



Technical Assistance Consultant's Report

Volume 5: Annexes V - AE
(Chapters 8 - 11)

Project Number: 47085
September 2015

Lao People's Democratic Republic: Road Sector Governance and Maintenance Project (Financed by the Asian Development Bank)

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For Ministry of Public Works and Transport
Department of Roads

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Asian Development Bank

Lao Peoples Democratic Republic (Lao PDR)

Ministry of Public Works and Transport

**ADB TA-8492 LAO:
ROAD SECTOR GOVERNANCE
AND MAINTENANCE PROJECT
(47085-001)**

Final Report

**Volume 5: Annexes V - AE
[Chapters 8 - 11]**

September, 2015

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Annex V – Bills of Quantity [6 Roads]

UPDATED PROJECT COST ESTIMATE

Road No.	NATIONAL ROAD NR-20 [SALAVAN]
Section No.	A - Section Length [26 km]
Exchange Rate =	8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS								
MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
PAVED SURFACE REPAIRS [Minor Distress Areas]								
1. ROUTINE ROAD MAINTENANCE - BACKLOG								
1.1 PAVED SURFACE REPAIRS								
111	Filling of Potholes with Base Material	150	m ³	358,216	53,732,438	6,621		
112-1	Patching of Potholes in DBST Surface	275	m ²	40,580	11,159,500	1,375		
114	Edge Repairs, Patching	2,340	m ²	50,875	119,047,500	14,668		
1.2 GRAVEL & EARTH CARRIAGEWAYS								
1.3 DRAINAGE & EROSION PROTECTION								
131	Clearing of Ditches by Hand	5,200	m	8,350	43,420,000	5,350	20% of length both sides	
132	Clearing of Ditches by Machine	9,100	m	17,660	160,706,000	19,801	35% of length both sides	
133	Clearing of Pipe Culverts	258	m	81,182	20,944,909	2,581		
137	Repair of Ditch Lining	2,600	m ²	498,034	1,294,889,143	159,548		
1.4 ROUTINE BRIDGE MAINTENANCE								
143	Clearing River Channels of Debris	2	sum	4,902,587	9,805,173	1,208		
1.5 TRAFFIC SAFETY								
151	Repair of Signs	25	no.	912,542	22,813,550	2,811		
152	Repair of Guard Rails	125	m	923,813	115,476,609	14,228		
153	Repair of Guide Posts	200	no.	236,257	47,251,418	5,822		
154	Painting of Traffic Lines	2,470	m ²	77,442	191,282,446	23,569	95% of length x 100mm	
-	Repair of kilometre post	26	no.	250,000	6,500,000	801		
1.6 ROADSIDE MAINTENANCE								
161	Grass Cutting	12	km	1,661,954	19,444,865	2,396	45% both sides	
162	Bush Cutting	7	km	1,666,700	10,833,550	1,335	25% both sides	
MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
2. PERIODIC MAINTENANCE - BACKLOG								
412	Excavating Unsuitable Material in Patch Areas	1,500	m ³	39,709	59,563,950	7,339		
413	Repair of Sub-base, incl. New Material	1,500	m ³	106,392	159,587,318	19,663		
414	Repair of Base Course, incl. New Material	1,500	m ³	339,861	509,791,625	62,813		
431	800 mm dia. Pipe Culverts with Headwalls	48	m	1,276,667	61,280,000	7,551		
	1,000 mm dia. Pipe Culverts with Headwalls	64	m	1,555,625	99,560,000	12,267		
432	Twin Cell Box Culvert - 5.3m x 3.5m	2	m	1,581,600,000	3,163,200,000	389,749		
	Twin Cell Box Culvert - 5.3m x 4.0m	1	m	1,797,600,000	1,797,600,000	221,488		
	Twin Cell Box Culvert - 5.3m x 5.0m	1	m	1,932,400,000	1,932,400,000	238,098		
433	Excavation of New Ditches	5,200	m ²	21,333	110,933,333	13,668	20% of length both sides	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	300	m ³	365,040	109,512,000	13,493		
MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
3. REHABILITATION & IMPROVEMENT								
Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
4. LONG TERM UPGRADING OPTIONS								
100-1	Tack Coat	All National Roads	208,000	m ²	19,609	4,078,746,286	502,556	26 km x 8.0 m
100-5	AC Surfacing - take 40 mm	NR-20 [A] 10-year	208,000	m ²	162,320	33,762,560,000	4,160,000	26 km x 8.0m
101-1	Prime Coat	All National Roads	208,000	m ²	19,609	4,078,746,286	502,556	26 km x 8.0 m
101-2	DBST Reseal [first layer]	All National Roads	208,000	m ²	33,358	6,938,374,857	854,901	
102-2	DBST Reseal [second layer]	All National Roads	208,000	m ²	31,863	6,627,504,000	816,597	

1. ROUTINE ROAD MAINTENANCE - BACKLOG					2,127,307,101	262,113	
2. PERIODIC MAINTENANCE - BACKLOG					8,003,428,227	986,130	
3. REHABILITATION & IMPROVEMENT					-	-	
4a. LONG TERM UPGRADE OPTION	AC Overlay				37,841,306,286	4,662,556	
4b. LONG TERM UPGRADE OPTION	DBST Re-seal				17,644,625,143	2,174,054	

UPDATED PROJECT COST ESTIMATE

Road No. **NATIONAL ROAD NR-20 [SALAVAN]**

Section No. **B - Section Length [30 km]**

Exchange Rate = **8,116**

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
PAVED SURFACE REPAIRS [Minor Distress Areas]								
1. ROUTINE ROAD MAINTENANCE - BACKLOG								
1.1 PAVED SURFACE REPAIRS								
111	Filling of Potholes with Base Material	60	m ³	358,216	21,492,975	2,648		
112	Patching of Potholes in AC Surface	125	m ²	96,215	12,026,847	1,482		
115	Crack Sealing - Minor Areas	750	m ²	36,213	27,160,000	3,346		
1.2 GRAVEL & EARTH CARRIAGEWAYS								
1.3 DRAINAGE & EROSION PROTECTION								
131	Clearing of Ditches by Hand	6,000	m	8,350	50,100,000	6,173	20% of length both sides	
132	Clearing of Ditches by Machine	10,500	m	17,660	185,430,000	22,847	35% of length both sides	
133	Clearing of Pipe Culverts	184	m	81,182	14,937,455	1,840		
137	Repair of Ditch Lining	3,000	m ²	498,034	1,494,102,857	184,094		
1.4 ROUTINE BRIDGE MAINTENANCE								
143	Clearing River Channels of Debris	4	sum	4,902,587	19,610,347	2,416		
145	Repair of Steel Decking	198	sum	2,100,867	415,971,600	51,253		
231	Repair of Timber Decks & Running Strips	50	m ³	5,200,656	260,032,800	32,040		
1.5 TRAFFIC SAFETY								
151	Repair of Signs	30	no.	912,542	27,376,260	3,373		
152	Repair of Guard Rails	175	m	923,813	161,667,253	19,920		
153	Repair of Guide Posts	150	no.	236,257	35,438,564	4,367		
154	Painting of Traffic Lines	2,850	m ²	77,442	220,710,514	27,194	95% of length x 100mm	
-	Repair of kilometre post	30	no.	250,000	7,500,000	924		
1.6 ROADSIDE MAINTENANCE								
161	Grass Cutting	14	km	1,661,954	22,436,383	2,764	45% both sides	
162	Bush Cutting	8	km	1,666,700	12,500,250	1,540	25% both sides	
2. PERIODIC MAINTENANCE - BACKLOG								
412	Excavating Unsuitable Material in Patch Areas	2,000	m ³	39,709	79,418,600	9,785		
413	Repair of Sub-base, incl. New Material	2,000	m ³	106,392	212,783,091	26,218		
414	Repair of Base Course, incl. New Material	2,000	m ³	339,861	679,722,167	83,751		
433	Excavation of New Ditches	6,000	m ²	21,333	128,000,000	15,771	20% of length both sides	
3. REHABILITATION & IMPROVEMENT								
Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
4. LONG TERM UPGRADING OPTIONS								
100-1	Tack Coat	All National Roads	240,000	m ²	19,609	4,706,245,714	579,873	30 km x 8.0m
100-6	AC Surfacing - 70 mm	NR-20 [B] 10-year	240,000	m ²	284,060	68,174,400,000	8,400,000	30 km x 8.0m
101-1	Prime Coat	All National Roads	240,000	m ²	19,609	4,706,245,714	579,873	30 km x 8.0m
101-2	DBST Reseal [first layer]	All National Roads	240,000	m ²	33,358	8,005,817,143	986,424	
102-2	DBST Reseal [second layer]	All National Roads	240,000	m ²	31,863	7,647,120,000	942,228	
103-1	Bridge No. 7 - Replace with Bridge [70m span]	NR-20 [B]	700	m ²	18,261,000	12,782,700,000	1,575,000	Assume 10m wide
103-2	Bridge No. 9 - Replace with Bridge [43m span]	NR-20 [B]	430	m ²	18,261,000	7,852,230,000	967,500	Assume 10m wide
103-3	Bridge No. 10 - Replace with Bridge [25 m span]	NR-20 [B]	250	m ²	18,261,000	4,565,250,000	562,500	Assume 10m wide
103-4	Bridge No. 8 - Replace with Twin Box Culvert	NR-20 [B]	1	m ²	1,932,400,000	1,932,400,000	238,098	Assume twin 5.3m x 3.5m

1. ROUTINE ROAD MAINTENANCE - BACKLOG					2,988,494,104	368,223	
2. PERIODIC MAINTENANCE - BACKLOG					1,099,923,858	135,525	
3. REHABILITATION & IMPROVEMENT					-	-	
4a. LONG TERM UPGRADE OPTION	AC Overlay				72,880,645,714	8,979,873	
4b. LONG TERM UPGRADE OPTION	DBST Re-seal				20,359,182,857	2,508,524	
4c. BRIDGE REPLACEMENT OPTION					27,132,580,000	3,343,098	

UPDATED PROJECT COST ESTIMATE							Road No.	NATIONAL ROAD NR-16 [XEKONG]
							Section No.	Full Length [54 km]
							Exchange Rate =	8,116
ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS								
MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
PAVED SURFACE REPAIRS [Minor Distress Areas]								
1. ROUTINE ROAD MAINTENANCE - BACKLOG								
1.1 PAVED SURFACE REPAIRS								
111	Filling of Potholes with Base Material	100	m ³	358,216	35,821,625	4,414		
112-1	Patching of Potholes in DBST Surface	1,200	m ²	40,580	48,696,000	6,000		
115	Crack Sealing - Minor Areas	3,077	m ²	36,213	111,428,427	13,729		
1.2 GRAVEL & EARTH CARRIAGEWAYS								
1.3 DRAINAGE & EROSION PROTECTION								
131	Clearing of Ditches by Hand	5,400	m	8,350	45,090,000	5,556	5% of length both sides	
132	Clearing of Ditches by Machine	16,200	m	17,660	286,092,000	35,250	15% of length both sides	
133	Clearing of Pipe Culverts	980	m	81,182	79,558,182	9,803		
137	Repair of Ditch Lining	810	m ²	498,034	403,407,771	49,705		
1.4 ROUTINE BRIDGE MAINTENANCE								
142	Cleaning of Bridge Deck	1	no.	4,000,000	4,000,000	493		
143	Clearing River Channels of Debris	1	sum	4,902,587	4,902,587	604		
1.5 TRAFFIC SAFETY								
151	Repair of Signs	50	no.	912,542	45,627,100	5,622		
152	Repair of Guard Rails	350	m	923,813	323,334,506	39,839		
153	Repair of Guide Posts	540	no.	236,257	127,578,829	15,719		
154	Painting of Traffic Lines	4,250	m ²	77,442	329,129,714	40,553	85% of length x 1200 mm	
-	Repair of kilometre post	25	no.	250,000	6,250,000	770		
1.6 ROADSIDE MAINTENANCE								
161	Grass Cutting	11	km	1,661,954	17,949,106	2,212	20% both sides	
162	Bush Cutting	3	km	1,666,700	4,500,090	554	5% both sides	
MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
2. PERIODIC MAINTENANCE - BACKLOG								
412	Excavating Unsuitable Material in Patch Areas	5,365	m ³	39,709	213,040,395	26,249		
413	Repair of Sub-base, incl. New Material	5,365	m ³	106,392	570,790,641	70,329		
414	Repair of Base Course, incl. New Material	5,365	m ³	339,861	1,823,354,712	224,662		
431	800 mm dia. Pipe Culverts with Headwalls	24	m	1,276,667	30,640,000	3,775		
	1,000 mm dia. Pipe Culverts with Headwalls	32	m	1,555,625	49,780,000	6,134		
433	Excavation of New Ditches	27,000	m ³	21,333	576,000,000	70,971	35% of length both sides	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	500	m ³	365,040	182,520,000	22,489		
MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
3. REHABILITATION & IMPROVEMENT								
Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
4. LONG TERM UPGRADING OPTIONS								
100-1	Tack Coat	All National Roads	432,000	m ²	19,609	8,471,242,286	1,043,771	54 km x 8.0 m
100-2	AC Surfacing - 60 mm	NR-16 10-year	432,000	m ²	243,480	105,183,360,000	12,960,000	54 km x 8.0 m
101-1	Prime Coat	All National Roads	432,000	m ²	19,609	8,471,242,286	1,043,771	54 km x 8.0 m
101-2	DBST Reseal [first layer]	All National Roads	432,000	m ²	33,358	14,410,470,857	1,775,563	
102-2	DBST Reseal [second layer]	All National Roads	432,000	m ²	31,863	13,764,816,000	1,696,010	

1. ROUTINE ROAD MAINTENANCE - BACKLOG					1,873,365,937	230,824
2. PERIODIC MAINTENANCE - BACKLOG					3,446,125,748	424,609
3. REHABILITATION & IMPROVEMENT					-	-
4a.	LONG TERM UPGRADE OPTION	AC Overlay			113,654,602,286	14,003,771
4b.	LONG TERM UPGRADE OPTION	DBST Re-seal			36,646,529,143	4,515,344

UPDATED PROJECT COST ESTIMATE

Road No. NATIONAL ROAD NR-18B [ATTAPEU]

Section No. A - Section Length [14 km]

Exchange Rate = 8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	500	m ³	358,216	179,108,125	22,069	
112	Patching of Potholes in AC Surface	1,000	m ²	96,215	96,214,778	11,855	
112-1	Patching of Potholes in DBST Surface	500	m ²	40,580	20,290,000	2,500	
115	Crack Sealing - Minor Areas	1,670	m ²	36,213	60,476,267	7,451	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	1,400	m	8,350	11,690,000	1,440	5% of length both sides
132	Clearing of Ditches by Machine	4,200	m	17,660	74,172,000	9,139	15% of length both sides
133	Clearing of Pipe Culverts	150	m	81,182	12,177,273	1,500	
137	Repair of Ditch Lining	700	m ²	498,034	348,624,000	42,955	
1.4 ROUTINE BRIDGE MAINTENANCE							
142	Cleaning of Bridge Deck	8	no.	4,000,000	32,000,000	3,943	
143	Clearing River Channels of Debris	8	sum	4,902,587	39,220,693	4,833	
1.5 TRAFFIC SAFETY							
151	Repair of Signs	28	no.	912,542	25,551,176	3,148	
152	Repair of Guard Rails	150	m	923,813	138,571,931	17,074	
153	Repair of Guide Posts	140	no.	236,257	33,075,993	4,075	
154	Painting of Traffic Lines	10,500	m ²	77,442	813,144,000	100,190	75% of length
-	Repair of kilometre post	18	no.	250,000	4,500,000	554	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	3	km	1,661,954	4,653,472	573	20% both sides
162	Bush Cutting	1	km	1,666,700	1,166,690	144	5% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
412	Excavating Unsuitable Material in Patch Areas	1,500	m ³	39,709	59,563,950	7,339	
413	Repair of Sub-base, incl. New Material	1,500	m ³	106,392	159,587,318	19,663	
414	Repair of Base Course, incl. New Material	1,500	m ³	339,861	509,791,625	62,813	
431	800 mm dia. Pipe Culverts with Headwalls	24	m	1,276,667	30,640,000	3,775	
	1,000 mm dia. Pipe Culverts with Headwalls	32	m	1,555,625	49,780,000	6,134	
433	Excavation of New Ditches	1,400	m ³	21,333	29,866,667	3,680	5% of length both sides
437	Riprap, Protection of Banks or Bed, 5-50 kg.	250	m ³	365,040	91,260,000	11,244	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
3. REHABILITATION & IMPROVEMENT							

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
4. LONG TERM UPGRADING OPTIONS								
100-1	Tack Coat	All National Roads	112,000	m ²	19,609	2,196,248,000	270,607	14 km x 8.0 m
100-3	AC Surfacing - 60 mm	NR-18B [A] 10-year	112,000	m ²	243,480	27,269,760,000	3,360,000	14 km x 8.0 m
101-1	Prime Coat	All National Roads	112,000	m ²	19,609	2,196,248,000	270,607	14 km x 8.0 m
101-2	DBST Reseal [first layer]	All National Roads	112,000	m ²	33,358	3,736,048,000	460,331	
102-2	DBST Reseal [second layer]	All National Roads	112,000	m ²	31,863	3,568,656,000	439,706	

1. ROUTINE ROAD MAINTENANCE - BACKLOG					1,894,636,397	233,445	
2. PERIODIC MAINTENANCE - BACKLOG					930,489,560	114,649	
3. REHABILITATION & IMPROVEMENT					-	-	
4a. LONG TERM UPGRADE OPTION	AC Overlay				29,466,008,000	3,630,607	
4b. LONG TERM UPGRADE OPTION	DBST Re-seal				9,500,952,000	1,170,645	

UPDATED PROJECT COST ESTIMATE

Road No. NATIONAL ROAD NR-18B [ATTAPEU]

Section No. B - Section Length [98 km]

Exchange Rate = 8.116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	50	m ³	358,216	17,910,813	2,207	
112	Patching of Potholes in AC Surface	2,000	m ²	96,215	192,429,556	23,710	
112-1	Patching of Potholes in DBST Surface	1,000	m ²	40,580	40,580,000	5,000	
115	Crack Sealing - Minor Areas	76,710	m ²	36,213	2,777,924,800	342,278	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	9,800	m	8,350	81,830,000	10,083	10% of length both sides
132	Clearing of Ditches by Machine	58,800	m	17,660	1,038,408,000	127,946	30% of length both sides
133	Clearing of Pipe Culverts	2,400	m	81,182	194,836,364	24,006	
137	Repair of Ditch Lining	3,500	m ²	498,034	1,743,120,000	214,776	
1.4 ROUTINE BRIDGE MAINTENANCE							
1.5 TRAFFIC SAFETY							
151	Repair of Signs	196	no.	912,542	178,858,232	22,038	
152	Repair of Guard Rails	1,250	m	923,813	1,154,766,094	142,283	Incl. new rail in dangerous locations
153	Repair of Guide Posts	350	no.	236,257	82,689,982	10,189	
154	Painting of Traffic Lines	8,820	m ²	77,442	683,040,960	84,160	90% of length x 100mm
-	Repair of kilometre post	35	no.	250,000	8,750,000	1,078	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	34	km	1,661,954	57,005,032	7,024	35% both sides
162	Bush Cutting	15	km	1,666,700	24,500,490	3,019	15% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
412	Excavating Unsuitable Material in Patch Areas	10,350	m ³	39,709	410,991,255	50,640	
413	Repair of Sub-base, incl. New Material	10,350	m ³	106,392	1,101,152,495	135,677	DPWT requested re-alignment areas excluded
414	Repair of Base Course, incl. New Material	10,350	m ³	339,861	3,517,562,213	433,411	DPWT requested re-alignment areas excluded
432	1,000 mm dia. Pipe Culverts with Headwalls	48	m	1,555,625	74,670,000	9,200	
	1,200 mm dia. Pipe Culverts with Headwalls	64	m	1,760,000	112,640,000	13,879	
433	Excavation of New Ditches	19,600	m ²	21,333	418,133,333	51,520	10% of length both sides
437	Riprap, Protection of Banks or Bed, 5-50 kg.	500	m ³	365,040	182,520,000	22,489	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
3. REHABILITATION & IMPROVEMENT							
-	Sideslope Treatment - Option 1 (Concrete Mat) NR-18B Section B	3,600	m ²	649,280	2,337,408,000	288,000	Assume 300 m long x 12m avge. height

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
4. LONG TERM UPGRADING OPTIONS								
100-1	Tack Coat	All National Roads	784,000	m ²	19,609	15,373,736,000	1,894,250	98 km x 8.0 m
100-4	AC Surfacing - 40 mm	NR-18B [B] 10-year	784,000	m ²	162,320	127,258,880,000	15,680,000	98 km x 8.0 m
101-1	Prime Coat	All National Roads	784,000	m ²	19,609	15,373,736,000	1,894,250	98 km x 8.0 m
101-2	DBST Reseal [first layer]	All National Roads	784,000	m ²	33,358	26,152,336,000	3,222,318	
102-2	DBST Reseal [second layer]	All National Roads	784,000	m ²	31,863	24,980,592,000	3,077,944	

1. ROUTINE ROAD MAINTENANCE - BACKLOG					8,276,650,321	1,019,794	
2. PERIODIC MAINTENANCE - BACKLOG					5,817,669,296	716,815	
3. REHABILITATION & IMPROVEMENT					2,337,408,000	288,000	
4a. LONG TERM UPGRADE OPTION	AC Overlay				142,632,616,000	17,574,250	
4b. LONG TERM UPGRADE OPTION	DBST Re-seal				66,506,664,000	8,194,513	

UPDATED PROJECT COST ESTIMATE

Road No. LOCAL ROAD LR-6901 [SALAVAN]

Section No. A - Section Length [17 km]

Exchange Rate = 8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	150	m ³	358,216	53,732,438	6,621	
112-1	Patching of Potholes in DBST Surface	50	m ²	40,580	2,029,000	250	
117	Grading of Shoulders	15,000	m ²	2,599	38,977,500	4,803	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
121	Heavy Grading	84,000	m ²	3,200	268,800,000	33,120	
122	Light Grading	84,000	m ²	1,000	84,000,000	10,350	
125	Spot Filling	17,850	m ³	89,053	1,589,602,000	195,860	
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	2,550	m	8,350	21,292,500	2,624	15% x length
132	Clearing of Ditches by Machine	5,100	m	17,660	90,066,000	11,097	30% x length
133	Clearing of Pipe Culverts	120	m	81,182	9,741,818	1,200	
1.4 ROUTINE BRIDGE MAINTENANCE							
142	Cleaning of Bridge Deck	5	no.	4,000,000	20,000,000	2,464	
143	Clearing River Channels of Debris	5	sum	4,902,587	24,512,933	3,020	
1.5 TRAFFIC SAFETY							
151	Repair of Signs	15	no.	912,542	13,688,130	1,687	
153	Repair of Guide Posts	40	no.	236,257	9,450,284	1,164	
154	Painting of Traffic Lines	85	m ²	77,442	6,582,594	811	5% of length with DBST x 100mm
-	Repair of kilometre post	17	no.	250,000	4,250,000	524	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	8	km	1,661,954	12,713,950	1,567	45% both sides
162	Bush Cutting	4	km	1,666,700	7,083,475	873	25% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
221	Scarifying of Existing Road	112,000	m ²	34,217	3,832,266,667	472,187	
223	Regravelling	19,600	m ³	77,317	1,515,406,667	186,718	
421	Excavating Unsuitable Materials	14,700	m ³	32,701	480,704,700	59,229	
431	800 mm dia. Pipe Culverts with Headwalls	32	m	1,276,667	40,853,333	5,034	
	1,000 mm dia. Pipe Culverts with Headwalls	64	m	1,555,625	99,560,000	12,267	
433	Excavation of New Ditches	3,400	m ²	21,333	72,533,333	8,937	Take 20% of length
436	Erosion Protection - Rocks	25	m ³	479,460	11,986,500	1,477	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	50	m ³	365,040	18,252,000	2,249	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
3. REHABILITATION & IMPROVEMENT								
413	Sub-base in raised embankment areas	Parts of Local Roads	1,375	m ³	339,861	467,308,990	57,579	Take 500m x 250 mm x 11m wide
414	Base Course in raised embankment areas	Parts of Local Roads	1,050	m ³	44,595	46,824,834	5,769	Take 500m x 200 mm x 10.5m wide
422	Raising of road embankment [incl. new material]	Parts of Local Roads	3,000	m ³	19,609	58,828,071	7,248	Take 500m x 12m wide x 500mm
101-1	Prime Coat	Parts of Local Roads	2,100	m ²	19,609	41,179,650	5,074	Assume 300 m x 6m
101-2	Extended DBST [first layer]	Parts of Local Roads	2,100	m ²	33,358	70,050,900	8,631	"
102-2	Extended DBST [second layer]	Parts of Local Roads	2,100	m ²	31,863	66,912,300	8,244	"

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
4. LONG TERM UPGRADING OPTIONS							

1. ROUTINE ROAD MAINTENANCE - BACKLOG					2,256,522,622	278,034	
2. PERIODIC MAINTENANCE - BACKLOG					6,071,563,200	748,098	
3. REHABILITATION & IMPROVEMENT					751,104,745	92,546	

UPDATED PROJECT COST ESTIMATE

Road No. LOCAL ROAD LR-6901 [SALAVAN]

Section No. B - Section Length [5.5 km]

Exchange Rate = 8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	75	m ³	358,216	26,866,219	3,310	
117	Grading of Shoulders	10,000	m ²	2,599	25,985,000	3,202	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
121	Heavy Grading	30,800	m ²	3,200	98,560,000	12,144	
122	Light Grading	7,700	m ²	1,000	7,700,000	949	
125	Spot Filling	5,775	m ³	89,053	514,283,000	63,367	
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	825	m	8,350	6,888,750	849	15% x length
132	Clearing of Ditches by Machine	1,925	m	17,660	33,995,500	4,189	35% x length
133	Clearing of Pipe Culverts	16	m	81,182	1,298,909	160	
1.4 ROUTINE BRIDGE MAINTENANCE							
1.5 TRAFFIC SAFETY							
151	Repair of Signs	6	no.	912,542	5,475,252	675	
153	Repair of Guide Posts	16	no.	236,257	3,780,113	466	
-	Repair of kilometre post	6	no.	250,000	1,500,000	185	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	1	km	1,661,954	2,285,187	282	25% both sides
162	Bush Cutting	2	km	1,666,700	4,125,083	508	45% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
221	Scarifying of Existing Road	38,500	m ²	34,217	1,317,341,667	162,314	
222	Reshaping the Road (incl. ditches)	38,500	m ²	3,220	123,970,000	15,275	
223	Regravelling	7,700	m ³	77,317	595,338,333	73,354	
421	Excavating Unsuitable Materials	5,775	m ³	32,701	188,848,275	23,269	
431	800 mm dia. Pipe Culverts with Headwalls	24	m	1,276,667	30,640,000	3,775	
	1,000 mm dia. Pipe Culverts with Headwalls	24	m	1,555,625	37,335,000	4,600	
433	Excavation of New Ditches	1,100	m ²	21,333	23,466,667	2,891	Take 20% of length
436	Erosion Protection - Rocks	15	m ³	479,460	7,191,900	886	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	20	m ³	365,040	7,300,800	900	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
3. REHABILITATION & IMPROVEMENT								
-	Concrete Road Sections	LR-9001, LR-7615	1,200	m ²	649,280	779,136,000	96,000	Assume for truck ferry ramp only. L=150, w=8
413	Sub-base in raised embankment areas	Parts of Local Roads	688	m ³	339,861	233,654,495	28,789	Take 250m x 250 mm x 11m wide
414	Base Course in raised embankment areas	Parts of Local Roads	525	m ³	44,595	23,412,417	2,885	Take 250m x 200 mm x 10.5m wide
422	Raising of road embankment [incl. new material]	Parts of Local Roads	1,500	m ³	19,609	29,414,036	3,624	Take 250m x 12m wide x 500mm
101-1	Prime Coat	Parts of Local Roads	900	m ²	19,609	17,648,421	2,175	Assume 150 m x 6m
101-2	Extended DBST [first layer]	Parts of Local Roads	900	m ²	33,358	30,021,814	3,699	"
102-2	Extended DBST [second layer]	Parts of Local Roads	900	m ²	31,863	28,676,700	3,533	"

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
4. LONG TERM UPGRADING OPTIONS							

1. ROUTINE ROAD MAINTENANCE - BACKLOG					732,743,013	90,284	
2. PERIODIC MAINTENANCE & REHABILITATION					2,331,432,642	287,264	
3. MISCELLANEOUS OTHER WORKS					1,141,963,883	140,705	

UPDATED PROJECT COST ESTIMATE

Road No. LOCAL ROAD LR-6901 [SALAVAN]

Section No. C - Section Length [5.0 km]

Exchange Rate = 8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	50	m ³	358,216	17,910,813	2,207	
117	Grading of Shoulders	5,000	m ²	2,599	12,992,500	1,601	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
121	Heavy Grading	7,000	m ²	3,200	22,400,000	2,760	
122	Light Grading	28,000	m ²	1,000	28,000,000	3,450	
125	Spot Filling	3,500	m ³	89,053	311,686,667	38,404	
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	750	m	8,350	6,262,500	772	15% x length
132	Clearing of Ditches by Machine	1,925	m	17,660	33,995,500	4,189	35% x length
133	Clearing of Pipe Culverts	24	m	81,182	1,948,364	240	
1.4 ROUTINE BRIDGE MAINTENANCE							
1.5 TRAFFIC SAFETY							
151	Repair of Signs	6	no.	912,542	5,475,252	675	
153	Repair of Guide Posts	16	no.	236,257	3,780,113	466	
-	Repair of kilometre post	5	no.	250,000	1,250,000	154	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	1	km	1,661,954	2,077,443	256	25% both sides
162	Bush Cutting	2	km	1,666,700	3,750,075	462	45% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
221	Scarifying of Existing Road	35,000	m ²	34,217	1,197,583,333	147,558	
222	Reshaping the Road (incl. ditches)	17,500	m ²	3,220	56,350,000	6,943	
223	Regravelling	7,000	m ³	77,317	541,216,667	66,685	
421	Excavating Unsuitable Materials	5,250	m ³	32,701	171,680,250	21,153	
431	800 mm dia. Pipe Culverts with Headwalls	16	m	1,276,667	20,426,667	2,517	
	1,000 mm dia. Pipe Culverts with Headwalls	16	m	1,555,625	24,890,000	3,067	
433	Excavation of New Ditches	1,000	m ²	21,333	21,333,333	2,629	Take 20% of length
436	Erosion Protection - Rocks	10	m ³	479,460	4,794,600	591	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	10	m ³	365,040	3,650,400	450	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
3. REHABILITATION & IMPROVEMENT							
413	Sub-base in raised embankment areas	688	m ³	106,392	73,144,188	9,012	Take 250m x 250 mm x 11m wide
414	Base Course in raised embankment areas	525	m ³	339,861	178,427,069	21,985	Take 250m x 200 mm x 10.5m wide
422	Raising of road embankment [incl. new material]	1,500	m ³	44,595	66,892,620	8,242	Take 250m x 12m wide x 500mm
101-1	Prime Coat	900	m ²	19,609	17,648,421	2,175	Assume 150 m x 6m
101-2	Extended DBST [first layer]	900	m ²	33,358	30,021,814	3,699	"
102-2	Extended DBST [second layer]	900	m ²	31,863	28,676,700	3,533	"

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
4. LONG TERM UPGRADING OPTIONS							

1. ROUTINE ROAD MAINTENANCE - BACKLOG					451,529,226	55,634	
2. PERIODIC MAINTENANCE & REHABILITATION					2,041,925,250	251,593	
3. MISCELLANEOUS OTHER WORKS					394,810,812	48,646	

UPDATED PROJECT COST ESTIMATE

Road No. LOCAL ROAD LR-7615 [XEKONG]

Section No. A - Section Length [14 km]

Exchange Rate = 8.116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	100	m ³	358,216	35,821,625	4,414	
112-1	Patching of Potholes in DBST Surface	150	m ²	40,580	6,087,000	750	
117	Grading of Shoulders	2,500	m ²	2,599	6,496,250	800	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
121	Heavy Grading	29,400	m ²	3,200	94,080,000	11,592	
122	Light Grading	68,600	m ²	1,000	68,600,000	8,452	
125	Spot Filling	10,300	m ³	89,053	917,249,333	113,017	
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	2,100	m	8,350	17,535,000	2,161	15% x length
132	Clearing of Ditches by Machine	4,900	m	17,660	86,534,000	10,662	35% x length
133	Clearing of Pipe Culverts	40	m	81,182	3,247,273	400	
1.4 ROUTINE BRIDGE MAINTENANCE							
1.5 TRAFFIC SAFETY							
151	Repair of Signs	32	no.	912,542	29,201,344	3,598	
152	Repair of Guard Rails	500	m	923,813	461,906,438	56,913	Incl. new rail in dangerous locations
153	Repair of Guide Posts	24	no.	236,257	5,670,170	699	
-	Repair of kilometre post	14	no.	250,000	3,500,000	431	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	5	km	1,661,954	8,143,576	1,003	35% both sides
162	Bush Cutting	9	km	1,666,700	15,166,970	1,869	65% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
221	Scarifying of Existing Road	98,000	m ²	34,217	3,353,233,333	413,163	
222	Reshaping the Road (incl. ditches)	49,000	m ²	3,220	157,780,000	19,441	
223	Regravelling	14,700	m ³	77,317	1,136,555,000	140,039	
412	Excavating Unsuitable Material in Patch Areas	2,500	m ³	39,709	99,273,250	12,232	
431	800 mm dia. Pipe Culverts with Headwalls	24	m	1,276,667	30,640,000	3,775	
	1,000 mm dia. Pipe Culverts with Headwalls	80	m	1,555,625	124,450,000	15,334	
433	Excavation of New Ditches	1,480	m ²	21,333	31,582,933	3,891	Take 45% of length

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
3. REHABILITATION & IMPROVEMENT								
413	Sub-base in raised embankment areas	Parts of Local Roads	1,375	m ³	106,392	146,288,375	18,025	Take 500m x 250 mm x 11m wide
414	Base Course in raised embankment areas	Parts of Local Roads	1,050	m ³	339,861	356,854,138	43,969	Take 500m x 200 mm x 10.5m wide
422	Raising of road embankment [incl. new material]	Parts of Local Roads	3,000	m ³	44,595	133,785,240	16,484	Take 500m x 12m wide x 500mm
101-1	Prime Coat	Parts of Local Roads	900	m ²	19,609	17,648,421	2,175	Assume 150 m x 6m
101-2	Extended DBST [first layer]	Parts of Local Roads	900	m ²	33,358	30,021,814	3,699	"
102-2	Extended DBST [second layer]	Parts of Local Roads	900	m ²	31,863	28,676,700	3,533	"

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
4. LONG TERM UPGRADING OPTIONS							

1. ROUTINE ROAD MAINTENANCE - BACKLOG					1,759,238,979	216,762	
2. PERIODIC MAINTENANCE & REHABILITATION					4,933,514,517	607,875	
3. MISCELLANEOUS OTHER WORKS					713,274,688	87,885	

UPDATED PROJECT COST ESTIMATE

Road No. LOCAL ROAD LR-7615 [XEKONG]

Section No. B - Section Length [6 km]

Exchange Rate = 8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	50	m ³	358,216	17,910,813	2,207	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
121	Heavy Grading	35,000	m ²	3,200	112,000,000	13,800	
122	Light Grading	45,000	m ²	1,000	45,000,000	5,545	
125	Spot Filling	7,200	m ³	89,053	641,184,000	79,002	
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	900	m	8,350	7,515,000	926	15% x length
132	Clearing of Ditches by Machine	4,800	m	17,660	84,768,000	10,445	80% x length
1.4 ROUTINE BRIDGE MAINTENANCE							
143	Clearing River Channels of Debris	2	sum	4,902,587	9,805,173	1,208	
1.5 TRAFFIC SAFETY							
152	Repair of Guard Rails	150	m	923,813	138,571,931	17,074	Inc. new rails in dangerous locations
-	Repair of kilometre post	6	no.	250,000	1,500,000	185	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	1	km	1,661,954	997,173	123	10% both sides
162	Bush Cutting	5	km	1,666,700	7,500,150	924	75% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
221	Scarifying of Existing Road	5,000	m ²	34,217	171,083,333	21,080	
222	Reshaping the Road (incl. ditches)	10,000	m ²	3,220	32,200,000	3,967	
421	Excavating Unsuited Materials	1,500	m ³	32,701	49,051,500	6,044	
432	Twin Cell Box Culvert - 5.3m x 3.5m	1	m	1,581,600,000	1,581,600,000	194,874	New culvert at second river crossing
433	Excavation of New Ditches	2,700	m ²	21,333	57,600,000	7,097	Take 45% of length
436	Erosion Protection - Rocks	100	m ³	479,460	47,946,000	5,908	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	100	m ³	365,040	36,504,000	4,498	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
3. REHABILITATION & IMPROVEMENT								
-	Concrete Road Sections	LR-9001, LR-7615	6,050	m ²	405,800	2,455,090,000	302,500	Steep grades > 12% only, L = 1,150 m, w=5.5m
413	Sub-base in raised embankment areas	Parts of Local Roads	240	m ³	106,392	25,533,971	3,146	App. to DPWT relocated B-Bridge, first river crossing
414	Base Course in raised embankment areas	Parts of Local Roads	350	m ³	339,861	118,951,379	14,656	Assume 200 m long x 1.5 m average height of fill with
422	Raising of road embankment [incl. new material]	Parts of Local Roads	3,000	m ³	44,595	133,785,240	16,484	250 mm sub-base, 200 mm base for Bailey Bridge

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
4. LONG TERM UPGRADING OPTIONS							

1. ROUTINE ROAD MAINTENANCE - BACKLOG					1,066,752,240	131,438	
2. PERIODIC MAINTENANCE & REHABILITATION					1,975,984,833	243,468	
3. MISCELLANEOUS OTHER WORKS					2,733,360,590	336,787	

UPDATED PROJECT COST ESTIMATE

Road No. LOCAL ROAD LR-7615 [XEKONG]

Section No. C - Section Length [2.7 km]

Exchange Rate = 8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	50	m ³	358,216	17,910,813	2,207	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
121	Heavy Grading	8,100	m ²	3,200	25,920,000	3,194	
122	Light Grading	8,100	m ²	1,000	8,100,000	998	
125	Spot Filling	3,240	m ³	89,053	288,532,800	35,551	
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	405	m	8,350	3,381,750	417	15% x length
132	Clearing of Ditches by Machine	1,350	m	17,660	23,841,000	2,938	50% x length
133	Clearing of Pipe Culverts	24	m	81,182	1,948,364	240	
1.4 ROUTINE BRIDGE MAINTENANCE							
1.5 TRAFFIC SAFETY							
151	Repair of Signs	4	no.	912,542	3,650,168	450	
-	Repair of kilometre post	3	no.	250,000	750,000	92	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	1	km	1,661,954	897,455	111	20% both sides
162	Bush Cutting	2	km	1,666,700	2,700,054	333	60% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
411	Scarifying of Old Road Surface	15,000	m ²	5,099	76,481,250	9,424	
412	Excavating Unsuitable Material in Patch Areas	20,000	m ³	39,709	794,186,000	97,854	
421	Excavating Unsuitable Materials	3,000	m ³	32,701	98,103,000	12,088	
433	Excavation of New Ditches	1,215	m ²	21,333	25,920,000	3,194	Take 45% of length
436	Erosion Protection - Rocks	100	m ³	479,460	47,946,000	5,908	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	100	m ³	365,040	36,504,000	4,498	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
3. REHABILITATION & IMPROVEMENT								
413	Sub-base in raised embankment areas	Parts of Local Roads	350	m ³	106,392	37,237,041	4,588	Take 200m x 250 mm x 7m wide
414	Base Course in raised embankment areas	Parts of Local Roads	300	m ³	339,861	101,958,325	12,563	Take 200m x 200 mm x 7.5m wide
422	Raising of road embankment [incl. new material]	Parts of Local Roads	800	m ³	44,595	35,676,064	4,396	Take 200m x 8m wide x 500mm
101-1	Prime Coat	Parts of Local Roads	900	m ²	19,609	17,648,421	2,175	Assume 150 m x 6m
101-2	Extended DBST [first layer]	Parts of Local Roads	900	m ²	33,358	30,021,814	3,699	"
102-2	Extended DBST [second layer]	Parts of Local Roads	900	m ²	31,863	28,676,700	3,533	"

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
4. LONG TERM UPGRADING OPTIONS							

1. ROUTINE ROAD MAINTENANCE - BACKLOG					377,632,403	46,529	
2. PERIODIC MAINTENANCE & REHABILITATION					1,079,140,250	132,965	
3. MISCELLANEOUS OTHER WORKS					251,218,366	30,953	

UPDATED PROJECT COST ESTIMATE

Road No. LOCAL ROAD LR-9001 [ATTAPEU]

Section No. A - Section Length [17 km]

Exchange Rate = 8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	100	m ³	358,216	35,821,625	4,414	
112-1	Patching of Potholes in DBST Surface	400	m ²	40,580	16,232,000	2,000	
113	Filling along Edges with Gravel	1,250	m ³	113,200	141,500,000	17,435	
114	Edge Repairs, Patching	350	m ²	50,875	17,806,250	2,194	
115	Crack Sealing - Minor Areas	500	m ²	36,213	18,106,667	2,231	
117	Grading of Shoulders	25,000	m ²	2,599	64,962,500	8,004	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	2,550	m	8,350	21,292,500	2,624	15% x length
132	Clearing of Ditches by Machine	11,900	m	17,660	210,154,000	25,894	70% x length
133	Clearing of Pipe Culverts	50	m	81,182	4,059,091	500	
137	Repair of Ditch Lining	250	m ²	498,034	124,508,571	15,341	
1.4 ROUTINE BRIDGE MAINTENANCE							
142	Cleaning of Bridge Deck	2	no.	4,000,000	8,000,000	986	
143	Clearing River Channels of Debris	2	sum	4,902,587	9,805,173	1,208	
1.5 TRAFFIC SAFETY							
151	Repair of Signs	25	no.	912,542	22,813,550	2,811	
152	Repair of Guard Rails	100	m	923,813	92,381,288	11,383	
153	Repair of Guide Posts	75	no.	236,257	17,719,282	2,183	
154	Painting of Traffic Lines	1,615	m ²	77,442	125,069,291	15,410	Assume 95% of length x 100mm
155	Cleaning of Road Surface	1,250	m ²	42,249	52,810,750	6,507	
-	Repair of kilometre post	17	no.	250,000	4,250,000	524	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	3	km	1,661,954	5,650,645	696	20% both sides
162	Bush Cutting	13	km	1,666,700	21,250,425	2,618	75% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
412	Excavating Unsuitable Material in Patch Areas	750	m ³	39,709	29,781,975	3,670	
413	Repair of Sub-base, incl. New Material	750	m ³	106,392	79,793,659	9,832	
414	Repair of Base Course, incl. New Material	750	m ³	339,861	254,895,813	31,407	
431	800 mm dia. Pipe Culverts with Headwalls	24	m	1,276,667	30,640,000	3,775	
	1,000 mm dia. Pipe Culverts with Headwalls	16	m	1,555,625	24,890,000	3,067	
433	Excavation of New Ditches	7,650	m ²	21,333	163,200,000	20,108	Take 45% of length
436	Erosion Protection - Rocks	15	m ³	479,460	7,191,900	886	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	20	m ³	365,040	7,300,800	900	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
3. REHABILITATION & IMPROVEMENT							
413	Sub-base in raised embankment areas	700	m ³	106,392	74,474,082	9,176	Take 350m x 250 mm x 8m wide
414	Base Course in raised embankment areas	595	m ³	339,861	202,217,345	24,916	Take 350m x 200 mm x 8.5m wide
422	Raising of road embankment [incl. new material]	1,575	m ³	44,595	70,237,251	8,654	Take 350m x 9m wide x 500mm
101-1	Prime Coat	2,800	m ²	19,609	54,906,200	6,765	For above grade raise
101-2	Extended DBST [first layer]	2,800	m ²	33,358	93,401,200	11,508	
102-2	Extended DBST [second layer]	2,800	m ²	31,863	89,216,400	10,993	

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
4. LONG TERM UPGRADING OPTIONS								
100-1	Tack Coat	All National Roads	136,000	m ²	19,609	2,666,872,571	328,594	17 km x 8.0 m
100-5	AC Surfacing - take 40 mm	NR-20 [A] 10-year	136,000	m ²	162,320	22,075,520,000	2,720,000	17 km x 8.0m
101-1	Prime Coat	All National Roads	136,000	m ²	19,609	2,666,872,571	328,594	17 km x 8.0 m
101-2	DBST Reseal [first layer]	All National Roads	136,000	m ²	33,358	4,536,629,714	558,974	
102-2	DBST Reseal [second layer]	All National Roads	136,000	m ²	31,863	4,333,368,000	533,929	
103-4	Bridge No. 8 - Replace with Twin Box Culvert	NR-20 [B]		m ²	1,932,400,000	-	-	

1. ROUTINE ROAD MAINTENANCE - BACKLOG					1,014,193,608	124,962	
2. PERIODIC MAINTENANCE & REHABILITATION					597,694,147	73,644	
3. MISCELLANEOUS OTHER WORKS					584,452,477	72,012	
4a. LONG TERM UPGRADE OPTION	AC Overlay				24,742,392,571	3,048,594	
4b. LONG TERM UPGRADE OPTION	DBST Re-seal				11,536,870,286	1,421,497	

UPDATED PROJECT COST ESTIMATE

Road No. LOCAL ROAD LR-9001 [ATTAPEU]

Section No. B - Section Length [37 km]

Exchange Rate = 8,116

ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
PAVED SURFACE REPAIRS [Minor Distress Areas]							
1. ROUTINE ROAD MAINTENANCE - BACKLOG							
1.1 PAVED SURFACE REPAIRS							
111	Filling of Potholes with Base Material	2,500	m ³	358,216	895,540,625	110,343	
113	Filling along Edges with Gravel	5,000	m ³	113,200	566,000,000	69,739	
117	Grading of Shoulders	7,500	m ²	2,599	19,488,750	2,401	
1.2 GRAVEL & EARTH CARRIAGEWAYS							
121	Heavy Grading	155,400	m ²	3,200	497,280,000	61,272	
122	Light Grading	66,600	m ²	1,000	66,600,000	8,206	
125	Spot Filling	22,200	m ³	89,053	1,976,984,000	243,591	
1.3 DRAINAGE & EROSION PROTECTION							
131	Clearing of Ditches by Hand	5,550	m	8,350	46,342,500	5,710	15% x length
132	Clearing of Ditches by Machine	25,900	m	17,660	457,394,000	56,357	70% x length
133	Clearing of Pipe Culverts	56	m	81,182	4,546,182	560	
137	Repair of Ditch Lining	2,500	m ²	498,034	1,245,085,714	153,411	
1.4 ROUTINE BRIDGE MAINTENANCE							
142	Cleaning of Bridge Deck	3	no.	4,000,000	12,000,000	1,479	
143	Clearing River Channels of Debris	3	sum	4,902,587	14,707,760	1,812	
1.5 TRAFFIC SAFETY							
151	Repair of Signs	25	no.	912,542	22,813,550	2,811	
152	Repair of Guard Rails	1,200	m	923,813	1,108,575,450	136,591	Incl. new rails in dangerous locations
153	Repair of Guide Posts	50	no.	236,257	11,812,855	1,456	
154	Painting of Traffic Lines	200	m ²	77,442	15,488,457	1,908	On DBST & Concrete Sections = 2,000m x 100mm
155	Cleaning of Road Surface	2,750	m ²	42,249	116,183,650	14,315	On DBST & Concrete Sections = 500m x 5.5m
-	Repair of kilometre post	37	no.	250,000	9,250,000	1,140	
1.6 ROADSIDE MAINTENANCE							
161	Grass Cutting	4	km	1,661,954	6,149,231	758	10% both sides
162	Bush Cutting	24	km	1,666,700	40,084,135	4,939	65% both sides

MAC Ref. No.	Intervention Item	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
2. PERIODIC MAINTENANCE - BACKLOG							
221	Scarifying of Existing Road	111,000	m ²	34,217	3,798,050,000	467,971	50% of full length, width = 6m.
222	Reshaping the Road (incl. ditches)	222,000	m ²	3,220	714,840,000	88,078	Full length, width = 6m.
223	Regravelling	33,300	m ³	77,317	2,574,645,000	317,231	
413	Repair of Sub-base, incl. New Material	27,750	m ³	106,392	2,952,365,386	363,771	50% of full length, width = 6m. Thickness = 250 mm
414	Repair of Base Course, incl. New Material	40,700	m ³	339,861	13,832,346,092	1,704,330	base over full length, width = 3.0m. Thickness = 200 mm
421	Excavating Unsuitable Materials	11,100	m ³	32,701	362,981,100	44,724	
432	Twin Cell Box Culvert - 5.3m x 3.5m	1	m	1,581,600,000	1,581,600,000	194,874	Replace failed culvert at km 35.4 - 1 x cell may be OK
433	Excavation of New Ditches	16,650	m ²	21,333	355,200,000	43,765	Take 45% of length
436	Erosion Protection - Rocks	25	m ³	479,460	11,986,500	1,477	
437	Riprap, Protection of Banks or Bed, 5-50 kg.	25	m ³	365,040	9,126,000	1,124	

MAC Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks	
3. REHABILITATION & IMPROVEMENT								
-	Concrete Road Sections	LR-9001, LR-7615	21,450	m ²	405,800	8,704,410,000	1,072,500	L= 1.1+1.9+0.8+1.1 = 4.9 less 1.0 underway = 3.9 km
-	Sideslope Treatment - Option 1 (Concrete Mat)	LR-9001 Section B	2,400	m ²	649,280	1,558,272,000	192,000	Assume 300 m long x 8m avge. height
413	Sub-base in raised embankment areas	Parts of Local Roads	613	m ³	106,392	65,164,822	8,029	Take 350m x 250 mm x 7m wide
414	Base Course in raised embankment areas	Parts of Local Roads	525	m ³	339,861	178,427,069	21,985	Take 350m x 200 mm x 7.5m wide
422	Raising of road embankment [incl. new material]	Parts of Local Roads	1,400	m ³	44,595	62,433,112	7,693	Take 350m x 8m wide x 500mm
101-1	Prime Coat	Parts of Local Roads	15,086	m ²	19,609	295,826,762	36,450	Assume 150 m x 6m
101-2	Extended DBST [first layer]	Parts of Local Roads	15,086	m ²	33,358	503,232,323	62,005	"
102-2	Extended DBST [second layer]	Parts of Local Roads	15,086	m ²	31,863	480,685,218	59,227	"

Ref. No.	Activity	Quantity	Unit	Unit Price [kip]	Amount [kip]	Amount [USD]	Remarks
4. LONG TERM UPGRADING OPTIONS							

1. ROUTINE ROAD MAINTENANCE - BACKLOG					7,132,326,859	878,798	
2. PERIODIC MAINTENANCE & REHABILITATION					26,193,140,078	3,227,346	
3. MISCELLANEOUS OTHER WORKS					10,864,533,764	1,338,656	

Annex W – Unit Prices Adopted

UNIT PRICES ADOPTED

Road No. _____

Section No. _____

Exchange Rate =

8,116

MAC Ref. No.	Activity	Unit	Arith. Average of Prices, Kip	Remarks
1. ROUTINE ROAD MAINTENANCE - PERFORMANCE BASED CONTRACT BASIS				
1.1 PAVED SURFACE REPAIRS [Minor Distress Areas]				
111	Filling of Potholes with Base Material	m ³	319,062	Region 1 [original fig. less 20% roadside]
112	Patching of Potholes in AC Surface	m ²		Region 2 [original fig. less 20% roadside]
112-1	Patching of Potholes in DBST Surface	m ²		Region 3 [original fig. less 20% roadside]
113	Filling along Edges with Gravel	m ³		Region 4 [original fig. less 20% roadside]
114	Edge Repairs, Patching	m ²		
115	Crack Sealing - Minor Areas	m ²		
116	Crack Sealing - Larger Damaged Areas	m ²		
117	Grading of Shoulders	m ²		
118	Patching of Potholes [Macadam]	m ³		
119	Patching of Potholes [Hot or Cold Mix]	m ³		
120	Patching of Rutting	m ²		
1 ROUTINE ROAD MAINTENANCE				
1.1 PAVED SURFACE REPAIRS				
111	Filling of Potholes with Base Material	m ³	358,216	
112	Patching of Potholes in AC Surface	m ²	96,215	
112-1	Patching of Potholes in DBST Surface	m ²	40,580	
113	Filling along Edges with Gravel	m ³	113,200	
114	Edge Repairs, Patching	m ²	50,875	
115	Crack Sealing - Minor Areas	m ²	36,213	
116	Crack Sealing - Larger Damaged Areas	m ²		
117	Grading of Shoulders	m ²	2,599	
118	Patching of Potholes [Macadam]	m ³		
119	Patching of Potholes [Hot or Cold Mix]	m ³	1,150,000	
119-1			1,150,000	
120	Patching of Rutting	m ²		
1.2 GRAVEL & EARTH CARRIAGEWAYS				
121	Heavy Grading	m ²	3,200	
122	Light Grading	m ²	1,000	
123	Dragging	m ²		
124	Filling of Potholes	m ³	85,000	
125	Spot Filling	m ³	89,053	
1.3 DRAINAGE & EROSION PROTECTION				
131	Clearing of Ditches by Hand	m	8,350	
132	Clearing of Ditches by Machine	m	17,660	
133	Clearing of Pipe Culverts	no.	81,182	
134	Repair of Pipe Culverts	no.		
135	Repair of Erosion Damage	m ³		
136	Repair of Retaining Wall	m ³		
137	Repair of Ditch Lining	m ²	498,034	
138	Repair and Re-build of Scour-check	no.	3,000,000	
139	Repair Erosion with Grass on slope	m ²		
1.4 ROUTINE BRIDGE MAINTENANCE				
141	Replacement of Bailey Bridge Minor Parts	no.		
142	Cleaning of Bridge Deck	no.	4,000,000	
143	Clearing River Channels of Debris	no.	4,902,587	
144	Bridge Bush Clearing	no.		
145	Repair of Steel Decking	no.	2,100,867	
146	Repair of Timber Decks & Running Strips	m ³	5,200,656	
161	Grass Cutting	km	1,661,954	
162	Bush Cutting	km	1,666,700	
163	Bush Cutting (Thick Vegetation)	m ²		
164	Clearing of the RoW, Road Reserve	m ²		
231	Replacement of Timber Decks	m ³	4,519,320	
232	Replacement of Running Strips	m ³	4,100,000	
233	Repair of Concrete	m ³	3,520,000	
234	Repair of Wooden Bridge	m ³		
235	Repair of Bridge Erosion Protection	m ³		
236	Repair to Approaches	m ³		
237	Painting of Steel bridge	m ²		

MAC Ref. No.	Activity	Unit	Arith. Average of Prices, Kip	Remarks	
1.5 TRAFFIC SAFETY					
151	Repair of Signs	no.	912,542		
151-1			925,000		
152	Repair of Guard Rails	m	923,813		
153	Repair of Guard Posts	no.	236,257		
153-1			287,308		
154	Painting of Traffic Lines	m ²	77,442		
155	Cleaning of Road Surface	m ²	42,249		
	Repair of kilometre post	no.	250,000		
2. PERIODIC MAINTENANCE					
211	Resealing [Bitumen 1.2 Um ² , Agg. 14/16]	m ²	32,942		
212	Sand Seal		10,619		
221	Scarifying of Existing Road	m ²	34,217		
222	Reshaping the Road (incl. ditches)	m ²	3,220		
223	Regravelling	m ³	77,317		
411	Scarifying of Old Road Surface	m ²	5,099		
412	Excavating Unsuitable Material in Patch Areas	m ³	39,709		
413	Repair of Sub-base, incl. New Material	m ³	106,392		
414	Repair of Base Course, incl. New Material	m ³	339,861		
421	Excavating Unsuitable Materials	m ³	32,701		
421-1	Soil cutting	m ³	31,969		
422	Raising of Road Embankment, incl. New Material	m ³	45,027		
431	800 mm dia. Pipe Culverts with Headwalls	m	1,276,667		
	1,000 mm dia. Pipe Culverts with Headwalls	m	1,555,625		
	1,200 mm dia. Pipe Culverts with Headwalls	m	1,760,000		
432	Twin Cell Box Culvert - 5.3m x 3.5m	no.	1,581,600,000		
	Twin Cell Box Culvert - 5.3m x 4.0m	no.	1,797,600,000		
	Twin Cell Box Culvert - 5.3m x 5.0m	no.	1,932,400,000		
433	Excavation of New Ditches	m ³	21,333		
433-1				Items seem to relate to pvc pipes & concrete	
434	Construction of Scour Checks	m			
	Erosion Protection - Concrete		1,200,000		
435	Erosion Protection - Gabions	m ³			
436	Erosion Protection - Rocks	m ³	479,460		
437	Riprap, Protection of Banks or Bed, 5-50 kg.	m ³	365,040		
438	Erosion Protection by Vegetation	m ³	277,840		
	Kerb with Concrete 25Mpa in access road	m ²	8,160		
3. REHABILITATION & IMPROVEMENT					
-	Concrete Road Sections	LR-9001, LR-7615	m ²	405,800	
-	Sideslope Treatment - Option 1 (Concrete Mat)	NR-18B Section B	m ²	649,280	
-	Sideslope Treatment - Option 1 (Concrete Mat)	LR-9001 Section B	m ²	649,280	
413	Sub-base in raised embankment areas	Parts of Local Roads	m ³	106,392	
414	Base Course in raised embankment areas	Parts of Local Roads	m ³	339,861	
422	Raising of road embankment [incl. new material]	Parts of Local Roads	m ³	44,595	
101-1	Prime Coat	Parts of Local Roads	m ²	19,609	
101-2	Extended DBST [first layer]	Parts of Local Roads	m ²	33,358	
102-2	Extended DBST [second layer]	Parts of Local Roads	m ²	31,863	
4. LONG TERM UPGRADING OPTIONS					
100-1	Tack Coat	All National Roads	m ²	19,609	Take cost as Prime cost
100-2	AC Surfacing - 60 mm	NR-16 10-year	m ²	243,480	CaRoL Project given as \$5 / m ² / 10 mm thick
100-3	AC Surfacing - 60 mm	NR-18B [A] 10-year	m ²	243,480	"
100-4	AC Surfacing - 40 mm	NR-18B [B] 10-year	m ²	162,320	"
100-5	AC Surfacing - take 40 mm	NR-20 [A] 10-year	m ²	162,320	"
100-6	AC Surfacing - 70 mm	NR-20 [B] 10-year	m ²	284,060	"
101-1	Prime Coat	All National Roads	m ²	19,609	
101-2	DBST Reseal [first layer]	All National Roads	m ²	33,358	
102-2	DBST Reseal [second layer]	All National Roads	m ²	31,863	
103-1	Bridge No. 7 - Replace with Bridge [70m span]	NR-20 [B]	m ²	18,261,000	CaRoL Project given as \$2,250 / m ² of deck area
103-2	Bridge No. 9 - Replace with Bridge [43m span]	NR-20 [B]	m ²	18,261,000	"
103-3	Bridge No. 10 - Replace with Bridge [25 m span]	NR-20 [B]	m ²	18,261,000	"
103-4	Bridge No. 8 - Replace with Twin Box Culvert	NR-20 [B]	m ²	1,932,400,000	Take as twin 5.3 m cells x 5.0 m high

ANNEX X – Vehicle Operating Costs

Vehicle Operating Costs

The table below shows the derivation of the vehicle operating costs that were used in the HDM model. The table is an updated version of that compiled for an earlier ADB project, which used 2009 data¹. This appears to be the latest estimate of vehicle operating costs available in Laos. As all vehicles are imported, US dollar inflation since 2009 has been applied to all inputs other than local labour and fuel prices. Fuel prices are the November 2014 prices as observed by the project. Labour costs are updated based on the latest information on salary levels in the Lao PDR.

The table as compiled can be used for several different types of analysis. The current project used HDM, which makes its own calculations of fuel consumption, speeds, etc., according to the road characteristics and the altitude. Thus from the table below only the basic information on the types of vehicle and the price of inputs has been used in the HDM analysis.

VEHICLE TYPES AND CHARACTERISTICS: LAO PDR 2014

Consumption data refer to a reasonable non-congested bitumen road, IRI= 4.5											
	No-	MC	PC	LDV	LDV	LDV	LGV	MGV	HGV	Bus	Bus
	te	Honda	Honda	Toyota	Toyota	average	Hyundai	Isuzu	Isuzu	Hyundai	Hyundai
		Dream	Accord	Vigo	Vigo		HD 65	FRR90N	CY251	25s	45s
				4x2	4x4		3t	7t	15t		
Financial cost, 2014 (US\$)	(a)	\$1,132	\$37,125	\$27,225	\$38,115	\$32,670	\$27,225	\$38,500	\$60,500	\$57,750	\$87,450
Import duty		40%	40%	30%	30%	30%	30%	30%	30%	20%	20%
Excise duty		20%	75%	25%	25%	25%	25%	10%	10%	20%	20%
Turnover tax		10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Economic cost, 2014 (US\$)	(b)	\$613	\$13,776	\$15,231	\$21,323	\$18,277	\$15,231	\$24,476	\$38,462	\$36,458	\$55,208
Assumed average value (US\$)	(c)	\$368	\$7,577	\$8,377	\$11,728	\$10,052	\$8,377	\$13,462	\$21,154	\$20,052	\$30,365
Assumed life length (years)		6	10	10	10	10	8	10	10	10	10
Metric HP		60	110	140	160	150	85	210	310	182	220
Gross vehicle weight (GVW) (kg)		90	1,500	2,500	2,500	2,500	5,500	10,500	26,000	11,500	14,500
Capacity - passengers (places)		2	5	2	2	2	2	-	-	25	45
Capacity - goods (kg)		0	-	1,000	1,000	1,000	3,000	7,000	15,000	-	-
Average no. of crew			0.0	0.5	0.5	0.5	2.0	2.0	2.0	2.0	2.0
Average no. of other occupants		1.5	3.1	4.0	4.0	4.0	3.0	3.0	3.0	17.0	27.0
Average load (tons)			-	0.3	0.3	0.3	1.5	3.5	7.0	-	-
Type of fuel (P or D)		P	P	D	D	D	D	D	D	D	D
Fuel price - (US\$/l) - fin.		1.25	1.25	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Fuel price - (US\$/l) - econ.		0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Oil price - (US\$/l) - fin.		6.01	6.01	6.01	6.01	6.01	6.01	6.01	6.01	6.01	6.01
Oil price - (US\$/l) - econ.		5.41	5.41	5.41	5.41	5.41	5.41	5.41	5.41	5.41	5.41
Fuel consumption (l/100 km)		2.2	10	12	14	13	20	32	38	20	30
Oil consumption (l/1000 km)		0.3	2.5	5.0	6.0	5.5	8.0	15.0	17.0	8.0	12.0
No. of axles		2	2	2	2	2	2	2	3	2	2
No. of tyres		2	4	4	4	4	6	6	10	6	6
Typical tyre size		250*17	165*14	265*16	265*16		265*16	825*20	1100*20	900*20	1100*20
Price per tyre (US\$) - fin.		\$33	\$99	\$226	\$226	\$226	\$226	\$250	\$290	\$265	\$290
Price per tyre (US\$) - econ.		\$22	\$66	\$151	\$151	\$151	\$151	\$183	\$213	\$194	\$213
Estimated tyre life (km)		10,000	30,000	30,000	30,000	30,000	20,000	30,000	30,000	30,000	30,000
Maintenance hours/year		5	20	25	30	27	80	100	120	100	150
Maintenance labour cost (US\$/h)		\$2	\$5	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6
Spare parts consumption (\$/yr)		\$33	\$110	\$132	\$110	\$132	\$330	\$550	\$660	\$440	\$550
Insurance (US\$/yr)		\$48	\$74	\$74	\$74	\$74	\$74	\$146	\$146	\$349	\$349
Crew wages (US\$/month/person)			-	\$225	\$225	\$225	\$263	\$263	\$270	\$300	\$360
Hourly Utilisation Ratio		20%	40%	40%	40%	40%	50%	50%	45%	60%	60%
Productive time (hours driven/yr)		300	400	500	500	500	800	1,000	1,200	1,000	1,200
Average mileage (km/year)		9,000	15,000	15,000	15,000	15,000	25,000	32,000	40,000	40,000	60,000
Overhead costs (%)		-	-	-	-	-	10%	10%	10%	15%	15%
Annual vehicle tax (US\$/year)		\$4	\$12	\$12	\$12	\$12	\$12	\$12	\$28	\$31	\$31
Notes:											
(a) dealers' prices											
(b) financial cost less import duty, excise duty and turnover tax											
(c) 50% of of vehicle price plus residual value. The residual value is assumed to be 10% of price for new vehicles, 20% for second-hand vehicles.											

¹ Preparing the Second Greater Mekong Sub-region Transport Network Improvement Project, Final Report, July 2010, prepared by Dainichi Consultants International on behalf of the Governments of the Lao Peoples' Democratic Republic and the Socialist Republic of Vietnam

**ANNEX Y – Results of the Economic Analysis
(for Each Project Road)**

LR 6901: Road 13 South to Paktaphan, Salavan Province

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	0.41	-0.04	0.46	0.00	0.00	0.00	0.00	0.00	-0.83
2019	0.41	-0.02	0.46	0.06	0.00	0.00	0.00	0.00	-0.79
2020	0.41	-0.04	0.46	0.07	0.00	0.00	0.00	0.00	-0.75
2021	0.41	-0.04	0.46	0.09	0.00	0.00	0.00	0.00	-0.74
2022	0.00	-0.04	0.00	1.52	0.49	0.00	0.00	0.00	2.06
2023	0.00	-0.04	0.00	1.39	0.40	0.00	0.00	0.00	1.83
2024	0.00	-0.04	0.00	1.59	0.44	0.00	0.00	0.00	2.07
2025	0.00	-0.04	0.00	1.69	0.46	0.00	0.00	0.00	2.19
2026	0.00	-0.04	0.00	1.67	0.43	0.00	0.00	0.00	2.14
2027	0.29	-0.02	0.00	1.93	0.51	0.00	0.00	0.00	2.18
2028	0.00	-0.04	0.00	3.97	1.18	0.00	0.00	0.00	5.20
2029	0.00	-0.04	0.00	2.60	0.63	0.00	0.00	0.00	3.27
2030	0.00	-0.04	0.00	2.54	0.56	0.00	0.00	0.00	3.15
2031	-0.24	-0.04	0.00	2.60	0.54	0.00	0.00	0.00	3.42
								NPV@12%	6.77
								IRR	39.1%

NR 20: Champasak/Salavan Provincial Border to Ban Beng, Salavan Province

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	0.11	-0.03	0.19	0.00	0.00	0.00	0.00	0.00	-0.27
2019	0.11	0.00	0.19	0.01	0.00	0.00	0.00	0.00	-0.29
2020	0.11	0.00	0.19	0.03	0.00	0.00	0.00	0.00	-0.27
2021	0.11	0.00	0.19	0.06	0.00	0.00	0.00	0.00	-0.24
2022	0.00	-0.06	0.00	0.12	0.01	0.00	0.00	0.00	0.18
2023	0.00	-0.06	0.00	0.15	0.01	0.00	0.00	0.00	0.22
2024	0.00	-0.06	0.00	0.19	0.03	0.00	0.00	0.00	0.27
2025	0.00	-0.06	0.00	0.23	0.04	0.00	0.00	0.00	0.32
2026	0.00	-0.06	0.00	0.26	0.05	0.00	0.00	0.00	0.37
2027	0.00	-0.06	0.00	0.29	0.07	0.00	0.00	0.00	0.41
2028	0.00	-0.06	0.00	0.32	0.08	0.00	0.00	0.00	0.45
2029	0.00	-0.06	0.00	0.34	0.10	0.00	0.00	0.00	0.50
2030	0.00	-0.06	0.00	0.37	0.13	0.00	0.00	0.00	0.55
2031	0.00	-0.06	0.00	0.40	0.15	0.00	0.00	0.00	0.61
								NPV@12%	0.43
								IRR	18.9%

NR 1H [NR-20 north] : Ban Beng to Salavan, Salavan Province

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	0.27	0.03	0.23	0.00	0.00	0.00	0.00	0.00	-0.53
2019	0.27	0.00	0.23	0.01	0.00	0.00	0.00	0.00	-0.50
2020	0.27	-0.05	0.23	0.04	0.00	0.00	0.00	0.00	-0.41
2021	0.27	-0.05	0.23	0.10	0.00	0.00	0.00	0.00	-0.35
2022	0.00	-0.05	0.00	0.25	0.00	0.00	0.00	0.00	0.30
2023	0.00	-0.05	0.00	0.33	0.01	0.00	0.00	0.00	0.38
2024	0.00	-0.05	0.00	0.39	0.01	0.00	0.00	0.00	0.44
2025	0.00	-0.05	0.00	0.40	0.02	0.00	0.00	0.00	0.47
2026	0.00	-0.05	0.00	0.42	0.03	0.00	0.00	0.00	0.50
2027	0.00	-0.05	0.00	0.43	0.04	0.00	0.00	0.00	0.52
2028	0.00	-0.05	0.00	0.44	0.05	0.00	0.00	0.00	0.54
2029	0.00	-0.05	0.00	0.46	0.06	0.00	0.00	0.00	0.57
2030	0.00	-0.02	0.00	0.45	0.08	0.00	0.00	0.00	0.55
2031	-0.44	-0.01	0.00	0.34	0.08	0.00	0.00	0.00	0.87
								NPV@12%	0.32
								IRR	15.4%

LR 7615: Ban Lakkhao to Ban Dongsa, Xekong Province

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	0.40	-0.03	0.15	0.00	0.00	0.00	0.00	0.00	-0.52
2019	0.40	-0.02	0.15	0.02	0.00	0.00	0.00	0.00	-0.52
2020	0.40	-0.03	0.15	0.02	0.00	0.00	0.00	0.00	-0.50
2021	0.40	-0.03	0.15	0.02	0.00	0.00	0.00	0.00	-0.50
2022	0.00	-0.03	0.00	1.39	0.82	0.00	0.00	0.00	2.24
2023	0.00	-0.03	0.00	1.43	0.83	0.00	0.00	0.00	2.29
2024	0.23	-0.03	0.00	1.65	0.95	0.00	0.00	0.00	2.40
2025	0.00	-0.03	0.00	2.11	1.19	0.00	0.00	0.00	3.33
2026	0.00	-0.03	0.00	1.90	1.01	0.00	0.00	0.00	2.95
2027	0.23	-0.02	0.00	2.01	1.05	0.00	0.00	0.00	2.85
2028	0.00	-0.03	0.00	2.61	1.38	0.00	0.00	0.00	4.03
2029	0.00	-0.03	0.00	2.34	1.20	0.00	0.00	0.00	3.58
2030	0.22	-0.02	0.00	2.44	1.25	0.00	0.00	0.00	3.49
2031	-0.65	-0.03	0.00	3.18	1.67	0.00	0.00	0.00	5.52
								NPV@12%	9.30
								IRR	55.9%

NR 16: Champasak/Xekong Border to Xekong City (Lamam District)

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	0.14	-0.06	0.23	0.00	0.00	0.00	0.00	0.00	-0.31
2019	0.14	-0.13	0.23	0.13	0.00	0.00	0.00	0.00	-0.10
2020	0.14	-0.13	0.23	0.39	0.02	0.00	0.00	0.00	0.17
2021	0.14	-0.13	0.23	0.81	0.07	0.00	0.00	0.00	0.63
2022	0.00	-0.13	0.00	0.19	0.37	0.00	0.00	0.00	0.69
2023	0.00	-0.13	0.00	0.59	0.69	0.00	0.00	0.00	1.41
2024	0.00	-0.14	0.00	1.40	1.35	0.00	0.00	0.00	2.89
2025	0.00	-0.14	0.00	2.84	2.26	0.00	0.00	0.00	5.24
2026	0.00	-0.14	0.00	5.15	3.51	0.00	0.00	0.00	8.81
2027	0.00	0.00	0.00	8.51	5.16	0.00	0.00	0.00	13.66
2028	0.00	0.07	0.00	13.14	7.30	0.00	0.00	0.00	20.37
2029	0.00	0.07	0.00	18.96	9.92	0.00	0.00	0.00	28.82
2030	0.00	0.07	0.00	22.37	11.49	0.00	0.00	0.00	33.79
2031	0.00	0.08	0.00	22.02	11.17	0.00	0.00	0.00	33.11
								NPV@12%	40.04
								IRR	103.5%

LR 9001, Section A: Xaisettha to Ban Paam

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	0.06	-0.02	0.10	0.00	0.00	0.00	0.00	0.00	-0.14
2019	0.06	0.00	0.10	0.00	0.00	0.00	0.00	0.00	-0.16
2020	0.06	0.00	0.10	0.01	0.00	0.00	0.00	0.00	-0.15
2021	0.06	0.00	0.10	0.02	0.00	0.00	0.00	0.00	-0.14
2022	0.00	0.00	0.00	-0.13	0.04	0.00	0.00	0.00	-0.09
2023	0.00	-0.05	0.00	-0.13	0.05	0.00	0.00	0.00	-0.04
2024	0.00	-0.05	0.00	-0.12	0.05	0.00	0.00	0.00	-0.02
2025	0.00	-0.04	0.00	-0.09	0.06	0.00	0.00	0.00	0.01
2026	0.00	-0.04	0.00	-0.07	0.06	0.00	0.00	0.00	0.04
2027	0.00	-0.04	0.00	-0.05	0.07	0.00	0.00	0.00	0.07
2028	0.00	-0.04	0.00	-0.03	0.08	0.00	0.00	0.00	0.09
2029	0.00	-0.04	0.00	-0.02	0.10	0.00	0.00	0.00	0.12
2030	0.00	-0.04	0.00	-0.01	0.11	0.00	0.00	0.00	0.15
2031	-0.05	-0.02	0.00	0.00	0.13	0.00	0.00	0.00	0.20
								NPV@12%	-0.35
								IRR	-0.8%

LR 9001, Section B: Ban Paam to Xanxai

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	1.20	0.00	-0.33	0.00	0.00	0.00	0.00	0.00	-0.87
2019	1.20	0.03	-0.33	0.00	0.00	0.00	0.00	0.00	-0.90
2020	1.20	0.00	-0.33	0.00	0.00	0.00	0.00	0.00	-0.87
2021	1.20	0.00	-0.33	0.00	0.00	0.00	0.00	0.00	-0.87
2022	0.00	0.00	-0.96	0.74	0.50	0.00	0.00	0.00	2.20
2023	0.00	0.00	-0.96	0.73	0.48	0.00	0.00	0.00	2.17
2024	0.00	0.00	-0.96	1.07	0.67	0.00	0.00	0.00	2.70
2025	0.00	0.00	-0.96	1.20	0.74	0.00	0.00	0.00	2.90
2026	0.00	0.00	-0.96	1.34	0.80	0.00	0.00	0.00	3.10
2027	0.00	0.00	-0.96	1.49	0.87	0.00	0.00	0.00	3.32
2028	0.00	0.00	-0.96	1.67	0.96	0.00	0.00	0.00	3.58
2029	0.00	0.00	-0.96	1.87	1.05	0.00	0.00	0.00	3.88
2030	0.00	0.00	-0.96	2.00	1.10	0.00	0.00	0.00	4.06
2031	-2.40	0.00	-0.96	2.16	1.16	0.00	0.00	0.00	6.67
								NPV@12%	8.58
								IRR	41.0%

LR 9001, Combined: Xaisettha to Xanxai

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	1.26	0.61	-0.86	0.00	0.00	0.00	0.00	0.00	-1.01
2019	1.26	0.66	-0.86	0.00	0.00	0.00	0.00	0.00	-1.05
2020	1.26	0.63	-0.86	0.01	0.00	0.00	0.00	0.00	-1.02
2021	1.26	0.63	-0.86	0.02	0.00	0.00	0.00	0.00	-1.00
2022	0.00	0.00	-0.96	0.61	0.54	0.00	0.00	0.00	2.11
2023	0.00	-0.04	-0.96	0.60	0.53	0.00	0.00	0.00	2.13
2024	0.00	-0.04	-0.96	0.95	0.73	0.00	0.00	0.00	2.68
2025	0.00	-0.04	-0.96	1.11	0.80	0.00	0.00	0.00	2.90
2026	0.00	-0.04	-0.96	1.27	0.87	0.00	0.00	0.00	3.13
2027	0.00	-0.04	-0.96	1.44	0.95	0.00	0.00	0.00	3.39
2028	0.00	-0.04	-0.96	1.63	1.04	0.00	0.00	0.00	3.68
2029	0.00	-0.04	-0.96	1.85	1.15	0.00	0.00	0.00	4.00
2030	0.00	-0.04	-0.96	2.00	1.21	0.00	0.00	0.00	4.21
2031	-2.44	-0.01	-0.96	2.16	1.29	0.00	0.00	0.00	6.87
								NPV@12%	8.23
								IRR	37.0%

NR 18B, Section A: Attapeu to Xaisettha

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	Increase in Road Agency Costs			Decrease in Road User Costs				Exogenous Benefits	Net Benefits
	Capital	Recurrent	Special	MT VOC	MT Time	NMT	Accidents		
2018	0.07	-0.01	0.11	0.00	0.00	0.00	0.00	0.00	-0.17
2019	0.07	-0.01	0.11	0.00	0.00	0.00	0.00	0.00	-0.17
2020	0.07	-0.04	0.11	0.01	0.00	0.00	0.00	0.00	-0.14
2021	0.07	-0.09	0.11	0.01	0.00	0.00	0.00	0.00	-0.08
2022	0.00	-0.14	0.00	0.01	-0.01	0.00	0.00	0.00	0.15
2023	0.00	-0.17	0.00	0.01	-0.01	0.00	0.00	0.00	0.17
2024	0.00	-0.18	0.00	0.02	-0.01	0.00	0.00	0.00	0.19
2025	0.00	-0.18	0.00	0.04	-0.01	0.00	0.00	0.00	0.21
2026	0.00	-0.18	0.00	0.05	-0.01	0.00	0.00	0.00	0.21
2027	0.00	-0.16	0.00	0.06	-0.01	0.00	0.00	0.00	0.21
2028	0.00	-0.16	0.00	0.07	-0.01	0.00	0.00	0.00	0.23
2029	0.00	0.04	0.00	0.09	-0.01	0.00	0.00	0.00	0.04
2030	0.00	0.04	0.00	0.17	0.01	0.00	0.00	0.00	0.15
2031	-0.15	0.04	0.00	0.55	0.17	0.00	0.00	0.00	0.83
								NPV@12%	0.33
								IRR	21.4%

Note: this is a notional analysis, using the Section B traffic count. In Section A the traffic is known to be higher, so the benefit will be greater than that shown here.

NR 18B, Section B: Xaisettha to Phoukeua

(including indirect project costs, related to the wider benefits of the project, apportioned to the project road during the years 2018-2021)

(\$ million, undiscounted costs and benefits; NPV of net benefits calculated using 12%/year discount rate)

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	0.45	-0.11	0.57	0.00	0.00	0.00	0.00	0.00	-0.91
2019	0.45	0.00	0.57	0.06	0.00	0.00	0.00	0.00	-0.95
2020	0.45	-0.12	0.57	0.16	0.00	0.00	0.00	0.00	-0.74
2021	0.45	-0.12	0.57	0.27	0.01	0.00	0.00	0.00	-0.62
2022	0.00	-0.12	0.00	0.43	0.01	0.00	0.00	0.00	0.56
2023	0.00	-0.12	0.00	0.38	0.01	0.00	0.00	0.00	0.50
2024	0.00	-0.12	0.00	0.42	0.01	0.00	0.00	0.00	0.55
2025	0.00	-0.11	0.00	0.45	0.02	0.00	0.00	0.00	0.59
2026	0.00	0.00	0.00	0.48	0.02	0.00	0.00	0.00	0.50
2027	0.00	0.00	0.00	0.52	0.03	0.00	0.00	0.00	0.56
2028	0.00	0.00	0.00	0.59	0.05	0.00	0.00	0.00	0.63
2029	0.00	0.00	0.00	0.59	0.06	0.00	0.00	0.00	0.65
2030	0.00	0.00	0.00	0.50	0.07	0.00	0.00	0.00	0.57
2031	-0.59	0.00	0.00	0.31	0.06	0.00	0.00	0.00	0.96
								NPV@12%	-0.40
								IRR	9.2%

ANNEX Z – Economic Value of the Proposed Project Works

Economic Value of the Proposed Project Works

The table below aggregates all the individual results for the project roads before the indirect costs of the other project activities are added.

From these, the economic internal rate of return for all the recommended project interventions, taken together, is calculated to be over 90%. In all the economic analysis the foreign currency costs have duties and taxes removed to arrive at economic costs, while the local currency costs are included at face value (2014 prices).

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	3.12	-0.28	-0.96	0.00	0.00	0.00	0.00	0.00	-1.88
2019	3.12	-0.16	-0.96	0.29	0.01	0.00	0.00	0.00	-1.70
2020	3.12	-0.42	-0.96	0.73	0.03	0.00	0.00	0.00	-0.99
2021	3.12	-0.46	-0.96	1.39	0.08	0.00	0.00	0.00	-0.23
2022	0.00	-0.56	-0.96	4.53	2.24	0.00	0.00	0.00	8.29
2023	0.00	-0.63	-0.96	4.88	2.47	0.00	0.00	0.00	8.94
2024	0.23	-0.65	-0.96	6.60	3.52	0.00	0.00	0.00	11.50
2025	0.00	-0.66	-0.96	8.87	4.77	0.00	0.00	0.00	15.26
2026	0.00	-0.54	-0.96	11.19	5.92	0.00	0.00	0.00	18.61
2027	0.52	-0.35	-0.96	15.20	7.79	0.00	0.00	0.00	23.78
2028	-0.68	-0.32	-0.96	22.77	11.08	0.00	0.00	0.00	35.82
2029	0.00	-0.12	-0.96	27.22	13.13	0.00	0.00	0.00	41.43
2030	0.22	-0.07	-0.96	30.84	14.80	0.00	0.00	0.00	46.45
2031	-3.83	-0.03	-0.96	31.56	15.13	0.00	0.00	0.00	51.51
								NPV@12%	73.21
								IRR	70.9%

ANNEX AA – Estimation of Overall Project Viability

Estimation of Overall Project Viability

The table below is based on that in Annex Z, but adds the additional overhead (indirect) costs of the project, to confirm overall project viability. For this purpose the foreign currency costs have duties and taxes removed to arrive at economic costs, while the local currency costs are included at face value (2014 prices). For simplicity all the overhead costs are assumed to be incurred in the first year of the project. This will not be the case in practice. For this reason, and because the benefits of the capacity-building have not been quantified, the real economic benefit is expected to be higher than that shown.

This analysis shows that even with all costs included the economic internal rate of return for the recommended project will comfortably exceed the chosen 12% discount rate.

	<i>Increase in Road Agency Costs</i>			<i>Decrease in Road User Costs</i>				<i>Exogenous Benefits</i>	<i>Net Benefits</i>
	<i>Capital</i>	<i>Recurrent</i>	<i>Special</i>	<i>MT VOC</i>	<i>MT Time</i>	<i>NMT</i>	<i>Accidents</i>		
2018	3.12	-0.28	1.71	0.00	0.00	0.00	0.00	0.00	-4.55
2019	3.12	-0.16	1.71	0.29	0.01	0.00	0.00	0.00	-4.37
2020	3.12	-0.42	1.71	0.73	0.03	0.00	0.00	0.00	-3.66
2021	3.12	-0.46	1.71	1.39	0.08	0.00	0.00	0.00	-2.90
2022	0.00	-0.56	-0.96	4.53	2.24	0.00	0.00	0.00	8.29
2023	0.00	-0.63	-0.96	4.88	2.47	0.00	0.00	0.00	8.94
2024	0.23	-0.65	-0.96	6.60	3.52	0.00	0.00	0.00	11.50
2025	0.00	-0.66	-0.96	8.87	4.77	0.00	0.00	0.00	15.26
2026	0.00	-0.54	-0.96	11.19	5.92	0.00	0.00	0.00	18.61
2027	0.52	-0.35	-0.96	15.20	7.79	0.00	0.00	0.00	23.78
2028	-0.68	-0.32	-0.96	22.77	11.08	0.00	0.00	0.00	35.82
2029	0.00	-0.12	-0.96	27.22	13.13	0.00	0.00	0.00	41.43
2030	0.22	-0.07	-0.96	30.84	14.80	0.00	0.00	0.00	46.45
2031	-3.83	-0.03	-0.96	31.56	15.13	0.00	0.00	0.00	51.51
								NPV@12%	65.09
								IRR	44.3%

Annex AB – Draft ToR for External Auditor

Road Sector Governance and Maintenance Project
Terms of Reference (TOR) for
Financial Audit Consulting Services (Auditor)
Audit of Annual Project Financial Statements (APFS)

I. BACKGROUND OF THE PROJECT:

1. Annex 1 includes terms and definitions used in this terms of reference (TOR), Annex 2 presents the project background, information on the executing agency (EA) and implementing agency (IA) of the project, Annex 3 provides details of funds provided and Annex 4 is the Procurement Plan. Annexes 1-4 form part of this TOR and should be read in conjunction with it.

II. OBJECTIVE

2. The objective of the audit of the APFS is to enable the auditor to express a professional opinion on:

- (a) the APFS for the year(s) ended 30 September 2016 to 2021 and then ended 31 December 2021, and assess the progress with the overall budget, in accordance with the acceptable accounting standards;
- (b) the compliance with laws, regulations and funding agreements that have a direct and material financial effect on the entity's financial report;
- (c) the effectiveness of internal control over compliance with requirements that could have a direct and material financial effect on the financial statements (FS) as well as internal control over financial reporting; and
- (d) the eligibility of claims made in Statements of Expenditure (SOEs) and the Imprest Account Statement;

3. **Record keeping:** The Project's accounting system (books and records) provides the basis for the preparation of the audited APFS. The system was established to record the financial transactions of the Project, and is maintained by related Project's EA/IAs.

III. SCOPE OF WORK

4. The APFS to be audited will focus on *Financial statements (FSs)*, prepared by the EA /IAs that will include:

- a) A Summary of Sources and Uses of Funds received showing the Asian Development Bank (ADB) funds and counterpart funds separately;
- b) A summary of expenditures shown under the category of the main project components, the expenditures, the allocation of loan proceeds, the procurement plan (as referenced in loan and appraisal documentation) for both current fiscal year and cumulative to date, based on the categories given in Annex 3;
- c) Supporting schedules to the FSs which at least include: (i) A reconciliation of the amounts shown as "received by the project from ADB and other financiers" with those shown as being disbursed by ADB and other financiers (for direct payment); (ii) SOE: listing individual SOE withdrawal applications by specific reference number and amount in the loan agreement; and (iii) designated Account(s) statement showing movement and reconciliation with the bank statements;

- d) A Summary of the principal accounting policies that have been adopted, and other explanatory notes;
- e) A Management Assertion that the funds of ADB have been expended in accordance with the intended purposes.

5. **Audit Phasing¹:**

Month of fiscal year (FY) and report submission

Period	FY start	FY End	Report Submission	Remarks
1	1 April 2016	30 Sept; 2017	31 March 2018	
2	1 Oct; 2017	30 Sept; 2018	31 March 2019	
3	1 Oct; 2018	30 Sept; 2019	31 March 20120	
4	1 Oct; 2019	30 Sept; 2020	31 March 2021	
5	1 Oct; 2020	30 Sept; 2021	31 March 2022	
6	1 Oct; 2021	31 Dec; 2021	31 June 2022	Final Audit

6. **Contract:** The auditor will be contracted for the audits phases mentioned above. However, the auditor should submit the financial proposal in US\$ in a format indicating the amount for each financial year independently. If performance is not satisfactory in one year then the client will not be bound for subsequent year’s audits.

7. **Applicable auditing standards:** The audit will be carried out in accordance with International Standards of Auditing including:

- (a) planning and conducting the audit in accordance with a risk based framework with a detailed audit work program which is sufficiently extensive in its coverage of the project’s accounts to support the opinion given.
- (b) the auditor will gather evidence and prepare working papers to properly documents the evidence seen in support of the opinion given, sufficient audit evidence will be gathered to substantiate in all material respects the accuracy of the information contained in supporting schedules attached to the financial statements,
- (c) the auditor will review and evaluate the system of internal controls in effect, including internal audit procedures, to determine the degree of reliance that may be placed upon them and to determine the extent of testing of actual transactions needed to assure the auditor of the accuracy of the accounting records,
- (d) the audit coverage will consider the risk of material misstatement(s) as a result of fraud or error. The audit program should include procedures that are designed to provide reasonable assurance that material misstatements (if any) are detected.

8. The auditor should obtain an understanding of the design and operation of internal control over compliance with requirements that could have a direct and material financial effect on the funding agreements. The auditor’s work in this area is in addition to the consideration of internal control over financial reporting that is part of the financial statement audit. Specifically, the auditor must obtain an understanding of the internal control over compliance that is sufficient to plan the audit to support a low assessment level of control risk for donor program. The auditor needs to test the internal control unless the internal control is likely to be ineffective in preventing or detecting noncompliance (see also note below).

¹ Note that audit periods for one auditor are allowed for all fiscal years of the Project:

- (a) ADB and financing have been used in accordance with the conditions of the relevant financing agreement, with due attention to economy and efficiency, and only for the purposes for which the financing was provided, as detailed in the supporting documents (Annex 3);
- (b) Counterpart funds (Annex 3) have been provided and used in accordance with the relevant financing agreements, with due attention to economy and efficiency, and only for the purposes for which they were provided;
- (c) Goods, works and services financed have been procured in accordance with the relevant financing agreements including specific provisions of the ADB Procurement Policies and Procedures.
- (d) The expenditures submitted to ADB are eligible for financing and all necessary supporting documents, records, and accounts in support of Credit withdrawals have been adequately maintained with clear linkages between the books of account and reports presented to ADB;
- (e) Funds disbursed through SOEs were utilized for the purposes defined in the funding agreements. Where ineligible expenditures are identified as having been included in withdrawal applications and reimbursed against, these should be separately noted by the auditor;
- (f) Designated Accounts (imprest account and sub-accounts) has been maintained in accordance with the provisions of the relevant financing agreements and funds disbursed out of the Accounts were used only for the purpose intended in the financing agreement;

9. **Accounting Policies and Changes.** The auditor should comment on the project's accounting policies, and confirm the extent to which the agreed project accounting policies (see Terms and Definitions) have been applied. In particular, the auditor should note the impact on the APFS arising from any material deviations from the agreed accounting standards. The auditor should also comment on any accounting policy changes, either during a financial year, or from one year to another.

10. **Compliance with laws, regulations and funding agreements:** The auditor should be aware of the unique characteristics of the compliance auditing environment. Governments and not-for-profit organizations differ from commercial enterprises in that they may be subject to diverse compliance requirements including its compliance with financial covenants and financial assurances. Management is responsible for ensuring compliance with relevant laws, regulation and funding agreements. That responsibility encompasses the identification of applicable laws, regulations and funding agreements and the establishment of internal control designed to provide reasonable assurance that the auditee complies with those laws, regulations and funding agreements.

11. In addition to the opinion on the FSs, the auditor should provide an opinion on whether the auditee complied with laws, regulations and provision of contracts or funding agreements that have a direct and material financial effect on the entity's financial statements. Where applicable, the auditor should prepare a report with separate schedule of findings and questioned costs. The scope of the audit should also refer to compliance with the Procurement procedures as set out in the funding agreements.

12. **Responsibility to Consider Fraud in an Audit:** The primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and with management. It is important that management, with the oversight of those charged with governance, place a strong emphasis on fraud prevention, which may reduce opportunities for fraud to take place, and fraud deterrence, which could persuade individuals

not to commit fraud because of the likelihood of detection and punishment. It is the responsibility of those charged with governance of the entity to ensure, through oversight of management, that the entity establishes and maintains internal control to provide reasonable assurance with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws, regulations and funding agreements.

13. In addition management is responsible for establishing a control environment and maintains policies and procedures to assist in achieving the objectives of ensuring the orderly and efficient conduct of the entity's business. Therefore, in order to ensure that those assertions are addressed in the audit of the entity, it is important that ISA 240 "The Auditor's Responsibility to consider Fraud in an Audit of Financial Statements" be followed. Auditors who are required to follow the International Standards (ISA) will follow ISA 240.

14. In addition to the opinion on the financial statements and opinion on compliance, the auditor should provide an additional opinion on the effectiveness of internal control over compliance requirements that could have a direct and material financial effect on the financial statements as well as financial reporting.

IV. AUDIT REPORT

15. **Audit Report:** The auditor will issue the Auditor reports on the APFS². The auditors' reports on the APFS should include at least the following:

- a) the audit report will state the purpose of the report and its intended use,
- b) the audit report will state which/whose generally accepted accounting standards have been applied and indicate the effect of any deviations from those standards,
- c) the audit report will state that the audit was conducted in accordance with ISAs,
- d) the audit opinion will cover the current period and compare the achievement with the overall periods,
- e) the audit opinion will state whether or not the financial statements presents fairly in accordance with the adopted accounting policies for the specified program /project and that the funds were utilized for the purposes defined by the loan agreement ,
- f) the audit opinion will cover in all material respects the supporting schedules, including those noted above.
- g) the auditor should provide an opinion on whether the auditee complied with applicable laws, regulations and the Procurement procedures and other provisions of the funding agreements that have a direct and material financial effect on the entity's financial report (audit report on the project financial statements only).
- h) the auditor should provide an opinion on the effectiveness of internal control over compliance with requirements that could have a direct and material financial effect on the financial statements as well as internal control over financial reporting.

² This is only for APFS. The auditor reports on the entity Financial statements is prepared separately

V. MANAGEMENT LETTER

16. In addition to the audit report, the auditor will prepare a management letter, in which the auditor will:

- (a) Give comments and observations on the accounting records, systems and controls that were examined during the course of the audit;
- (b) Identify specific deficiencies or areas of weakness in the accounting and internal control systems that were identified during the audit, and make recommendations for their improvement;
- (c) Also include responses from the EA and IAs to the issues highlighted by the auditor Report on the degree of compliance of each of the financial covenants in the financing agreement and give comments, if any, on internal and external matters affecting such compliance; and provide recommendations for improvement;
- (d) Communicate matters that have come to the auditor's attention during the audit which might have a significant impact on the implementation of the project;
- (e) Give comments on the extent to which outstanding issues/qualifications issues have been addressed;
- (f) Give comments on the status of significant matters raised in previous management letters; and on previous audits' recommendations that have not been satisfactorily implemented;
- (g) Give comments on significant matters that the auditor considers should be brought to ADB's attention and any other matters that the auditor considers pertinent, including ineligible expenditures
- (h) Include responses from the EA and IAs to the issues highlighted by the auditor.
- (i) Provide practical recommendations on the steps that could be taken to become materially compliant with the agreed project accounting policies (see Terms and Definitions), together with a time frame for making these changes;
- (j) Any other matters that the auditor considers should be brought to the attention of the project's management.

VI. AVAILABLE INFORMATION

17. The auditor will have access to all legal documents, correspondences, and any other information associated with the project and deemed necessary by the auditor. The auditor will also obtain confirmation of amounts disbursed and outstanding at ADB. Available information should include copies of the relevant: project appraisal document; financing agreement; financial management assessment reports; supervision mission reports and implementation status reports. At the end of the financial year the project's final annual accounts will be supplied to the auditor within two months

VII. AUDITOR QUALIFICATIONS:

18. **Requirement** on the Qualification of Auditing Company and Auditors are as follows:

- (a) **For Auditing Company:** Be a legal entity with business license granted by the competent authority.
- (b) **For Auditor: (i)** Auditors shall hold relevant professional qualifications³ with in-depth experience in conducting audits of project financial statements. They

³ International auditing qualifications (ACCA, CPA Australia, etc) should also be considered in evaluating technical audit proposal

should be properly granted with relevant professional license by the Ministry of Finance; (ii) Audit managers shall have at least 8 years' experience while audit seniors who are the team leader shall have at least 5 years' experience and audit assistant shall have at least 2 years' experience in their profession; and (iii) All established procedures and methodology are reliable and in conformity with International Standards on Auditing.

19. **Reporting Requirements:** The audited financial statements including the report should be received by ADB not later than six months after the end of the fiscal year/period to which the audit refers and should be prepared in English and Lao languages in 5 hard copies separately for each. The financial statements in English version should be prepared in US\$, while for the Laos version should be prepared in KIP

20. **Reporting relationships:**

- (a) The audit services will be contracted by: Ministry of Public Works and Transport (Department of Roads)
- (b) The Auditor shall report to: Director General of Department of Roads (DoR)
- (c) The Auditor should maintain and file the work papers and provide them to the Government and/or ADB when requested.

Terms and Definitions used in this TOR

1. **General:** This Annex provides information on terms and definitions used in the TOR and should be read in conjunction with the TOR

2. **Record Keeping.** The auditor shall pay particular attention to whether all necessary supporting documents, records, and accounts have been kept in respect of all project activities, with clear linkages between the accounting records and the APFS. This shall include:

- a) computation and recalculation, including checking the mathematical accuracy of estimates, accounts or records;
- b) reconciliation, including reconciling related accounts to each other, subsidiary records to primary records and internal records to external documents;
- c) physical observation, including inspecting or counting tangible assets, such as materials, inventory, land buildings, property or equipment;
- d) confirmation, including directly confirming balances or transactions with external third parties, such as cash balances, accounts receivable or accounts payable;
- e) sampling, including vouching or examining supporting documentation to determine if balances are properly stated; and
- f) tracing, including tracing journal postings, subsidiary ledger balances, and other details to corresponding general ledger accounts or trial balances.

3. **The Scope:** The auditor should be sufficiently clear with the scope of the audit to properly define what is expected of, but should not restrict the audit procedures or the techniques the auditor may wish to use to form an opinion. The list of issues outlined in the TOR is not exhaustive.

4. **Internal Control Systems.** The auditor shall assess the adequacy of the project financial management systems, including internal controls. The assessment includes whether:

- a) proper authorizations are obtained and documented before transactions are entered into;
- b) accuracy and consistency are achieved in recording, classifying, summarizing and reporting transactions;
- c) reconciliations with internal and external evidence are performed on a timely basis by the appropriate level of management;
- d) balances can be confirmed with external parties;
- e) adequate documentation and an audit trail is retained to support transactions;
- f) transactions are allowable under the agreements governing the project;
- g) errors and omissions are detected and corrected by project personnel in the normal course of their duties, and management is informed of recurring problems or weaknesses;
- h) management does not override the normal procedures and the internal control structure; and
- i) assets are property accounted for, safeguarded and can be physically inspected.

5. **Statements of Expenditures (SOEs).** The auditor shall audit all SOEs used as the basis for the submission of credit withdrawal applications to ADB. These expenditures should be compared for project eligibility with the relevant financing agreements (and with reference

to the Report and Recommendation to the President (RRP_ and other project documents for guidance when considered necessary). Where ineligible expenditures are identified as having been included in withdrawal applications and reimbursed against, these should be separately noted by the auditor. The annual audit report should include a separate paragraph commenting on the accuracy and propriety of expenditures withdrawn under SOE procedures, and the extent to which ADB can rely on those SOEs as a basis for credit disbursement. Annexed to the APFS will be a schedule listing individual SOE withdrawal applications by specific reference number and amount.

6. Designated Accounts: The Imprest Account reflects: (i) deposits and replenishment received from ADB (ii) payments substantiated by withdrawal applications; and (iii) the remaining balance at financial year-end. The auditor must form an opinion on whether the Imprest Account and sub-accounts were used in compliance with required procedures (e.g., those of ADB), and the fairness of the presentation of the account activity and the year-end balance. The auditor should examine the eligibility and correctness of financial transactions during the period under review, account balances at the end of the period, the operation and use of the accounts in accordance with the financing agreement, and the adequacy of internal controls for this particular disbursement mechanism. The auditor will examine whether each Account have been maintained in accordance with the provisions of the relevant financing agreements.

7. Financial Covenants: The financial covenants that are applicable to projects are included in the loan agreement. The Auditor should list, describe and fully reference all applicable financial covenants, review and comment on the compliance.

8. Compliance with Financial Covenants. The auditor will confirm compliance with each financial covenant contained in the project legal documents. Where present, the auditor should indicate the extent of any noncompliance by comparing required and actual performance measurements for each financial covenant for the financial year concerned.

9. Financial Assurances Applicable to Projects: The financial assurances that are applicable to the EA will be included in project legal documents. The auditor should list, describe and fully reference all applicable financial assurances, review and comment on the compliance.

10. Compliance with Financial Assurances. The auditor will confirm compliance with all financial assurances contained in the project legal documents. Where present, the auditor should indicate the extent of any noncompliance by comparing required and actual performance of the borrower in respect of these ADB requirements for the financial year concerned.

11. Procurement Policies and Procedures: Review ADB Procurement Guidelines and comment on the compliance of the procurement practices of the project.

12. Technical Experts: If applicable, the auditor may consider involving technical experts during the audit engagement. In cases where such experts are involved, the auditor is expected to comply with provisions of International Standard on Auditing 620: Using the Work of an Expert. Consideration to use of the work of experts should be brought to the early attention of the borrower and the ADB for mutual agreement and appropriate guidance

13. Auditor requirements: The details of the proposed contractor of the auditor's services should be provided. If the contractor is acting on behalf of, or is part of, a larger authority or entity, this should be disclosed, to assist prospective auditors to determine their independence.

14. Annual Project Financial Statements (APFS):

The APFS comprises:

- Statement of Accounting/Financial Policies
- Statement of Income/Cash Receipts
- Statement of Expenses/Cash Payments
- Statement of Cash Flows/Cash Receipts and Payments
- Statement of Uses of Funds by Project Activity
- Notes to the Financial Statements ,and Other Information

15. APFS includes: (a) a summary of funds received showing ADB funds; (b) a summary of expenditures shown under the main project components, allocation of loan proceeds, procurement plan, and by main categories of expenditures (as referenced in loan and appraisal documentation) for the year ending 30 September 20xx and cumulative expenditures on the project to date; and (c) statement of fund balance as of 30 September 20xx for each audit year.

16. Applicable agreed auditing standards: “Agreed auditing standards” means:

International Standards on Auditing: the International Standards on Auditing (ISA) promulgated by the International Auditing and Assurance Standards Board (IAASB). The auditor shall review the following ISAs:

- ISA 240: Auditor’s Responsibility to Consider Fraud in an Audit of Financial statements;_ISA 200: Overall Objectives of Independent Auditors, and the Conduct of an Audit the Entity in Accordance with ISA:
- ISA 210: Agreeing the terms of audit engagements
- ISA 220: Quality control for an Audit of FSs.
- ISA 315: Identifying and Assessing the Risks of Material Misstatements through Understanding the Entity and its Environment
- ISA 250: Consideration of Laws and Regulations in an Audit of Financial Statements:
- ISA 260: Communication of Audit Matters with Those Charged with Governance
- _ISA 330: The Auditor’s Procedures in Response to Assessed Risks
- ISA 402: Audit Considerations Relating to an Entity Using a Service Organization_
- ISA 580: Written Representations
- ISA 620: Using the Work of an Expert; and

National Auditing Standards] the auditing standards promulgated by the Government of Lao.

17. Agreed Project Accounting Policies: “Agreed project accounting policies” with regard to preparation of Annual Project Accounts, means:

International Accounting Standards] the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) (also known as international accounting standards); and

National Accounting Standards] the accounting standards issued by the Government of Lao.

18. **Different standards:** if the auditing standards which auditors shall comply with to conduct audit procedures and express their opinions on the FS, the statement on compliance and the statement on effectiveness of the internal control system are different, the auditor shall disclose the differences including the implications in its reports.

Project Background, Executing and Implementing Agencies

A. The Project to be Audited:

1. Project No: 47085 - 001
2. Grant No. (PPTA)
3. Project Name: Road Sector Governance and Maintenance Project
4. Executing Agency: Ministry of Public Works and Transport
5. Implementing Agency: Department of Roads
6. Total Project Costs \$29.9m (from all financiers)

B. Project Description:

A. *Rationale*

1. Country's road/traffic profile and capacity. The road network in Lao PDR consists of national, provincial, district and rural roads, with a total length of 45,825 km and 3,009 bridges across the country. The capacity of the national and provincial roads is generally adequate for the current traffic volumes but not for the growing transport quality needs. Only 74% of the national roads and 13% of the provincial roads are paved. Seasonal closures are frequently observed due to poor surface condition, poor drainage and landslides frequently occurred during rainy season. Both regional and domestic economic growth in Lao PDR contributes to an increasing traffic demand across the country.
2. Key issues and challenges. The road maintenance management and responsibilities have continued to be constrained by unclear institutional arrangements and weak coordination between central and local authorities. In addition to the inefficient decentralization of road maintenance responsibilities, the key challenges faced by MPWT and provincial DPWTs for undertaking road maintenance activities are in-adequate use of proper maintenance procedures for road maintenance planning, financial management, procurement, and contract supervision that has already been developed . Other constraints are lack of staff's technical capacity and experience in road maintenance management, and financial constraints for undertaking road maintenance responsibilities. Weak institutional capacity, poor governance and inadequate financial resources contribute to MPWT and DPWT's inability to carry out necessary road maintenance works, resulting in poor road conditions.
3. Country and regional socio-economic profile. Lao PDR has a population of 6.2 million and a land area of 231,000 square km and is a land-locked, mountainous, and largely rural country. The population in the 3 target provinces is about 0.65 million and the land area is 28,700 square km. The population growth rate in the whole country in the last decade averages 1.8% a year. The country's population density is one of the lowest in the East Asia (27 people/sq. km), which poses a geographic challenge for transport to connect to the people.
4. Ineffective use of and lack of innovative measures for involving the private sector in road asset management is further reducing the sector performance. Generally the private sector contractors still need improvement in most of the areas, from preparing proposals to the implementation of the contracts. Other aspect of sustainable of road asset management is to be able controlling and minimizing overloading of vehicles, which currently is not the case in Lao PDR. Another road transport sector issue is the poor road safety status, i.e. Laos currently having the worst accident rate in SEA countries.

5. ADB's Country Partnership Strategy. ADB, during preparation of the Lao PDR Country Partnership Strategy, identified critical constraints to inclusive growth in Lao PDR's transforming economy. These constraints include (i) an increasing lack of skilled human resources, constraining private sector growth; (ii) an inefficient and underdeveloped finance; (iii) inadequate connectivity between rural and urban areas; (iv) weak governance institutions; and (v) declining competitiveness in the non-resources sector.

6. Therefore, Lao PDR Country Partnership Strategy 2012–2016, aligned with the government's seventh NSEDP and ADB's Strategy 2020, highlights four thematic areas that will influence the design and focus of activities: (i) private sector development, (ii) governance, (iii) gender equity, and (iv) regional cooperation and integration.

7. Development coordination. Infrastructure Sector Development Partners Working Group (ISWG), chaired by the Minister for Public Works and Transport, is organized regularly to enhance effectiveness of the aid projects/programs under the MPWT, involving all departments of the MPWT, ADB, World Bank, JICA, KfW, and Korean and Chinese Embassies which are actively engaged in transport sector development. The road asset management is one of the central issues among the ISWG members and a number of ISWG meetings have discussed and identified critical issues to establish road asset management, including (i) axle control (re-installation of weigh control), (ii) revenue generation, and (iii) transparent and accountable road maintenance system.

8. At the project implementation level, the donor assistance projects, particularly those under the World Bank, JICA and KfW, also show a better coordination which makes effective use of the investment. For instance, World Bank and JICA jointly work to improve and update the road management system for both national and local roads and JICA utilizes the training facilities and resource persons which KfW supports.

9. The Project is expected to develop the institutional capacity and strengthen governance, including adequate financial resources, which contribute to MPWT and DPWT's ability to carry out necessary road maintenance works, resulting in improved road conditions. The Project, in line with country's sector priority and ADB's Country Partnership Strategy, will achieve improved delivery of public sector service in road asset management through effective public administration and governance and optimized use of the resources, and thus contribute to improving regional integration through better connectivity between urban and rural areas.

B. Impact and Outcome

10. The impact of the project will be improved delivery of public services in road asset management. The outcome will be sustainable road maintenance implemented in the provinces of Saravan, Xekong and Attapeu

C. Outputs

11. The outputs of the Project are (i) governance and practice for sustainable road asset management improved, (ii) institutional capacity for sustainable road asset management strengthened, (iii) road rehabilitation and maintenance of sections of national and local roads completed.

D. Project Implementation Organizations – Roles and Responsibilities

12. MPWT will be the executing agency and DOR will be the implementing agency for the

project. DPWT-Attapeu, DPWT-Saravane, and DPWT-Xekong will be the implementing units. DOR will have overall coordination responsibility and will work closely with DPWTs to implement the project. A project team within MPWT/ DOR will be established to implement the project. The project team will comprise a Project Manager, 3 Deputy Managers (one each from the target provinces), 1 social and environmental monitoring officer from Public Works and Transport Institute (PTI), 1 axle load and road safety officer from Department of Transport (DOT) of MPWT and supporting staff from DOR and DPWTs

13. A National Project Steering Committee (NPSC) will be established to oversee project implementation and provide policy guidance at the national level. NPSC will be chaired by the Vice Minister of MPWT and will comprise of vice governors from the provinces of Saravan, Xekong and Attapeu, officials from MPWT, MPI, MOF, MONRE, and DPWTs.

14. A Regional Advisory Committee (RAC) will be set up for consultation of provincial issues. RAC will be chaired by a provincial Vice Governor on a rotating chair and will have representatives of DPWT, Department of Finance (DOF), Department of Planning and Investment (DPI), provincial Department of Natural Resources and Environment (DONRE) and District Governor's Office.

Table 1: Project Implementation Organizations – Roles and Responsibilities

Project implementation organizations	Management Roles and Primary Responsibilities
Ministry of Finance (MOF)	Borrower <ul style="list-style-type: none"> ➤ Establish a project imprest account at the Bank of Lao for disbursement of eligible expenditures. The MOF will be responsible for establishing, managing, replenishing, and liquidating the account; and ➤ Accountable and responsible for proper use of advances to the imprest account including advances to the sub-account.
Ministry of Public Works and Transport (MPWT)	Executing agency <ul style="list-style-type: none"> ➤ Overall responsibility for execution of the project ➤ Accountable for management of Government and ADB project funds ➤ Accountable for loan covenant compliance, adherence to safeguard policies, overall management and coordination of project implementation ➤ Responsible for convening of National Project Steering Committee (NPSC) ➤ Review and approve detailed engineering designs and procurement documents
Department of Roads (DOR) – Project Coordination Unit (PCU)	Implementing agency Project Management <ul style="list-style-type: none"> ➤ Overall coordination and management of the Project ➤ Ensure necessary internal MPWT support from: <ul style="list-style-type: none"> ○ Department of Finance for financial management of the project; ○ Division of Environmental Management under the Public

	<p>Works Transport Institute (PTI) for Environmental/Social Monitoring and Evaluation of the sub-projects;</p> <ul style="list-style-type: none"> ○ Division of Traffic and License Management under the Department of Transport (DoT) for axle load control and road Safety Monitoring and Evaluation of the sub-projects. <ul style="list-style-type: none"> ➤ Plan, coordinate and supervise overall project implementation, including budgeting, financial planning and accounting ➤ Prepare terms of reference for any additional consulting/sub-consulting services, and recruit these consultants ➤ Procure all contracts, consultants and equipment for project implementation ➤ Oversee the PMC consultants' and any sub-consultant's work, monitor the consultants' performance and administer the consultants' contracts ➤ Assist the provincial DPWTs to set up their project management and reporting systems ➤ Provide technical, management and administrative support to the DPWTs ➤ Perform the role of secretariat for the National Project Steering Committee (NPSC) ➤ Establish and maintain regular contacts with the DPWTs, Provincial Governor Offices and community groups, and take into consideration their constraints and opinions in the process of planning and decision-making for implementation ➤ Coordinate capacity development initiatives and training activities ➤ Review progress reports prepared by the PMC and submit consolidated progress reports to ADB ➤ Prepare project completion report and submit to ADB ➤ Develop Project Performance Management and Evaluation (PPME) indicators, prepare and submit PPME implementation plan to ADB ➤ Coordinate preparation of annual PPME reports by PMC and submit consolidated annual PPME reports to ADB <p>Technical</p> <ul style="list-style-type: none"> ➤ Oversee preparation of detailed design studies (technical, economic, financial, institutional, social and gender, and safeguards aspects), and bid documents by PMC ➤ Prepare and update project procurement plan as necessary ➤ Review procurement documents prepared by PMC and make recommendations for approvals by EA ➤ Oversee the procurement of ICB and NCB contracts including bid evaluation, contract negotiations, and contract award ➤ Provide support and guidance to DPWTs on all aspects of the implementation of the sub-projects. <p>Financial</p> <ul style="list-style-type: none"> ➤ Prepare budgeted work plans for disbursement and use of project funds ➤ Prepare budget reallocation requests and submit to EA and ADB for "no objection" ➤ Open and manage a sub-account at a commercial bank ➤ Prepare withdrawal applications, submit to Ministry of Finance
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	<p>for approval and maintain disbursement records</p> <ul style="list-style-type: none"> ➤ Set up and maintain consolidated project accounts, and ensure timely completion and submission of the accounts and financial statements for auditing ➤ Prepare terms of reference for auditing all project accounts, recruit project auditor, prepare information required for audit and follow up on the comments/recommendations of the auditor ➤ Submit annual audited project accounts and financial statements to ADB <p>Safeguards</p> <ul style="list-style-type: none"> ➤ Provide assistance and guidance to DPWTs in ensuring compliance with all safeguard policy provisions in accordance with agreed formats and frameworks ➤ Submit to MONRE/DONRE the prepared IEEs for approval ➤ Ensure that the project environmental management plan (EMP) included in the IEEs are incorporated in the bid and contract documents for all civil works ➤ Oversee monthly environmental monitoring of the subprojects and submit semi-annual environmental monitoring reports to ADB for disclosure on ADB's website ➤ Oversee subprojects with relevant national and provincial government agencies on environmental matters as they arise in respect of each subproject ➤ Oversee the preparation of contractor’s environmental management plans (CEMP) and ensure that these are consistent with the project EMP, standards are feasible, monitored and maintained ➤ Oversee the implementation of Indigenous Peoples Plan (IPP) by the relevant national and provincial government agencies under the Project
<p>National Project Steering Committee (NPSC)</p>	<ul style="list-style-type: none"> ➤ The Steering Committees will meet twice a year during the project period, or as necessary to respond to and provide guidance on inter-ministerial or strategic issues ➤ The Steering Committees main functions will be to (i) provide project direction and guidance at the strategic level; (ii) facilitate cooperation and coordination among concerned agencies; (iii) solve potential major problems that may arise during project implementation; (iv) provide a forum for discussion and progress reviews with ADB; (v) learn and disseminate lessons from project implementation, and; (vi) ensure timely implementation of policy and institutional reform requirements
<p>DPWTs of Saravan, Xekong and Attapue</p>	<p>Implementing units</p> <ul style="list-style-type: none"> ➤ Assign counterparts (Roads Office, Environmental and Social office) for DOR and the PMC consultant for project implementation ➤ Ensure coordination and involvement of the provincial Lao Women’s Union (LWU) for supporting gender-related activities, and a representative from the district community development office (DCD) supporting village development committees (VDCs) and community-related activities. DPWT will also assign

	<p>supporting staff (e.g., secretary) to provide the necessary administrative support for provincial project activities</p> <ul style="list-style-type: none"> ➤ With assistance of DOR, the DPWTs will be responsible for day-to-day coordination and supervision of sub-project implementation. DPWT will support subproject planning and detailed design, undertake all necessary activities to meet ADB’s Safeguard Policies; oversee maintenance activities; and report to the DOR on progress. DPWT team members will work closely with communities and especially VDCs to mobilize local communities in the implementation of the subproject <p>Project Management</p> <ul style="list-style-type: none"> ➤ Coordinate overall implementation of subproject activities in the province on a day-to-day basis ➤ Provide quarterly and annual progress updates on all subproject components and activities to DOR ➤ Assist in the establishment of baseline PPME data and framework, compile and submit data to DOR for the annual PPME reports ➤ Coordinate activities of all provincial agencies, governors and community groups, ensuring their participation in subproject planning, design and implementation ➤ Coordinate capacity development activities with provincial agencies, as well as contractors ➤ Assist DOR in the supervision of maintenance works on the subprojects ➤ Act as secretariat for the Regional Advisory Committee (RAC) <p>Technical</p> <ul style="list-style-type: none"> ➤ Assist PMC with preparation of subproject detailed design studies and reports ➤ Participate with DOR and PMC in reviewing subproject designs and drawings ➤ Assist DOR in the review of bidding documents and contracts documents ➤ Assist DOR in the overall bidding processes and participate in bid evaluation for ICB and NCB contracts ➤ Endorse contractor and supplier payment requests prior to consideration by DOR ➤ Endorse certificate of completion for completed maintenance works prior to submission to supervision consultant and DOR <p>Safeguards</p> <ul style="list-style-type: none"> ➤ Facilitate the DONRE approval of the IEEs ➤ Assist with the implementation and monitoring of the EMP ➤ Assist with the implementation of IPPs ➤ Assist with monitoring and implementation of activities related to gender and ethnic groups ➤ Record and manage all grievances expressed on the project and/or related safeguards (e.g., monitor and address them); ➤ Participate in training and capacity development activities under the project ➤ Keep village development committees (VDCs) and communities
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	<p>informed about the subproject(s) and motivate them to participate</p> <ul style="list-style-type: none"> ➤ Identify poor households in accordance with government policy
Regional Advisory Committee (RAC)	<ul style="list-style-type: none"> ➤ The Advisory Committee will meet twice a year during the project period, or as necessary to respond to and provide guidance on provincial issues ➤ Representatives from OPWT, Lao Women’s Union (LWU) and other provincial and district agencies will be invited to attend as required
ADB	<ul style="list-style-type: none"> ➤ Provides financing ➤ Undertakes project review missions ➤ Monitors project implementation

Key Persons Involved in Implementation

Executing Agency

MPWT

Officer's Name: Mr. Pheng Douangneun
 Position: Director General
 Telephone: (047) (856 21) 412 714
 Email address: pheng_dng@yahoo.com
 Office Address: Department of Roads
 Lanexang Avenue
 P.O. Box 2158
 Vientiane, Lao PDR

ADB

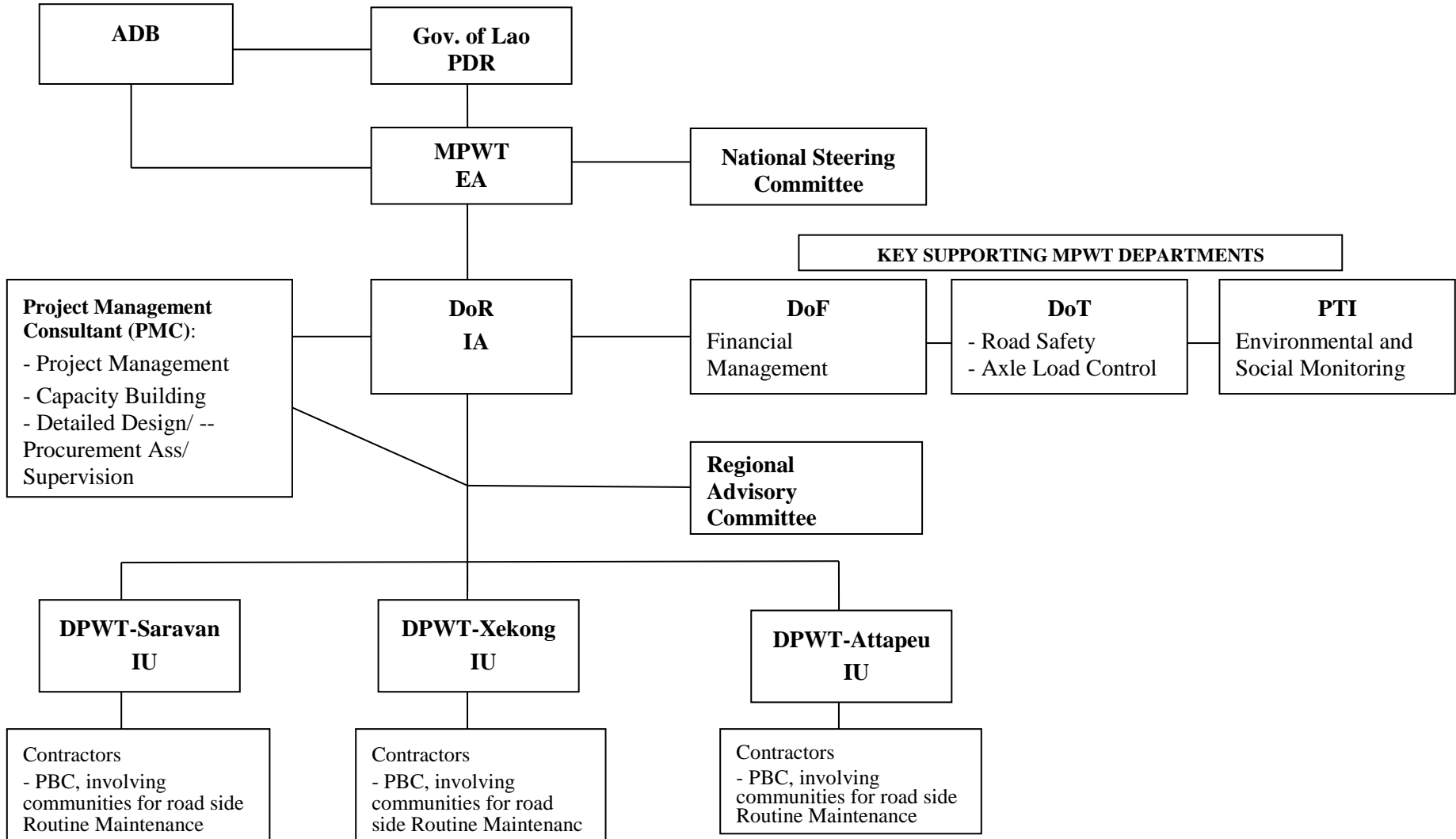
SETC

Staff Name: Mr. Hideaki Iwasaki
 Position: Director
 Telephone No.: (0632) 632-5413
 Fax No.: (0632) 636-2015
 Email address: hiwasaki@adb.org

Mission Leader

Staff Name: Mr. Kang Hang Leung
 Position: Finance Specialist
 Telephone No.: (0632) 632-1819
 Fax No.: (0632) 636-2015, Email;khleung@adb.org

Project Organization Structure



E. Financial Management Assessment

16. Financial Management Assessments (FMA) was conducted to determine whether MPWT as the Executing Agency has acceptable financial management arrangements for project implementation. Project financial management, including financial accounting, recording, and reporting, will be performed by MPWT's Department of Finance (DOF). DOF will use a project financial management system, currently being used for ADB financed road sector projects⁴for the implementation of the project.

17. The full financial management assessments will be made available to the auditor;

F. General Financial Matters

18. Accounting system to be used will be under the Ministry's existing computerized system (SAGE Financial Management System).

19. Accounting and internal audit staff for the EA/IA are yet to be appointed for the project

20. Office accommodation can be made available for the external auditor

G. Accounting and Financial Management Practices

21. According to the latest available assessments by ADB and World Bank, the overall fiduciary risk in the Lao PDR is considered high. This is due to insufficient transparency over the use of public finances and limited public access to Government budget and financial information. In addition there is generally low awareness of modern practices of internal controls in the public sector. The financial management capacity of government staff at provincial and district levels is weak and needs to be strengthened. There is a lack of well-trained and qualified local accountants and auditors in the country. At the country level, deficiencies in financial management systems include: (i) weak public financial management (PFM) systems; (ii) the shortage of financial management skills; and (iii) failure to follow PFM rules.

22. MPWT has successfully implemented a number of externally financed road sector projects in recent years including the ADB financed projects under ADB Loan 2085 and Grant 0082 and World Bank financed Lao Road Sector Project (P120398) (LRSP). The existing DOF and DOR staff of MPWT are familiar with ADB procurement, disbursement, accounting and reporting requirements. The main strength lies in the project financial management experience and qualifications of the DOF staff who will be leading the financial management of the project. The EA considers the existing financial management and accounting software currently in use by the MPWT/DOR is adequate. It proposes to use this software for the project, with specific modifications to meet the current accounting and reporting requirements of the MOF and ADB.

23. Records and accounts for project income and expenditures will be established according to greed project components, disbursement categories, and sources of funds. To strengthen EA/IA project accounting, disbursement and procurement management capacity, and the use of financial management and accounting software, key staff members will attend financial management and procurement training provided under the project. Staff will also receive support and on the job training from the international and national financial management and procurement consultants.

⁴ The two projects are ADB's 2010 Project No. 41444-022 LAO: Second Northern GMS Transport Network Improvement Project and World Bank 2010 Lao Road Sector Project (P 120398).

Funds provided by ADB and its co-financiers

1.1. Funds Allocation by Components

No	Item	Amount (\$)	%
A. Base Cost			
1	Output 1: Improved Governance and Practice for Asset Management	2.46	8.2
2	Output 2: Strengthened Institutional Capacity	2.20	7.3
3	Output 3: Completed Road Asset Rehabilitation and Maintenance	18.97	63.2
4	Subtotal (A)	23.63	78.9
B. Contingencies		5.70	19.0
C. Financing Charges During Implementation		0.61	2.0
Total (A+B+C)		29.94	100.0

1.2. Funds Allocation by Financing Plan

No	Source	Amount (\$)	Share of Total (%)
1	Asian Development Bank (loan)	27.0	90.2
2	Government	2.9	9.8
	Total	29.9	100.0

1.3. Allocation of ADB Loan Proceeds

No	Category	Amount Allocated	ADB Financing - Percentage and Basis for Withdrawal from Loan Account
1	Civil Works	14.6	100%
2	Consulting Services	5.6	100%
3	Equipment	0.5	100%
4	Unallocated	5.7	100%
5	Interest During Construction	0.6	100%
Total		27.0	

^a net of taxes and duties

1.4. Allocation by Procurement Plan

(Procurement Plan attached).

1.5. Budget Allocation by Executing- and Implementing Agencies

Items	Amount	Remarks
<u>Total Project Costs</u>	\$29.9	
Direct payment from ADB	\$20.7	
Through Imprest accounts	\$ 6.3	for One accounts
Through sub-accounts	\$2.9	for One sub-account

1.6. Counterpart funds

Items	Amount	Remarks
<u>Total Counterpart Funds</u>	\$ 2.9	
Through Imprest account	-	for one account
Through sub-account	\$2.9	for one account

Procurement Plan

Basic Data

Project Name: Road Sector Governance and Maintenance Project	
Project Number: 47085-001	Approval Number:
Country: LAO PEOPLE'S DEMOCRATIC REPUBLIC	Executing Agency: Ministry of Public Works and Transport
Project Procurement Classification: B	Implementing Agency: Department of Roads
Procurement Risk: Moderate	
Project Financing Amount: \$ 29.9 Million ADB Financing: \$ 27.0 million Non-ADB Financing: \$ 2.9 million	Project Closing Date: 30 September 2021
Date of First Procurement Plan : xx February 2016	Date of this Procurement Plan: xx April 2015

A. Methods, Thresholds, Review and 18-Month Procurement Plan

1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	\$3,000,000	Prior review by ADB
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works	The first NCB is subject to prior review, thereafter post review.
International Competitive Bidding for Goods	\$1,000,000	
National Competitive Bidding for Goods	Beneath that stated for ICB, Goods	The first NCB is subject to prior review, thereafter post review.
Shopping for Goods	Below \$100,000	Post review by ADB

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	Prior review
Least-Cost Selection	Prior review

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value (\$ Million)	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CW 1: Sal-NR 20	Rehabilitation and Maintenance Works of NR 20 (56km)	2.161	NCB	Prior	1S1E	2 nd Quarter 2017	Performance based contracting (PBC)
CW 2 Sal-LR 6901	Rehabilitation and Maintenance Works of LR 6901 (27.5km)	2.063	NCB	Prior	1S1E	2 nd Quarter 2017	Performance based contracting (PBC)
CW 3 Xek-NR 16	Rehabilitation and Maintenance Works of NR 16 (54km)	1.002	NCB	Prior	1S1E	2 nd Quarter 2017	Performance based contracting (PBC)
CW 4 Xek-LR 7615	Rehabilitation and Maintenance Works of LR 7615 (22.73km)	1.894	NCB	Prior	1S1E	2 nd Quarter 2017	Performance based contracting (PBC)
CW 5 Att-NR 18B	Rehabilitation and Maintenance Works of NR 18B (111.9km)	3.225	ICB	Prior	1S2E	2 nd Quarter 2017	Performance based contracting (PBC)
CW 6 Att-LR 9001	Rehabilitation and Maintenance Works of LR 9001 (54km)	5.974	ICB	Prior	1S2E	2 nd Quarter 2017	Performance based contracting (PBC)

3. Consulting Services Contracts Estimated to Cost \$100,000 or More

The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value (\$ Million)	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
CS1	Project Management Consultant	6.156	QCBS	Prior	3 rd Quarter 2015 (advance action)	FTP	90:10 Quality cost ratio International/ National
CS2	Independent Financial Auditor	0.150	LCS	Prior	3 rd Quarter 2016	BTP	National consulting firm

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number	General Description	Estimated Value (\$ Million)	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
G-1	Maintenance Tools	0.100	1	Shopping	Post (Sample)	Request for Quotation	1 st Quarter 2017	Standard RFQ
G-2	Road Asset Management System	0.450	1	NCB	Prior	1S1E	4 th Quarter 2018	SBD for Goods

B. Indicative List of Packages Required Under the Project

The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Comments

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior / Post)	Type of Proposal⁸	Comments⁹

C. List of Awarded and On-going, and Completed Contracts

The following tables list the awarded and on-going contracts, and completed contracts.

1. Awarded and On-going Contracts

Goods and Works							
Package Number	General Description	Estimated Value	Awarded Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹⁰	Comments ¹¹

¹⁰ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹¹ Indicate the Contractor's name and the contract signing date.

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹⁰	Comments ¹²

¹⁰ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹² Indicate the Consulting Firm's name and the contract signing date.

2. Completed Contracts

Goods and Works								
Package Number	General Description	Estimated Value	Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹⁰	Date of Completion ¹³	Comments

¹⁰ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹³ The Date of Completion is the physical completion date of the contract.

Consulting Services								
Package Number	General Description	Estimated Value	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹⁰	Date of Completion ¹³	Comments

¹⁰ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹³The Date of Completion is the physical completion date of the contract.

D. Non-ADB Financing

The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

E. National Competitive Bidding

1. General

The procedures to be followed for National Competitive Bidding (NCB) shall be those set forth for “Public Bidding” in Prime Minister’s Decree No. 03/PM of the Lao People’s Democratic Republic, effective 09 January 2004, and Implementing Rules and Regulations effective 12 March 2004, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Guidelines.

2. Application

Contract packages subject to NCB procedures will be those identified as such in the project Procurement Plan. Any changes to the mode of procurement from those provided in the Procurement Plan shall be made through updating of the Procurement Plan, and only with prior approval of ADB.

3. Eligibility

Bidders shall not be declared ineligible or prohibited from bidding on the basis of barring procedures or sanction lists, except individuals and firms sanctioned by ADB, without prior approval of ADB.

4. Advertising

Bidding of NCB contracts estimated at \$500,000 or more for goods and related services or \$1,000,000 or more for civil works shall be advertised on ADB’s website via the posting of the Procurement Plan.

5. Procurement Documents

The standard procurement documents provided by Ministry of Finance, Procurement Monitoring Office shall be used to the extent possible. The first draft English language version of the procurement documents shall be submitted for ADB review and approval, regardless of the estimated

contract amount, in accordance with agreed review procedures (post and prior review). The ADB-approved procurement documents will then be used as a model for all procurement financed by ADB for the project, and need not be subjected to further review unless specified in the procurement plan.

6. Preferences

- (i) No preference of any kind shall be given to domestic bidders or for domestically manufactured goods.
- (ii) Suppliers and contractors shall not be required to purchase local goods or supplies or materials.

7. Rejection of all Bids and Rebidding

Bids shall not be rejected and new bids solicited without ADB's prior concurrence.

8. National Sanctions List

National sanctions lists may be applied only with prior approval of ADB.

9. Corruption Policy

A bidder declared ineligible by ADB, based on a determination by ADB that the bidder has engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing an ADB-financed contract shall be ineligible to be awarded ADB-financed contract during the period of time determined by ADB

10. Disclosure of Decisions on Contract Awards

At the same time that notification on award of contract is given to the successful bidder, the results of the bid evaluation shall be published in a local newspaper or well-known freely accessible website identifying the bid and lot numbers and providing information on (i) name of each Bidder who submitted a Bid, (ii) bid prices as read out at bid opening, (iii) name of bidders whose bids were rejected and the reasons for their rejection, (iv) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. The executing agency/implementing agency shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids are not selected.

11. Member Country Restrictions

Bidders must be nationals of member countries of ADB, and offered goods, works and services must be produced in and supplied from member countries of ADB.

Annex AC – Full Financial Management Assessment Report

FINANCIAL MANAGEMENT ASSESSMENTS
and
FINANCIAL AND AUDITING PROCEDURES

TABLE OF CONTENTS

Abbreviations.....	3
Executive Summary.....	4
1. Introduction.....	6
2. Implementation Arrangements.....	7
3. Financial Management Assessments.....	7
3.1 Ministry Public Works and Transport and Department of Roads.....	8
3.2 Provincial Departments of Public Works and Transport.....	14
4. Risk Analysis Summary.....	22
5. Accounting and Auditing Process and Procedures -Implementing Agency.....	23
5.1 Accounting.....	23
5.2 Funds Flow.....	24
5.3 Auditing.....	28
6. Financial and Management Training.....	30
6.1 Provincial Departments of Public Works and Transport.....	30
6.2 Ministry Public Works and Transport/Department of Roads.....	31

APPENDICIES

Appendix 1 – Financial Management Assessment Questionnaires

ABBREVIATIONS

ADB	Asian Development Bank
AM	Accounting Manual
DG	Director General
DOF	Department of Finance
DOI	Department of Inspection
DOR	Department of Roads
DPC	Department of Planning and Cooperation
DPWT	Department of Public Works and Transport
EA	Executing Agency
FMA	Financial Management Assessment
FMM	Financial Management Manual
GoL	Government of Laos
IA	Implementing Agency
ISA	International Standards of Accounting
LRSP	Lao Roads Sector Project
MPWT	Ministry of Public Works and Transport
PAU	Project Accounting Unit
PDD	Planning and Disbursement Division
PIU	Project Implementation Unit
PMU	Project Management Unit
TOR	Terms of Reference
WB	World Bank

EXECUTIVE SUMMARY

Financial management capacity assessments were carried out of the Ministry of Public Works and Transport (MPWT), Department of Roads (DOR), as well as the Departments of Public Works and Transport (DPWT) in the Project Provinces. These assessments examined the financial management capacity of the MPWT/DPWTs using the ADB Financial Management Assessment (FMA) Questionnaire which identified areas for improvement and training needed with respect to financial accounting, reporting and auditing.

The Project's funds flow arrangements will be implemented between the MTPW and ADB and will not include the Provincial Departments. Under these arrangements any foreign exchange rate risks would be managed by the Ministry of Finance. The direct payment method will be used for infrastructure and consulting services contracts. Reimbursement and imprest fund methods for loan disbursement, as described in ADB's Loan Disbursement Handbook 2007, will be used for small civil works contracts for maintenance and recurrent administrative expenditure such as office running expenses as well as capacity development activities. The Government will establish a separate imprest account, administered by the MOF, at a bank to be agreed upon by the Government and ADB to facilitate the timely release of loan funds.

Staff numbers for the three DPWTs accounting range from two to seven members and they are all suitability qualified and experienced having worked with externally financed projects in the past. They are all permanent appointed staff. MPWT/DOR Financial and Accounting Staff are will qualified and experienced for the proposed project. While Provincial Staff are less prepared for ADB Projects it is proposed that they will only be involved in minor Project accounting work which can be carried out on their manual and Excel based systems. Training will also be provided under the project.

The DOF's Accounting Manual 2010 (AM) and Financial Management Manual 2010 (FMM) describe a project accounting system capable of recording financial transactions and allocating expenditures by project component, disbursement category and source of funds. The accounting system is supported by the software tool ACCPAC (SAGE). DOF is using the accounting system and ACCPAC for the WB Lao Road Sector Project and other government funded projects.

Procedures for transaction preparation and approval are described in the Financial Management Manual (FMM). The FMM also includes fifteen Annexes containing financial management guidelines and forms. The forms are mostly in a dual Lao and English format. Through the use of Excel and manual systems all Provincial DPWTs use accounting systems that allows for the proper recording of financial transactions; however it would be time consuming under the existing system to show disbursement categories as well as the source of funds. A standard Government Chart of Accounts is used by all DPWTs which can be adapted to project needs. Controls as prescribed by the MPWT are in place in the provincial accounting departments for the preparation and approval of transactions with the general and

subsidiary ledgers being balanced on a monthly basis. Accounting policies are also detailed in the FMM and AM which is available in the DPWT and MPWT/DOR.

Due to the smallness of some accounting departments in the DPWT (i.e. Xekong DPWT) staff from other departments provide assistance with some accounting functions to ensure that there is a segregation of duties. Bank reconciliations which are prepared monthly are approved by the Provincial Director. Similar arrangements also apply to the functions of ordering, receiving, accounting for, and paying for goods and services. The functions of procurement and taking delivery of goods and services in the MPWT/DOR are separated from the functions of DOF; and approval for payment for goods and services issues from outside the DOF. Bank reconciliations are performed by the Accounting Division and Treasury Division, which is excluded from any role in the processing of a payments approval in the MPWT/DOR.

The Ministry of Finance and Provincial Department of Finance controls the national budget. Planning and Cooperation Department in MPWT and the Planning, Budgeting and Statistics Section in DPWTs are responsible for requesting disbursements, monitoring and to follow-up of their budget allocations.

Local funds are administered by the National Treasury or the Provincial Treasury. Local funds are kept in local currency, the Lao KIP.

The budget identifies both physical and financial goals and they both are monitored in parallel. Actual expenditures are compared to the budget with reasonable frequency, and explanations are required for significant variations from the budget at both Ministry and Provincial levels. Approvals for variations from the budget are required in advance.

At the Provincial and Ministry levels invoice-processing procedures are detailed in the FMM and provide for copies of purchase orders and receiving reports to be obtained directly from issuing departments and for a comparison to be made of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received. Comparisons are also made of invoice quantities with those indicated on the receiving reports and a check is made of the accuracy of calculations. Bank reconciliations are carried out monthly.

Financial transactions concerning DPWTs are recorded by staff in the Planning, Budgeting and Statistics Section and financial data is reported to the Director of DPWTs in accordance with internal reporting procedures. DPWTs submit financial data to Department of Planning and Cooperation for consolidation. The Department of Planning and Cooperation or DPWTs are responsible for coordination and consolidation the accounting information and manages the distribution of financial reports to management. Budget follow-ups for the DPWTs are reported on monthly basis, at a minimum.

The Departments maintain adequate, up-to-date cashbooks, recording receipts and payments. Controls also exist for the collection and recording of receipts at each collection location and

all unusual items on bank reconciliations are reviewed and approved by a responsible official. MPWT/DOR prepare financial statements for the entity in accordance with the modified cash basis of accounting and are prepared on a quarterly and annual basis. For the WB LRSP, semi-annual financial statements were produced at the World Bank's request. The accounting system and ACCPAC (SAGE) tool is capable of preparing statements in accordance with IPSAS accounting standards. The existing reporting system can link the financial information with the project's physical progress.

The MPWT's Department of Inspection (DOI) has an Inspection Division tasked with internal auditing. Strengthening of the MPWT audit functions is included in the WB Laos Road Sector Project. Financial audit, including internal audit, is covered in the FMM. The DOF has also an Inspection Division with which the DOI coordinates internal audits. The DOI internal auditor reports to the Director General DOI and the DOF internal auditor reports to the Director General DOF. Internal audit in the DPWTS is performed by the Internal Control Division in the Department of Inspection.

All activities, components, and projects in DPWTs are required to be annually audited by external auditors. The State Audit Organization (SAO) is responsible to audit all financial activities for DPWTs. If there is insufficient capacity in SAO to audit all bodies, the audit is procured from the private sector. In the case where Donor requirements specify external audit in their financing agreements private sector external auditors can be selected. The MPWT/DOR is audited by the State Audit Organization (SAO) annually. In addition a MOF budget performance review is required under the Budget Law.

Financial statements are prepared by MPWT/DOR finance division for the entity in accordance with the modified cash basis of accounting and are prepared on a quarterly and annual basis. For the WB LRSP, semi-annual financial statements were produced at the World Bank's request. The accounting system and ACCPAC (SAGE) tool is capable of preparing statements in accordance with IPSAS accounting standards.

The MPWT/DOR use the accounting system ACCPAC (SAGE) which is capable of preparing statements in accordance with IPSAS accounting standards. Through the use of Excel and manual systems all Provincial DPWTs use accounting systems that allows for the proper recording of financial transactions; however it would be time consuming under the existing system to show disbursement categories as well as the source of funds. A standard Government Chart of Accounts is used by the MPWT and all DPWTs which can be adapted to project needs.

1. Introduction

The Terms of Reference (TOR) for the PPTA Lao Road Sector Governance and Maintenance Project requires that financial management capacity assessments be carried out of the Ministry of Public Works and Transport (MPWT) as well as the Departments of Public Works and Transport (DPWT) in the Project Provinces. These capacity assessments are

required to examine the financial management capacity of the MPWT/DPWTs using the ADB Financial Management Assessment (FMA) Questionnaire which identifies areas for improvement and training needed with respect to financial accounting, reporting and auditing.

As part of these assessments the following organizations were examined based on ADB's FMA Questionnaire:

- Ministry of Public Works and Transport/Department of Roads
- Salavan Provincial Department of Public Works and Transport
- Xekong Provincial Department of Public Works and Transport
- Attapeu Provincial Department of Public Works and Transport

The assessment summary sheets are detailed in Annex 1

2. Implementation Arrangements

The project executing agency (EA) will be the MPWT and the project implementing agency (IA) will be the Department of Roads (DOR) of MPWT. DOR will have overall coordination responsibility and will work closely with provincial Departments of Public Works and Transport (DPWT) in Saravan, Attapeu and Xekong¹ to implement the project.

3. Financial Management Assessments

In carrying out the FMA of the agencies to be involved in the Project the following matters were addressed:

- Implementation
- Funds Flow Arrangements
- Staffing
- Accounting Policies and Procedures
- Segregation of Duties
- Budgeting System
- Payments
- Policies and Procedures
- Cash and Bank
- Safeguard Over Asset
- Internal Audit
- External Audit
- Reporting and Monitoring
- Information Systems

¹ Implementation Units

3.1 Ministry of Public Works and Transport and Department of Roads

3.1.1 Implementation

The implementation arrangements are similar to the one used in the ongoing implementation of the World Bank-financed Lao Road Sector Project (P120398) (LRSP)². The approach does not use an especially established project implementation or management unit (PIU or PMU), one with its own organization structure, to drive the project implementation activities. Instead, MPWT's existing internal organization and departmental competencies are drawn upon to conduct project implementation, with the support of project implementation services consultants. Thus, the Department of Roads (DOR) will play a major role in the project implementation as IA, and project financial management will be performed by MPWT's Department of Finance (DOF), formed in 2013 with the aim of centralizing all financial management activities for the ministry's infrastructure projects and programs. The provinces will work closely with the DOR to implement the project

MPWT has implemented several ADB, World Bank and other externally-financed projects. DOR is responsible for civil works, road improvement component in LRSP as one of eight MPWT agencies including Department of Planning and Cooperation (DPC) participating in the project implementation. When project implementation began in 2010, Department of Road's Planning and Disbursement Division (PDD) held primary responsibility for financial management of LRSP on behalf of MPWT, being the only ministry unit with that financial management capability. In 2012 the LRSP financial management role along with the PDD staff were transferred to a new Project Accounting Unit (PAU) set up in DPC. When in August 2013 MPWT set up a new Department of Finance (DOF), the project financial management role and the PAU staff were moved to DOF.

3.1.2 Funds Flow Arrangements

The direct payment method will be used for infrastructure and consulting services contracts. Reimbursement and imprest fund methods for loan disbursement, as described in ADB's Loan Disbursement Handbook 2007, will be used for small civil works contracts for maintenance and recurrent administrative expenditure such as office running expenses as well as capacity development activities. From experience of several ADB projects in the road sector, MPWT is familiar with the above disbursement methods. However the financial management team involved in implementing the project will benefit from further training in

² See: World Bank. 2010. *Report No 52140 LA. Project Appraisal Document on a Proposed Grant in the Amount of SDR 17.9 Million (US\$27.80 Million Equivalent), including SDR 5.7 Million (US\$8.8 Million Equivalent) in Pilot Crisis Window Resources, to Lao People's Democratic Republic for a Road Sector Project.*

those methods, in particular with procedures for withdrawal application, reporting and audit specifics of the use of imprest account funds.

The Government will establish a separate imprest account, administered by the MOF, at a bank to be agreed upon by the Government and ADB to facilitate the timely release of loan funds. The maximum ceiling of the imprest account will not at any time exceed the estimated ADB financed expenditures to be paid from the imprest account for the next 6 months or 10% of the respective loan amount, whichever will be lower. The request for initial advance to the imprest account will be accompanied by an Estimate of Expenditure Sheet setting out the estimated expenditures for the first six (6) months of project implementation, and submission of evidence satisfactory to ADB that the imprest account has been duly opened. For every liquidation and replenishment request of the imprest account, the borrower will furnish to ADB(a) Statement of Account (Bank Statement) where the imprest account is maintained, and (b) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the EA's records.

ADB's statement of expenditure (SOE) procedure will be used to reimburse eligible expenditures and to liquidate advances provided to the imprest account. The individual payments that may be reimbursed or liquidated under the SOE procedure will not exceed \$50,000 equivalent per payment. SOE records will be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.

Before the submission of the first withdrawal application, the Government will submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application will be US\$100,000, unless otherwise approved by ADB. The Government will consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing. The currency of the imprest account will be US Dollar. For project financial management MPWT can utilize the institutional knowledge and ADB/WB project experience of the DOF and the staff of the DOF's Budget, Accounting, Treasury, Assets, and Inspection Divisions, supported by its Personnel and Administration Division. The additional volume of work from the project is expected to require additional project accounting staff. These additional staff will need to be recruited by the DOF and assigned to the project, giving the Department the opportunity to select work-trained staff to join the permanent staff following project completion.

Funds Flow Arrangements

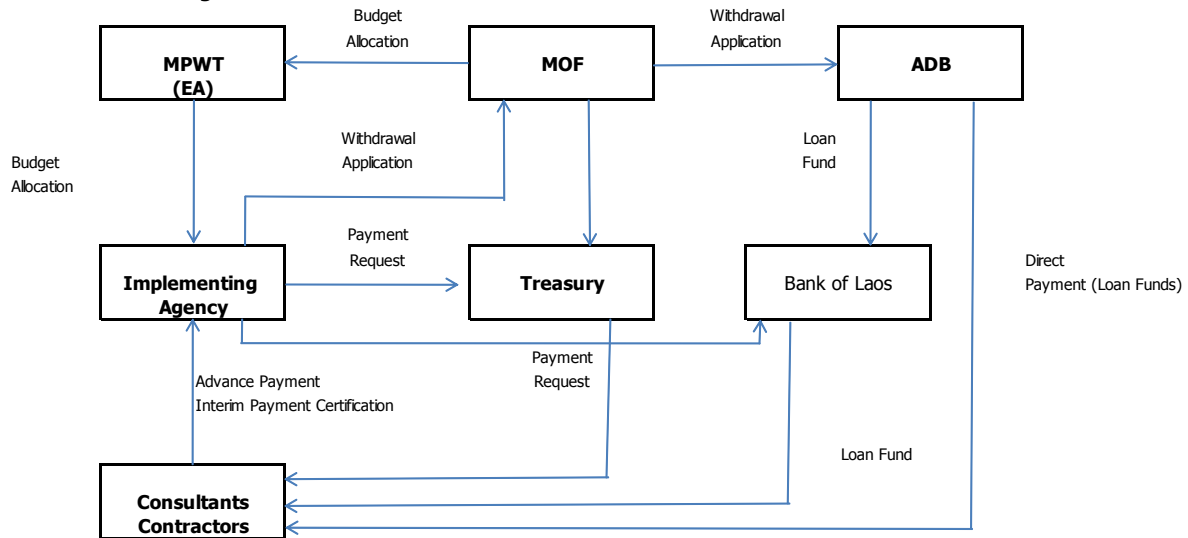


Figure 1

3.1.3 Staffing

The DOF is headed by an Acting Director General (DG) supported by two Deputy DGs, and has the following six Divisions each under a Director:

- Organization (Personnel) and Administration;
- Accounting;
- Treasury;
- Assets;
- Budget; and
- Inspection

Additionally the secretariat of the Road Maintenance Fund reports directly to the Acting DG.

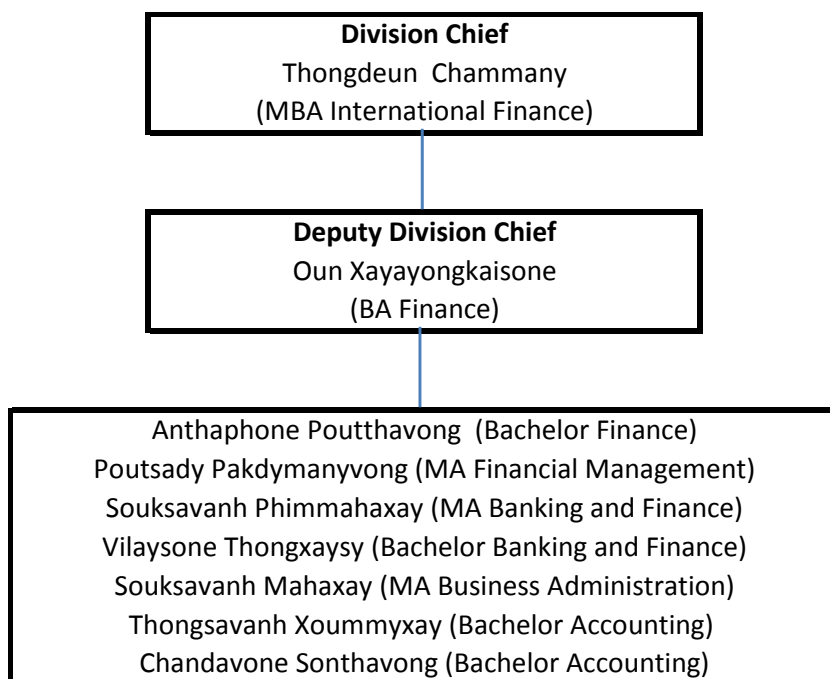


Figure 2 - Organizational Structure Accounting Division

Another additional financial management consultant will need to be recruited for the project to support the Accounting Division in the implementation of financial management system which plans to be nationwide, and also provides support to incremental disbursement and book-keeping activities.

3.1.4 Accounting Policies and Procedures

The DOF's Accounting Manual 2010 (AM) and Financial Management Manual 2010 (FMM) describe a project accounting system capable of recording financial transactions and allocating expenditures by project component, disbursement category and source of funds. The accounting system is supported by the software tool ACCPAC (SAGE). DOF is using the accounting system and ACCPAC for the WB Lao Road Sector Project and other government funded projects.

Procedures for transaction preparation and approval are described in the FMM. The FMM also includes fifteen Annexes containing financial management guidelines and forms. The forms are mostly in a dual Lao and English format.

The Accounting Law Section of the manual requires that accounting and supporting documents be retained (in hard copy) for ten years. The retention of supporting documents is emphasized in the Acting DOF DG's directive on the organization and activities of the DOF.

WB is supporting the MPWT with a project 'LRSP Component B, Institutional Strengthening ICT Development, performed by the Ministry of Public Works and Transport – General Cabinet Office'. This 'Information and Communication Technology (ICT) Development'

project is going to develop web-based tools allowing monitoring the technical, financial and budget aspects of road construction, rehabilitation and maintenance. Thus there is possibility that the Department of Finance could get a web-linked system that could assist with receiving all necessary financial information from the provinces through this web-based system.

For the project accounting system, all accounting and supporting documents will be retained in accordance with ADB and Government established requirements that allows authorized users easy access, including government and independent external auditors.

3.1.5 Segregation of Duties

The following functional responsibilities carried out by Finance staff are performed by different units or persons:

- authorization to execute a transaction;
- recording of the transaction; and
- custody of assets involved in the transaction

The functions of procurement and taking delivery of goods and services are separated from the functions of DOF; and approval for payment for goods and services issues from outside the DOF.

Bank reconciliations are performed by the Accounting Division and Treasury Division, which is excluded from any role in the processing of a payments approval.

3.1.6 Budgeting

For project budgeting, the Accounting Division/DOF consults with the Planning Division/DPC which is responsible for carrying out a comparison of actual expenditure to the budget and for providing detailed written explanation of required changes to MPWT.

Payments cannot exceed the approved budget. Any required revision of an approved budget must be submitted by the DOF and DPC to MPWT and approval will follow a process provided by the Budget Law. This subject is also addressed in the FMM.

Recent experience in implementing similar projects in the country will be utilized in preparing project plans and budgets of project activities.

3.1.7 Payments

Invoice-processing procedures are detailed in the FMM and provide for copies of purchase orders and receiving reports to be obtained directly from issuing departments and for a comparison to be made of invoice quantities, prices and terms, with those indicated on the

purchase order and with records of goods actually received. Comparisons are also made of invoice quantities with those indicated on the receiving reports and a check is made of the accuracy of calculations.

3.1.8 Accounting Policies and Procedures

The basis of accounting is the modified cash basis using double entry recording, as described in the FMM and Lao accounting standards are used.

Project financial management activities are guided by the AM and FMM and procedures exist to ensure that only authorized persons (i.e. MOF) can alter or establish new accounting principles, policies or procedures to be used by the entity.

3.1.9 Cash and Bank

The operation of bank accounts requires two signatures and the following are approved signatories:

- MPWT Minister,
- MPWT Vice Minister
- MPWT Permanent Secretary, and
- DOF Acting Director General

The MPWT maintains up-to-date cash books, recording receipts and payments and other accounting records as they occur. Bank and cash is reconciled on a monthly basis by Accounting and Treasury staff of the DOF and all receipts are deposited to bank accounts on a timely basis. Unusual transactions on the bank reconciliations are reviewed and approved by a designated MPWT Chief Accountant.

3.1.10 Safeguard over Assets

There is a system incorporating adequate safeguards to protect assets from fraud, waste and abuse. All assets are listed in an asset register detailing the description, location, cost and name of person responsible for the asset.

For planning, budgeting and monitoring purposes a condition assessment of the assets is carried annually.

3.1.11 Internal Audit

The MPWT's Department of Inspection (DOI) has an Inspection Division tasked with internal auditing. Strengthening of the MPWT audit functions is included in the WB Laos Road Sector Project. Financial audit, including internal audit, is covered in the FMM. The DOF has also an Inspection Division with which the DOI coordinates internal audits.

The DOI internal auditor reports to the Director General DOI and the DOF internal auditor reports to the Director General DOF.

3.1.12 External Audit

The MPWT is audited by the State Audit Organization (SAO) annually. In addition a MOF budget performance review is required under the Budget Law.

Under the proposed project agreement with ADB, the independent auditors must be acceptable to ADB and they conduct the audit according to the International Standards on Auditing.

Auditors of the Project Accounts can be different to those that audit the MPWT as long as they are acceptable to ADB and they conduct the audit according to the International Standards on Auditing.

3.1.13 Reporting, Monitoring and Information Systems

Financial statements are prepared for the entity in accordance with the modified cash basis of accounting and are prepared on a quarterly and annual basis. For the WB LRSP, semi-annual financial statements were produced at the World Bank's request. The accounting system and ACCPAC (SAGE) tool is capable of preparing statements in accordance with IPSAS accounting standards.

The existing reporting system can link the financial information with the project's physical progress. Physical data to be collected would be at end of month data to reduce the risk that the physical data may not synchronize with the financial data.

3.2 Provincial Departments of Public Works and Transport

Financial Management Assessments were carried out on the following Provincial Departments:

- Salavan Provincial Department of Public Works and Transport
- Xekong Provincial Department of Public Works and Transport
- Attapeu Provincial Department of Public Works and Transport

The above Departments consist of 50-60 staff and are mainly responsible for road construction and maintenance works. The Divisions within the Departments are as follows:

- Administration
- Personnel
- Planning and Budgeting
- Transport
- Maintenance and Construction

The financial management systems of the Departments for each Province are similar and the assessments provided the information detailed in Sections 3.2.1 – 3.2.14.

3.2.1 Implementing Units (IUs)

The three project provinces will act as implementing units for the project and will work in close cooperation with the DOR Regional Maintenance Office in Pakse.

While the Provinces have implemented a number of Projects in the past no experience has been received with ADB Projects. The Provinces have statutory reporting requirements for their day-to-day operations with monthly reports being made to Department Heads and Directors and quarterly reports being made to the MPWT and experience has also been received implementing required reporting for external funded projects.

3.2.2 Funds Flow Arrangements

The Project's Funds flow arrangements will be implemented between the MTPW and ADB and will not include the Provincial Departments. Under these arrangements any foreign exchange rate risks would be managed by the Ministry of Finance.

Imprest Accounts if needed to be established in the DPWT would be opened in the Bank of Lao, however it is considered that these accounts would only process minor Project expenditure.

It is envisaged that Provincial IUs will only be required to operate petty cash accounts during project implementation.

3.2.3 Staffing

Staff numbers for the three DPWTs accounting range from two to seven members and they are all suitability qualified and experienced having worked with externally financed projects in the past. They are all permanent appointed staff.

The core competencies/qualifications of such staff members as required by Government guidelines are detailed below:

- Ability to read and write in English
- Knowledge of government budgeting, financial and accounting procedures and regulations
- Sound knowledge of accounting, preferably with at least three years work experience in financial management
- Ability to establish priorities and work methodically to deadlines
- Accuracy with figures and attention to detail
- Able to work well under pressure
- Ability to accurately interpret and implement policies

Accounting staff have received training under external funded projects as well as from the MTPW. No internal funds are available for staff training.

3.2.4 Accounting Policies and Procedures

Through the use of Excel and manual systems all Provincial DPWTs use accounting systems that allows for the proper recording of financial transactions; however it would be time consuming under the existing system to show disbursement categories as well as the source of funds. A standard Government Chart of Accounts is used by all DPWTs which can be adapted to project needs.

At the beginning of each fiscal year the chart of accounts is reviewed and updated. However, the revision is made carefully as significant changes can reduce the benefit of year-to-year reporting - i.e. comparing previous year actual and budget values against current year actual and budget values. The Department of Planning and Cooperation must approve any revisions of the chart of accounts.

Controls as prescribed by the MPWT are in place for the preparation and approval of transactions with the general and subsidiary ledgers being balanced on a monthly basis.

3.2.5 Segregation of Duties

Due to the smallness of some accounting departments (i.e. Xekong DPWT) staff from other departments provide assistance with some accounting functions to ensure that there is a segregation of duties. Bank reconciliations which are prepared monthly are approved by the Provincial Director.

Similar arrangements also apply to the functions of ordering, receiving, accounting for, and paying for goods and services.

3.2.6 Budgeting System

The Ministry of Finance and Provincial Department of Finance controls the national budget. Planning and Cooperation Department in MPWT and the Planning, Budgeting and Statistics Section in DPWTs are responsible for requesting disbursements, monitoring and to follow-up of their budget allocations.

Local funds are administered by the National Treasury or the Provincial Treasury. Local funds are kept in local currency, the Lao KIP.

The budget identifies both physical and financial goals and they both are monitored in parallel. Actual expenditures are compared to the budget with reasonable frequency, and explanations are required for significant variations from the budget. Approvals for variations from the budget are required in advance.

3.2.7 Payments

Payment requirements are similar to those applying to the MPWT. Invoice-processing procedures are detailed in the FMM and provide for copies of purchase orders and receiving reports to be obtained directly from issuing departments and for a comparison to be made of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received. Comparisons are also made of invoice quantities with those indicated on the receiving reports and a check is made of the accuracy of calculations.

3.2.8 Policies and Procedures

The following accounting policies and procedures apply:

- Accounting period is based on the Government's fiscal year, 1st October to 30th September;
- Principle of entering transactions is based on the double entry principle;
- Currency for recording is local currency, KIP. Certain accounts may also be kept in foreign currency;
- The accounting method used is the Modified cash basis, which means that transactions are recorded when paid during the fiscal year. Accrual accounting is used in the year end closing;
- All expenditures incurred by DPWTs are recorded, whether it be at central level, in the Provinces or abroad;
- As a general rule all investments in terms of equipment, vehicles, furniture etc. are expensed as incurred. Each accounting unit is responsible for maintaining an up to date records of fixed assets;
- At the end of every month all balances in the Balance Sheet; petty cash, bank, accounts receivables and accounts payables, are reconciled;

- Transactions in foreign currencies are converted to KIP according to the exchange rate prevailing on the day of payment;
- Assets and liabilities in foreign currency are periodically adjusted according to the changes of the exchange rate;
- The organization that issues payments records the transaction and keeps the supporting documents.

3.2.9 Cash and Bank

The Directors and Deputy Directors of the Provincial DPWTs are the authorized signatories to Bank Accounts.

The Departments maintain adequate, up-to-date cashbooks, recording receipts and payments. Controls also exist for the collection and recording of receipts at each collection location and all unusual items on bank reconciliations are reviewed and approved by a responsible official.

Deposits are made according to the amount of funds received and in some cases deposits are only made on a monthly basis.

3.2.10 Safeguard Over Assets

As a general rule all investments in terms of equipment, vehicles, computers, furniture etc. are expensed as incurred. Procured fixed assets, such as vehicles, machinery, furniture and equipment, are recorded in a fixed asset register.

The Department of Planning and Cooperation and Planning, Budgeting and Statistics Section in the DPWTs are responsible for maintaining the fixed asset register.

The structure of the fixed asset register follows the structure used in MPWT. To enable consolidation DPWTs have to provide Department of Planning and Cooperation with an updated register at least on a quarterly basis.

The register includes following asset details:

- Item number;
- Description of the asset;
- Trademark;
- Identification number (registration, engine and chassis number required for vehicles);
- Number of units;
- Purchase date;
- Historical cost based on purchasing invoice;
- Fund source;

- Reference to payment voucher number;
- Location of the asset;
- Name of responsible person.

For planning, budgeting and monitoring purposes, a condition assessment of the assets is carried out, at a minimum of once a year.

3.2.11 Internal Audit

Internal audit in the DPWTS is performed by the Internal Control Division in the Department of Inspection. The Internal Control Division, Department of Inspection has the following duties and responsibilities:

- Monitoring as advisor for the internal control unit within DPWTs of 17 Provinces in order to ensure the operation administration follows the job description, internal manuals, guidelines, rules and regulations;
- Monitoring and inspection, coordination with the internal control unit in each of the Departments under MPWT, provide advice for internal audit planning, risk assessment, planning auditing schedules, to ensure that the implementation of the plans are conducted efficiently. □Coordination and supporting information to assist external parties or external auditor;
- Reporting the progress of works and providing an audit report on a monthly, quarterly and yearly basis;

General financial internal audit includes following areas:

- Assessment of adequacy of accounting and internal control system;
- Ensuring safe custody of assets;
- Ensuring that rules, regulations and guidelines are adhered to;
- Ensuring that expenditures are in the nature of the operations and supported with proper documentation;
- Ensuring that expenditures and payments are approved correctly and if applicable certified;
- Ensuring that all revenues are collected and deposited in the national treasury;
- Ensuring that no funds are diverted;
- Ensuring that supporting documents are filed and kept properly and logically;
- Ensuring that all financial transactions are entered into the accounting system.

3.2.12 External Audit

All activities, components, and projects are required to be annually audited by external auditors. The State Audit Organization (SAO) is responsible to audit all financial activities for DPWTs. If there is insufficient capacity in SAO to audit all bodies, the audit is procured from the private sector

In the case where Donor requirements specify external audit in their financing agreements private sector external auditors can be selected.

Donor approval of appointed auditors for foreign ODA funded projects must be accepted by the donor in accordance with agreed procedures.

A list of external audit firms is posted/ announced by the Lao International Certified Public Accountants and Auditors.

Audit of foreign ODA funded projects are carried out in accordance with International Standards on Auditing (ISA).

The Auditor is required to carry out the audit in accordance with ISA and the GoL Financial Guidelines. The audit covers the entire project, not only the foreign ODA funded portion. Annual external audits include but are not limited to:

- An assessment of the adequacy of accounting and internal control systems to monitor expenditures and other financial transactions and ensure safe custody of project financed assets;
- A determination as to whether the recipient and project implementing entities have maintained adequate documentation of all relevant transactions;
- Verification that the expenditures submitted and/or reported to the donor are eligible for the donor's financing, and identification of any ineligible expenditures;
- Verification that the annual financial statements can be reconciled with relevant year to date amounts appearing in reports submitted to the donor;
- The auditor shall furnish a written opinion and report indicating the extent to which the financial statements and supporting information provide a true and fair view of the financial condition and performance;
- The auditor shall also provide a separate management letter following the completion on any improvements required in the financial systems and controls and improved use of resources;
- The audit reports and annual accounts are sent to the borrower who in turn sends them to the donor.

Audit guidelines are normally available from the donor and must be followed and included in terms of reference for audits. Audit reports are submitted to the donor according to agreed procedures between the recipient and the donor.

3.2.13 Reporting and Monitoring

Financial transactions concerning DPWTs are recorded by staff in the Planning, Budgeting and Statistics Section and financial data is reported to the Director of DPWTs in accordance with internal reporting procedures

The DPWTs submit financial data to Department of Planning and Cooperation for consolidation. The Department of Planning and Cooperation or DPWTs are responsible for

coordination and consolidation the accounting information and manages the distribution of financial reports to management.

Budget follow-ups for the DPWTs are reported on monthly basis, at a minimum.

Project financial reports are at a minimum prepared on a quarterly basis. All reports must be reviewed by the project management before submission to other receivers. Project management might require other reports for their internal control and follow up, which will be prepared when requested.

Annual financial statements, income statements and balance sheets are prepared as soon as possible and in connection with year-end closing of accounts. These statements are included in the annual external financial audit.

Financial statements include all sources of funds, not only the funds provided by the main donor in the project. It is essential that local contributions are fully included in the financial statements.

External Reporting follows standards set by or agreed with the report receiver.

Reports to the Prime Minister Office, MoF, MPI, the National Assembly and donors are prepared by Department of Planning and Cooperation/MPWT. Reports to the Governor Office are prepared by the Planning, Budgeting and Statistics Section in DPWTs.

Report receivers and frequency of reports are as below.

- Financial reports to the Prime Minister Office are normally produced on a semi-annual basis;
- Financial reports to the Ministry of Finance (MoF) are normally produced on a quarterly basis;
- Financial reports to the Ministry of Planning and Investment (MPI) are normally produced on a semi-annual basis;
- Financial reports to the National Assembly are normally produced on an annual basis;
- Financial reports to the Governor Office are normally produced on a monthly basis;
- Financial reports to donors are normally provided as required.

3.2.14 Information Systems

All accounting work carried out in the DPWTs is by manual methods and the use of Excel spreadsheets. The system in use cannot automatically produce necessary project reports and information has to be reformatted by Excel spreadsheets.

Provincial accounting staffs are aware of computerized accounting software but have no experience working with such systems, except in some instances where a donor has provided a basic financial management system for a particular project.

4. Risk Analysis Summary

Table 3 provides a Risk Analysis Summary Table for the financial management of the project. The overall control is considered low as the MPWT/DOR Financial and Accounting Staff are well qualified and experienced for the proposed project. While Provincial Staff are less prepared for ADB Projects it is proposed that they will only be involved in minor Project accounting work which can be carried out on their manual and Excel based systems. Training will also be provided under the project

Table 3: Risk Analysis Summary Table – Financial Management

Description	Risk Assessment	Proposed Mitigation
Control Risks		
1. Implementation	M	Accounting Staff received experience in recent World Bank Project which can be used in the ADB Project. Previous experience by MPWT staff on ADB Projects as well
2. Funds disbursement arrangements. Use of Imprest Account(s) Use of Direct payment arrangements	M	Staff have some experience with disbursement arrangements and further training will be provided under the Project
3. Staffing	L	Accounting Staff at MPWT/DOR well qualified and experienced with Bachelor and Master Degrees in Finance and Accounting. Have worked with previous projects, including ADB. Provincial Staff have relevant accounting qualifications. Some financial management training proposed under the Project
4. Accounting Policies and Procedures	L	Policies and procedures already established and detailed Accounting and Financial Management Manuals are available detailing systems and procedures to be followed
5. Internal Audit	L	Existing procedures can be used, similar to previous projects. Internal audit staff already carrying out the function in HO and the Provincial Departments
6. External Audit	L	Existing procedures can be used similar to previous projects TOR will be prepared for audit of project accounts

7.	Reporting and Monitoring	L	Accounting system and ACCPAC (SAGE) tool is capable of preparing financial statements in accordance with International accounting standards which can be used for project reporting and monitoring
8.	Information Systems	M	Accounting system and ACCPAC (SAGE) in use at MPWT and will be used for project purposes. Manual systems in Provinces will be sufficient for minor accounting work required
Overall Control Risk		L	MPWT/DOR Financial and Accounting Staff are will qualified and experienced for the proposed project. While Provincial Staff are less prepared for ADB Projects it is proposed that they will only be involved in minor Project accounting work which can be carried out on their manual and Excel based systems. Training will also be provided under the project
*H=High, S=Substantial, M=Moderate, L=Low			

5. Accounting and Audit Processes and Procedures - Implementing Agency

5.1 Accounting

The Implementation Agency's (DOR) accounting policies and procedures are as follows:

- Accounting period is based on the Government's fiscal year, 1st October to 30th September;
- Principle of entering transactions is based on the double entry principle;
- Currency for recording is local currency, KIP. Certain accounts may also be kept in foreign currency;
- The accounting method used is the Modified cash basis, which means that transactions are recorded when paid during the fiscal year. Accrual accounting is used in the year end closing;
- As a general rule all investments in terms of equipment, vehicles, furniture etc. are expensed as incurred. Each accounting unit is responsible for maintaining an up to date records of fixed assets;
- At the end of every month all balances in the Balance Sheet; petty cash, bank, accounts receivables and accounts payables, are reconciled;
- Transactions in foreign currencies are converted to KIP according to the exchange rate prevailing on the day of payment;

- Assets and liabilities in foreign currency are periodically adjusted according to the changes of the exchange rate;
- The organization that issues payments records the transaction and keeps the supporting documents.

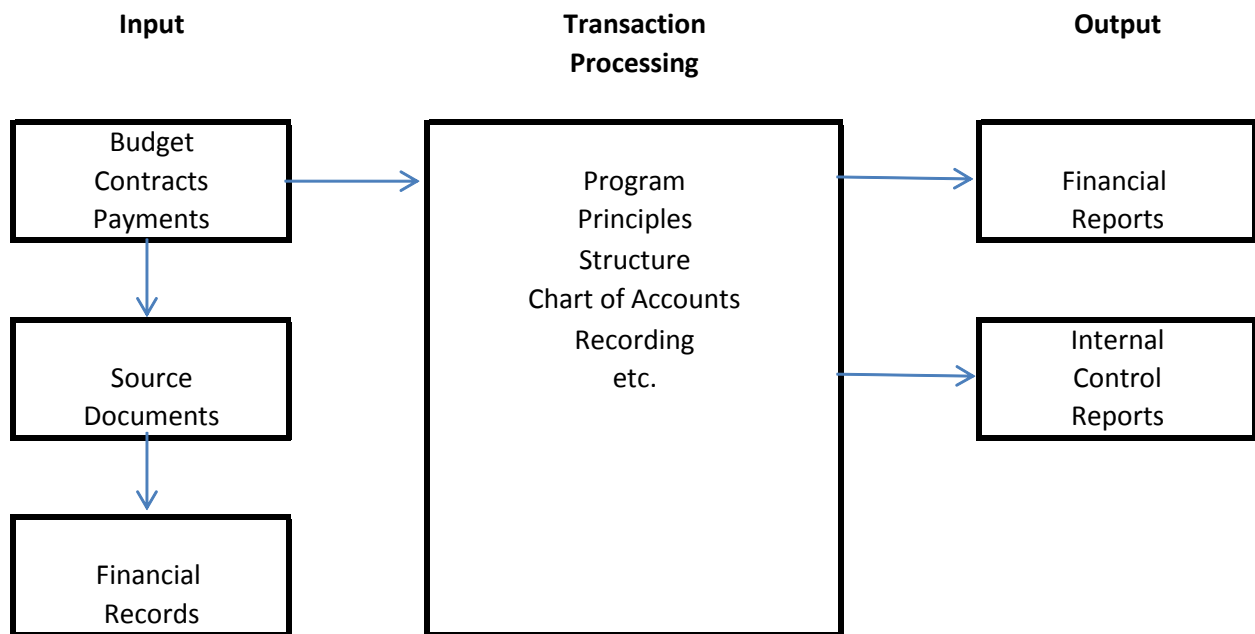


Figure 4 – Basic MPWT Accounting Systems Concepts

5.2 Funds Flow

Disbursements for activities financed 100% by the Lao government must follow Regulation 1706/MoF 22/10/2001. Foreign ODA funded projects must follow the Regulation for Disbursements for Projects No 1803/MoF. Both regulations are further expanded on in 0008/MoF dated 05/01/2010 regarding administration expenses. Any additions or modifications agreed between GOL: MPWT, Provincial Governor Office and donors needs to be detailed in a separate document and attached to Government’s approved financial guidelines.

Specific rules and procedures for disbursements from loan/grant accounts are further described in other documents, such as project documents, financing agreements, disbursement letters and disbursement handbooks.

Withdrawals from loan/grant accounts are submitted to the Donor via the Department of External Finance (DEF) in the Ministry of Finance. Withdrawal applications are used for:

- Reimbursement of payments already made by MPWT/DPWT from its own
- resources;

- Advance to the Designated Account;
- Replenishment of Designated Account; and
- Direct payments to suppliers.

After approval by the donor the disbursement is initiated through the loan/grant account in following ways:

- Reimbursements are transferred to the source from which the payment was made by GoL;
- Advances from the loan/grant account are deposited in the Designated Account in order to finance eligible expenditures;
- Replenishments of Designated Account are deposited to the Designated Account. If sub accounts are agreed with the donor, replenishments of sub accounts are done upon submission of a transfer request from the sub component; and
- Direct payments to suppliers are disbursed directly to the account of the supplier.

Funds from donors are transferred to Designated Accounts. A Designated Account is a bank account opened to be used for the donor's share of eligible expenditures in both local and foreign currencies. If agreed between the Ministry of Finance, MPWT and the donor, management of Designated Accounts can be delegated to MPWT/DPWT in accordance with regulation 1803/MoF dated 12/09/2002.

The objective of the Designated Account is to overcome cash flow problems and to speed up the disbursement of donor funds. Location of the Designated Account shall be at the Bank of Lao/Commercial Banks in Lao PDR and the currency is normally USD.

Sub accounts to the Designated Account can only be opened if agreed with the MoF and the donor.

Withdrawals from the Designated Account can only be made for eligible expenditures under the financing agreement. Under no circumstances may funds be used from the Designated Account to finance local contributions of eligible expenditures.

The Donor's share of eligible expenditures that are pre-financed by local funds can be reimbursed from the Designated Account. Local funds must not be deposited in the donor's Designated Account.

Replenishments of Designated Accounts are prepared by Department of Planning and Cooperation and sent to the donor via the Department of External Finance in the Ministry of Finance. The Designated Accounts are replenished at least monthly.

The Minister of MPWT is a signatory for Designated Accounts managed by MPWT. Signatories for Designated Accounts managed by the RMF are the Head of the secretariat together with the Chairman of RMFAB.

All bank accounts must be reconciled periodically but not less than once a month.

Funds from donors are transferred to Designated Accounts. A Designated Account is a bank account opened to be used for the donor's share of eligible expenditures in both local and foreign currencies.

No loan or donor funds under the project will be deposited to the Road Maintenance Fund as loan and donor funds are required to be kept in separate accounts.

The direct payment method will be used for infrastructure and consulting services contracts. Reimbursement and imprest fund methods for loan disbursement, as described in ADB's Loan Disbursement Handbook 2007, will be used for small civil works contracts for maintenance and recurrent administrative expenditure such as office running expenses as well as capacity development activities. From experience of several ADB projects in the road sector, MPWT is familiar with the above disbursement methods. However the financial management team involved in implementing the project will benefit from further training in those methods, in particular with procedures for withdrawal application, reporting and audit specifics of the use of imprest funds.

The Government will establish a separate imprest account, administered by the MOF, at a bank to be agreed upon by the Government and ADB to facilitate the timely release of loan funds. The maximum ceiling of the imprest account will not at any time exceed the estimated ADB financed expenditures to be paid from the imprest account for the next 6 months or 10% of the respective loan amount, whichever will be lower. The request for initial advance to the imprest account will be accompanied by an Estimate of Expenditure Sheet setting out the estimated expenditures for the first six (6) months of project implementation, and submission of evidence satisfactory to ADB that the imprest account has been duly opened. For every liquidation and replenishment request of the imprest account, the borrower will furnish to ADB (a) Statement of Account (Bank Statement) where the imprest account is maintained, and (b) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the EA's records.

Funds Flow Arrangements

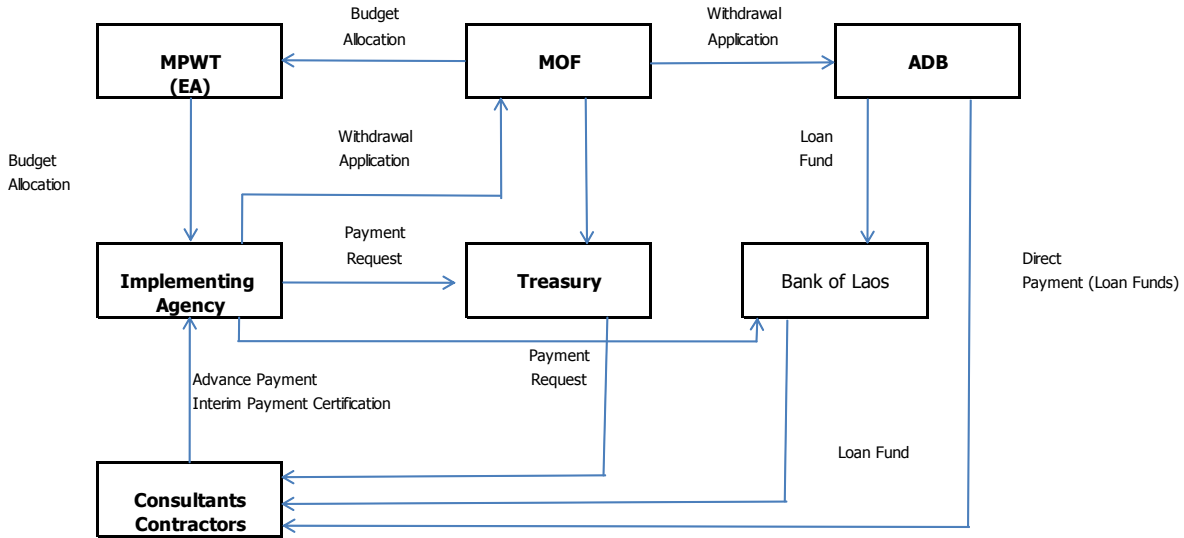


Figure 1 – Funds Flow Arrangements

ADB’s statement of expenditure (SOE) procedure will be used to reimburse eligible expenditures and to liquidate advances provided to the imprest account. The individual payments that may be reimbursed or liquidated under the SOE procedure will not exceed \$50,000 equivalent per payment. SOE records will be maintained and made readily available for review by ADB’s disbursement and review mission or upon ADB’s request for submission of supporting documents on a sampling basis, and for independent audit.

Before the submission of the first withdrawal application, the Government will submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application will be US\$100,000, unless otherwise approved by ADB. The Government will consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing. The currency of the imprest account will be US Dollar.

5.3 Auditing

5.3.1 Internal

Internal audit is used to monitor and follow up on internal control matters, the management use internal audit as a complement. Internal audit in MPWT and DPWT is performed by the internal control division in the Department of Inspection. The Internal Control Division, Department of Inspection, has the following duties and scope of responsibilities:

- Monitoring as advisor for the internal control unit within Departments in MPWT and DPWTs of 17 provinces in order to ensure the operation administration follows relevant job description, internal manuals, guidelines, rules and regulations;
- Monitoring and inspection, coordination with the internal control unit in each of the Departments under MPWT, provide advice for internal audit planning, risk assessment, planning auditing schedules, to ensure that the implementation of the plans are conducted efficiently;
- Coordination and supporting information to assist external parties or external auditor who is working with MPWT; and
- Reporting the progress of works and providing an audit report to the MPWT on a monthly, quarterly and yearly basis.

The general financial internal audit includes the following areas:

- Assessment of adequacy of accounting and internal control systems;
- Ensuring safe custody of assets;
- Ensuring that rules, regulations and guidelines are adhered to;
- Ensuring that expenditures are in the nature of the operations and supported with proper documentation;
- Ensuring that expenditures and payments are approved correctly and if applicable certified;
- Ensuring that all revenues are collected and deposited in the national treasury;
- Ensuring that no funds are diverted;
- Ensuring that supporting documents are filed and kept properly and logically; and
- Ensuring that all financial transactions are entered into the accounting system.

Regular internal financial audit of contracts is important since it involves a considerable amount of funds and is strictly regulated through procurement rules.

5.3.2 External

The procurement of the external auditors for the financial and technical audits is the responsibility of the Internal Control Division (ICD), Department of Inspection (DoI) in the MPWT, with the cooperation with relevant department/implementation agencies the final approval will be by Minister of the MPWT to appointing the tendering committee.

All activities, components, and projects are audited by external auditors. The **State Audit Organization (SAO)** is responsible to audit all financial activities for MPWT/DPWT. If there is insufficient capacity in SAO to audit all GoL bodies, the audit is procured from the private sector.

In the case where the Donor requirements specify external audit in their financing agreements private sector external auditors are selected.

Appointed auditors for foreign ODA funded projects must be accepted by the donor in accordance with agreed procedures.

A list of external audit firms is posted/announced by the Lao International Certified Public Accountants and Auditors.

Audit of foreign ODA funded projects is carried out in accordance with International Standards on Auditing (ISA).

The Auditor carries out the audit in accordance with ISA and the government's Financial Guidelines. The audit covers the entire project, not only the foreign ODA funded portion. Annual external audits include but are not limited to:

- An assessment of the adequacy of accounting and internal control systems to monitor expenditures and other financial transactions and ensure safe custody of project financed assets;
- A determination as to whether the recipient and project implementing entities have maintained adequate documentation of all relevant transactions;
- Verification that the expenditures submitted and/or reported to the donor are eligible for the donor's financing, and identification of any ineligible expenditures;
- Verification that the annual financial statements can be reconciled with relevant year to date amounts appearing in reports submitted to the donor ;
- The auditor shall furnish a written opinion and report indicating the extent to which the financial statements and supporting information provide a true and fair view of the financial condition and performance;
- The auditor shall also provide a separate management letter following the completion on any improvements required in the financial systems and controls and improved use of resources; and
- The audit reports and annual accounts are sent to the borrower who in turn sends them to the donor.

Audit guidelines are available from the donor and must be followed and included in terms of reference for audits that are prepared.

Audit reports are submitted to the donor according to agreed procedures between the recipient and the donor.

Terms of Reference have been prepared for the appointment of an external auditor for the Lao Road Maintenance Loan Project and are detailed in Annex 2.

6. Financial and Management Training

6.1 Provincial Departments of Public Works and Transport

The Financial Management Assessments (FMA) show that the Provincial DPWT finance staff have no experience in implementing ADB- funded projects. The finance staff have experience only with the Government's accounting policies and procedures, and are not familiar with ADB's Loan Disbursement Handbook. Their experience and past training have been limited to public financial management.

Establishing and organizing the EA/IA with competent staff, preferably by staff knowledgeable in implementing ADB- or other donor-funded projects will need to be a priority of the Project. The finance staff of the DPWT are well qualified and eager to learn. Training them in financial management and reporting as well as ongoing accounting, budgeting and financial reporting procedures will assist the project to be implemented successfully.

The Provincial DPWTs have no computerized financial management and reporting system. Staff are aware of computerized accounting software but have no experience working with such systems. Financial reports are prepared using spreadsheets.

6.2 Ministry of Public Works and Transport/ Department of Roads

The results of the FMA indicate that MPWT/DOR has the financial reporting and management systems necessary to implement the project. It has previous experience using an imprest fund and is familiar with the SOE procedures of the ADB. MPWT as in the case of previous ADB-funded projects will assign financial staff to the EA/IA. All project transactions will be verified by the finance officer and approved by the project director. MPWT has an existing chart of account which is adequate to generate the financial reports of the project. It has a policies and procedures manual for projects which comprises standard operation procedures (SOP), a procurement manual, a financial management manual, and a project administration manual.

Preliminary recommendations for improving the financial management system of MPWT/DOR for the project include: (i) technical support in project financial management and administration, and (ii) a computerized project accounting system. In addition, staff training on financial management and project accounting will need to be conducted.

Table 5: Financial Management Training

Description	Participants	Number
Financial Procedures – Training on financial management practices and procedures in accordance with Government and ADB requirements	EA, IA, DPWTs	10
Imprest Account and Funds Disbursement – training on ADB procedures on preparation of requests for funds from ADB and administration of a Project Imprest Account	EA, IA, DPWTs	10
Project Financial Controls & Accounting – Development of financial controls for Project financial management, preparation of Project financial reports	EA, IA, DPWTs	10
Financial Accounting and Management – Preparation of budgets and final accounts	EA, IA, DPWTs	10

APPENDIX 1 - Financial Management Assessment Questionnaires

1. Ministry of Public Works and Transport - Department of Roads

List of interviewees:

- Mr. Sak Dalat – Head of Regional Maintenance Office IV- Pakse
- Mr. Thongdeun Khammany – Director of Department of International Finance

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Government Ministry and Government Department	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	Many projects from various donors such as ADB, World Bank, JICA, etc.	
1.3 What are the statutory reporting requirements for the entity?	DoR -> Ministry of Public Works and Transport (MPWT) -> Prime Minister	
1.4 Is the governing body for the project independent?	MPWT – Lao Government's state infrastructure management agency for transportation	
1.5 Is the organizational structure appropriate for the needs of the project?	The organizational structure is managed and controlled by the MPWT under the government management. Hence, they have had solid experience in implementing various externally financed projects.	
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	Sent via email	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	Delayed on disbursement due to various processes from donor to the entity.	

Topic	Response	Remarks
2.4 In which bank will the Imprest Account be opened?	Bank of Laos	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	There are three PIUs for this projects at three provinces. They all have experienced in the management various externally financed projects.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	Will be managed by MOF	
2.8 How are the counterpart funds accessed?	MPWT's budget contribution of \$5million	(\$20million from ADB)
2.9 How are payments made from the counterpart funds?	All payments will be made through the MPWT	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Yes. Unlikely communities of NGOs will be involved	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	No official guidelines	It will be implemented through internal assessment
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Financial Accounting Division: 9 staff.	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	As per organizational structure	
3.3 Is the project finance and accounting function staffed adequately?	Yes. The staff qualifications are relevant to their roles	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes. The staff have been working with external financed projects for many years	

Topic	Response	Remarks
3.5 Is the project accounts and finance staff trained in ADB procedures?	Some trained in ADB procedures. Further training required under project	
3.6 What is the duration of the contract with the finance and accounts staff?	All staff are permanent	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	To be determined	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Position descriptions not available for all positions at this stage	
3.11 At what frequency are personnel transferred?	Rarely	However, the transfer may be made in the event of insufficient human resources
3.12 What is training policy for the finance and accounting staff?	Usually depends on the project donors	The staff will then be trained according to the accounting system that will be implemented on the project
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes. Computerized financial management system in use	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes. MPWT provides guidance for payment processes for each project transaction	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes. Lao accounting system includes a chart of accounts for each accounting regime.	

Topic	Response	Remarks
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes.	If they are imbalance, proper review is undertaken
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes. All accounting documents are organized in folders/files for easy access	
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes. Director, accountant & document controller, respectively	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes.	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Bank reconciliations are prepared by accountants but approved by the chief accountant and the general director	
4.10 Do budgets include physical and financial targets?	Yes. The budget identifies both physical and financial goals and they both will be monitored in parallel.	But the fundamental target is physical target.
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes.	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Budget reports prepared on this basis	

Topic	Response	Remarks
4.13 Are approvals for variations from the budget required in advance or after the fact?	Approval in advance	
4.14 Who is responsible for preparation and approval of budgets?	Chief Account and MPWT	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes	
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes. All supporting documents will be checked and carefully monitored before keying into computer programs.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes. They are all stated details of each transaction for record purposes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes. Only authorized personnel can approve any changes made.	
4.20 What is the basis of accounting (e.g., cash, accrual)?	A mixture of cash and accrual since asset depreciation does not adjusted correctly	A mixture of cash and accrual since asset depreciation does not adjusted correctly
4.21 What accounting standards are followed?	Lao accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes – Financial Management Manual and Accounting Manual	

Topic	Response	Remarks
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes, as per the Financial and Accounting Manuals	
4.26 Do the policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes, according to the Lao accounting system standard	
4.27 Are manuals distributed to appropriate personnel?	Manuals are available to staff	
4.28 Indicate names and positions of authorized signatories in the bank accounts.	The director and deputy directors	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes.	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes.	
4.31 Are bank and cash reconciled on a monthly basis?	Yes.	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes. To be reviewed by chief accountant and approved by general director	
4.33 Are all receipts deposited on a timely basis?	Yes. Right after transaction	
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes. Assets will be guarded 24/7	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes.	

Topic	Response	Remarks
4.36 Are there periodic physical inventories of fixed assets and stocks?	No.	
4.37 Are assets sufficiently covered by insurance policies?	Vehicles only	
4.38 Are there any other regional offices or executing entities participating in implementation?	Provincial DPWT/DOR will be participating in implementation	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Will be established as required	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	As required at present	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	This will occur during project implementation	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes.	
5. Internal Audit		
5.1 Is there an internal audit department in the entity?	Yes. Audit division	
5.2 What are the qualifications and experience of audit department staff?	Accounting, business, infrastructure degree	
5.3 To whom does the internal auditor report?	To the MPWT	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	

Topic	Response	Remarks
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. State audit	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. by the end of the year	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	To Lao Accounting Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	No	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	To be determined	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	Minor comments. Mostly are the inaccuracy of entering journal entries to the right account	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes. State audit	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	To be developed	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. Lao accounting standard	
7.2 Are financial statements prepared for the implementing unit?	Yes	On a monthly basis
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly and annually, yes.	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes	

Topic	Response	Remarks
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Accounting system is not yet confirmed however it is expected to be carried out under the existing computerized system	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	These will be developed to meet the donor's requirements	
7.7 Are financial management reports used by management?	Yes	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	Existing reports produced directly from the accounting system	
8.1 Is the financial management system computerized?	Yes	
8.2 Can the system produce the necessary project financial reports?	Yes	
8.3 Is the staff adequately trained to maintain the system?	Yes	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

2. Department of Public Works and Transport - Attapeu

List of interviewees:

- Mrs. Sackdaphone Manivong – Deputy Head of Investment and Planning Department (Financial Division)

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Provincial Government Department	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	Many projects from various donors such as World Bank, and JICA	
1.3 What are the statutory reporting requirements for the entity?	DPWT -> Ministry of Public Works and Transport (MPWT)	
1.4 Is the governing body for the project independent?	MPWT – Lao Government's state infrastructure management agency for transportation	
1.5 Is the organizational structure appropriate for the needs of the project?	The organizational structure is experienced and well managed.	
2. Funds Flow Arrangement		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	N/A	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	N/A	
2.3 What have been the major problems in the past in receipt of funds by the entity?	Delay of fund disbursement	
2.4 In which bank will the Imprest Account be opened?	At Bank of Laos	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	They have not gotten much projects from direct investment	

Topic	Response	Remarks
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	N/A	The funds will all be implemented in Lao kip by the MOF.
2.8 How are the counterpart funds accessed?	MPWT's budget contribution of \$5million	(\$20million from ADB)
2.9 How are payments made from the counterpart funds?	All payments will be made through the MPWT	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Yes, however communities and NGOs not likely to be required to contribute	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	No official guidelines and they would need to be developed	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Financial Accounting Division: 4 staff.	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Proposed project accounting staff to be identified	
3.3 Is the project finance and accounting function staffed adequately?	Yes. The staff qualifications are relevant to their roles	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes. The staff have been working with external financed projects for many years	
3.5 Is the project accounts and finance staff trained in ADB procedures?	No	
3.6 What is the duration of the contract with the finance and accounts staff?	All staff are on permanent contract	

Topic	Response	Remarks
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	To be determined	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	No individual positions available only a general description relating to the accounting department as a whole	
3.11 At what frequency are personnel transferred?	Rarely	However, the transfer may be made in the event of insufficient human resources
3.12 What is training policy for the finance and accounting staff?	N/A. Usually depends on the project donors	The staff will then be trained according to the accounting system that will be implemented on the project
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes - Manual and excel	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes. MPWT provides guidance for payment processes for each project transaction	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes. Lao accounting system includes a chart of accounts for each accounting regime.	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes.	If they are imbalance, proper review will be taken on a monthly basis

Topic	Response	Remarks
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes. All accounting documents are organized in folders/files for easy access	
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes. Director, accountant & document controller, respectively	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes.	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Bank reconciliations are prepared by accountants but approved by the chief accountant and the general director.	On a monthly basis
Budgeting System		
4.10 Do budgets include physical and financial targets?	Physical target only	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes. Because they have carefully monitored the expenditures according to the plan	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Approval in advance	
4.14 Who is responsible for preparation and approval of budgets?	Division prepare for budgeting and to be approved by the director	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes as part of the budget preparation process.	

Topic	Response	Remarks
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes, also take into account prior years developments	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes. All supporting documents are checked and carefully monitored before keying into programs.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes. They are all stated details of each transaction for record purposes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes. Only authorized personnel can approve any changes made.	
Policies and Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	A mixture of cash and accrual since asset depreciation does not adjusted correctly	
4.21 What accounting standards are followed?	Lao accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes. They have been provided procedures manuals	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes as provided by procedures manuals.	

Topic	Response	Remarks
4.26 Do the policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	As per Law of Laos	
4.27 Are manuals distributed to appropriate personnel?	Yes.	
<i>Cash and Bank</i>		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	The director and deputy directors	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes.	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes.	
4.31 Are bank and cash reconciled on a monthly basis?	Yes.	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes. To be review by chief accountant and approved by general director	
4.33 Are all receipts deposited on a timely basis?	No. It will be deposited according to the size of money. It can be on a monthly basis due to small amounts received	
<i>Safeguard over Assets</i>		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes. Assets will be guarded 24/7	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes.	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes.	
4.37 Are assets sufficiently covered by insurance policies?	Vehicles only	
<i>Other Offices and Implementing Entities</i>		
4.38 Are there any other regional offices or executing entities participating in implementation?	DOR Regional Office in Pakse	

Topic	Response	Remarks
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Regular contact will be made with the Executing and Implementation Agencies when the project commences	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	This will be carried as required during project implementation	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	This will be carried as required during project implementation	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes.	
5. Internal Audit		
5.1 Is there an internal audit department in the entity?	Yes. Audit division: 4 staff	
5.2 What are the qualifications and experience of audit department staff?	Accounting, business, infrastructure degree	
5.3 To whom does the internal auditor report?	To the MPWT	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. State audit	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. by the end of the year	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Lao Accounting Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	No major issues	

Topic	Response	Remarks
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	To be determined	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	Minor comments. Mostly are the inaccuracy of entering journal entries to the right account	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes. State audit	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	To be prepared as required	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. Lao accounting standard	
7.2 Are financial statements prepared for the implementing unit?	Yes	On a monthly basis
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly, yes.	Monthly, quarterly, annually
7.4 Does the reporting system need to be adapted to report on the project components?	Yes	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Accounting system is not yet confirmed and difficult under the existing mostly manual systems	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	These will be developed to meet project requirements	
7.7 Are financial management reports used by management?	Yes	

Topic	Response	Remarks
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Not at this stage	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	By spreadsheets	
8. Information Systems		
8.1 Is the financial management system computerized?	No	Both manual and excel
8.2 Can the system produce the necessary project financial reports?	No. It has to be done manually	
8.3 Is the staff adequately trained to maintain the system?	Yes, further training is required	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

August 2006

3. Department of Public Works and Transport - Xekong

List of interviewees:

- Mr. Khamkeng Keosouvanh – Head of Investment, Planning and Statistic Division
- Mr. Alumai Maniseng – Financial Officer

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Province Government Department	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	Many projects from various donors, mostly World Bank and JICA	
1.3 What are the statutory reporting requirements for the entity?	DPWT -> Ministry of Public Works and Transport (MPWT)	
1.4 Is the governing body for the project independent?	MPWT – Lao Government's state infrastructure management agency for transportation	
1.5 Is the organizational structure appropriate for the needs of the project?	The organizational structure is experienced and well managed.	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	N/A – this will be at the Ministry level	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	N/A – this will be at the Ministries levels	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None.	
2.4 In which bank will the Imprest Account be opened?	At Bank of Laos if such an account is required	

Topic	Response	Remarks
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	The team are experienced in the management various externally financed projects but not those funded by ADB.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	This will be managed by the MOF	The funds will all be implemented in Lao kip.
2.8 How are the counterpart funds accessed?	MPWT's budget contribution of \$5million	(\$20million from ADB)
2.9 How are payments made from the counterpart funds?	All payments will be made through the MPWT	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Yes but communities and NGOs unlikely to be part of the implementation process	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	No official guidelines but will be developed as required	Beneficiaries not required to contribute at this stage
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Financial Accounting Division: 2 staff.	Other staff holding other positions also help in the accounting division
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Finance Head and Accounting Officer, both hold accounting degrees, no job descriptions available	The staff qualifications are relevant to their roles
3.3 Is the project finance and accounting function staffed adequately?	Yes.	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes. The staff have been working with external financed projects for many years	
3.5 Is the project accounts and finance staff trained in ADB procedures?	No. Training will be required	

Topic	Response	Remarks
3.6 What is the duration of the contract with the finance and accounts staff?	All staff are permanent	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	To be determined	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	No position descriptions available only a general description for the Accounting Department	
3.11 At what frequency are personnel transferred?	Rarely	However, the transfer may be made in the event of insufficient human resources
3.12 What is training policy for the finance and accounting staff?	Usually depends on the project donors, no local budget funds available	The staff will then be trained according to the accounting system that will be implemented on the project
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes. Under the existing manual system	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes. MPWT provides guidance for payment processes for each project transaction	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes. Lao accounting system includes a chart of accounts for each accounting regime.	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes.	

Topic	Response	Remarks
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes.	If they are imbalance, proper review is undertaken on a monthly basis
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes. All accounting documents are organized in folders/files for easy access	
Segregation of Duties		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes. Director, accountant &Statistic Officer, respectively	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes.	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Bank reconciliations are prepared by accountants but approved by the chief accountant and the general director.	On a monthly basis
Budgeting System		
4.10 Do budgets include physical and financial targets?	Yes. The budget identifies both physical and financial goals and they both will be monitored in parallel.	But the fundamental target is physical target.
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Approval in advance	

Topic	Response	Remarks
4.14 Who is responsible for preparation and approval of budgets?	Director of DPWT	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes as part of the budgeting process.	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Project plans and budgets will be prepared on an realistic basis	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes. All supporting documents are checked and carefully monitored before keying into programs.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes. They are all stated details of each transaction for record purposes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes. Only the director can approve any changes made.	
Policies and Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	The staff qualifications are relevant to their roles	A mixture of cash and accrual since asset depreciation does not adjusted correctly
4.21 What accounting standards are followed?	Lao accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	No.	Only provided by project donor
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes – for project related manuals	

Topic	Response	Remarks
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes	The relevant manual does not appear to be readily available
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes.	The relevant manual does not appear to be readily available
4.26 Do the policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes, according to the Lao accounting system standard	
4.27 Are manuals distributed to appropriate personnel?	No.	They have not received or are not aware of the existence of manuals
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	The director and deputy directors	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes.	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes.	
4.31 Are bank and cash reconciled on a monthly basis?	Yes.	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes. Reviewed by chief accountant and approved by general director	
4.33 Are all receipts deposited on a timely basis?	No. It will be deposited according to the size of money. It can be on a monthly basis.	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes. Assets will be guarded 24/7	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes.	Data are filed in excel

Topic	Response	Remarks
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes.	
4.37 Are assets sufficiently covered by insurance policies?	Vehicles only	
Other Offices and Implementation Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	DOR Regional Office in Pakse	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	To be established under the project	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	To be established under the project	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	To be established under the project	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes.	
5. Internal Audit		
5.1 Is there an internal audit department in the entity?	Yes. Internal audit division	
5.2 What are the qualifications and experience of audit department staff?	Accounting, business, infrastructure degree	
5.3 To whom does the internal auditor report?	To the MPWT	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	

Topic	Response	Remarks
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. State audit	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. by the end of the year	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Lao Accounting Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	No.	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	To be determined	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	Minor comments. Mostly are the inaccuracy of entering journal entries to the right account	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes. State audit	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	TOR to be prepared as required	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. Lao accounting standard	
7.2 Are financial statements prepared for the implementing unit?	Yes	On a monthly, quarterly and annually basis
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly, yes.	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes	

Topic	Response	Remarks
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Accounting system is not yet confirmed however difficult under the existing manual and Excel based system	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	To be developed to meet project needs	
7.7 Are financial management reports used by management?	Yes	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Not at this stage	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	Prepared manually	
8. Information Systems		
8.1 Is the financial management system computerized?	Both manual and excel	
8.2 Can the system produce the necessary project financial reports?	No. It has to be done manually	
8.3 Is the staff adequately trained to maintain the system?	Yes, however further training would be beneficial	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

4. Department of Public Works and Transport - Salavan

List of interviewees:

- Mr. Sythanonsai Ninsouriyavong – Deputy Director, DPWT
- Mr. Somsy Phongsavath – Deputy Head of HR and Administration
- Mrs. Manila Komyaded – Deputy Head, Investment and Planning Division
- Mr. Phouthone Kaiyalath – Deputy Head of Transport Control
- Mr. Souththiya Sypaseuth – Finance Officer

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Provincial Government Department	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	Many projects from various donors such as World Bank and JICA	
1.3 What are the statutory reporting requirements for the entity?	DPWT -> Ministry of Public Works and Transport (MPWT)	
1.4 Is the governing body for the project independent?	MPWT – Lao Government's state infrastructure management agency for transportation	
1.5 Is the organizational structure appropriate for the needs of the project?	The organizational structure is experienced and well managed.	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	N/A – this will occur at Ministry level	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	N/A – loan funds will not be transferred to the DPWT	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None.	
2.4 In which bank will the Imprest Account be opened?	At Bank of Laos	

Topic	Response	Remarks
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	The team are experienced in the management various externally financed projects but not those funded by ADB.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	N/A – MOF responsibility	The funds will all be implemented in Lao kip.
2.8 How are the counterpart funds accessed?	MPWT’s budget contribution of \$5million	(\$20million from ADB)
2.9 How are payments made from the counterpart funds?	All payments will be made through the MPWT	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Communities and NGOs not likely to be involved	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	No official guidelines, will need to be developed if required	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Financial Accounting Division: 7 staff.	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Proposed project accounting staff to be identified	
3.3 Is the project finance and accounting function staffed adequately?	Yes. The staff qualifications are relevant to their roles	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes. The staff have been working with external financed projects for many years	
3.5 Is the project accounts and finance staff trained in ADB procedures?	No, training will be required in these procedures	

Topic	Response	Remarks
3.6 What is the duration of the contract with the finance and accounts staff?	All staff are on permanent contract	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	To be determined	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Only general description available for the Accounting Section but not for individuals	
3.11 At what frequency are personnel transferred?	Rarely	However, the transfer may be made in the event of insufficient human resources
3.12 What is training policy for the finance and accounting staff?	Usually depends on the project donors, however no local budget available for this purpose	The staff will then be trained according to the accounting system that will be implemented on the project
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes. Manual and excel	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes. MPWT provides guidance for payment processes for each project transaction	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes. Lao accounting system includes a chart of accounts for each accounting regime.	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes.	

Topic	Response	Remarks
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes.	If they are imbalance, proper review is undertaken
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes. All accounting documents are organized in folders/files for easy access	
Segregation of Duties		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes. Director, accountant & document controller, respectively	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes.	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Bank reconciliations are prepared by accountants but approved by the chief accountant and the general director.	On a monthly basis
Budgeting System		
4.10 Do budgets include physical and financial targets?	Yes. The budget identifies both physical and financial goals and they both will be monitored in parallel.	But the fundamental target is physical target.
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Approval in advance	
4.14 Who is responsible for preparation and approval of budgets?	Final approval by MPWT	

Topic	Response	Remarks
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes as part of the budget process	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	This will be followed in the preparation of the project budget	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes. All supporting documents will be checked and carefully monitored before keying into computer programs.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes. They are all stated details of each transaction for record purposes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes. Only authorized personnel can approve any changes made.	
Policies and Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	A mixture of cash and accrual since asset depreciation does not adjusted correctly	
4.21 What accounting standards are followed?	Lao accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	This will be developed to meet project requirements	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes	

Topic	Response	Remarks
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	No.	
4.26 Do the policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes, according to the Lao law and accounting system standard	
4.27 Are manuals distributed to appropriate personnel?	No.	They have not received or are not aware of the existence of manuals
<i>Cash and Bank</i>		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	The director and deputy directors	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes.	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes.	
4.31 Are bank and cash reconciled on a monthly basis?	Yes.	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes. To be review by chief accountant and approved by general director	
4.33 Are all receipts deposited on a timely basis?	No. It will be deposited according to the size of money. It can be on a monthly basis.	
<i>Safeguard over Assets</i>		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes. Assets will be guarded 24/7	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes.	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes.	
4.37 Are assets sufficiently covered by insurance policies?	Vehicles only	

Topic	Response	Remarks
<i>Other Offices and Implementing Entities</i>		
4.38 Are there any other regional offices or executing entities participating in implementation?	DOR Regional Office in Pakse	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	These will be developed as part of project implementation requirements	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	These will be developed as part of project implementation requirements	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	These will be developed as part of project implementation requirements	
<i>Other</i>		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes.	
5. Internal Audit		
5.1 Is there an internal audit department in the entity?	Yes. Audit division	
5.2 What are the qualifications and experience of audit department staff?	Accounting, business, infrastructure degree	
5.3 To whom does the internal auditor report?	To the MPWT	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. State audit	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. by the end of the year	

Topic	Response	Remarks
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	In accordance with Lao Accounting Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	Only minor comments such as the department should transfer the bank account from commercial bank to Bank of Laos.	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	To be determined	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	Minor comments. Mostly are the inaccuracy of entering journal entries to the right account	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes. State audit	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	TOR will be developed as required	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. Lao accounting standard	
7.2 Are financial statements prepared for the implementing unit?	Yes	On a monthly basis
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly, yes.	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes	

Topic	Response	Remarks
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Accounting system is not yet confirmed but difficult under the existing basic manual systems	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Will be developed to meet project requirements	
7.7 Are financial management reports used by management?	Yes	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	Prepared manually	
8. Information Systems		
8.1 Is the financial management system computerized?	No	Both manual and excel
8.2 Can the system produce the necessary project financial reports?	No. It has to be done manually	
8.3 Is the staff adequately trained to maintain the system?	Yes, training is also required	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

Annex AD – Provincial Budget Details [2010 – 2014]

No	Description of Projects	No of Projects	Total Project Costs			Contribution from the Government			
			Funding from National Government	Funding from International	TOTAL	Funding from National Government	Funding from International	TOTAL	Repayment to MOF
SARAVAN PROVINCE 2010-2011									
1	Projects related to the civil work and transportation	0	-	0	0	-	0	0	0
2	Road and Bridge Construction	25	86,437.52	35,863.39	122,301.91	5,397.92	2,369.00	7,766.92	0
3	Projects related to the district development	5	16,781.00	28,376.00	45,157.00	555.62	0.00	555.62	0
4	To repay the debt for Road and Bridge construction of the previous year	6	11,376.20	0	11,376.20	-	0	0	1,349.56
2010-2011						5,953.54	2,369.00	8,322.54	1,349.56
2011-2012									
1	Projects related to the civil work and transportation	0	-	0	0.00	-	0	0	0.00
2	Road and Bridge Construction	30	126,676.01	33,499.26	160,175.27	4,018.00	0	4,018.00	0.00
3	Projects related to the district development	8	61,804.83	28,376.00	90,180.83	750.00	0	750	0.00
4	To repay the debt for Road and Bridge construction of the previous year	9	30,521.33	0	30,521.33	-	0	0	1,468.00
2011-2012						4,768.00	0	4,768.00	1,468.00
2012-2013									
1	Projects related to the civil work and transportation	6	9,563.94	0	9,563.94	2,000.00	0	2,000	0.00
2	Road and Bridge Construction	37	1,335,785.78	33,499.26	1,369,285.04	13,765.00	0	13,765.00	0.00
3	Projects related to the district development	9	121,804.83	28,376.00	150,180.83	2,400.00	0	2,400.00	0.00
2012-2013						18,165.00	0	18,165.00	0.00
2013-2014									
1	Projects related to the civil work and transportation	5	5,386.00	0.00	5,386.00	900.00	0	900.00	0.00
2	Road and Bridge Construction	49	1,710,834.78	5,123.26	1,715,958.04	27,310.23	0	27,310.23	0.00
3	Projects related to the district development	10	162,104.83	0.00	162,104.83	2,900.00	0	2,900.00	0.00
2013-2014						31,110.23	0	31,110.23	0.00

No	Description of Projects	No of Projects	Total Project Costs			Contribution from the Government			
			Funding from National Government	Funding from International	TOTAL	Funding from National Government	Funding from International	TOTAL	Repayment to MOF
SEKONG PROVINCE 2010-2011									
1	Projects related to the civil work and transportation	0	-	0.00	0.00	-	0.00	0.00	0
2	Road and Bridge Construction	8	30,561.23	1,205.00	31,766.23	5,700.00	1,205.00	6,905.00	0
3	To repay the debt for Road and Bridge construction of the previous year	4	28,101.23	0	20,101.23	-	0	0	5,200.00
2010-2011						5,700.00	1,205.00	6,905.00	5,200.00
2011-2012									
1	Projects related to the civil work and transportation	0	0	0	0	0	0	0	0
2	Road and Bridge Construction	15	37,196.93	3,923.00	41,119.93	8,198.80	3,923.00	12,121.80	0.00
3	To repay the debt for Road and Bridge construction of the previous year	4	28,101.23	0	28,101.23	-	0	0	6,750.00
2011-2012						8,198.80	3,923.00	12,121.80	6,750.00
2012-2013									
1	Projects related to the civil work and transportation	0	-	0	0.00	-	0	0	0.00
2	Road and Bridge Construction	18	1,409,317.12	1,368.40	1,410,685.52	11,105.00	428.20	11,533.20	0.00
2012-2013						11,105.00	428.20	11,533.20	0.00
2013-2014									
1	Projects related to the civil work and transportation	12	11,705.73	2,387.90	14,093.63	4,276.93	1,447.70	5,724.63	0.00
2	Road and Bridge Construction	15	1,738,407.20	0.00	1,738,407.20	36,285.97	0	36,285.97	0.00
2013-2014						40,562.90	1,447.70	42,010.60	0.00
GRAND TOTAL						65,566.70	7,003.90	72,570.60	11,950.00

No	Description of Projects	No of Projects	Total Project Costs			Contribution from the Government			
			Funding from National Government	Funding from International	TOTAL	Funding from National Government	Funding from International	TOTAL	Repayment to MOF
ATTAPUE PROVINCE 2010-2011									
1	Projects related to the civil work and transportation	1	988.00	11,681.00	12,669.00	24.00	50	74	0
2	Road and Bridge Construction	14	207,616.21	16,542.48	224,158.69	3,582.95	3,189.48	6,777.43	0
3	To repay the debt for Road and Bridge construction of the previous year	0	-	0	0	-	0	0	0
2010-2011						3,606.95	3,239.48	6,851.43	0
2011-2012									
1	Projects related to the civil work and transportation	1	988.00	11,681.00	12,669.00	30.00	0	30	0
2	Road and Bridge Construction	23	448,458.41	35,948.04	484,406.45	3,890.00	19,496.04	23,386.04	0
3	To repay the debt for Road and Bridge construction of the previous year	1	25,298.09	0	25,298.09	-	0	0	1,300.00
2011-2012						3,920.00	19,496.04	23,416.04	1,300.00
2012-2013									
1	Projects related to the civil work and transportation	1	30.00	300.00	330	30.00	300	330	0
2	Road and Bridge Construction	24	344,142.54	47,904.04	392,046.58	4,290.00	33,108.00	37,398.00	0
2012-2013						4,320.00	33,408.00	37,728.00	0
2013-2014									
1	Projects related to the civil work and transportation	8	31,139.00	0	31,139.00	1,557.00	0	1,557.00	0
2	Road and Bridge Construction	27	382,809.00	18,407.38	401,216.38	7,135.63	11,333.08	18,468.71	0
2013-2014						8,692.63	11,333.08	20,025.71	0
GRAND TOTAL						20,539.58	67,476.60	88,021.18	1,300.00

**ANNEX AE - LRSP Recommendations for Improved Road
Maintenance Funding**

EXTRACT FROM LAO ROAD SECTOR PROJECT ON THE ROAD MAINTENANCE FUND

4.2 Recommendations

The aim of this first set of recommendations is to regularize the budgetary situation of the MPWT, so that its public investment plan is financed by taxation through the national budget rather than partly financed by road user charges that are intended for badly-needed road maintenance:

- (a) The financing of the domestic portion of approved transport sector investments, including road rehabilitation and reconstruction projects and related expenditures in domestic currency for approved projects, should be funded through the national budget using general budget revenues.**
- (b) Such projects should not be financed from the fuel levy or other road user charges which are intended for, and should be used by, the Road Maintenance Fund to fully cover the needs for routine, periodic and emergency maintenance.**
- (c) The RMF should be treated as an independent fund, paid by road users for road maintenance under the authority of the Ministry of Finance and as proposed by its Advisory Board, and not be treated as a constituent part of the MPWT budget.**

The aim of this set of recommendations is to ensure that the RMF Secretariat is in a position to recommend to the RMF Advisory Board an annual programme of road maintenance based on objective principles and well-founded with evidence, thus ensuring road user charges allocated to the RMF are used in the best way to achieve their intended purpose as mandated by Government.

- (a) The annual road asset report prepared by PTI should make a clearer distinction between the needs for road maintenance (routine and periodic) which can be funded by the RMF, and rehabilitation, reconstruction, upgrading or improvement works, which should not be funded by the RMF unless all the maintenance needs have been met.**
- (b) The annual road asset report should contain details of each road surveyed and the conclusions drawn, and should be widely circulated including to the RMF, the Departments of Roads and of Finance, and the Departments of Public Works and Transport (DPWT) at provincial level. The RMF should regard it as its primary tool in preparing its annual programme. PTI must ensure that it is properly checked and internally consistent before it is released.**
- (c) The RMF should be fully staffed to be able to meet its mandate, which is concerned with quality and results and not just expenditure. It should consider increasing its administration budget from 1% to 8% or more as needed to become fully staffed, including a strong technical presence.**

The aim of this set of recommendations is to increase the independence and improve the effectiveness of the RMF Advisory Board.

- (a) The RMF budget should be a separate line item in the national budget and be shown clearly as being a dedicated fund separate from the MPWT budget.**
- (b) There should be a representative of the Department of Roads on the RMF Advisory Board.**
- (c) The Advisory Board should meet quarterly and review the Annual Road Asset Report as well as monitoring progress of the Fund's activity and exploring ways to improve maintenance standards and cost effectiveness, and reduce the future need for costly rehabilitation.**

These recommendations will lead to a funding gap in MPWT, which in the current year plans to receive kip 216.5 billion (about USD 27 million) from the RMF for rehabilitation and construction. This issue would have to be addressed in the national budget and the agreed investment programme financed accordingly.