perches)	No. of Estates	Extent (perches)	No. of Lots	Extent (perches)	No. of Lots	Extent (perches)
1	Nuwaraeliya	Walapane	B-413	66.75km	67km					1	31	1	266				
2	Nuwaraeliya	Kotmale	A-005	46/2	46/3	3	72	3	321					1	99	1	54
4	Ratnapura	Ratnapura	B-391	11.9km	12.0km					1	20	4	56				
6	Nuwaraeliya	Nuwaraeliya	B-412	30/9	30/11	4	55	5	62							1	90
7	Kandy	Udawalpata	A-005	30/9	30/11									1	75	1	285
8	Kandy	Udawalpata	A-005	28/4	28/6							1	30	1	66	1	139
9	Kegalle	Dehiwita	A-007	3/3	3/5	1	2							1	92	1	72
10	Badulla	Haldummulla	A-016	3.85km	4.2km					1	201	1	233				
11-12	Badulla	Haldummulla	A-016	5/2	5/8					1	30	1	300			1	21
19	Galle	Welivita-Diwithura	E-001	76.7km	77.2km									1	57	1	158
20	Galle	Welivita-Diwithura	E-001	77.9km	79.0km									1	38	1	222
22	Galle	Baddegama	E-001	88.0km	88.8km									1	256	1	278
23	Galle	Bopepoddala	E-001	89.3km	89.6km									1	177	1	224
25	Galle	Imaduwa	E-001	101.3km	101.7km									1	280	1	460
25_2	Galle	Imaduwa	E-001	108.6	108.7									1	138	1	154
26	Matale	Raththota	B-274	11/2	11/4	4	12	5	26								
27	Matale	Ukuwela	B-462	6+030	6+100	6	44	6	100								
31	Kegalle	Mawanella	A-001	99/8	99km	1	1	2	22					1	50	1	115
33	Badulla	Haldummulla	A-004	171/5	171/7	3	24	7	77					1	64	1	67
34	Badulla	Haldummulla	A-004	183km	185/14	2	33	2	30					1	3	1	21
36	Nuwaraeliya	Ambagamuwa	B-149	9.000	9.100			2	4	1	95	1	80	1	97	1	180
37	Badulla	Soranathota	B-036	4/11	5/3			1	8					1	27	1	25
39	Kandy	Hatharaliyadda	B-122	8/2	8/4	5	139	6	158								
40	Kandy	Hatharaliyadda	B-122	18/3	18/5	2	165	4	229								
43	Ratnapura	Godakawela	A-017	139	140/1					1	108	1	222				
48	Ratnapura	Elapatha	B-390	12/4	12/7					1	160	1	390				
49	Ratnapura	Niwithigala	B-390	20/9	21/3	1	132	1	490								
51	Colombo	Padukka	B-188	12/4	12/6	2	135	3	409								
53	Matara	Kotapola	A-017	62km	62.25km	6	227		4,233						13		1,666
Total						40	1,041	47	6,169	7	645	11	1,577	15	1,532	17	4,231

Source: JICA Survey Team

The above table contains only 29 sites as the site No.11 (A-016, 5/2-5/4) is merged with site No.12 (A-016, 5/6-5/8).

Table 2.2 Number of Project Affected Units (PAUs) and Affected Persons (PAPs)

Type of land	No. of PAUs			No. of PAPs		
	Legal	Illegal	Total	Legal	Illegal	Total
Required for displacement						
Permanently affected						
Private land	0	0	0	0	0	0
Plantation estate land	0	0	0	0	0	0
Government land	0	0	0	0	0	0
Total	0	0	0	0	0	0
Temporarily affected						
Private land	0	0	0	0	0	0
Plantation estate land	0	0	0	0	0	0
Government land	0	0	0	0	0	0
Total	0	0	0	0	0	0
Not Required for displacement						
Permanently affected						
Private land	30	10	40	113	35	148
Plantation estate land	7	0	7	29	0	29
Government land	0	15	15	0	62	62
Total	37	25	62	142	97	239
Temporarily affected						
Private land	47	0	47	183	0	183
Plantation estate land	8	3	11	45	12	57
Government land	0	17	17	0	65	65
Total	55	20	75	228	77	305
Grand Total	92	45	137	370	174	544

Source: JICA Survey Team

Numbers of buildings and utilities affected by the project are shown in **Table 2.3**. The number of private buildings affected is two (2) that belong to the same owner. One (a small shop) partially and the other (a shed) is fully affected, the extent of damage is 1,650 sq. ft. Since the owner will rebuild the buildings at the same premises and continue the business there, there is no displacement of building.

The water lines laid by the PAPs to tap fountain water for domestic use need shifting prior to the commencement of construction. The number of UPVC pipes that need to be shifted is 60 for which compensation is to be paid. The utilities that are to be shifted permanently to facilitate construction activities are 109 electric posts and 115 telephone posts. Shifting of these electric and telephone utilities will be done by the Ceylon Electricity Board and the Sri Lanka Telecom for which RDA has to pay the cost to relevant institutions.

As shown in **Table 2.4**, the total number of trees affected is 467, out of which 370 are rubber trees, coconut 13 and Jak 36, which is a substitute for rice. Fruit trees account for 45 out of the affected trees. The PAPs are entitled to compensation for the loss of trees and the felled trees will be given to them.

Table 2.3 Buildings and Utilities Affected

Item (Site) No.	District	DSD	Route No.	Location		No. of electric post displaced	No. of water lines displaced	No. of telephone lines / posts displaced	No. of Private Bldgs. Affected		Extent of Private Bldgs. Affected (sq. ft)		No. of Government Bldgs. affected	
				Start	End				Fully	Partially	Fully	Partially	Fully	Partially
1	Nuwaraeliya	Walapane	B-413	66.75km	67km	8		6						
2	Nuwaraeliya	Kotmale	A-005	46/2	46/3	6		4						
4	Ratnapura	Ratnapura	B-391	11.9km	12.0km									
6	Nuwaraeliya	Nuwaraeliya	B-412	30/9	30/11	4		2						
7	Kandy	Udawalpala	A-005	30/9	30/11	6	2	7						
8	Kandy	Udawalpala	A-005	28/4	28/6	4		4						
9	Kegalle	Dehiwita	A-007	3/3	3/5	6	1	8						
10	Badulla	Haldummulla	A-016	3.85km	4.2km									
11-12	Badulla	Haldummulla	A-016	5/2	5/8	10		12						
19	Galle	Weliwita-Diwithura	E-001	76.7km	77.2km									
20	Galle	Weliwita-Diwithura	E-001	77.9km	79.0km									
22	Galle	Baddegama	E-001	88.0km	88.8km									
23	Galle	Bopepoddala	E-001	89.3km	89.6km									
25	Galle	Imaduwa	E-001	101.3km	101.7km									
25_2	Galle	Imaduwa	E-001	108.6	108.7									
26	Matale	Raththota	B-274	11/2	11/4	13	2	15						
27	Matale	Ukuwela	B-462	6+030	6+100	4		3						
31	Kegalle	Mawanella	A-001	99/8	99km	2	3	3	1	1	150	1,500		
33	Badulla	Haldummulla	A-004	171/5	171/7	7		7						
34	Badulla	Haldummulla	A-004	183km	185/14	4	50	2						
36	Nuwaraeliya	Ambagamuwa	B-149	9.000	9.100	5		6						
37	Badulla	Soranathota	B-036	4/11	5/3			5						
39	Kandy	Hatharaliyadda	B-122	8/2	8/4	6		7						
40	Kandy	Hatharaliyadda	B-122	18/3	18/5	6		5						
43	Ratnapura	Godakawela	A-017	139	140/1									
48	Ratnapura	Elapatha	B-390	12/4	12/7	7		5						
49	Ratnapura	Nivithigala	B-390	20/9	21/3	6		8						
51	Colombo	Padukka	B-188	12/4	12/6	5	2	6						
53	Matara	Kotapola	A-017	62km	62.25km									
Total						109	60	115	1	1	150	1,500	0	0

Source: JICA Survey Team

Table 2.4 Affected Trees

Type of tree	Amount
Rubber	370
Coconut	13
Jak	36
Mango	20
Banana	25
Kithul	3
Total	467

Source: JICA Survey Team

2.1 Temporary Usage of Land for the Construction of Countermeasures

Roads link the cities with interior villages and town ships .Villages are the Centre's that produce mostly agricultural produce and interior towns assist to market a fair percentage of such produce .The highways along which landslides occur namely route Nos.A004, A005, A016, A017 and E001are some of the important arterial roads that contribute immensely to enhance the economic growth of the country while catering to multitude of social needs. (The list of roads and locations identified for mitigation measures are given in **Table 1.1**)

While some extent of land is required permanently for the construction of countermeasures to arrest the threat of landslides. More extent is required temporarily to facilitate the construction process for e.g. opening of access roads, construction of stores to keep construction material, labor quarters etc. These extents of land could be released immediately after the completion of countermeasures.

2.2 Temporary Release of Land

- Since the country is investing a large amount to build these mitigation measures, to prevent landslide related disasters that affected not only the landowner and his/her properties, but most of all, the vital national highways, as well as the community living near and downslope of the project area; it is essential that the structures are protected and properly maintained to ensure that it is able to perform its function up to the end of its design life. In this regard, a Memorandum of Agreement (MOA) will be signed between the RDA and the landowners/ plantation estate companies in the presence of the concerned Divisional Secretaries.
- The strategy followed in the LDPP Phase 1 was to enter into an memorandum of understanding with the individual land owners including plantation land owners to return the land after completion of the construction of counter measures. This arrangement in effect, treats the affected persons/institutions as an active partner in the operations & maintenance (O&M) of these mitigation measures which brings much benefit to the landowner by stabilizing the area which is prone to landslides currently, rendering it and adjacent areas eligible for future development. At present, some of these individually owned lands in landslide prone areas are mostly idle lands that its respective owner had mostly abandoned due to the safety risk the landslides pose to people and their investments. It is recommended that same procedure to be followed in LDPP Phase 2 also though the locations and the value of land differ. PMU should pursue this strategy relentlessly to carry out countermeasures without resorting to land acquisition. It is recommended that a Consultant experienced in negotiations and public relations to be hired to execute the memorandum of understanding with PAPs to obtain the land temporarily for construction purposes and return the land back to the owners since proposed construction methods do not require large extents of land.
- The Memorandum of Agreement (MOA) specifies the conditions both the project owner and the landowner will follow to ensure that the partnership for the installation and operation of the project's landslide mitigation measures will be successful. While the MOA does limit the activities, the respective landowner can do within the Project ROW after the construction activities are completed. However, the benefits to the landowners out of these measures will greatly outweigh the minor inconveniences caused by the Project. At present the project sites are idle and almost abandoned, but with the installation of the mitigation measures, the lands can be used for productive and income generating activities to the benefit of the landowner.

- The MOA to be signed by RDA with the plantation estate companies and other government organizations having portion of their lands temporarily taken over for the Project implementation, may slightly differ from the agreement to be entered into with private land owners. A copy of the sample MOA is given as **Annex 2**.

CHAPTER 3 SOCIO-ECONOMIC PROFILE

Table 3.1 Distribution of Project Affected Households by Family Size

Household Members	No of Households	Percentage (%)
1_2	10	25
3_4	22	55
5_6	8	20
7 and above	0	0
Total	40	100

Source: JICA Survey Team

The average family size is 3.7, over 55 % of the families are having between 3-4 members. The number of families having 1-2 members per family is 10 indicates that they are young married couples. There are no families with more than 6 members. The family size is almost equal to the national average of 3.8(Census & Statistics). Plantation owners were not considered for socio-economic analysis.

Table 3.2 Ethnic Composition

Ethnicity	No.			Percentage (%)
	Male	Female	Total	
Sinhala	61	63	124	83.8
Tamil	8	9	17	11.5
Muslim	3	4	7	4.7
Moor	0	0	0	
Other	0	0	0	
Total	72	76	148	100.0

Source: JICA Survey Team

The project affected population is predominantly Sinhalese accounting for 83.8% of the population, Tamils is second highest with a population of 17 which is 11.5 % of the total PAPs. Muslims is a distant third with only 7 members. Number of women among the PAPs is 76 while men accounts for 72 of the population. Male to female ratio is 94:100 in other words the percentage of women among the PAPs is 51.4% which is slightly less than the national percentage of 51.9%.

Table 3.3 Religious Composition

Religion	No.			Percentage (%)
	Male	Female	Total	
Buddhist	61	62	123	83.1
Catholic	2	2	4	2.7
Hindu	6	8	14	9.5
Islam	3	4	7	4.7
Total	72	76	148	100.0

Source: JICA Survey Team

Buddhists among the PAPs constitute 83.1% of the population, the number of female Buddhists is 62 as against 61 male Buddhists. Hindus comprise the next highest religious group with 6 male Hindus and 8 female Hindus. There are 4 Catholics and 7 Muslims. There were no major incidents of religious disharmony reported from these areas in the recent past except few skirmishes by few misguided individuals. They assist each other in religious activities.

Table 3.4 Summary of Project Affected Households and the Population by Divisional Secretary Division Wise

District	DS Division	No. of Households	Population		
			Male	Female	Total
Nuwaraeliya	Kotmale	3	5	4	9
Matale	Raththota	4	10	7	17
Matale	Ukuwela	6	7	9	16
Kegalle	Mawanella	1	2	3	5
Badulla	Haldummulla	5	8	13	21
Kandy	Hatharaliyadda	7	14	11	25
Rathnapura	Nivithigala	1	2	2	4
Colombo	Padukka	2	5	4	9
Nuwaraeliya	Nuwaraeliya	4	7	8	15
Kegalle	Dehiowita	1	2	3	5
Matara	Kotapola	6	10	12	22
Total		40	72	76	148

Source: JICA Survey Team

Only the DSD with project affected households are included in the above table. Out of the 22 affected DSDs only 11 DSDs are having PAPs. Highest number of PAPs are in the Hatharaliyadda DS Division totaling 25, next highest number of PAPs numbering 22, 10 males and 12 females are in the Kotapola DS division in Matara District. The lowest number of PAPs is in Nivithigala DSD of Rathnapura District amounting for four, two men and two women belonging to one household.

Table 3.5 Land Ownership Classified According to the Type of Ownership

Land Ownership	No. of AHHs	
	Permanently	Temporarily
Legal Ownership of private land	25	40
Lease of private land	3	5
Co-owners of private land	2	2
Encroachers on private land	10	0
Sub total	40	47
Legal ownership of plantation land	7	8
Illegal ownership of plantations land	0	3
Sub total	7	11
Squatters on government lands	15	17
Total land owners	62	75

Source: JICA Survey Team

Families having titles to the project affected land is 25. There are three lessees, those who are having coownership to the project affected land is two. There are seven squatters in state land, three encroachers in private lands. The number of owners of plantation properties is 10 and they were not considered for socio economic analysis.

Table 3.6 Household Heads Disaggregated by Age and Gender

Age Category	Number of Males	%	Number of Females	%	Total Number	%
18-30	2	5.9	-	0	2	5.0
31-45	7	20.6	1	16.7	8	20.0
46-60	14	41.2	4	66.6	18	45.0
>60	11	32.3	1	16.7	12	30.0
Not disclosed	-		-	-	-	
Total	34	100.0	6	100.0	40	100.0

Source: JICA Survey Team

Out of the project affected household heads 34 are males and six are females. The age group of 46-60 constitute 18 households representing 45% of the households. Number of households above 60 years is 12 constitute 30% of the households. Within the age bracket of 31-45, the number of households is eight.

Table 3.7 Educational Achievements of Household Heads Disaggregated by Age and Gender

Educational Achievement	Male	Female	Total	%
Below school going age	0	0	0	0
Not attended School	0	0	0	0
Up to 5th Grade	11	1	12	30.0
Grade 6-10	10	4	14	35.0
Pass O Level	5	0	5	12.5
Pass A Level	3	1	4	10.0
Degree	4	0	4	10.0
Post Graduate (PhD)	1	0	1	2.5
Total	34	6	40	100.0

Source: JICA Survey Team

All household heads have attended school. Out of them 11 men and one woman had studied only up to 5th standard, 14 up to General Certificate of Education Ordinary Level (GCE'O'Level), five has been successful at GCE-O'Level and 4 had passed GCE Advanced Level (GCE-A' level). There are 4 graduates all of them are males and 1 PhD holder who is a male.

Table 3.8 Project Affected Population Disaggregated by Age and Gender

Age Category	Number of Males	%	Number of Females	%	Total Number	%
Below 5	5	6.9	6	7.9	11	7.4
5-14	13	18.1	14	18.4	27	18.3
15-30	23	31.9	22	28.9	45	30.4
31-45	12	16.7	13	17.1	25	16.9
46-60	10	13.9	11	14.5	21	14.2
Over 60	9	12.5	10	13.2	19	12.8
Not disclosed	0	0	0	0	0	0
Total	72	100	76	100	148	100

Source: JICA Survey Team

Of the total number of PAPs, the male population is 72 and the females are 76. Over 30% of the population is in the age category of 15-30. The next highest age group is between 5-14 constituting 18.3% of the population. The children below 5 years comprises 7.4 % which is little below the national percentage of 8% (Census & Statistics). The senior citizens represent 12.8% of the population which little more than national percentage of 12.4 (Census & Statistics).

Table 3.9 Educational Achievement of Project Affected People Disaggregated by Gender

Educational Achievement	Male	%	Female	%	Total	%
Below school going age	5	6.9	6	7.9	11	7.4
Up to 5th Grade	13	18.1	17	22.4	30	20.3
Grade 6-10	17	23.6	18	23.7	35	23.7
Passed O Level	20	27.8	22	28.9	42	28.4
Passed A Level	9	12.5	7	9.2	16	10.8
Degree	6	8.3	5	6.6	11	7.4
Post Graduate	2	2.8	1	1.3	3	2.0
Total	72	100	76	100	148	100

Source: JICA Survey Team

All the project affected people have attended school. There are no illiterate people. Number of people studied up to GCE-O'Level is 35. Out of them 17 are males and 18 are females constituting 23.7% of the population. The number of PAPs successful at the GCE O'Level is 42 accounting for 28.4% of the population. but successes at the GCE'Advanced Level is 10.8%. There are 11 graduates and two post graduates which is quite impressive.

Table 3.10 Civil Status of Project Affected People Disaggregated by Gender

Status	Male	%	Female	%	Total	%
Married	33	45.8	33	43.4	66	44.6
Unmarried	17	23.6	11	14.5	28	18.9
Widow	0	0	7	9.2	7	4.7
Minor	22	30.6	25	32.9	47	31.8
Total	72	100.0	76	100.0	148	100.0

Source: JICA Survey Team

The number of married PAPs is 66 equally from both sexes. There are 28 unmarried PAPs, out of them 17 are men and 11 are women. The widow amounts to 07. This reflects the longevity of women as against men since there are no widowers among the PAPs. In Sri Lanka today the life expectancy of men is 72 years and that of women is 77. There are number of reasons for less longevity of men compared with women. Lack of adequate rest, proper nutritious, exposure to inclement weather and consumption of alcohol are main reasons. Consumption of cheap illicit liquor is rampant among men

in the plantation areas. PAPs who have not reached the legal marriageable age of 18 years is 47. Out of them 22 are men and 25 are women.

Table 3.11 Sources of Income of Project Affected People Disaggregated by Gender

Category of Employment	Primary Employment			Secondary
	Male	Female	Total	
Self-employment	3	6	9	0
Business	10	1	11	2
Public Sector Executive jobs	1	2	3	0
Public sector other grade jobs	5	1	6	0
Private sector Executive jobs	2	4	6	0
Private Sector other grade jobs	8	2	10	0
Foreign Employment	1	0	1	0
Security jobs	1	0	1	0
Skilled Labour	4	1	5	0
Wage labour	7	5	12	2
Total	42	22	64	4

Source: JICA Survey Team

The number of PAPs engaged in employment is 64. Out of them 42 are males and 22 are females. In addition to primary employment 4 PAPs are having a secondary employment also. Those who have taken to business as a source of earning is 11 two of them is having a secondary employment too. There are 9 PAPs employed in the public sector, out of them 3 are holding executive posts. There are 16 PAPs attached to the private sector establishments, out of them 06 are women. Skilled and wage labour constitute 17 PAPs. The number of PAPs eligible for employment is (between the age of 14-60) is 91, out of them 64 are employed, the Labour Force Participation Ratio is 70.3% which is much higher than the national ratio of 53.8% (Source: Dept. of Census & Statistics 2015)

Table 3.12 Average Monthly Income of PAPs by Gender

Income Category	Males	Females	Total	%
>5000	1	0	1	1.6
5,001-10,000	0	1	1	1.6
10,001-15,000	1	3	4	6.2
15,001-25,000	10	6	16	25.0
25,000-50,000	13	8	21	32.8
50,000-75,000	11	3	14	21.9
75,000-100,000	4	0	4	6.2
100,000-150,000	2	0	2	3.1
above 150,000	1	0	1	1.6
Total	42	22	64	100.0

Source: JICA Survey Team

The average monthly income of a PAP is Rs.38,203 which is above the national poverty line (USD1.90/day). Of the 40 households taken for socio-economic analysis, the average number of persons employed in a family is (64/40) is 1.6. On this basis average income of a family is Rs.61,125.00 per month. The number of families falls into the category of middle class is 22 as they are earning more than Rs.62,500.00 per month. Only two families which are earning less than Rs.10,000.00 monthly could be considered as very poor. None of these PAPs are losing their employment because there is no relocation involved.

Table 3.13 Monthly Expenditure of Project Affected Families

Item of Expenditure	No. of Families Responded	Average Amount Rs. / Month
Food	40	21,950
Clothes	16	942
Water	15	350
Electricity	40	250
Fuel	19	3,568
Gas	22	888
Tobacco/Betel	28	375
Alcohol	16	2,440
Communication	34	1,250
Entertainment	27	560
Charity	28	391
Vehicle Maintenance	19	1,283
Health	35	967
Transport	31	2,250
Education	40	2,971
Miscellaneous	35	866
Religious activities	30	300
House Repair	15	1,567
Home Appliance	31	1,171
Donation	32	163
Insurance	19	650
Cultural Activities	24	197
Total		45,349

Source: JICA Survey Team

Nearly half of the monthly expenditure is for food. The average monthly expenditure for a family is Rs.45,349. All 40 families are spending money for children's education. There is not much of expenditure on alcohol and tobacco. Number of families who contribute for charity is 28. Most of the people depend on surface water that they tap by using UPVC pipes. Since average monthly income of a family is more than the monthly expenditure PAP families could sustain themselves without getting indebted.

Table 3.14 Vulnerable Families

Type of Vulnerability	No. of Families
Very Poor	2
Very old without a reasonable income	3
Disabled	2
Women headed families without a reasonable income	3
Total	10

Source: JICA Survey Team

Vulnerable families are entitled to a onetime allowance of Rs.15,000 and material assistance and advise if required from the PMU to restore their lives. They will not become vulnerable due to the implementation of the project. They are classified as vulnerable due to the disadvantages they are faced with due to circumstances beyond their control.

CHAPTER4 LEGAL FRAME WORK

4.1 Key Statutes and National Policies Pertaining to Involuntary Resettlement

There are large number of statutes pertaining to land acquisition and resettlement administration in Sri Lanka. This chapter discusses the legislative, policies and practices pertaining to land acquisition and resettlement.

4.1.1 Land Acquisition Act (LAA) No.09 of 1950 as amended and Regulations

Land acquisition is done under the provisions of the land Acquisition Act of 1950, the Act was amended several occasions last being in 1986. In 2008 and 2013 rules were framed under LAA to pay compensation for the acquired land deviating from the provisions provided for this purpose under LAA.

The Act discourages the unnecessary acquisitions and land acquired for one purpose cannot be used for any other purpose, if it is not required by the state after acquisition should be returned to the original owner subject to fulfillment of following conditions.

1. No development had taken place in the acquired land
2. Even part of compensation not paid
3. It had not been used for a public purpose
4. After publishing the gazette notice for dispossession the original owner has consented to accept the land back.

Table 4.1 Process for Requirement of Land for Public Purpose

Aspect	Activity	Responsibility	Minimum Period for the task (weeks)
Acquisition Proposal	Prepare land acquisition proposal	Project Director	02 weeks
Approval of proposal	Submit to the Head of Department for approval	Project Director	01 week
Line Ministry Approval	Head of Department submits proposal with draft Gazette notification to Secretary of Line Ministry	Secretary to the Ministry	01 week
Ministers Approval	Secretary Line Ministry obtains Ministers approval	Secretary line ministry	03 weeks
Publication of Intent	Secretary to the Ministry gets the Gazette notification published	Government Printer	06 weeks
Forward Gazette notification to the land ministry	With the gazette notification to Secretary Land ministry	Ministry of land	open
Approval of Proposal	Minister of Land approves the proposal	Minister of Land	04 weeks

Table 4.2 Procedural Steps in Land Acquisition Process

Section	Aspect	Activity	Responsibility	Minimum period for tasks
Section 02	Notice	Secretary to the Ministry of Land issues Section 02 notice to the Divisional Secretary specifying the area in which a land is required for public purpose and that notice permits authorized personnel to undertake investigations to determine whether land is suitable for the public purpose	Secretary Ministry of Land	03 weeks
Section 4 (1)	Publication of Notice		Ministry of Land	06 weeks
Section 4 (2) and 4 (4)	Opportunity for objections	Notice affords an opportunity for the owner/occupiers to make written objections to the intended acquisition	Secretary line Ministry	12 weeks
Section 05	Declaration published in Government Gazette	Where Minister decides that a particular land will be acquired, he shall make a declaration by gazette notification	Minister of Land	03 weeks
Section 07	Notice to persons interested	Describes the land and the intention to acquire it and directs any persons with any interest in the land appear before him on a specified date, time and place their claims for such interests and compensation	Acquiring Officer, (The Divisional Secretary)	06 weeks
Section 09	Inquiry into claims for compensation	Inquiries into the respective interests of the claimants, ascertain the market value of the land, the claims for compensation and any other relevant matters provided for in the LAA. At the conclusion of the inquiry, the acquiring officer makes a decision on the claims.	Acquiring Officer	08 weeks
Section (10.1)	Reference to Court	Refers the claims with disputes to the District Court or the Primary Court for determination	District Court/Primary Court	Indefinite
Section (10.3),(10.4),(10.5)	Reference to Court	Determines the persons who are entitled for compensation, the total amount of compensation for the acquisition and the apportionment of such amount between several persons with interest in the land.	District Court/Primary Court	Indefinite
Section 17	Award of Acquiring Officer	After inquiry the Acquiring Officer determines the persons who are entitled to compensation, the total amount of compensation for the acquisition and the apportionment of such amount between several persons with interest in the land.	Acquiring officer	05 weeks
Section 22	Right of Appeal	If parties disagree, an appeal lies to the Board of Review	PAPs/Board of Review	Indefinite
Section 28	Appeal to Supreme Court	Review to the Court of Appeal on questions of Law. Legal provisions applicable to the assessment of compensation are included in the part VI of LAA. After an award is made and compensation paid, the Minister publishes an order under Section 38 of the LAA directing the Acquiring Officer to take possession of the land.	Supreme Court	Indefinite
Section 29	Payment of Compensation	The Acquiring Officer tenders to each person, the amount of compensation	Acquiring Officer	04 weeks

Section	Aspect	Activity	Responsibility	Minimum period for tasks
		allowed to him by that award		
Section 38A	Notice	A notice under Section 38A is Gazette. This is a vesting order. The implementation Agency requests the Land Minister to take over the land.	Minister of Land	06 weeks
Section 44(1)	Vesting of Land	After taking possession of the land, the Divisional Secretary hands over to the respective Government Institutions and issues. Section 44 (1) Vesting Order.	Divisional Secretary	03 weeks

Source: Metro Colombo Urban Development Project (MCUDP), Social Management Framework – 2012

4.1.2 State Land Recoveries of Possession Act 7 of 1979

This Act gives the authority to the government to issue notice to the parties who occupies the land to vacate. It is an obligation to comply with the quit notice. If not complied with the quit notice, the Law provides for the magistrate to issue an ejection notice. If there is a cause for the illegal occupant to show cause, inquiry will be held by the magistrate. This Act is useful in case where after receipt of compensation if an affected person continues to occupy the land, for the state to take the possession of the relevant land.

4.1.3 State Land Ordinance No 8 of 1947

- Section (b) of the ordinance provides that the State land grants can be issued on request by interested parties, and the rents are to be collected from the grantees for the use of the land.

4.1.4 Road Development Authority Act No. 73 of 1981

- The Road Development Authority Act (1981) provides for the establishment of the RDA and specifies its powers. Section 22 deals with land acquisition for road development as a "public purpose" and provides for the acquisition by, and transfers to, the RDA movable or non-moveable property within any declared road development area.

4.1.5 National Thoroughfares Act, No. 40 of 2008

- The Act has the following features:
- Empowers the Highways Authority to establish Road Network Development Advisory Council and District Road Development Coordinating Committees
- Prevents unauthorized constructions within the road reservations.
- Construct new roads and diversion roads.
- Local authorities deputized to do land acquisition for widening and construction of roads.
- Special grants under the Crown land Ordinance such as the authority to alienate lands.
- Purchase lands for resettlement sites.

Power to purchase land by the Highways Authority would accelerate the process of resettlement, and officers are authorized to pay compensation for the damages caused to properties. As a whole, this Act facilitates the construction of new roads and improvement to existing roads through the establishment of mechanisms for fast acquisition of land, payments of compensation and relocation of displaced persons/institutions/organizations.

4.1.6 Forest Ordinances as Amended

Lands declared as forest land is administered by the Department of Forest Conservation. They have no authority to release land on long term basis. They can release land only on renewable annual permits. Lands found within conservation areas and Reserves cannot be released for other activities by the Department of Forest Conservation (DFC). Land required for public purposes should be released by the DFC when requested by the relevant PMUs, after satisfying the conditions laid down in the NEA for prescribed projects.

4.1.7 Prescriptive Ordinance No 22 (1871)

Under sections 3 and 13 of these ordinances, households who have encroached into private land and have been occupying it continuously for at least 10 years may apply through the courts for prescriptive rights to the land. Prescription does not run against state or temple lands.

4.1.8 National Environmental Act No 47 of 1980 (NEA)

According to the National Environmental Act No.47 of 1980, if more than 20 families are displaced a comprehensive resettlement plan should be prepared by the project proponent, if the displacement is less than 20 families an abbreviated RAP is sufficient. In road construction projects if the length of the road is more than 10kms or if the construction requires removal of more than one hectare of forest cover a comprehensive RAP is a must.

4.2 Compensation Policy of the Government of Sri Lanka for Acquired Properties

The operational procedures of the LAA are laid down in detail and under it claimants are paid only the depreciated value for structures which often led to difficulties in resettling affected people. Under LAA, any aggrieved party on the valuation determined by the Department of Valuation can appeal to the Land Acquisition Review Board (LARB) within 21 days of the issuance of the Sec.17 order under LAA by the Acquisition Officer. If not satisfied with the decision of the LARB, an appeal could be made to the Supreme Court.

Though Land Acquisition Act was amended several times, no attempt was taken to revise principles outlined in the Act on compensation until Land Acquisition and Resettlement Committee System (LARC) was introduced in 2001 after the adoption of National Involuntary Resettlement Policy (NIRP) by the Cabinet of Ministers. This system was first implemented for the payment of enhanced compensation over the amount determined by the Chief Valuer to reflect the market value for the land and replacement cost for structures and for other disturbances connected with displacement of people who were affected due to the acquisition of land for the Southern Expressway Project. Those who were aggrieved with the decision of the LARC had the space to appeal to a higher committee designated as Super LARC. Those displaced especially due to the acquisition of private land for projects undertaken by the state were reasonably compensated. Subsequent surveys have revealed that affected were much satisfied with the quantum of compensation received by them. The LARC system was terminated in 2008 as different state organizations had different approaches to pay compensation under LARC system and replaced by rules framed by the Minister of Lands and Land Development in 2008, but again the LARC system was reintroduced in 2013 for 16 designated road [projects and subsequently the payment of compensation under 2013 regulations is being implemented for projects where cabinet approval had been obtained. The NGO 's and other pressure groups played a significant role to influence the legislators to pass the relevant regulations though it fell short of amending the specific clauses of the Act. Nevertheless, the regulations are a part of the Act and recognized by Law.

4.2.1 Compensation under Land Acquisition Act (LAA)

The National Policy on Involuntary Resettlement (NIRP) provides that compensation should be based on full replacement cost and should be paid promptly with transaction costs. This policy is in congruent with international practices and in conformity with safeguard statements of the leading lending institutions notably WB, ADB and JICA but the LAA provides for the payment of compensation at market value and defines the market value as the amount which the land might be expected to have realized if sold by a willing seller in the open market as a separate entity. This definition would cause hardships to the owner if a small stretch of a large land is acquired since a small stretch of land fetches a minimum value in the market. By the 2008 regulations this anomaly caused to the PAP is avoided. The emphasis in the LAA for the payment of compensation for individual PAPs rather than the loss of properties which are community owned. LAA provides for the payment of compensation for the loss of income under Section 46 of the Act. It states that for those who maintain accounts, net average income for 03 calendar years immediately preceding the publication of Sec.07 notice under LAA should be paid. The Act is silent on informal businesses. Most of the adverse clauses on payment of compensation contained in the LAA is not followed at present after promulgation of regulations for payment of compensation under LAA in Parliament in the years 2008 and 2013. By regulations of 2013, the Land Acquisition Resettlement (LARC) and Super LARC system had been reintroduced and LARC and Super LARC is empowered to revisit the market rates offered to PAPs by the Department of Valuation and decide on payments for other disturbances for some selected projects. If the authorities resort to acquire land under Section 38(a) of the Act as an urgent requirement, the Act provides for payment of interest at 7% per annum from the date of publication of Sec.38 (a) notice till the issue of cheque for the full settlement of the compensation. JICA does not encourage emergency acquisition process as such land acquisition for this project will be done under the normal method. The whole mark of the 2013 regulations is the compensation based on replacement cost for the structures and market value for the land irrespective of the extent acquired.

4.2.2 Settlement of Compensation Fully Prior to Taking over Possession of Assets

Due to administrative delays and procedural issues, non-submission of documents to prove ownership by PAP when requested by Acquiring Officers (AO) payment of compensation tend to get delayed. Payments of compensation may get delayed due to disputes, in such instance's compensation due to the acquired assets to the owner or co-owners will be deposited in a Court of Law as the project activities could not be delayed till the ownership's issues are settled. The NIRP and safeguard policy of the JICA expect the project management not to take possession of the land till compensation is settled. Contract for construction could be only awarded after the payment of compensation fully to the affected people.

4.2.3 Compensation for Non-Titled Persons

According to NIRP, affected persons who do not have documented title to the land should receive fair and just treatment. As per the Section 07 of the LAA, the Acquiring Officer publishes a notice directing every person interested in the land which is to be acquired or over which the servitude to be acquired should notify in writing the nature of their interest in the land, the particulars of the claim for compensation, the amount of compensation and the details of the computation of the amount sought as compensation. The term person interested is defined in the Act as follows.

“person interested with reference to a land means a person having an interest in the land as owner, co-owner, mortgagee, lessee or otherwise, whether absolutely for himself or in trust for any other

person or any charitable ,religious or other purpose or a person having a servitude over the land, but does not include a tenant on a monthly basis” (Source: LAA)

The affected persons without title and in occupation of state land will be eligible for compensation on the improvements made on the land and for entitlements for disturbances. Those who are squatters on private land and had enjoyed over 10 years of unencumbered possession is entitled to claim prescriptive rights

4.3 National Involuntary Resettlement Policy (NIRP)

The cardinal principles of the NIRP are that the affected are compensated at replacement cost, incomes rehabilitated and they are resettled if resettlement is triggered. The affected should not be impoverished and the project proponent should ensure that the affected at least should enjoy the pre project level standard of living but try to ensure a better level of living than what they enjoyed prior to the project. The operational policies of the NIRP, requires that resettlement is avoided or minimize as far as possible by exploring viable alternatives at the project design stage. The project should be a development opportunity for the affected too.

4.3.1 Rationale of NIRP

In Sri Lanka, the LAA and subsequent regulations enacted by parliament only provides for compensation for land and structures and loss of income of some categories. It does not require project executing agencies to address key resettlement issues such as exploring alternative project options that avoid or minimize impacts on people, compensating those who do not have title to, but are currently using and dependent on land, or implementation of income restoration measures aimed at the social and economic rehabilitation of displaced / affected persons. It does not deal adequately with the impacts on those occupiers of lands who are not title holders but whose lands are taken over for development purposes.

To ensure that displaced /affected persons are treated in a fair and equitable manner, and to particularly ensure that people are not impoverished or suffer unduly as a result of public or private project implementation, Sri Lanka has adopted a national policy to protect the rights of all people affected by development projects. To remedy the current gaps in the LAA in addressing key resettlement issues, the Cabinet of Ministers approved on 16 May 2001, the National Policy on Involuntary Resettlement (NIRP) and enunciated its adoption to all development induced resettlement. The Ministry of Lands has the institutional responsibility for implementing the NIRP. The newly adopted policy, principled on human and ethical considerations entails the payment of resettlement value (replacement cost) and arranges for their resettlement and where necessary even their rehabilitation. Even though NIRP is not in the statute book, the policy is adopted by the GOSL for projects funded by ADB, WB and JICA after its adoption in 2001 and subsequently projects funded by Government of Sri Lanka too. Any public official who contravene the NIRP is subject to disciplinary action by the heads of respective organizations. It is an issue that can be raised at parliamentary select committee by a member of parliament on behalf of PAPs or inquired by the Ombudsman of Parliament, Human Rights Commission or by courts of Law LARB which is the legal body under the LAA to review the appeals against compensation issues often referred the applicants back to LARC in the past as the LARC system is more beneficial and expeditious in arriving at a decision on compensation issues. As a result, there were hardly any appeals directed to LARB by the PAPs where LARC system was in operation. The practice had been in the past to follow the policies of ADB, WB and, JBIC and other relevant donors when there exists an ambiguity between donor policy and NIRP/LAA. At close examination it appears that the NIRP and donors’ policies

particularly that of JICA, WB and ADB are at congruent in most of the issues. Contravention of provisions of the RAP which is prepared based on NIRP and donor policies could invite sanctions from the donors too.

4.3.2 Objectives of the Policy

To avoid, minimize and mitigate negative impacts of involuntary resettlement by facilitating the reestablishment of the displaced people on a productive and self-sustaining basis. The policy should also facilitate the development of the project-displaced people and the project.

To ensure that people adversely displaced by development projects are fully and promptly compensated and successfully resettled. The livelihoods of the displaced persons should be reestablished and the standard of living improved.

To ensure that no impoverishment of people shall result as a consequence of compulsory land acquisition for development purposes by the State. To assist adversely displaced people in dealing with the psychological, cultural, social and other stresses caused by compulsory land acquisition.

To make all displaced people aware of processes available for the redress of grievances that are easily accessible and immediately responsive.

To have in place a consultative, transparent and accountable involuntary resettlement process with a time frame agreed to by the PMU and the displaced people.

4.3.3 Scope

- The policy will apply to all development-induced land acquisition or recovery of possession by the state.
- A comprehensive Resettlement Action Plan will be required where 20 or more families are displaced.
- If less than 20 families are displaced the policy still applies but a plan can be prepared to a lesser level of detail.
- The policy will apply to all projects regardless of source of funding.

4.3.4 Policy Principles

- Involuntary resettlement should be avoided or reduced as much as possible by reviewing alternatives to the project as well as alternatives within the project.
- Where involuntary resettlement is unavoidable, displaced people should be assisted to re-establish themselves and improve their quality of life.
- Gender equality and equity should be ensured and adhered to throughout the policy.
- Displaced persons should be fully involved in the selection of relocation sites, livelihood compensation and development options at the earliest opportunity.
- Replacement land should be an option for compensation in the case of loss of land; in the absence of replacement land cash compensation should be an option for all displaced persons
- Compensation for loss of land, structures, other assets and income should be based on full replacement cost and should be paid promptly. This should include transaction costs.
- Resettlement should be planned and implemented with full participation of the provincial and local authorities.
- To assist those displaced to be economically and socially integrated into the host communities; participatory measures should be designed and implemented.

- Common property resources and community and public services should be provided to displace people.
- Resettlement should be planned as a development activity for the displaced people
- Displaced persons who do not have documented title to land should receive fair and just treatment.
- Vulnerable groups should be identified and given appropriate assistance to substantially improve their living standards.
- Project Executing Agencies should bear the full costs of compensation and resettlement. The adoption of NIRP in its entirety will make it possible to conform fully to the donor's policies.

4.3.5 Japan International Cooperation Agency's (JICA) Guidelines on Environmental and Social Consideration

- Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. When avoidance is proved unfeasible, effective measures to minimize impact and to compensate for losses must be agreed upon with the people who will be affected.
- People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by project proponents etc. in a timely manner.
- Appropriate participation by affected people and their communities must be promoted in the planning, implementation, and monitoring of resettlement action plans and measures to prevent the loss of their means of livelihood.
- For projects that will result in large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public.
- Opinions of the stakeholders encompass the social safe guard policies of JICA. Since JICA endeavor to overcome the adverse effects that may visit the project affected due to expropriation of their assets. JICA ensures meaningful participation of stakeholders in the project planning process, thereby gaining consensus especially on environmental and social considerations.
- World Bank was the trendsetter in introducing social safeguards to protect the PAPs from exploitation and suffering of hardships due to development induced land acquisition. JICA confirms that its policies do not deviate significantly from the World Bank's Safeguard Policies, and refers to a benchmark of standards set by international financing institutions, treaties and declarations; and to internationally recognized good practices including that of Japan when appropriate. When JICA recognizes that laws and regulations related to the environment and social considerations of the project are significantly inferior to the aforementioned standards and good practices, it (JICA) encourages project proponents including local governments, to take more appropriate steps through a series of dialogues, in which JICA clarifies the background and reasons for the inferior regulations and takes measures to mitigate the adverse impact when necessary.

4.3.6 World Bank's Involuntary Resettlement Policies

- The World Bank was the pioneer in adopting social safeguard policies for application in the projects financed by it to ensure that persons affected will not be in a worst situation as

compared to its pre-project socio-economic conditions. The basic principles of the Bank's O.P. 4.12 includes:

- Involuntary resettlement should be avoided where feasible;
- Where population displacement is unavoidable, it should be minimized by exploring all viable alternative project options;
- People unavoidably displaced should be compensated and assisted, so that their economic and social future would be generally as favorable as it would have been in the absence of the project;
- People affected should be fully informed and consulted on resettlement and compensation options; and
- Involuntary resettlement should be conceived and executed as part of the project.
- JICA and World Bank's policies and those of NIRP are more or less congruent and the latter is, in fact inspired by the former. The adoption of NIRP in its entirety will make it possible to conform fully to the JICA policies.

Summarizing the above, Sri Lanka has a complex legal system to manage land acquisition and regulate land use. It has an advanced system for valuation of properties, both in specialized and non-specialized categories involving different methods. The existing legal provisions come close to meeting the JICA Guidelines and the WB's safeguard requirements in respect of land acquisition and involuntary resettlement. Specifically, the NIRP and the Land Acquisition Regulations (LAR) 2008 and 2013 seek to address gaps thus bringing the process closer to the JICA Guideline and the WB's safeguard policies.

However, unless the project operations supported under the project are accorded "specialized projects" under LAR 2013, provisions contained in the LAR 2013 may not apply in the context of the project. Further, the NIRP while being largely consistent with the JICA Guidelines is nevertheless a statement of policy intention without specific rules and prescriptions to guide safeguards implementation.

There are differences/gaps between the JICA Guidelines and Sri Lankan laws/policies in relation to land acquisition and resettlement. Although the JICA Guidelines and NIRP are more or less similar, there are some gaps when compared with the JICA Guidelines and LAA. **Table 4.2** analyzes gaps between the JICA Guidelines and Sri Lankan laws/policies applicable to the project, and proposes measures to bridge the gaps.

Table 4.3 Comparative Analysis on the Gaps in the Sri Lankan Laws/Policies and the JICA Guidelines

No.	JICA Guidelines	Laws/Policies in Sri Lanka	Existence of Gap, and Measures to bridge the Gap
1	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. (JICA Guidelines (GL))	LAA does not require it, but discourages unnecessary acquisition and requires that the land should be used for the purpose for which it is acquired. NIRP requires to avoid or reduce involuntary resettlement as much as possible by reviewing alternatives.	Yes: between LAA and JICA GL, No: between NIRP and JICA GL The project proponent (PP) should follow the NIRP and JICA GL.
2	When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken. (JICA GL)	NIRP requires avoiding and minimizing the impacts. NIRP requires that affected persons (APs) should be involved at the earlier stage with regard to resettlement sites, compensation for losses of livelihoods and recovery of livelihoods.	Yes: between LAA and JICA GL, No: between NIRP and JICA GL The PP should follow the NIRP and JICA GL and take effective measures to compensate the APs for the losses on the basis of an agreement between the APs and the PP.
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 regulation 2008 has considerations for the period, like paying expenses for finding alternative accommodation etc. and other payments for disturbances. NIRP provides that income should be restored, livelihood be reestablished, and standard of living improved.	No Following the NIRP and JICA GL, the PP should pay the APs for restoration of livelihoods, expenses and compensation for displacement.
4	Compensation must be based on the full replacement cost as much as possible. (JICA GL)	LAA regulation 2008 provides for valuation at replacement cost. NIRP provides that compensation for loss of land, structures, other assets and income should be based on full replacement cost and should be paid promptly.	No Following the NIRP and JICA GL, compensation should be based on the full replacement cost.
5	Compensation and other kinds of assistance must be provided prior to displacement. (JICA GL)	LAA provides taking over possession before payment of compensation. NIRP does not allow it. Road Development Authority's (RDA's) customary practice is not to remove APs before paying compensation.	Yes: between LAA and JICA GL, No: between NIRP and JICA GL Following the NIRP and JICA GL, compensation and other kinds of assistance should be provided prior to displacement.
6	For projects that entail large-scale involuntary resettlement, resettlement action plans (RAPs) must be prepared and made available to the public. (JICA GL)	LAA does not require a RAP. NIRP requires a comprehensive RAP for the project exceeding displacement of more than 20 families. If involuntary resettlements exceed 100 families, the project is considered as a prescribed project and required EIA under the NEA.	Yes: between LAA and JICA GL, No: between NIRP and JICA GL If more than 20 families are displaced by the project, the PP should prepare and make available to the public following the NIRP and JICA GL.
7	In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient	LAA does not require a consultation with the APs. NIRP requires it. LAA statutorily imposes all communication to be publicly	Yes: between LAA and JICA GL Almost No: between NIRP and JICA GL

No.	JICA Guidelines	Laws/Policies in Sri Lanka	Existence of Gap, and Measures to bridge the Gap
	information made available to them in advance. (JICA GL)	announced through legal notifications in print media, and through GN officers. If the project is subject to IEE or EIA, the report should be available for the information of the public or public comments respectively. No stipulation on disclosure of RAP to the public is found.	RAP should be disclosed to the public and available in the web site of RDA and JICA, and consultations with the APs and their communities should be held. An entitlement matrix should be translated in local languages and distributed to the APs.
8	When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people. (JICA GL)	Under NEA, IEE/EIA report should be prepared in Sinhala, Tamil and English, and disclosed to the public. Although there is no stipulation on language to be used for consultations, usually Sinhala and Tamil are used.	(No as policies) Following JICA GL and NEA, Sinhala, Tamil and English should be used for consultations.
9	Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans. (JICA GL)	LAA does not require participation of APs in planning, implementation and monitoring of RAP. NIRP requires the full participation of the provincial and local authorities in the planning and implementing process.	Yes: between LAA and JICA GL, No: between NIRP and JICA GL Following JICA GL, participation of APs should be promoted in planning, implementation and monitoring of involuntary resettlement and restoration of livelihood.
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. NIRP requires establishing a project-based grievance redress mechanism (GRM).	No Following the NIRP and JICA GL, an appropriate and accessible GRM should be established.
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 advantage of such benefits. (WB OP4.12 Para.6)	NIRP states the importance for identification of APs at initial stage but does not stipulate identification of APs through initial baseline survey.	Yes: between LAA/NIRP and JICA GL Following JICA GL, APs should be identified through initial baseline survey.
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 OP4.12Para.15)	LAA considers that only titleholders and tenants are protected under Rent Act 1972. NIRP policy principles states that APs who do not have documented titles to land should receive fair and just treatment. It is government policy to pay rehabilitation assistance to the replacement cost of structures owned by no-title holders.	Yes: between LAA and JICA GL, No: between NIRP and JICA GL Following the NIRP and JICA GL, entitlement should be provided to those who have no-title for the land or structures in the project area prior to the cut-off date for eligibility or resettlement assistance.
13	Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods	NIRP states that replacement land should be an option for compensation in the case of loss of land, in the	No Following the NIRP and JICA GL,

No.	JICA Guidelines	Laws/Policies in Sri Lanka	Existence of Gap, and Measures to bridge the Gap
	are land-based. (WB OP4.12 Para.11)	absence of replacement land, cash compensation should be an option for all APs.	land replacement should be a principle for compensation, in the absence of replacement land, cash compensation should be an option.
14	Provide support for the transition period (between displacement and livelihood restoration). (WB OP4.12 Para.6)	There is no stipulation that refers to support for the transition period	Yes Following JICA GL, support should be provided for the transition period.
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)	LAA does not mention this matter. NIRP requires special treatment for the vulnerable groups	Yes: between LAA and JICA GL, No: between NIRP and JICA GL Following the NIRP and JICA GL, particular attention should be paid for the vulnerable groups.
16	Where impacts on the entire displaced population are minor or fewer than 200 people are displaced, an abbreviated resettlement plan may be agreed with the borrower. (WB OP4.12 Para.25)	LAA does not require a RAP. NIRP requires an abbreviated RAP for the projects that entail displacement of fewer than 20 families.	Yes: between LAA and JICA GL No: between NIRP and JICA GL No displaced population is expected in the project. Following the NIRP and JICA GL, an abbreviated RAP should be prepared for the projects that entail displacement of fewer than 20 families or 200 peoples.

Source: JICA Survey Team

4.4 The cut-off date

Cutoff date for land owners with titles is the date of publication of the Sec.2 notice under Land Acquisition Act (LAA)

For occupants of land without titles the cut-off date is the date of the commencement of the land acquisition and resettlement survey (LARS) which is 24th July, 2019

Persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. With the assistance of GN through DS, PMU/RDA will patrol the sites and warn such persons against encroachment. They will be given sufficient advance notice, and requested to vacate premises and dismantle structures prior to project implementation.

CHAPTER 5 ENTITLEMENTS

5.1 Eligibility Criteria

Any individual, household or a community impacted physically, economically due to acquisition of properties by the state is eligible to receive compensation to cover the value of such losses. The affected will not be impoverished and the policy of the NIRP and safeguard statement of World Bank 2009, JICA requires the affected to be better in status enjoyed prior to the project or at least maintain status quo. But project will endeavor to make them better economically and socially.

In order to address the issue of compensation number of mechanisms is in operation

5.2 Valuation determined by the Chief Valuer and By EAC

5.2.1 Compensation for land and structures

Chief Valuer will determine the compensation payable for land and structures based on the 2013 regulations enacted by Parliament. In deciding the value for land, the prevailing market value for such lands will be taken into consideration including transaction costs. When a small portion of a land plot is acquired the rate is determined on the basis, the value that could be realized, if that land is sold as one entity. Compensation is available for injurious affection, severance and disturbances too.

If a portion of the structure is acquired the compensation will be calculated to the next structural support point. After acquisition, if the remaining portion of the structure is not structurally sustainable, full compensation will be paid for the structure. If the balance portion of the structure collapses within six months after acquisition, the project will meet all the costs associated with such an event determined by the Entitlement Assessment Committee (EAC).

5.2.2 Compensation for Uneconomical Parcels

Uneconomical parcel of lands for e.g. after acquisition, if the remaining extent is less than stipulated extent required for construction of a house or a commercial building in a local authority area such uneconomical lots will be acquired by the project or pay 25% of the computed value of the land if the PAP agreeable to receive the injury while retaining the uneconomical parcel of land.

5.2.3 Compensation for houses and shops falling under Rent Control ACT

Does not apply in this project

5.2.4 Compensation for Loss of Income

For complete loss of income formal businesses (Registered businesses with documentary proof of payment of income tax) are entitled for three years average net income immediately preceding acquisition. For informal businesses, Rs.15,000 or up to three months net income whichever is higher will be paid, if the income is ascertained through supporting documents.

5.2.5 Loss of Livelihood and Employment

Those who are self-employed and temporarily affected due to loss of income will be entitled for a loss of livelihood payment during business/employment reestablishment. The persons who lose the wages of employment due to the permanent acquisition of their places of employment will be entitled for the payment for lost income and rehabilitation package to provide support and income restoration.

Table 5.1 Entitlement Matrix

Type of Impacts/Entitlements	Compensation	Eligibility	Responsibility	Implementation Issue
Permanent Loss of land 1.1 Non-agricultural land (e.g. residential lands, barren lands)	<p>A) All (cash) payments for acquisition of land will be on the basis of replacement cost as determined by the Chief Valuer. The difference between the statutory compensation determined by the Land Acquisition Act (LAA) and the replacement cost is payable as an ex-gratia payment. All ex-gratia payment shall be determined by Land Division of RDA (LD).</p> <p>B) If the portion remaining after the acquisition cannot be used as a separate plot, and if the PAP desires to keep the remaining portion with him/her, the Land Division of RDA will consider to pay the compensation for that part as well.</p>	Land owner or affected persons losing assets on productive land	<p>Chief Valuer (CV) , Divisional Secretary (DS), RDA/ ESDD, LD, PMU</p> <p>Provincial Director/RDA, The Committee termed Land Acquisition and Resettlement Committee (LARC) and Super LARC.</p>	<p>The project will not need to acquire the affected land to construct its landslide mitigation measures, when the memorandum of agreement to be signed between RDA and the individual affected private land owners/plantation estates/ other government organizations allows RDA to install the structures in the affected lands and then return the land to its owner after the work is completed.</p> <p>However, in the event during the construction and operation period when land is permanently acquired, then these measures will apply.</p>
1.2 Agricultural lands	<p>A) For agricultural lands, compensation will be paid as item 1.1 above.</p> <p>B) If the remaining portion after acquisition is no longer economically viable, the Land Division of RDA could decide whether to acquire the whole property or pay compensation for the residual land. Reasonable time will be given to harvest perennial crops, or payment will be made at market value.</p>	Land owner or affected persons losing assets on productive land	<p>CV,DS RDA/ESSD, LD, PMU</p> <p>Provincial Director/RDA. Agrarian Service Department, LARC and Super LARC</p>	
1.3 Temporary Loss of land	<p>A) The plots of private lands and plantation estates will be temporarily taken on lease during construction stage. The land lease fee will be calculated by multiplying the market price of lease and</p>	Private land owners or affected persons losing assets on affected productive land	<p>CV,DS RDA/ESSD, LD, PMU</p> <p>Provincial</p>	Additional lands may be needed by the contractor for its temporary construction facilities (i.e. access road, construction camp, garage, temporary disposal sites, etc.) to

Type of Impacts/Entitlements	Compensation	Eligibility	Responsibility	Implementation Issue
	<p>required duration of the land. The payment shall be determined by the Land Division of RDA.</p> <p>B) Compensation and other entitlements will be paid to affected persons for any loss of non-movable assets and/or loss income described in Item 2 below.</p>		<p>Director/RDA. Agrarian Services Department LARC and Super LARC</p>	facilitate the construction work.
<p>2. Lost Assets (Buildings and Structures)</p> <ul style="list-style-type: none"> Parts of structures; Access of business and residential places/concrete steps Remaining portion of the structure after acquisition if unusable. 	<p>A) Pay replacement cost for the affected portion based on the extent (volume) of the structure without depreciation.</p> <p>B) Compensation should be paid for the unusable portion at replacement cost.</p>	Owners of affected structures with proof of ownership	<p>CV,DS, RDA/ESDD, LD, PMU Provincial Director/RDA, RE LARC and Super LARC</p>	<p>Applicable to the following cases:</p> <ul style="list-style-type: none"> A permanent building (a small store) and a temporary building (a shed) belonging to the same owner are affected. However these buildings are not used for a residence and will be rebuilt in the same premises. 60 PVC pipelines where PAPs are tapping water from fountains.
<p>3. Loss of Business</p> <p>3.1. Informal (non-tax payers)</p>	<p>A) If income could be proved by supporting documents, Rs.15,000.00 or net income of three (3) months whichever is higher.</p>	All informal business owners who are affected	<p>CV,DS RDA/ESDD, LD, PMU Provincial Director/RDA, RE LARC and Super LARC.</p>	There are no businesses that may be affected by the Project implementation. However, in the event such case occurs during the construction phase, this measure will apply.
<p>3.2. Formal (tax payers)</p>	<p>A) Adjusted average net profit of three (3) years preceding the publication of Sec.07 notice under LAA</p>	All formal business owners who are affected	<p>CV,DS RDA/ESDD, LD, PMU</p>	There is no expected loss of formal business due to the Project implementation. However should such event occur during construction,

Type of Impacts/Entitlements	Compensation	Eligibility	Responsibility	Implementation Issue
			Provincial Director/RDA, RE LARC and Super LARC.	these measures will apply.
3.3. Temporary Disruption of business	A) Payment will be made for the business disruption period including the preparation period necessary for income reestablishment. The Land Division of RDA will arrange and determine the payment in detail.	All Business owners who are affected	CV,DS RDA/ESDD, LD, PMU Provincial Director/RDA, RE, LARC and Super LARC	<p>The business of eleven (11) companies owning tea plantations will be disrupted during the implementation stage when the land is temporarily acquired for construction related activities. They are entitled to disruption of business if they agree to hand over their lands without acquisition. It takes at least three (3) years to obtain an income after getting the land back. Assuming a period of two (2) years for construction, it will take at least five (5) years to establish the business. Though the Entitlement Matrix provides payment of disruption of business during business reestablishment for five (5) years, the quantum of disruption of business for plantation companies should be determined by the LD.</p> <p>The business of one (1) shop will be disrupted during rebuilding affected shop and shed for one (1) year. The owner is entitled to the allowance for temporary disruption of business. The payment should be determined by the LD.</p>

Type of Impacts/Entitlements	Compensation	Eligibility	Responsibility	Implementation Issue
3.4. Loss of livelihood (Temporarily affected)	A) Payment will be made during business or employment reestablishment based on the income that can be proved by supporting documents. The Land Division of RDA will arrange and determine the payment in detail.	All temporarily affected employees, wage or daily labours and self-employees	CV,DS RDA/ESDD, LD, PMU Provincial Director/RDA, RE , LARC and Super LARC	There is no expected loss of livelihood of employees or self-employees due to the project implementation. However should such event occur during construction, this measure will apply
3.5 Loss of livelihood (Permanently affected)	A) Payment for lost income, and rehabilitation package to provide support and income restoration. Payment of allowance of Rs.15,000 or three (3) months basic salary whichever is high (subject to proof of six (6) months employment before the publication of the notice under Sec02 of LAA)	All permanently affected employees, wage or daily labours and self-employees	CV,DS Social staff of RDA and PMU/LD Provincial Director/RDA, RE, LARC and Super LARC	There is no expected loss of employment due to the project implementation. However, should such event occur during construction, this measure will apply.
4. Vulnerable Households	A) An extra payment shall be paid for families in a vulnerable situations as determined by the Land Division of RDA At present, RDA pays one-time allowance of Rs.15,000 per family. The vulnerable HH will be provided the following: <ul style="list-style-type: none"> • Assistance to improve income • Help in finding employment for vulnerable families in the project if suitable jobs are available 	All household that fall within the category of vulnerable households e.g. elderly, women headed households without a reasonable income, poor, disabled, indigenous people	CV,DS RDA/ESDD, LD, PMU Provincial Director/RDA, RE LARC and Super LARC	

Type of Impacts/Entitlements	Compensation	Eligibility	Responsibility	Implementation Issue																				
5. Loss of Trees	A) Cash payment for loss of trees on market value on the basis of type, age and productive value of affected trees. For tenant, the payment will be paid to the tenant.	Person who plants trees owned by private	CV,DS Social staff of RDA and PMU/LD Provincial Director/RDA, RE, LARC and Super LARC	The payment for the damaged productive trees such as fruit trees and rubber trees All trees including miscellaneous trees will be cut and given back to the owners.																				
6. Temporary Residential facilities	<p>A) Payments applicable to APs for temporary residential facilities.</p> <p>Rate depends on the floor area of the house occupied by the APs prior to the date of the Order published under Sec.02 of the LAA.</p> <table border="1"> <thead> <tr> <th>Floor Area (ft²)</th> <th>MC (Rs)</th> <th>UC (Rs)</th> <th>PS (Rs)</th> </tr> </thead> <tbody> <tr> <td><500</td> <td>50,000</td> <td>40,000</td> <td>20,000</td> </tr> <tr> <td>500-700</td> <td>60,000</td> <td>50,000</td> <td>50,000</td> </tr> <tr> <td>700-1000</td> <td>75,000</td> <td>60,000</td> <td>40,000</td> </tr> <tr> <td>>1000</td> <td>100,000</td> <td>75,000</td> <td>50,000</td> </tr> </tbody> </table> <p>MC: Municipal council areas UC: Urban council areas PS: Pradeshiya sabha areas</p>	Floor Area (ft ²)	MC (Rs)	UC (Rs)	PS (Rs)	<500	50,000	40,000	20,000	500-700	60,000	50,000	50,000	700-1000	75,000	60,000	40,000	>1000	100,000	75,000	50,000	The affected persons who hand over the possession of a cultivated land or a residential building before the date specified by the Acquisition Officer	CV,DS, RDA/ESDD, LD, PMU Provincial Director/RDA, RE, LARC and Super LARC	There is no expected PAP who needs temporary residential facilities. However, if such need arises during construction, this measure will apply.
Floor Area (ft ²)	MC (Rs)	UC (Rs)	PS (Rs)																					
<500	50,000	40,000	20,000																					
500-700	60,000	50,000	50,000																					
700-1000	75,000	60,000	40,000																					
>1000	100,000	75,000	50,000																					
7. Change of residence Entitlement	<p>A) Transfer Allowance is based on the total floor area (ft²) as follows:</p> <table border="1"> <thead> <tr> <th>Floor Area (ft²)</th> <th>Amount (Rs)</th> </tr> </thead> <tbody> <tr> <td><500</td> <td>50,000</td> </tr> <tr> <td>500-750</td> <td>75,000</td> </tr> <tr> <td>750-1000</td> <td>100,000</td> </tr> <tr> <td>>1000</td> <td>150,000</td> </tr> </tbody> </table>	Floor Area (ft ²)	Amount (Rs)	<500	50,000	500-750	75,000	750-1000	100,000	>1000	150,000	The affected persons who hand over the possession of a cultivated land or a residential building before the date specified by the Acquisition	CV,DS Social staff of RDA and PMU/LD Provincial Director/RDA, RE, LARC and Super LARC.	If the permanent house is to be removed prior to the date specified by the Acquisition Officer, the PAP is entitled to the allowance indicated in the table of Item 6.										
Floor Area (ft ²)	Amount (Rs)																							
<500	50,000																							
500-750	75,000																							
750-1000	100,000																							
>1000	150,000																							

Type of Impacts/Entitlements	Compensation	Eligibility	Responsibility	Implementation Issue
		Officer		
8. Payment for Relocation 8.1 Title holder	A)Entitlement to a block of land not exceeding an extent of 20 perches from a fully serviced resettlement site equivalent to the unimproved land value determined by the Land Division of RDA or to cash payment applicable for self-relocation as specified in the next Item 9.	Every resettler affected by the acquisition with a title to the land acquired	CV,DS ESDD/RDA, LD, PMU Provincial Director/RDA, RE, LARC and Super LARC.	There will be no relocation due to the project. However, when such event occur during construction, this measure will apply.
8.2 Encroacher	A)Offering a block of land up to an extent of 10 perches from a resettlement site or cash payment applicable for self-relocation as specified in the next Item 9.	Encroachers of state lands where the LD deems that it is reasonable and justifiable	CV,DS ESDD/RDA, LD, PMU Provincial Director/RDA, RE, LARC and Super LARC.	
8.3 Sub families	A)Entitlement to a block of land up to an extent of 10 perches from a resettlement site or to 50 % of the cash payment applicable for self-relocation as specified in the next Item 9.	The sub families who are living in the same house registered under the same register of electors or separate registers of electors, at least three (3) years prior to the date of the Order published under Sec02 of the LAA	CV,DS ESDD/RDA, LD, PMU. Provincial Director/RDA, RE, LARC and Super LARC.	

Type of Impacts/Entitlements	Compensation	Eligibility	Responsibility	Implementation Issue						
9. Self-Relocation 9.1 Principal Occupants	<p>A) Entitlement for a payment specified in the following table in lieu of a land depending on the area in which the property to be acquired is situated.</p> <table border="1"> <thead> <tr> <th>MC (Rs)</th> <th>UC (Rs)</th> <th>PS (Rs)</th> </tr> </thead> <tbody> <tr> <td>500,000</td> <td>300,000</td> <td>150,000</td> </tr> </tbody> </table>	MC (Rs)	UC (Rs)	PS (Rs)	500,000	300,000	150,000	The persons affected by the prospective acquisition who wish to self-relocate	CV,DS RDA/ESDD, LD, PMU Provincial Director/RDA, RE, LARC and Super LARC	There will be no relocation due to the project. However, if there will be permanently displaced HH , during the construction phase, then this measure will apply.
MC (Rs)	UC (Rs)	PS (Rs)								
500,000	300,000	150,000								
9.2 Sub families	<p>A) 50 % of the cash payment is applicable for self-relocation as specified in the following table.</p> <table border="1"> <thead> <tr> <th>MC (Rs)</th> <th>UC (Rs)</th> <th>PS (Rs)</th> </tr> </thead> <tbody> <tr> <td>250,000</td> <td>150,000</td> <td>75,000</td> </tr> </tbody> </table>	MC (Rs)	UC (Rs)	PS (Rs)	250,000	150,000	75,000	The sub families registered under the same register of electors or separate registers of electors, living in the same house for a period at least three (3) years prior to the date of the Order published under Sec02 of the LAA	CV,DS RDA/ESDD, LD, PMU Provincial Director/RDA, RE, LARC and Super LARC.	
MC (Rs)	UC (Rs)	PS (Rs)								
250,000	150,000	75,000								
10. Compensation for Encroachers/ Squatters 10.1. Improvements done on the land	<p>A) No payment for land will be made to the encroachers on state lands.</p> <p>B) Payment for the improvement of the land will be made. All (cash) payments for structure will be made at replacement cost and for any developments at market price.</p>	The encroachers who are in occupation of untitled land prior to the date of the Order under Sec.02 of LAA is published.	CV,DS RDA/ESDD, LD, PMU. Provincial Director/RDA, RE, LARC and Super LARC.							
<p><i>Above table is based on the provisions contained in the Government Gazette No. 1837/47 dated 22nd November 2013 (Land Acquisition (Payment of Compensation) Regulations 2013); and RDA Social Assessment and Involuntary Resettlement Compliance Manual (SAIRC Manual) .</i></p>										

Source: JICA Survey Team

Note: The Land Division of RDA (LD) has a responsibility on determination and implementation of above compensations. In case the LD finds it difficult, LARC procedure will be followed.

LARC will be appointed based on Land Acquisition (Payment of Compensation) Regulations 2013. According to the Regulations 2013, the market value of any land or the compensation for any injurious affection caused by the acquisition of any land for a specified project, shall be assessed by the LARC appointed for the respective Divisional Secretary's Division (DSD) in which the land acquired is located.

A LARC is established at the DSD level to assist with the resettlement process, consultation with PAPs, determination of administrative matters, and resolution of disputes regarding compensation. The LARC may refer any grievance regarding the amount of compensation for an acquired land parcel or structure to the Chief Valuer of the Valuation Department for determination of its replacement value. Each LARC is chaired by DS, and comprises of officers from RDA and representatives of the Survey Department, the Valuation Department and Grama Niladhari (GN). PAPs and their representatives are invited to attend the sessions.

Since the Southern Transport Development Project (STDP) required a large extent of land acquisition and resettlement, the government decided to introduce a new scheme to compensate the affected people outside the LAA in 2001. This was achieved by creating a body called Land Acquisition and Resettlement Committee (LARC). This body was set up to determine the replacement cost (not the depreciated value) of the buildings and the market value of the land of the displaced people.

This system was abolished with the introduction of 2008 land acquisition regulations (LAA Regulations in 2008). However, in 2013 the LARC system was reintroduced to some selected projects. Every person affected by the acquisition of relevant land shall be given an opportunity to make their representation at the proceedings of the LARC. Any displaced person who is not satisfied with the quantum of compensation decided by the LARC will have option of appealing to the super LARC committee which is established by the decision of the cabinet of ministers.

The Government Gazette No.1837/47 dated 22nd November 2013, prescribes the members of the LARC to be appointed by the Hon. Minister of Land and Land Development.

5.3 Composition of LARC

- Divisional Secretary or Assistant Secretary
- Surveyor General or his representative
- Chief Valuer or his representative
- An officer not below the rank of an Assistant Secretary nominated by the Minister in charge of the ministry that implement the project.

Every affected person will be provided with opportunity to come before the LARC and submit reasons to support his/her case.

Those affected aggrieved by the decision of the LARC could appeal to a higher forum created under the 2013 regulations termed as Super Land Acquisition and Resettlement Committee (Super LARC)

5.4 Composition of Super LARC appointed by the Hon. Minister of MLLD

- Secretary of the ministry or his representative that implements the project.
- Secretary or his representative of the ministry of Land and land Development and Parliamentary Affairs
- Secretary or his representative of the Ministry of Finance
- Chief Valuer or his representative
- Surveyor General or his representative
- The Chairman, Chief Executive Officer or an officer nominated by him of the organization that implements the project.

After considering all the facts relating to the appeal carefully Super LARC either revise the decision of the LARC or uphold the decision of the LARC.

5.5 Summary of Compensation Assessment Procedures Applied

Table 5.2 Summary of Compensation Assessment Procedures Applied

Period	Procedure Applied
Before 2001	Part of LAA
After 2001 up to 31.08.2008	LARC system for specific projects (road sector) and part ii of LAA
From 01.09.2008 up to 16.03.2009	National policy for payment of compensation and LARC. Projects which had commenced before 31.08.2008
From 17.03.2009 onwards	Land Acquisition Regulations of 2008 made under the LAA.
From 22.11.2013 onwards	Land Acquisition Regulations of 2008 made under the LAA. and for some designated projects. Land Acquisition (Payment of Compensation) Regulations 2013

CHAPTER 6 INFORMATION DISSEMINATION, CONSULTATION, PARTICIPATION AND DISCLOSURES

One of the cardinal principles of both NIRP, JICA, World Bank and other bilateral and multilateral donors is the requirement of consultation, information dissemination and disclosure of the project parameters to the affected, and declaration of land acquisition process and compensation procedures for the acquired private assets for development projects by the state. It ensures transparency and precludes any misgivings or suspicions of the affected. Consultations, information dissemination and disclosure tend to develop a trust between affected and the project implementers. Since interaction with the stakeholders take place through the project implementation cycle and for some period thereafter, the trust and confidence that created through the consultation process would avoid any hiccups that interrupt the smooth implementation of the project activities.

The consultations with the stakeholders were conducted as shown in **Table 6.1** below. At the beginning of every meeting, showing the layout plan of the countermeasures against sediment disasters, the purpose and outline of the project, possible positive and negative impacts due to the project, the policy of compensation for land acquisition and other losses including cut-off date and provision of support and assistance for livelihood restoration of the PAPs were explained and discussed. Though a few requests for environmental and social consideration were made, no particular opinion against the project was raised.

Main opinions of the participants at the meetings are summarized as follows.

- The areas they reside in are sediment disaster prone areas and have been repeatedly hit by the disasters. As there are some disaster-prone sites other than the project sites, they need to take countermeasures for such sites as well.
- Measures taken after disaster were technically inadequate and supports were economically inadequate.
- If land of the private person is used for the countermeasures, the person should be reasonably compensated
- Since the area depends on agriculture and tourism, and national roads are highly important in terms of transporting agricultural produce to the market and transporting tourists, temporary closure of national road due to sediment disaster causes significant damage to the local economy. They want to engage in agriculture and tourism in a safe environment without the risk of sediment disasters, increase their income, and develop the local economy.
- The project does not aim at an emergency measures, but a full-scale measures against sediment disasters, and. They highly expect that Japanese advanced technology is applied, and are willing to cooperate for this project.
- They expect that preference should be given to local labour during construction stage.

Above opinions were informed to PMU/RDA. PMU/RDA will not only construct countermeasures for 30 project sites but also continue to take countermeasures developing technology transferred through the project even after the completion of the project. PMU/RDA will compensate the PAPs for land acquisition and other losses as same as in the case of LDPP Phase 1. It has been confirmed that PMU/RDA will explain the above intention to the PAPs and get their consent at stakeholder consultations in the next stage.

6.1 Conducted Consultations

Table 6.1 Schedule of Consultations Conducted with the Stakeholders

Site No.	Date Time	Participant			Theme
		Gender	Position	Affiliation	
7, 8	22.07.2019 5.00pm	Male	GN (Grama Niladhari)	GND (GN Division) - Pussella	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
7, 8	24.07.2019 11.30am	Female	DS (Divisional Secretary)	DSD (DS Division) - Udapalatha	Explanation of the project to local government head, and request for her cooperation on various aspects of the project
7, 8	24.07.2019 12.00am	Male	Land use planning officer	DSD- Udapalatha	Explanation of the project to local government senior official, and request for his cooperation
26	24.07.2019 2.00pm	Male	GN	GND - Punchi Rathota.	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
26	24.07.2019 2.30pm	4 females 2 males	Six (6) Residents *		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the residents
26	24.07.2019 3.30pm	Male	DS	DSD - Rathota.	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
26	24.07.2019 04.30pm	Male	Retired postman		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
27	25.07.2019 10.30am	Male	DS	DSD - Ukuwela	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
27	25.07.2019 11.30pm	Female	GN	GND - Kaduwela	Explanation of the project to local government head, and request for her cooperation on various aspects of the project
39	25.07.2019 2.00pm	Female	GN	GND - Polwatta Ihalagama	Explanation of the project to local government head, and request for her cooperation on various aspects of the project
39	25.07.2019 2.30pm	4 females 2 males	GN and five (5) residents *	GND - Polwatta Ihalagama	Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the residents
49	26.07.2019 02.00pm	Male	DS	DSD - Nivithigala	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
49	26.07.2019 03.00pm	Male	Disaster relief services officer	DSD - Nivithigala	Explanation of the project to local government senior official, and request for his cooperation
39, 40	29.07.2019 11.00am	Female	Assistant DS	DSD - Hathara Liyadda	Explanation of the project to local government executive, and request for her cooperation on various aspects of the project
39	29.07.2019 00.15pm	Male	GN	GND - Polwatta Pahalagama	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
40	29.07.2019 2.15pm	Male	Timber businessman		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
31	30.07.2009	Male	Assistant DS	DSD -	Explanation of the project to local government

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Site No.	Date	Gender	Participant		Theme
	Time		Position	Affiliation	
	9.30am			Mawanella	executive, and request for his cooperation on various aspects of the project
4	30.07.2019 1.45pm	Female	GN	GND Galabada Wasama	- Explanation of the project to local government head, and request for her cooperation on various aspects of the project
4	30.07.2019 2.30pm	Female	Development officer	GND Galabada Wasama	- Explanation of the project to local government senior official, and request for her cooperation
4	30.07.2019 4.30pm	Female	DS	DSD Ratnapura	- Explanation of the project to local government head, and request for her cooperation on various aspects of the project
51	31.07.2019 9.15am	Male	Assistant DS	DSD Padukka	- Explanation of the project to local government executive, and request for his cooperation on various aspects of the project
51	31.7.2019 10.15am	Male	GN	GND Thummodara	- Explanation of the project to local government head, and request for his cooperation on various aspects of the project
51	31.7.2019 11.00am	Female	Retired clerk		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
9	31.07.2019 00.30pm	Male	DS	DSD Dehiowita	- Explanation of the project to local government head, and request for his cooperation on various aspects of the project
9	31.07.2019 01.00pm	Male	GN	GND Ihalatalduwa	- Explanation of the project to local government head, and request for his cooperation on various aspects of the project
27	02.08.2019 10.00am	Male	Proprietary planter		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the owner of plantation estate
49	05.08.2019 9.30am	Female	GN	GND - Pahala Karawita	Explanation of the project to local government head, and request for her cooperation on various aspects of the project
49	05.08.2019 11.00am	Male	Proprietary planter		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the owner of plantation estate
48	05.08.2019 00.00pm	Female	Field Development Officer	GND Niriella Niriellawatta	- Explanation of the project to local government senior official, and request for her cooperation
48	05.08.2019 1.30pm	Female	DS	DSD Elapatha	- Explanation of the project to local government head, and request for her cooperation on various aspects of the project
43	05.08.2019 3.30pm	Male	Disaster relief services officer	DSD Godakawela	- Explanation of the project to local government senior official, and request for his cooperation
43	05.08.2019 4.30pm	Female	Administrative officer	DSD Godakawela	- Explanation of the project to local government senior official, and request for her cooperation
43	05.08.2019 5.30pm	Male	Estate superintendent	Hapugastenna estate	Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the representative of plantation estate

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Site No.	Date	Gender	Participant		Theme
	Time		Position	Affiliation	
2	06.08.2019 9.00am	Male	Tea factory owner		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the owner of the factory
6	07.08.2019 9.00am	Male	DS	DSD - Nuwaraeliya	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
6	07.08.2019 10.30am	Five (5) males	One (1) community leader and four (4) farmers *		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the residents
36	07.08.2019 01.00pm	Male	DS	DSD - Ambagamuwa	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
36	07.08.2019 02.00pm	Male	GN	GND - Newweligama	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
36	07.08.2019 03.00pm	Female	Flower grower		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
2	08.08.2019 8.00am	Male	GN	GND - Ramboda	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
2	08.08.2019 9.30am	Female	DS	DSD - Kotmale	Explanation of the project to local government head, and request for her cooperation on various aspects of the project
6	08.08.2019 00.00 pm	Male	Disaster relief services officer	DSD - Nuwaraeliya	Explanation of the project to local government senior official, and request for his cooperation
37	09.08.2019 8.30am	Female	DS	DSD - Soranathota	Explanation of the project to local government head, and request for her cooperation on various aspects of the project
37	09.08.2019 09.30am	Female	Bank officer		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
37	09.08.2019 00.30pm	Male	Businessman		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
1	09.08.2019 01.00pm	Male	Development field assistant	DSD - Walapane	Explanation of the project to local government senior official, and request for his cooperation
33, 34, 10, 11, 12	09.08.2019 4.30pm	Female	Assistant DS	DSD - Haldummulla	Explanation of the project to local government executive, and request for her cooperation on various aspects of the project
10, 11, 12	12.8.2019 3.00pm	Male	Estate superintendent	Glennove Estate Haldummulla	Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the representative of plantation estate
19, 20	15.8.2019 9.00am	Female	DS	DSD - Weliwita Divithura	Explanation of the project to local government head, and request for her cooperation on various aspects of the project
19, 20	15.8.2019 11.00am	Female	GN	GND - Nugethota	Explanation of the project to local government head, and request for her cooperation on various aspects of the project

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Site No.	Date Time	Participant			Theme
		Gender	Position	Affiliation	
22, 23	15.8.2019 2.00pm	Male	DS	DSD - Baddegama	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
22	15.08.2019 3.30pm	Male	GN	GND - Kohombanawa	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
25, 25_ad2	16.08.2019 1.30pm	Female	Assistant DS	DSD - Imaduwa	Explanation of the project to local government executive, and request for her cooperation on various aspects of the project
25, 25_ad2	16.08.2019 2.30pm	Female	Assistant Director-Planning	DSD - Imaduwa	Explanation of the project to local government senior official, and request for her cooperation
9	19.08.2019 10.0am	Male	Retired Army Officer		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
34	19.08.2019 1.00pm	Male	Businessman		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
33	21.08.2019 00.15pm	Male	GN	GND - Uvatenna	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
11, 12	21.08.2019 2.00pm	Female	Medical officer	University of Sabaragamuwa	Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
34, 10, 11, 12	22.08.2019 1.30pm	Male	GN	GND - Viharagala	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
23	25.08.2019 3.00pm	Female	Administrative officer	DSD - Bope Poddala	Explanation of the project to local government senior official, and request for her cooperation
23	25.08.2019 3.45pm	Male	Assistant Director-Planning	DSD - Bope Poddala	Explanation of the project to local government senior official, and request for his cooperation
31	28.08.2019 00.30pm	Male	Businessman		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident
53	9.9.2019 11.00am	Female	GN	GND - Morawaka Wasama	Explanation of the project to local government head, and request for her cooperation on various aspects of the project
53	9.9.2019 1.30pm	Male	DS	DSD - Kotapola	Explanation of the project to local government head, and request for his cooperation on various aspects of the project
53	9.9.2019 2.30pm	Male	Retired GN		Explanation and discussion regarding the effect of the project and compensation policy for the losses due to the project to/with the resident

Source: JICA Survey Team

* Group meetings

Note: Lay out plans for items No 10, 11 & 12 have not been prepared separately instead locations 5/2-5/4 & 5/6-5/8, and been taken as 5/2-5/8 merging location 5/4 & 5/6 within 5/2-5/8

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Figure 6.1 Discussion with Divisional Secretary (Udapalatha DSD – Kandy District, 24 Jul 2019)



Figure 6.2 Discussion with Divisional Secretary (Ratnapura DSD - Ratnapura District, 30 Jul 2019)

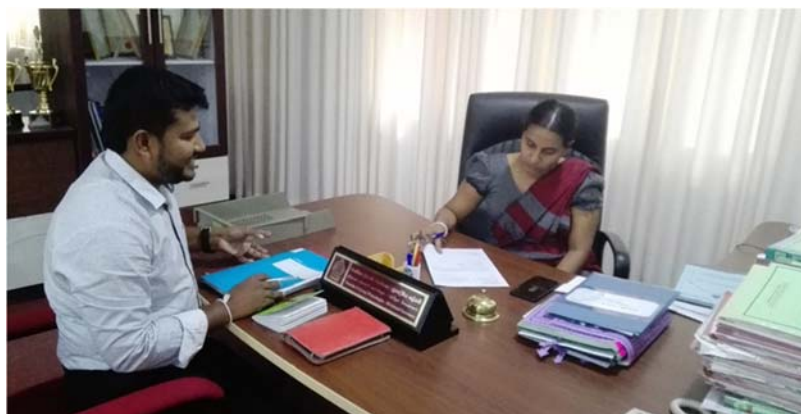


Figure 6.3 Discussion with Divisional Secretary (Soranathota DSD – Badulla District, 09 Aug 2019)

6.1.1 Group Meetings

Date: 24 Jul 2019 -02.30pm

DS Division: Raththota

GN Division: Punchi-Raththota

Project Site: Site No.26 (B274. 11/2-11/4 culverts)

Venue: House of a resident - Nikaloya Road, Raththota.

Participants: Six (6) residents

The discussion was held at the house of the resident. The purpose and outline of the project, possible impacts due to the project the policy of compensation for losses of the PAPs and support for livelihood restoration of the PAPs were explained to the participants by the Consultant. The consultant emphasized that the landslides could result in loss of life and property. The road closures due to landslides could disrupt transport, communications, loss of income and day today activities of the people and invited participants to express their views

The participants explained the situation of their sediment disaster prone areas where they reside in. A landslide occurred at this location during the year 2016 resulting in damages to the road and collapse of some houses in the near vicinity. Those affected people were forced to abandon the houses. The paddy fields were covered with earth and farmers suffered losses. Walls of some houses were cracked. They have had a grievance against the government's response after the disaster. Problems were created to the public. Some were paid compensation, but some were not.

They requested for consideration of possible impacts due to the project. The road to the famous Knuckles reserve is through this village, and there is a water stream that flows above their houses. They requested the project to protect same without affecting the residents and the safeguards should be implemented to prevent any damages to their houses during construction. They also requested that preference should be given to local labour.

Finally, participants expressed their gratitude for the initiative being taken to arrest sediment disasters on this road.



Figure 6.4 Group Discussion with PAPs (Raththota DSD, 24 Jul 2019)

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Date: 07 Aug 2019 -10.00am

DS division: Nuwaraeliya

GN Division: Holyrood Lower Division

Project Site: Site No.6 (B412. 30/9-30/11 culverts)

Venue: House of a community leader, Watagoda-Hindu Kovil-Talawakele

Participants: A community leader and five (5) farmers

After welcoming the participants, the purpose and outline of the project, possible impacts due to the project the policy of compensation for losses of the PAPs and support for livelihood restoration of the PAPs were explained to the participants by the Consultant. The consultant apprised the participants the importance of preventing landslides for the benefit of the community. The consultant stressed the impacts of landslide could cause severe damages to the assets of people. There had been number of deaths in the recent past due to landslides. The road closures due to landslides could disrupt transport, community life, loss of income and day to day activities of the people.

After the brief introduction by the consultant, the participants were requested to present their opinion on the proposed project.

The participants explained the situation of the sediment disaster happened in the area where they reside in. A participant said while others agreeing with him that Thalawakele-Thawalamtenna Road was sunk closer to the Watagoda Hindu Kovil. Though a considerable damage was not caused they were scared as the reservoir is situated close to the road.

They were evacuated from their homes since their lands also showed signs of stress and cracks appeared. They earn their living by cultivating these lands. They grow vegetables and fruits but they have been issued with only permits for the lands that they cultivate. They are keen on engaging in their vocations with much enthusiasm if they are given deeds to the lands that they cultivate.

They welcome the landslide disaster protection project.

Date: 25 Jul 2019 -2.30pm

DS division: Hatharaliyadda

GN division: Polwaththa Ihalagama

Project Site: Site No.39 (B122. 8/2-8/4 culverts)

Venue: Boutique of a resident, Elotuwa-Hatharaliyadda.

Participants: GN and five (5) residents

The meeting was held in a boutique belonging to a participant. The background, purpose and outline of the project, possible impacts due to the project the policy of compensation for losses of the PAPs and support for livelihood restoration of the PAPs were explained to the participants by the Consultant. The consultant explained the advantages that would accrue to the community as a result of implementation of the project.

The participants explained the situation of the sediment disaster happened in their area. Some participants said the landslide at this location occurred due to the adoption of wrong techniques during the

rehabilitation of the road. They said the authorities did not listen to their suggestions during the rehabilitation process, and they are now made to suffer due to no fault of theirs.

Though they understand the benefit and necessity of the project, they need sufficient consideration. Some of them said they are not willing to part with their lands without compensation. A resident emphasized that the proposed access road as shown in the layout plan will benefit them but it should be improved without leaving room for the residents to suffer losses. Though the proposed access road is designed to construct through his land, he is not willing to allow it. But, if the government needs to use his land, it should be acquired or explore alternate access road to effect improvements to the candidate site.



Figure 6.5 Group Discussion with PAPs (Hatharaliyadda DSD – 25 Jul 2019)

6.2 Planned Consultations

Table 6.2 Planned Consultations

Activity	Objective	Timing	Responsible
Visit to PAPs Residences	Distribute the Section 02 Notice under LAA	With the publication of the SEC 02 notices	Land Officer of PMU, GNN, and Consultants if employed.
Distribution of the extracts of the important areas of the RAP in Sinhala and Tamil to DSS, Pradeshiya Sabahs, GNN and Public libraries.	To maintain the policy of transparency and information dissemination	Simultaneous with the process of land acquisition.	PMU, and Consultants if employed

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Activity	Objective	Timing	Responsible
Consultation with PAPs	Explain the process leading to the taking over possession of the land	Before publication of the Sec 38 (a)	Social officers (SOs) of PMU,GNN, and Consultants if employed
Meeting PAPs in groups GN Division wise	Prepare them to face the title determination inquiries Sec.9 (1) and brief them on the inquiries	Before Sec.9 (1)	SOs of PMU GNN and Consultants if employed.
Meeting PAPs, community based organizations (CBOs), NGOs on required support especially for vulnerable groups	Protect all PAPs including vulnerable populations from negative impact and bring them up	Before the publication of the section 38 a) Notice	SOs of PMU and Consultants if employed.
Meeting with PAPs to explain the purpose of signing a memorandum of understanding to use the land belonging to them for construction of counter measures	Discuss if any help need to readjust their buildings.	Before demolition of affected parts.	SOs of PMU, Engineers of SLLRDC, and Consultants if employed.
Meeting with PAPs, state agencies providing utility services and service deliveries	To assure continuation of undisturbed public services, utilities common amenities and socio-cultural structures	Before taking over physical possession of land	PMU, DS and state agencies responsible for services and public utilities NGOs, CBOs and Consultants if employed
Meeting with the PAPs	Post-acquisition issues	After acquisition	AO of PMU, GNN, and Consultants if employed
Enter into Detailed land and property measurement survey (preparation of condition Reports for valuation)	To ensure transparency and apprise the PAP what his losses are	When valuation officers visit the PAPs residence with PMU officials	Valuation Officer, SO of PMU, GN and AP concerned

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Activity	Objective	Timing	Responsible
Compensation Rates formulation and agreement on compensation	To make the PAP aware that the types of entitlements he /she would receive and the quantum of compensation he/she receives	At the time of preparation of the condition report with the participation of the AP and when the AO inform the PAP amount of compensation by the notice under SEC 17 of the LAA, if PAP is not agreeable, he could appeal to the Land Acquisition Review Board (LARB) within 03 weeks.	Valuation Officer, DO, and the concerned AP
Disbursement of compensation funds	To ensure that PAP gets his compensation by cheque and without delay, to persuade him to receive the cheque in to a joint account with his wife or with a member of his family and to inform the AP regarding the interest he is entitled to .The interest will be calculated by AO for the period between the date of the Sec 38 (a) notice and the date of the cheque of the statutory compensation at 7% annual interest.	Before signing the vouchers	AO, Social Officer or CDO and Accountant of /PMU
Income and Livelihood Restoration Planning	To actively involve PAP in the process and discuss preference.	When income restoration plans are formulated	AP, Community Development Officer (CDO) /SO, Consultant Income Restoration /Officer
Information Dissemination through Public Information Centres	To allow the PAPs access to information and update them on project activities. Copies of information pamphlets, entitlement matrix and salient points of the RAP will be available at the information centre.	Before the land acquisition process commence	PMU

Source: JICA Survey Team

6.3 Gender Impacts

The number women is 76, out of them 7 are widows, 22 women are employed, 33 married and 25 are below the legal marriageable age. Only one woman (a souse of the shop owner) is losing buildings and 40 is losing a portion of land permanently. None of the women are adversely affected. They are losing collectively 370 rubber plants which is roughly equal to one acre of rubber land and some garden trees for which they will be compensated.

6.3.1 Legal Frame Work

Under the national Women's Charter every form of discrimination against women has been removed. The national charter is in conformity with the UN convention against any form of discrimination against women. Women in Sri Lanka were entitled to voting rights before their counterparts in Great Britain. Child labour is prohibited in the country. Education for 13 years is compulsory for all children and there are number of ordinances passed by the parliament to prevent abuse and discrimination against women. There are special government agencies to oversee the problems pertaining to children named as National Child Protection Authority (NCPA) and Department of Probation and Child Care Services. (DP&CS) In every police station there is a division to look into offences against women and children. This division is normally headed by a female inspector.

6.3.2 Role of PMU

Women will be assisted with advice and financial help as per the provisions of the Entitlement Matrix and pre -project status of their lives could at least be restored. Women will be encouraged by the PMU to obtain the loan facilities provided by the government under the new loan schemes to commence a business. PMU will coordinate with the contractor to provide suitable jobs during the construction period to enhance the family income of affected women.

PMU will draw up a program to improve the capacity of women to undertake income generating activities and engage in community based social and economic activities. Women will benefit from the micro credit programs of the state, Cooperative Credit Societies and NGOs. The assistance of the existing government machinery with dedicated officers for women affairs also will be sought by the PMU when gender issues surfaces during construction phase.

6.3.3 Awareness Programs

Since there would be an influx of construction labor from outside, to the project area, the women who live close to the construction camps in their dwellings during day time might be vulnerable to violence and sexual advances by the migrant labour whose tenure is temporary and not subject to peer pressure and lack of concern to observe the accepted social norms.

Assistance of the NGOs and relevant District Medical Officers (MOH) and their staff will be obtained by the PMU to conduct awareness meetings on sexually transmitted diseases. The Social Officer attached to the PMU will coordinate this function with the relevant health officials. He will address the issues of women and children during construction and immediate construction phase.

This education program could be opened to other unaffected women too. The PMU will request police personnel in the respective areas to be more vigilant during the construction period to arrest incidents of violence and sexual harassments to women. PMU will apprise the police on such apprehensions. There is a Women Development Officer normally a female graduate attached to every Divisional Secretariat. She has a dedicated function to attend to empowerment of women and women related issues.

During monitoring and evaluation, the gender issues will be monitored, evaluated and well documented. Such information is useful when formulating gender action plans for future projects.

CHAPTER 7 INCOME IMPROVEMENT STRATEGIES RESTORATION STRATEGIES

7.1 Trade and Business

No businesses are affected due to project interventions except some trees but when an activity takes around their habitats, If suitable jobs are available in the work sites preference could be given to project affected women.

7.2 Project as a Development Opportunity

PMU will treat the project as a development opportunity for the affected. Project benefits will flow to the affected through institutional interventions by means of adequate and timely compensation, income improvement programs, rehabilitation of vulnerable groups and employment in project related activities.

7.3 Strategies for Income Improvement Programmes

Following activities will be planned to improve the income of PAPs.

- Empower the PAPs.
- Empowerment will focus on the following areas.
- Increasing the awareness of the PAPs
- Development of skills for alternate employment
- Assist in developing alternate business plans or to improve the existing business
- Help them to obtain credit from financial institutions if required
- Develop a system for feedback information.

7.4 Organization to Implement the Income Improvement Programs

PMU will undertake the Income improvement Programme. Experienced Officer from the PMU will be assigned for this purpose. He will liaise with the following institutions to help the affected to improve their livelihoods and income as non-impoverishment of the affected is a cardinal principle of NIRP and JICA.

- Lending institutions
- Vocational Training Centres
- Relevant NGOS

7.5 Potential Income Restoration Programs

There are provisions available in the entitlement matrix (contingencies) to assist the PAPs who might lose income generating activities in the course of implementation of the project if extra land and structures need to be acquired. Allowance and interventions for poor and vulnerable families will be provided (amount of compensation will be determined by the Land Division of RDA).

- Vocational or Skilled Training
- Project Related Employment

When identifying potential income generating opportunities for needy people, emphasis will be paid to raw materials, availability of required infrastructure and market potentials.

7.6 Interim Measures

Compensation for the loss of income due to acquisition of properties or employment will be paid as listed in the entitlement matrix before displacement.

CHAPTER 8 GRIEVANCE REDRESS MECHANISM AND INSTITUTIONS ACCESSIBLE TO APS FOR REDRESS

Even though resettlements are absent in this project assets of the people will be either acquired or used for construction activities on mutual understanding. Well formulated mechanisms for the resolutions of grievances of PAPs are a must in development induced involuntary resettlement projects. They are institutions, instruments, methods and processes by which a resolution to a grievance could be sought and provided. Project implementing authorities will take adequate care to minimize grievances through careful designs and good participatory management processes. Problems and grievances are inevitable even under extremely efficient planning and expert management, due to unforeseen circumstances. A built-in mechanism in the form of an institutionalized grievance redress system will allow aggrieved project affected people (PAP) to submit their grievances for a resolution. A forum of this nature helps to alleviate suspicions and misunderstanding between the PAPs and the project management. It provides easy access to the PAPs without incurring expenses and timely solutions. It helps to achieve the project objectives without much hiccups.

The RAP identifies the potential social and economic impact associated with the counter measures planned to arrest landslides at the identified candidate sites and illustrates the measures and procedures needed to redress or mitigate grievances. Some of the economic impacts would be the loss of income, loss of employment, loss of property in the process of construction though not identified at this stage. Some of the inadequacies of compensation, delay in payment of compensation, significant social impacts, would be severance or disruption of relationship, marginalization, disruption of children's education and access to facilities within easy reach if relocation is involved. In this project relocation does not trigger now as per the construction designs.

The main purpose of the measures of redresses recommended in RAP is to avoid economic and social hardships to people resulting from the construction effects of the project. The note below provides a draft for the grievance redress measures, steps and procedures to be adopted by the PMU for the project.

8.1 Proposed Grievance Redress Steps and Procedures

8.1.1 Creation of Awareness of the Grievance Redress Mechanism

Wide publicity will be given by the PMU regarding the establishment of GRCs to the PAPs and closely related officials to the GRC mechanism for e.g. Gram Niladharis, Local Samurdhi Officers and Social Development officers of the Divisional Secretariats and Pradeshiya Sabhas of the areas concerned.

8.1.2 Publicity Measures

PMU will prepare flyers indicating

- Project brief including the benefits of the project to the community,
- Procedure for registering a complaint,
- Categories of persons, institutions and property/assets affected that can claim,
- Compensation,
- Explanation on those who would not be considered as an affected person, Property & etc.,
- The address of the authority to receive and register the application with the name of the officer in-charge, address, and telephone/fax numbers to contact.

8.1.3 Receiving Application for Redress

The applications regarding grievances for redresses can be submitted to the Resident Engineer (RE) of the relevant Divisional Secretariat area on week days during office hours. These applications are registered in the RE's office with all details such as names of the person, type of grievance

Well thought measures will be taken to prevent grievances rather than going through redresses system. Grievances can be minimized through careful project design and implementation by ensuring active participation and consultation with PAPs, establishing rapport between the community and PMU through frequent interactions, transparency and monitoring.

8.1.4 Maintaining of Complaint Register

As a first step of the grievance redress process a complaint register will be maintained at the Project Engineer's office in the relevant DS division. On receiving a complaint, it will be registered and complaint will be given a reference number. Then RE will review the complaint received and its documentation and also make arrangements to redress it.

8.2: Composition of Grievance Redress Mechanism

Grievance redress will be handled at five levels

Tier 01: Resident Engineer will attempt to redress the grievance at his/her level failing to arrive at a solution acceptable to the PAP without compromising the prevailing policies and rules, The issues discussed with the aggrieved party will be submitted to the LRC by the RE with his/her observations within one week of receipt of complaint.

Tier 02: The Local Resettlement Committee (LRC) constitute of representatives of the project affected households, Grama Niladharis, and key community leaders. This committee will be chaired by a person nominated by the affected people at local level. If the LRC is unsuccessful in solving the problem of the PAP, the issue will be referred to the Grievance Redress Committee (GRC) chaired by the relevant Divisional Secretary. The decision of the LRC will be given within one week with its observations.

Venue of LRC: A suitable location as decided by the LRC at its first meeting. The first meeting will be held at the auditorium of the Divisional Secretariat.

Date & Time: 1st and 3rd Tuesday at 10.am

Tier 03: The GRC comprise of;

- (a) Divisional Secretary (Chairman)
- (b) Chairman of LRC
- (c) Resident Engineer (Secretary)
- (d) Grama Niladhari
- (e) A representative of PAPs
- (f) A representative of the plantation sector if plantation properties are affected.

Venue: Office of the Divisional Secretary.

Date & Time: 2nd and 4th Thursday of the month at 2.00pm

The GRC is a common forum to resolve problems of the affected in all sub projects that fall within the purview of the PMU.

If the GRC fail to arrive at a decision acceptable to the PAP, it will be referred to the next level which is headed by the Project Director of the LDPP 2(PMU).

Tier 04: The Project Director of PMU-LDPP2

If the PAP has not consented to accept the decision of the GRC the issue will be referred to the Project Director of PMU .If the PAP is still not satisfied with the decision given by the project Director PMU the issue will be referred to the next level which is the IGP .A brief containing the issues surfaced and the solutions offered will be submitted to the IGP by the Project Director within one week.

Venue: Office of the Project Director, PMU-LDPP2

Date &Time: 4th Wednesday of each month at 10am

Tier 05: Independent Grievance Panel (IGP). The IGP is composed of following members

- (a) Representative of the Ministry of Land and Land Development
- (b) Representative of the Ministry of Child Development & Women's Affairs
- (c) Representative of the Department of Valuation
- (d) Retired civil servant of the rank of a Secretary of the GOSL
- (e) A representative of Civil Society

Ideally this committee will be chaired by a retired civil servant as he is independent and equipped with experience to handle issues of this nature and will be more acceptable to the aggrieved party.

This forum comprises of high officials and knowledgeable people, the IGP will deliver its verdict within 14days.

Venue: Office of the Provincial Director of Road Development Authority in the province where the candidate site is located.

Date and Time: 4th Monday of each month at 10.00am

If the PAP is still not satisfied, he could seek judicial interventions by taking his grievance to Court of Appeal (CA).If the PAP is not satisfied with the decision of the CA, he could appeal to the apex judicial forum of the country the Supreme Court (CA).The Supreme Court first review the revision application

submitted by the PAP and if find sufficient ground to examine the application in detail, leave to proceed will be allowed .The decision of the supreme court is final. Apart from litigation, the PAP could submit his grievance to the Mediation Board, Parliamentary Ombudsman, Human Rights Commission, and Parliamentary Select Committee of the Ministry of Mega polis and Western Development for redress.

8.3 Grievance Redress Committee Meetings (GRCMs), Hearings, Proceedings and Recommendations

If the dates mentioned falls on a holiday, the meeting will be held on the following day, proceedings, will be recorded by the GRC Secretary.

Minutes will be signed by all members of GRC. Applications, investigation reports, minutes of meetings and the decisions of the committees on each of the application for redress will be maintained in the office of the (PMU) for future reference.

8.3.1 Implementation of Decisions of the Committees

The decisions at all levels will also be sent to the relevant applicants for his/her information. The recommendations will be implemented before the construction work is commenced in respective candidate sites if the grievance is in respect of compensation.

8.4 Monitoring of Grievance Redress Mechanism

Grievance redress mechanism will be monitored closely during the monitoring phase of the RAP with measurable indicators for e.g. number of complaints received, number solved at RE's level, number referred to LRC, GRC, to Project Director LDPP2 and IGP

Note; The above mechanism will operate for each DS division to address the grievances of the PAP's

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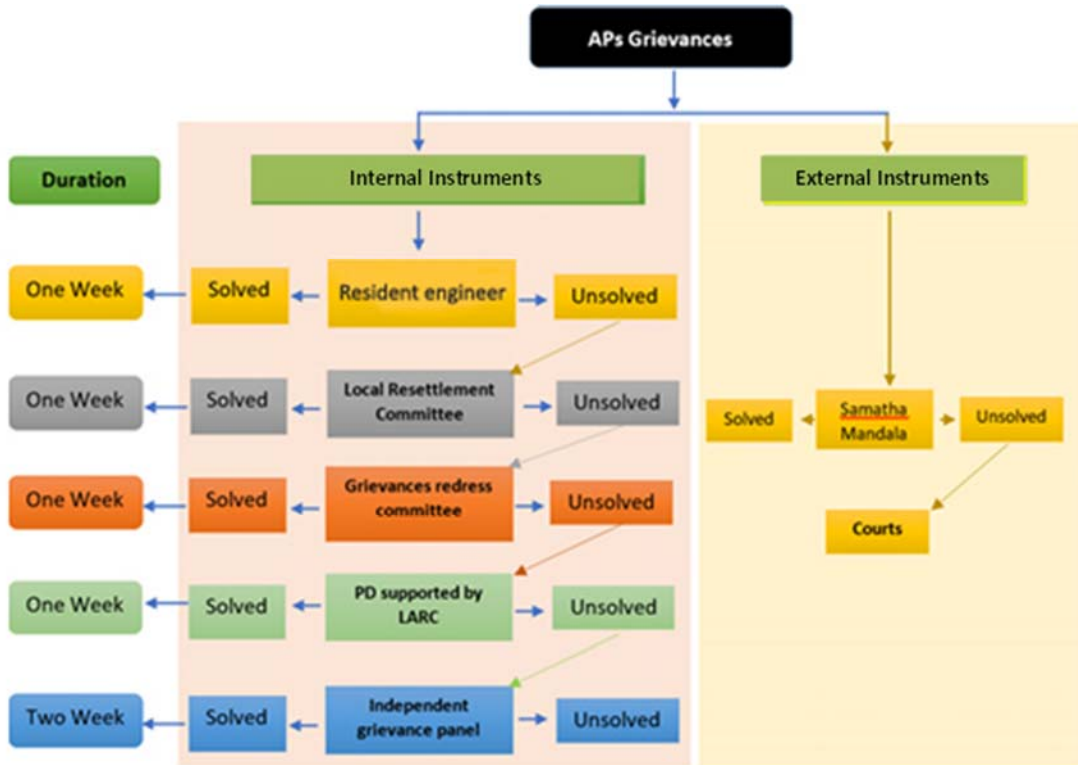


Figure 8.1 Grievance Redress Process

CHAPTER 9 INSTITUTIONAL FRAME WORK

The lead role in implementing the Resettlement Action Plan rests with the Social Expert of the Project Management Unit of the LDPP2. The implementation of the construction programme is devolved on a team headed by a senior engineer from RDA who is designated as the Project Director. Authority to the PMU derives from the Director General of RDA who is reporting to the Secretary, Ministry of Highways, Road Development and Petroleum Resources.

PMU will be supported by relevant experts in technical, social, land administration, and financial disciplines. In the implementation of the RAP the Social Officers and Community Development Officers of the PMU have a major role to play.

9.1 Organizational Arrangement for the Implementation of RAP

The PMU will be responsible for the implementation of the RAP. The eligible PAPs will be decided by the Divisional Secretary of each division where the candidate locations are situated. The Acquiring Officer (DS) after the completion of the inquiries under the Sec.09 of the LAA issue the award to the PAP under Sec17 of LAA, indicating the extent and share of the land due to the PAP and the quantum of statutory valuation decided by the Chief Valuer based on replacement cost under 2013 regulations approved by parliament in November 2013 and submit the list to the PMU for the payment of statutory valuation to the PAP. The ex-gratia payment will be decided by the Land Division of RDA (LD). In case the LD finds it difficult to cope with it, LARC and Super LARC procedures to be established under regulations 2013 will be followed. Since 40 affected lots are distributed among 11 DS Divisions this work could be undertaken by relevant DS and staff.

The PMU will be staffed with the following officers before the implementation process commence.

- Project Director of the PMU (An Experienced Engineer)
- Chief Engineers (3 - RDA)
- Scientists (2 – NBRO)
- Environmental Officer (at least for one year)
- Administrative Staff
- Accounts Staff

The project office now functioning in Kandy established for the implementation of LDPP will take charge of the social, resettlement and construction activities of LDPP 2 also, since they have gained experience in providing countermeasures for landslide disasters. Kandy is strategically located within the Central Highlands and could be reached the candidate locations of Matale, Ratnapura, Kegalle, Badulla and Nuwaraeliya within 1-3 hours. The other Project sites which are located in Colombo, Galle and Matara Districts also could be reached without much difficulty as the road network is pretty well developed in these areas too. Similar to the arrangement put in place for LDPP Phase 1, One of the senior engineers will be in charge of obtaining lands and coordinating with people.

- The implementation schedule carries the time frame of accomplishment of each and every activity of the plan. Preparation of Resettlement Plan for the preparatory study of LDPP2 has already commenced.

The Social Expert of the PMU of RDA with the assistance of staff will undertake the following activities.

- Coordinating with the Divisional Secretaries to complete the land acquisition process
- Arrange the inquiries from PAPs to determine the compensation by the Land Division of RDA (LD)
- If the PAPs are not satisfied with the determination of the LD, initiate action to refer the matter to LARC.
- Take action to pay the compensation promptly
- Attend to grievances and activate the GRC mechanism
- Attend to income restoration
- Afford PAPs reasonable time to vacate the fully affected lands, if possible allow PAPs to harvest the standing crops.
- Attend to gender issues
- Monitor the RAP implementation process
- Make arrangements to pay the interest due on acquired assets.

The implementation schedule carries the time frame of accomplishment of each and every activity of the plan. Resettlement activities will commence with allocation of staff to scheduled activities.

9.2 Review of Mandate and Capacity of Resettlement Agencies

9.2.1 Review of Mandate and Capacity of Resettlement

In implementing the RAP, the collaboration of several related agencies is vital for achieving the outcomes. Valuation Department, Survey Department, and Government Printer. In particular the PMU assists the Acquiring Officer with technical assistance when required. Since only 40 AHHs are involved, the necessity of recruiting an Acquiring Officer to accelerate the process of land acquisition does not arise. This arrangement arises only if acquisition triggers due to failure of negotiations to get the relevant land released from the PAPs without compensation

The following are the key state agencies that will have direct involvement with resettlement interventions:

- Ministry of Highways, Road Development and Petroleum Resource Development
- Ministry of Land and Land Development
- Acquiring Officer (AO)
- Consultants on land acquisition and resettlement
- Survey Department
- Valuation Department
- Government Printer
- Central Environmental Authority
- Local Government Institutions of the project area.
- Ceylon Electricity Board
- Water Supply and Drainage Board
- Sri Lanka Telecom Ltd.

The PMU carries out the following activities in implementing the Resettlement Programme:

- Conduct awareness meetings with stakeholders to disseminate and update information and also receive feedback from stakeholders with the assistance of Consultants,
- Establish a Public Information Centre (PIC) and develop and distribute informative,
- Bulletins and relevant materials to ensure transparency,
- Conduct Land Acquisition and Resettlement (LARS) and Social and Economic (SES) surveys to collect necessary data for resettlement planning through hired consultants,
- Prepare Resettlement Plan and implement them with the aim of restoring/improving the lives of the PAPs at least to the pre project level or beyond,
- Coordinate with the AO to complete the land acquisition process,
- Advise the PAPs regarding the list of documents to be submitted at the title determination inquiries conducted under Section 9 of the LAA, if acquisition triggers arrangement to pay the interest due on the statutory payments,
- Ensure the execution of the entitled compensation package and realize the objectives of the NIRP and JICA, expedite payment of compensation by assisting the AO and the PAPs,
- If the PAPs are not satisfied with the determination of the LD, initiate action to refer the matter to LARC,
- Assist and coordinate with relevant agencies to restore/improve the income of the PAPs,
- Afford PAPs reasonable time to vacate the fully affected lands,
- Ensure flow of funds to maintain a healthy cash flow,
- Store all data in respect of compensation in a pre-prepared database,
- Maintain a file for each PAP, this file will contain, data on each PAP collected at LARS and SES survey and the details of payments made and other correspondence with the PAPs,
- Coordinate/monitor the activities of GRCs,
- Assist vulnerable groups including women and the poor,
- Develop a plan to address gender concerns,
- Prepare/submit required periodic reports to the relevant stakeholders including JICA,
- Issue a certificate to each household head indicating the list of compensation paid, and
- Maintain Management and Information System (MIS) for the project through networking with relevant agencies.

9.2.2 Divisional Secretary (DS)

Divisional Secretary is responsible for civil administration of the division and hence empowered with statutory provisions to acquire land within the division and vest them with the agencies that required land under LAA.

Contractors and consultants employed by the PMU, Community Based Organizations of APs, NGOs and other civic organizations also play a significant role in the implementation process of the RAP. The involved government agencies have sufficient capacity and experience to efficiently and effectively contribute to the implementation of the RAP. Their contribution is well within their respective mandates. The PMU coordinates the efforts and whenever required supports them with technical assistance.

The PMU provides for capacity building, including technical assistance, when required or when new types of interventions and procedures are called for like in the case of the Southern Expressway.

Table 9.1 Matrix of Roles and Responsibilities of Government Agencies and Other Organizations involved in Resettlement Planning and Implementation

Agency / Unit	Roles and Responsibilities
PMU/Ministry of Highways, Road Development and Petroleum Resource Development	Preparation of land acquisition proposals, staffing, coordination with other relevant agencies, consultation with stake holders, dissemination of information, secure funds, identify lands/houses for resettlement with PAPs, arrange IRP, attend to internal monitoring, progress review, Project MIS and documentation.
RDA/Ministry of Highways, Road Development and Petroleum Resource Development	Provide necessary policy guidelines, provide funds, coordinate with the JICA and give directions to the PMU on implementation issues. Submit proposals forwarded by the PMU of RDA to MLLD, arrange for funds including reimbursement responsibility.
Ministry of Land and Land Development	Approvals of the publications of relevant orders under LAA, on the request of MLLD. Monitor the progress of land acquisition and liaise with the AO at different stages of acquisition process.
Acquiring Officer	Acquisition of land is done by the Acquiring Officer /Divisional Secretary to after the relevant orders are issued by Ministry of Land and Parliamentary Affairs. PMU provide technical assistance on request to the Acquiring Officer. The AO support the implementation of RAP when necessary on PMUs' request. Support rehabilitation and improvement of public utilities disturbed by land acquisition and construction program if extra acquisition is required to shift the utilities..
Grama Niladari/Land Officer of PMU	Delivery of notices under LAA to the PAPs on the request of the AO, consultation, facilitation of acquisition of alternate lands, during preparation of advance tracing and final plan by assisting the surveyors to identify the claimants.
Valuation Department	Preparation of valuation reports for the affected properties, assist in LARC and Super LARC processes.
Government Printer	Publication of gazette notifications relevant to land acquisition.
NGO	Consultations, dissemination of information, assist APs at the title determination inquiries (Sec.09), on grievance resolution, external monitoring on the invitation of the PMU if their involvement is necessary..
Affected People	Assist the PMU to implement the resettlement program.
Construction Supervision Consultants (CSC)	Ensure the contractor will carry out the construction work without damaging the public and private properties.
Contractor	Construct is expected to take precautionary measures during construction to avoid damages to private and public property, if damage is caused, he will restore such structures to its original status at his own cost on the instructions of the PMU/CSC.

Source: JICA Survey Team

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CHAPTER 10 LAND ACQUISITION PROCESS AND TIME SCHEDULE

The period of implementation of land acquisition and resettlement will commence from December t 2021 and continue up to September 2023. The time schedule by activity is shown in the following **Figure 10.1**.

Activities	Responsibility	2021			2022												2023										
		10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	
Supplemental socio-economic survey	PMU/Consultant			■	■	■																					
Review and update of the RAP	PMU/Consultant				■	■	■	■	■	■	■	■	■	■	■	■											
Awareness meetings with stakeholders prior to construction programme	PMU/Consultant					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
Entering into memorandum of understanding with the land owners for temporary possession of land during construction	PMU/Consultant												■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Preparation of acquisition proposal	PMU, RDA/MOHRDPRD					■	■																				
Publication of first notice and preparation of Advanced Tracing	PMU, RDA, MLLD, DS, Survey Departmet						■	■	■																		
Investigation and calling for objections	PMU, RDA, MLLD, DS									■	■	■															
Decision to acquire the land	PMU, RDA, MLLD, DS, Survey Departmet										■	■															
Inquiry into claims and payment of compensation	PMU, DS, MOHRDPRD, Valuation Department												■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Taking over of possession after the acquisition	PMU, DS, MOHRDPRD, RDA, MLLD																		■	■	■	■					
Vesting of certificate	PMU, DS, RDA, MLLD																				■	■	■				
Physical relocation of PAPs	PMU, DS																							■	■	■	
Grievance Redressing	PMU, DS												■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Preparation and implementation of IRP	PMU/Consultant												■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Internal Monitoring	PMU/Consultant					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
External Monitoring	PMU/EMA												■	■	■	■	■	■	■	■	■	■	■	■	■	■	

Abbreviations

DS: Divisional secretary
 EMA: External monitoring agency
 IRP: Income Restoration Program
 MLLD: Ministry of land and land development

MOHRDPRD: Ministry of highways and roads development and petroleum resources development
 PAPs: Project affected persons
 PMU: Project Management Unit
 RAP: Resettlement action plan

Source: JICA Survey Team

Figure 10.1 Implementation Schedule of Land Acquisition and Resettlement

CHAPTER 11 RESETTLEMENT BUDGET

This tentative cost estimate is based on the rules on payment of compensation enacted in parliament in November 2013 under the LAA by the Minister of Land and Land Development and made operative by the Government Gazette No.1837/47of 22nd 2013 and revised Entitlement Matrix of the RDA

The values for land and structures were calculated on market value and replacement cost respectively on the data collected by enumerators during the LARS & SES. Notaries, housing estate dealers and knowledgeable residents of the area were consulted. Advice was taken from the Local Valuer also. Their general view was that during the past 3 – 4 years land / property prices have not significantly changed in the areas where counter measures for landslides to be implemented.

Table 11.1 Land Acquisition and Resettlement Budget

Item	Quantity	Unit	Rs./unit (Ave.)	Total	
				(Rs.)	(USD)
Lands ¹⁾					
Private Lands	1,041	perches	75,000	78,075,000	433,608
Plantation Estate Lands	645		40,000	25,800,000	146,591
Sub Total	1,686		-	103,875,000	590,199
Structures					
Temporary House	150	sq. ft	1,500	225,000	1,278
Permanent House	1,500		3,000	4,500,000	25,568
Sub Total	1,650		-	4,725,000	26,847
Trees					
Rubber	370	nos.	2,500	925,000	5,256
Coconut	13		3,000	39,000	222
Jack	36		3,000	108,000	614
Fruit trees	45		2,000	90,000	511
Others	3		2,000	6,000	34
Sub Total	467		-	1,168,000	6,636
Shifting of Utilities					
Waterlines of the PAPs ²⁾	60	nos.	10,000	600,000	3,409
Sub Total	60		-	600,000	3,409
Temporary Disruption of Business					
Temporary loss of income from plantation crops ³⁾	1,577 perches/160 =10 Acres	acres	750,000	7,500,000	42,614
Temporary disruption of business of a shop (one (1) year)	1	AHH	250,000	250,000	1,420
Sub Total	-	-	-	7,750,000	44,034
Other Assistance					
Support and income restoration	-	-	Lump Sum	500,000	2,841
Assistance for Vulnerable Families	10	AHH	15,000 ⁴⁾	150,000	852
Expenses for GRC	40 ⁵⁾	nos.	10,000	400,000	2,273
Sub Total	-	-	-	1,050,000	5,966
Monitoring & Evaluation and Administration					
Internal monitoring	20	months	-	-	-
External Monitoring	14	months	Lump sum	4,500,000	25,568

Item	Quantity	Unit	Rs./unit (Ave.)	Total	
				(Rs.)	(USD)
Administration Expenses ⁶⁾	-	-	Lump Sum	5,000,000	28,409
Sub Total	-	-	-	9,500,000	53,977
Total	-	-	-	128,668,000	731,068
Contingencies 10%	-	-	-	12,866,800	73,107
Grand Total	-	-	-	141,534,800	804,175

Source: JICA Survey Team

USD =Rs.176

- 1) When private land is needed for construction facilitating activities such as access road or storage of materials, the plot of the land will be temporarily taken on the basis of voluntary provision from the land owners. However, a land lease fee may be paid if the PMU fails to obtain the agreement of the land owner. The land lease fee will be calculated by multiplying the market unit price and the duration of occupying the land.
- 2) Relaying of existing PVC pipes owned by PAPs
- 3) When plantation land is used for construction purposes, existing plantation crops need to be removed. If a tea bush is removed, it takes at least three (3) years to obtain the income earned prior to removal of trees after getting the land back on completion of construction work. Assuming the period of two (2) years for construction, the loss of income stretches for five (5) years.
- 4) This is the amount approved by the RDA for vulnerable families in other projects. LARC could decide a higher allowance.
- 5) Two GRC meetings for 18 DS Divisions and one GRC meeting for 4 DS Divisions
- 6) The administration is done by the PMU, if a separate office is maintained for the implementation of the RAP, then only it will function as a separate cost centre but salaries are a sunk cost. The staff will be drawn from the human resources available with the PMU. Normally they do not apportion cost of employee's time for attending to project activities since the employees are in the permanent cadre of RDA except for consultants hired for a specific job for which funds have been provided under Admin expenses and in the Contingencies.

There is no direct provision in the 2013 regulations to deal with temporary possession of land, but the Land Division of RDA could decide on the loss of income to be paid. Or the estimate provided in the budget could be built into the contract and RDA could settle the payment and deduct the amount from the contractors claim. The estimate for the loss of income for the temporary possession of land cultivated with tea by private estates is based on the following formula:

1. Average yield of green tea per acre per year is	= 3,000kg
2. Total yield for 10 acres for a year	= 30,000kg
3. Average price of green leaf (tea) per kilogramme is	= Rs.100
3. Loss of revenue for 5 years: 30,000kg/yr*5yrs*Rs.100/kg	= Rs.15,000,000
4. Less cost of production: 50% of revenue	= Rs 7,500,000
5. Loss of income: Rs.15,000,000 – Rs.7,500,000	= Rs 7,500,000

The number of acres of plantation land temporary required is approximately 1,577 perches or 10 acres. One acre consists of 160 perches.

Number of electric posts to be shifted is 109 and telephone post is 115. The cost of shifting these utilities do not come under the resettlement budget. It is part of the construction cost. The water lines are the property of the PAPs and are treated as a resettlement cost.

Flow of Funds and Source of Funding are shown in the following **Figure 11.1**.

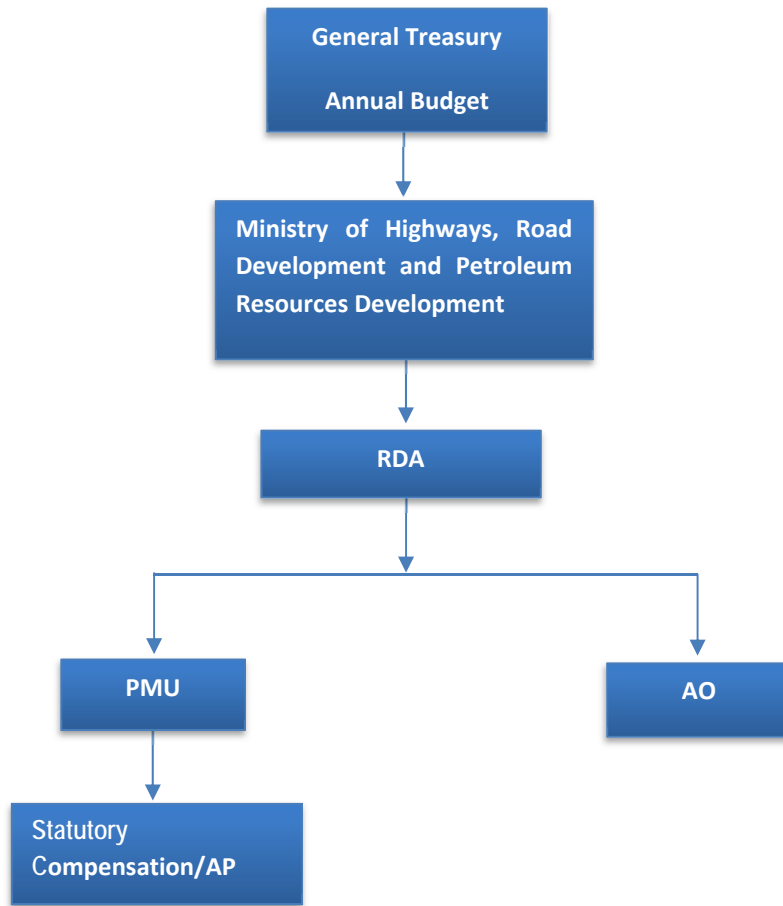


Figure 11.1 Flow of Funds and Source of Financing

Funds will be obtained by PMU/ RDA monthly from the beginning of the implementation of RAP for the payment of compensation and interest and thereafter for other expenses

CHAPTER 12 MONITORING, EVALUATION AND REPORTING

Monitoring and Evaluation is one of the important features of any project. Monitoring helps to detect any short comings or whether project is in correct course and function as a whistle blower to take remedial measures before the events get out of control. Resettlement Monitoring refers to the collection, processing, analysis, reporting and use of information on the progress of resettlement based on the RAP. Monitoring is focuses on physical and financial targets and the delivery of entitlements to displaced persons. Monitoring is usually conducted internally by the executing agency, sometimes with the assistance of external monitoring specialists.

12.1 Internal Monitoring

Internal monitoring will be done by the PMU. The period of internal monitoring will commence from March 2022 when the acquisition proposal is prepared and will continue for 20 months. The Social Specialist will play a key role at the PMU level. Internal monitoring will be focused on timely execution of safeguard activities in line with the RAP including RAP implementation, scheduling with civil works, monitoring the role of contractors, managing and monitoring safeguards, expected from consultants and their outputs, documentation of progress with regard to eligibility list preparation, disclosure and consultation, grievance registration and resolution, disbursement of entitlements, day-to-day relocation support, etc. Internal Monitoring will pay special attention to the following:

- Efficiency and effectiveness of the day to day planning and implementation of the RAP;
- Efficient and transparency in disbursement of compensation, Resettlement & Rehabilitation (R&R) benefits;
- Data collection, feedback information, identification of bottlenecks and troubleshooting;
- Documentation for informed decision making, and efficient response to implementation issues;
- Maintenance of each APs entitlement updated file;
- Management of baseline information on socio economic conditions of the APs, to access whether the socio-economic conditions improve and income and living standard improve/ restored;
- Preparation of progress reports; and Coordination within the implementing organization as well as with outside agencies.

12.1.1 Tools for Internal Monitoring Include

- Document review
- Surveys of APs
- Key informant interviews
- In-depth case studies
- Focus group meetings
- Public, community meetings, and
- Observations.

12.2 External Monitoring

The PMU will engage an external monitoring and review agency for independent review of the safeguard implementation program to determine whether intended goals are being achieved, and if not, what corrective actions are needed. The period of external monitoring will commence from September 2022 when inquiry into claims and payment of compensation are started and will continue for 14 months. External monitoring will have two objectives.

Verify if the safeguard program is being implemented in accordance with the approved framework; and verify whether APs, households and communities are able to address negative impacts and either improved or at least restore their livelihoods and living standards.

12.2.1 External Monitoring is intended to:

Verify that the RAP has been implemented according to approved plans and procedures;

- Assess that the objectives of the RAP have been achieved;
- Determine that APs livelihood and living standards have been restored or improved and if not suggesting ways and means of improving performance;
- Obtain views of the APs on their relocation, entitlements and Grievance Redress Committee's performance;
- Evaluate the performance of all implementing Agencies including PMU, NGOs, CBOs and other Government Agencies associated with the implementation of the project;
- All social development goals have been met; and
- Review of all reports by the internal monitoring agencies.

The external monitoring agency will carry out a baseline survey prior to implementation and carry out periodic updates as agreed. The findings of external monitoring will be submitted to the PMU and considered at the Project Steering Committee. A TOR for hiring such a consultant will be provided.

The design of the monitoring system will also involve the delineation of the monitoring roles and responsibilities and mechanisms for coordination of monitoring. The monitoring system will provide for both internal and external monitoring and reporting. Social audits on the progress of the safeguard program will be conducted as an integral part of external monitoring.

12.3 Monitoring Indicators

The main monitoring indicators for the project are given in **Table 12.1** below.

Table 12.1 Monitoring Indicators

Type	Indicator	Examples of Variables
Process Indicators	Staffing	Have all land acquisition and resettlement staff been appointed and mobilized for the field and office work on schedule No. of surveyors & valuation officers, resettlement officers available for training programs held for the project staff No of unit/field offices established
	Consultation	Have consultations taken place as scheduled including meetings, groups, community activities? No. of awareness meetings held with the stake holders and participation No. of flyers/handbills distributed How many PAPs know their entitlements?
	Participation	No. of training programs held for the officers No. of informative bulletins distributed How many officers attended training programmes
	Grievance Resolution	No. of GRC established How much do APs know about grievance procedures and conflict resolution procedures? Have any PAPs used the grievance redress procedures? What were the outcomes? Have conflicts been resolved. No. of complaints received and resolved
Output Indicators	Acquisition of Land	Type and extent of private land acquired Type and extent of state land acquired Has all land been acquired and taken possession in time for project implementation?
	Structures,	No. type and area of private structures acquired No. type and area of state structures acquired No. type and area of community structures acquired
	Trees & Crops	No. and type of trees/crops owned by private people acquired No. and type of trees/crops owned by state agencies Acquired Have the owners compensated for the loss of trees
	Compensation and Rehabilitation	How much PAPs know about resettlement procedures and entitlements? Do APs know their entitlements? Have all PAPs received entitlements according to numbers and categories of loss set out in the entitlement matrix? Have PAPs received compensation on time? Have all PAPs received entitlements according to numbers and categories of losses set out in the entitlement matrix? Have all PAPs received the agreed transport costs, relocation costs, income substitution support and any resettlement allowances according to schedule? Were house compensation payments made free of depreciation, fees or transfer costs to the AP.? How many PAPS have received housing as per relocation options in the RAP? No. of households displaced according to type of losses Average compensation paid for a perch of land Average compensation paid for a sq. ft. of buildings Type, number and total of allowances paid No. of households displaced according to type of losses No. of structures restored by PAPs No. of auxiliary structures restored by PMU. No. of auxiliary structures restored by PAPs Did businesses affected receive sufficient assistance to re-establish themselves? Have vulnerable groups been provided income earning opportunities?

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Impact Indicators	Household Earning Capacity	No. obtained loans from bank and other sources No. assisted by IRP No. employed by the project What changes have occurred in patterns of occupation, production and resource use compared to the pre-project situation? What changes have occurred in income and expenditure patterns compared to pre project situation? Have APs income kept pace with these changes? What changes have taken place in key social and cultural parameters relating to living standards? What changes have occurred for vulnerable people?
	Changes to Status of Women	Participation in Community Based activities Loss of employment Empowerment /facilitation of gender issues Participation in project activities
	Changes to status of Children	Changes in school attendance by gender No. attending new schools, gender wise Improvement in education levels
	New Settlement & Population	Generation of new businesses, Influx of population Outsiders buying land in the vicinity of the project, increase in land value increase in encroachers /non titled people on state lands Due to influx of construction workers, is there any increase in violence? Is there any increase in sexually transmitted diseases? (could be compared with data available in the respective police stations and health institutions) Do a sample survey of people in the near vicinity of the project to ascertain the impact on their socio economic status as a result of the project for a comparison with the APS.

Source: JICA Survey Team

12.4 Evaluation Plan

Evaluation is conducted during and after implementation. It assesses whether the resettlement objectives were appropriate and whether they were met specifically whether livelihoods and living standards have been restored and enhanced. The evaluation assesses the efficiency, effectiveness, impact and sustainability drawing lessons as a guide to future resettlement planning.

Evaluation differs from monitoring because of its broader scope, its less frequent timing and its involvement of independent specialists.

Evaluation will be based on the following objectives:

- Efficiency; the economical use of resources in producing the outputs.
- Effectiveness; the degree to which objectives have been achieved.
- Impact; positive/negative, planned or unplanned consequences of the project relevance; the degree to which the project can still be justified in relation to local and national development priorities.

Evaluation will take into account relevance;

Sustainability: the extent to which the positive effects of the project will continue to benefit APs after the conclusion of the project (external funding).

The evaluation will be carried out by an external agency and will cover all aspects of the project, if relevant participation of affected people in M&E will be encouraged. The external evaluation will be participatory in the sense that inputs will be obtained from all stakeholders; particularly the affected people through the use of participatory tools and findings will be used in policy advocacy.

12.4.1 Reporting Requirements

The key output of Monitoring will consist of various types of written and oral reporting including

- Periodic Reports (Monthly (Internal), Quarterly, and Annual);
- Ad hoc Reports, especially on particular subject at the request of the management; and
- Internal notes or oral presentation for informal management review sessions.

The reports will be on a standardized format so that information received could be easily compared with previous reports. It will be precise and concise; timely and highlight exceptions and departure from plans and schedules.

12.4.2 Reporting Responsibilities

Reporting to the APs will constitute an important element of the accountability arrangements. The reporting mechanisms at this level would be simple and be accessible to all. Reporting will consist of briefing material, notices in regard to safeguard measures, and leaflets that can be distributed to persons and households. The monthly progress review meetings of the Project will also constitute the reporting mechanism.

- Reporting to the PMU and Steering Committee and The Stakeholder Forum
- The Monitoring and Evaluation Cell will report to the PD who will in turn report monthly to the Project Steering Community.

12.4.3 Reporting Contents

Reporting will focus on the following:

- Number of affected persons PAPs by specific categories
- Land acquisition with details of the process, e.g. number of Section 2 notices issued etc.
- Number of PAPs issued with Section 38 (a) issued etc.
- Number of PAPs paid statutory and extra compensation
- Number of Buildings/structures taken over by PMU
- Number of self-relocated people
- Number of people of vulnerable groups assisted by the PMU by category
- Number of gender issues/practical issues of female APs reported by the APs
- Number of gender issues/ practical issues of female APs resolved
- Number of sexually transmitted diseases reported to the health authorities
- No of crimes reported to the police
- Number of PAPs that require income and livelihood restoration assistance
- Number of PAPs assisted under IRP – training; self - employment; engaged in project etc.
- Number of PAPs facing losses due to contractors' storage, accommodation, parking etc.
- Number of GRC meetings held

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- Number of complaints received by the GRC
- Number of grievances resolved by the GRC
- A baseline report taking into account the entire foregoing scenario.

Annex

1. Example of Memorandum of Agreement for Temporary Releasing of Land
2. RAP Monitoring Form

Annex 1: Example of Memorandum of Agreement for Temporary Releasing of Land

Project of the National Road Network

Loan No.

Temporary Releasing of Lands for _____ Project

Agreement

Herewith the First Party being the Road Development Authority, established under Act 1981 73 of Sri Lanka Government with Head Office at "No. 216, Maganeguma Mahamedura", Denzil Kobbekaduwa Mawatha, Battaramulla and Mrs. _____, No _____, Boralanda Road, Haputhale will be the Second Party. Following hereunder are included in the agreement signed by both parties.

The First Party need to temporarily acquire the land in which details are attached in the following annexes; to implement the counter measures intended to protect the land from _____ disaster. Herewith the two parties agree to implement the rehabilitation activities on the land at which details are attached to in the following annexes are adhered to under agreed terms and conditions.

The Following are the agreed terms and conditions as stipulated in the annexes

1. Considering the social and economic benefits from the implementation of counter-measures to prevent _____ disaster at the particular land detailed in the annexes which belong to Mrs. _____ should be temporarily entrusted to the Director General of Road Development Authority to implement and maintain the counter-measures for preventing _____ disaster of the particular land.
2. In the event there are persons, and/or non-movable assets found within this particular project site, needs to be removed before construction of the mitigation measures will start; the First Party will pay compensation and other benefits to the Second Party for the involuntary resettlement impact prior to their displacement following the provisions of the Sri Lanka National Involuntary Resettlement Policy as contained in the Resettlement Action Plan. The Second Party will voluntarily clear the project site of such persons and non-movable assets before the construction of mitigation measures commence.
3. The Second Party will allow the First Party to install an information display board at the site providing details on the countermeasures implemented, for all people to see.
4. After completion of rehabilitation activities by the First Party on the land whose details are found in the annexes, the land will be handed back to the Second Party including the "As-built" drawings.
5. The Second Party should give access to the First Party to inspect/monitor, maintain or improve the counter measures and to implement preventive actions on _____ disaster at the particular land from time to time.

6. The Second Party or his/ her representative will agree not to disturb the First Party or its representative, when the First Party conducts its annual inspection, maintenance, improvement of counter measures, and implementing relevant disaster protection actions at the particular land.
7. Two parties agree that this land is temporarily donated for above purpose by us/ institute, and has entered to this agreement with our own free will.
8. The Second Party agree not to willfully damage, remove or replace in part or as a whole, the disaster counter measures, or not to willfully disturb maintenance activities conducted for these measures after handing over the land where the counter measures have been installed by the First Party, and if the Second Party or his representative willfully damage these counter measures, the Second Party agree to repair those constructed counter measures under the supervision of the First Party. However, if such damage is caused by a Third Party unknown to the Second Party, the liability would not fall with the Second Party with settlement reached amicable by the two parties.
9. If the Second Party willfully and continuously violates provisions of this agreement despite notices issued by the First Party to comply with the agreement, the First Party can exercise its prerogative to permanently acquire the land on which the mitigation measure is installed following existing laws of the country.
10. This agreement takes effect upon signing by both Parties and witnesses. This agreement will remain enforced until the end of Project life or upon termination of the First Party, whichever comes first.

In addition, herewith two parties promise to fulfill the above agreements correctly for themselves and on behalf of their subordinates.

Annexes

1. Location of: Disaster – 6th km – Road (A)
2. Land Survey Plan
3. Details of the land which will be temporarily released to the Project for the implementation of the counter measures-(Tenement List)

Lot No.	Extent (Ha)	Details of Boundaries			
		North	East	South	West
1	0.0508	Mrs. No Boralanda Road, Haputhale.	No Boralanda Road, Haputhale.	A Road & Road Reservation	Mrs. No Boralanda Road, Haputhale.

4. Designed plan prepared for mitigation works

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For witness of this, both parties have signed herewith and have agreed upon for First Party to get this land/land section mentioned in the annexes and Second Party to temporarily donate the land /land section mentioned in the annexes on this. Day of Month of Year

.....
Director General
Road Development Authority
ROAD DEVELOPMENT AUTHORITY
MAYALAKSUNA MHAMEDURA
First Party: KOBSEKADUWA MAWATHA,
BATTARAMULLA.

.....
Mrs. Boralanda
No. Road, Haputhale
Second Party:

Witness:

.....
Project Director
Project Director
Road Development Authority
No. 340, Gangoda Road
Embilmeegama, Pilmathalawa

.....
Second Party

.....
Divisional Secretary
Haputhale

.....
Grama Niladhari
Haputhale

Annex 2: RAP Monitoring Form

1. Public Consultation

Date: Day Month Year

No.	Date	Place	Attendants	Contents of the consultation, Main comments by PAPs and responses

2. RAP

Monitoring Period: from Date Month Year to Date Month Year

Activity	Plan	Unit	Progress		Progress Rate (%)		Planned date of Completion	Remarks
			Until the previous month	Until the current month	Until the previous month	Until the current month		
Socio-economic Survey and Census								
Approval of the RAP			Date of approval					
Finalization of PAPs List								

3. Land Acquisition and Resettlement

Monitoring Period: from Date Month Year to Date Month Year

Site No.	Activity	Number of lots	Plan	Unit	Progress		Progress Rate (%)		Planned date of Completion	Remarks
					Until the previous month	Until the current month	Until the previous month	Until the current month		
	Land Acquisition	1		perch						
		2								
		3								
	Compensation	1		household						
		2								
		3								
	Land Acquisition	1		perch						
	Compensation	1		household						
	Land Acquisition	1		perch						
		2								
	Compensation	1		household						
		2								

4. Income/Livelihood Restoration

Date: Day Month Year

Item	Contents	Results

5. Grievance Redress

Date: Day Month Year

Date and Complainant	Contents of Grievance/Complaint	How to deal with the Grievance/Complaint

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Appendix 6_2 Participant List of
Stakeholder Consultations

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Appendix 6_3 Memo of Discussion with
Stakeholders

Appendix 6_3: Memo of Discussion with Stakeholders

Date: 2019.07.22- Time: 05pm

DSD: Udapalatha, Place: Grama Niladhari (GN) office Pussallewa, Designation: GN Pussallewa

Land Slide Locations: A005-28/4-28/6(Site.8) & 30/9-30/11(Site.7) culverts

It is a good project, the area above the church need special attention, the police station is also located close to this land slide prone location. Any assistance required from the divisional secretariat for the successful implementation of the project will be extended. He said in addition to the two locations earmarked for mitigation few more places in the vicinity of Pussellawa town is subject to landslides, if remedial measures could be taken for those locations will be appreciated

Date: 2019.07.24- Time: 11.30am

DSD: Udapalatha, Place: Divisional Secretariat- Udapalatha, Dsignation: Divisional Secretary (DS)

Land Slide Locations: A005-28/4-28/6(Site.8) & 30/9-30/11(Site.7) culverts

DS welcomed the project and felt happy for the action initiated by RDA with the assistance of JICA to arrest the landslides in the above locations since the A005 route is a main highway that connects Kandy City with peripheral towns in Uva and Eastern Provinces. She assured her cooperation to the project implementers to proceed with the activities of the project in her administrative area without any hindrances.

Date: 2019.07.24- Time: 12.00am

DSD: Udapalatha, Place: Divisional Secretariat- Udapalatha, Designation: Land Use Planning Officer

Land Slide Locations: A005-28/4-28/6(Site.8) & 30/9-30/11 culverts (Site.7)

The land use planning officer also expressed that the proposed landslide protection measures is a step in the right direction and wishes to associate with the project.

Date: 2019.7.24- Time: 2.00pm

DSD:Raththota, Place: GN Office- Punchi Raththota-Ilukkumbura Rd.Rahthota, Designation: GN

Land Slide Location: B274-11/2-11/4 culverts (Site.26)

The Punchi Raththota GN division on the Matale-Ilukkumbura(B274) road was subjected to landslides in the year 2011.Due to these landslides the area between culverts Nos 11/2 and11/4 was extensively damaged. The landslides affected houses and shops, paddy fields and the road. The road was made motorable after some minor repairs. Some houses above the road was sunk and the area below the road suffered landslides. The improvements to this road will contribute to the economy of the area, develop business and encourage more tourists to visit the area. I as the GN of the area is willing to extend my fullest cooperation to the project.

Date: 2019 7.24- Time: 02.30pm

DSD: Raththota, Place: House of a resident- 92/5, Nikaloya Road, Raththota, GND- Punchi-Raththota, Participants: Six residents

Land Slide Location: B274 11/2-11/4 culverts (Site.26)

The discussion was held at the residence of Participant. The purpose of the project was explained to the participants by the Consultant, The consultant emphasized that the landslides could result in loss of life and property. The road closures due to landslides could disrupt transport, communications, loss of income and day today activities of the people and invited participants to express their views

They said during the year 2016, a landslide occurred at this location resulting in damages to the road and collapse of some houses in the near vicinity. Those affected people were forced to abandon the houses. The paddy fields were covered with earth and farmers suffered losses. Walls of some houses were cracked. Problems were created to the public. Some were paid compensation, some were not. The road to the famous Knuckles reserve is through this village. There is a water stream that flows above our houses. We request you to protect same without affecting the residents. During construct safeguards should be implemented to prevent any damages to our houses. During construction period preference should be given to local labour. We appreciate the initiative taken to arrest the landslides on this road.

Date: 2019.7.24- Time: 03.30pm

DSD: Raththota, Place: Divisional Secretariat-,Raththota, Designation: DS

Land Slide Location: B274 11/2-11/4 culverts (Site.26)

Raththota in the Matale District is an area prone to frequent landslides and we are pleased to know that this project is being implemented through the intervention of JICA since we have a high regard for the projects implemented by JICA.

The Matale-Ilukkumbura -Pallegama Road is the main access to Nuckles Reserve. In the year 2001 at 11/2 culvert (Punchi Raththota) a large section of the area was affected due to a heavy landslide as a result large number of houses and the road was damaged. Even though the road has been repaired, now signs of landslides have appeared. There are few houses and shops at this location. Steps should be taken to do justice to them. There are number of locations within Raththota DS division prone to landslides and people have lost their properties in the past. It is appreciated if action could be taken to ameliorate problems faced by these people too.

Due to the landslide occurred at this location in 2011, the road sunk and a large heap of mud was deposited in my paddy field and few other paddy fields in the vicinity. Even now the scenario is same but now trees have grown in these abandoned plots. For a long period, we were depending on the income derived from our paddy lands. Only I am cultivating some vegetables now in my field others are not in a position do any cultivation. Due to the landslide number of houses suffered cracks on the walls. I lost my house. Before effecting any construction as counter measures for landslides I recommend that steps to be taken to arrest the sinking of the road. If private land is taken for the project reasonable compensation

should be paid to the owners. We request you to proceed with the construction programme without harming our interests.

Date: 2019.7.24- Time: 04.30pm

DSD: Raththota, Place: Gajaba Mawatha- Raththota, Designation: Retired Postman-Raththota

Land Slide Location: B274 11/2-11/4 culverts (Site.26)

Due to the landslide occurred at this location in 2011, the road sunk and a large heap of mud was deposited in my paddy field and few other paddy fields in the vicinity. Even now the scenario is same but now trees have grown in these abandoned plots. For a long period, we were depending on the income derived from our paddy lands. Only I am cultivating some vegetables now in my field others are not in a position do any cultivation. Due to the landslide number of houses suffered cracks on the walls. I lost my house. Before effecting any construction as counter measures for landslides I recommend that steps to be taken to arrest the sinking of the road. If private land is taken for the project reasonable compensation should be paid to the owners. We request you to proceed with the construction programme without harming our interests.

Date: 2019.7.25- Time: 10.30am

DSD: Ukuwela, Place: Divisional Secretariat- Ukuwela, Designation: DS

Land Slide Location: B462 6.30Km- 6.100km (Site.27)

In addition to the site that has been identified as a landslide prone location in Ukuwela DS Division, there are other places where landslides often occur during heavy rains. On the Elkaduwa -Wattegama Road 2.25 km from Elkaduwa, there is a dangerous place often subjected to landslides. There are houses below the road which are quite vulnerable to landslides. By taking measures to protect the location between 6+30-6+100kms it will help the people living in the locations below the road. Since the project is people friendly, designed to protect the environment our cooperation is assured to make it a success.

Date: 2019.7.25- Time: 11.30am

DSD: Ukuwela, Place: Office of the GN- Kaduwela E/361,Ukuwela, Designation: GN

Land Slide Location: B462 6.30Km- 6.100km (Site.27)

On Matale -Wattegama Road (B462) within my division at 6km post the area below the road had been subjected to erosion (landslide). Even though action was initiated to mitigate the effect of erosion, the activity has come to a standstill. Due to this there is a tendency to wash off a section of the road at this location during the next rain. I have brought this to the notice of the relevant authorities .There is a more vulnerable place prone to landslides close to this place, if a land slide occurs there is a possibility of road closure .Families who are vulnerable due to landslides have been considered as 10.They have been noticed to move out from the present location as it is a danger zone and provided with land from alternative locations but they have not yet vacated the present residences siting lack of facilities available at the new locations The action initiated to mitigate the danger of land slide at the identified place(6km) is a welcome move.

Date: 2019.7.25- Time: 02.00pm

DSD: Hathara Liyadda, Place: Grama Niladhari Office-Polwatta Ihalagama, Designation: GN

Land Slide Location: B122 8/2-8/4 culverts (Site.39)

Galagedara-Rambukkana Road (B122) is subject to frequent landslides and earth slips. Section 8.2-8.4kms is one of these sections that is affected by landslides and earth slips during heavy rains. I believe during construction of this road proper methods have not being followed, whenever there is an earth slip the contractors remove the earth to facilitate the movement of traffic. This area is sparsely populated. Only four families live at this location. But any obstruction to the road will affect the entire area. The forest above the road is rich in valuable trees and animals. When mitigation measures are taken consideration should be given to safe guard the environment. Unscrupulous people excavate earth for business purposes claiming that earth is required for development projects, this situation is harmful to the environment and should be arrested.

Date: 2019.07.25- Time: 2.30pm

DSD: Hatharaliyadda, Place: Boutique of a resident, No.7,Elotuwa-Hatharaliyadda, GND- Polwaththa Ihalagama, Participants: GN and five residents

Land Slide Location: B122. 8/2-8/4 culverts (Site.39)

The meeting was held in a boutique belonging to a participant. The consultant explained the background of the project and the advantages that would accrue to the community as a result of implementation of the project. Some participants said the landslide at this location occurred due to the adoption of wrong techniques during the rehabilitation of the road. They said the authorities did not listen to their suggestions during the rehabilitation process, and they are now made to suffer due to no fault of theirs. Some of them said they are not willing to part with their lands without compensation. A gentleman emphasized that the proposed access road as pointed out by the consultant will benefit them but it should be improved without leaving room for the residents to suffer losses. The proposed access road is designed to construct though his land and he is not willing to allow it but if the government need to use his land it should be acquired or explore alternate access road to effect improvements to the candidate site.

Date: 2019.07.26- Time: 02.00pm

DSD: Nivitigala- Place: Divisional Secretariat, Karawita Road, Nivitigala

Designation: Divisional Secretary

Land Slide Location: B390 (Ratnapura-Palawela-Karawita Road) 20/9-21/3 culverts (Site.49)

The DS welcome the plan to mitigate the effect of landslides at the locations of 20/9-21/3 culverts on the Ratnapura-Palawela-Karawita

Being an area receiving a heavy rain fall and a hilly terrain the probability of occurrence of landslides is high. The DS welcome the plan to mitigate the effect of landslides at the locations of 12/4-12/7& 20/9-

21/3& culverts on the Ratnapura-Palawela-Karawita Road and expressed his desire to cooperate with the project since planned project will result in mitigating landslides and safer road for motorists and pedestrians.

Date: 2019.07.26- Time: 03.00pm

DSD: Nivitigala, Place: Visitors Room, Divisional Secretariat, Karawita Road, Nivitigala,
Designation: Disaster Relief Services Officer

Land Slide Location: B390 20/9-21/3 culverts (Site.49)

The Disaster Relief Services Officer endorsed the views expressed by the DS regarding threats of landslides in the area, being the disaster relief services officer of the Nivitigala Divisional Secretariat he expressed his desire to involve with the project since it will serve the road users as well as the general public a safer environment. He undertook to apprise the community on the advantages that would accrue to them due to the implementation of the project.

Date: 2019.7.29- Time: 11.00am

DSD: Hathara Liyadda, Place: Divisional Secretariat, Hathara Liyadda,
Designation: Assistant Divisional Secretary

Land Slide Locations: B122- 8/2-8/4(Site.39) & 18/3-18/5(Site.40) culverts

The road Galagedara -Rambukkana (B122) was not properly rehabilitated, the landslides and rock falls are the results of not applying the correct specifications and techniques during construction and rehabilitation process. The locations 8/2-8/4 and 18/3-18/5 are not very vulnerable when compared to other landslide prone areas on this road. The land above the school at Dedunupitiya on this road is such a location. Houses belonging to four families are experiencing difficulties and the probability of these houses collapsing to the road is very high. The location 8/2-8/4 culvert in the Polwatta Grama Niladhari division on this road is subject frequently to fall of trees and earth, obstructing the movement of vehicles and damages to the road. In addition to these issues the road is damaged close to areas in Polwatta Ihala division, Uduwa and "Kurusa Handiya" "If solutions to the problems mentioned by me could also be addressed by the Land Slide Disaster Prevention Project is much appreciated.

Date: 2019.7.29- Time: 12.15pm

DSD: Hatharaliyadda, Place: Office of GN Polwatta Pahalagama, Designation: GN- Polwatta Pahalagama

Land Slide Location: B122-8/2-8/4 culvert (Site.39)

Galagedara -Rambukkana Road is often subjected to landslides. The location 8.2k to 8.4 km is one of such locations. This section is often subject to landslides. During heavy rains this issue surfaces. My opinion is when the road was widened and proved it was not properly done. Contractors who did the improvements are removing earth when the earth slips on to the road. This area is not populated. Only 3-4 families live. But if a problem crop up due to landslides it affects the entire area. There valuable trees and fauna exists in the jungle above the road. We request you to consider this aspect also when counter

measures are taken. Excavation of earth for sale should be prevented. We will extend our support to the project.

Date: 2019.7.29- Time: 02.15pm

DSD: Hatharaliyadda, Place: Adawaruwa, Aludeniya, Hatharaliyadda, Designation: Timber Businessman

Land Slide Location: B122- 18/3-18/5 culvert (Site.40)

The problem of landslides surfaced after road was widened and improved. I perceive the landslide hazard as a result of adopting wrong techniques during the improvement stage. During the rains earth and rocks lying above the road washes down to the road. It is dangerous to travel on the road during rainy days. People have planted rubber and grow pepper and other crops on the lands above. With the counter measures proposed to mitigate landslides, I believe we could get a better harvest from these crops and road will be safer to use.

Date: 2019.7.30- Time: 9.30am

DSD: Mawanella, Place: Divisional Secretariat, Mawanella, Designation: Assistant DS

Land Slide Location: A001 99/8-99km (Site.31)

Road A001 which connects the Capital city with the Central Province is one of the most important roads in the country. The project to mitigate the locations prone to landslides along this road is a well thought and important. Number of places subject to landslides has been identified along this road. There are locations more vulnerable than the one you have taken for mitigation measures. The problems identified in the Kadugannawa area is illegal constructions, rocks and branches of trees falling on to the road could be prevented by drawing strong steel nets at vulnerable locations and removing unstable rocks. This location falls within two DS divisions, Mawanella and Yatinuwara. The environment should be protected while effecting mitigation measures. Development of this road contributes to economic development and enhancement of the environment. The improvement of the road by taking mitigation measures will encourage tourists and help the people engaged in business. We are ready to extend our help to successfully implement the project. Appreciate the opportunity afforded to express our views.

Date: 2019.7.30- Time: 1.45pm

DSD: Ratnapura, Place: Grama Niladhari Office-Galabada Wasama, Galaboda, Designation: GN

Land Slide Location: B391 11.900km -12.00km (Site.4)

Location 11.900 to 12.00km is a dangerous spot subject to landslides. Even for a small rain this place is prone to landslides this is the worst location within my division. Even though this location is not designated as a moderately dangerous area over 70 families is subject to the danger of facing landslides. Out of these vulnerable families 27 are considered as living in high risk locations and identified for relocation. Due to the threat of landslides the residents are subject to mental stress. During rainy days some families leave the houses and live with their relatives. If proper counter measures are adopted there is no need to relocate the 27 families living in high risk zone at present.

Date: 2019.7.30- Time: 2.30pm

DSD: Ratnapura, Place: GN Office-Galabada Wasamaame, Designation: Development Officer -Galaboda

Land Slide Location: B391 11.9-12km (Site.4)

This location is very famous in the Rathnapura District as a place prone to landslides. Frequently there are earth slips and rock falls at this location during rainy days. A water stream flows across the road frequently resulting in disruption to transport. Below this location there is a village. They have been issued with danger notices. If a solution can be found to prevent landslide at this location villagers need not be relocated according to National Building Research Organization (NBRO). Following advantages will accrue to the community if action is taken to arrest the scourge of landslide at this location.

- i. The problem disruption to transport
- ii. The necessity to relocate villagers living below the road does not arise.
- iii. It helps to transport green tea leaf and other agricultural produce faster to the markets
- iv. It will help the school going children and relieve them from anxiety.

Date: 2019.7.30- Time: 4.30pm

DSD: Ratnapura, Place: Divisional Secretariat, New Town, Ratnapura, Designation: DS

Land Slide Location: B391 11.90km -12.00km culvert (Site.4)

This is a timely and a good project. We knew regarding this project prior to your visit. Galabada area in Rathnapura-Wewalwatta Road was subject to landslides for a considerable length of time. This area has been declared as a danger zone due to its vulnerability for landslides. The interim measures adopted in the past had not provided the answers to the issue at hand and the road is being deteriorated with the passage of time.

The location between 11.900km to 12km on the Ratnapura -Wewalwatta Road (B391) is not so dangerous as the location between 13-14km. Road closures occur at this location due to landslides. Families 27 in number who live below the road have been identified as vulnerable and the NBRO had recommended to resettle them at a safer location. If this location is well secured there is no necessity to relocate them elsewhere. In addition to this there are few other locations on this road subject to landslides and rock falls. A water stream is flowing across the road at -Durekanda location and subject to landslides during rainy season. It is advisable to consider all locations subject to landslides along this road and roads in the Rathnapura DS Division. Since the project is to be implemented with Japanese aid, we are confident the quality of the constructions will be high.

Date: 2019.7.31- Time: 9.15am

DSD: Padukka, Place: Divisional Secretariat- Padukka, Designation: Assistant DS

Land Slide Location: B188 12/4-12/6 culvert (Site.51)

The Kaluaggala -Labugama road leads to the reservoir that supply water to Colombo city and suburbs. The landslide location is at Thummodera. The damage to the road exists for a long time. Due to the

landslide large extent of land was affected. The road became completely impassable due to the falling of rocks. The canal flowing close to the road also affected. On a request made to the Ministry of Irrigation, the canal was cleared of rocks and rehabilitated. Even though houses nearby did not suffer damages, notices have been issued for four families regarding the danger of living in those houses. Two houses are considered highly vulnerable. During construction these houses might be affected. It is prudent to relocate these houses before construction. Rocks are falling to the Puwakpitiya -Thummodera Road too. It is a good decision taken by the government to mitigate the danger at 12/4-12/6 culverts. It will benefit the people living along this road and a shot in the arm to the tourist industry in the area.

Date: 2019.7.31- Time: 10.15am-

DSD: Padukka, Place: Grama Niladhari Office -458/A, Thummodara, Designation: GN

Land Slide Location: B188 12/4-12/6 culverts (Site.51)

Kaluaggala -Labugama Road is a very important road since the road leads to the towns of Horana, Padukka, Ingiriya and Avissawella. The area through which the road traverses is rich in bio diversity, fruit orchards home gardens, tea cultivation. and rubber-based industries. Water falls namely” Kumari Ella and “Ranmudu Ella”, famous park “Seethawaka” and number of tourist hotels are located in the area where Kaluaggala -Labugama Road traverse. There are two families with moderate vulnerability and two categorized as high risk are living around the area selected for mitigation measures. It is advisable to relocate these 4 families prior to the implementation of counter measures. The plan to adopt counter measures to make the road safe is appreciated as it encourages more tourist to visit the area and entrepreneurs. We are prepared to cooperate and assist the RDA to resolve any issues that might crop up during the construction phase of counter measures.

Date: 2019.7.31- Time: 11.00am

DSD: Padukka, Place: 62/3, Pathagiwatta –Thunmodera, Designation: Retired Clerk

Land Slide location: B188 12/4-12/6 culverts (Site.51)

A landslide occurred at this location in the year 2017 resulting in the blockage of the road. During rainy weather rock falls taking place even now. Danger notice has been served on 04 families. The stream below the road was covered with mud and rocks. The stream was cleared recently by the Department of Irrigation. This area is visited by tourists since there are places of tourist attractions, like waterfalls and a botanical garden. When landslides occur, it affects the movement of vehicles of local people as well as tourists and also it is a hindrance to the transport of agricultural produce. The proposal to take measures transport to prevent landslides at this location is well received and we assure you, our cooperation.

Date: 2019.07.31- Time: 00.30pm-

DSD: Dehiowita, Place: Divisional Secretariat—Dehiowita, Designation: DS

Land Slide Location: A007 03/03-03/05 culverts (Site.9)

The route A007 is one of the most important roads in the country, the road connects Colombo with Nuwaraeliya. The location identified prone to landslides is a dangerous place due to narrowness of the

road and the nearby bend. Signs of earth slippages appeared at this spot. Area below the road was damaged and the problem was aggravated due to the river that exists close to the road. We requested the authorities to take remedial measures to overcome the problem prevalent at this location and we are happy to hear that the issue will be laid to rest by implementing counter measures through LDPP phase 2 project. We are very happy to extend our help to successfully complete the project.

Date: 2019.07.31- Time: 01.00pm

DSD: Dehiowita, Place: Office of the GN-Ihalatalduwa-118/18, Designation:GN- Ihalatalduwa

Land Slide Location: A007 03/03-03/05 culvert (Site.9)

This road was sunk between culverts 03/03-03/5 few years back. RDA restored the condition of the road but it was not a permanent solution. There is heavy traffic on the road and the Kelani River is below the road. We have proposed construction of protective dam /wall either above or below the road. Above the road there are number of houses and a bank building. You should pay attention to these matters also when the construction programme commenced. If land of the private people to be used for the provision of counter measures the project affected people should be compensated.

We are ready to extend our cooperation

Date: 2019.08.02- Time: 10.00am

DSD: Ukuwela, Place: Residence of the Interviewee, Occupation: Proprietary Planter

Land Slide Location: B462 6.+30km-6+100km -12.00km culverts (Site.27)

Due to a landslide at the 6th km of the Matale-Wattegama Road, there were temporary disturbances to movement of vehicles. After the last landslide, action was initiated to construct a stone embankment at this location but the construction of the embankment was not completed. Therefore, our request is to proceed with construction of counter measures again, initiated by RD. Variety of spices namely pepper, nutmeg, cloves etc. are cultivated in this area in addition to tea and coffee. A well-maintained road is essential to transport these agricultural produces. This an alternate road to reach Matale. If any land is needed for construction work, PAPs should be reasonably compensated.

Date: 2019.08.05- Time: 09.30am

DSD: Niwitigala, Place: Grama Niladhari Office-Pahala Karawita, Karawita, Designation: GN

Land Slide Location: B390(Rathnapura-Palawela-Karawita Road) 20/9-21/3 culverts (Site.49)

During the year 2017, the earth slips began to fall on to the road. In my opinion this happened due to the widening of the road without maintaining the correct slope and removing rocks to improve the road prior to rehabilitation there were no earth slips on this road. The reason for not being able to maintain the proper slope was due to land owners not allowing the RDA to use their lands for the improvement of the road. Landslips are observed frequently in the Horakele reserve area also, we request you to pay attention to this problem too. This road is now used by motorists as an alternate road to reach Rathnapura and Kalawana -Rathnapura Road. This road is very useful for transportation of tea leaf and we are very

grateful to the RDA for initiating action to arrest the land slide prone location between the culverts 20/9-21/3 .

Date: 2019.08.05- TIME: 11.00am

DSD: Nivitigala, Place: Karawita Road ,Pahala Karawita-Karawita, Occupation: Proprietary Planter

Land Slide Location: B390 (Ratnapura-Palawela-Karawita Road) 20/9-21/3 culverts (Site.49)

There were no landslides along this road prior to improvement effected. My conviction is that proper techniques have not being followed during rehabilitation process. Land was taken and the road was cut according to their plans. No compensation paid for the loss of private properties. If land to be taken for development purposes we should be informed in advance. After implementing counter measures tea and rubber plantations will not be affected. It is easy for road users. The land could be replanted without problems. This is a short cut to Rathnapura and Kalawana.

Date: 2019.08.05- Time: 00.00pm

DSD: Elapatha, Place: Grama Niladhari Office-184 ,Niriella, Designation: Field Development Officer :

Land Slide Location: B390(Ratnapura-Palawela-Karawita Road) 12/4-12/7culverts (Site.48)

This location in my division is a dangerous place, there had been landslides at this place in the past. Though there were no loss of lives, the road was badly damaged

There were rock falls, earth slips and uprooting of trees in the estate named “Domro” located above the road. There is a playground and labour, rooms close to the affected site. There is seepage from the road to the paly ground. NBRO has identified 10 families as highly vulnerable and 30 families as moderately vulnerable. This location is known as “Akkara Panaha” GN recommended that the loose rocks above the road to be removed when mitigation measures are implemented.

Date: 2019.08.05- Time: 01.30 pm

DSD:Elapatha, Place: Divisional Secretariat-Elapatha, Designation: DS

Land Slide Location: B390 (Ratnapura-Palawela-Karawita Road) 12/4-12/7culverts (Site.48)

DS confirmed the problems faced by the road users due to landslides and remedial measures proposed by the GN, In addition he said MOH office is situated at the Akkarapanaha Panaha area which is vulnerable. The Kotamulla area where the service center is located too is subject to threats of landslide.

Date: 2019.08.05- Time: 03.30 pm

DSD: Godakawela, Place: Divisional Secretariat-Godakawelaa,
Designation: Disaster Relief Services Officer

Land Slide Locations: A017 139km-140/1 culverts (Site.43)

There are number of places within the Godakawela divisional secretariat subject to landslides. Following are few of such places.

- i. On the Godakawela-Guruwela road culvert constructed across the Guruhela -Kohilawaraya stream has sunk.
- ii. The area in front of a resident's house along the Bibilegama-Bapinigamgoda has suffered damages.
- iii. The bridge on the road leading to the Moragahagedara village has collapsed. The main culvert on the Opathawaththa -Dimbulwela road in the Kotaketha GN division has damaged.
- iv. Number of places on the Rathnapura-Deniyaya road is damaged due to landslides.

Date: 2019.08.05- Time: 04.30pm

DSD: Godakawela, Place: Divisional Secretariat-Godakawela, Designation: Administrative Officer

Land Slide Location: A017 139km-140/1 culverts (Site.43)

Rathnapura district is known for landslides. Some time back location between 139km and 140/1 culvert on the A017 road suffered a landslide and heap of earth fell on to the road. No damages to the properties or loss of life reported. Still there is danger of earth slips at this place. This is the link road between Deniyaya and Rathnapura that connects Southern Province with Sabaragamuwa Province. The cause of the landslides is due to the poor construction methods used when improving the road according her opinion. There are few other places on this road prone to landslides. However, she assured her cooperation to the project.

Date: 2019.08.05- Time: 05.30pm

DSD: -Godakawela, Place: Division 1, Hapugastenna Estate, Madampe South,
Occupation: Estate Superintendent

Land Slide Location: A017 139km-140/1 culverts (Site.43)

The land slide prone area is within the boundaries of the estate. In my opinion this situation has arisen due to non-maintenance of correct slope during the improvements effected to the road. However, action now initiated to remedy the situation is a welcome move.

Date 2019.08.06- Time: 9.00 am

DSD: Kotmale, Place: Tea Factory, Occupation: Tea Factory Owner

Land Slide Location: -A005-46/2-46/3 culverts (Site.2)

This location is subject to sinking for a considerable length of time. Since this road is leading to Nuwaraeliya which is prime tourist location and also is the main access to transport tea vegetable and fruits, it is very essential to keep this road uninterrupted for the movement of vehicles. We extend our support to the project.

Date: 2019.08.07- Time : 09.00am

DSD: Nuwaraeliya, Place: Divisional Secretariat-Nuwaraeliya, Designation: DS

Land Slide Location: B412 30/9-30/11 culverts (Site.6)

The location between culverts 30/9-30/11 along the Talawaletenna-Thalawakele Road had been sinking for a considerable length of time. There is a Hindu Kovil also close to this place. Four families were to be relocated as these families were vulnerable. Out of them two families were relocated but the other two still live at the same place. The relocated families were given land and houses by the government. If there is any land acquisition is involved as a result of implementing mitigation measures the affected should be paid reasonable compensation.

Date: -2019.08.07 -Time 10.30 am-

DS D-Nuwaraeliya- Place: Holyrood Lower Division -Thalawakele
Occupation: A community leader and four farmers

Land Slide Location: B412 30/9-30/11 culverts (Site.6)

After welcoming the participants, the consultant apprised the participants the importance of preventing landslides for the benefit of the community. The consultant stressed the impact of landslide could cause severe damages to the assets of people. There had been number of deaths in the recent past due to landslides. The road closures due to landslides could disrupt transport, community life, loss of income and day today activities of the people, after the brief introduction of the consultant participants were requested to present their opinion on the proposed project. One participant said while others agreeing with him that Thalawakele-Thawalamtenna Road was sunk closer to the Watagoda Hindu Kovil. Though a considerable damage was not caused we were scared as the reservoir is situated close to the road. We were evacuated from our homes since our lands also showed signs of stress and cracks appeared. We earn our living by cultivating these lands. We grow vegetables and fruits but we have been issued with only permits for the lands that we cultivate. We can engage in our vocations with much enthusiasm if we are given deeds to the lands that we cultivate. We welcome the landslide disaster prevention project.

Date: 2019.08.07- Time: 01. 00pm

DSD: Ambagamuwa, Place: Divisional Secretariat-Ambagamuwa, Designation: DS

Land Slide Location: B149 9.0km-9.1km culverts (Site.36)

During the year 2018, at the location of 9.0km -9.1km on the Hatton -Maskeliya -Dalhousie Road, a landslide occurred and considerable damage was caused to the road. Due to the landslide numbers of houses were damaged. A sign of sinking of the road was visible for number of days. We evacuated people in the vicinity of the landslide. Now temporary road has been constructed and movement of vehicles has commenced. About 500 meters from this location, signs of sinking of the road can be seen. There is a problem close to "Vanaraja" bridge due to dilapidated condition of the bridge and the narrowness. Likewise there are few locations on the Maskeliya, Ambagamuwa and Ginigathena Roads subject to landslides. The project which the government intends to implement to provide counter measures to landslide prone locations is admirable and we will provide all assistance to successfully implement the project.

Date: 2019.08.07- Time: 02.00pm

DSD: Ambagamuwa, Place: Grama Niladhari Office,319/11, Newweligama, Designation: GN

Land Slide Location: B149,9.0km-9.1km culverts (Site.36)

I can remember very well a landslide occurred at this location on 15.9. 2018. Since we have informed the people in advance of the danger, we were able to avoid loss of life and household items. The location where landslide occurred falls within the GN division Newweligama B-149. During this landslide entire road at this location was damaged, the road slipped down from the original position. The number of houses destroyed was six. This road is located close to the reservoir "Maussakele". The direction of the landslide was towards the reservoir. DS had allocated land to affected people and resettle them. He was also mentioned regarding the vulnerable location 450 meter away from the candidate site and promised to extend his support to the project.

Date: 2019.08.07- Time: 03.00pm

DSD: Ambagamuwa, Place: No.38, Newweligama-Weligama, Occupation: Flower Grower

Land Slide Location: B149 9.0km-9.1km culverts (Site.36)

We were cautioned regarding this landslide in advance. Beautiful six two storied houses were slipped into the Castlereagh Reservoir. They were given land at alternative locations to construct houses but there are problems at these locations and people need solutions to resolve those problems. If the road is well constructed it will boost the income of people engaged in self-employment specially those engaged in floriculture and breeding of ornamental fish. We expect counter measures to be implemented without causing harm to the population in the vicinity.

Date: 2019.08.08- Time: 08.00am

DSD: Kotmale, Place: Grama Niladhari Office-474, Ramboda, Designation: GN

Land Slide Location: A005 46/2-46/3 culverts (Site.2)

Sinking of road between culverts 46/2-46/3 on the A005 road (Peradeniya-Batticaloa-Chenkaladi) occurred nearly 4 years back. When the sinking was first detected, RDA did some repairs. The area below this location is systematically sinking. The large house close to this location also sinking and the walls have cracked. Rocks available at this place were used for road construction by blasting the rock. We intend to construct a set of boutiques on the place where rock was removed. Surveying of the plot has already been completed. At present a restaurant serving local food is available at this location. The population in the area is cosmopolitan. Many tourists travel along this road. Main plantation crop is tea certain places subject to landslides have already protected by wire nets. The bend at the Garandiella (water fall) is sinking side wall is needed to be provided to arrest the process of sinking. Since the area is very important for the economy of the country the counter measures planned to prevent landslides is much appreciated.

Date: 2019.08.08- Time: 09.30am

DSD: Kotmale, Place: Divisional Secretariat-Kotmale, Designation: DS

Land Slide Location: A005 46/2-46/3 culverts (Site.2)

The opinion expressed by the DS too is in conformity with the description provided by the GN Ramboda. The DS emphasized the importance of the area and the beautiful sites endowed by the nature in the form waterfalls, tunnel, well distributed rainfall which is also a reason for landslides. Since there is significant potential to develop tourism in the area. He appreciates the measures taken by the authorities to prevent landslide disasters in Sri Lanka and his cooperation to successfully implement the project is assured.

Date: 2019.08.08- Time: 00.00pm

DSD: Nuwaraeliya, Place: Divisional Secretariat- Nuwaraeliya,
Designation: Disaster Relief Services Officer

Land Slide Location: B412 30/9-30/11 culverts (Site.6)

Nuwaraeliya District is the most affected area by landslides due to high rainfall and hilly terrain. Earth slips, rock falls, falling of trees to the roads are common features in Nuwaraeliya. Sinking of Thawalemthanna-Nuwaraeliya Road has been taking place for quite some time. By taking action to improve the location between culvert Nos.30/9-30/11 on this road, will benefit the road users and the community of the near vicinity. The road at "Lindula" junction is subject to sinking and the damages caused to some houses have been reported, this problem is present at Dayagama-Thalawakele Road too. The lower side of the road from the "top pass" junction located above Nuwaraeliya town leading to the nearby village is damaged.

On the A005 road at "Hakgala" the road is sinking. This is the main road that connects Nuwaraeliya to Badulla and Southern province. We appreciate if some remedial measures are taken to improve these roads.

Date: 2019.08.09- Time: 08.30am

DSD: Soranathota, Place: Divisional Secretariat-Soranathota, Designation: DS

Land Slide Location: B036 4/11-5/3 culverts (Site.37)

B036(Badulla-Karametiya -Andaulpotha) road had been subjected to landslides for a long period according to DS. The land slide problems surfaced after the rehabilitation of the road. The storm water flowing on the road had drained out from the location that is identified for mitigation measures earth that slipped on to the road from this location could not be removed to make the road accessible to prevent more earth slipping on to the road. The landslide occurred in 2014, but up to now no meaningful measures were taken to arrest the situation. The planned project is a blessing to the people of the area according to her and assured her cooperation to continue with the project without any hindrance.

Date: 2019.08.09- Time 09.30am

DSD: Soranathota, Place: Madithale, Badulla, Designation: Bank Officer

Land Slide Location: B036 4/11-5/3 culverts (Site.37)

Badulla-Andaulpotha Road is an important road due to many reasons. Large number vehicles use this road. Large numbers of tourists visit the area. People earn fair amount of income by serving the tourists. Marketing fruits is a major business of the people.. If proper construction techniques were used when improving the road, the landslide issue would not have arisen but proposal to take mitigation measures to prevent occurrence of landslides is commendable.

Date: 2019.08.09- Time 00.30pm

DSD: Walapane, Place: Littles Dale Estate, Walapane, Occupation: Businessman

Land Slide Location: B036 4/11-5/3 culverts (Site.37)

A significant landslide occurred at the location named as Dianella within the culverts B036,4/11-5/3. The road is still lying in the same condition position after the landslide as a result there are issues regarding transport. The condition of the road affects the transport of green tea and vegetables. Since estates are situated on either side of the road and houses are located further down there will not be problems in taking countermeasures to prevent landslides. Large numbers of people are using this road. We are happy to note that steps are being taken to prevent landslide at this location.

Date: 2019.08.09- Time: 01.00pm

DSD: Walapane, Place: Divisional Secretariat-Walapane, Designation: Development Field Assistant

Land Slide Location: B413 66.75km-67km culverts (Site.1)

The Thennakumbura-Rikiligaskada-Ragala Road was subjected to landslides since 2011. This disaster occurred few times on this road. There are number of other locations within our DS division subject to landslides. Number of locations on the Walapane-Neeldandahinna Road is subject to landslides and erosion of the road banks. We request you to pay attention to other vulnerable sites to make those roads safer for travelling.

Date: 2019.08.09- Time: 04.30pm

DSD: Haldummulla, Place: Divisional Secretariat-Haldummmulla, Designation: Assistant DS

Land Slide Locations: A004 171/5-171/7(Site.33) & 183km-185/14(Site.34), A016 3.85km-4.2km(Site.10), 5/2-5/4 (Site.11) & 5/6-5/8(Site.12)

The location between culverts 171/5 to 171/7 in the Uvatenna GN division, and 183km-185/4 culvert on the A4 road in the Viharagala GN division, location between culverts 3.85km to 4.2km and location between culverts 5/2 and 5/4 -5/6-5/8 on the A016 road in the Viharagala GN division in Haldummulla DS division are vulnerable places which need attention .There are other places also in this DS division subject to threats of landslides. ADS is of the opinion if the project under planning consider these locations for mitigation measures it would augur well for the people in the area.She emphasized that A004 (Colombo-Ratnapura-Wellawaya-Batticoloa) and A016 (Beragala -Haliela) are important roads that traverse through Haldummulla DS division.

A004 road is gradually sinking during the past few years. Due to sinking of the road few houses in the vicinity also had suffered damages. There are few other roads in the area specially the road abutting the Walagamutenna National School is also had sunk. ADS request the project proponents to look into these vulnerable locations too. She highly appreciated the action of the government to provide counter measures to protect the vulnerable locations on A004 and A016 roads for the benefit of road users and assured the co- operation of the Haldummulla Divisional Secretariat to successfully implement the project.

Date: 2019.08.12- Time: 3.00pm

DSD: Haldummulla, Place: Glennove Estate Haldummulla, Occupation: Estate Superintendent

Land Slide Location: A016 3.85km-4.2km(Site.10), 5/2-5/4(Site.11), 5/6-5/8(Site.12)

A016 is the Beragala Haliela Road. The main economic activity of this area is the production of Tea. There had been landslide in this terrain in the past too. The location 3.85-4.2 km & 5/2-5/4km are risky places. People are living in fear due to bad experiences in the past. This is a beautiful area and a tourist destination. Certain extent of land from our estate also will be lost when counter measures are taken against landslides but a solution is a must. We are ready sacrificing few perches of land for this purpose as the maintenance of the road in safe condition helps the economy and the people.

Date: 2019.08.15- Time: 9.00am

DSD: Weliwita-Divithura, Place: Divisional Secretariat-Weliwita-Divithura, Designation: DS

Land Slide Locations: E001 76.7km-77.20km(Site.19) & 77.9km-79+0km(Site.20)

According to DS the main problem they are faced with is floods. Out of the 20 GN divisions 17 divisions are experiencing the scourge of floods. He has not received any information regarding threat of landslides to Southern Expressway. But if the RDA is of the opinion that counter measures should be taken to strength the vulnerable locations, it is a step in the right direction and she has assured the cooperation of her and the relevant staff.

Date: 2019.08.15- Time: 11.00am

DSD: Weliwita-Divithura, Place: Gramaniladhari Office –193-E Nugethota,
Designation: GN– Nugethota-193-E

Land Slide Locations: E001 76.7km-77.20km(Site.19) & 77.9km&79+0km(Site.20)

According to the GN this area was surrounded by forest prior to the construction of the expressway. The area named as Mottakanda is rocky and portion of the rock was removed to pave way for the expressway. Rock falls to the road is a result of removing rocks at this place. Section of the rock is protected by steel nets, the proposal to adopt counter measures to strengthen these locations is a good step. The stretch between 76.7km and 79.0km is within his division. He mentioned that even the area named as Athurumkanda experienced a rock fall in the past. As GN of the area he will extend his full support to the project.

Date: 2019.08.15- Time: 02.00pm

DSD: Baddegama, Place: Divisional Secretariat-Baddegama, Designation: DS

Land Slide Locations: E001 88km-88.8km(Site.22) & 89.3km-89.6km(Site.23)

According to Divisional Secretary, Baddegama, his divisional secretariat area is not vulnerable to landslides. His area is faced with the threats of floods when there is heavy rain. He is not aware of any landslide threats to Southern Expressway. If there is a threat, the action to mitigate such threats is commendable and he assured his assistance. He also requested to implement a development project within his secretariat area to improve the socio-economic conditions of the people in the area.

Date: 2019.08.15- Time: 03.30pm

DSD: Baddegama, Place: Gramaniladhari Office, 208/C Kohombanawa,
Designation: GN – Kohombanawa,208/C

Land Slide Location: E001 88km-88.8km (Site.22)

His service in the present GN division is 7 years. During this period, he has not heard of any damages caused to the highway due to, landslides. There are 5 houses at this place but those houses are not a hindrance to proceed with the mitigation measures.

Date: 2019.08.16- Time: 1.30pm

DSD: Imaduwa, Place: Divisional Secretariat-Imaduwa, Designation: Assistant DS

Land Slide Locations: E001 101.3km-101.7km(Site.25) & 108.6km-108.7km(Site.25_ad2)

The Divisional secretariat was not aware of any landslide threats to the southern expressway at the above locations. They have heard of protecting the locations with wire fences at places where earth and trees slip on to the road. If there is threat to the safe movement of vehicles along the expressway, they appreciated the action initiated by the authorities to prevent such disasters and promised their whole hearted cooperation.

Date: 2019.08.16- Time: 2.30pm

DSD: Imaduwa, Place: Divisional Secretariat-Imaduwa, Designation: Assistant Director Planning

Land Slide Locations: E001 101.3km-101.7km(Site.25) & 108.6km-108.7km(Site.25_ad2)

According to the ADP, the threat of landslides in Imaduwa DS division is not very significant. Their main concern is the effect of floods. They are not aware of any vulnerability due to landslides at the above locations. If there is any threat of landslides, action initiated by the government is commendable according to their opinion and they promised to cooperate with the project.

Date: 2019.08.19- Time: 10.00am

DSD: Dehiowita, Place: No.222, Talduwa, Avissawella, Designation: Retired Army Officer

Land Slide Location: A007 3/3-3/5 culverts (Site.9)

On the Avissawella-Hatton Road at Thalduwa where we live the road sunk at the location between culverts 3/3-3/5. RDA hurriedly did some repairs to restore the road to original state. But cracks have now appeared. River Kalani is flowing below the road. When this location is established the houses situated above the road also will be protected. This is a good project initiated by the RDA and we extend our cooperation.

Date: 2019.08.19- Time: 01.00pm

DSD: Haldummulla, Place: Pahala Viharagala –Beragala, Occupation: Businessman

Land Slide Location: A004 183km-185/14 culverts (Site.34)

There are number of locations along the Wellawaya-Haputale Road subject to landslides. These landslides have been occurring periodically at different intensity. The location the project has identified to effect counter measures is the most vulnerable location. Though piecemeal protection measures were adopted a perennial solution was not affected, we expect a permanent solution from your project. The area where construction for protection measures to take place is rich in fountains. We use the water from these fountains for our daily needs. With the improvements to the road we will be able to transport our agricultural produce to the markets quickly. It will promote tourism too.

Date: 2019.08.21- Time: 00.15pm

DSD: Haldummulla, Place: Gramaniladhari Office, 158 C-Uvatenna, Designation: GN

Land Slide Location: A004,171/5-171-7 (Site.33)

First landslide occurred at this place was in 2008, after that earth slips occurred few times more and the road was blocked. There was no loss of life but one house was relocated. There are cracks on walls of some houses. There is a stream above this road which is the source of irrigation water for the paddy fields below. During rains the stream overflows, in my opinion this is the cause for landslides. There should be a remedy to prevent the overflowing of the stream without compromising the rights of the farmers. There are 08 families living above this hillock. This hamlet is known as Nayamadiththa. In addition to the reservations of the road certain extent of land belonging to the residents may be required to construct mitigation measures. Reasonable compensation should be paid if land is to be acquired. We expect the project would use local labour and we are very pleased to cooperate with the project.

Date: 2019.08.21- Time: 2.00pm

DSD: Haldummulla, Place: University of Sabaragamuwa, Designation: Medical Officer

Land Slide Locations: A016 5/2-5/4(Site.11) & 5/6-5/8(St.12) culverts

The area above the road at Uvatenna-Labukolawatta was subject to landslide in the past. There was no loss of life but the area became vulnerable. Small scale entrepreneur's faced difficulties. We are happy to learn that steps are to be taken by RDA to stabilize the location. A water stream is flowing from the mountain above the road to the paddy fields below when counter measures are taken consideration should be given to protect the stream. By improving the vulnerable locations along the road helps the residents and other road users immensely. We welcome the project.

Date: 2019.08.22- Time: 1.30pm

DSD: Haldummulla, Place: Office of GN. Viharagala3.00, Designation: GN- Viharagala

Land Slide Locations: A004 183km-185/4(Site.34) & A016 3.85km-4.2km(Site.10), 5/2-5/4(Site.11), 5/6-5/8(Site.12)

For a considerable period, the road at this location was sinking, earth slips had taken place, there are cracks in the culverts too. In the past rock falls these were also observed between the culverts but that problem is now ceased but during very heavy rains it might be a possibility. There were no loss of life or limbs due to disturbances but the walls of the houses have been cracked. The area where the mitigation measures to be undertaken is also the source of drinking water for nearly 70 families. They tap water from the fountains by using pipes for their drinking water requirements.

And also, these fountains are the source of water for all their requirements. When counter measures are taken to arrest the landslides, serious consideration should be given to protect the water sources of the nearby community. We will extend our fullest cooperation to implement the project without hindrances.

Date: 2019.08.25- Time: 3.00pm

DSD: Bope Poddala, Place: Divisional Secretariat-Bope Poddala, Designation: Administration Officer

Land Slide Location: E001 89.3km-89.6km (Site.23)

We are not aware of landslide risk at 89.3km -89.6km on the Southern Expressway Road. If there is such a risk it is a good move to take counter measures to overcome the danger. We are aware of success of JICA funded projects. On this basis we expect this project also to be successful and pleased to extend our support.

Date: 2019.08.25- Time 3.45pm

DSD: Bope Poddala, Place: Divisional Secretariat -Bope Poddala, Designation: Asst.Director Planning

Land Slide Location: E001 89.3km-89.6km (Site.23)

We were not aware of any landslide threat to the Southern Expressway between 89.3km-89.6km stretch. We noticed earth slips on Narawala -Walawatta Road which connects Galle-Baddegama Road with Galle Akmeemana Road. There are few places where small bridges are required. We appreciate the policy of JICA in extending facility for development work. If the above location is prone to landslides, we welcome the decision to take counter measures to arrest it. Our assistance will be rendered to execute the project.

Date: 2019.08.28- Time: 12.30pm

DSD: Mawanella, Place: Galavidaputena-Kadugannawa, Occupation: Businessman

Land Slide Location: A001 99km-99/6 culvert (Site.31)

The landslide disaster counter measures are planned at a historic location The A001 road connects the historic city of Kandy with that of capital city of Colombo. The Kadugannawa area is a tourist destination. A landslide threat is appearing in the area. As most of the people sustain their lives through tourism related activities it is prudent to execute the counter measures without disturbing the aesthetic value of the place.

Date: 2019.09.09- Time: 11.00am

DSD: Kotapola, Place: Gramaniladhari Office-257-Morawaka Wasama, Designation: GN

Land Slide Location: A017 62km-62.25km (Site.53)

The landslide that occurred on 25th May 2018 resulted in loss of 28 lives. After this terrible incident this area became a very dangerous place to live. Families were buried under the mass of earth. The location where the counter measures are proposed lie on other side of the hill the landslide disaster took place. If new houses could be provided to the families whose houses were destroyed could relieve them from dark thoughts that are lingering in their minds due to loss of their kith and kin. We thank the authorities on embarking on a project of this nature that safeguard the lives of poor people and wish to our cooperation to implement the project without hindrance.

Date: 2019.09.09- Time: 01.30pm

DSD: Kotapola, Place: Divisional Secretariat-Kotapola, Designation: DS

Land Slide Location: A017 62km-62.25km (Site.53)

The massive landslide disaster that took place on 5th May 2019 destroying large number of lives and property deposited earth and rocks at the location where you have you have selected to take counter measures. Due to this landslide the bridge situated 250 meters away from the 62nd kilometer on the A017 road also destroyed our attempts to get the bridge reconstructed was not successful. There are few other locations on this road prone to landslides. If we could get this bridge constructed by this project it is a plus point. The well thought programme of the RDA to mitigate landslides at critical locations is much admired and our cooperation is assured.

Date: 2019.09.09- Time: 02.30pm

DSD: Kotapola, Place: Saranath Watta ,Nayamulla,Morawaka, Designation: Retired GN

Land Slide Location: A017 62km-62.25km (Site.53)

The retired GN too mentioned the same sentiments as the incumbent GN, the extent of disaster that struck the area on 25th May 2019. In one of the unfortunate families 12 members were buried under the mass of earth without a trace. Due to the landslide part of the hill was lost. We have serious concern regarding the remaining portion of the hill. There is a stream above the road which we utilize for farming. There was sufficient water prior to the landslide now the flow of water has reduced, we request you to look into this issue too. The action you are contemplating mitigate landslides along highways is commendable. Our cooperation is assured.