APPENDIX

PRV. : KALIMANTAN SELATAN KAB. : HULU SUNGAI TENGAH SURVEY YEAR : 1983

	***************************************	1	4 4010017 18	SURVE)	YEAR: 198
Code No.	KECAMATAN NAME	CULTIVATED AREA: (PA)	YIELD RATE:(Y)	FARMER'S POPULATION: (AP)	CIRCULATED COMMODITY: (PG)
01	HARUYAN	3,569.75	3.50	13,908	1,350
02	BATU BENAWA	3,089.90	4.06	16, 435	1.910
03	LABUHAN EMAS SELATAN	3,688.50	4.18	15,172	350
04	LABUHAN EMAS UTARA	3,534	3.98	15,171	820
05	PANDAWAN	2,824	392	17,700	770
06	BARABAI	2438	5.01	13,907	930
07	BATANG ALAI SELATATAN	3,429	4.35	17.701	2,240
08	BATANG ALAI YTARA	3,398	4.14	16,436	1.570
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	rj	12	1 3	r4
ANNUAL % AVERAGE GROWTH RATE	1.0	/-5	0.3	5./

FARMER'S CONSUMPTION: (Cp)	NON-AGRO REQUIRMENT : (NG)		
0.22 Ton/head/year	0.016 Ton/		

	SEDAN	BUS	TRUCK	MOTOR CYCLE
RATE OF EACH VEHICLE TYPE %	27.61	2.26	20.74	49.38

AVERAGE FREIGHT	0.6 Ton/Truck
TONAGE	0.6 Ion/Truck

Appendix A-2 Engineering Data

PROVINCE: Kalimantan Selatan
KABUPATEN: Hulu Sungai Tengah

LINK	BEGINNING POINT	END POINT	LENGTH	THROUGH THE KEC. NAME & LENGTH		DEMADIC	
NO.	(DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	REMARKS	
01	Barabai	Bn.Binjai	. 3	Pandawan Barabai	1 2		
02	Bn.Binjai	Jatuh	2	Pandawan	2	1	
03	Jatuh	Kambat Utara	5	Pandawan	5	1	
04	Kambat Utara	Kayu Bangun	4	Pandawan	4		
05	Kayu Bangun	Kayu Rabah	5	Pandawan	5		
06	Barabai	Matang birik	3	Barabai	3	3	
07	Matang birik	Pelajau Hilir	2	Barabai	2.	3	
08	Pelajau Hilir	Mahang karang Jawa	2	Pandawan	2		
09	Mahang karang Jawa	Mahang matang Landung	3	Pandawan	3		
10	Mahang Matang Landung	Bn. Kupang	2	Pandawan	2		
11	Bn.Sungai	Pelajau Hilir	4	Pandawan	4	2	
12	Pelajau Hilir	Manjang	3	Barabai	3		
13	Barabai	Bn.Jingah	2	Barabai	2	2	
14	Bn.Jingah	Mandingin	2	Barabai	2		
15	Bn.Jingah	Ayuang	3	Barabai Bt.Alai Utara	2	2	
16	Ayuang	Bn.Batung	4	Pandawan Bt.Alai Utara	3	3	
17	Ayuang	Timbok Baha- lang	2	Bt.Alai Utara		3	
18	Ilung	Ayuang	5	Bt.Alai Utara	5	2	
19	Sekutang	Batu Tangga	5	Bt.Alai Sln	5	3	
20	Lok Besar	īlung:	5	Bt.Alai Utara	5	3	
21	Sp.Ilung	Limbar	5	Bt.Alai Utara	5	3	
22	Limbar	Birayang	2	Btg.Alai Sln	0.5 1.5	3	
23	ilung	Karau	2	Bt.Alai Utara Bt.Alai Utara			
24	Karau	Abung	7	Bt.Alai Utara	7		

PROVINCE: Kalimantan Selatan KABUPATEN: Hulu Sungai Tengah

LINK	BEGINNING	END POINT	LENGTH		THROUGH THE KEC. NAME & LENGTH	
NO.	POINT (DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	REMARKS
25	Labung Anak	Telang	4	Btg.Alai Utara	4	
26	Kalubut	Karau	4	Btg.Alai Utara	4	
27	Abung	Kalubut	5	Btg.Alai Utara	5	
28	Limpasu	Tapuk	4	Btg.Alai Utara	4	3
29	Mahela	Limbar	-3	Btg.Alai Utara	3	1
30	Abung Sura- pati	Mahela	2	Btg.Alai Utara	2	1
31	Birayang	Rangas	3	Btg.Alai Sln	3	1
32	Abung Surapa-	Rangas	3	Bt.Alai Sel Bt.Alai Utara	1.5 1.5	1
33	Abung	Abung Sura- pati	2	Bt.Alai Utara	2	1 ;
34	Abung	Limpasu	4	Bt.Alai Utara	4	2
35	Limpasu	Tariwin	2	Bt.Alai Utara	2	2
36	Rangas	Labuhan	4	Btg.Alai Sel	4	
37	Labuhan	Abung	4	Btg.Alai Sel Btg.Alai Utara	2 2	
38	Limpasu	Pauh	2	Btg.Alai Utara		
39	Birayang	Wawai	4	Bt.Alai Sel	4	3
40	Wawai	Sekutang	4	Bt.Alai Sel	4	3
41	Batu Tangga	Tandilang	7	Bt.Alai Sel	7	
42	Tandilang	Atirau	7	Bt.Alai Sel	7	
43	Cukanlipai	Birayang	3	Bt.Alai Sel	3	
44	Kapar	Hiking	2	Bt.Alai Utara	2	2
45	Hiking	Cukanlipai	3	Bt.Alai Sel	3	2
46	Hiking	Mandingin	6	Barabai	1	2
47	Paya	Cukanlipai	4	Bt.Alai Sel Bt.Alai Sel	<u>5</u> 4	
48	Paya	Kahakan	3	Batu Benawa Bt.Alai Sel	1 2	<u> </u>

PROVINCE : Kalimantan Selatan KABUPATEN: Hulu Sungai Tengah

LINK	BEGINNING POINT	END POINT	LENGTH	THROUGH THE KEC. NAME & LENGTH		REMARKS
NO.	(DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	KEMAKKS
49	Aluan Besar	Paya	. 4	Barabai Bt.Alai Sel	1 3	
50	Kalibaru	Cukanlipai	6	Batu Benawa Bt.Alai Sel	1 5	<u> </u>
51	Aluan Besar	Kahakan	5	Batu Benawa Barabai	2	1
				Bt.Alai Sel	2	
52	Kahakan	Kalibaru	2	Batu Benawa	2	1
53	Barabai Darat	Aluan Besar	2	Barabai	2	1
54	Pagat	Kahakan	4	Batu Benawa	4	1
55	Pagat	Hantakan	5	Batu Benawa	5	3
56	Hantakan	Baruh Batung	3	Batu Benawa	3	
57	Hantakan	Biang II	7	Batu Benawa	7	
58	Biang II	Batu Panggung	. 4	Batu Benawa	4	
59	Sp.Bn.Binjai	Tangkarau	1	Barabai	1	
60	Pangambau Hulu	Haruyan	3	Haruyan	3	
61	Pangambau dalam	Pengambau Hulu	3	Haruyan	3	1
62	Pangambau dalam	Haruyan	2	Haruyan	2	1
63	Pangambau Hilir	Pangambau dalam	3	Haruyan	3	3
64	Haruyan	Barikin	3	Haruyan	3	
65	Sei Gatal	Haruyan	3	Haruyan	3	
66	Tabu darat	Sei Gatal	3	Haruyan Lbh.Emas Sel	1 2	
67	Haruyan	Mangunang	5	Haruyan Batu Benawa	2 3 2	
68	Mangunang	Hapulang	2	Batu Benawa	2	
69	Taal	Mangunang	2	Batu Benawa	2	
70	Taal	Bn.Kepayang	4	Batu Benawa Lbh.Emas Sel	3	
71	Murung Taal	Taal	3	Batu Benawa	3	

PROVINCE: Kalimantan Selatan KABUPATEN: Hulu Sungai Tengah

LINK	BEGINNING POINT	END POINT	LENGTH	THROUGH T		REMARKS
NO.	(DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	REFERRES
72	Sp.Pagat	Murung Taal	5	Batu Benawa	5	
73	Barabai Darat	Bangkal	7	Barabai	7	
74	Kayu Bawang	Batali	3	Batu Benawa Barabai	1.5 1.5	3
75	Barabai darat	Kayu bawang	3	Barabai	3	2
76	Kayu Bawang	Sp.Murung Taal	3	Batu Benawa Barabai	2	2
77	Durian Gan- tang Hulu	Bangka1	2	Barabai	2	2
78	Bangkal	Taras	4	Barabai	4	2
79	Taras	Durian Gan - tang Hilir	3	Barabai	3	3
80	Murung Taal	Taras	2	Batu Benawa Barabai	1	2
81	Bn.Kupang	Pajukungan	4	Pandawan Barabai	3	2
82	Walangko	Bn . Kupang	5	Lbh.Emas.Ut. Pandawan	4	2
83	Mahang Matang Landung	Paku	5	Lbh.Emas.Ut. Pandawan	0.5 4.5	
84	Paku	Balanti	3	Lbh.Emas.Ut.	3	3
85	Bn.Binjai	Pelajau Hilir	2.	Pandawan	2	2
86	Pelajau Hilir	Pandawan	4	Pandawan	4	3
87	Kalaka	Kayu Bangun	1	Pandawan	1	
88	Kambat Sel	Sp.Jatuh	2	Pandawan	2	
89	Kambat Sel	Kambat.Ut.	2	Pandawan	2	
90	Kalaka	Kambat Sel	6	Pandawan	6	
91	Kayu Rabah	Kalaka	3	Pandawan	3	2
91	Pandawan	Mahang Karan Jawa	2	Pandawan	2	
93	Sungai Buluh	Rantau Bujur	1	Lbh.Emas Ut	1	3
94	Rantau Bujur	Mantaas	6	Lbh.Emas Ut	6	3
95	Muara Pemang kih	Tabat	6	Lbh.Emas Ut	6	3

PROVINCE: Kalimantan Selatan KABUPATEN: Hulu Sungai Tengah

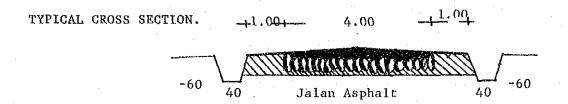
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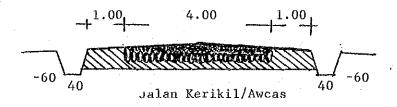
LINK	BEGINNING POINT	END POINT	LENGTH	THROUGH THROUGH THROUGH THROUGH		DEMARY
NO.	(DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	REMARKS
96	Tabat	Pahalatan	2	Lbh.Emas Ut	2	3
97	Tabu Darat	Tabu Darat Tengah	2	Lbh.Emas Sln	2	
98	Tabu Darat Tengah	Baru	2	Lbh.Emas Sln	2	
99	Tabu Darat Tengah	Barikin	4	Haruyan Lbh.Emas Sel	2	
100	Sp.Cukanlipai	Intangan	2	Bt.Alai Sel	2	
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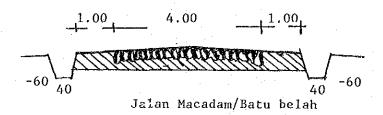
What Kind of Design Criteria has being applied for the new road construction and the improvement for the Kabupaten Road?

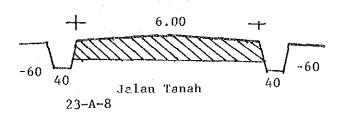
Kriteria Perencanaan yang dipakai pada program penanganan jalan Kabupaten, baik untuk jalan lama maupun pembangunan baru.

Please draw the Typical Cross Section of the Kabupaten Road.
Buat gambar dan penjelasan dari: Typical cross section yang dipakai pada program penanganan jalan selama ini (baik untuk jalan lama, maupun pembangunan baru)









## KABUPATEN Hulu Sungai Tengal OCATION AND COSTS OF THE KABUPATEN

### ROADS CONSTRUCTED OR INPROVED IN 1980/1981

### Biaya konstruksi penanganan

### jalan dan jembatan Kabupaten thn. 1980/1981

LINK	LOCATION	1 -1 -				
NO .:		Lebar per- kerasan(m)		LENGTH	COSTS	REMARKS
Можог	From - To			Panjang	Harga	Keterang-
Ruas	(dari - ke)	Lebar	Туре	( KM )	(m 6)	an
61,63	Pengambau Hulu - Pengambau	Jembatan 4	_lembatan		(Rp 10 ⁶ )	-
41,03	Hilir		Grave1	6.25	31,250	. '
				- '	32,230	٠
100	Lingkungan Irigasi Intangar	4	Grave1	2	10 000	,
		-		-	10,000	
70,71,	Bn.Kepayang-Murung Taal	4	Grave1	11	~~~~	
72	Pagat	-	-		50,000	•
38	73 - 3	4	Gravel	2.5		
30	Pauh - Limpasu	-			12,500	· . ·
		4	Control			
60	Haruyan - Muui	4	Gravel	4	20,000	
81,82	Pajukungan - Bn. Kupang Walangko	4	Gravel .	7.6	38,000	
	walangko	-	_		30,000	
39,40	Birayang - Sakutang	4	Gravel	7.15	40,999	
		, <del></del>	-	_	40,999	
68,69	Hapulang - Mangunang -	4	Gravel	4	20.00	 
	Taal	-	-	-	32,251	
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^{*} PAVEMENT TYPE : Pls note the appropriate No. below.

- 1. : Asphalt surface / penetrasi macadam
- 2. : Asphalt seal / pelaburan aspal
- 3.: Gravel / kerikil
- 4. : Cravel /ANCAS / kerikil / japat

KABUPATEN: Hulu Sungai Tengah

#### KABUPATEN: Hulu Sungai LOCATION AND COSTS OF THE KABUPATEN

ROADS CONSTRUCTED OR INPROVED IN 1981/1982

Biaya konstruksi penanganan

jalan dan jembatan Kabupaten thn. 1981/1982

LINK NO .:	LOCATION From - To	Lebar per- kerasan(m)	Type per- kerasan	LENGTH Panjang	COSTS Harga	REMARKS Keterang:
Nomor Ruas	(dari - ke)	Lebar Lembatan_	Type Jembatan	( KM )	(Rp 10 ⁶ )	an
1,2,3	Barabai Barat - Bn. Binjai - Kambat		Jembatan Gravel	8	58,266	
4,5	Kambat - Kayu Rabah	4	'Gravel	8	51,916	
62,67	Mangunang - Hapulang	4	.Gravel	6.5	75,845	
		***			13,013	
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* PAVEMENT TYPE: Pls note the appropriate No. below.

1. : Asphalt surface / penetrasi macadam

2. : Asphalt seal / pelaburan aspal

3. : Gravel / kerikil

4. : Gravel / AWCAS / kerikil / japat

KABUPATEN:Hulu Sungai Tengah

### LOCATION AND COSTS OF THE KABUPATEN

### ROADS CONSTRUCTED OR INPROVED IN 1982/1983

### Biaya konstruksi penanganan

### jalan dan jembatan Kabupaten thn. 1982/1983

NO : Nomor	LOCATION From - To	Lebar per- kerasan(m)	Type per- kerasan	LENGTH Panjang	COSTS Harga	REMARKS
Ruas	(dari - ke)	Lebar Jembatan	Type Lembatan	( KM )	(Rp 10 ⁶ )	Keterang- an
64	Barikin - Haruyan	3.5	Asphalt Seal	3.5	27,800	
19	Sakutang - Batu Tangga	4	Gravel	5	54,100	<del>o de prime de Pi</del> nne aurqui de Hoangs (queque <u>propries que</u>
74,75,	Rasak - Mualimin - Mu-	4	Gravel	7.5	65,300	A STATE OF THE PARTY OF THE PAR
76 31,32,	rung.A. Birayang - Ambitu - Abung	4	Gravel	5.6		
33				-	46,400	
34,35	Abung - Kabang - Tariwin	4	Gravel	6.4	50,500	١.
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* PAVEMENT TYPE : Pls note the appropriate No. below.

1. : Asphalt surface / penetrasi macadam

2. : Asphalt seal / pelaburan aspal

3. : Gravel / kerikil

4. ; Gravel /ANCAS / kerikil / japat

#### LOCATION AND COSTS OF THE KABUPATEN

ROADS CONSTRUCTED OR INPROVED IN 1983/1984

#### Biaya konstruksi penanganan

#### jalan dan jembatan Kabupaten thn. 1983/1984 .

LINK NO	LOCATION From - To	Lebar per- kerasan(m)	Type per- kerasan	LENGTH Panjang	COSTS Harga	REMARKS Keterang:
Nomor Ruas	(dari - ke)	Lebar Jembatan	Type Jembatan	( KM )	(Rp 10 ⁶ )	an
73	Barabai Darat - Bn.Punggal	4	Gravel	4 -	45,000	
57	Murung B - Pasting	3.5	Gravel -	3.5	50,000	
57	Panting - Biang II	4	Grave1	3.5	46,000	
70,71	Bn.Kepayang - Murung-	4	Asphalt Surfa	e 6	60,000	
F.F. F.C	Taal Kampung Baru - Honta -	4	Gravel	5.3	70,000	
55,56	kan Baruh Batung		•			
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* PAVEMENT TYPE : Pls note the appropriate No. below.

1. : Asphalt surface / penetrasi macadam

2. : Asphalt seal / pelaburan aspal

3. : Gravel / kerikil

4. : Gravel /AWCAS / kerikil / japat

#### KABUPATEN Hulu Sungai Tengah

### LOCATION AND COSTS OF THE KABUPATEN

ROADS CONSTRUCTED OR INPROVED IN 1984/1985

Biaya konstruksi penanganan

· jalan dan jembatan Kabupaten thn. 1984/1985

NO LINK	LOCATION From - To	Lebar per- kerasan(m)	Type per- kerasan	LENGTH Panjang	COSTS Harga	REMARKS
Nomor Ruas	(dari - ke)	Lebar Jembatan	Type Jembatan	( KM )	(Rp 10 ⁶ )	Keterang, an
21,22	Ilung-Limbar-Birayang	4	Grave1	6	61,326	ـ بروی پردی میکند و این در میکند که داده و این در میکند داده و این در میکند داده و این در میکند داده و این در
23,24	Hapingin - Labunganak - Abung Jayapati	4	Gravel	8.5	81,900	
65,66	Tabudarat - Sei Gatal - Haruyan	4	Gravel	5.5	62,500	The state of the s
80,81	Pajulungan - Bn. Kupang - Walangko	4	Gravel	7.6	79,274	
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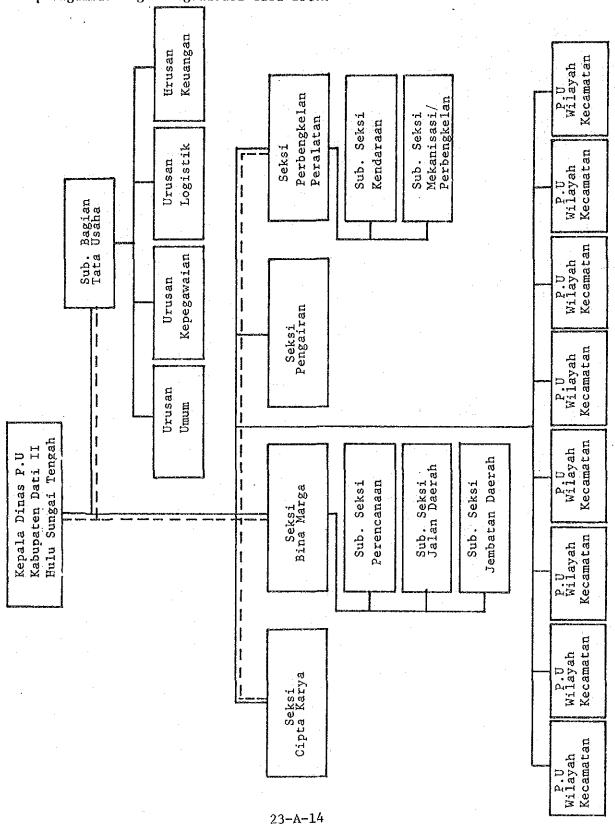
^{*} PAVEMENT TYPE : Pls note the appropriate No. below.

- 1..: Asphalt surface / penetrasi macadam
- 2. : Asphalt seal / pelaburan aspal
- 3. : Gravel / kerikil
- 4. : Gravel /ANCAS / kerikil / japat

#### EXISTING ORGANIZATION IN KABUPATEN

#### Structur Organisasi yang ada dari P.U Kabupaten

Please draw the Cart of the Existing Organization in the Kabupaten. Harap digambar bagan organisasi dari DPUK.



### EXISTING STAFF RESOURCES OF BINA MARGA OF PU KABUPATEN

### PROPINSI: Kalimantan Selatan KABUPATEN; Hulu Sungai Tengah

DESCRIPTION /Uraian	NUMBER / Jumlah	REMARKS Keterangan
CONTROLING STAFF Staff teknis PUK	(36)	
DPUK ENGINEED Sarjana Teknik		
ASSISTANT ENGINEER Sarjana Muda Teknik	-	
TECHNICIAN STAFF Staff Teknik (STM)	36	
ADMINISTRATION Tenaga Administrasi	3	
SUPERVISOR Tenaga Pengawas	• • • • • • • • • • • • • • • • • • •	
WORKING FORCE Tenaga Pelaksana Lapangan	(8)	Minimum Company and an analysis of the company and an analysis
OPERATORS Operators	4 .	
DRIVERS Supir	4	
MECHANICS Mechanic		
TRADESMAN Tukang		
L A B O U R Buruh / Pekerja		
OTHERS Lain-lain		
TOTAL / JUMLAII	(47)	

Çatatan ; Untuk kolom keterangan harap diisi berapa orang yang telah mendapat Training.

#### LOCATION AND AREA OF DPUK WORKSHOP

#### Lokasi Workshop DPUK

PROPINSI : Kalimantan Selatan

KABUPATEN: Hulu Sungai Tengah

LOCATION Lokasi	AREA (m2) Luas	NUMBER Jumlah	REMARKS Keterangan
Barabai	3.000	1	

### PROPINSI: Kalimantan Selatan

KABUPATEN:Hulu Sungai Tengah

E-07

### LAND ACQUISITION COST Daftar harga pembebasan tanah

DESCRIPTION Uraian	UNIT Satuan	RATE (RP) Harga	REMARKS Keterangan
CITY/kota	M2	10,000	
VILLAGE / desa	M2	250	
RICE FIELD/sawah	M2	300	
DRY FIELD/ladang	M2	200	
MIX CROPS/panen	M2	400	
FOREST/hutan	M2	100	
SWAMP / rawa	M2	50	
OTHERS / lain-lain	M2	-	

# Classification of local contractors at Kabupaten level. Klasifikasi kontraktor di Kabupaten

COMPANY NAME Nama Kontraktor	CLASS Kelas	CAPITAL Modal (Rp)	NUMBER OF EMPLOYEE Jumlah pegawai	REMARKS Keterangan
1	C1	33,800,000		
10	C2	60,890,000	. 11	And the same of th
41	C3	28,930,000	7	
Constitution of the second				
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			ran crus as as part " I' - this shows a process process, agains him him human maka all him him hawan a part di Salaina	

### LIST OF EXISTING EQUIPMENT OF LOCAL CONTRACTOR

Name of contractor

NAME OF EQUIPMENT	EXISTIN	EXISTING CONDITION/ Kondisi Peralatan					
Jenis peralatan	TYPE/ Tipe	P.Y	NUMBI GOOD Baik	CR / Ju BAD Rusak	TOTAL	REASON OF BAD CONDT TION/Sebal Kerusakan	MENT /Ke- butuhan peralatan baru
Bulldozer							
Motor Grader	MG 3 H	1980	1	-	1		
Tyre Roller	TS-7409	1980	1		1		
Steel Whell Roller							- Andrewsky and the second
Vibration Roller	MGB I	1981	1	-	1	<u> </u>	
Wheel Loader	MGB I	1982		2	2		
Front End Loader and Backhoe							
Mobile Grane							
Concrete Mixer							
Stone Crusher							
Portable Compressor							
Hydraulic Excavator							
Asphalt Paving Machine							
Asphalt Sprayer	ESGD/3K	1984	1	_	1		
Asphalt Mixing Machine							
Mobile Workshop	мс. 6Р	1972	1	-	1		
Mechanic Rammer	MG 6 P	1975	***	1	1		
Plate Tamper	MG 6 P	1976		1	1		
Pile Driver	MG 6 P	1976	1		1		
Leg Drill	MG 6 P	1973	11_		1		
Hand Hammer	GT 6	1984	1	_	1		\
Farm Tractor							
Dump Truck	V 22 H	1980	3	-	3		
Water Tank Truck							
Fuel Tank Truck							
Pick Up	т 120	1980	1	-	1		
Jeep							
Motorcycle							
Generator							
Water Pump							
Others				·			

### LIST OF EXISTING EQUIPMENT OF P.U KABUPATEN

NAME OF EQUIPMENT	EXISTING CONDITION/ Kondisi Peralatan						REQUIRE -	
Jenis peralatan	TYPE/	P.Y	NUMB	ER / Ju	mlah	REASON OF BAD CONDI	MENT / Ke-	
	Tipe		GOOD Baik	BAD Rusak	TOTAL Jumlah	FION/Sebal Kerusakan	peralatan baru	
Bulldozer	MG 3H	1980	Baik	-	1 Buah	ic rusakan		
Motor Grader	TS-7409	1980	Baik	-	1 Buah		ranger/Maggins and production of the second	
Tyre Roller			<b></b>			**************************************	· · · · · · · · · · · · · · · · · · ·	
Steel Whell Roller	MGBI	1981	Baik	-	1 Buah			
Vibration Roller	MGBI	1982		Rusak	2 Buah			
Wheel Loader			<u> </u>					
Front End Loader and Backhoe							**************************************	
Mobile Crane								
Concrete Mixer								
Stone Crusher	and the same of th							
Portable Compressor								
Hydraulic Excavator					and the second s			
Asphalt Paving Machine								
Asphalt Sprayer	ESGD/3K	1984	Baik	-	1 Buah			
Asphalt Mixing Machine								
Mobile Workshop R ROLLER	GM 6 P	1972	Baik	-	1 Buah			
Mechanic Rammer R ROLLER	GM 6 P	1975	-	Rusak	1 Buah			
Plate Tamper R. ROLLER	GM 6 P	1976	-	Rusak	1 Buah			
Pile Driver R. ROLLER	GM 6 P	1976	Baik		1 Buah			
Leg Drill R.ROLLER	GM 6 P	1973	Baik	_	1 Buah			
Hand Hammer R.ROLLER	CM 6 P	1984	Baik	-	l Buah		`	
Farm Tractor								
Dump Truck	V 22 H	1980	Baik	-	3 Buah			
Water Tank Truck								
Fuel Tank Truck								
Pick Up	т 120	1980	Baik		1 Buah			
Jeep								
Motorcycle						<u> </u>		
Generator								
Water Pump								
Others			\					
	-					<u> </u>		

#### Appendix A-3 CONSTRUCTION AND MAINTENANCE COST FOR PROPOSED ROAD LINKS

PROV : KALIMANTAN SELATAN KAB : HULU SUNGAI TENGAH

LINK NO : 86 (IIIB-1) LENGTH : 4 Km

UPGRADE : 6.5m road bed, 4.0m road with surface Dressing (1)

((( UNIT COST >>) ((((( COST **>>>>>** LOCAL FOREIGN TOTAL UNIT QUANTITY LOCAL FOREIGN 387,000 250,500 136,500 Site Clearance in Light Bush 1500.0 0 . 0 0.0 21 11 Sungrade Preparation a? Normal Fill 83 0.0 1,734 863 0 Fill in Swamp 2,539 1,052 **e**3 0.0 Normal Excavation to Spoil #3 0.0 1,018 522 2,747,560 1,347 1,944,748 802,812 Sub Base Course 596.0 3,263 ъЗ 1,478 7,590,240 2,299 5,015,360 2,574,880 Base Course **a**3 1120.0 1,460,000 . 146 3,000,000 4,460,000 Shoul der 10000.0 300 3,292 Asphalt Patching 0.0 1,377 Û æ2 Surface Dressing (Single) **a**2 16000.0 595 595 9,520,000 9,520,000 19,040,000 Surface Dressing (Double) 744 935 0 0 **a**2 0.0 Û 713 119 Earth Orain 0.0 Earth Orain in Swamp (by machine) 0.0 1,193 474 0 a3 39,035 Pipe Culvert 080cm 0.0 51,386 0 . 0 52,335 41,554 0 Hasonry Culvert (80x80cm) 0.0 Retaining Wall and Wing Wall (Timber) 246 0 8,591 0.0 **6**2 Relaining Wall and Wing Wall (Masonry) **a**3 0.0 37,920 11,868 0 0 Gabion Protection #3 0.0 11,791 120 New Bridge (Timber) SET 1.0 --New Bridge (Concrete) 1.0 19,730,508 14,494,192 34,224,800 Sub Total 2,959,591 2,174,128 5,133,719 Overhead 1 15% 1 TOTAL COST 22,690,199 16,668,320 Manual routine maintenance of road Ka 4.0 112,172 7,248 448,698 28,992 477,680 Routine maintenance of asphalt road 4.0 329,200 137,700 1,316,800 550,800 1,867,600 1,765,488 579,792 2,345,280 Sub Total 0 Maintenance of Timber Bridge (Hew) 0.0 6,133 1,010 0 0 0 Maintenance of Concrete Bridge (New) 0.0 1,595 3,135 · 10 7,082 Maintenance of Timber Bridge (Exist) 2,349 169,968 226,344 24.0 **a**2 2,471 Maintenance of Concrete Bridge (Exist) **a**2 0.0 1,333 9,839,630 Earthwork & Pavement Unit Cost (Rp/Km) Bridge Unit Cost Bridge Unit Cost Timber (Rp/s2) Concrete (Rp/a2) : (Rp) 3,441,340 Sur vi ved Value Maintenance Rate without Bridge (2) 5,98 3 Hew Bridge Cost Rate (2)

PROV

KALIMANTAN SELATAN

KAB : HULU SUNGAI TENGAH

LINK NO

85 (IIIB~1)

- LENGTH : 2 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

(Rp) ITEN (<< UNIT COST >>> ````((((( COST **>>>>>** YTETHAUG TEHU LOCAL FOREIGN FOREIGN LOCAL TOTAL Site Clearance in Light Bush 12 1500.0 167 91 250,500 136,500 387,000 Subgrade Preparation B2 0.0 .0 . 0 . .0 21 11 Normal Fill R3 0.0 1,734 863 0 0 0 Fill in Swamp аŝ 2,539 1,052 0 0 Normal Excavation to Spoil **e**3 210.0 109,620 1,016 522 213,360 322,980 Sub Base Course a3 469.0 3,263 1,530,347 1,347 631,743 2,162,090 Dase Course 560.0 4,478 2,299 2,507,680 1,287,440 3,795,120 Shoul der **8**2 584,000 4000.0 300 146 1,200,000 1,784,000 Asphalt Patching **a**2 0.0 3,292 1,377 Surface Oressing (Single) 4,760,000 0.0008 595 4,780,000 595 9,520,000 Surface Dressing (Double) •2 0.0 744 936 0 Earth Drain 1,140,800 1400.0 713 190,400 4 119 1,331,200 Earth Drain in Swamp (by machine) яЗ 0.0 1,183 474 0 0 Pipe Culvert 080ca 39,035 51,386 0 Hasonry Culvert (80x80cm) ₽ 0.0 52,335 41,554 0 Retaining Wall and Wing Wall (Timber) 0.0 8,591 62 246 0 Retaining Wall and Wing Wall (Masonry) m3 0.0 37,920 11,869 0 Gabion Protection 43 0.0 11,791 120 New Bridge (Timber) SET 1.0 0 Hen Bridge (Concrete) SET 1.0 11,602,687 Sub Total 7,699,703 19,302,390 Overhead ( 152 ) 1,740,403 1,154,955 2,895,358 TOTAL COST 13,343,090 8,854,658 224,344 238,840 Manual routine saintenance of road 2.0 112,172 7,248 14,496 933,800 Routine maintenance of asphalt road 329,200 137,700 658,400 275,400 2.0 Sub Total 882,744 289,896 1,172,640 Maintenance of Timber Bridge (New) 1,010 0 O 0 0.0 6,133 1,585 3,135 0 Naintenance of Concrete Bridge (New) 0.0 *****2 Maintenance of Timber Bridge (Exist) 7,092 2,349 0 0.0 42 2,471 4,333 Maintenance of Concrete Bridge (Exist) 0.0 (Rp/Ka) 11,098,874 Earthwork & Pavement Unit Cost (Rg/m2) Bridge Unit Cost Timber (Rp/e2) Concrete Bridge Unit Cost 2,272,487 Survived Value (fip) Haintenance Rate without Oridge (1) 5.28 (7.) Hew Bridge Cost Rate

PROV : KALIMANTAN SELATAN KAB : HULU SUNGAI TENGAH

LINK NO : 84 (IIIC) LENGTH : 3 Km

UFGRADE : 6.0m road bed, 3.5m road with surface Subbase Cource

TTEN			KKK UNIT	cost >>>	(((	((( COST	>>>>>
***************************************	UNIT	QUANTITY	LOCAL	FOREIGN	LOCAL	FOREIGH	TOTA
Site Clearance in Light Bush	<b>a</b> 2	2000.0	167	. 91	334,000	182,000	518,00
Subgrade Preparation	a2	18000.0	· 21	11	378,000	198,000	576,00
Normal Fill	a3	0.0	1,734	863	0	0	
Fill in Swamp	<b>B</b> 3	1740.0	2,539	1,052	4,417,860	1,830,480	6,248,34
Hormal Excavation to Spoil	a3	2410.0	1,016	522	2,448,560		3,706,58
Sub Base Course	93	1690.0	3,263	1,347	5,481,840	2,262,960	7,744,80
Pase Course	<b>a</b> 3	0.0	4,478	2,299	. 0	. 0	
Shoul der	<b>e</b> 2	7500.0	300	146	2,250,000	1,095,000	3,345,00
Asphalt Patching	₽2	0.0	3,292	1,377	0	. 0	į
Surface Dressing (Single)	<b>m</b> 2	0.0	595	595	.0	0	1
Surface Dressing (Double)	<b>e</b> 2	0.0	744	936	0	0	100
Earth Drain	. 8	0.0	713	119	0	0	
Earth Drain in Swamp (by machine)	<b>a</b> 3	12000.0	1,103	474	14,196,000	5,688,000	19,884,00
Pipe Culvert DBOcm	9	0.0	39,035	51,386	0	0	· · ·
Hasonry Culvert (80x80cm)		0.0	52,335	41,554	0	0	į
Retaining Wall and Wing Wall (Timber)	<b>a</b> 2	0.0	8,591	246	0	. 0	· •
Retaining Wall and Wing Wall (Masonry)	<b>a</b> 3	0.0	37,920	11,869	Ō	0	
Gabion Protection	e3	0.0	11,791	120	0	0	
New Bridge (Timber)	SET	1.0		~~	. 0	0	
Hew Bridge (Concrete)	SET	1.0	w=		0	0	
			Sub Total		29,506,260	12,514,460	42,020,72
Overhead ( 15% )					4,425,939	1,877,169	6,303,10
			TOTAL COST		33,932,199	14,391,629	48,323,82
n	v.	7 8	119 179	3 519	771 511	20 311	358,26
Manual routine maintenance of road	Kas Kas	3.0 3.0	112,172 194,356	7,248 88,047	336,516 583,068	21,744 264,141	847,20
Routine maintenance of gravel road	K#	3.0	Sub lotal	110,00	919,584	285,885	1,205,46
Maintenance of Timber Bridge (New)	<b>a</b> 2	0.0		1,010	0	100,000	11100110
Haintenance of Concrete Bridge (New)	=2 =2			3,135	0	ō	
Haintenance of Timber Bridge (Exist)	n2			2,349	0	Ö	
Maintenance of Concrete Bridge (Exist)	a2			2,471	0	o	
		. ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~					
				Pavement Un		p/Ka) :	16,107,94
			Ti⊕ber			p/#2t t	
			Concrete			p/a2) :	
			Survived	Value		(Rp) :	3,097,92
				Rate without	-	(2) :	2.4
			New Bridge	Lost Rate		(2) :	

PROV : KALIMANTAN SELATAN

KAB : HULU SUNGAT TENGAH

LINK NO : 83 (IIIC)

LENGTH : 5 Km

UPGRADE : 6.0m road bed, 3.5m road with surface Subbase Cource

UNIT QUARTETY LOCAL FOREIGN LOCAL FOREIGN TOTAL Site Clearance in Light Bush **a**2 2000.0 167 331,000 182,000 Subgrade Preparation .0 n2 21 - 11 Normal Fill 0.0 1,734 2,539 Fill in Swamp яJ 0.0 1,052 0 Normal Excavation to Spoil 71,120 36,540 107,660 ė3 70.0 1,016 522 Sub Base Course аJ 120.5 3,263 1.347 393,191 162,313 555,504 2,299 Base Course 1050.0 4,701,900 вЗ 4,47B 2,413,950 7,115,950 3,750,000 Shoulder **#**2 12500.0 300 146 1,825,000 5,575,000 Asphalt Patching 0.0 3,292 1,377 Surface Dressing (Single) 575 0.0 595 a2 Surface Dressing (Double) 82 0.0 744 936 Earth Drain 0.0 713 117 Û Earth Drain in Swamp (by machine) a3 0.0 1,193 474 0 Pipe Culvert DBOco 39,035 51,381 0.0 Masonry Culvert (80x80cm) 52,335 11,551 0.0 Retaining Wall and Wing Wall (Timber) 8,591 246 Û 82 0.0 Retaining Wall and Wing Wall (Masonry). 0.0 37,920 11,868 0 **a**3 11,791 120 0 Babion Protection **a**3 0.0 --New Bridge (Timber) SET 1.0 0 Hen Bridge (Concrete) SET 1.0 13,870,014 9,250,211 4,619,803 Sub Total 692,970 2,080,501 1,387,531 Overhead { 15% } 10,637,742 5,312,773 TOTAL COST 597,100 7,249 560,860 36,240 112,172 5.0 Manual routine maintenance of road 971,780 440,235 1,412,015 194,356 88,047 Routine maintenance of gravel road 5.0 476,475 2,009,115 Sub Total 1,532,640 0 1,010 0 **#**2 0.0 6,133 Haintenance of Timber Bridge (New) 0 1,585 3,135 0 0 0.0 Maintenance of Concrete Bridge (Kew) **#2** 2,349 7,082 0 0 0.0 82 Maintenance of Timber Bridge (Exist) 4,333 2,471 Maintenance of Concrete Bridge (Exist) 0.0 (Rp/Kn) 3,190,103 Earthwork & Pavement Unit Cost Bridge Unit Cost Bridge Unit Cost liaber (Rp/m2) (Rp/a2) Concrete 222,201 (Rp) Value Survived (X) 12,60 Maintenance Rate without Bridge : Hew Orioge Cost Rate (2)

PROV : KALIMANTAN SELATAN KAB : HULU SUNGAI TENGAH

LINK NO : 72 (IIIB-1) LENGTH : 5 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

1 T E N	UNIT	YTITKAUG	(\(\) UNIT	COST >>> Foreign	. <<<<< Local		YOTAL >>>>>>
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	** ** ** ** ** **	~~~~	74 Ed 100 479 100 100 100 100 10 ² 10 ² 100 100 100 100 100 100 100 100 100 10				
Site Clearance in Light Bush	• •2	0.0	167	91	0	0	
Subgrade Preparation	a 2	40.5	21	11	850	445	1,295
Normal Fill	a 3	0.0	1,734	863	0	0	
Fill in Swamp	#3	1.0	2,539	1,052	2,539	1,052	3,59
Normal Excavation to Spoil	- #3	0.0	1,016	522	. 0	Ü	
Sub Base Course	63	814.0	3,263	1,347	2,656,082	1,096,459	3,752,54
Base Course	₽3	1400.0	4,478	2,299	6,269,200	3,219,600	9,497,80
Shoul der	#2	10000.0	300	146	3,000,000	1,460,000	4,460,00
Asphalt Patching	n 2	0.0	3,292	1,377	0	0	
Surface Dressing (Single)	#2	20000.0	595	595	11,900,000	11,700,000	23,800,00
Surface Dressing (Double)	* 2	0.0	744	936	0	. 0	
Earth Drain	В	400.0	713	119	285,200	47,600	332,80
Earth Drain in Swamp (by machine)	m3	30.0	1,183	474	35,490	11,220	49,71
Pipe Culvert DBOcm	. 6	0.0	39,035	51,386	. 0	. 0	
Masonry Culvert (80x80cm)		0.0	52,335	41,554	Ò	0	
Retaining Wall and Wing Wall (Timber)	#2		8,591	246	644,325	18,450	662,77
Retaining Wall and Wing Wall (Masonry)	a3		37,920	11,868	2,844,000	890,100	3,734,10
Gabion Protection	a3 .		11,791	120	0	0	• [. • . ,
Hem Bridge (Timber)	SET		**1		Ŏ	Ö	
Hew Bridge (Concrete)	SET	1.0			0	0	
	•		Sub Total	1	27,637,686	18,646,925	46,284,61
Overhead (15%)					4,145,652	2,797,038	6,942,69
			TOTAL COST		31,783,338	21,443,963	53,227,30
			420 130	7 244	5/A 5/A	7/ 7/0	
Manual routine maintenance of road	Ka V-		112,172	7,248		36,240	597,10 2 334 50
Routine maintenance of asphalt road	Ke	5.0	329,200	137,700	1,646,000	699,500	2,334,50
			Sub Total		2,206,860	724,740 0	2,931,60
Maintenance of Timber Bridge (New)	a2		6,133	1,010	0	-	٠
Maintenance of Concrete Bridge (New)	s2		1,585	3,135	0	0	
Maintenance of Tieber Bridge (Exist)	e2			2,349	0	0	
Maintenance of Concrete Bridge (Exist)	a 2	0,0	4,333	2,471	V	U	
	~~~~			***			
			Earthwork &	Pavement U	Init Cost 🗀 (Rp	/Ka) :	10,645,46
			limber	Bridge U	Init Cost (Rp	/a2) :	
·			Concrete	-		/m2} . :	
			Survived	Value		Řp) :	4,524,33
•			Maintenance			ži :	5.5
			New Bridge		(	•	

PROV : KALIMANTAN SELATAN

KAB : HULU SUNGAI TENGAH

LINK NO : 71 (IIIB-2) LENGTH : 3 Km

UPGRADE : 6.5m road bed, 3.5m road with surface Base Cource

(Rp)

				********				(Rp)
ITEN		:	((\ UNI)	COST >>	·	(((((	COST	>>>>>
**************************************	TIKU	QUANTITY	LOCAL	FORE16N	LO	CAL	FOREIGN	ATOT
Site Clearance in Light Bush	. 5							
Subgrade Preparation	e2	0.0	167	91		0	-0	1
Hormal Fill	n2	40.5	21	11		850	445	1,29
	<b>a</b> 3	0.0		863		0	0	
Fill in Swamp	<b>a</b> 3	1.0	2,539	1,052		539	1,052	3,59
Normal Excavation to Spoil	<b>a</b> 3	0.0	1,016	522		0	0	
Sub Base Course	#3	126.0	3,263	1,347	1,390,		573,822	1,963,86
Base Course	#3	630.0	4,478	2,299			1,448,370	4,269,51
Shoulder	a2	9000.0	300	146	2,700,	000	1,314,000	4,014,00
Asphalt Patching	92	0.0	3,292	1,377		0	0	ı
Surface Dressing (Single)	n2	0.0	595	595		0	0	
Surface Dressing (Double)	<b>a</b> 2	0.0	744	936		0	0	
Earth Drain	6	2000.0	713	119	1,426,	000	238,000	1,664,00
Earth Drain in Swamp (by machine)	<b>a</b> 3	30.0	1,183	474			14,220	49,71
Pipe Culvert D8Oca	#	0.0	39,035	51,386	,	0	0	
Masonry Culvert (90x80cm)	á	0.0	52,335	41,554		0	. 0	
Retaining Hall and Hing Wall (Timber)	n2	60.0	8,591	246	515,	460	14,760	530,22
Retaining Wall and Wing Wall (Masonry)	<b>a</b> 3	100.0	37,920	11,868			1,186,800	4,978,80
Gabion Protection	a3	0.0	11,791	120		0	0	
New Bridge (Timber)	SET	1.0	·			0	0	
New Bridge (Concrete)	SET	1.0		. *-		0	0	
			Sub Total		12,603,	517	4,791,469	17,474,98
Overhead ( 15% )	٠				1,902,	527	718,720	2,621,24
			TOTAL COST		14,588,	044	5,510,189	20,096,23
Manual routine maintenance of road	Ke	3,0	112,172	7,248			21,744	358,26
Routine maintenance of gravel road	Ke	3.0	194,356 Sub Total	98,047	583, 919,		264,141 285,885	847,20 1,205,46
Maintenance of Timber Bridge (New)	<b>a</b> 2	0.0	6,133	1,010		0	0	
Kaintenance of Concrete Bridge (New)	<b>s</b> 2	0.0	1,595	3,135		0	0	
Maintenance of Timber Bridge (Exist)	<b>n</b> 2	0.0	7,082	2,349		0	0	
Maintenance of Concrete Bridge (Exist)	<b>8</b> 2	0.0	4,333	2,471		0	0	
			Earthwork &	Paucanni 1	Unit Cart	(Rp/Ka		6,698,74
					unit Cost Unit Cost			0101011.
			Timber Secondo	•		(Rp/m2		
			Concrete		Unit Cost	(Rp/s2		001 03
			Survived	Value		(Rp)		981,93
			Haintenance		nt arrade	(2)	:	6.0
			Kew Bridge	L05[ Kate		(2)	:	

PROV : KALIMANTAN SELATAN KAB : HULU SUNGAI TENGAH

LINK NO : 64 (IIIB-1) LENGTH : 3 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

ite Clearance in Light Bush subgrade Preparation smal Fill ill in Swamp smal Excavation to Spoil sub Base Course ase Course support Patching surface Dressing (Single) surface Dressing (Double)	11 - 223333332222#3##2	0.0 1.0 0.0 184.0 280.0 6000.0 102.0 12000.0	167 21 1,734 2,539 1,016 3,263 4,478 300 3,272 595 744 713 1,183	FOREIGN 91 11 863 1,052 522 1,347 2,299 146 1,377 595	85 2,53 600,37 1,253,84 1,800,00 335,78 7,140,00	0 0 0 9 0 2 0 0	0 445 0 1,052 0 247,848 643,720 876,000 140,454 140,000	1,25 3,55 848,24 1,897,56 2,676,00
ubgrade Preparation proof Fill ill in Swamp proof Excavation to Spoil ub Base Course poulder sphalt Patching prace Dressing (Single) prace Dressing (Double) parth Drain parth Drain proce Culvert (80x80cm) etaining Wall and Wing Wall (Timber)	**************************************	40.5 0.0 1.0 0.0 184.0 280.0 6000.0 102.0 12000.0 0.0 30.0	21 1,734 2,539 1,016 3,263 4,478 300 3,272 595 744 713	11 863 1,052 522 1,347 2,299 146 1,377 595	2,53 600,37 1,253,84 1,800,00 335,78 7,140,00	0 9 0 2 0 0 0 14	445 0 1,052 0 247,848 643,720 876,000 140,454	1,29 3,59 848,24 1,897,56 2,676,00
ubgrade Preparation proof Fill ill in Swamp proof Excavation to Spoil ub Base Course poulder sphalt Patching prace Dressing (Single) prace Dressing (Double) parth Drain parth Drain proce Culvert (80x80cm) etaining Wall and Wing Wall (Timber)	#3	40.5 0.0 1.0 0.0 184.0 280.0 6000.0 102.0 12000.0 0.0 30.0	1,734 2,539 1,016 3,263 4,478 300 3,292 595 744 713	863 1,052 522 1,347 2,299 146 1,377 595	2,53 600,37 1,253,84 1,800,00 335,78 7,140,00	0 9 0 2 0 0 14	0 1,052 0 247,848 643,720 876,000 140,454	3,59 848,24 1,897,58 2,676,00
proof Fill in Swamp proof Excavation to Spoil so Base Course socider sphalt Patching prince Dressing (Single) prince Dressing (Double) sorth Drain sorth Drain ipe Culvert 080cm securing Wall and Wing Wall (Timber)	R 3 3 3 3 3 2 2 2 2 4 3 8 8	0.0 1.0 0.0 184.0 280.0 6000.0 102.0 12000.0 0.0 30.0	1,734 2,539 1,016 3,263 4,478 300 3,292 595 744 713	1,052 522 1,347 2,299 146 1,377 595	2,53 600,37 1,253,84 1,800,00 335,78 7,140,00	9 0 2 0 0 14	1,052 0 247,848 643,720 876,000 140,454	3,59 848,24 1,897,56 2,676,00
III in Swamp  oraal Excavation to Spoil  ob Base Course  ase Course  oulder  sphalt Patching  orface Dressing (Single)  orface Dressing (Double)  arth Drain  orth Drain in Swamp (by Machine)  seconry Culvert (80x80cm)  etaining Wall and Wing Wall (Timber)	R 3 3 3 3 3 2 2 2 2 4 3 8 8	1.0 0.0 184.0 280.0 6000.0 102.0 12000.0 0.0 30.0	2,539 1,016 3,263 4,478 300 3,292 595 744 713	1,052 522 1,347 2,299 146 1,377 595	2,53 600,37 1,253,84 1,800,00 335,78 7,140,00	0 2 10 10 14	0 247,848 643,720 876,000 140,454	848,24 1,897,56 2,676,00
proal Excavation to Spoil us Base Course use Course use Course uselder update Patching urface Dressing (Single) urface Dressing (Double)	63 63 62 62 62 62 63 63 63 64 64 64 64 64 64 64 64 64 64 64 64 64	0.0 184.0 280.0 5000.0 102.0 12000.0 0.0 30.0	1,016 3,263 4,478 300 3,292 595 744 713	522 1,347 2,299 146 1,377 595	600,39 1,253,84 1,800,00 335,78 7,140,00	0 2 10 10 14	0 247,848 643,720 876,000 140,454	848,26 1,897,56 2,676,00
ub Base Course ase Course noulder sphalt Patching urface Dressing (Single) urface Dressing (Double) arth Drain arth Drain ipe Culvert 080cm securing Wall and Wing Wall (Timber)	43 7 7 2 2 2 3 3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	184.0 280.0 6000.0 102.0 12000.0 0.0 0.0	3,263 4,478 300 3,272 595 744 713	1,347 2,299 146 1,377 595 936	600,37 1,253,84 1,800,00 335,78 7,140,00	0 0 14 0 7	643,720 876,000 140,454	1,897,50 2,676,00
ase Course noulder sphalt Patching urface Dressing (Single) urface Dressing (Double) arth Drain arth Drain in Swamp (by Machine) ipe Culvert 080cm security Culvert (80x80cm) etaining Wall and Wing Wall (Timber)	83 7 2 2 2 8 3 8 8 8	280.0 6000.0 102.0 12000.0 0.0 0.0 30.0	4,478 300 3,272 595 744 713	2,299 146 1,377 595 936	1,253,84 1,800,00 335,78 7,140,00	0 0 14 0 7	643,720 876,000 140,454	2,676,00
noulder sphalt Patching urface Dressing (Single) urface Dressing (Double) arth Drain arth Drain in Swamp (by machine) ipe Culvert 080cm asonry Culvert (80x80cm) etaining Wall and Wing Wall (Timber)	e2 n2 n2 n a3 a	6000.0 102.0 12000.0 0.0 0.0 30.0	300 3,292 595 744 713	146 1,377 595 936	1,800,00 335,78 7,140,00	0° 14 . 10 . 7	140,454	
sphalt Patching orface Dressing (Single) orface Dressing (Double) orth Drain orth Drain in Swamp (by machine) ope Culvert 080cm osonry Culvert (80x80cm) otaining Wall and Wing Wall (Timber)	m2 m2 m m3 m	102.0 12000.0 0.0 0.0 30.0	3,272 575 744 713	1,377 595 936	335,78 7,140,00	14 . 10 7	140,454	476,2
orface Dressing (Single) orface Dressing (Double) orth Drain orth Drain in Swamp (by machine) ope Culvert 080cm osonry Culvert (80x80cm) otaining Wall and Wing Wall (Timber)	12 11 12 13 13 14	12000.0 0.0 0.0 30.0	595 744 713	595 936	7,140,00			
orface Dressing (Double) orth Drain orth Drain in Swamp (by machine) pe Culvert 080cm osonry Culvert (80x80cm) otaining Wall and Wing Wall (Timber)	12 11 12 13 13 14	0.0 0.0 30.0	744 713	736				14,280,00
arth Drain arth Drain in Swaøp (by Machine) ipe Culvert 090cm isonry Culvert (80x80cm) ataining Wall and Wing Wall (Timber)	# #3 #	0.0 30.0	713			0	0	
orth Drain in Swa <b>e</b> p (by eachine) pe Culvert 080ca sonry Culvert (80x80ca) taining Wall and Wing Wall (Tieber)	a	30.0	1 197	119		0	0	
pe Culvert 080cm Isonry Culvert (80x80cm) Itaining Wall and Wing Wall (Timber)	a		11117	474			14,220	49,7
isonry Culvert (80x80cm) Itaining Wall and Wing Wall (Timber)			39,035	51,386	•	0 .	0	
etaining Wall and Wing Wall (Timber)		0.0	52,335	41,554		0	0	
	# (	4.	8,591	248		0	7,380	265,1
taining Wall and Wing Wall (Masonry)	<b>a</b> 3			11,868			186,800	4,978,8
	a3		11,791	120		0	0	
	SET					0	: 0	
4	SET	1.0				0	. <b>Q</b>	+ 1
			Sub Total		15,218,62	25 10	,257,919	25,476,5
rerhead (15%)					2,282,79	3 1	,538,697	3,821,4
		·	TOTAL COST		17,501,41	8 11	,796,606	29,298,0
inual routine maintenance of road	Ka	3.0	112,172	7,248	336,51	 6	21,744	358,2
	Kø	3.0	329,200 Sub Total	137,700		10	413,100 434,844	1,400,7
intenance of Timber Bridge (New)	<b>e</b> 2	0.0	6,133	1,010		0	0	
	e2		1,585	3,135		0	. 0	
	e2		7,082	2,349		Ö	ō	
	a2		4,333	2,471		0	0	
			tarlhumrb i	Danasani 1	Nait Fact	(Rp/Ke)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	9,788,0
			Earthwork &		Unit Cost Unit Cost			111001
		•	Timber	•	Unit Cost Noit Cost	(Rp/e2)		
			Concrete	-	Unit Cost	{Rp/a2}		077 9
•			Survived	Value	nk Deiden	(Rp)	:	973,2 6.
·			Haintenance Hew Bridge		nr ottoås	(X) (X)	:	٥.

PROV : KALIMANTAN SELATAN KAB : HULU BUNGAI TENBAH

LINK NO : 62 (IIIB-1) LENGTH : 2 Km

UPGRADE : 6.5m road bed, 3.5m road with surface Dressing (1)

								(Rp)
3 T E B	UNIT	QUANTITY	<<< UNIT LOCAL	COST >>			OST	>>>>> TOTAL
Site Clearance in Light Bush	m2	۸ ۸			_			
Subgrade Preparation		0.0	167	91			0	. (
Normal Fill	a2		21	.11			123	207,813
Fill in Swamp	#3 #3	0.0	1,734	863			0	(
Normal Excavation to Spoil		1.4	2,539	1,052	•		472	5,028
Sub Base Course	83	71.0	1,016	522	•		502	139,958
Base Course	03 -7	493.0	3,263	1,347				2,272,730
sase coorse Shoulder	<b>2</b> 3	245.0	4,478	2,299				1,660,36
	n2	6000.0	300	116				2,676,000
Asphalt Patching	. 42	0.01	3,292	1,377	-		770	46,690
Surface Dressing (Single)	€2	7000.0	595	595		4,165,	000	8,330,000
Surface Dressing (Double)	<b>a</b> ?	0.0	744	936		)	0	
Earth Drain.	8	2000.0	713	119	1,426,000	238,	000	1,664,000
Earth Drain in Swamp (by machine)	<b>a</b> 3	12.0	i,183	474	49,686	. 19,	908	69,594
Pipe Culvert 080cm	R	0.0	39,035	51,386	O	)	0	. (
Hasonry Culvert (80x80cm)	R	0.0	52,335	41,554	(	)	0	(
Retaining Wall and Wing Wall (Timber)	n2	25.0	8,591	246	214,775	6.	150	220,92
Retaining Wall and Wing Wall (Masonry)	<b>±</b> 3	100.0	37,920	11,869				4,978,800
Gabion Protection	-3	0.0	11,791	120	-		0	, · · (
New Bridge (Timber)	SET	1.0			0	)	0	(
New Bridge (Concrete)	SET	1.0			0	)	0	(
			Sub Total		14,419,850	7,854	,051	22,273,901
Overhead (15%)					2,162,977	1,178	,107	3,341,08
			TOTAL COST		14,582,827	9,032	,158	25,614,98
Manual routine maintenance of road	Ka	2.0	112,172	7,248			496	238,84
Routine maintenance of asphalt road	Kø	2.0	329,200	137,700	658,400	275	400	933,80
			Sub Total		882,744	269	896	1,172,64
Maintenance of Timber Bridge (New)	a2-	0.0	6,133	1,010	C	)	0	(
Maintenance of Concrete Bridge (Mem)	•2	0.0	1,585	3,135	. (	) .	Û	
Haintenance of Timber Bridge (Exist)	e2	120.0	7,082	2,349	849,840	281	,880	1,131,72
Maintenance of Concrete Bridge (Exist)	<b>a</b> 2	0.0	4,333	2,471	(	)	0	1
			Earthwork &	Pavesent	Unit Cost (	(Rp/Ka)	:	12,807,49
4						(Rp/e2)		
				,		(Rp/a2)		
				Value	-	(Rp)	1	1,922,98
							-	
			Maintenance	Rate withou	ut Bridae	<b>(X)</b>	:	4.5

PROV

: KALIMANTAN SELATAN KAB : HULU SUNGAI TENGAH

LINK NO : 54 (1118-2)

LENGTH : 4 Km

UFGRADE : 6.0m road bed, 3.5m road with surface Base Cource

								(Rp)
1158				cost >>>		ш.	COST	)>>>>
	UNIT	PUANTITY	LOCAL	FOREIGN	LOCI	 JF	FOREIGN	TOTAL
						_		
Site Clearance in Light Bush	62	0.0	167	91		0	0	. !
Subgrade Preparation	<b>#2</b>	0.0	21	11		0	Ð	
Normal Fit1	<b>a</b> 3	0.0	1,734	863		0	0	
fill in Swamp	<b>9</b> 3	0.0	2,539	1,052		0	Ü	
formal Excavation to Spoil	<b>#</b> 3	0.0	1,016	522		0		
Sub Base Course	<b>8</b> 3	654.0	3,263	1,347			880,938	3,014,94
Dase Course	<b>a</b> 3	840.0	4,478	2,299	3,761,57		931,160	5,692,68
Shoul der	n2	10000.0	300	146	3,000,00		460,000	4,460,00
Asphalt Patching	87	0.0	3,292	. L ₁ 377		0	0	
Surface Dressing (Single)	a2	0.0	595	595		0 -	Q	
Surface Dressing (Double)	#2	0.0	744	936		0	0	
Earth Drain	8	0.0	713	119		0	0	
Earth Drain in Swamp (by machine)	<b>a</b> 3	0.0	1,183	474		0	0	
Pipe Culvert D80cm	n	0.0	39,035	51,386		0	0	
Masonry Culvert (80x80cm)	-	0.0	52,335	41,554		0	0	
Retaining Wall and Wing Wall (Timber)	<b>e</b> 2	0.0	8,591			0	0	
Retaining Wall and Wing Wall (Masonry)	<b>±</b> 3	0.0	37,920	11,968		0	0	
Gabion Protection	<b>a</b> 3	0.0	11,791	120		0	0	
len Bridge (Timber)	SET	1.0				Q	Q	
lew Bridge (Concrete)	SET	1.0		# B		0	0	
	•		Sub Total		8,895,5	22 4,	272,098	13,167,62
Iverhead ( 15% )					1,334,3	28	640,814	1,975,16
			TOTAL COST		10,229,8	50 4,	912,912	15,142,76
:					n. an			
anual routine maintenance of road	K∎	4.0	112,172	7,248			28,992	477,6
outine maintenance of gravel road	Ka	4.0	194,356	88,047			352,188	1,129,6
			Sub Total		1,226,1		381,180	1,607,29
laintenance of Timber Bridge (New)	n2	0.0	6,133	1,010		0	0	
laintenance of Concrete Bridge (New)	<b>a</b> 2	0.0	,	3,135		0	. 0	
laintenance of Timber Bridge (Exist)	<b>a</b> 2	164.0	7,082	2,349	1,161,4	18	385,236	1,546,61
laintenance of Concrete Bridge (Exist)	<b>a</b> 2	0.0	4,333	2,471		0	0	
						(D., 19)		9 WAE 2
		:	Earthwork &		Unit Cost	(Rp/Km)	:	3,785,8
			Timber		Unit Cost	(Rp/m2)	:	
			Concrete		Unit Cost	(Rp/a2)	;	
			Survived	Value		(Rp)	:	1,507,4
			Haintenance Kew Bridge		ut Bridge	(X) (X)	;	10.
							:	

PROV

: KALIMANTAN SELATAN

KAB: HULU SUNGAT TENBAH

LINK NO :-

53 (1118-1)

LENGTH #

UPGRADE

6.0m road bed, 3.5m road with surface Dressing (1) <--- COST COST COST COST >>>>> UNIT QUANTITY LOCAL FOREIGN FOTAL. LOCAL FOREIGN Site Clearance in Light Bush 0.0 167 91 Subgrade Preparation e2 0.021 : 11 Λ. Normal Fill e3 0.01,734 863 0 0 Fill in Swamp ₽3 0.0 2,539 1,052 0 Normal Excavation to Spoil **a**3 0.0 1,016 522 Sub Rase Course #3 0.03,263 1,347 0 Base Course .3 0.0 4,478 2,299 Shoulder •2 5000.0 1,500,000 730,000 2,230,000 300 146 Asphalt Patching 734,116 •2 223.0 3,292 1,377 307,071 1,041,187 Surface Dressing (Single) 7000.0 **a**2 595 595 4,165,000 4,165,000 8,330,000 Surface Dressing (Double) •2 0.0 744 936 G Earth Drain 0.0 713 117 Û 0 Earth Drain in Swamp (by machine) 1,183. ₽3 0.0 474 Pipe Culvert D80cm 39,035 51,386 0.0 a 0 0 Hasonry Culvert (80x80cm) 52,335 41,554 0.0 0 û Retaining Wall and Wing Wall (Timber) a2 0.0 8,591 246 0 Retaining Wall and Wing Wall (Masonry) 93 0.0 37,920 11,869 Gabion Protection ъZ 0.0 11,791 120 New Bridge (Timber) SET 1.0 --New Bridge (Concrete) SET 1.0 0 Sub Total 6,399,116 5,202,071 11,601,187 Overhead 1 15% 1 959,867 780,310 1,740,177 TOTAL COST 5,982,381 7,358,983 13,341,364 7,248 224,344 14,496 238,840 Hanual routine maintenance of road 2.0 112,172 933,800 Routine maintenance of asphalt road 2.0 329,200 137,700 658,400 275,400 1,172,640 882,744 289,896 Sub Total 0 1,010 0 Maintenance of Timber Bridge (Kew) 32 0.0 6,133 0 0 Haintenance of Concrete Bridge (New) 2 0.0 1,585 3,135 0 0 127,476 42,282 169,758 Maintenance of Timber Bridge (Exist) 2,349 a2 18.0 7,082 4,333 Maintenance of Concrete Bridge (Exist) . #2 2,471 52,342 29,849 12.1 Earthwork & Pavement Unit Cost (Rp/Ka) 6,670,683 liaber Bridge Unit Cost (Rp/#2) (Rp/#2) Bridge Unit Cost Concrete (Rp) Survived Value 0 . Maintenance Rate without Bridge (Z) 8.79 **(%)** New Bridge Cost Rate

PROV : KALIMANTAN SELATAN KAB : HULU SUNBAI TENBAH

LINK NO : 51 (IIIB-2)

LENGTH : 5 Km

UPGRADE : 6.5m road bed, 3.5m road with surface Base Cource

H 3 T	UNIT	QUANTITY	<<< UNIT LOCAL	COST >>> Foreign	LOCA	CCCC COS L FOREIG	
Site Clearance in Light Bush	<b>a</b> 2	1500.0	167	91	250,50	0 136,50	0 387,000
Subgrade Preparation	<b>a</b> 2	0.0	21	11	•	-	) (
Normal Fill	<b>#</b> 3	0.0	1,734	863		0	0 (
Fill in Swamp	m3	0.0	2,539	1,052		0	) (
Normal Excavation to Spoil	н3	0.0	1,016	522		0	Q (
Sub Base Course	a3	0.0	3,263	1,347		0	0 (
Base Course	₽3.	0.0		2,299		0	0 - (
Shoulder	n2	15000.0	300	146	4,500,00	0 2,190,00	0 6,690,000
Asphalt Patching	<b>a</b> 2	488.0	3,292	1,377			
Surface Dressing (Single)	<b>#2</b>	0.0		595		0	
Surface Dressing (Double)	<b>s</b> 2	0.0	744	936		0	0 (
Earth Orain	3	0.0	713	119		0	0
Earth Drain in Swamp (by machine)	<b>a</b> 3	0.0	1,183	474		0	0
Pipe Culvert D90cm	. 4	0.0	39,035	51,386		0	0 (
Hasonry Culvert (80x80cm)	A	0.0	52,335	41,554		0	0 (
Retaining Wall and Wing Wall (Timber)	<b>a</b> 2	0.0	9,591	246		0 .	0 (
Retaining Wall and Wing Wall (Masonry)	<b>a</b> 3			11,868		0	0 . (
Sabion Protection	<b>a</b> 3	0.0		120		0	0 (
Нем Bridge (liaber)	SET	1.0	·			0	0 •
Hew Bridge (Concrete)	SET	1.0		· <b></b>		0 -	0 - (
			Sub Total		6,356,9	16 2,998,47	6 9,355,47
Overhead ( 15% )					953,5	19 449,77	1,403,32
			TOTAL COST		7,310,5	3,448,24	7 10,758,79
fanual routine maintenance of road	Ke	5.0	112,172	7,249	560,8	0 36,24	0 597,10
Routine maintenance of gravel road	Ka	5.0	194,356	88,047	971,78		5 1,412,01
			Sub Total		1,532,6	10 476,47	5 2,009,11
taintenance of Tiaber Bridge (New)	65	0.0	6,133				0
faintenance of Concrete Bridge (New)	<b>52</b>	0.0	1,595	3,135		0	0
Maintenance of Timber Bridge (Exist)	#2	0.0		2,349		0	0
daintenance of Concrete Bridge (Exist)	<b>\$</b> 2	0.0	4,333	2,47!		0	0
·····			r11 -1 2	h		1b. (V 3	nuanganaanaanaanaanaanaanaanaanaanaanaanaa
			Earthwork &			(Rp/Ks) :	• •
			Tisber Connects		nit Cost	(Rp/m2) ;	
			Concrete		nit Cost	(Rp/#2) :	
			Survived	Value		(Rp) :	
			Maintenance	nate #1(000	E DUITURE	(%) :	18.6

PROV : KALIMANTAN SELATAN KABI: HULU SUNGAI TENGAH

LINK NO : 50 (111B-2) LENGTH : 6 Km

UPGRADE : 6.0m road bed, 3.5m road with surface Base Cource

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							(Rp)
1164	UNIT	YTTTMAUG	COCAL LINGS	COST >>> Foreign	<<<< Local		>>>>> Tota
				*****	**************************************	******	
Site Clearance In Light Bush	a 2	0.0	167	9]	0	. 0	
Subgrade Preparation	a 2	0.0	-21	11	. 0	0	
Normal Fill	æ3	0.0	1,734	863	0	0	
fill in Swamp	a 3	0.0	2,539	1,052	0	0	
Normal Excavation to Spoil	# 3	0.0	1,016	522	0	0	
Sub Base Course	a 3	1026.5	3,263	1,347	3,349,469	1,382,695	4,732,16
Base Course	a 3	1260.0	4,478	2,299	5,442,280	2,896,740	8,539,02
Shoul der	62	15000.0	300	146	4,500,000	2,190,000	6,690,00
Asphalt Patching	a 2	0.0	3,292	1,377	0	0	
Surface Dressing (Single)	a 2	0.0	595	595	. 0	0	
Surface Dressing (Double)	92	0.0	744	936	0	0	
Earth Drain	9	200.0	713	.119	142,600	23,800	166,40
Earth Orain in Swamp (by machine)	a 3	0.0	1,183	474	0	0	•
Pipe Culvert D80cm	a	0.0	39,035	51,384	0	0	
Hasonry Culvert (80x80cm)	R	0.0	52,335	41,554	0	0	
Retaining Wall and Wing Wall (Timber)	a2	0.0	8,591	246	0	0	
Retaining Wall and Wing Wall (Kasonry)	£3	0.0	37,920	11,868	0	0	
Gabion Protection	a 3	0.0	11,791	120	0	0	
Нен Bridge (Tiaber)	SET	1.0			0	0	
New Bridge (Concrete)	SET	1.0			0	0	•
	4		Sub Total		13,634,349	6,493,235	20,127,58
Overhead (15%)					2,045,152	973,985	3,019,13
			TOTAL COST		15,679,501	7,467,220	23,146,72
				7 010			
Manual routine maintenance of road	Ka v	6.0	112,172	7,248	673,032	43,489	716,52
Routine maintenance of gravel road	Ke	6.0	194,356	88,047	1,166,136	528,282	1,694,41
			Sub lotal	1 616	1,839,168	571,770	2,410,93
Maintenance of Timber Bridge (New)	·#2	0.0	6,133	1,010	0	0	
Maintenance of Concrete Bridge (New)	#2		1,595	3,135	0	701 105	1 570 //
Maintenance of Timber Bridge (Exist)	n2	166.8	7,082	2,349	1,180,923	391,695 0	1,572,61
Maintenance of Concrete Bridge (Exist)	a 2	0.0	4,333	2,471	V		
. ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							
			Earthwork &			/Kn) :	3,857,74
			limber	•	•	/e2) :	
			Concrete	Bridge Un	it Cost (Rp	/m2) :	
				Value		Rp) :	2,366,08
			Maintenance	Rate without	Bridge 1	(ኢ) :	10.4
			Hen Bridge			XI :	

PROV : KALIMANTAN SELATAN KAB : HULU SUNBAI TENGAH

LINK NO : 52 (IIIB-I) LENGTH : 2 Km

UPGRADE : 5.5m road bed, 3.5m road with surface Dressing (1)

(Rp)

							/i/h i
TTEH	TINU	PTITHAU		COST >>> FOREIGN	FOCAT (((()	COST FOREIGN	>>>>> Total
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				多多多 医牙切虫 医生物胃炎 甲甲氏虫	**************************************		
Site Clearance in Light Bush	a 2	500.0	167	91	83,500	45,500	129,000
Subgrade Preparation	m2	0.0	21	1, 11	0	0	· i
Normal Fill	# 3	0.0	1,734	863	0	0.	
Fill in Swamp	La	0.0	2,539	1,052	0	. 0	1
Normal Excavation to Spoil	e 3	0.0	1,016	522	0	. 0	
Sub Base Course	a 3	0.0	3,263	1,347	. 0	0	•
Base Course	#3	0.0	4,478	2,299	. 0	0	
Shoul der	=2	4000.0	300	146	1,200,000	584,000	1,784,00
Asphalt Patching	#2	272.0	3,292	1,377	875,424	374,514	1,269,96
Surface Dressing (Single)	s 2	7000.0	595	595	4,165,000	4,165,000	8,330,00
Surface Dressing (Double)	#2	0.0	744	936	0	0	•
Earth Drain		0.0	713	119	. 0	0	
Earth Drain in Swamp (by machine)	a3	0.0		474	0	0	
Pipe Culvert DBOca	8	0.0	39,035	51,386	0	0	
Masonry Culvert (80x80cm)		0.0	52,335	41,554	0	0	
Retaining Wall and Wing Wall (Timber)	a 2	0.0	8,591	246	0	0	
Retaining Wall and Wing Wall (Masonry)	83		37,920	11,869	Ď	0	
Gabion Protection	a3			120	ŏ	0	
New Bridge (Timber)	SET	1.0	131771		Ŏ	Ô	•
New Bridge (Concrete)	SET	1.0		<u></u>	, o	Ŏ	
nem orruge toutreter	acı	110					
			Sub Total		6,343,924	5,167,044	11,512,98
Overhead (15%)					951,588	775,358	1,726,94
			TOTAL COST		7,295,512	5,944,400	13,239,91
Manyal routine maintenance of road	Ka	2.0	112,172	7,248	221,314	14,496	239,89
Routine maintenance of asphalt road	Kan	2.0	329,200	137,700	658,400	275,400	933,80
vonttus metursudurs of sphustr 1090	. VM	2.0	Sub Total	137,700	882,744	289,896	1,172,6
Wei-bonanen al Timbon Deiden (Unu)	n2	0.0	6,133	1,010	002,777	207,070	1,172,0
Maintenance of Timber Bridge (Mem)	a2		•		. 0	0	
Maintenance of Concrete Bridge (New)	. a?		• •	2,349	0	. 0	
Maintenance of Timber Bridge (Exist)	- =/ a2		7,082		Û	0	
Maintenance of Concrete Bridge (Exist)	#1	0.0	4,333	2,471	. •	. •	:
				Pavement Uni	•		6,619,9
			limber	-	t Cost (Rp/		•
			Concrete		t Cost (Rp/		
			Survived	Value		t {q}	
			Haintenance	Rate without	Bridge ()	: (1)	8.1
			New Bridge		()		

PROV : KALIMANTAN SELATAN

KAB : HULU BUNGAI TENGAH

LINK NO : 43 (IIIB-2) LENGTH : 3 Km

UPGRADE : 6.0m road bed, 4.5m road with surface Base Cource

(< UNIT LOCAL 167 21 1,734 2,539 1,016 3,263 4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791 Total	COST >>> FOREIGN 91 11 863 1,052 522 1,347 2,299 146 1,377 595 936 119 474 51,386 41,354 246 11,868 120	1,864, 3,627, 1,350,	180 000 0 0 0	COST FORE16H	2,634,61 5,489,37 2,007,00
167 21 1,734 2,539 1,016 3,263 4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	91 11 863 1,052 522 1,347 2,299 146 1,377 595 936 119 474 51,386 41,554 246 11,868 120	1,864, 3,627, 1,350,	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 769,810 1,862,190 657,000 0 0	2,634,61 5,889,37 2,007,00
21 1,734 2,539 1,016 3,263 4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	11 863 1,052 522 1,347 2,299 146 1,377 595 936 119 474 51,386 41,554 246 11,869 120	3,627, 1,350,	0 0 0 0 804 180 0 0 0 0 0 0	0 0 0 0 769,810 1,862,190 657,000 0 0 0 238,000	2,634,61 5,489,37 2,007,00
21 1,734 2,539 1,016 3,263 4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	11 863 1,052 522 1,347 2,299 146 1,377 595 936 119 474 51,386 41,554 246 11,869 120	3,627, 1,350,	0 0 0 0 804 180 0 0 0 0 0 0	0 0 0 0 769,810 1,862,190 657,000 0 0 0 238,000	2,634,61 5,489,37 2,007,00
1,734 2,539 1,016 3,263 4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	863 1,052 522 1,347 2,299 146 1,377 595 936 119 474 51,386 41,554 246 11,868 120	3,627, 1,350,	180 000 0 0 0 0 0 0 0 0 0 0	769,810 1,862,190 657,000 0 0 0 238,000	2,634,61 5,889,37 2,007,00
2,539 1,016 3,263 4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	1,052 522 1,347 2,299 146 1,377 595 936 119 474 51,386 41,554 246 11,868 120	3,627, 1,350,	180 000 0 0 0 0 0 0 0 0 0 0	769,810 1,862,190 657,000 0 0 0 238,000	5,489,37 2,007,00 1,664,00
1,016 3,263 4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	522 1,347 2,299 146 1,377 595 936 119 474 51,386 41,554 246 11,869 120	3,627, 1,350,	180 000 0 0 0 0 0 0 0 0 0 0	769,810 1,862,190 657,000 0 0 0 238,000	5,489,37 2,007,00
3,263 4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	1,347 2,279 146 1,377 595 936 119 474 51,386 41,554 246 11,868 120	3,627, 1,350,	180 000 0 0 0 0 0 0 0 0 0 0	769,810 1,862,190 657,000 0 0 0 238,000	5,489,37 2,007,00
4,478 300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	2,299 146 1,377 595 936 119 474 51,386 41,554 246 11,868 120	3,627, 1,350,	180 000 0 0 0 0 0 0 0 0 0 0	1,862,190 657,000 0 0 0 238,000	5,489,33 2,007,00
300 3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	146 1,377 595 936 119 474 51,386 41,554 246 11,869 120	1,350,	000 0 0 0 0 0 0 0 0 0	657,000 0 0 0 0 238,000	2,007,00
3,292 595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	1,377 595 936 119 474 51,386 41,554 246 11,869 120		0 0 0 0 0 0 0 0	0 0 0 238,000 0	
595 744 713 1,183 39,035 52,335 8,591 37,920 11,791	595 936 119 474 51,386 41,554 246 11,869 120	1,426,	0 0 0 0 0 0 0 0	0 0 238,000 0	1,664,00
744 713 1,193 39,035 52,335 8,591 37,920 11,791	936 119 474 51,386 41,554 246 11,869	1,426,	0 000 0 0 0 0	0 238,000 0	
713 1,193 39,035 52,335 8,591 37,920 11,791	119 474 51,386 41,554 246 11,868 120	1,426,	0 0 0 0	0	1,664,00
1,193 39,035 52,335 8,591 37,920 11,791	474 51,386 41,554 246 11,868 120	1,720,	0 0 0 0	0	1,667,00
39,035 52,335 8,591 37,920 11,791	51,386 41,554 246 11,869 120		0 0 0 0	0 0 0	
52,335 8,591 37,920 11,791	41,554 246 11,869 120		0 0	0	
8,591 37,920 11,791 	246 11,869 120		0 0	0	
37,920 11,791 	11,869 120		0	0	
11,791 	120		-	0	
			-	0	
			v	•	
Tul-1			Λ		
		8,267,	Ona ·	7 577 000	11 751 DD
incar		912011	101	3,527,000	11,794,98
		1,240,	197	529,050	1,769,24
L COST		9,508,	181	4,056,050	13,564,23
10 130	7 240	771	e.,	21 245	750 21
12,172	7,248	336,		21,744	358,28
	001011				847,20 1,205,4
	3 010	7171		•	1 1 203 13
-	•		•		
-	•	NA.		-	115,5
		an i		20,770	110,00
1,000					
4		.: L P==1	(D- /V	1	4 EAL 4
					4,521,4
			•		
		11 C LOSE	•		[717 7/
		. Belden			1,317,30
ransers v		r priade			8.8
	er i rete l ived l tenance l	Notal 6,133 1,010 1,585 3,135 7,082 2,349 4,333 2,471 henrik & Pavesent Univer Bridge University U	Total 919, 6,133 1,010 1,585 3,135 7,082 2,349 86, 4,333 2,471 hwork & Pavesent Unit Cost ver Bridge Unit Cost crete Bridge Unit Cost vived Value Itenance Rate without Bridge	Total	Total

PROV : KALIMANTAN SELATAN KAB : HULU SUNGAI TENGAH

LINK NO : 33 (IIIC) LENGTH : 2 Km

UPGRADE : 7.5m road bed, 4.0m road with surface Subbase Cource (Rp)

ITEN			TIRU >>>	COST >>>	({{{{{}}}	COST	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	TIMU	PUANTITY	LOCAL	FOREIGN	LOCA		FOREIGN	TOTA
Site Clearance in Light Bush	a 2	0.0	- 167	91		0	0	
Subgrade Preparation	42	0.0	21	ii		Ŏ	Ò	
Normal Fill	5a	0.0	1,734	863		Ō	Ö	
Fill in Swamp	B 3	0.0	2,539	1,052		ñ	0	•
Hormal Excavation to Spoil	#3	0.0	1,016	522		Ŏ	0	
Sub Base Course	3	112.0	3,263	1,347		•	150,864	516,32
Base Course	3	480.0		2,299			,103,520	3,252,96
Shoulder	#3 #2	7000.0	300	146	2,100,00		,022,000	3,122,00
	#2	0.0	3,292		2,100,00	0	0	2112100
Asphalt Patching			3,212 595	595		0	0	
Surface Dressing (Single)	B2	0.0		936		-	۸.	
Surface Dressing (Double)	#2	0.0	744			0	0	
Earth Drain		0.0	713	119 474		۸	V	
Earth Drain in Swamp (by machine)	23	0.0	1,183			0		٠.
Pipe Culvert D80cm	. 8	0.0	39,035	51,385		U	v	
Masonry Culvert (80x80cm)	=	0.0	52,335	41,554		Q.	0	
Retaining Hall and Hing Hall (Timber)	5 2	0.0	8,591	246		0	Ų	•
Retaining Wall and Wing Wall (Masonry)	a 3	0.0	37,920	11,849		0	V	
Gabion Protection	#3	0.0		120		0	V	
New Bridge (Timber)	SET	1.0				0	Ų	
New Bridge (Concrete)	SET	1.0				0	0	
			Sub Total		4,614,8	76 2	276,384	6,891,28
Overhead (15%)					692,2	54	341,457	1,033,69
			TOTAL COST		5,307,1	30 2	2,617,841	7,924,97
	v++		100 120	7 717	774 7		11 40/	310 04
Manual routine maintenance of road	Ks.	2.0	112,172	7,240			14,496	238,84
Routine maintenance of gravel road	K∉	2.0	194,356	BB, 047			176,094	564,80
			Sub Total		613,0		190,590	803,84
Maintenance of Timber Bridge (New)	#2		6,133	1,010		0	0	
Maintenance of Concrete Bridge (Hew)	m2		•	3,135		0	0	
Haintenance of Timber Bridge (Exist)	. 52			2,349			254,819	1,023,07
Maintenance of Concrete Bridge (Exist)	s 2	0.0	4,333	2,471		0	0	
,			Earthwork &	Pavesent I	Unit Cost	(Rp/Ke)	:	3,962,46
			Timber		Unit Cost	(Ro/s2)		
			Concrete	-	Unit Cost	(Ro/+2)		
			Survived	Value		(Re)	:	206,57
			Haintenance		ut Bridae	(2)	:	10.1
			Hew Bridge		•	(2)	:	

PROV

KALIMANTAN SELATAN

KAB : HULU SUNGAI TENGAH

LINK NO

 $32 \quad (1118-2)$

LENGTH : 3 Km

UPGRADE

9.0m road bed, 4.0m road with surface Base Cource

(Rp) <<< UNIT COST >>> <<<<<< cc control cost >>> 222222 UNIT QUANTITY LOCAL FOREIGN LOCAL FOREIGN Site Clearance in Light Bush 92 0.0 91 Subgrade Preparation 42 0.0 21 -11 Normal Fill 23 0.0 1,734 863 Fill in Swamp. aЗ 0.0 0 2,539 1,052 Normal Excavation to Spoil a3 0.0 1,016 522 0 · e Sub Base Course 43 1034.0 1,392,798 1,655,280 3,263 1,347 3,373,942 4,766,740 Base Course *3 720.0 4,478 2,299 3,224,160 4,879,440 Shoulder 15000.0 300 4,500,000 146 2,190,000 6,690,000 Asphalt Patching 82 0.0 3,292 1,377 Surface Dressing (Single) •2 0.0 595 595 0 Surface Dressing (Double) #2 0.0 744 936 0 Earth Drain 0.0 ā 713 119 0 Û Earth Drain in Swamp (by machine) **a**3 0.0 1,193 474 0 Pipe Culvert 080cm 0.0 39,035 51,396 đ 0 Masonry Eulvert (80x80ca) 0.0 £ 52,335 41,554 0 Retaining Wall and Wing Wall (Timber) 0.0 a2 9,591 246 Retaining Wall and Wing Wall (Masonry) **e**3 0.0 37,920 11,668 0 Gabien Protection **#**3 0.0 11,791 120 New Bridge (Timber) SET 1.0 --0 Hew Bridge (Concrete) SET 1.0 Sub Total 11,078,102 5,238,078 16,336,180 Overhead (152) 1,664,715 785,711 2,450,426 TOTAL COST 12,762,817 6,023,789 18,784,606 Manual routine maintenance of road Ke 3.0 112,172 7,218 336,516 21,744 358,260 Routine maintenance of gravel road 3.0 194,356 88,047 583,069 264,141 847,209 Sub Total 919,584 285,885 1,205,469 Ø 0 Maintenance of Timber Bridge (New) 0.0 6,133 1,010 0 1,585 Haintenance of Concrete Bridge (New) 0 0 0 0.0 3,135 **n**2 Maintenance of Timber Bridge (Exist) 7,0B2 2,349 566,560 187,920 754,480 n2 80.0 2,471 Maintenance of Concrete Bridge (Exist) 0,0 4,333 (Rp/Km) Earthwork & Pavement Unit Cost 6,262,202 Bridge Unit Cost Bridge Unit Cost (Rp/#2) liaber (Rp/#2) Concrete Survived Value (Rp) 2,383,370 Maintenance Rate without Bridge (2) 6.42 (2) New Bridge Cost Rate

PROV : KALIMANTAN SELATAN

KAB : HULU SUNGAI TENGAH

LINK NO : 31 (1118-2) LENGTH : 3 Km

UPGRADE : 7.0m road bed, 3.5m road with surface Base Cource

(Re)

			•						(R;	11
1 1 E N				COST >>>		(((((CO		>>>>>	
	UNII	YTITHAUD	LOCAL	FORELGH	L00	:RL	FORET	6K 	101	1 H
ite Clearance in Light Bush	a 2	0.0	167	, 91		0		0		
ubgrade Preparation	#2	0.0	21	11		Ŏ		0		
ormal Fill	a 3	0.0	1,734	863		0		١.		
ill in Swamp	a.3	0.0	2,539	1,052		0		0		
ormal Excavation to Spoil	83	0.0		522		Ò.		0		-
ub Base Course	a 3	493.5	3,263	1,347	1,610,2	90	664,7	44	2,275,0	0.
ase Course	a 3	630.0	1,478	2,299	2,821,1		1,448,3		1,269,	
houl der	a 2	10500.0	300	146	3,150,0		1,533,0		4,683.0	
sphalt Patching	e2		3,292	1,377	.,,	0	- 1 1 -	0		
urface Dressing (Single)	e2	0.0	595	595		Ō		0		
urface Dressing (Double)	B2	0.0	744	936		Õ		0		
arth Drain		0.0	713	119		Ŏ		0		
arth Drain in Swamp (by machine)	a3	0.0	1,193	474		Ŏ		ñ		
	- NV	0.0	39,035	51,386		0		ń		
ipe Culvert D80cm	a a	0.0		41,554		Ó		۸		
asonry Culvert (80x80cm)			52,335	246		0		n		
etaining Wall and Wing Wall (Timber)	#2 #3	0.0	8,591 37,920	11,869		0		ð	•	
etaining Hall and Wing Wall (Masonry)						0		0		
abion Protection	ā.Š	0.0	11,791	120		0		0		
ен Bridge (Timber)	SET	1.0				0		^		
ew Bridge (Concrete)	SET	1.0	~~			U		v		
			Sub Total		7,581,4	130	3,646,1	14	11,227,	5
verhead (15%)			-	·	1,137,7	!14	546,9	17	1,684,	i.
			TOTAL COST		8,718,8	34	4,193,0	31	12,911,	67
									720	
anual routine maintenance of road	Ka	3.0	112,172	7,248	336,5		21,7		358,	
outine maintenance of gravel road	Ka	3.0	194,356	88,047	583,0		264,1		847,	
	_		Sub Total	,	919,		285,8		1,205,	,1
aintenance of Timber Bridge (New)	82 -2		6,133	1,010		0		0		
aintenance of Concrete Bridge (New)	92		1,585	3,135	-	0		0		
aintenance of Timber Bridge (Exist)	92		•	2,349		0		0		
aintenance of Concrete Bridge (£xist)	#2	0.0	4,333	2,471				V		
			Earthwork &	Pavegent II	nit Cost	(Rp/Ka	}	;	4,303,	.8
					nit Cost	(Ro/e2		:		
				•	hit Cost	(Ro/e2		:		
				•					1,137,	E
			Survived	Value		(Ro)		:	1.13/.	٠,J
			Survived Maintenance	Value Rate withou	t Bridge	(Rp)		: :		, J }

LINK NO : 24 (IIIB-1) LENGTH : 7 Km

UPGRADE : 7.0m road bed, 3.5m road with surface Dressing (1)

			~======================================			L.	(Rp)
LIEN			(((UNIT	COST >>>	· · · · · · · · · · · · · · · · · · ·	<<<< cost	>>>>>>
	TINU	PUANTLTY	LOCAL	FOREIGH	LOCAL		TOTA
014- 01 !- 12-11 Bu-l							
Site Clearance in Light Bush	a 2	0.0	. 167	91	(0	
Subgrade Preparation	a 2	0.0	21	11	C	0	
Hormal Fill	a 3	0.0	1,731	863	(0	
Fill in Swamp	£ 3	0.0	2,539	1,052	(0	
Normal Excavation to Spoil	£3	0.0	l,016	522	(0	
Sub Base Course	n3	1064.0	3,263	1,347	3,471,832	1,433,208	4,905,0
Pase Course	a 3	1715.0	4,478	2,299	7,679,770		11,422,5
Shoul der	a 2	24500.0	300	146	7,350,000		10,927,0
Asphalt Patching	e2	0.0	3,292	1,377			
Burface Dressing (Single)	m 2	24500.0	595	595	14,577,500		29,155,00
Surface Dressing (Double)	u 2	0.0	744	936	() (.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Earth Orain		0.0	713	119	ĺ	Ò	
Earth Drain in Swamp (by machine)	a 3	0.0	1,183	474		. 0	
Pipe Culvert D80cm	a	0.0	39,035	51,386	ì		
Masonry Culvert (80x80cm)	6	0.0	52,335	41,554	ì	•	
Retaining Wall and Wing Wall (Timber)	a2	0.0	9,591	246	ì		
Retaining Wall and Wing Wall (Masonry)	8 3	0.0	37,920	11,869	(_	
Gabion Protection	a3	0.0		•		•	
			11,791	120	-	•	
Nex Bridge (Timber)	SET	1.0	***) 0	
deн Bridge (Concrete)	SE1	1.0			,) 0	
			Sub Total		33,079,102	23,530,493	56,609,5
Overhead (15%)					4,961,865	3,529,573	8,491,4
			TOTAL COST		38,040,967	27,060,066	65,101,0
fanual routine maintenance of road	Ke	7.0	112,172	7,248	785,204	50,736	835,9
coutine maintenance of asphalt road	Ka	7.0	329,200	137,700	2,304,400	•	3,269,3
martur eathfeilblire At Bohnorf (688	UB	114	Sub Total	107 9100	3,089,604	•	4,104,2
Maintenance of Timber Bridge (New)	a2	0.0	6,133	010,1	31201100-		1111111
laintenance of Concrete Bridge (New)	m 2 m 2	0.0	6,133 1,585	3,135	(•	
	n2	20.0	7,082	2,349	141,640		188,8
faintenance of Timber Bridge (Exist)	_	0.0		2,471) 0	100,0
laintenance of Concrete Bridge (Exist)	•2	0.0	4,333	217/3	,	,	
						(D_ /V_)	0 300 1
			Earthwork &			(Rp/Ke) :	9,300,1
				•		(Rp/s2) :	
				4	nit Cost	(Rp/m2) ;	E 354 A
			Commence and	15-3		(Rp) :	5,758,0
				Value		•	
			Haintenance Hew Bridge	Rate withou	t Bridge	(Z) :	6.

PROV : KALIMANTAN SELATAN

KAB : HULU SUNGAI TENGAH

LINK NO : 23 (IIIB-1) LENGTH : 2 Km

UPGRADE : 6.5m road bed, 4.0m road with surface Dressing (1)

(Rp)

							(Kb)
ITEH			. ((\ UHE	C0ST >>>	(((((Cost	>>>>>
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	TINU	YTTTHAUQ	LOCAL	FOREIGN	LOCAL	FORE LON	JATOT
Sile Clearance in Light Bush	<b>s</b> ?	2500.0	167	91	417,500	227,500	645,000
Subgrade Preparation	a2	0.0	21	- 11	0	0	(1.2)
Rormal Fill	#3		. L,734	863	Ŏ	0	(
Fill in Swamp	a3	0.0	2,539	1,052	Ō	ò	
Normal Excavation to Spoil	43	0.0	1,016	522	. 0	Ò	
Sub Base Course	#3	292.4	3,263	1,347	954,101	393,862	1,347,96
aud base com se Base Course	e3	560.0					
-	e3 e2		4,470	2,299		1,287,440	3,775,120
Shoulder		5000.0	300	146	1,500,000	730,000	2,230,000
Asphalt Patching	a2	0.0	3,292	1,377	0	0	5 E50 60:
Surface Dressing (Single)	a2	B000.0	595	595	4,760,000	4,760,000	7,520,000
Surface Dressing (Double)	<b>a</b> 2	0.0	744	936	0 ·	0	
Earth Drain	5	0.0	713	119	0	0	
Earth Drain in Swamp (by machine)	· #3	0.0	1,193	474	0	Q 2	(
Pipe Culvert DBOcs	#	0.0	39,035	51,396	0	0	
Hasonry Culvert (80x80cm)	S	0.0	52,335	41,554	0	0	•
Retaining Wall and Wing Wall (Timber)	<b>a</b> 2	0.0	8,591	246	0	0	•
Retaining Wall and Hing Wall (Hasonry)	<b>#</b> 3	0.0	37,920	868,11	. 0	0	. •
Gabion Protection	<b>B</b> 3	0.0	11,791	120	. 0	0	(
New Bridge (Tisber)	SET	1.0			3,166,539	428,880	3,595,418
New Bridge (Concrete)	SET	1.0			. 0	0	(
			Sub Total		13,305,819	7,827,682	21,133,50
Overhead ( 15% )					1,995,872	1,174,152	3,170,02
			TOTAL COST		15,301,691	9,001,834	24,303,525
Manual routing maintenance of road	X s	2.0	112,172	7,248	224,344	14,496	239,84
Routine maintenance of asphalt road	Ke.	2.0	327,200	137,700		275,400	933,80
werring motifications of sphists 1048	VE	1.0	Sub Total	131,100	802,744	287,876	1,172,64
Maintenance of lister Deiden /Hout	7	20.0		1.010			200,00
Haintenance of limber Bridge (Hex) Kaintenance of Concrete Bridge (Hex)	82	28.0	6,133	1,010	•	28,280 0	200,00
	*2	0.0	1,585	3,135		•	
Maintenance of Timber Bridge (Exist)	a2	67.2	7,082	2,349	475,910	157,852 0	633,76
Maintenance of Concrete Bridge (Exist)	<b>e</b> 2	0.0	4,333	2,471	0	v	
,	****	~~~~~~	Earthwork &	Pavenoni i	Jnit Cost (Rp/)	(a)	10,084,39
			lieber		mit Cost (Rp/i		•
	•			•			147,66
			Concrete		init Cost (Rp/a		) 365 EA
			Survived	Value	(R)		1,702,59
			Maintenance New Bridge		it Bridge (%) (%)		5.8 17.0
			APR H71000	THE NATO	171	1	17.11

LINK ND : 22 (IIIB-1) LENGTH : 2 Km

UPGRADE : 7.0m road bed, 3.5m road with surface Dressing (1)

				~~~~~			(Rp)
ITEN	IIMIT	QUANTITY	(((UNIT	CUST >>> FOREIGN			>>>>>
		********	rocut.		LOCAL	FOREIGN	A101
Site Clearance in Light Bush	a 2	0.0	167	ns			
Subgrade Preparation	#2	0.0	21	91	0	Q	
Normal Fill	- a3	0.0	1,734	11 863	0	0	
fill in Swamp	#3	0.0	•		0	0	
ormal Excavation to Spoil	e3	0.0	2,539	1,052	0	0	
Sub Base Course	n3		1,016	522	0	0	
lase Course		297.5	3,263	1,347	970,742	400,732	1,371,4
koui der	83		4,478	2,299	2,174,220	1,126,510	3,320,7
	•2	7000.0	300	.146	2,100,000	1,022,000	3,122,0
sphalt Patching	a 2	0.0	3,292	1,377	0	0	
urface Dressing (Single)	a 2	7000.0	595	595	4,165,000	4,165,000	8,330,0
urface Dressing (Double)	n 2	0.0	744	936	0	. 0	
arth Drain	6	0.0	713	119	0	0	
arth Drain in Swamp (by machine)	a 3	0.0	1,183	474	0	0	
'ipe Culvert D8Oc∎	B	0.0	39,035	51,386	0	0	
lasonry Culvert (80x80cm)		0.0	52,335	41,554	0	0	
etaining Wall and Wing Wall (Timber)	n2	0.0	8,591	246	0	0	
etaining Wall and Wing Wall (Masonry)	. в3	0.0	37,920	11,868	0	0	
abion Protection	£a.	0.0	11,791	120	0	0.	
em Bridge (Timber)	SET	1.0			0	0	
ен Bridge (Concrete)	SET	1.0			0	0	
			Sub Total		9,429,962	6,714,242	16,144,2
verhead (15%)					1,414,494	1,007,136	2,421,6
			TOTAL COST		10,844,456	7,721,378	18,565,8
				~***			
		•			<u>.</u>		
anual routine maintenance of road	Ka	2.0	112,172	7,248	224,344	14,496	238,8
outine maintenance of asphalt road	Ka	2.0	329,200	137,700	658,400	275,400	933,8
			Sub Total		882,744	289,896	1,172,6
aintenance of Timber Bridge (Newl	ឆ2	0.0	6,133	1,010	0	. 0	
aintenance of Concrete Bridge (Newl	a 2	0.0	•	3,135	0	0	:
aintenance of Timber Bridge (Exist)	n2	78.0	•	2,349	552,396	183,222	735,6
aintenance of Concrete Bridge (Exist)	2 2	0.0	4,333	2,471	0	0	
/							~~~~~
			Earlhwork &		nit Cost (Rp/		9,282,9
					nit Cost (Rp/		
					nit Cost (Rp/		
				Value		p) :	1,624,1
•			Kaintenance	Rate withou	t Bridge ()		6.
			Hen Bridge		()		

LINK NO : 21 (IIIB-1) LENGTH : 5 Km

UPGRADE : 6.5m road bed, 4.0m road with surface Dressing (1)

							(Rp)
ITEN			<<< UNIT			<<<< cost) >>> >
ر الله الله الله الله الله الله الله الل	URIT	QUANTITY	LOCAL	FOREIGN	LOCA	L FOREIGN	TOTAL
Site Clearance in Light Bush	•2	2500.0	167	91	417,50	0 227,500	845,000
Subgrade Preparation	a2	0.0	21	11		0 0	
Normal Fill	m3	0.0	1,734	863		0 0	,
Fill in Swamp	m 3	0.0	2,539	1,052		0 0	
Normal Excavation to Spoil	23	0.0	1,016	522		0 0	
Sub Base Course	-3	796.4	3,263	1,347	2,598,45	• • •	3,671,40
Base Course	#3	1400.0	4,478	2,299	6,269,20	• •	9,487,80
Shoulder	a 2	12500.0	300	146	3,750,00		5,575,00
Asphalt Patching	•2	0.0	3,292	1,377	, ,	0 1,020,000	
Surface Dressing (Single)	-2	20000.0	595	595	11,700,00		23,800,00
Surface Dressing (Double)	e2	0.0	744	936	11,700,00	0 211,700,000 0 0	251000100
Earth Drain	# Z	0.0	713	:[[7		, v	
Earth Drain in Swamp (by machine)	3	0.0	1,193	474		, V	
			-			0 0	
Pipe Culvert DBOcm	ē.	0.0	39,035 52,335	51,386	•	v V	·
Masonry Culvert (80x80cm)	- S	0.0	•	41,554		0 0	
Retaining Wall and Wing Wall (Timber)	82 -7	0.0	9,591	246		0	
Retaining Wall and Wing Wall (Masonry)	1 3	0.0	37,920	11,868		0 0	
Gabion Protection	#3	0.0	11,791	120	0 100 71	U 713.104	0 APA 76
Ken Bridge (Timber)	SET	1.0			2,490,71	•	2,854,39
New Bridge (Concrete)	SET	1.0				0 0	
			Sub Total		27,426,06	7 18,607,534	46,033,60
Overhead (15%)					4,113,91	0 2,791,130	6,705,04
			TOTAL COST		31,539,97	7 21,398,664	52,938,64
Nanual routine maintenance of road	Ke	5.0	112;172	7,248	560,86	0 36,240	597,10
Routine maintenance of asphalt road	Ke	5.0	329,200	137,700	1,646,00		2,334,50
voorstie mastirendiice of Ashitati Logo	VE	J. V		191,100			
Harming and Tinker Balder (No.)	n.	710.0	Sub Total	1 010	2,206,86	-	2,931,60
Maintenance of Timber Bridge (New)	#2 -2	20.0	6,133	1,010	122,66	•	142,86
Maintenance of Concrete Bridge (New)	#2 -2		1,585	3,135		0 0	ELA ST
Haintenance of Timber Bridge (Exist)	#2 -2	48.8	7,082	2,349	345,60		460,23
Maintenance of Concrete Bridge (Exist)	a 2	0.0	4,333	2,471		0	•
			Earlhuach 1	Pavement U	ail Parl	IOn /V=1	0.021.51
						(Rp/Ks) :	9,931,21
			Timber	•		(Rp/#2) :	164,12
•			Contrete	Bridge U Value	nit Cost	(Ro/a2) 1	1 117 21
					L Baldes	(Rp) :	4,467,54
			Haintenance New Bridge	Rate withou	r arrode	(7) : (7) :	5.9 5.2
			86A RL1006	1.1157 XXEP		(7)	5.7

LINK NO : 9 (IIIC) LENGTH : 3 Km

UPGRADE : 6.0m road bed, 3.0m road with surface Subbase Cource (Rp)

							· (Rp)
1 T E N	11MF T	QUANTITY		COST >>>	(((() >>> >
	01111	Anuli I I I	LOCAL	FOREIGN	LOCAL	FOREIGN	TOTAL
Site Clearance in Light Dush	# 2	0.0001	167	. 04	1/7 000	41 845	
Subgrade Preparation	92	405.0	21	91	167,000	91,000	258,00
Moreal Fill	#3	0.0	1,734	11 843	8,505	4,455	12,96
Fill in Swamp	#3	149.5	2,539		0	0	
Normal Excavation to Spoil	. #3	0.0	•	1,052	377,041	156,222	533,26
Sub Base Course	ė3	141.0	1,016	522	0	0	
Base Course	13	540.0	3,263	1,347	460,083	189,927	650,01
Shoul der	a2	9000.0	4,478	2,299	2,418,120	1,241,460	3,659,58
Asphalt Patching	#2		300	146	2,700,000	1,314,000	4,014,00
Surface Dressing (Single)	#2 #2	0.0	3,292	1,377	0	0	1
		.0.0	595	595	0	0	1
Surface Dressing (Double)	\$ 2	0.0	744	936	0	0	1
Earth Drain		0.0	713	119	0	0	
Earth Drain in Swamp (by machine)	#3		1,183	474	354,900	142,200	497,10
Pipe Culvert 880cm	8	0.0	39,035	51,384	0	0	+
Masonry Culvert (80x80cm)	ā	0.0	52,335	41,554	0	0	
Retaining Wall and Wing Wall (Timber)	æ2	10.0	8,591	246	85,910	2,460	88,37
Retaining Wall and Wing Wall (Masonry)	8 3	75.0	37,920	11,868	2,844,000	870,100	3,734,10
Gabion Protection	a3	0.0	11,791	120	0	0	11
Nen Bridge (Timber)	SET	1.0		~-	0	0	i
New Bridge (Concrete)	SET	0.1			0	0	+
			Sub Total		9,415,559	4,031,824	13,447,38
Overhead (15%)					1,412,333	604,773	2,017,10
			TOTAL COST		10,827,892	4,636,597	15,464,48

Manual routine maintenance of road	X.	3.0	112,172	7,248	336,516	21,711	358,26
Routine maintenance of gravel road	K∉	3.0	194,356	88,047	583,048	264,141	847,20
			Sub Total		919,584	285,885	1,205,46
Haintenance of Timber Bridge (New)	62	0.0	6,133	1,010	0	0	
Maintenance of Concrete Bridge (New)	≢2	0.0	1,585	3,135	0	0	
Maintenance of Timber Bridge (Exist)	42	32.0	7,082	2,349	226,624	75,188	301,79
Maintenance of Concrete Bridge (Exist)	a 2	0.0	4,333	2,471	. 0	. 0	
				v.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
			Earthwork &	Pavement Un	•	(ia)	5,154,83
•			limber	Bridge Un	it Cost (Rp/		
			Concrete	Oridge Un	it Cost (Rp/		
			Survived	Value		p) :	260,00
			Haintenance	Rate without		:	7.8
			New Bridge	Cost Rate	()) :	

LINK NO : 8 (IIIC) LENGTH : 2 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Subbase Cource

ITEN	*****			COST >>>	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		>>>>>
	UNIT	QUANTITY	LOCAL	FOREIGN	LOCAL	FOREIGN	TOTA
Site Clearance in Light Bush	a 2	0.0001	167	71	167,000	91,000	258,00
Subgrade Preparation	% 2	405.0	21	li.	0,505	4,455	12,96
Normal Fill	a 3	0.0	1,734	863	0	0	7-1
Fill in Swamp	=3	120.0	2,539	1,052	304,680	126,240	430,92
Normal Excavation to Spoil	s 3	0.0	1,016	522	0	0	.,,,.
Sub Base Course	a3	120.0	3,263	1,347	391,560	161,640	553,20
Base Course	e3	480.0	•	2,299	2,149,440	1,103,520	3,252,96
Shoulder	₽ 2	4000.0	300	146	1,200,000	584,000	1,784,00
Asphalt Patching	e 2	0.0	3,292	1,377	0	0	*,,,
Surface Dressing (Single)	#2		595	595	n	0	4.00
Surface Dressing (Double)	≥2	0.0	744	936	Ď	0	,
Earth Drain		0.0	713	119	ŏ	0	. •
Earth Orain in Swamp (by machine)	a3	300.0	1,193	474	354,900	142,200	497,10
Pipe Culvert DBOrm	9	10.0	39,035	51,386	390,350	513,860	904.21
Hasonry Culvert (80x80cm)		0.0	52,335	41,554	0.0100	0	
Retaining Wall and Wing Wall (Timber)	=2	10.0	8,591	246	85,910	2,460	88,37
	#3				2,017,344	631,377	•
Retaining Wall and Wing Wall (Masonry) Gabion Protection	#3 #3		37 ₁ 920	120	• •	0	2,010,72
	SET		11,791	320	0	Ö	
Hen Bridge (Timber)					0	ð	
Hew Bridge (Concrete)	SET	1.0				V	
		•	Sub Total		7,069,689	3,360,752	10,430,44
Overhead (15%)					1,060,453	504,112	1,564,56
			TOTAL COST		8,130,142	3,864,864	11,995,00
No. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		5 A		7 540	201		 170 DI
Manual routine maintenance of road	K∎ •	2.0	112,172	7,248	224,344	14,496	238,84
Routine maintenance of gravel road	Ka	2.0	194,356	88,047	398,712	176,094	
· H !		۸ ۸	Sub lotal	1 010	613,056	190,590	803,64
	62		6,133	1,010 3,135	0	. 0	
	. =				0	Q	
Maintenance of Concrete Bridge (Mew)	2 7				Α .	٨	
Maintenance of Concrete Bridge (Kew) Haintenance of Timber Bridge (Exist)	e 2	0.0	7,082	2,349	0	0	
Maintenance of Concrete Bridge (Kew) Haintenance of Timber Bridge (Exist)		0.0			0	0	
Maintenance of Concrete Bridge (Kew) Haintenance of Timber Bridge (Exist)	e 2	0.0	7,082 4,333	2,349 2,471		0	5,997 5/
Maintenance of Concrete Bridge (Kew) Haintenance of Timber Bridge (Exist)	e 2	0.0	7,082 4,333 	2,349 2,471 Pavement Unit	Cost (Rp/	0 Ka) 1	
Maintenance of Concrete Bridge (Kew) Haintenance of Timber Bridge (Exist)	e 2	0.0	7,082 4,333 Earthwork & Timber	2,349 2,471 Payesent Unit Bridge Unit	Cost (Rp/	0 Ka) i #21 :	
Maintenance of Concrete Bridge (Kew) Haintenance of Timber Bridge (Exist)	e 2	0.0	7,082 4,333 Earthwork & Timber Concrete	2,349 2,471 Payeæent Unit Bridge Unit Bridge Unit	Cast (Rp/ Cost (Rp/ Cost (Rp/	0 Km) 1 #21 2 #23 1	5,997,50
Maintenance of Timber Bridge (Mem) Maintenance of Concrete Bridge (Mem) Haintenance of Timber Bridge (Exist) Maintenance of Concrete Bridge (Exist)	e 2	0.0	7,082 4,333 Earthwork & Timber Concrete Survived	2,349 2,471 Payesent Unit Bridge Unit	Cost (Rp/ Cost (Rp/ Cost (Rp/	Km) 1 #21 2 4 23 1 p) t	5,997,50 221,28 6,7

LINK NO : 7 (IIIB-1) LENGTH : 2 Km

UPBRADE : 6.5m road bed, 4.0m road with surface Dressing (1)

		*******						(Rp)
LIEH	IINTT	DUANTITY		£051 >>>			DST	>>>>>
		WUHM [I I]	LOCAL	FOREIGN	LOCA	L FORE	16N	TOTAL
Pila Claurence in links Duck								
Site Clearance in Light Bush	a 2	1500.0	167	. 91	250,50	0 136,	500	387,000
Subgrade Preparation	= 2	405.0	21	It	9,50	5 4,	155	12,96
Normal Fill	аЗ	0.0	1,734	863		0	0	
Fill in Swamp	#3	120.0	2,539	1,052	304,88	0 126,	240	430,92
Normal Excavation to Spoil	e 3	0.0	1,016	522		0	0	:
Sub Base Course	RĴ	368.0	3,263	1,347	1,200,78		696	1,676,48
Base Course	a 3	560.0	4,478	2,299	2,507,68			3,795,12
Shoulder	82	5000.0	300	146	1,500,00	0 730,	000	2,230,00
Asphalt Patching	•2	0.0	3,292	1,377		0	0	
Surface Dressing (Single)	n2	B000.0	595	595	4,760,00	0 4,760,	000	9,520,00
Surface Dressing (Double)	a 2	0.0	744	936		0	0	
Earth Drain	2	0.0	713	119		0	0	I
Earth Drain in Swaep (by machine)	# 3	300.0	1,183	474	354,90	0 142,	200	497,10
Pipe Culvert D80ca		0.0	39,035	51,386		Q	0	1
Hasonry Culvert (80x80cm)	. 6	0.0	52,335	41,554		0	0	
Retaining Wall and Wing Wall (Timber)	e 2	10.0	8,591	246	85,91		460	88,37
Retaining Wall and Wing Wall (Hasonry)	a 3	50.0	37,920	11,869	1,876,00			2,489,40
Gabien Protection	83	0.0	11,791	120		0	0	
New Bridge (Timber)	SEI	1.0	*-			0	0	
Hew Bridge (Concrete)	SET	1.0				0	0	•
			Sub Total		12,848,95	9 8,278,	391	21,147,35
Overhead (15%)					1,930,34	3 1,241,	758	3,172,10
			TOTAL COST		14,799,30	2 9,520,	149	24,319,45
			V-4					
Hanual routine maintenance of road	Ka	2.0	112,172	7,248	224,34	,		238,84
Routine maintenance of asphalt road	Ka	2.0	329,200	137,700	658,40	•		933,B0
			Sub Total		882,74	4 289,		1,172,64
Haintenance of Timber Bridge (New)	82	0.0	6,133	1,010		0	0	
Maintenance of Concrete Bridge (Hen)	#2		1,595	3,135		0	0	
Maintenance of Timber Bridge (Exist)	a 2	16.0	7,087	2,349	113,31		584	150,89
Maintenance of Concrete Bridge (Exist)	# 2	0.0	4,333	2,471		0	0	
					~~		 -	
			Earthwork &			(Rp/Km)	:	12,159,72
					nit Cost	(Rp/s2)	:	
				,	nit Cost	(Rp/m2)	:	
•	·			Value		(Rp)	ì	1,946,56
			Maintenance		ł Bridge	(X)	;	4.8
			New Bridge	Cost Rate		(Z)	:	

LINK NO : 6 (IIIB-2)

LENGTH : 3 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Base Cource

******** COST >>>>> <<< UNIT COST >>> UNIT QUANTITY LOCAL FOREIGN LOCAL FOREIGN TOTAL Site Clearance in Light Bush •2 0.0 167 Subgrade Preparation H 12,960 eŽ 405.0 21 Normal Fill 0.0 1,734 663 1,052 377,041 533,263 Fill in Swamp 63 148.5 2,539 156,222 Normal Excavation to Spoil 63 0.0 1,016 522 0 0 Sub Base Course **n**3 598.0 3,263 1,347 1,918,644 792,036 2,710,680 3,224,160 1,655,280 2,299 4,879,440 Base Course #3 720.0 4,478 0.0003 146 1,800,000 876,000 2,676,000 Shoulder 300 **g2** Asphalt Patching **m2** 0.0 3,292 1,377 Surface Dressing (Single) 595 0 #2 0.0 595 Surface Dressing (Double) 744 329 â à 0.0 43 Earth Drain 0.0 713 117 0 0 . 0 Earth Drain in Swamp (by machine) 300.0 1,183 474 354,900 142,200 497,100 #3 Pipe Culvert DBOcm 0.0 39,035 51,386 0 0 0 Hasonry Culvert (80x80cm) 52,335 41,554 Ð 4 0.0 - 0 . 0 85,910 Retaining Wall and Wing Wall (Timber) 10.0 8,591 246 2.460 a2 Retaining Wall and Wing Wall (Masonry) 50.0 37,920 11,868 1,896,000 593,400 2,489,460 43 120 Gabion Protection 0.0 11,791 0 ٨ ø3 0 New Bridge (Timber) SET 1.0 0 0 Û Hew Bridge (Concrete) SET 1.0 Sub Total 7,665,160 4,222,053 13,887,213 Overhead (15%) 1,449,774 633,307 2,083,081 TOTAL COST 11,111,931 4,855,360 15,970,294 Manual routine maintenance of road 112,172 7,248 336,516 21,744 358,260 K. 3.0 264,141 817,209 Routine maintenance of gravel road 3.0 194,356 88,047 583,068 285,895 1,205,469 919,584 Sub Total Haintenance of Timber Bridge (New) 0 0 . 0 **s**2 0.0 6,133 1,010 Maintenance of Concrete Bridge (New) 0.0 1,585 3,135 0 0 a2 Maintenance of Timber Bridge (Exist) 141,640 188,620 2,347 46,980 RΖ 20.0 7,082 Maintenance of Concrete Bridge (Exist) 0.0 4,333 2,471 (Rp/Ka) Earthwork & Pavement Unit Cost 5,323,432 Bridge Unit Cost (Rp/m2) limber Concrete Bridge Unit Cost (Rp/a2) Value Survived 1,355,340 (Rp) Maintenance Rate without Bridge (1) 7.55 4 New Bridge Cost Rate (1) :

LINK NO : 3 (IIIB-1) LENGTH : 5 Km

UPGRADE : 6.5m road bed, 4.0m road with surface Dressing (1)

*********						-	(Rp)
ITEN		1. 4	TIRU >>>	COST >>>	· ((((((COST	>>>>>
	TINU	GUANTETY	LOCAL	FORELEN	LOCAL	FOREIGN	TOTA
Site Clearance in Light Bush	₽2	1500.0	167	· 91	250,500	136,500	307,00
Subgrade Preparation	# 2	405.0	21	11	9,505		12,96
Normal Fill	a3	0.0	1,735	843	0	•	7-11-0
Fill in Swamp	m3	178.5	2,539	1,052	453,211		640,99
Normal Excavation to Spoil	£ 3	0.0	1,016	522	0	•	o ivi i
Sub Base Course	a 3	704.0	3,263	1,347	2,949,752	•	4,167,4
Pase Course	a 3	1400.0	4,478	2,299	6,769,200		9,487,80
Shoutder	A2	12500.0	300	146	3,750,000		5,575,00
Asphalt Patching	92	0.0		1,377	0,100,000		212,010
Surface Dressing (Single)	m2	20000.0	595	595	11,700,000		77 000 0
Surface Dressing (Double)	2 2	0.0	744	936	11,100,000	11 ₁ 100 ₁ 000	23,800,00
Earth Drain	**	0.0	713	119	0	0	
Earth Drain in Swamp (by machine)	a 3	300.0	1,183	474		-	4M7-1:
Pipe Culvert D80cm	3	0.0			354,900	· · · · · · · · · · · · · · · · · · ·	497,14
fasonry Culvert (80x80ca)		0.0	39,035	51,386	0	•	
Retaining Wall and Wing Wall (Timber)	8		52,335	41,554	0	•	
	6 2	15.0	8,591	246	128,865	•	137,5
Retaining Wall and Wing Wall (Masonry)	a3	60.0	37,920	11,868	2,275,200	•	2,987,2
Sabion Protection	a3	0.0	11,791	120	0	-	
len Bridge (liaber)	SET	1.0			0		
lew Bridge (Concrete)	SET	1.0			. 0	0	
			Sub Total		28,340,133	19,347,995	47,688,13
verhead { 15% }					4,251,019	2,902,199	7,153,2
			TOTAL COST		32,591,152	22,250,174	54,841,3
lanual routine maintenance of road	Ka	5.0	112,172	7,248	560,860	36,240	597,10
Noutine maintenance of asphalt road	Kø	5.0	329,200	137,700	1,646,000	-	2,334,5
marrie merurenance at ashugge inda	L/Sq	J, ()	Sub Total	1014100	2,206,860	•	2,931,6
laintenance of Timber Bridge (New)	s 2	0.0	6,133	1,010	1,200,000		24,0110
iaintenance of Concrete Bridge (New)	*2	0.0	1,585	3,135	0		
			-	-	736,528	=	980,8
laintenance of Timber Bridge (Exist)	82 -2	104.0	7,082	2,349	1201250		10010
laintenance of Concrete Bridge (Exist)	97	0.0	4,333	2,471	v	V	
	.~~				********		
			Earthwork &	Payesent Un.	it Cost - f	Rp/Kml :	10,968,2
			Timber			Rp/s2) :	
•			Concrete			Rp/m2) :	
			Survived	Value		(Rg) t	4,814,7
				Rate without	Bridge	(2) :	5.
			New Bridge		-	(2) :	

LINK NO : 2 (IIIB-1) LENGTH : 2 Km

UPGRADE : 6.5m road bed, 4.0m road with surface Dressing (1)

							107
ITEN			•	COST >>>	(((((>>>>>
	UNIT	QUANTITY	LOCAL	FOREIGN	LOCAL	FOREIGN	TOTAL
Site Clearance in Light Bush	u 2	1500.0	167	91	250,500	136,500	387,000
Subgrade Preparation	m 2	405.0	21	11	8,505	4,455	12,96
Hormat Fill	# 3	50.0	1,734	963	86,700	43,150	129,85
Filt in Swamp	a3	. 178.5	2,539	1,052	453,211	187,782	640,99
Mormal Excavation to Spoil	. a3	60.0	1,016	522	60,960	31,320	92,28
Sub Base Course	a3	364.0	3,263	1,347	1,187,732	490,308	1,678,04
Base Course	m 3	560.0	4,478	2,299	2,507,680	1,287,440	3,795,120
Shoul der	•2	5000.0	300	146	1,500,000	730,000	2,230,00
Asphalt Patching	n2	0.0	3,292	1,377	0	0	-11
Surface Dressing (Single)	a 2	8000.0	595	-	4,760,000	4,760,000	9,520,000
Surface Dressing (Double)	a2	0.0		936	0	0	,,020,440
Earth Drain		0.0	713	119	Ŏ	: 0	
Earth Drain in Swamp (by machine)	a 3	300.0	1,183	474	351,900	142,200	497,10
Pige Culvert DBOCa	10	0.0	39,035	51,386	331,700	172,200	411110
•		0.0			0	0	·
Masonry Culvert (80x80cm) Retaining Wall and Wing Wall (Timber)	-3		52,335	41,554		•	177 55
	a 2	15.0	8,591	246	128,865	3,690	132,55
Retaining Wall and Wing Wall (Masonry)	#3		37,920	11,868	948,000	296,700	1,244,70
Gabion Protection	#3 CET	0.0	11,791	120	0	0 -	•
New Bridge (Timber)	SET	1.0	*-		0	- 0	
New Bridge (Concrete)	SET	1.0			0	U .	
			Sub Total	•	12,247,053	8,113,545	20,360,59
Overhead (15%)					1,837,057	1,217,031	3,054,08
			TOTAL COST		14,084,110	7,330,576	23,414,68
Manual routine maintenance of road	Ka	2.0	112,172	7,248	221,314	14,496	238,84
Routine maintenance of asphalt road	Ke	2.0	329,200	137,700	658,400	275,400	933,80
	•		Sub lotal		892,744	289,896	1,172,64
Maintenance of Timber Bridge (Hew)	• 2	0.0	6,133	1,010	0	0	
Naintenance of Concrete Bridge (New)	D 2		1,585	3,135	. 0	0	
Haintenance of Timber Bridge (Exist)	m2	0.0	7,082	2,349	0,	. 0	
Maintenance of Concrete Bridge (Exist)	a 2	0.0	4,333	2,471	0	0	
·				n	-11 B-1 15 2		(1 707 74
			Earthwork &		nit Cost (Rp/S		11,707,34
	•		Timber C	-	nit Cost (Rp/s		
			Concrete		nit Cost (Rp/		1 677 10
		:		Value	(R)		1,933,65
	:		Maintenance New Bridge		t Bridge (%) (%)		5.0
						1	

PROV

KALIMANTAN BELATAN

KAB : HULU SUNGAI TENGAH

1 (IIIB-1) LENBTH : 3 Km

UPGRADE

6.5m road bed, 4.0m road with surface Dressing (1)

~~~~~			~======================================					(Rp)
ITEH.			CCC UNIT	COST >>>		:<<<< [	OST	>>>>>
	11KU	QUANTITY	LOCAL	FOREIGN	LOCA	AL FORE	16H	TOTAL
Site Clearance in Light Bush	#2	1500.0	167	91	250,5	00 134	500	387.00
Subgrade Preparation	62	405.0	21	11	8,5		455	12,96
Normal Fill	e3	20.0	1,731	863	34,6		260	51,94
Fill in Swamp	#3	149.5	2,539	1,052	377,0			533,26
Mormal Excavation to Spoil	<b>a</b> 3	15.0	1,016	522	15,2		830	23,07
Sub Base Course	<b>=</b> 3	524.0	3,263	1,347	1,709,8		828	2,415,64
Pase Course	-3	810.0	4,478	2,299	3,761,5			
Shoulder	n2	7500.0	300	146	2,250,0			5,692,68
Sphalt Patching	42	0.0	3,292	1,377	2123010	0 1,013,	•	3,345,00
Surface Dressing (Single)	#2	12000.0	595	595	7 440 0	•	0	11 000 00
Surface Dressing (Double)	•2	0.0	744	935	7,140,0	00 7,140, 0		14,280,00
arth Drain		0.0	713			-	0	
arth Drain in Swamp (by machine)	2a			119	754.0	0 -	0	
ipe Culvert D80cm		300.0	1,183	474	354,9		200	497,10
	뀰	0.0	39,035	51,386		0	g	
lasonry Culvert (80x80ca)	6		52,335	41,554		0	0	
etaining Wall and Wing Wall (Timber)	<b>6</b> 2	10.0	0,591	246	85,9		460	99,37
etaining Wall and Wing Wall (Masonry)	63	75.0	37,920	11,868	2,844,0	00 890,	100	3,734,10
abion Protection	<b>a</b> 3	0.0	11,791	120		0	0	
en Bridge (Timber)	SET	1.0				0	0	
ен Bridge (Concrete)	SET	1.0	***			0	0	•
			Sub Total		18,832,1	08 12,229	,015	31,061,12
lverhead ( 15% )					2,824,8	16 1,834	,352	4,659,16
			TOTAL COST		21,656,9	24 14,063,	,367	35,720,29
	ν_	7.0		7 · nan	771 5	11 71	788	750 77
anual routine maintenance of road	Ka V_		112,172	7;248	336,5		744	359,26
outine maintenance of asphalt road	Ka	3.0	329,200	137,700	987,60			1,400,70
	_		Sub Total		1,324,1		844	1,758,9
aintenance of Timber Bridge (New)	#2		6,133	1,010		0	0	
aintenance of Concrete Bridge (New)	<b>a</b> 2		1,585	3,135	70.00	0	0	8
aintenance of Timber Bridge (Exist)	#2		7,082	2,349	70,8		470	74,31
aintenance of Concrete Bridge (Exist)	82	0.0	4,333	2,471		0	0	
·		4 6 4 4 . 6 4 4						
			Earthwork &	Pave∎ent U	hit Cost	(Rp/Km)	;	11,906,76
			lieber	Bridge U	hit Cost	(Rp/s2)	:	
				-	Init Cost	(Rp/#2)	:	
				Value		(Rp)	;	2,829,48
			Kaintenance	Rate withou	ıt Bridge	(1)	:	4.9
			New Bridge		-	(%)	:	

Appendix A-4

## CONSTRUCTION AND MAINTENANCE QUANTITIES FOR ALL PROPOSED ROAD LINKS (CONSTRUCTION)

PROV : KALIMAN	TAN SEL		KAB		SUNGAI	TENGAL	1
ITEN	TINU	( 1988 )	( 1989 )	( [990 )	( 1991 )	( 1972 )	( TOTAL )
OUTPHENT :							
Buildozer/Ripper	hr	144.8	536.0	541.3	0.0	0.0	1222.1
Swamp Buildozer	hr	5.0	11.9		0.0	0.0	92.8
Hotor Grader	hr	274.4	1184.8	and the second second	0.0	0.0	2483.2
Hand-guide Yib. Roller	hr	593.1		458.0	0.0	0.0	1622.7
Tire Roller	hr	383.3	795.8	358.3	0.0	0.0	1537.4
Vibratory Roller (D&T)	hr		783.0	750.1	0.0	0.0	
Hydraulic Excavator; Wheel		27.9		770.0	0.0	0.0	1067.4
Wheel Loader		429.1	1640.9	1497.5	0.0	0.0	and the second second
Hater lank Truck	hr	97.9		423.9	0.0	0.0	949.4
Duap Truck	hr	3475.3		11484.7		0.0	
Flat Bed Iruck with Crane	hr '''	210.4		178.6	0.0	0.0	560.0
Flat Bed Truck	hr	600.4	1072.0	551.8	0.0	0.0	2224.2
Portable Crusher/Screening	hr	112.0		30B.3	0.0	0.0	854.9
Concrete Hixer	hr	165.0		138.6	0.0	0.0	459.6
Water Pump	hr	110.0		92.9	0.0	0.0	306.9
Concrete Vibrator	hr	0.0	0.0	1.7	0.0		1.7
Asphalt Sprayer	hr	383.3	795.8	358.3	0.0	0.0	1537.4
ABOUR :		•					
Handur	man day	508.4	979.9	744,4	0.0	0.0	2432.7
Skilled Labourer	man day	674.5	683.6	524.8	0.0	0.0	1882.?
Carpenter	ean day	218.9	75.0	162.9	0.0	0.0	456.8
Mason	aan day	275.0	260.0	228.2	0.0	0.0	763.2
Labourer		4723.2		7994.7	0.0		
Driver		830.0		2224.9	0.0		
Operator	man day	560.5		1426.5	0.0	0.0	3404.8
ATERIAL :			•				
Bitumen	1	79101.7	164105.6	73459.3	0.0	0.0	316665.6
Asphalt Oil	ŧ	15716.6	32629.1	14671.6	0.0	0.0	63037.3
Kerosene	1	18840.9	39102.4	17558.3	0.0	0.0	75501.6
Sand.	аЗ	322.1	573.2	291.8	0.0	0.0	1187.1
Cement	bag	104.5	98.8	111.7	0.0	0.0	315.0
River Stone	63	275.0	260.0	228.2	0.0	0.0	763.2
Steel Houlds	set	0.0	0.0	10.0	0.0	0.0	10.0
Timber	<b>a</b> 3	21.3	10.5	15.6	0.0	0.0	47.4
Paint	1	124.1	0.0	101.3	0.0	0.0	225.4
Reinforcing Steel	kg	0.0	0.0	319.0	0.0	0.0	319.0
Tying Hire	kg	0.0	0.0	2.9	0.0	0.0	2.9
Equivalent Royalty	9.3	5311.8	20196.8	18791.2	0.0	0.0	44299.8

# CONSTRUCTION AND MAINTENANCE QUANTITIES FOR ALL PROPOSED ROAD LINKS (MAINTENANCE)

PROV : KALIMAN					SUNGAI	TENGAL	1.
1 T E H	UNIT	( 1988 )	( 1999 )	( 1790 )	( 1991 )	〈 1992 〉	( TOTAL )
EQUIPMENT :					,		
Bulldozer/Ripper	hr	0.0	0.0	0.0	0.0		
Swamp Bulldozer	hr		0.0	0.0	0.0	0.0	0.0
Hotor Grader	hr	378.5	662.7	0.0 640.2	0.0	0.0	0.0
Hand-quide Vib. Roller	hr	101.2	307.5	630.0	0.0	0.0	1681.4
Tire Roller	hr	378.5	662.7	640.2	0.0	0.0	1038.7
Vibratory Roller (DVI)	hr	0.0	0.0	0.0	0.0	0.0	1681.4
Hydraulic Excavator; Wheel	hr	0.0	0.0		0.0	0.0	0.0
Wheel Loader	hr	133.2	242.3	0.0 259.4	0.0	0.0	0.0
Water Tank Truck	hr	0.0	0.0	0.0	0.0	0.0	634.9
Dump Truck	hr	1002.6	2068.7	2016.0	0.0	0.0	0.0
Flat Bed Truck with Crane	hr	1792.7	3397.3	2616.0 3605.9	0.0	0.0	5887.3
Flat Bed Truck	hr	1476.6		2866.5	0.0	0.0	8795.9
Portable Crusher/Screening	hr	6.6	121.6	130.B	0.0	0.0	7034.0
Concrete Hixer	hr	0.4	0.8	0.9	0.0 0.0	0.0	319.2
Water Pump	hr	0.4	0.8	0.7		0.0 0.0	2. ł 2. l
Concrete Vibrator	hr	0.4	0.8	0.9	0.0	0.0	2.1
Asphall Sprayer	hr hr	0.0	0.0	0.0	0.0	0.0	0.0
LABOUR :							
Handur	man day	548.6	1049.7	1232.2	0.0	0.0	2830.5
Skilled Labourer	man day	532.6	1084.7	1371.5	0.0	0.0	2988.8
Carpenter	ean day	249.3	471.7	510.2	0.0	0.0	1231,2
Kason	man day	0.0	0.0	0.0	0.0	0.0	0.0
Labourer	<b>≋</b> an day	5978.2	11466.7	13596.5	0.0	0.0	31041.4
Driver	man day	795.4	1517.4	1716.2	0.0	0.0	1029.0
Operator	man day	170.7	301.9	300.5	0.0	0.0	773.1
HATERIAL :							
Bitunen	1	911.2	2767.5	5670.0	0.0	0.0	9340.7
Asphalt Oil	l	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene	1	101.2	307.5	630.0	0.0	0.0	1038.7
Sand	дЗ	17.2	52.0	105.9	0.0	0.0	175.1
Cement	bag	6.6	12.7	13.3	0.0	0.0	32.8
River Stone	តវិ	0.0	0.0	0.0	0.0	0.0	0.0
Steel Houlds	set	0.0	0.0	0.0	0.0	0.0	0.0
Timber	<b>a</b> 3	22.5	42.7	46.2	0.0	0.0	111.4
Paint	i	160.8	304.0	328.9	0.0	0.0	793.7
Reinforcing Steel	kg	34.1	66.7	88.3	0.0	0.0	169.1
Tying Nire	kg	0.3	0.6	0.6	0.0	0.0	1.5
Equivalent Royalty	n3	1889.5	3433.3	3675.7	0.0	0.0	8998.5

### CONSTRUCTION AND MAINTENANCE QUANTITIES FOR ALL PROPOSED ROAD LINKS (TOTAL)

PROV KALIMANTAN SELATAN - KAB : HULU SUNGAT TENGAH UNIT (1988) (1989) (1990) (1991) (1992) (101AL) EQUIPMENT : Bulldozer/Ripper 144.8 541.3 536.0 0.0 1227.1 hr 0.0 5.0 Swamp Bulldozer 11.9 75.9 0.0 92.8 hr 0.0 Notor Grader 652.9 1664.2 hr 1847.5 0.00.0 4164.6 Hand-quide Vib. Roller 694.3 hr 879.1 1088.0 0.0 0.0 Tire Roller 761.9 hr 1450.5 998.5 0.0 0.0 3210.8 Vibratory Roller (Dtl) hr 188.0 783.0 750.1 0.0 0.0 1721.1 Nyuraulic Excavator; Wheel 27.9 49.5 990.0 0.0 0.0 1067.4 Wheel Loader hr 562.3 1883.2 1756.9 0.0 0.0 4202.4 Water lank Truck hr 97.9 427.6 423.9 0.0 0.0 949.4 Dugo Truck 4477.9 14300.7 0.0 ħr 14183.8 0.0 32962.4 Flat Bed Truck with Crane hr 2003.1 3569.3 3784.5 0.0 0.0 9355.9 Flat Bed Truck hr 2077.0 3762.9 3418.3 0.0 0.0 9258.2 Portable Crusher/Screening hr 178.8 556.7 439.1 0.0 0.0 1174.1 Concrete Hixer 165.4 156.8 139.5 0.0 0.0 hr 461.7 110.4 93.8 309.0 Water Pump hr 104.8 0.0 0.0 Concrete Vibrator þr 0.4 0.8 2.6 0.0 0.0 3.8 Asphalt Sprayer 363.3 795.B 358.3 0.0 0.0 1537.4 LABOUR : Handur 1057.0 2029.6 2176.6 0.0 0.0 5263.2 man day Skilled Labourer 1207.1 1768.3 1896.3 0.0 0.0 4871.7 man day Carpenter 673.1 0.0 0.0 468.2 516.7 1688.0 man day Hason 275.0 228.2 0.0 260.0 0.0 763.2 man day 21591.2 Labourer 10701.4 20853.1 0.0 0.0 53145.7 man day 3941.1 0.0 Driver 1625.4 4015.5 0.0 9582.0 man day Operator man day 731.2 1801.7 1727.0 0.0 0.0 4259.9 MATERIAL : Bitumen ļ 80012.9 166873.1 79128.3 0.0 0.0 326014.3 Asphalt Oil 0.0 1 15716.6 32629.1 14691.6 0.0 63037.3 Kerosene 18942.1 39409.9 18189.3 0.0 76540.3 -1 0.0 Sand åJ 339.3 625.2 397.7 0.0 0.0 1362.2 Cement bag 111.1 111.7 125.0 0.0 0.0 347.8 0.0 River Stone 275.0 260.0 228.2 0.0 763.2 Steel Houlds set 0.0 0.010.0 0.0 0.0 10.0 liaber 43.8 53.2 61.8 0.0 0,0 158.8 Paint 284.9 304.0 430.2 0.0 0.0 1019.1 Reinforcing Steel kg 34.1 307.3 0.0 488.I 66.7 0.0 Tying Wire kg 0.3 0.6 3.5 0.0 0.0 4.4 Equivalent Royalty #3 7201.3 23630.1 22466.9 0.0 0.0 53278.3

#### Appendix A-5

#### CONSTRUCTION AND MAINTENANCE COSTS FOR ALL PROPOSED ROAD LINKS (CONSTRUCTION)

1	F T P 11				*~~***	( 1000 Rp )			
ITEN	T18U	< 198B >	( 1989 )	( 1990 )	⟨ 1991 ⟩	( 1992 )	( TOTAL )		
EDUTPHENT :		51,972	169,697	160,627	0	0	382,296		
Bulldozer/Ripper	16629	2,407	8,913	9,001	0	0	20,321		
Swamp Bulldozer	12205	16	145	926	0	0	1,132		
Hotor Grader	14125	3,875	16,735	14,464	0		35,074		
Hand-guide Vib. Roller	1597	917	912	731	0	0	2,590		
Tire Roller	11628	4,457	9,253	4,166	0	. 0	17,876		
Vibratory Roller (OWI)	7023	1,320	5,499		0	0	12,086		
Hydraulic Excavator; Wheel		374	664	13,294	0	Ó	14,332		
Wheel Loader		7,410	28,330	25,861	0	Ů	61,609		
Water lank Iruck	1275	418		1,812	0	ő	4,057		
Dump Truck	5754	19,996	69,710		Ò	0	155,789		
Flat Bed Truck with Crane	5360	1,127		95 <i>7</i>	0	Õ	3,000		
Flat Bed Truck	3660	2,197	3,923		0	į,	8,139		
Portable Crusher/Screening	45610	5,108		14,061	0	Ó	38,991		
Concrete Mixer	8696	1,434	1,356	1,205	0	Ö	3,995		
Kater Pump	504	55	52	46	0	0	153		
Concrete Vibrator	339	0	0	0	0	0	0		
Asphalt Sprayer	2052	786	1,632	735	. 0	0	3,153		
LABUUR :	• .	12,815	26,209	23,389	0	0	62,413		
Handur	2000	1,016	1,959	1,888	0	0	4,863		
Skilled Labourer	1750	1,180	1,196	918	0	0	3,294		
Carpenter	2500	547	187	407	0	0	1,141		
Kason	1500	412	390	342	0	0	1,144		
Labourer	1250	5,904	11,733	9,993	0	0	27,630		
Driver	2500		6,245	5,562	0	0	13,882		
Operator	3000	1,681	4,499	4,279	0	0	10,459		
HATERIAL :		46,670	92,862	46,795	0	0	186,327		
Bitumen	300	23,730	49,231	22,037	0	0	94,998		
Asphall Oil	700	11,001	22,840	10,284	()	0	44,125		
Kerosene	250	4,710	9,775	4,389	0	0	18,874		
Sand	5000	1,610	2,888	1,459	0	0	5,935		
Cement	5000	522	494	558	0	0	1,574		
River Stone	7000	1,925	1,820	1,597	0	0	5,342		
Steel Houlds	8000	0	0	80	0	. 0	80		
Timber	75000	1,597	787	1,170	0	0	3,554		
Paint	2000	248	0	202	0	0	450		
Reinforcing Steel	1000	0	0	319	()	0	319		
Tying Wire	1200	0	0	3	0	0	3		
Equivalent Royalty .	250	1,327	5,049	4,697	0	0	11,073		

#### CONSTRUCTION AND MAINTENANCE COSTS FOR ALL PROPOSED ROAD LINKS (MAINTENANCE)

	*********	***					
I I E H	UNIT	< 1988 >	( 1989 )	< 1990 >	( 1991 )	〈 1992 〉	< TOTAL >
EDUTPHENT :		36,037	67,252	73,964	0	. 0	177,253
Pul I dozer / Ripper	16629	0	. 0		0	0	0
Swamp Bulldozer	12205	9	0	0	0	0	0
Hotor Grader	14125	5,346	9,360	9,042	0	0	23,748
Hand-guide Vib. Roller	1597	161	491	1,006	0	0	1,658
Tire Roller	11958	4,401	7,705	7,444	0	0	17,550
Vibratory Roller (D&T)	7023	0	0	0	0	0	0
Hydraulic Excavator; Wheel	13429	0	0	0	0	0	0
Wheel Loader	17270	2,300		4,479	0	0	10,763
Water Tank Truck	4275	0	0	. 0	0	0	0
Dump Truck	5754	5,768	11,903	16,203	0	0	33,874
Flat Bed Iruck with Crane		9,608		19,327	0	0	47,144
Flat Bed Truck	3660	5,404	9,849	10,491	0	.0	25,743
Portable Crusher/Screening	45610	3,046	5,546	5,965	0	0	14,557
Concrete Hixer	8696	3	. 6	7	0	0	16
Water Pump	504		0	0	0	0	0
Concrete Vibrator	338	. 0	0	0	0	0	0
Asphalt Sprayer	2052	. 0	0	0	0	0	: 0
LABOUR :		12,624	24,207	28,325	0	0	65,156
Kandur	2000	1,097	2,099	2,464	0	0	5,660
Skilled Labourer	1750	932	1,898	2,400	0	Q	5,230
Carpenter	2500	623	1,179	1,275	0	0	3,077
Kason	1500	0	0	0	0	0	0
Labourer	1250	7,472	14,333	16,995	. 0	0	39,800
Driver	2500	1,988	3,793	4,290	0	0	10,071
Oper ator	3000	512	905	901	0	0	2,318
HATERIAL :		2,931	5,964	7,561	()	0	16,456
Bitumen	300	.273	830	1,701	0	0	2,804
Asphalt Oil	700	. 0	. 0	0	0	0	0
Kerosene	250	25	76	157	0	0	258
Sand	5000	88	260	529	0	0	875
Cement	5000	33	64	66	0	. 0	163
River Stone	7000	0	0	0	0	0	0
Steel Moulds	8000	0	0	0	0	0	0
limber	75000	1,697	3,202	3,465	0	0	8,354
Paint	2000	321	808	657	0	0	1,586
Reinforcing Steel	1000	34	66	. 68	0	0	168
Tying Kire	1200	0	0	0	0	0	. 0
Equivalent Royalty	250	472	859	919	0	0	2,748

#### CONSTRUCTION AND MAINTENANCE COSTS FOR ALL PROPOSED ROAD LINKS (TOTAL)

FRUV : KALIMANI	****	E = = = = = = = = = = = = = = = = = = =		։ ԻՍԼՍ			1   1000 Rp
ITEN	UNIT	( 1989 )		( 1990 )	( 1991 )	< 1992 >	< TOTAL >
EQUIPHENT :		88,009	236,949		0	0	559,549
Bulldager (Oi page	11100		·	,	v	v	5011911
Bulldozer/Ripper Swamp Bulldozer	16629	2,407	8,913	9,001	Q	0	20,321
Hotor Grader	12205	61	145	926	0	0	1,132
	14125	9,221		23,504	0	0	58,822
Hand-guide Vib. Roller	1597			1,737	0	0.	4,248
lire Roller	11628			11,610	0	0	37,426
Vibratory Roller (D&T)	7023	1,320		5,267	0	0	12,086
Hydraulic Excavator; Wheel	13429	374	664	13,294	0	0	14,332
Wheel Loader	17270	9,710		30,340	0	. 0	72,512
Water lank Iruck	1275	418	1,827	1,812	0	0	1,057
Dump Truck	5754	25,764	81,613	82,285	0	0	189,662
Flat Bed Truck with Crane	5360	10,735	19,125	20 284	0	Ō	50,144
Flat Bed Truck	3660	7,601	13,771	12.510	8	Ŏ	33,882
Fortable Crusher/Screening	45610	8,154	25,368	20,026	; <b>0</b>	0	53,549
Concrete Hixer	8596	1,437	1,362	1,212	0	0	4,011
Water Pump	504	55	52	46	0	0	153
Concrete Vibrator	339	0	0	0	Ō	Ŏ	0
Asphalt Sprayer	2052	798	1,632	735	Ŏ	ŏ	3,153
LABOUR :		25,439	50,416	51,714	0	0	127,569
Kandur	2000	2,113	4,058	4,352	0	0	10,523
Skilled Labourer	1750	•	3,094	3,318	0	0	8,524
Carpenter	2500	1,170	1,366	1,692	0	Ò	4,218
Hason	1500	412	390	342	0	0	1,144
Labourer	1250		26,066	26,988	Ö	0	66,430
Oriver	2500	4,063	10,038	9,852	0	Ŏ	23,953
Operator	3000	2,193	5,404	5,180	ŏ	ŏ	12,777
MATERIAL :		49,601	98,826	54,356	0	0	202,783
Bituaen	300	24,003	50,061	23,738	0	0	97,802
Asphalt Oil	700	11,001	22,840	10,284	0	0	44,125
Kerosene	250	4,735	9,851	4,546	0	0	19,132
Sand	5000	1,696	3,126	1,988	0	0	6,810
Cement	5000	555	558	624	0	0	1,737
River Stone	7000	1,925	1,820	1,597	0	0	5,342
Steel Houlds	8000	0	· O	80	0	0	80
liaber	75000	3,284	3,989	4,635	0	0	11,908
Paint	2000	567	808	859	0	0	2,036
Reinforcing Steel	1000	34	66	397	0	0	487
Tying Wire	1200	0	0	3	0	0	3
Equivalent Royalty	250	1,799	5,907	5,615	0	Û	13,321

#### Appendix A-6 QUANTITIES OF BRIDGE ON PROPOSED ROAD LINKS

	PROV	;	: К	AL IMANTA	N SEI	ATA	N	KAI	3 :	HULL	J SUNG	T IA	ENGA	Ή	
L INK NO	BRIDGE NAME	Ka	From	<< TYPE >> (EXIST) (NEW)	DESIGN LOAD	SPAN CLASS	LENGTH	SPAN ND (no)	SPAN LENGTH (#)	HTGIN (a)	AREA (EXIST) (a2)	AREA (NEW) (#2)	PIER (no)	ABUT (no)	RDAD CLASS
62	TATAH N. I	_	PGDL PGDL PGDL	KK KK			8.00 12.00	2 2 2	4.00 6.00 5.00	4.00 4.00 4.00	48.00		1	2	1118-1
86	BESAR Pandahan Pelajau	3 i		KK KK			3.00 3.00	! 1	3.00 3.00 3.00	4.00 4.00 4.00	12.00		0	2 2	[11B-I

	PROV	i	: ,K	ALIMA	NTAI	N SEL	-ATA	N	KAI	<b>3 :</b>	HULL	SUNG	SAI T	ENGA	<b>H</b>	
LINK	BRIDGE NAME	Ka	From	(C TYI	PE >>	LOAD	CLASS	LENGTH	, NO	SPAN Length		(EXIST)	AREA (NEW)	PIER	ABUT	ROAD CLASS
		• • • • • •				••••••••••••••••••••••••••••••••••••			(no)	(6)	(a)	(82)	(a2)	(np)	(no)	
1	BULAU		BRB	KK					1	2.50	4.00	10.00		0	2	1118-1
3	2111-211	3	JTUH	KK				12.00		6.00		48.00		1	2	1118-1
	KANBAT		HUTE	KK				14.00	3			56.00		2	_	
			ere	KK				5.00	1	5.00	4.00	20.00		0	2	1118-2
7	PALAS	1	HTBK	ĶK				4.00	1	4.00	4.00	16.00		0	2	 !!!B-1
9	BN.HANYAR		NKRJ	KK		~~~~	*****	5.00	1	5.00	 A A	20.00				*****
-	MAIIANG	2	HKRJ	KK				3.00	1			20.00 12.00		0	2	1110
21	NANGKA			 VV			******				~			~~		
. 21	SULTNO		TENS	KK KK				5.00 4.50	. 1	5.00	4.00	20.00		0	2	1[]B-1
	N. I			KK				2.70	1		4.00 4.00	18.00 10.80		0	2 2	
	N. I		ILNR	KK	Ħ				1		4.00		20.00	0	2	
22	1, И	. 1	LNB	KK		*****		19.50	3	6.50	4.00	78.00		2	2	1118-1
23	N. I	1	ILNG	KK				2.80	1	2.80	4,00	11.20	,	0	2	1118-1
	N. I	1	ILNG	KK				7.00	1		4.00	28.00		0	2	
			. ILNS	KK				7.00	1	7.00	4.00	28.00		0	2	
	N. J	2	IL#6	KK	TK	101	(C)	7.00	1	7.00	4.00	28.00	28.00	0	2	
24	N. I	4	KRU	KK				5.00	1	5.00	4.00	20.00		0	2	1118-1
32	TLO.SINGSING I	1	RABN	KK				5.00	1	5.00	4.00	20.00		0	2	1119-2
1	TLG.SINGSING 2	2	RABN	KK				6.00	2	3.00	4.00	24.00		1	2	
	N. I		RABN	KK				3,50	1	3.50	4.00	14.00		0	2	
	SEI.KANUYANG 2		RABN	KK				5.50	1	5.50	4.00	22.00		0	2	
33	N. L	1	ABSP	KK	•			7.00	2	3.50	4.00	28.00		t	2	HIC
	ABUN6		absp	KK				10.07	2	5.03	4.00	40.28		1	2	
	N. I	2	ABSP	KK KK		******		10.05	2	5.03	1.00	40,20		1	2	
43	CUKAN LIPAI	2	CKTb	KK				3.50	i	3.50	3.50	12.25		0	2	1118-2
50	N. I	1	KLBR	KK				5,50	2	2.75	4.00	22.00		1	2	111B-2
	N.I		KLBR	KK				12.00	3	4.00	3.50	42.00		2	2	
	H. I		KEBR	KK				7.00	2	3.50	3.50			1	2	
	N. I		KLBR	· KK				7.00	2	3.50	3.50	24.50		l I	2	
	N.I N.I		KLBR Klbr	KK KK				8.50 6.00	2	4.25 3.00	3.50 4.00	29.75 24.00		1	2	
~																
53	N. I	i	BROT	KK				4.50	2	2.25		18.00		i		1118-1
	N. I	2	BRDT	K8				3,45	4	0.86	3.50	12.08		3	2	<b></b>
54	N. 1	2	P61	KK	-			7.50	2	3.75	4.00			1		1118-2
	R.I	2	PGT	KK				11.50	2		4.00			i	-	
	N.I	4		KK				3.00	i		4.00			0	2	
	н. I	à	PGT	KK				19.00	3	6.33	4.00	76.00		Ĺ	2	

Appendix A-7 CONSTRUCTION AND MAINTENANCE GOST OF BRIDGES ON PROPOSED ROAD LINKS

LINK NO : 1 (IIIB-1)

LENGTH : 3 Km

							(Rp )
1154	UNIT	QUANTITY	<<< UNIT	COST >>> FOREIGN	\\\\\\ Local	COST FORE 16N	)>>>> 10TAL
	-1	A AA	71 032	2 888	A	۸	Λ
Superstructure (Timber; Span 3m; 101)	#2 2	0.00	31,874	2,998	. 0	. 0	. 0
Superstructure (Timber;Span 5m;10T)	#2	0.00	35,305	3,311	. 0	0	0
Superstructure (Timber; Span Bm; 10T)	#2	0.00	46,763	4,352	0	0	0
Superstructure (limber; Span 3m; 8M50)	82	0.00	39,522	3,708	-	0	~
Superstructure tlimber; Span Sm; BMSO)	<b>a</b> 2	0.00	43,147	1,020	0	0	0
Superstructure (Timber; Span 8m; 9H50)	<b>#</b> 2	0.00	54,722	5,089	0	Ū.	. 0
Superstructure (Concrete; Span 30; BM50)	42	0.00	37,593	107,965	•	0	0
Superstructure (Concrete;Span 5m;BM50)	≥2	0.00	38,699	120,694	0	0	0
Superstructure (Concrete;Span 8e;BM50)	<b>e</b> 2	0.00	39,941	131,491	0	0	0
Superstructure (Concrete;Span10m;BM50)	<b>#2</b>	0.00	43,736	149,376	0	0	0
Superstructure (Concrete;Span15m;BHSO)	82	0.00	47,300	176,007	0	0	0
Substructure (Pier; for Timber; 101)	HO.	0.00	277,671	27,729	0 .	0	0
Substructure (Abut; for Timber; 101)	OM	0.00	801,407	136,702	0	0	0
Substructure (Pier; for Timber; 8M50)	KO	0.00	408,375	41,022	0	0	. 0
Substructure (Abut; for Timber; BM50)	סא	0.00	900,255	151,027	0	0	0
Substructure (Pier; for Concrete; 8K50)	NO	0.00	1,444,312	477,161	0	0	C
Substructure (Abut; for Concrete; BM50)	HO	0.00	3,066,987	999,497	0	0	C
Demolition of Bridge (Timber-)Timber)	a2	0.00	9,070	1,195	0	0	0
Demolition of Bridge (Timber-)Concrete)	82	0.00	9,070	1,195	0	0	0
Demolition of Bridge (Concrete)	<b>#2</b>	0.00	67,813	81,377	. 0	0	C
faintenance of Timber Bridge (New)	•2	0.00	6,133	1,010	Ó	: 0	0
faintenance of Concrete Bridge (Nex)	#2	0.00	1,585	3,135	. 0	0	•
Maintenance of Timber Bridge (Exist)	<b>a</b> 2	10.00	7,082	2,349	70,820	23,490	94,310
Maintenance of Concrete Bridge (Exist)	<b>a</b> 2	0.00	4,333	2,471	0	0	Ó
( Without Overhead )	1	OTAL COST	(Ti <b>e</b> ber Bride		0	0	0
			(Concrete Bri	-	. 0	0	0
	. 1	OTAL COST	(without Hair	itenance)		0	
( Overhead : 15% )	1	OTAL COST	(limber Bride	16)	0	0	0
			(Concrete Bri		Ò	0	; 0
•		STAL PARK	(without Hair		۸ .	Ô	. 0

LINK NO : 3 (IIIB-1) LENGTH : 5 Km

					******	*=	( Rp
1164	UNIT	QUANTITY	CCAL LOCAL	COST >>> FOREIGN	CCCCC LOCAL	COST Foreign	>>>>> Tota
Superstructure (Timber;Span Jm;101)	<b>a</b> 2	0.00	31,874	2,998	. 0	٨	
Superstructure (Timber:Span 5m;10T)	<b>92</b>	0.00	35,305	3,311	0	0	
Superstructure (limber:Span 8m;101)	62	0.00	16.763	4,352	0	0	
Superstructure (Timber Sept 34 8450)		0.00	30, 500	7,70F	. 6	,	
Superstructure (fiaber;Span 5a;8M50)	₩2	0.00	43,147	4,020	0	Ů	
Superstructure (Timber;Span 8m;BHSO)	* #2	0.00	54,722	5,089	Ò	· ŏ	
Superstructure (Concrete;Span 3m;BN50)	a2	0.00	37,583	107,945	Ô	Ŏ	
Superstructure (Concrete;Span 5m;BM50)	<b>a</b> 2	0.00	30,699	120,674	0	Ŏ	
Superstructure (Concrete; Span 8m; BH50)	#2	0.00	39,941	131,491	ŏ	. 0	
Superstructure (Concrete; SpantOm; 8M50)	₽2	0.00	43,736	149,376	Ö	Ď	
Superstructure (Concrete;Span15m;BH50)	<b>s</b> 2	0.00	47,300	176,007	0	Õ	
Substructure (Pier; for Timber; 101)	KO	0.00	277,671	27,729	0	Ŏ	
Substructure (Abut; for Timber; 101)	NO	0.00	801,607	136,782	0	0	
Substructure (Pier;for Timber;BMSO)	NO	0.00	408,375	41,022	0	Ô	
Substructure (Abut; for Timber; DM50)	NO	0.00	900,255	151,027	0	0	
Substructure (Pier; for Concrete; 8H50)	HO	0.00	1,444,312	477,161	0	0	
Substructure (Abut; for Concrete; BHSO)	HD	0.00	3,086,987	999,497	Ò	Ò	
Demolition of Bridge (Timber->Timber)	<b>6</b> 2	0.00	9,070	1,195	0	0	
Demolition of Bridge (Timber-)Concrete)	<b>a</b> 2	0.00	9,070	1,195	0	0	
Demolition of Bridge (Concrete)	<b>n2</b>	0.00	67,813	81,377	0	0	
daintenance of Timber Bridge (New)	*2	0.00	6,133	1,010	Ò	Ó	
Maintenance of Concrete Bridge (New)	e2	0.00	1,585	3,135	0	0	
maintenance of Timber Bridge (Exist)	<b>s</b> 2	104.00	7,082	2,349	736,528	244,296	980,82
Maintenance of Concrete Bridge (Exist)	. #2	0.00	4,333	2,471	0	. 0	·
( Without Overhead )	11	DIAL COST	(Timber Bridge	el	0	0	*****
1			(Concrete Bris		0	0	
	I	DTAL COST	(without Hain		0	0	
( Overhead : 15% )		NTAL FOST	(limber Bridg	e)	0	0	
I MACHINERA & THE !	•		(Concrete Bri		0	0	
	ti	ntae cact	(without Main		0	ò	

LINK NO : 6 (IIIB-2) LENGTH : 3 Km

							( Rp )
TTEM	UNIT	QUANTITY	<<< UNIT LOCAL	COST >>> FOREIGN	\\\\\\ Local	COST Fore16N	>>>>> TOTAL
Superstructure (Yimber;Span 3m;10))	• •2	0.00	31,874	2,998	0	0	(
Superstructure (Timber;Span 5m;10T)	e2	0.00	35,305	3,311	ñ	Ô	à
Superstructure (Timber;Span 8m;10T)	02	0.00	46,763	4,352	. 0	0	Č
Superstructure (Timber:Span 3m:8H50)	<b>B</b> 2	0.00	39,522	3,708	Ò	0	. (
Superstructure (limber;Span 5m;8H5O)	-2		43,147	4,020	0	Ó	ĺ
Superstructure (Timber;Span 8m;BHSO)	•2	0.00	54,722	5,089	Ŏ	. 0	· (
Superstructure (Concrete; Span 3#; BH50)	a2	0.00	37,583	107,765	ů	0	. 6
Superstructure (Concrete; Span Sm; 8M50)	<b>a</b> 2	0.00	38,699	120,694	0	Ó	Ċ
Superstructure (Concrete; Span 8@; BM50)	•2	0.00	39,941	131,491	0	ò	
Superstructure (Concrete;Span10m;BMSO)	. =2	0.00	43,736	149,376	. 0	0	
Superstructure (Concrete; Span15m; BNSO)	<b>a</b> 2	0.00	47,300	176,007	Ď.	0	
Substructure (Pier; for limber; 101)	NO	0.00	277,671	27,729	. 0	0	(
Substructure (Abut; for Timber; 197)	KO	0.00	801,607	136,702	Ŏ	0.	
Substructure (Pier; for Tieber; BM50)	NO	0.00	408,375	41,022	ő	0	
Substructure (Abut;for li≢ber;BH50)	ND.		900,255	151,027	ō	0	
Substructure (Pier; for Concrete; BNSO)	KO	0.00	1,444,312	477,161	n .	۸.	
Substructure (Abut:for Concrete;BH50)	. KD	0.00	3,066,987	999,497	ŏ	0	
Demolition of Bridge (Timber->Timber)	a2	0.00	9,070	1,195	. 0	0	i
Demolition of Bridge (Timber-)Concrete)	12	0.00	9,070	1,195	Ō	a	
Demotition of Bridge (Concrete)	a2		67,813	81,377	. 0	ő	•
Maintenance of Timber Bridge (New)	•2	0.00	6,133	1,010	0	0	
Maintenance of Concrete Bridge (New)	ø2	0.00	1,595	3,135	0	. 0	
Haintenance of Timber Bridge (Exist)	a2	20.00	7,082	2,349	141,640	46,980	188,62
Haintenance of Concrete Bridge (Exist)	<b>a</b> 2	0.00	1,333	2,471		. 0	1
( Hithout Overhead )	<u>-</u> -	DIAL COST	(Timber Bride	e) :	0	0	
t arribar picinida i	•	- 111C 0001	(Concrete Bri		. 0	ů.	
	. 1	OTAL COST	(without Mair		0	0	. (
				.======			.:
( Overhead : 15% )	Ī	OTAL COST	(Timber Bridg	je) .	0	0	
			(Concrete Bri		0	0	
	1	OTAL COST	(without Hair	tenance)	0	0	•

LINK NO : 7 (IIIB-1) LENGTH : 2 Km

·							( Rp )
ITEH	UNIT	DUANTITY	<<< UNIT	COST >>> Foreign	((((( L0CAL	COST FORE LEN	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	*****	********					
operstructure (limber;Span Ja;101)	*2	0.00	31,874	2,998	. 0		
uperstructure (Timber; Span Sm; 10T)	<b>*</b> 2	0.00	35,305	3,311	. 0	0	
Superstructure (Timber;Span 8m;101)	*2	0.00	16,763	4,352	0	•	į
uperstructure (Timber;Span 3m;8H50)	n2	0.00	39,522	3,708	0	. 0	
uperstructure (limber; Span 5m; BM50)	62	0.00	43,147	4,020	0	V	
uperstructure (Timber;Span Bm;BHSO)	æ2	0.00	54,722	5,089	0	0	
uperstructure (Concrete;Span 3a;0850)	82	0.00	37.583	107,965	Û	. 0	
uperstructure (Concrete; Span 50; 8M50)	<b>#2</b>	0.00	38,699	120,694	0	. 0	
uperstructure (Concrete;Span 8s;BM50)	<b>=</b> 2	0.00	39,941	131,491	-	•	
uperstructure (Concrete; Spanios; BMSO)	92		43,736	149,376	0	0	
uperstructure (Concrete:Span15#:8850)	e2	0.00	47,300	176,007	0	0	
ubstructure (Pier; for Timber; 10T)	ND.	0.00	•	27,729	-	Ų	
ubstructure (Abut; for Timber; 10T)	NO	0.00	801,607	136,782	. 0	V	
ubstructure (Pier; for Timber; 8H50)	NO	0.00	408,375	41,022	0	0	
ubstructure (Abut; for Timber; 8M50)	NO	0.00	900,255	151,027	0	0	
ubstructure (Pier; for Concrete; 8M50)	מא	0.00	1,444,312	477,161	0	0	
ubstructure (Abut; for Concrete; 8850)	KO	0.00	3,066,787	999,497	. 0	0	
esolition of Bridge (Tisber-)Timber)	a2	0.00	9,070	1,195	0	•	
emolition of Bridge (Timber-)Concrete)	e2	0.00	9,070	1,195	. 0	۸.	
eactition of Bridge (Concrete)	e2	0.00		BI 377	0	0	
aintenance of limber Bridge (New)	<b>*</b> 2	0.00	£ 177	1.010	٨		
aintenance of Concrete Bridge (New)	22	0.00 0.00	6,133	1,010	0	0	
aintenance of limber Bridge (Exist)	#2	4.7	1,585	3,135	0	17.501	150.00
· · · · · · · · · · · · · · · · · · ·	a2		7,002 4,333	2;349 2;471	113,312 0	37,584 0	150,89
( Without Overhead )	 T	OTAL COST	(Timber Orido	e)	0	0	
	-		(Concrete Bri		0	0	
	Ţ	OTAL COST	(without Kain		O	0	
,					_		
( Overhead : 15% )	ĭ	UTAL COST	(Timber Bridg		0	. 0	
			(Concrete Bri		0	0	
	Ţ	OTAL COST	(without Hain	tenance)	0	0	

LINK NO : 9 (IIIC) LENGTH : 3 Km

							( Rp. )
ITEH	TINU	QUANTITY		CUST >>> FOREIGN	FOEUF (((((	COST FOREIGN	>>>>> TOTAL
		# en m r s, 4 4 5 ;					
uperstructure (limber;Span Jm;101)	<b>a</b> 2		31,874	2,998	. 0	. 0	0
uperstructure (Timber;Span 5x;10T)	a2		35,305	3,311	0	0	
uperstructure (limber;Span 8m;101)	e2		16,763	4,352	Ò	0	(
uperstructure (Timber;Span 3m;BH50)	<b>a</b> 2	0.00	39,522	3,708	0	0	
uperstructure (Timber;Span 5m;BNSO)	<b>#</b> 2		43,147	4,020	0	0	
uperstructure (Timber;Span 8m;BK50)	<b>a</b> 2	0.00	54,722	5,089	0	0	
uperstructure (Concrete;Span 3m;8MSO)	<b>e</b> 2	0.00	37,583	107,965	0	0	. (
uperstructure (Concrete;Span 5æ;BN50)	.∎2	0.00	38,599	120,694	0	0	
uperstructure (Concrete;Span 8m;BM50)	<b>a</b> 2	0.00	39,941	131,491	0	0	1
uperstructure (Concrete;Spanio*;8H50)	<b>a</b> 2	0.00	43,736	149,376	. 0	. 0	
uperstructure (Concrete;Span15m;BH50)	<b>a</b> 2	0.00	47,300	174,007	0	0	
ubstructure (Pier; for Timber; 101)	NO	0.00	277,671	27,729	0	0	
ubstructure (Abut; for Timber; 101)	HO	0.00	801,607	136,782	9	0	· · ·
ubstructure (Pier; for Timber; BM50)	NO	0.00	408,375	41,022	Ó	0	
obstructure (Abut; for Timber; BH50)	NO	0.00	900,255	151,027	ð ·	0	
ubstructure (Pier;for Concrete;BN50)	HO	0.00	1,444,312	477,161	0	0	•
ubstructure (Abut;for Concrete;8M50)	NO	0.00	3,046,987	999,497	0	0	
emolition of Bridge (Timber-)Timber)	a2	0.00	9,070	1,195	0	0	
emolition of Bridge (Timber-)Concrete)	e2	0.00	7,070	1,175	: 0	0	
emolition of Bridge (Concrete)	<b>a</b> 2	0.00	67,813	81,377	0	0	
sintenance of Timber Bridge (New)	#2	0.00	6,133	1,010	0	0	
intenance of Concrete Bridge (New)	<b>≢</b> 2	0.00	1,585	3,135	0	0	
intenance of Timber Bridge (Exist)	•2	32.00	7,082	2,349	226,624	75,148	301,79
aintenance of Concrete Bridge (Exist)	<b>a</b> ?	0.00	4,333	2,471	0	0	
( Without Overhead )	T	OTAL COST	(limber Bridg	je)	0	0	*====******
•			(Concrete Bri		0	. 0	
		OTAL COST	(without Mair	itenance)	0	0	
( Overhead : 15% )	T	OTAL COST	(Tieber Bride		0	0	
	_		(Concrete Bri		0	0	
•	ι	OTAL COST	Imithout Main	(6009uC5)	0	0	

LINK MO : 21 (IIIB-1) LENGTH : 5 Km.

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ITEH	UNIT	QUANTLTY	<<< UNIT	COST >>> FOREIGN	((((( L0CAL	COST FORE 16N	>>>>> TOTAL
			*******			~~~~~	
Superstructure (limber;Span Jm;101)	<b>=</b> 2	0.00	31,874	2,998	ð	0	,
Superstructure (Timber; Span 50;101)	92	20.00	35,305	3,311		66,270	772,32
Superstructure (Timber;Span 8m;101)	e2	0.00	16,763	1,352	0	00,220	112,32
Superstructure (limber; Span 3m; BH50)	<b>#2</b>	0.00	39,522	3,708	ŏ	0	
Superstructure (limber;Span 50;8K50)	#2	0.00	43,147	1,020	0	0	
Superstructure (Timber;Span 8m;8M50)	•2	0.00	54,722	5,089	Ŏ	. 0	
Superstructure (Concrete;Span 3m;BM50)	e2	0.00	37,583	107,965	0 -	. 0	,
Superstructure (Concrete;Span 5x;8850)	42	0.00	38,699	120,694	ŏ	ñ	
Superstructure (Concrete;Span Be;9M50)	<b>a</b> 2	0.00	39,941	131,491	0	0	
Superstructure (Concrete;Spanion;BNSO)	e2	0.00	43,736	149,376	· ŏ	Ŏ	· ·
Superstructure (Concrete;Spani5a;8H50)	<b>n</b> 2	0.00	47,300	176,007	Ô	0	. '
Substructure (Pier; for Timber; 107)	. NO	0.00	277,671	27,729	Ô	0	
Substructure (Abut; for Timber; 101)	KO	2.00	801,607	136,782	-	273,561	1,876,77
Substructure (Pier; for Timber; BM50)	HO	0.00	408,375	41,022	0	. 110,001	11010111
Substructure (Abut; for Timber; BHSO)	NO		900,255	151,027	ŏ	Ŏ	
Substructure (Pier; for Concrete; BMSO)	KO	0.00	1,444,312	477,161	0	Ŏ	
Substructure (Abut; for Concrete; BM50)	HO	0.00	3,066,987	999,497	0	Ô	
Jeaclition of Bridge (Timber->Timber)	<b>a</b> 2	20.00	9,070	1,195	181,400	23,900	205,30
Demolition of Bridge (Timber-)Concrete)	a2	0.00	9,070	1,195	. 0	0	220,000
Penolition of Bridge (Concrete)	#2	0.00	67,813	81,377	0	Ŏ	(
faintenance of Timber Bridge (New)	<b>B</b> 2	20.00	6,133	1,010	122,660	20,200	142,86
faintenance of Concrete Bridge (New)	<b>e</b> 2	0.00	1,585	3,135	. 0	. 0	
faintenance of Timber Dridge (Exist)	€2	48.80	7,082	2,349	345,601	114,631	460,23
laintenance of Concrete Bridge (Exist)	<b>5</b> 2	0.00	4,333	2,471	0	0	
( Without Overhead )	 1	OTAL COST	(Tieber Bridg	e)	2,490,714	363,684	2,854,39
	•		(Concrete Bri	,	0	0	-(***(**
	ĭ	OFAL COST	(without Main		2,490,714	363,684	2,854,39
( Overhead : 15% )	 T		(Timber Bridg	p}	2,864,321	418,237	3,282,55
· OTELINOU I SUN I	•	C1.15 DDD1	(Concrete Bri		0	0	-,,00
			(without Main	•	2,864,321	418,237	3,282,55

LINK NO : 22 (IIIB-1) LENGTH : -2 Km

							( Rp )
ITEN	וואט	QUANTITY	<<< UNIT	COST >>> FOREIGN	((((( Local	COST FOREIGN	>>>>> TOTAL
**************************************		EH				# 4-1 + 4 + 5 = 11 = 12 + 4 + 5 = 11 = 12 + 4 + 5 = 11 = 12 + 4 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 + 5 = 12 = 12 + 5 = 12 = 12 + 5 = 12 = 12 = 12 + 5 = 12 = 12 = 12 = 12 = 12 = 12 = 12 =	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Superstructure (Timber;Span 3m;101)	e2	0.00	31,874	2,998	0 -	0	(
Superstructure (Timber;Span 5m;10T)	m2	0.00	35,305	3,311	0,	0	. (
Superstructure (Timber;Span 8m;101)	<b>#2</b>	0.00	46,763	4,352	0	0	(
Superstructure (Timber;Span 3m;8H5O)	<b>a</b> 2	0.00	39,522	3,708	. 0	. 0	. (
Superstructure (Timber;Span 5m;BM50)	a2	0.00	43,147	4,020	0	0	. (
Superstructure (Timber;Span 8m;9H50)	*2	0.00	54,722	5,099	0 -	0	
Superstructure (Concrete;Span 3m;BM50)	<b>a</b> 2	0.00	37,583	107,965	Ò	0	• (
Superstructure (Concrete; Span 5m; BMSO)	e2	0.00	38,699	120,694	0	0	
Superstructure (Concrete; Span 8m; BH50)	■2	0.00	39,741	131,491	0	0	
Superstructure (Concrete;Span10e;BMSO)	<b>a</b> 2		43,736	149,376	0 .	0	
Superstructure (Concrete;Span15m;BM50)	*?	0.00	47,300	176,007	0	0	
Substructure (Pier;for Timber;107)	110	0.00		27,729	0	0	
Substructure (Abut; for Timber; 101)	NO	0.00	• • • • • • • • • • • • • • • • • • • •	136,702	. 0	0	
ubstructure (Pier;for Tieber;BM50)	NO	0.00		41,022	. 0	0	
ubstructure (Abut;for Timber;8M59)	HO	0.00	900,255		0 .	. 0	
ubstructure (Pier;for Concrete;BX50)	NO	0.00	1,444,312		0	0	
Substructure (Abut;for Concrete;BM50)	OK	0.00	3,066,987	999,497	. 0	0	
emolition of Bridge (limber->limber)	<b>e</b> 2	0.00	9,070	1,175	Ö	0	
Demolition of Bridge (Timber-)Concrete)	<b>#</b> 2	0.00	9,070	1,195	. 0	0	
Demolition of Bridge (Concrete)	<b>4</b> 2	-	67,813	81,377	0	0	
laintenance of limber Bridge (New)	<b>e</b> 7	0.00	6,133	1,010	0	0	
laintenance of Concrete Bridge (New)	•2	0.00	1,585	3,135	0	0	
aintenance of Timber Bridge (Exist)	#2	70.00	7,082	2,349	552,396	183,222	735,61
laintenance of Concrete Bridge (Exist)	m2	0.00	4,333	2,471	. 0	.0	
( Without Overhead )	 T	OTAL COST	(limber Bride	je)	0 -	0	
			(Concrete Bri		0	0	
	. 1	OTAL COST	(without Mair	itenance)	0	0	
/ A 1 CV \		DIAL CONT	/fishes 0s14-			0	
( Overhead : 15% )	i	UTHE CUST	(Timber Bride		0		
		ntai cont	(Concrete Bri (without Main		Ų O	0	
	ī	UIAL LUSI	(M) CHOUL MAIN	icenance)	v	v	

LINK NO : 23 (1118-1) LENGTH : 2 Km

******************************	-	*******		·			( Rp )
ITEH	UNIT	QUANTITY	<<< UNIT LOCAL	COST >>> FOREIGN	CCCAL	COST FOREIGN	>>>>> TOTAL
Superstructure (Timber; Span 3m; 101)	n2	0.00	31,874	2,990	0	٠ ٨	. 0
Superstructure (Timber; Span 5m; 101)	<b>a</b> 2	0.00	35,305	3,311	0	0	
Superstructure (Timber; Span Be; 101)	a2	28.00	46,763	1,352	1,307,364	121,856	1,431,220
Superstructure (limber; Span 3m; 8H50)	<b>#2</b>	0.00	39,522	3,708	0	1511010	111011241
Superstructure (Timber; Span 5m; BM50)	<b>a</b> 2	0.00	43,147	1,020	Ŏ	0	. (
Superstructure (Timber; Span 8m; 8M50)	<b>=</b> 2	0.00	54,722	5,089	Ŏ	Λ.	0
Superstructure (Concrete; Span 3m; BMSO)	<b>#2</b>	0.00	37,583	107,965	. 0	v oʻ	(
Superstructure (Concrete; Span 5a; BH50)	e2	0.00	38,699	120,694	0	0	,
Superstructure (Concrete; Span 8m; BM50)	<b>B</b> 2	0.00	39,941	131,491	0	٨	0
Superstructure (Concrete; SpantOm; BMSO)	a2	0.00	43,736	149,376	0	. 0	
Superstructure (Concrete; Span15m; 8M50)	<b>a</b> 2	0.00	47,300	176,007	0	0	0
Substructure (Pier; for Timber; 101)	ND	0.00	277,671	27,729		۷	Ų
Substructure (Abut; for Timber; 101)	NO	2.00	801,607	136,782	1,603,214	273,564	ט בינה ו
Substructure (Pierifor Timber(8M50)	NO	0.00		41,022	. 0	4/3 ₁ 304	1,876,778
Substructure (Abut; for Timber; BMSO)	HO	0.00	900,255	151,027	. 0	. 0	Ų
Substructure (Pier; for Concrete; BH50)	NO		1,444,312	477,161	0	0	0
Substructure (Abut; for Concrete; BMSO)	KD	0.00	3,066,987	999,497	Ô	0	· ·
Demolition of Bridge (Timber->Timber)	<b>=2</b>	28.00	9,070	1,195	253,960	33,460	287,420
Demolition of Bridge (Timber-)Concrete)	<b>#2</b>	0.00	9,070	1,195	233,700	33140U 0	501 1 1 7 0
Demolition of Bridge (Eoncrete)	<b>e</b> 2	0.00	67,813	81,377	0	Ŏ	Č
Maintenance of Timber Bridge (New)	<b>a</b> 2	28.00	6,133	1,010	171,724	28,280	200,004
Haintenance of Concrete Bridge (New)	e2	0.00	1,585	3,135	0	. 0	. 0
Haintenance of Timber Bridge (Exist)	<b>D2</b>	67.20	7,092	2,349	475,910	157,852	633,762
Maintenance of Concrete Bridge (Exist)	<b>s</b> 2	0.00	4,333	2,471	. 0	0	. 0
( Without Overhead )	 I	OTAL COST	(Timber Bridg	<u>re}</u>	3,166,538	428,880	3,595,418
			(Concrete Bri	dgel	0	. 0	· · (
	. 1	OTAL COST	(without Main	tenance)	3,166,538	428,880	3,595,418
( Overhead : 15% )		NTAL FRET	(Timber Bridg		3,641,519	493,212	4,134,731
A CALLINGAG + 13% I	•	OINC COST	(Concrete Bri		0	0	1,101,10
	. 1	UIVI LUCT	(without Main	•	3,641,519	493,212	4,134,731
	•	WINE GOOT	THE CHOOL HOLL	CCHBILET	-10111011		.11.4.

LINK NO : 24 (IIIB-1) LENGTH : 7 Km

				•			( Rp )
ITEH	TINU	QUANTITY	<<< UNIT LOCAL	COST >>> FOREIGN	<<<<<	COST Foreign	>>>>> Total
	_						
Superstructure (Timber;Span Jm;10T)			31,074	2,998	0	Ų	(
Superstructure (Timber; Span Sm; 101)	. 02	0.00	35,305	3,311	9		
Superstructure (Timber; Span 8m; 10T)	#2	0.00	46,763	4,352	V .		,
Superstructure (Timber; Span 3m; 8H50)	e2	0.00	39,522	3,708	U	V	
Superstructure (Timber; Span 5m; 8M50)	e2	0.00	43,147	4,020	U		
Superstructure (Timber;Span Bm;8H50)	•2	0.00	54,722	5,089	. 0	0	. (
Superstructure (Concrete; Span 3m; BH50)	<b>a</b> 2	0.00	37,593	107,965	0	U	
Superstructure (Concrete; Span 50; BMSO)	#2	0.00	38,699	120,694	0	0	. (
Superstructure (Concrete; Span 8e; BMSO)	£2		39,941	131,491	Ð	. 0	
Superstructure (Concrete; Spaniom; BH50)	•2		43,736	147,376	0.	0	
Superstructure (Concrete;Span15m;BM50)	<b>#</b> 2		47,300	176,007	0	0	
Substructure (Pier; for Timber; 10T)	NO	0.00	277,671	27,729	0	0	* . 1
Substructure (Abut; for Timber; 101)	- ND	0.00	801,607	134,782	.0	0	
Substructure (Pier; for Timber; BM50)	ON .		408,375	41,022	: 0	0	:
Substructure (Abut; for Timber; 8M50)	KO	.0.00	900,255	151,027	. 0	0	
Substructure (Pier;for Concrete;BHSO)	NO	0.00	1,444,312	477,161	0	. 0	
Substructure (Abut; for Concrete; 8N50)	NO	0.00	3,066,987	999,497	0	0	
Demolition of Bridge (Timber-)limber)	#2	0.00	9,070	1,195	0	0	
Demolition of Bridge (limber-)Concrete)	<b>e</b> 2		9,070	1,195	0	. 0	
Demolition of Bridge (Concrete)	a2	0.00	67,813	81,377	0.	0	
Maintenance of Timber Bridge (New)	a2	0.00	6,133	1,010	0	0	
Maintenance of Concrete Bridge (New)	<b>#</b> 2	0.00	1,585	3,135	0	0	. 1
Maintenance of Timber Bridge (Exist)	<b>a</b> 2	20.00	7,082	2,349	141,640	46,780	108,62
Maintenance of Concrete Bridge (Exist)	. <b>n</b> 2	0.00	4,333	2,471	0	0	
ł Without Overhead )		DIAL COST	llieber Bride	je)	ð	. 0	
			(Concrete Bri	,	0	0.	
	. 1	OTAL COST	(without Main	•	0	0	
( Overhead : 15% )	1		(Timber Bridg		Ū	0	
	_		(Concrete Bri		V	0	
	ı	UIRL LUST	(without Hair	ireuance)	U	V	

LINK NO : 32 (IIIB-2) LENGTH : 3 Km

			• .				( Rp
ITEH	UNIT	DUANTITY	<>< UNIT	COST >>> FOREIGN	(((((	COST FOREIGN	>>>>> 1014
		*******			************		
uperstructure (limber;Span 3m;101)	<b>a</b> 2	0.00	31,874	2,999	٠		
uperstructure (limber:Span 5m;101)	02	0,00	35,305	3,311	0	0	1.
uperstructure (Timber;Span 8m;10T)	e2	0.00	46,763	4,352	0	0	
uperstructure (limber:Span 3m;BH50)	e2	0.00	39,522	3,708	0	0	
uperstructure (Timber;Span 5m;BH50)	<b>e</b> 2	0.00	43,147	1,020	v	. 0	
uperstructure (Timber;Span 8m;8M50)	a2	0.00	54,722	5,089	. 0	. 0	
uperstructure (Concrete;Span 3a;8H50)	. 82	0.00	37,583	-	U	. 0	
uperstructure (Concrete;Span 5m;BH50)	42	0.00	38,699	107,965	V	0	
uperstructure (Concrete;Span 8e;8H50)	£2.		39,941	120,694	V	0	
uperstructure (Concrete; Span10m; 8H50)	#2	0.00		131,491	U	0	
uperstructure (Concrete;Spanise;BMSO)	#2 #2	0.00	43,736	149,376	0	0	
ubstructure (Pierifor Timber:101)			17,300	176,007	0	0	
ubstructure (Abut;for Timber;101)	NO.	0.00	277,671	27,729	0	. 0	
ubstructure (Pier;for Haber;BMSO)	KO	0.00	801,607	136,782	0	0	
	ND	0.00	408,375	41,022	0	0	
ubstructure (Abut; for Timber; BM50)	NO	0.00	900,255	151,027	0	0	
ubstructure (Pier; for Concrete; BN50)	NO	0.00	1,444,312	477,161	. 0	0 -	
ubstructure (Abut; for Concrete; 8H50)	HO	0.00	3,066,987	999,497	. 0	0	
emolition of Bridge (Timber-)Timber)	a2	0.00	9,070	1,195	0	.0	
emolition of Bridge (Timber-)Concrete)	a2	0,00	9,070	1,195	. 0	0	
emolition of Bridge (Concrete)	82	0.00	67,813	81,377	0	0	
aintenance of Timber Bridge (New)	•2	0.00	6,133	1,010	0	. 0	
sintenance of Concrete Bridge (New)	a2	0.00	1,585	3,135	ò	ō	
aintenance of Timber Bridge (Exist)	e2		7,082	2,349	586,560	187,920	754,48
aintenance of Concrete Bridge (Exist)	<b>e</b> 2	0.00	4,333	2,471	0	0	,
( Hithout Overhead )	1	OTAL COST	(Tieber Bridg		0	0	
•			(Concrete Bri		0	0	
	- 10	OTAL COST	(without Hain	tenance)	0	0	
( Overhead : 15% )	T(	DTAL COST	(Timber Bridge	·)	0	0	
			(Concrete Bri	ige)	0	0	
	Tf	TODO INTO	(without Main!	on spent	0	۸	

KAB : HULU SUNGAI TENGAH PROV : KALIMANTAN SELATAN

LINK NO : 33 (IIIC) LENGTH : 2 Km

•							( Rp )
ITEH	UNIT	QUANTITY	<<< UNIT	COST >>> FOREIGN	((((( LOCAL	COST FOREIGN	>>>>> TOTAL
			, a, h, ii, a, ii, a				
Superstructure (Timber; Span Jm; 101)	e2	0.00	31,874	2,998	0	. 0	0
Superstructure (Timber; Span 5m; 10T)	<b>8</b> 2	0.00	35,305	3,311	0		. 0
Superstructure (Himber:Span 8m;101)	e2	0.00	16,763	4,352	0	. 0	0
Superstructure (Timber; Span 3m; 8K50)	<b>#2</b>	0.00	39,522	3,708	0	0	0
Superstructure (Timber: Span 5m; BH50)	•2	0.00	43,147	4,020	0	. 0 .	. 0
Superstructure (Timber:Span 8m;8M50)	<b>a</b> 2	0.00	54,722	5,089	. 0	0	. : 0
Superstructure (Concrete: Span 3m; 8M50)	s2	0.00	37,583	107,765	0	0	0
Superstructure (Concrete; Span 54; BH50)	a2	0.00	38,699	120,694	0	. 0	0
Superstructure (Concrete; Span 8a; BMSO)	12	0.00	39,911	131,491	0	. 0	0
Superstructure (Concrete; Spaniom; BH50)	e2	0.00	43,736	149,376	0	0	. 0
Superstructure (Concrete: Spani5a: BM50)	B2	0.00	47,300	176,007	0	0 -	0
Substructure (Pier; for Timber; 101)	NO	0.00	277,671	27,729	0	Ó	0
Substructure (Abut; for Timber; 101)	NO	0.00	801,607	136,782	0	0	0
Substructure (Pier; for Timber; BMSO)	NO	0.00	408,375	41,022	0	0	0
Substructure (Abut; for Timber; BN50)	KO	0.00	900,255	151,027	0	0	0
Substructure (Pier; for Concrete; BH50)	NO	0.00	1,444,312	477,161	0	0	0
Substructure (Abut; for Concrete; BNSO)	NO	0.00	3,066,987	999,497	0	0	0
Demolition of Bridge (Timber-)Timber)	e2	0.00	9,070	1,195	0	Ö	0
Demolition of Bridge (Timber-)Concrete)	•2	0.00	9,070	1,195	0	0	. 0
Demolition of Bridge (Concrete)	<b>s</b> 2	0.00	67,813	81,377	0	0	. 0
Maintenance of Timber Bridge (Mew)	<b>a</b> 2	0.00	6,133	1,010	0	0	0
Haintenance of Concrete Bridge (New)	<b>a</b> 2	0.00	1,585	3,135	0	. 0	0
Maintenance of Timber Bridge (Exist)	: в2	108.48	7,082	2,349	768,255	254,819	1,023,074
Maintenance of Concrete Bridge (Exist)	<b>a</b> 2	0.00	4,333	2 ₁ 471	0	0	0
( Without Overhead )		OTAL PACE	(Timber Bridg	,, ,n1	0		0
( without dakingso )	'	UINE CUST	(Concrete Bri		۸	ŏ	. 0
	1	TONG TATES	(without Main		. 0	0	Ô
		UIHL LUSI	(w) Enouge nail	renance,	·	V	
( Overhead : 15% )	ĭ	OTAL COST	(Timber Bridg	e}	0	0	ð
	•		(Concrete Bri		0	0	Ō
	. 1	OTAL COST	(without Main	•	0	0	0
	•			·			•

LINK NO : 43 (IIIB-2) LENGTH : 3 Km

	******	7	************				( Rp
TTEN CONTRACTOR OF THE SECOND	TINU	QUANTITY	<<< UNIT Local	COST >>> FOREIGN	((((( LOCAL	COST FOREIGN	<<<<<
					***		
uperstructure (Timber;Span 3m;101)	. a2	0.00	31,874	2,998			
uperstructure (Timber;Span 5m;101)	62	0.00	35,305	3,311	0	V	
uperstructure (limber;Span Bm;101)	e2	0.00	46,763	4,352	-	v	
uperstructure (Timber:Span 3m;BH50)	<b>p2</b>	0.00	39,522	3,708	0	v .	
uperstructure (Timber:Span Sm:BNSO)	в2	0.00	43,147	1,020	0	V .	
uperstructure (limber;Span 8m;BM50)	<b>s</b> 2	0.00	54,722	5,089	0	0	
uperstructure (Concrete; Span 3m; 8M50)	æ2	0.00	•	107,965	0	V	
perstructure (Concrete;Span Sa;8M50)	e2	0.00	38,699	120,694	. 0	. 0	
uperstructure (Concrete;Span Ba;BH50)	a2	0.00	39,941	131,471	. 0	0	
perstructure (Concrete;Spanion;BH50)	e2	0.00	43.736	149,376	0	V	
uperstructure (Concrete;Spani5e;BMSO)	<b>a</b> 2	0.00	47,300		•	,V	
ostructure (Pier; for Timber; 101)	NO	0.00	277,671	27,729	0	0	
ubstructure (Abut; for Timber; 101)	KO	0.00	801,607		Ü	0	
ubstructure (Pier; for Timber; BH50)	NO		408,375	136,782	0	. 0	•
ubstructure (Abut; for Timber; BHSO)	KO.	0.00	•	41,022	0	0	
ibstructure (Pierifor Concrete;8850)	ND	0.00	900,255	151,027	Ü	0	
ibstructure (Abut; for Concrete; BH50)	NO NO		1,444,312	477,161	0	0	
enolition of Bridge (Timber->Timber)	nu ≥2	0.00	3,066,987	999,497	0	0	
emolition of Bridge (Timber-)Concrete)	#Z	0.00	9,070	1,195	0	0	
emolition of Bridge (Concrete)		0.00	9,070	1,195	0	0	
worreful or pringe concreter	a2	0.00	67,813	81,377	0	0	
aintenance of limber Bridge (New)	42	0.00	6,133	1,010	0	0	
aintenance of Concrete Bridge (New)	a2	0.00	1,585	3,135	0	0	
aintenance of limber Bridge (Exist)	á2	12.25	7,082		86,754	28,775	115,5
aintenance of Concrete Bridge (Exist)	. #2		4,333	2,471	0	0	•
{ Without Overhead }			(Timber Bridg		0	0	*******
( MITHOUT OACHHERD )	'	DIME FASI	(Concrete Bri		٨	0	
	3	INTAL CRET	lwithout Hair		۸	0	
	·						
( Overhead : 15% )	ī	OTAL COST	(Timber Bridg	e)	0	0	
			(Concrete Bri		0	0	
•	Ţ	OTAL COST	(without Hain	tenance)	0	0	

LINK NO : 50 (IIIB-2) LENGTH : 6 Km

							( Rp )
I T E N	TINU	PURITING	<<< UNIT LOCAL	COST >>> FOREIGN	<<<<< L0CAL	COST FOREIGN	>>>>> Total
				- Pro- drig - Roy - gal- drig - Roy			
Superstructure (Timber; Span Ja; 101)	<b>a</b> 2	0.00	31,874	2,998	0	0	0
Superstructure (Timber;Span 5m;101)	<b>a</b> 2	0.00	35,305	3,311	0 :	0	0
Superstructure (limber;Span Bm;101)	<b>e</b> 2	0.00	46,763	4,352	0	0	0
Superstructure (Timber;Span 3m;BHSO)	<b>e</b> 2	0.00	39,522	3,708	0	0	. 0
Superstructure (Timber;Span 5m;BM50)	•2	0.00	43,147	4,020	0	0	0
Superstructure (Timber;Span 8m;8H50)	<b>a</b> 2	0.00	54,722	5,089	0	. 0	0
Superstructure (Concrete;Span 3#;BH50)	a2	0.00	37,593	107,965	0	0	0
Superstructure (Concrete;Span 5m;BH50)	<b>#2</b>	0.00	38,699	120,694	. 0	0	. 0
Superstructure (Concrete;Span 8m;BMSO)	<b>a</b> 2	0.00	39,941	131,491	0	0	0
Superstructure (Concrete; Span10a; BK50)	<b>a</b> 2	0.00	43,736	149,376	0	0	. 0
Superstructure (Concrete;Span15e;BMS0)	· =2	0.00	47,300	176,007	, <b>0</b> :	0	. 0
Substructure (Pierifor Tieber;101)	NO	0.00	277,671	27,729	. 0	. 0	. 0
Substructure (Abut;for Timber;10T)	NO	0.00	801,607	135,782	0	0	0
Substructure (Pier; for Timber; 8M50)	KO	0.00	408,375	41,022	.0	0	0
Substructure (Abut; for Timber; 8K50)	NO	0.00	900,255	151,027	0	.0	0
Substructure (Pierifor Concrete;8M50)	NO	0.00	1,444,312	477,161	. 0	0	0
Substructure (Abut; for Contrete; BM50)	NO	0.00	3,066,987	999,497	0.	0	0
Desolition of Bridge (Timber->Timber)	<b>s</b> 2	0.00	9,070	1,195	. 0	0	0
Demotition of Bridge (Timber-)Concrete)	•2	0.00	9,070	1,195	0	0	0
Demolition of Bridge (Concrete)	<b>m2</b>	0.00	67,813	81,377	0	0	0
Maintenance of Timber Bridge (New)	<b>e</b> 2	0.00	6,133	1,010	0	0	0
Naintenance of Concrete Bridge (New)	92	0.00	1,585	3,135	. 0	10	. 0
Maintenance of Timber Bridge (Exist)	в2	166.75	7,082	2,349	1,180,923	391,695	1,572,618
Haintenance of Concrete Bridge (Exist)	<b>a2</b>	0.00	4,333	2,471	0	0	0
( Without Overhead )	·····	OTAL COST	(Timber Bridg	je)	0	0	0
			(Concrete Bri	dge)	·. 0	0	0
	. 1	OTAL COST	(without Hair	tenance)	0	0	0
( Overhead : 15% )	1	DIAL COST	(Naber Bride	e)	0	0	0
			(Concrete Bri		0	0	0
						•	-

LINK NO : 53 (IIIB-1) LENGTH : 2 Km

2 0.00 2 0.00	31,874 35,305 46,763 39,522 43,147 54,722 37,583 38,699 39,941	COST >>> FOREIGN  2,998 3,311 4,352 3,708 4,020 5,089 107,965	<<<<<< LOCAL 0 0 0 0 0 0	COST FOREIGN 0 0 0 0	>>>>> TOTAL
2 0.00 2 0.00	35,305 46,763 39,522 43,147 54,722 37,583 38,699 39,941	3,311 4,352 3,708 4,020 5,089 107,985	0 0 0 0	0 0 0	(
2 0.00 2 0.00	35,305 46,763 39,522 43,147 54,722 37,583 38,699 39,941	3,311 4,352 3,708 4,020 5,089 107,985	0 0 0 0	0 0 0	(
2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00	46,763 39,522 43,147 54,722 37,583 38,699 39,941	4,352 3,708 4,020 5,089 107,965	0 0 0	0 0 0	
2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00	39,522 43,147 54,722 37,583 38,699 39,941	3,708 4,020 5,087 107,965	0	0	
2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00	43,147 54,722 37,583 38,699 39,941	4,020 5,089 107,965	0	Ö	
2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00	54,722 37,583 38,699 39,941	5,089 107,965	0	0	
2 0.00 2 0.00 2 0.00 2 0.00 2 0.00 2 0.00	37,583 38,699 39,941	107,965	•	ň	
2 0.00 2 0.00 2 0.00 2 0.00 2 0.00	38,699 39,941		۸	U	
2 0.00 2 0.00 2 0.00	39,941	ነግስ /ጠላ	v	Ò	
2 0.00 2 0.00		120,694	0	0	
2 0.00		131,471	0	0	
	43,736	149,376	0	. 0	
w	47,300	176,007	0	0	
0.00	277,671	27,729	0	. 0	
0.00	801,607	136,782	0	0	
0.00	408,375	41,022	0	0	
0.00	900,255	151,027	Ō	Ō	
0.00	1,444,312	477,161	0	0	
0.00	3,066,987	599,497	0	0	
2 0.00	9,070	1 195	0	0	
2 0.00	9,070	1,195	0	0	
2 0.00	67,913	81,377	0	0	
2 0.00	6,133	1,010	: 0	0	
2 0.00	1,585	3,135	0	. 0	
2 18.00			127,476	42,282	169,75
2 12.08	4,333	2,471	52,342	29,849	82,19
TOTAL COST	(Timber Bridg	e)	0	0	
			0	0	
101AL COST	(without Main	tenancel	0	0	
10101 FACT	(Tiehor Rrida		0	A	
TOTAL GUST					
TOTAL PROT			-	•	
	2 0.00 2 0.00 2 18.00 2 12.08 101AL COST	2 0.00 6,133 2 0.00 1,585 2 18.00 7,092 2 12.08 4,333  10TAL COST (Himber Bridg (Concrete Brital Cost (Without Hain Cost (Without Bridg (Concrete Bridg (Concrete Bridg (Concrete Bridg (Concrete Bridg (Concrete Bridg (Concrete Bridg))	2 0.00 6,133 1,010 2 0.00 1,585 3,135 2 18.00 7,082 2,349	2 0.00 6,133 1,010 0 2 0.00 1,585 3,135 0 2 18.00 7,082 2,347 127,476 2 12.08 4,333 2,471 52,342  **TOTAL COST (Timber Bridge) 0 {Concrete Bridge} 0 **TOTAL COST (Without Maintenance) 0  **TOTAL COST (Timber Bridge) 0 {Concrete Bridge} 0	2 0.00 6,133 1,010 0 0 2 0.00 1,585 3,135 0 0 2 18.00 7,082 2,349 127,476 42,282 2 12.08 4,333 2,471 52,342 29,849  10TAL COST (Timber Bridge) 0 0 {Concrete Bridge} 0 0 10TAL COST (Without Maintenance) 0 0  10TAL COST (Timber Bridge) 0 0 (Concrete Bridge) 0 0

LINK NO : 54 (IIIB-2) LENGTH : 4 Km

		•		:			( Rp )
LLEH	UNIT	QUANTITY		COST >>> FOREIGN	((((( Local	COST FOREIGN	>>>>> TOTAL
Superstructure (Fimber;Span 3m;107)	<b>a</b> 2	0.00	31,874	2,998	0	Ċ	. 0
Superstructure (Timber; Span 5m; 101)	<b>n</b> 2		35,305	3,311	Ô	0	. 0
Superstructure (Timber:Span 8m;101)	e2		46,763	1,352	0	0	0
Superstructure (limber:Span 3m;8H50)	<b>e</b> 2	0.00	39,522	3,708	0 -	0	. 0
Superstructure (Timber;Span Sm;BMSO)	<b>s</b> 2	0.00	43,147	4.020	0	0	
Superstructure (Timber;Span Bm;8M50)	●2	0.00	54,722	5,089	0	0 :	0
Superstructure (Concrete;Span 3m;BM50)	a2	0.00	37,583	107,965	0	0	. 0
Superstructure (Concrete; Span 5m; BNSO)	<b>a</b> 2	0.00	38,699	120,674	0	0	0
Superstructure (Concrete:Span 8m;BH50)	<b>a</b> 2	0.00	39,941	131,491	0	. 0	. (
Superstructure (Concrete; Spanios; BMSO)	<b>a</b> 2		43,736	149,376	0 -	0	0
Superstructure (Concrete; Spani5a; BH50)	<b>s</b> 2		47,300	176,007	Ò	0	0
Substructure (Pier; for Timber; 10T)	110	0.00	277,671	27,729	8	. 0	Ċ
Substructure (Abut; for Timber; 101)	KO		801,607	136,782	0	0	0
Substructure (Pier; for Timber; 8%50)	טא	0.00	408,375	41,022	0	0	. (
Substructure (Abut; for Timber; 8H50)	NO	0.00	700,255	151,027	ò	0	. (
Substructure (Pier; for Concrete; 8%50)	110	0.00	1,444,312	477,161	. 0	0	(
Substructure (Abut; for Concrete; 8850)	NO	0.00	3,066,987	999,497	0	0	Ó
Demolition of Bridge (Timber-)Timber)	<b>a</b> 2		9,070	1,195	Ò	0	0
Demolition of Bridge (Timber-)Concrete)	e2		9,070	1,195	0	0	G
Demolition of Bridge (Concrete)	<b>a</b> 2	0.00	67,813	81,377	. 0	0	0
Maintenance of Timber Bridge (Hew)	<b>a</b> 2	0.00	6,133	1,010	0	0	. 0
Naintenance of Concrete Bridge (New)	#2	0.00	1,585	3,135	. 0	0 .	.0
Maintenance of Timber Bridge (Exist)	<b>*</b> 2	164.00	7,082	2,349	1,161,448	305,236	1,546,684
Maintenance of Concrete Pridge (Exist)	#2	0.00	4,333	2 ₁ 471	0.	0	. 0
( Without Overhead )	I	OTAL COST	(Timber Bridg	e)	0	0	0
	Ī		(Concrete Bri		0	0	. 0
	1	DTAL COST	(without Main		0	0	0
/ B		DIAL PORT	(1) abon 0:13-		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. 0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
( Overhead : 15% )	(	01HL C031	(Timber Bridg (Concrete Bri		0	V A	
	7	STAL COOF	(without Main		0	۸	
	ì	UIAL FASI	intthout agin	CEUGIFEL	v	U	v

LINK NO : 62 (IIIB-1) LENGTH : 2 Km

							( Rp
TER CONTRACTOR	UNIT	QUANTITY	<<< UNIT	COST >>> FOREIGN	((((( Local	COST FOREIGN	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
						~~~~~	
Superstructure (limber;Span 3m;101)	a2	0.00	31,074	2,998	0	. 0	
Superstructure (Timber;Span 5m;101)	a 2	0.00	35,305	3,311	0	0	
Superstructure (Timber;Span 8m;10T)	B 2	0.00	46,763	4,352	0	0	
Superstructure (Timber;Span 3m;BH50)	s 2	0.00	39,522	3,708	Ó	٨	
Superstructure (Yimber;Span 5m;DH50)	e2	0.00	43,147	1,020	Ó	v .	
uperstructure (Timber;Span Bm;BMSO)	n2	0.00	51,722	5,089	0	0	
Superstructure (Concrete;Span 3#;9M50)	m 2	0.00	37,503	107,965	0	Û	
operstructure (Concrete; Span 5m; BH50)	a 2	0.00	38,699	120,694	0	Û	
Superstructure (Concrete:Span 8m;8M50)	a 2	0.00	39,941	131,491	Ŏ	Û	
Superstructure (Concrete; Span10m; BMSO)	e2	0.00	43,736	149,376	0	. 0	
uperstructure (Concrete;Span15a;BH50)	≥2	0.00	47,300	176,007	. 0	. ,	
Substructure (Pier; for Timber; 101)	NO	0.00	277,671	27,729	Ŏ	0	
Substructure (Abut:for Timber:101)	NO	0.00	801,607	136,782	Ŏ	0	
ubstructure (Pier; for Timber; 8H50)	ND	0.00	40B, 375	41,022	0	0	
ubstructure (Abut;for Timber;BN50)	NO	0.00	900,255	151,027	0	. 0	
ubstructure (Pier; for Concrete; BM50)	NO	0.00	1,444,312	477,161	Ŏ	0	
Substructure (Abut; for Concrete; RMSO)	NO	0.00	3,046,987	999,497	Ŏ	0	
emplition of Bridge (Timber-)Timber)	a 2	0.00	9,070	1,195	Ŏ	Û	
lemolition of Bridge (limber-)Concrete)	a2	0.00	9,070	1,195	Ŏ	. 0	
emplition of Bridge (Concrete)	aZ	0.00	67,813	81,377	0	0	
aintenance of Timber Bridge (New)	e 2	0.00	6,133	1,010	0	0	
aintenance of Concrete Bridge (New)	•2	0.00	1,585	3,135	Ó	0	
	_	120.00	7,082	2,349	849,840	281,880	1,131,7
aintenance of Concrete Bridge (Exist)	a2		4,333	2,471	0	0	1,131,1
(Without Overhead)	1	OTAL COST	(Tiæber Bridg	e)	0	0	
			(Concrete Bri		Ů	0	
	Ţ	DTAL COST	(without Main		0	0	
I Bushbard - 154 h		ntal fort	/Yinkar N-: /		^		
(Overhead : 15%)	. 11	DINE COST	(Timber Bridg		0	0	
	71	TAL COCT	(Concrete Bri (without Kalm		0	0	
	Iŧ	JIHL LUSI	imi cupac watu	renancel	U	U	

LINK NO : 86 (IIIB-1) LENGTH : 4 Km

							(Rp)
TTEN	UNIT	QUANTITY	· ·	COST >>> FOREIGN	((((((COST FOREIGN	>>>>> TOTAL
		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			*******		
Superstructure (Timber;Span 3m;10%)	#2	0.00	31,874	2,990	0	0	0
Superstructure (Timber;Span 5m;101)	#2	0.00	35,305	3,311	0 -	, 0	0
Superstructure (Timber;Span Ba;101)	₽2	0.00	46,763	4,352	0	0	C
Superstructure (Timber;Span 3m;8MSO)	e2	0.00	39,522	3,708	0	0	0
Superstructure (Timber;Span 5m;BM50)	a 2	0.00	43,147	4,020	0	0	0
Superstructure (Timber;Span Bm;9H5O)	*2	0.00	54,722	5,089	0	0	0
Superstructure (Concrete;Span 3m;BN50)	a 2	0.00	37,583	107,965	0	0	0
Superstructure (Concrete;Span 5a;8K50)	a2	0.00	30,699	120,691	. 0	0	0
Superstructure (Concrete;Span Ba;BM50)	m2	0.00	39,941	131,491	0	0	C
Superstructure (Concrete;SpaniOa;BMSO)	a 2	0.00	43,736	149,376	. 0	0	0
Superstructure (Concrete;Span15a;BMS0)	a 2	0.00	47,300	176,007	0	0	0
Substructure (Pier; for Timber; 10T)	NO	0.00	277,671	27,729	0	0	. (
Substructure (Abut; for Timber; 107)	HO.	0.00	801,607	136,782	0	0	(
Substructure (Pier; for Timber; BH50)	HO	0.00	408,375	11.022	0	0	(
Substructure (Abut;for Timber;BNSO)	NO	0.00	900,255	151,027	0	0	t
Substructure (Pier;for Concrete;BM50)	HO	0.00	1,444,312	477,161	0	0	1
Substructure (Abut;for Concrete;RX50)	HO	0.00	3,066,997	999,497	0	0	
emolition of Bridge (Timber-)Timber)	a 2	0.00	9,070	1,155	0	0	•
Penolition of Bridge (Timber->Concrete)	#2	0.00	9,070	1,195	0	0	1
Demotition of Bridge (Concrete)	#2	0.00	67,813	81,377	. 0	0	•
faintenance of limber Bridge (New)	e2	0.00	6,133	1,010	0	0	(
laintenance of Concrete Bridge (New)	a 2	0.00	1,585	3,135	0	0	(
laintenance of Timber Bridge (Exist)	e 2	24.00	7,082	2,349	849,941	56,376	226,34
laintenance of Concrete Bridge (Exist)	42	0.00	4,333	2,471	0	0	
(Without Overhead)	 1	DIAL COST	(Tisber Bridg		0	0	(
			(Concrete Bri	dge)	0	0	
	Ī	DTAL COST	twithout Main	tenance)	0	0	•
(Overhead : 15%)	1	ntai cost	(Himber Bridg	p)	0	.0	-p
, 6.2.11200 , 500 ,	•	CONT CONT	(Concrete Bri		Õ	ů	
	τ.	DEAL COOT	Inithout Main		^	Ô	,