APPENDIX

Appendix A-1 FOR ESTIMATION OF THE PRODUCER'S SURPLUS BENEFIT

PRV.	KAUMANTAN SELAT	TAN KAB.	HULU SUNGAI UTARA	CHAUPY VEAD 100A

Code No. NAME OI DANAU PANGGI OZ BABIRIK O3 SUNGAI PANDA O4 AMUNTAI SELA O5 AMUNTAI TENG O6 AMUNTAI UTA. O7 LAMPIHONG	1,623 Hy 1,846 TAN 661	3.07 3.60 3.59	FARMER'S POPULATION: (AP) /5,328 /3,4/2	VEAR: 1984 CIRCULATED COMMODITY: (PG) 50 40
02. BABIRIK 03. SUNGAI PANDA 04. AMUNTAI SELA 05. AMUNTAI TENG 06. AMUNTAI UTA	1,623 Hy 1,846 TAN 661	3.60 3.59	13,412	
03 SUNGAI PANDA 04 AMUNTAI SELA 05 AMUNTAI TENG 06 AMUNTAI UTA	74 1,846 TAN 661	3.59	13,412	40
04 AMUNTAI SELA 05 AMUNTAI TENG 06 AMUNTAI UTA	TAN 661		· [
05 AMUNTAI TENG 06 AMUNTAI UTA		70-	28,740	150
06 AMUNTAI UTA	AH 2.102	3.80	15,328	100
		2.91	34,488	250
07 LAMPIHONG	RA 2,316	3.48	22,992	230
	5,017	1.59	11,496	550
08 BATU MANDI	2,971	2.7/	9,580	1,000
09 AWAYAN	2,414	2.70	11,496	4100
10 PARINGIN	3,757	2.68	13,412	2,500
11 JUAI	7.721	2.53	7,664	900
12 HALONG	5,398	1.31	7,664	1,000
				1
				
		1		
			· · · · · · · · · · · · · · · · · · ·	
				
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And the state of t	rs.	12	13,	ĵ4
ANNUAL % AVERAGE GROWTH RATE	3.2	1.6	1.5	5.2

FARMER'S	NON-AGRO
CONSUMPTION: (Cp)	REQUIRMENT: (NG)
0./5 Ton/head/year	0.08 Ton/

	SEDAN	BUS	TRUCK	MOTOR CYCLE
RATE OF EACH VEHICLE TYPE %	21.81	4.69	15.31	58.20

AVERAGE	į į
FREIGHT	A / 19 a (
TONAGE	D.6 Ton/Truck

Appendix A-2 Engineering Data

PROVINCE: Kalimantan Selatan

KABUPATEN: Hulu Sungai Utara

LINK	BEGINNING POINT	END POINT	LENGTH	THROUGH TH NAME & LEI		:
NO.	(DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	REMARKS
01	J1.Jend.A. Yani	Kuripan	. 1	Amuntai Te - ngah	1	Dalam Kota
0.2	Jl. Basuki Rahmat	Jl.Abd.Azis	1	Amuntai Te - ngah	1	Dalam Kota
03	J1.Kuripan	Jl.Mujahirin	1	Amuntai Te - ngah	1	Dalam Kota
04	Jl.Mujahirin	Jl.Pl.Merah	1	Amuntai Te- ngah	1	Dalam Kota
05	J1.P1.Merah	Jl.Basuki Rahmat	1	Amuntai Te- ngah	1	Dalam Kota
06	J1. A.E.S Nasution	Jl. Basuki Rahmat	1	Amuntai Te- ngah	1	Dalam Kota
07	J1. Lapangan	J1.PL.Merah	1	Amuntai Te- ngah	1	Dalam Kota
08	Jl. K.H.A Dahlan	Jl.Karias	1	Amuntai Te- ngah	1	Dalam Kota
09	Jl.H.A Jamhari	Jl. K.H.A Dahlan	1	Amuntai Te- ngah	1	Dalam Kota
10	Jl.Pangeran Antasari	J1.H.Ali	1	Amuntai Te- ngah	1	Dalam Kota
11	J1.Abd.Azis	Jl.Sei Karias	1	Amuntai Te- ngah	1	Dalam Kota
12	Jl.H.Ali	Jl.Sei Karias	1	Amuntai Te- ngah	1	Dalam Kota
13	J1.TGG Jalil	Jl. Pangeran Antasari	1	Amuntai Te- ngah	1	Dalam Kota
14	J1. Norman Umar	Jl. Jend A. Yani	1	Amuntai Te- ngah	1	Dalam Kota
15	Jl.Angsoka	Jl.Abd.Azis	1	Amuntai Te- ngah	1	Dalam Kota
16	J1. Pang. Rasyid	J1.Abd.Azis	1	Amuntai Te- ngah	1	Dalam Kota
17	Jl.Gerpindam I	Jl.Abd.Azis	1	Amuntai Te- ngah	1	Dalam Kota
18	J1.Gerpindam	Jl.Abd.Azis	. 1	Amuntai Te- ngah	1	Dalam Kota
19	Jl.Patmaraga	J1.Jend.A Yani	1	Amuntai Te- ngah	1	Dalam Kota
20	Jl.Pelasukan Benda Lima	Jl.Patmaraga	1	Amuntai Te- ngah	1	Dalam Kota
21	Jl.Sp.Patma- raga I	Jl.Norman Umar	1	Amuntai Te- ngah	1	Dalam Kota
22	Jl.Sp Patma- raga	Jl.Norman Umar	1	Amuntai Te- ngah	1	Dalam Kota
23	J1.Empupat Mika	J1.P.G.A	1	Amuntai Te- ngah	1	Dalam Kota
24	Palimbangan	Pasar Selasa	2	Amuntai utara	2	

Please note the priority No. in the Remarks of this list for each links No. according to the each Kabupaten's development plan.

PROVINCE: Kalimantan Selatan KABUPATEN: Hulu Sungai Utara

LINK	BEGINNING POINT	BEGINNING END POINT LENGTH NAME & LENGTH POINT			REMARKS	
NO.	(DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	KEHAKKO
25	Pasar Selasa	Palimbangan	2	Amuntai Utara	2	
- 26						
27	Sei Malang	Pamintangan	1.	Amuntai Ter ngáh	1	Dalam Kota
28	Pamintangan	Sie.Malang	1	Amuntai Te- ngah	1	Dalam Kota
29	Jl.Sei.Malang	Jl. Negara Dhipa		Amuntai Te- ngah		Dalam Kota
30	Telaga Sila- ba	Sp. Telaga	3	Amuntai Te- ngah	3	
31	Sp.Telaga Si- laba	Palimbangan	2	Amuntai Te-	2	
32	Telaga Sila- ba	Bayu Hirang	2	Selatan Amuntai Se- latan	2	
33	Bayu Hirang	Pasar Sabtu	2	Amuntai Se- latan	2	
34	Pasar Sabtu	Alabio	5	Sungai Pandan	5	
35	Alabio	Palimbangan	7	Sungai Pandan Amuntai Sel	1 6	<u> </u>
36	Pasar Sabtu	Danau Pang- gang	18	Amuntai Se-	18	
37	Danau Pang- gang	Babirik	10	Danaupanggang Babirik	<u> </u>	
38	Babirik	Sei Tabuk	18	Babirik Sungai Pandan		
39	Tapus	Babirik	1.9	Babirik Sungai Pandan		
40	Tl.Betung	Pasar Sabtu	3	Sungai Pandan		
41	Sei Tabuk	Gelagah	1	Sungai Pandan	1	
42	Pasar Sabtu	Gelagah	2	Sungai Pandan	2	
43		:		<u> </u>		
44	Alabio	Pematang	2		2	
45	Rukam	Pematang	6	Sungai Pandan		
46	Padang Darat	Telaga Sari	1	Amuntai Sel Amuntai Se-	1	
47	Rukam	Muara jumba	4	latan Amuntai Se- latan	4	
48	Jarang Kuan- tan	Telaga Sila- ba	4	Amuntai Se- latan	4	

Please note the priority No. in the Remarks of this list for each links No. according to the each Kabupaten's development plan.

PROVINCE: Kalimantan Selatan
KABUPATEN: Hulu Sungai utara

LINK	BEGINNING POINT	I DENOTE I NAME C TENOM		[REMARKS		
NO.	(DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	KEPIAKS	
49		Penyiuran	5	Amuntai Se- latan	5		
50	Kandang Ha- lang	Amuntai					
51	tan	Penyiuran	5	Amuntai Se- latan	5		
52		Jarang Kuan- tan		Amuntai Tengah Sungai Pandan			
53		Kandang Ha- Lang		Amuntai Tengah	·		
54	tan I	Pamintangan		Amuntai Tengah			
55	Sei.Durian	Sei Turak	4	Amuntai Se- latan	4	:	
56		Sei.Durian	5	Amuntai Utara	5		
57	Tabalong mati	Hapalah	3	Amuntai Utara	3		
58		Harus	7	Amuntai Sel Amuntai Utara	1 6		
59	i raminrangan i	labalong mati	8	Amuntai Sel Amuntai Utara	8		
60	Teluk Ketuah I	Haurgading	2	Amuntai Utara	2		
61	Pasar Selasa I	Loksuga	3	Amuntai Utara	3		
62	Padang Besar	Garunggang	3	Amuntai Utara	3		
63	Guntung	Lampihong	8	Amuntai Utara Lampihong	2 6		
64	Lampihong Ki-	Pulau Kuu	4	Lampihong	4		
65	Halong '	Tabuan	8	Halong	8		
66	Wangkili l	Muara Ninian	15	Awayan Paringin Juai	1 3 11		
				Awayan	11		
67		Wangkili	5	Paringin Awayan	3 3		
68 ·	Paringin	Awayan	12	Paringin	9		
69	Awayan	Tundakan Hulu		Awayan Juai			
70							
71	Wangkili l	Haningau	3	Awayan	3		

Please note the priority No. in the Remarks of this list for each links No. according to the each Kabupaten's development plan.

PROVINCE : Kalimantan Selatan KABUPATÉN; Hulu Sungai Utara

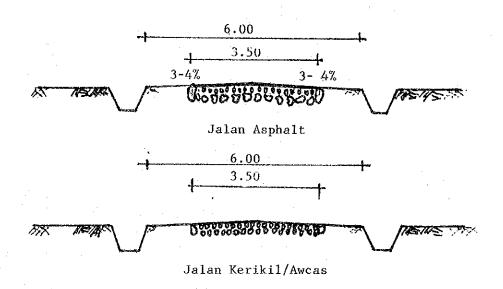
-	ng katha initia ininamatika na inamana na mana manaka ina manakamban na manaka manaka manaka manaka manaka man			والمراجع		and the second s
LINK	BEGINNING POINT	END POINT	LENGTH	THROUGH T NAME & LE		REMARKS
NO.	(DESA NAME)	(DESA NAME)	(KM)	KEC. NAME	LENGTH (KM)	KEPIKKO
72	Awayan	Bihara	5	Awayan	5	
73	Bihara	Tariwin	7	Awayan Batu Mandi	3	
74	Tariwin	Muarajaya	7	Batu Mandi Awayan	2 5	
75	Lok Batu	Batu Mandi	11	Batu Mandi	11	
76	Bihara	Sumsum	12	Awayan	12	
77	Halong	Gunung Riut		Halong		
78						
79	Pasar Senin	Pinangkara				
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	·			11.0		
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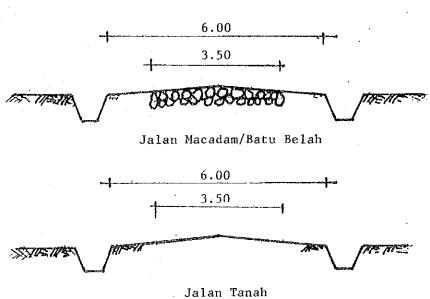
Please note the priority No. in the Remarks of this list for each links No. according to the each Kabupaten's development plan,

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)

TYPICAL CROSS SECTION.





24-A-7

KABUPATEN: Hulu Sungai Utar COCATION AND COSTS OF THE KABUPATEN

ROADS CONSTRUCTED OR INPROVED IN 1980/1981

Biaya konstruksi penanganan

jalan dan jembatan Kabupaten thn. 1980/1981

	ويرون والمراور والمراور وورون والمراور والمراور والمراور والمراور والمراور والمراور والمراور والمراور والمراور					
PINK	. LOCATION	Lebar per-	Type per-	LENGTH	COSTS	REMARKS
но .:	From - To	kerasan(m)	kerasan	Panjang	Harga	Keterang
lomor		Lebar	Туре	(KM)	(2 106)	an
luas	(dari - ke)	lembatan_	lembaran	8	(Rp 10 ⁶)	
	Amuntai-Alabio	3,5	Asphalt	0	38.174	
	Amunical manto				30.17	
	Alabio-Pematang Benteng	3.5	Asphalt	10	47.737	
					47.75	·
	Tal Date	4	Asphalt	20	05 /00	
ļ	Awayan-Lok Batu	, , , , , , , , , , , , , , , , , , , ,			95.408	
	Jarang Kuantan-Pd.Darat	3.5	Asphalt	7.5	35.795	
	Tigaran-Tl.Selaba				1 33.793	
	11garan-11.3e1ava	6	Earth	5.5	00 (5)	
	Guntung-Lampihong	ļ			28.656	
	Guitting Eduptions	6	Earth	<u> </u>		
	Waringin-Tab.Mati	В	Earth		33.490	
	Maring and a series					
	Sei Turak-Sei Durian	3.5	Asphalt	4	19.095	
					21.297	
	Pudak-Wangkiti	6	Earth		1	
	Tudak nangaza	4	Timber	42 m	31.658	
Ţ.		6	Earth	4	19.085)
	Lampihong-PuilauKu'u					
	Pintu air Beton-Sei Ham-				16.798	
	pangan		Beton		10.77] ·
		3,5	Batu Pecah	1.4	12 695	
	K.H.A.Dahlan-H.Ali				13.685	1
		3.5	Batu Pecah	12.1	06.704	ļ
	Sei.Kuntan-Mr.Ninian			<u> </u>	36.700	1
		3,5	Aspha1t	$-\frac{1}{2.75}$		
	Patmarang-Sukmarangin		1		25.140	1
		3.5	Asphalt	-\ 		
	Mr.Tapun~Getek				17 480	1
		_	Earth	<u> </u>	-	
	Ps.Selan-Sei Bareng	6	Earth		7.00	1
		~	·		- 7.00]
		•			1.	

^{*} PAVENENT TYPE : Pls note the appropriate No. below.

- 1. : Asphalt surface / penetrasi macadam
- 2. : Asphalt seal / pelaburan aspal
- J.: Gravel / kerikil
- 4. : Gravel /AWCAS / kerikil / japat 24-A-8

KABUPATEN: Hulu Sungai utangocation 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)		LENGTH Panjang	COSTS Harga	REMARKS
Nomor Ruas	(dari - ke)	Lebar Jembatan	Type Jembat an	(KM)	(Rp 10 ⁶)	Keterang- an
	Halong-Tabuan	6	Earth	8	28.015	
	Murungsari	1.75	Timber	75 m	5.190	
	Alebio-Dn.Panggang	3.5	Batu Pecah	30	142.278	
	Bikara-Lunranu	4	Timber	81 m	87.825	
	H.Ali-P.Antasari	3.5	Batu Pecah	0.6	17.276	
	Jl.Mesjid	3.5	Asphalt	0:4	15.575	
	Hal.Pemda Amuntai	3.5	Beton		20.409	
	Tanggul-Tengkarang	6	Earth	2.05	11.912	
	Sei Manara	4	Timber	25 m	6.914	<u>i</u>
					:	
				-		
			,			
		-				
			,			

^{*} 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 24-A-9

KABUPATEN: Hulu Sungai UtarBOCATION AND COSTS OF THE KABUPATEN

ROADS CONSTRUCTED OR INPROVED IN 1982/1983

Biaya konstruksi penanganan

jalan dan jembatan Kabupaten thn. 1982/1983

LTNK NO	LOCATION	Lebar per- kerasan(m)	Type per- kerasan	LENGTH Panjang	COSTS Harga	REMARKS Keterang-
Nomor Ruas	From - To (dari - ke)	Lebar Jembatan	Type Jembatan	(KM)	(Rp 10 ⁶)	an
,	Babirik-Alabio	3.5	Batu Pecah	15	67.650	-
	Awayan-Paringin	4	Batu Pecah	13	57.000	
·	Mr.Tapus-Babirik	6	Earth	16	89.613	an spanner and the state of the
	Toriwin-Awayan	3.5	Batu Pecah	7	63.840	
	Mamar-Tigarun	6/3.5	Earth/B.Pecah	1.2	15.000	
	Nig Dipa-Empu Jatunika	3.5	Asphalt	1.45	20.000	
	Paliwara-Ps.Selasa	3.5	Batu Pecah	2.2	15.000	
	A.Yani-Sukamaraga & Abd.	3,5	Asphalt	3.8	30.000	
	Aris Mr.Ninian-Hamarung	3.5	Grave1	21	72.500	
	Pelabuhan-Teb.Selaba	4	Trimber	2 Dm	19.000	
	Gerilya	3.5	Batu Pecah		13.407	
·						
					-	

 $[\]dot{\mathbf{r}}$ PAVENENT TYPE : Pis note the appropriate No. below.

- 1. : Asphalt surface / penetrasi macadam
- 2. : Asphalt seal / pelaburan aspal
- 3. : Gravel / kerikil
- 4. : Gravel /AWCAS / kerikil / japat 24-A-10

KABUPATEN: Hulu Sungai Utargocation 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
Nomor Ruas	(dari - ke)	Lebar Lembatan	Type Jembat an	(KM)	(Rp 10 ⁶)	Keterang; an
	Bikara-Sumsun	3.5	Batu Pecah	12	50.771	:
-	Tabuan-Hatong	3.5/6	Gravel	20	80.780	
	Alamatan-M.Umar-Candi Agung	10	Earth	2.5	90.085	
	Tb.Mili-Hapalah	3.5	Batu Pecah	3	17.000	
	Tengkawang-Hanus	6	Earth	4	45.462	
	Mr.Tapus-Getek	3.5	Asphalt	1.1	10.000	
	Jarang Kuatan-Telaga Selaba	6	Earth	4	32.523	
	Ps.Selasa-Pelimbangan	6	Earth	2.2	16.978	
	A.Yani-Abd Aris	. 6	Asphalt	4.6	27.931	erfredrights-dagh-dreams resources assurements
	Bt.Mandi-Lok Batu	4	Asphalt	8	69.576	
	Pasra Pirang Habung	7	Earth	0.1	44.062	

	A STATE OF S					
	:				-	

^{*} 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 24-A-11

KABUPATEN: Hulu Sungai Utarbocation and Costs of the Kabupaten

ROADS CONSTRUCTED OR INPROVED IN 1984/1985

Biaya konstruksi penanganan

jalan dan jembatan Kabupaten thm. 1984/1985

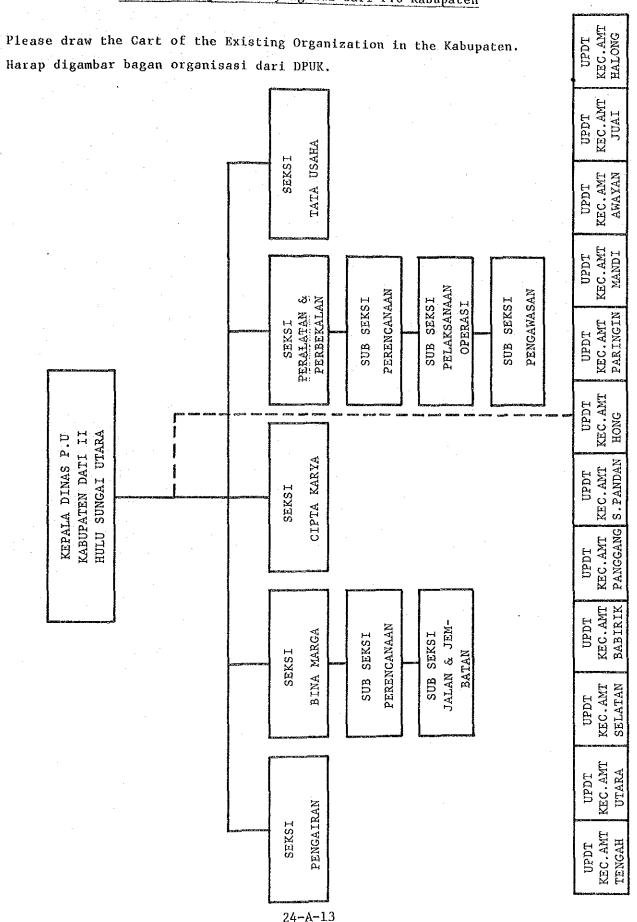
1 7 1117	LOCATION	Lebar per-	Type perc	LENGTH	COSTS	REMARKS
LINK NO		kerasan(m)		Panjang		* :
Nomor	From - To	Lebar	Type			Keterang _i an
Ruas	(dari - ke)	Jembatan	_lembatan	(KM).	(Rp 10 ⁶)	A ((
		6	Earth	6.6		
·	Ps.Semu-Piring Kara	1	<u> </u>		128.528	-
	Lok Bangkai-Pintu air	6	Earth	1.5		
	Kaku				19.508	
-		6	Earth	1.5		
	Alamatan-Sri Karias				74.037	
		.6	Earth	0.75		
	BPM - Alamatan				33.846	_
	Gantung Babirik	4.5	Timber	75 m	38.137	
	A	4	Asphalt			
	Sei.Banua-Hanyar/Tahuran			 	1	
			Asphalt		15.566	
	Terminal-Paringin				15.500	
· -	Galian Sei Rintisan	10	Earth			
	Dn. Panggang				18.615	
		. 4.	Asphalt		00 000	
	Lok Batu-Awayan				30.000	
T:		6	Earth		14.890	
	Sei Baring-Tel.Selaka				14.070	
	· Man Manager	6	Batu Pecah			
	NArmai Umar-Turi				18.271	
		4	Asphalt	2	20.000	
	Lok Batu-Awayan			<u> </u>	1 20.000	
· · · · · · · · · · · · · · · · · · ·				-		
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		<u> </u>				<u> </u>
•	•					

 $[\]dot{\mathbf{r}}$ PAVENENT 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 24-A-12

EXISTING ORGANIZATION IN KABUPATEN

Structur Organisasi yang ada dari P.U Kabupaten



EXISTING STAFF RESOURCES OF BINA MARGA OF PU KABUPATEN

Tenaga Dinas PUK yang ada

PROPINSI: Kalimantan Selatan KABUPATEN: Hulu Sungai Utara

DESCRIPTION /Uraian	NUMBER / Jumlah	RENARKS Keterangan
CONTROLING STAFF Staff teknis PUK	24	
DPUK ENGINEED Sarjana Teknik		
ASSISTANT ENGINEER Sarjana Muda Teknik		
TECHNICIAN STAFF Staff Teknik (STM)	. 24	
ADMINISTRATION Tenaga Administrasi		
SUPERVISOR Tenaga Pengawas	23	
. WORKING FORCE Tenaga Pelaksana Lapangan	84	
OPERATORS Operators		
DRIVERS Supir		
MECHANICS Mechanic		
TRADESMAN Tukang		
L A B O U R Buruh / Pekerja		
OTHERS Lain-lain		
TOTAL / JUMLAII	86	

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

PROPINSI : Kalimantan Selatan

KABUPATEN: Hulu Sungai Utara

LOCATION Lokasi	AREA (m2) Luas	NUMBER Jumlah	REMARKS Keterangan
Samping kantor	400		WOOL WILL WILL
1			

PROPINSI: Kalimantan Selatan

KABUPATEN: Hulu Sungai Utara

E-07

LAND ACQUISITION COST Daftar harga pembebasan tanah

DESCRIPTION Uraian	UNIT Satuan	RATE (RP) Harga	REMARKS Keterangan
CITY/kota	М2	15.000	
VILLAGE / desa	M2	7.500	7-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
RICE FIELD/sawah	M2	5.000	
DRY FIELD/ladang	M2	7.500	
MIX CROPS/panen	M2	5.000	
FOREST/hutan	M2		
SWAMP / rawa	M2		
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
2	C1	78.000.000	10	
2	G2	68.587.500	7	
78	C3	31.419.000	6	
				·
		-		
				•
				·

PROPINSI: Kalimantan Selatan KABUPATEN: Hulu Sungai Utara

LIST OF EXISTING EQUIPMENT OF LOCAL CONTRACTOR

Name of contractor

NAME OF EQUIPMENT	EXISTIN	EXISTING CONDITION/ Kondisi Peralatan							
Jenis peralatan	TYPE/	P.Y	NUMBER / Jum Lab		REASON OF	REQUIRE - MENT / Ke- butuhan			
	Tipe		GOOD Baik	BAD Rusak	TOTAL Jumlah	FION/Sebal Kerusakan	peralatan baru		
`Bulldozer									
Motor Grader			,						
Tyre Roller									
Steel Whell Roller									
Vibration Roller									
Wheel Loader						1			
Front End Loader and Backhoe							— · · · · · · · · · · · · · · · · · · ·		
Mobile Crane									
Concrete Mixer									
Stone Crusher					·				
Portable Compressor									
Hydraulic Excavator									
Asphalt Paving Machine									
Asphalt Sprayer				1					
Asphalt Mixing Machine									
Mobile Workshop									
Mechanic Rammer									
Plate Tamper						<u> </u>			
Pile Driver									
Leg Drill									
Hand Hammer							1		
Farm Tractor									
Dump Truck									
Water Tank Truck									
Fuel Tank Truck									
Pick Up									
Jeep									
Motorcycle									
Generator							<u> </u>		
Water Pump			ļ			ļ			
Others			ļ						

LIST OF EXISTING EQUIPMENT OF P.U KABUPATEN

NAME OF EQUIPMENT	EXISTIN	REQUIRE -						
Jenis peralatan	TYPE/	P.Y		ck:/ Ju		REASON OF	butuhan	
	Tipe	F.1	GOOD Baik	BAD Rusak	TOTAL Jumlah	CION/Sebal Kerusakan	haru	
Bulldozer	· }	ļ ·						
Notor Grader			,					
Tyre Roller								
Steel Whell Roller	-							
Vibration Roller								
Wheel Loader						1		
Front End Loader and Backhoe								
Mobile Crane								
Concrete Mixer					-			
Stone Crusher							1.	
Portable Compressor	`						<u> </u>	
Hydraulic Excavator								
Asphalt Paving Machine								
Asphalt Sprayer								
Asphalt Mixing Machine								
Mobile Workshop								
Mechanic Rammer								
Plate Tamper								
Pile Driver								
Leg Drill								
Hand Hammer								
Farm Tractor								
Dump Truck								
Water Tank Truck								
Fuel Tank Truck								
Pick Up						-		
Jeep								
Motorcycle								
Generator								
Water Pump								
Others								

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

PROV : KALIMANTAN SELATAN KAB : HULU SUNGAI UTARA

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

UPGRADE : 9.0m road bed, 4.0m road with surface Dressing (1)

					- -		
ITEN	UNIT	QUANTITY	(((UNIT	COST >>>		KKK COST	>>>>>
				- runcion	LOCAL	FOREIGN	AIOI
St. Million 7 Line R L		_					
ite Clearance in Light Bush	92		164	91	0	0	
ubgrade Preparation	62		21	11	0	. 0	
ormal Fill	a 3	0.0	1,698	863	0	0	
ill in Swamp	B 3	0.0	2,537	1,052	0	0	
ormal Excavation to Spoil	#3	0.0	995	522	0	0	
ub Base Course	£a	228.0	3,221	1,347	734,388	307,116	1,041,50
ase Course	Ea	280.0	4,405	2,299	1,233,400	•	1,077,17
hou i der	a 2	5000.0	295	146	1,475,000		2,205,00
sphalt Patching	2		3,819	1,377	0		1114014
urface Dressing (Single)	n2		605	595	2,420,000	=	
urface Dressing (Double)	•2		757	936			4,800,00
arth Drain	8	0.0	737 937	119	0	-	
arth Drain in Swamp (by machine)	a3				•	•	
			1,210	474	0		
ipe Culvert DBOca	A		44,708	43,411	0	-	
asonry Culvert (80x80cm)		0.0	62,536	37,886	0	•	
etaining Wall and Wing Wall (Timber)	a 2		10,216	246	0	0	
etaining Wall and Wing Wall (Masonry)	e 3		46,225	11,068	0	0	
abion Protection	5 3		14,482	120	0	0	
ен Bridge (Tieber)	SET,	1.0		**	0	0	
ew Bridge (Concrete)	SET	1.0		***	0	0	
			Sub Total		5,862,788	4,040,834	9,923,6
verhead (152)					879,418	609,125	1,488,5
			TOTAL COST		6,742,208	4,669,961	11,412,1
	*		******				
anual routine maintenance of road	Ka	1.0	153,768	7,248	153,769	7,248	161,0
outine maintenance of asphalt road	Ke	1.0	381,900	137,700	381,900	137,700	519,6
·			Sub Total		535,668	144,948	8,086
aintenance of Timber Bridge (New)	a 2	0.0	7,240	1,176	0	0	
aintenance of Concrete Bridge (New)	#2	0.0	1,794	2,790	0	0	
aintenance of Timber Bridge (Exist)	m2	0.0	7,494	2,432	0	0	
aintenance of Concrete Bridge (Exist)	.2	0.0	1,232	2,402	0	0	
	aba <i>re</i> 6		-,			·	
			Earthwork &	Paveagnt fil	nit Cost - I	Rp/Km} :	11,412,1
			Timber			Rp/m2) :	111
			Concrete			Rp/#2) :	
			Survived	Value o	CO36 1	(Rp)	1,104,4
•			Haintenance				5.
					1 Urista	(X) :	

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

UPGRADE : 9.0m road bed, 4.0m road with surface Dressing (1)

								_
ITEH		5 tab tar gir 844 pri 444 yn 144 47 pr		COST >>>	(((((COST FOREIGN	>>>>> FOTAL	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	UNIY	PITTHAUD	LOCAL	FOREIGN	LOCAL	PUNCTON	form.	-
Site Clearance in Light Bush	<b>a</b> 2	0.0	164	91	. 0	0	0	
Subgrade Preparation	<b>a</b> 2	0.0	21	11	0	0	0	
Normal Fill	<b>a</b> 3	0.0	1,698	893	0	0	0	
Fill in Swamp	a3	0.0	2,537	1,052	0	0	0	
Mormal Excavation to Spoil	<b>a</b> 3	0.0	995	522	0	0	0	
Sub Base Course	<b>a</b> 3	222.0	3,221	1,347	715,062	299,034	1,014,096	
Pase Course	<b>a</b> 3	280.0	4,405	2,299	1,233,400	643,720	1,877,120	
Shoul der	•2	5000.0	295	146	1,475,000	730,000	2,205,000	
Asphalt Patching	<b>e</b> 2	0.0	3,819	1,377	0	. 0	0	
Surface Dressing (Single)	<b>e</b> 2	4000.0	605	595	2,420,000	2,380,000	4,800,000	
Surface Dressing (Double)	a2	0.0	757	936	0	. 0	. 0	
Earth Drain		0.0	937	119	0	0	0	
Earth Orain in Swamp (by machine)	<b>a</b> 3	0.0	1,210	474	. 0	0	0	
Pipe Culvert DBOca	а	0.0	44,708	43,411	0	. 0	0	
Hasonry Culvert (80x80ce)		0.0	62,536	37,986	0	0	0	
Retaining Wall and Wing Wall (Timber)	<b>=</b> 2	0.0	10,216	246	. 0	0	0	
Retaining Wall and Wing Wall (Masonry)	a3	0.0	46,225	11,868	0	0	0	
Babion Protection	<b>a</b> 3	0.0	14,482	120	0	0	. 0	
Hew Bridge (Timber)	SET	1.0	·		0	0	. 0	
New Bridge (Concrete)	SET	1.0		'	0	0	0	
			Sub Total		5,843,462	4,052,754	9,896,216	
Overhead ( 15% )		•			876,519	607,913	1,464,432	
orer near 1 ton 7	•				2,0,20			
			TOTAL COST		6,717,981	4,660,667	11,380,648	
								-
Manual routine maintenance of road	K, a	1.0	153,769	7,248	153,768	7,249	161,016	
Routine maintenance of asphalt road	Km	1.0	381,900	137,700	381,700	137,700	519,600	
			Sub Total		535,668	144,948	616,086	
Haintenance of Timber Bridge (New)	■2	0.0	7,240	1,176	0	0	0	
Maintenance of Concrete Bridge (Rex)	<b>#2</b>		1,794	2,790	0	0	. 0	
Maintenance of Timber Bridge (Exist)	a2	0.0	7,494	2,432	0	0	0	
Maintenance of Concrete Bridge (Exist)	#2	0.0	4,232	2,402	0	0	0	
								-
				Pavement Un	nit Cost   (Rp/K	g) ;	11,380,648	
			Timber		nit€ost (Rp/m			
			Concrete	Bridge Un	nit Cost (Rp/m	2) :		
	•		Survived	Value	(Rp	) :	1,085,291	
			Survived	Value Rate without	(Rp	) : :	1,085,291 5.90	

FROV

: KALIMANTAN SELATAN

KAB : HULU BUNGAI UTARA

LINK NO

10 (1118-1)

LENGTH : 1 Km

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

<<< unit cost >>> ((((( CDST **>>>>>** UNIT QUANTITY LOCAL FOREIGN LOCAL FOREIGH TOTAL Site Clearance in Light Bush **#**2 0.0 164 71 0 Subgrade Preparation 42 0.021 11 0 Hormal Fill 63 0.0 1,690 863 0 0 0 Fill in Swamp **a3** 0.0 2,537 1,052 0 0 Normal Excavation to Spoil 0 ø3 0.0 995 522 0 Sub Base Course 43 0.0 3,221 1,347 0 0 Base Course 23 0.0 4,405 2,299 0 Shoul der **a**2 590,000 292,000 2000.0 295 146 Asphalt Patching ₩2 170.0 3,819 883,320 1,377 649,230 234,090 Surface Dressing (Single) · #2 4000.0 605 595 2,420,000 2,380,000 4,800,000 Surface Dressing (Double) 0.0 757 936 0 - 0 Earth Drain 0.0 937 119 0 0 Earth Drain in Swamp (by machine) #3 0.0 1,210 474 0 Pipe Culvert D80ce . 0 0.0 14,708 43,411 Ð Masonry Culvert (80x80cm) 0.0 62,536 37,886 0 0 Retaining Hall and Wing Wall (Timber) **#**2 0.0 10,216 246 0 0 Retaining Wall and Wing Wall (Masonry) **a**3 0.0 16,225 11,868 0 . 0 Babion Protection **ø**3 0.0 14,482 120 0 Hem Bridge (Timber) SET 1.0 --New Bridge (Concrete) SET . 1.0 Sub Total 3,659,230 2,904,090 6,565,320 Overhead ( 15% ) 548,884 435,913 984,797 TOTAL COST 1,208,114 3,342,003 7,550,117 153,768 381.900 Hanual routine maintenance of road 1.0 153,768 7,240 7,248 161,016 Routine maintenance of asphalt road 1.0 - 381,900 137,700 381,900 137,700 519,600 535,668 144,949 680,616 Sub Total 0 Maintenance of Timber Bridge (New) 1,176 0 **s**2 0.0 7,240 2,790 0 Maintenance of Concrete Bridge (Hew) *****2 0.0 1,794 0 0 7,494 2,432 Maintenance of Timber Bridge (Exist) e2 0.0 Ò Ð Maintenance of Concrete Bridge (Exist) 0.0 4,232 2,402 Earthwork & Pavement Unit Cost (Rp/Ka) 7,550,118 Bridge Unit Cost (Rp/m2) Ti ober (Rp/m2) Concrete Bridge Unit Cost (Rp) 0 Survived Value 1 Maintenance Rate without Bridge (2) 9.01 ; New Bridge Cost Rate (2)

PROV : KALIMANTAN SELATAN

HULU SUNGAI UTARA

LINK NO : 11 (IIIA) LENGTH : 1 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (2)

•								(KĎ1
ITEN	)	NYTTU	((( UNIT	COST >>> FOREIGN	COCA	((((( i	COST Reign	>>>>> TOTAL
	nutt	PURNTITY	EUGHL	FUNCTON	Fuon		*********	
Site Clearance in Light Bush	a?	0.0	164	91		0	0	(
	#? #?	0.0	21	11		n	Ď	
Subgrade Preparation				863		Λ.	ň	
Hormal Fill	<b>B</b> 3	0.0	1,698			n.	ň	
ill in Swamp	#3 7	0.0	2,537 995	1,052 522		^	٨	
Normal Excavation to Spoil	<b>a</b> 3	0.0		1,347		0	n	
Sub Base Course	#3	0.0	3,221			0	0	
Base Course	*3	0.0	4,405	2,299			3 000	882,00
Shoulder	<b>#</b> 2	2000.0	295	146	590,00		2,000	•
Asphalt Patching	<b>e</b> 2	110.0	3,819		120,09		1,470	571,56
Surface Dressing (Single)	#2	4000.0	405	595	2,420,00		0,000	4,800,00
Surface Dressing (Double)	. 95	0.0	757	936		0	: 0	
Earth Drain	3	0.0	937	119		0	0	
Earth Drain in Swamp (by machine)	<b>a</b> 3	0.0	1,210	474		0	0	
Pipe Culvert DBOca	#	0.0	44,708	43,411		0	0	
Masonry Culvert (80x80cm)		0.0	. 62,536	37,886		Ò	0 :	
Retaining Wall and Wing Wall (Timber)	a2	0.0	10,216	246		0	0	
Retaining Wall and Wing Wall (Masonry)	<b>a</b> 3	0.0	16,225	11,868		0	. 0	
Gabion Protection	88	0.0	14,482	120		0	0 -	
lex Bridge (Timber)	SET	1.0				0	0	
Hew Bridge (Concrete)	SET	1.0	<b></b>			0	0	:
			Sub Total		3,430,09	0 2,82	3,470	6,253,56
Overhead ( 15% )					514,51	3 42	3,520	938,03
		٠	TOTAL COST	·	3,944,60	3 3,24	6,990	7,191,59
	.,		To day 14 (14 44) 44 (14 44) 47 (14 44) 47 (14 44)					
fanual routine maintenance of road	Ka	1.0	153,768	7,248	153,76	В	7,248	161,0
Routine maintenance of asphalt road	Ka	1.0	381,900	137,700	381,90	0 13	7,700	519,60
			Sub Total		535,66	8 14	1,948	690,68
Maintenance of Timber Bridge (New)	<b>p2</b>	0.0	7,240	1,176		0	0	
Maintenance of Concrete Bridge (New)	-2	0.0		2,790		0	, 0	
laintenance of Timber Bridge (Exist)	<b>a</b> 2	0.0	7,494	2,432		0	0	
Haintenance of Concrete Bridge (Exist)	92	0.0	4,232	2,402		0	0	
						*		
			Earthwork &	Paveaent U	Init Cost	(Rp/Km)	:	7,191,5
			limber	Bridge U	Init Cost	(Rp/#2)	:	·
		4	Concrete		Init Cost	(Rp/m2)	:	
	•		Survived	Value		(Rp)	£	
			Maintenance		at Bridge	(1)	٠,	9.

LINK NO : 12 (IIIA) LENGTH : 1 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (2)

							(Kp)
1 T E H	:	Allasiva	CCC UNIT	COST >>>	((((	cost cost	<b>&gt;&gt;&gt;&gt;&gt;</b>
	nuti	PUANTITY	LOCAL	FOREIGN	LOCAL	FOREIGN	ATOT
Site Clearance in Light Bush	<b>a</b> 2	0.0	164	nı			
Subgrade Preparation	97	0.0	Žl	, 91 11	. 0	0	
Normal Fill	a3		1,698	863	. 0	0	
Fill in Swamp	m3	0.0	2,537	1,052	0	Ü	
Normal Excavation to Spoil	#3		995	527	0	v	
Sub Base Course	<b>#3</b>	0.0	3,221	1,347	0	0	
Base Course	<b>3</b>	0.0	4,105	•	V	0	
Shoulder	•2	2000.0	295	2,299 148	V 000 003	202.404	600.00
Asphalt Patching	•2	-	3,819		590,000	292,000	882,00
Surface Oressing (Single)	#2	4000.0	5,617 605	1,377	477,375	172,125	649,50
Surface Oressing (Double)	•2		75)	595	2,420,000	2,380,000	4,800,00
Earth Drain	8	0.0	937	936	0	0	
Earth Drain in Swamp (by machine)	23			119 474	0	. 0	
Pipe Culvert D80cm	. 8	0.0	1,210		0	0	
Hasonry Culvert (80x80cm)			44,708	43,411	0	0	
Retaining Wall and Wing Wall (Timber)	<b>8</b> 2		62,536	37,896 246	0	V	
Retaining Wall and Wing Wall (Masonry)	<b>3</b>			11,869	0	0	
Gabion Protection	e3		46,225	11,000	0	0	
New Bridge (Timber)	SET		14,482	120	0	Û	
Hew Bridge (Concrete)	SET	1.0	*-		0	0	
			Sub Total		3,487,375	2,844,125	6,331,50
Overhead ( 15% )					523,106	426,618	949,7
			101AL COST		4,010,481	3,270,743	7,281,2
			,-****	~~~~~~			
lanual routine maintenance of road	Ka		153,769	7,248	153,769	7,248	161,0
outine maintenance of asphalt road	Ka	1.0	381,900	137,700	381,900	137,700	519,6
		42.2	Sub Total		535,668	144,948	680,6
laintenance of Timber Bridge (Nex)	n2		7,240	1,176	0	. 0	
faintenance of Concrete Bridge (New)	#2			2,790	0	0	-50.0
Maintenance of Timber Bridge (Exist)	42		7,494	2,432	179,856	58,368	238,2
laintenance of Concrete Bridge (Exist)	<b>8</b> 2	0.0	4,232	2,402	0	0	
			 	D	0.44 IN		3 001 5
•				Pavement Unit			7,281,2
					Cost (Rp/		
			Concrete	•	: Cost (Rp/		
				Yalue		tol t	n
			Naintenance Hem Bridge	Rate without I	Bridge () ()		9.

ROY : KALIMANTAN SELATAN

KAB : HULU BUNGAI UTARA

LINK NO : 13 (1118-1)

LENGTH : 1 Km

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

(Pn

•		:					.upr
1 Y E N			TINU >>>	COST >>>	``````````````````````````````````````	COST	>>>>>
	UNIT	RUANTITY	LOCAL	FOREIGN	LOCAL	FOREIGN	ATOT
							***************************************
Site Clearance in Light Bush	a2	0.0	164	91	0 -	0	
Subgrade Preparation	#2	0.0	21	. 11	0	0	
Normal Fill	£a,	0.0	1,698	863	0	0	
Fill in Swamp	#3	0.0	2,537	1,052	0	0	
Normal Excavation to Spoil	£a.	0.0	995	522	0	0	
Sub Base Course	a3	188.0	3,221	1,347	605,548	253,236	958,78
Base Course	. a3	280.0	4,405	2,299	1,233,400	643,720	1,877,12
Shoul der	₽2	2000.0	295	146	590,000	292,000	882,00
Asphalt Patching	a2	0.0	3,819	1,377	0	0	
Surface Dressing (Single)	a2	4000.0	605	595	2,420,000	2,380,000	4,800,00
Surface Dressing (Double)	<b>a</b> 2	0.0	757	936	.0	0	
Earth Drain	8	0.0	937	117	. 0	0 -	
Earth Orain in Swamp (by machine)	£g.	0.0	1,210	474	0	0	
Pipe Culvert 080cm	8	0.0	44,708	43,411	0	0	
Hasonry Culvert (80x80cm)	. 8	0.0	62,536	37,896	0	0	
Retaining Wall and Wing Wall (Timber)	a2	0.0	10,216	246	0	. 0	
Retaining Wall and Wing Wall (Masonry)	*3	0.0	46,225	11,849	0	0	:
Gabion Protection	<b>a</b> 3	0.0	14,482	120	0	0	
Hen Bridge (Timber)	SET	1.0	4.5		0	0	
New Bridge (Concrete)	SET	1.0	· · ·	**	0	0	
			Sub Total		4,848,948	3,568,956	8,417,90
Overhead ( 15% )					727,342	535,343	1,262,6
•			TOTAL COST	-	5,576,290	4,104,299	9,680,5
		. ** ** ** ** ** ** ** ** **	4				
Manual routine maintenance of road	K.a.	1.0	153,768	7,248	153,769	7,240	161,0
Routing maintenance of asphalt road	K B		381,700	137,700	381,900	137,700	519,6
and the maintenance of appare , oro	n.		Sub Total		535,668	144,948	6,086
Haintenance of Timber Bridge (New)	<b>u</b> 2	0.0	7,240	1,176	0	0	,
Maintenance of Concrete Bridge (Kew)	a2		1,794	2,790	0	0	
Maintenance of Timber Bridge (Exist)	92		7,494	2,432	0	. 0.	
Maintenance of Concrete Bridge (Exist)	a2		4,232	2,402	0	. 0	
			Earthwork &	the state of the s	t Cost (Rp/1		9,680,5
		•	limber	. ,	t Cost (Rp/s		
			Concrete		t Cost (Rp/i		
			Survived	Value	(R)		976,5
			Naintenance New Bridge	Rate without	Bridge (I IX		7.

LINK NO : 20 (1118-2) LENGTH : 1 Km

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

**************************************								(Ap)
ITEH	UNIT	QUANTITY	CCC UNIT	COST >>> Foreigh	Foc	 {{((((	COST FOREIGN	<<<<<<
	*******					******	******	1011 
Site Clearance in Light Bush	a?	0.0						
Subgrade Preparation	#2		161	91		0	0	
Hornal Fill		0.0	21	11		0	0	
Fill in Swamp	#3	0.0	1,698	863		0	¢	
Hormal Excavation to Spoil	#3	0.0	2,537	1,052		0	0	
Sub Base Course	и3	0.0	995	522		0	0	
	i i	0.0	3,221	1,347		0	0	
Base Course	€3	0,0	1,105	2,299		0	0	
Shoulder	#2	2000.0	295	146	590,0	00	292,000	882,00
Asphalt Patching	<b>#</b> ?	110.0	3,814	1,377	420,0	90	151,470	571,56
Surface Oressing (Single)	•2	0.0	605	595		0	0	
Surface Dressing (Double)	92	0.0	757	936		0	0	
Earth Drain	8	0.0	937	119		0	Ó	
Earth Orain in Swamp (by machine)	<b>#3</b>	0.0	1,210	474		0	0	
Fipe Culvert 080cm	a	0.0	44,708	43,411		0	0	
Hasonry Culvert (BOxBOcm)		0.0	62,534	11,889		0	Q	
Retaining Wall and Wing Wall (Timber)	97	0.0	10,216	246		Ō	0	
Retaining Kall and Wing Kall (Masonry)	<b>a</b> J	0.0	16,225	11,868		0	0	
Rebion Protection	83	0.0	14,492	120		Ō	0	
Hen Bridge (Haber)	SET					0	0	
New Bridge (Concrete)	SET	1.0	**			0	0	
			Sub Total		1,010,0	90	443,470	1,453,56
Overhead 1 15% )					151,5	13	66,520	218,03
			IDIAL COST		1,161,1	03	509,990	1,871,5
		**********	********					
lanual routine maintenance of road	K.a	1.0	153,768	7,219	153,7	68	7,248	161,0
Routine maintenance of gravet road	Ka	1.0	192,232	88,047	192,2	32	88,017	290,27
			Sub Total		316,0	100	95,295	441,29
Haintenance of Timber Bridge (Hew)	R2	0.6	7,240	1,176		0	0	
faintenance of Concrete Pridge (Heu)	e 2	0.0	1,794	2,790		0	0	
Haintenance of Tlaber Bridge (Exist)	42	0.0	7,494	2,432		0	0	
faintenance of Concrete Bridge (Exist)	#2	0.0	1,232	2,102		0	Ò	
			Earthwork 6	Pavosent Be	ill Enel	(Rp/Ke)		1,671,5
			•••		it Cost	1Rp/#21		, , , , , , ,
			Concrete		ist Cost	(Rp/=2)		
			Survived	Value	., ( 0234	(Rp)	•	
	•			Rate without	Dridoe	(1)	·	28.
			" altar f Cudulf E	414.00.	y.		•	

LINK NO : 19 (IIIB-2) LENGTH : 2 Km

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

1 1 E N	111111	E1141(7 1 7 1)		COST >>>	· ·		>>>>> TOTAL
	UNII	QUANTITY	LOCAL	FOREIGN	LOCAL	FOREIGN	1018t
Site Clearance in Light Bush	<b>B</b> 2	0.0	161	91	0	0	
Subgrade Preparation	e2	0.0		H	0	. 0	
Normal Fill	<b>a</b> 3	0.0	1,578	863	0	0	· · · (
Fill in Swamp	m3	0.0	2,537	1,052	0	0	0
Normal Excavation to Spoil	<b>m</b> 3	0.0	995	522	0	0	. (
Sub Base Course	<b>a</b> 3	0.0	3,221	1,347	0	0	
Base Course	a3	0.0	4,405	2,299	0	0	. 0
Shoulder	•2	4000.0	295	146	1,180,000	584,000	1,764,000
Asphalt Patching	n2	383.0	3,819	1,377	1,462,677	527,391	1,990,068
Surface Dressing (Single)	n2	0.0	605	595	0	0	., .,
Surface Dressing (Double)	n2	0.0	757	936	0	0	0
Earth Drain	114	0.0	937	119	Õ	Ŏ	Ć
Earth Drain in Swaap (by machine)	.3	0.0	1,210	474	Đ	0	0
Pipe Culvert DBOcm	#O	0.0	44,70B	43,411	'n	ő	ľ
ripe cuivert ubuca Masonry Culvert (80x80cm)	2	0.0	62,536	37,884	n	û	
Retaining Hall and Hing Wall (Timber)	<b>#</b> 2	0.0	10,216	246	0	0	Č
Retaining Wall and Wing Wall (Masonry)	#3	0.0	46,225	11,868	Ď	ů.	
Recalling warr and wing warr thasonry? Gabion Protection	#3	0.0	14,482	120	0	0	·
	SET		17,702		0	Ů	,
New Bridge (Tieber)	3E1	1.0			٨	0	
New Bridge (Concrete)	3C1	1.0		•	·	v	
·			Sub Total		2,642,677	1,111,391	3,754,068
Overhead (15%)		ē			396,401	166,708	563,109
			TOTAL COST		3,039,078	1,278,099	4,317,177
Manual routine maintenance of road	Ke	2.0	153,769	7,248	307,536	14,496	322,033
Routine maintenance of gravel road	. Ka	2.0	192,232	89,047		176,094	560,55
			Sub Total			190,590	882,59
Haintenance of Timber Bridge (New)	<b>#2</b>	0.0	7,240	1,176	0	. 0	· (
Haintenance of Concrete Bridge (Hew)	2	0.0	1,794	2,790	0	0	
	<b>e</b> 2	0.0	7,494	2,432	0	0	1
	•2	0.0	4,232	2,402	0	0	
maintenance of Concrete Bridge (Exist) Maintenance of Concrete Bridge (Exist)	m2	0.0	7,494	2,432 2,402 Pavement I Bridge I Bridge Value Rate withou	Unit Cost (Rp/Km Init Cost (Rp/s2 Unit Cost (Rp/s2 (Rp)	0 0	2,158

FROV : KALIMANTAN SELATAN

KAB : HULU SUNGAI UTARA

LINK NO : 23 (111A) LENGTH : 2 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (2)

TTEH			((( UNIT	COST >>>	((((	(( COST	<b>&gt;&gt;&gt;&gt;&gt;</b>
***********	71KU	QUANTITY	LOCAL	FORETGN	LOCAL	FOREIGN	
Site Clearance in Light Bush	<b>a</b> 2	0.0	1.45		_	_	
Subgrade Preparation	#2		164	91	0	0	
Normal Fill	#2 #3		21	. 11	0	0	
Fill in Swamp	#3 #3	0.0	1,678	863	0	0	
Rormal Excavation to Spoil	#3 #3	0.0	2,537	1,052	0	0	
Sub Rase Course		0.0	995	522	. 0	. 0	
Base Course	83 -7	0.0		1,347	0	0	
	#3	0.0	4,405	2,299	0	. 0	
Shoulder	в2	4000.0	295		1,180,000	584,000	
Asphall Patching	92	250.0	3,819	1,377	954,750	344,250	1,299,00
Surface Dressing (Single)	<b>#</b> 2	8000.0	605	595	4,840,000	4,760,000	9,600,00
Surface Dressing (Double)	e2	0.0	757	936	0	0	
Earth Drain	<b>a</b>	0.0	937	119	0	0	
Earth Drain in Swamp (by machine)	23	0.0	1,210	474	. 0	0	
Pipe Culvert 080cm	.6	0.0	44,70B	43,411	0	.0	
Masonry Culvert (80x80cm)	. 9	0.0	62,536	37,986	0	0	
Retaining Wall and Wing Wall (Timber)	<b>a</b> 2	0.0	10,216	246	0	0	
Retaining Wall and Wing Wall (Masonry)	- 93	0.0		11,849	0	0	
Gabion Protection	a3	0.0	14,482	120	0	0	
New Bridge (Timber)	SET	. 1.0			0	0	
Kew Bridge (Concrete)	SET	1.0			0	0	
			Sub Total		6,974,750	5,688,250	12,663,00
Overhead ( 152 )					1,046,212	853,237	1,899,44
			TOTAL COST		8,020,962	6,541,487	14,582,44
Manual routine maintenance of road	Ka	2.0	153,769	7,249	307,536	14,496	322,03
Routine maintenance of asphalt road	Ke	2.0	381,900	137,700	763,800	275,400	1,039,20
		- • •	Sub Total	•	1,071,336	289,896	1,361,2
faintenance of Timber Bridge (New)	<b>#2</b>	0.0	7,240	1,176	0	0	
faintenance of Concrete Bridge (Hew)	s2	0.0		2,790	Ô	0	
faintenance of Timber Bridge (Exist)		0.0		2,432	0	0	
faintenance of Concrete Bridge (Exist)	<b>#</b> 2	0.0	4,232	2,402	. 0	0	
				Pavesent Uni		/Ka) 1	7,281,2
			Tieber	Bridge Uni	t Cost (Rp	/#2) :	
					•		
			Concrete	Bridge Uni	t Cost IRp	/ <b>a</b> 2) :	
			Concrete Survived		t Cost   IRp 		9.;

INK NO : 30 (IIIC) LENGTH : 3 Km

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

					***	4	
ITEN		******	TINU >>>	COST >>>	<<	({{\ COST	>>>>>
~ c 4 ~ G ~ v 2 ~ r ~ v ~ r ~ r ~ r ~ r ~ r ~ r ~ r ~ r	TIKU	PTITHAUG	LOCAL	FOREIGN	LOCAL	FORETON	TOTAL
Site Clearance in Light Bush	<b>e</b> 2	0.0	164	91	. 0	0	(
Subgrade Preparation	- 2	22500.0	21	H	472,500	a a	720,000
Normal Fill	<b>a</b> 3	0.0	1,698	863	172,000		(
Fill in Swamp	93	3712.5	2,537	1,052	9,418,612		13,324,162
Normal Excavation to Spoil	<b>a</b> 3	411.0	995	522	438,795		460,997
Sub Base Course	. 23	1920.0	3,221	1,347	6,184,320		8,770,560
Base Course	#3	0.0	4,405	2,299	0	•	
Shoulder	<b>a</b> 2	10500.0	295	146	3,097,500		4,630,500
Asphalt Patching	e2	0.0	3,819	1,377	0		.,,
Surface Dressing (Single)	92	0.0	605	595	0	0	Ô
Surface Oressing (Double)	-2	0.0	757	936	0	. 0	C
Earth Drain	£	0.0	937	119		Ô	0
Earth Drain in Swamp (by machine)	* *3	18500.0	1,210	474	17,745,000	7,821,000	27,786,000
Pipe Culvert D80cm	83 8	0.0	44,708	43,411	0001001111		1. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
			62,536	37,886	0		Ó
Masonry Culvert (80x80cm) Retaining Wall and Wing Wall (Timber)	# a?	0.0 0.0	10,216	37,000 246	0	v	
	#3				. 0	n n	•
Retaining Wall and Wing Wall (Masonry)			46,225	11,948	0		Č
Gabion Protection	Zg Tr		14,482	120	•		,
New Bridge (Timber)	SET				0		
New Bridge (Concrete)	SET	1.0			0	. 0	
			Sub Total		39,576,727	16,323,492	55,900,219
Overhead ( 15% )			÷		5,936,509	2,448,523	8,385,037
			TOTAL COST		45,513,236	19,772,015	64,285,251
D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				2 040	4/1 701	75 713	#D7 041
Manual routine maintenance of road	Ka	3.0	153,768	7,248			183,040
Routine maintenance of gravel road	Ka	3.0	192,232	88,047	576,696		840,837
	_		Sub Total		1,038,000	the state of the s	
Maintenance of Timber Bridge (Mex)	<b>#2</b>		7,240	1,176	0		(
Kaintenance of Concrete Bridge (New)	a2		1,794	2,790	0		
Maintenance of limber Bridge (Exist)	<b>2</b>		7,494		·	0	
Maintenance of Concrete Bridge (Exist)	•2	0.0	4,232	2,402	0	0	(
			P	D		D., (V.)	31 100 11
			Earthwork &			Rp/Ke) :	21,428,41
			limber.		The second second	Rp/#2) :	•
			Concrete		Init Cost (	Rp/#2} :	7 500 00
			Survived	Value		(Rp) :	3,508,22
			Maintenance New Bridge		it gijade	(X) 1 (X) :	2.0

LINK NO : 31 (IIIC) LENGTH : 2 km

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

ITEN	UNIT	PUANTETY	<<< UNIT Local	COST >>> Foreign		((((( COST	<b>&gt;&gt;&gt;&gt;&gt;</b>
				+ 0/10 ( 0/1	LOCA	L FOREIGN	A101
Site Clearance in Light Bush	*2	0.0	164				
Subgrade Preparation	•2			91		0 0	
formal Fill	63		-	11	252,00	,	384,00
III in Swamp	.3			863		-	
lormal Excavation to Spoil	a.j.		995	1,052			9,690,30
Sub Base Course	<b>*3</b>			522			348,91
Base Course	n3		•	1,347			5,847,04
Shoulder	e2			2,299		0 0	1000
Asphalt Patching	*2			146		_	1,764,00
Surface Dressing (Single)				1,377		0 0	
Surface Dressing (Double)	-2			595		0 0	
arth Drain	#2			936		0 0	
				119		0 0	
arth Drain in Swamp (by machine)	<b>a</b> 3			474	14,520,00	0 5,688,000	20,208,0
Pipe Culvert DBOCm	4			43,411		0 0	
lasonry Culvert (80x80cm)	•		•	37,886		0 0	
Retaining Hall and Wing Wall (Timber)	n2	517		246		0 0	
Retaining Wall and Wing Wall (Masonry)	<b>a</b> 3			11,868		0 0	
abion Protection	13		•	120		0 0	
lew Bridge (Timber)	SET	1.0				0 0	
lex Bridge (Concrete)	SET	1.0			ı	0 0	
			Sub Total		27,153,63	0 11,088,620	38,242,2
lverhead (15%)					4,073,04	4 1,663,293	5,736,3
			TOTAL COST		31,226,67	4 12,751,913	43,978,5
~~~~							
lanual routine maintenance of road	Kæ	2.0	153,769	7,248	307,53	6 14,496	322,0
Noutine maintenance of gravel road	K₽	2.0	192,232	88,047	384,46	4 176,094	560,5
			Sub Total		692,00	0 190,590	882,5
laintenance of Timber Bridge (New)	82	0.0	7,240	1,176		0 0	
laintenance of Concrete Bridge (Kex)	. #2	0.0	1,794	2,790		0 0	
laintenance of Timber Bridge (Exist)	#2	28.0	7,494	2,432	209,83	2 68,096	277,9
laintenance of Concrete Bridge (Exist)	42	0.0	4,232	2,402		0 0	
		****				*********	
			Earthwork &	Paveaent l	init Cost	(Rp/Ka) t	21,989,2
						(Rp/e2) :	
				Bridge t	Init Cost	(Rp/a2) :	
		•		Value		(Rp) 1	2,338,8
			Kaintenance	Rate withou	ut Bridge	(1)	2.
			New Bridge			{2}	

LINK NO : 35 (IIIA)

LENGTH : 7 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (2)

TTEM	UNIT	QUANTITY	(((UNIT	COST >>> FOREIGN	/> Local	<<<< COST FOREIGN	\\\\\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

iite Clearance in Light Bush	e 2	0.0	164	91	(0	
Subgrade Preparation	a 2	0.0	- 21	11	(0	
formal Fill	a 3	0.0	1,678	843	i) 0	
ill in Swamp	a 3	0.0	2,537	1,052	() 0	
formal Excavation to Spoil	a3	0.0	995	522	() (
Sub Base Course	a3	0.0	3,221	1,347	() 0	
Pase Course	23	0.0	4,405	2,299	() 0	
Shoul der	a 2	14000.0	295	146	4,130,000	2,044,000	6,174,00
Asphalt Patching	#2	1069.0	3,819	1,377			5,554,52
Surface Dressing (Single)	62		605	595	16,940,000		
Surface Dressing (Double)	a 2	0.0	757	936	• • •	0	7
arth Drain	8	0.0	937	119	. () 0	
arth Drain in Swamp (by machine)	a 3	0.0	1,210	474		0	1.
ipe Culvert D80cm	Ø.		44,709	43,411		0	
iasonry Culvert (B0x80cm)	a	0.0	62,536	37,886	(0	
etaining Wall and Hing Wall (Timber)	e 2	0.0	10,216	246		0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	46,225	11,848		n · 0	
abion Protection	#3	0.0	-	120	i	1 0	
len Bridge (Timber)	SET		17,101			. 0	
len Bridge (Concrete)	SET	1.0				0	
			Sub Total		25,152,51	20,176,013	45,328,5
verhead (15%)					3,772,97	3,026,401	6,799,2
			TOTAL COST	•	28,925,38	7 23,202,414	52,127,8
anual coupling asintonappe of road	Ya	7.0	153,768	7 719	1,076,37	50,736	1,127,1
anual routine maintenance of road	Ke Ke	7.0 7.0	381,700	7,248 137,700			
outine maintenance of asphalt road	24	1.0	Sub Total		3,749,67		
sistenance of Ticker Science (U)	a2	0.0	7,240	1,176		0 1,014,000	פונטווב
aintenance of Timber Bridge (Hew) aintenance of Concrete Bridge (Hew)	a 2		6 204	2,790	'	0 0	
						-	347,4
laintenance of Timber Bridge (Exist)		35.0	1,479	2,432		0 03 ₁ 120	•
aintenance of Concrete Bridge (Exist)	a ?	0.0	4,232	2,402		y 0	
			tarihuneb C	Pavement U	nit Coet	(Rp/Km) ;	7,446,8
•			Tisber				/ 137010
			Concrete			(Rp/e2) :	
			COURTER	orrode n	พรน 6056	(Rp/#2) :	
			Cornel vis 4	Ustin		10-1	
			Survived	Value Rate withou	b Deid	(Rp) : (Z) :	9.

LINK ND : 55 (1118-2) LENGTH : 4 Km

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

I T E N				CONT.			
	TINU	QUANTITY	LOCAL	COST >>> Foreign	COCAL	COST Foreign	>>>>> Total
Pika Milliana 20 12-64 Milk	_						*******
Site Clearance in Light Bush	#2	0.0	164	91	0	0	
Subgrade Preparation	92	0.0	21	7 H	0	0	. (
Hormal Fill	2 3	0.0	1,699	863	0	0	(
Fill in Swamp	a 3	0.0	2,537	1,052	0	0	(
Normal Excavation to Spoil	a 3	0.0	995	522	0	. 0	
Sub Base Course	#3	0.0	3,221	1,347	. 0	0	+
Base Course	#3	0.0	4,405	2,299	0 .	0	
Shoulder	# 2	B000.0	295	146	2,360,000	1,168,000	3,528,000
Asphalt Patching	. 2	725.0	3,819	1,377	2,768,775	998,325	3,767,100
Surface Dressing (Single)	#2	0.0	605	595	0	. 0	(
Surface Dressing (Double)	: #2	0.0	757	936	0 -	0	. (
Earth Drain	8	0.0	937	119	0	0	(
Earth Drain in Swamp (by machine)	a3	0.0	1,210	474	0 ·	. 0	
Pipe Culvert 080cm	5	0.0	44,708	43,411	0	0	1
Masonry Culvert (80x80cm)	æ	0.0	62,536	37,886	0	0	
Retaining Wall and Wing Wall (Timber)	a 2	0.0	10,216	246	0	. 0	ï
Retaining Wall and Wing Wall (Masonry)	a 3	0.0	46,225	11,868	0	0	
Gabion Protection	63	0.0	14,482	120	0	0	+
Hen Bridge (Timber)	SET	1.0			0	0	
Hew Bridge (Concrete)	SET	1.0			Ô	0	1
			Sub Total		5,128,775	2,166,325	7,295,10
Overhead (15%)					769,316	324,948	1,094,26
			TOTAL COST		5,898,091	2,491,273	8,389,36
*				<u>.</u>		**************************************	*****
Hanual routine maintenance of road	Km	4.0	153,768	7,248	615,072	28,992	644,06
Routine maintenance of gravel road	Ka	4.0	192,232	88,047	768,920	352,188	1,121,11
Algebra of the second second			Sub Total		1,384,000	381,180	1,765,18
Maintenance of Timber Bridge (Rew)	a 2	0.0	7,240	1,176	0	0	
Haintenance of Concrete Bridge (New)	a 2	0.0	1,794	2,790	0	0	
Maintenance of Timber Bridge (Exist)	m2	112.0	7,494		B39,328	272,384	1,111,71
Maintenance of Concrete Bridge (Exist)	= 2	0.0	4,232	2,402	0	0	١
· · · · · · · · · · · · · · · · · · ·			**				
				Pavement Uni	•		2,097,34
				•	t Cost (Rp/s		
÷.				•	t Cost (Rp/s		
				Value	(Rp		24.0
				Rate without			21.0
			Kex Bridge	Cost Rate	(2)	:	

PROV KALIMANTAN SELATAN

: HULU SUNGAI UTARA

LINK NO 58 (IIIC) LENGTH : 7 Km

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

1 T E H				COST >>>		,,,,,,,	COST	>>>>> ********************************
	T 1 RU	GUANTITY	LOCAL	FOREIGN	100	AL 	FOREIGN	ATOTA
Site Clearance in Light Bush	= 2	0.0	164	91	-	0	0	
Subgrade Preparation	a2	38000.0	21	. 11	756,0	00	394,000	1,152,00
Normal Fill	a 3	0.0	1,698	863	•	0	0	
Fill in Swamp	# 3	0.0	2,537	1,052		0	0	$\mathcal{L}^{\mathcal{L}}$
Normal Excavation to Spoil	a3	760.0	975	522	756,2	00	396,720	1,152,92
Sub Base Course	#3	3882.0	3,221	1,347	12,503,9		5,229,054	
Base Course	#3	240.0	*.	2,299	1,057,2		551,760	1,608,96
Shoul der	s 2	14000.0	295	146	4,130,0		2,044,000	6,174,00
Asphalt Patching	6 2	0.0	3,819	1,377	, ,	0	0	
Surface Dressing (Single)	a2	0.0		595		0	0	
Surface Dressing (Double)	s 2	0.0	757	936		0	0	
Earth Drain	R	0.0	937	119		0	0	
Earth Drain in Swamp (by machine)	≥3	0.0	1,210	474		0	0	
Pipe Culvert DBOcm	. 6	.0,0	44,708	43,411		0	0	
Masonry Culvert (80x80ce)	8	0.0	62,536	37,898		0	0	
Retaining Wall and Wing Wall (Timber)	n 2	0.0	10,216	246		0 .	0	
Retaining Wall and Wing Wall (Masonry)	a 3	0.0	16,225	11,868		0	0	
Gabion Protection	e 3	- 0.0	14,482	120		0	0	
New Bridge (Timber)	SET	1.0				0.	0	
Нем Bridge (Concrete)	SET	1.0		:		0	0	
			Sub Total		19,203,3	22	8,617,534	27,820,85
Overhead (15%)					2,880,	198	1,292,530	4,173,12
			TOTAL COST		22,083,6	120	9,910,164	31,993,96
Manual routine maintenance of road	Ka	7,0		7,248	1,076,	176	50,736	1,127,1
Routine maintenance of gravel road	Kя	7.0	192,232	88,047	1,345,6		616,329	1,961,95
			Sub Total		2,422,0	100	467,065	3,089,08
Naintenance of Timber Bridge (New)	A 2	0.0	7,240	1,176		0	. 0	
Maintenance of Concrete Bridge (New)	a 2	0.0	1,794	2,790		0	0	
Maintenance of Timber Bridge (Exist)	= 2	0.0	7,494	2,432		0	0	
Maintenance of Concrete Bridge (Exist)	#2	0.0	1,232	2,402		0	0	. •

			Earthwork &	Pavesent Un	it Cost	(Rp/K	a) :	1,570,5
					it Cost	(Rp/s		* 1
					it Cost	(Rp/a		
				Value		lRp		7,093,19
		-		Rate without	Bridge	(%)		9.6
			New Bridge			(2)		

LINK NO : 59 (IIIC) LENGTH : B Km

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

			****	******		*		(Rp)
ITEN		UNIT	QUANTITY	(((UNIT Local	COST >>> FOREIGN	/ LOCAL	CCCC COST Foreigh	>>>>> Total

Site Clearance in L	ight Bush	a2	0.0	161	71) 0	
Subgrade Preparatio		a2	48000.0	21	11	1,008,000		1 57/ 68/
Normal Fill		a 3	0.0	1,698	863	1,000,000		1,538,000
Fill in Swamp		*3	0.0	2,537	1,052			· ·
Normal Excavation t	e Spoil	a3	0.8401	995	522	1,062,660	•	1 170 15
Sub Base Course		æ3	5120.0	3,221	1,347	16,491,520		1,620,150 23,398,160
Base Course		a 3	0.0	4,405	2,299	101311010		101100110
Shoul der		s2	18000.0	295	146	4,720,000	•	7,056,000
Asphalt Patching	**	#2	0.0		1,377	4,110,000	1 2,000,000	1,030,000
Surface Oressing (S	inale)	2	0.0	605	595	,) 0	
Surface Dressing (D		a 2	0.0	757	936	ì	•	ì
Earth Drain		6	0.0	937	119	,) 0	•
Earth Drain in Swam	n (by machine)	a3	0.0	1,210	¥74	,) 0	
Pipe Culvert D80ca	, ,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	9	0.0	44,708	43,411	,) 0	
Masonry Culvert (80	rildea)	E	0.0	62,536	37,886	ì) 0	
Retaining Wall and		# 2	0.0	10,216	246) 0	
	Wing Wall (Hasonry)	63	0.0	16,225	11,868	,	, ,	
Babion Protection	**************************************	83	0.0	•	120	. (, ,	
Kew Bridge (Timbe	r)	SEI		. 12/105		(•	
Hew Bridge (Concr		SET	1.0			-) (
new billage toolier		3.,	1.0			`	, ,	. '
				Sub Total		23,202,180	10,319,136	33,600,31
Overhead (15%)						3,492,327	1,547,720	5,040,04
				TOTAL COST		26,774,507	7 11,865,856	39,640,36
lanual routine main		X.	8.0	153,769	7,248	1,230,144		1,288,12
Routine maintenance	of gravel road	· · Ke	8.0	192,232	98,047	1,537,858	7	2,242,23
				Sub Total	, . • .	2,768,000	•	3,530,36
laintenance of limb		. 42	0.0	7,240	1,176		0	1
Maintenance of Conc		•?	0.0		2,790		74.040	170 0/
Maintenance of Timb		a2	14.0	•	2,432	104,916	5 34,048 D 0	138,76
Taintenance of Conc	rete Bridge (Exist)	e 2	0.0	4,232	2,402	,	, ,	
	~~~~~~~						***	
				Earthwork ₺			(Rp/Ka) :	4,830,04
				limber			(Rp/m2) :	
	* 4					nit Cost	(Rp/s2) :	g wee
•					Value		(Rp) :	9,355,26
				Maintenance		t Bridge	(2) ;	9.1
				Hew Bridge	Lost Rate		(1) :	

LINK NO : 60 (IIIC) LENGTH : 2 Km

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

1 T E H	UNIT	QUANTITY	<<< UNIT LOCAL			TOOS >>>	>>>>> TOTAL
Site Clearance in Light Bush	<b>a</b> 2	0.0	164	91	0	. 0	· : • •
Subgrade Preparation	<b>#2</b>	12000.0	21	· 11	252,000	132,000	384,000
lormal Fill	e3	0.0	1,698	863		0	0
ill in Swamp	<b>£3</b>	0.0	2,537	1,052		0.	
lormal Excavation to Spuil	a3	204.0	995	522		106,488	309,468
ub Base Course	<b>#</b> 3	1280.0	3,221	1,347		1,724,160	5,847,040
Pase Course	a3	0.0	4,405	2,299		Q	(
houlder	a2	4000.0	295	146		584,000	1,764,000
Asphalt Patching	<b>82</b>	0.0	3,819	1,377	•	001,000	1,,0,,100
iurface Dressing (Single)	#2	0.0	605	595		ñ	Č
		0.0	757	936		. ^	
Burface Dressing (Double)	<b>#</b> 2	0.0	737 737	119		- 0	: 0
arth Orain	· R					0	
arth Drain in Swamp (by machine)	<b>1</b> 3	0.0	1,210	474		.0	
ipe Culvert 080cm	£	0.0	44,70B	43,411		10	
lasonry Culvert (80x80cm)	£	0.0	62,536	37,886		0	
letaining Wall and Wing Wall (Timber)	. 62	0.0	10,216	246		. 0	. (
letaining Wall and Wing Wall (Masonry)	<b>£3</b>	0.0	46,225	11,869	10	. 0	. 0
labion Protection	#3	0.0	14,492	120	0	0	(
lew Bridge (Timber)	SET	. 1.0			0	0	. (
lew Bridge (Concrete)	SET	1.0			0	. 0	(
			Sub Total		5,757,860	2,546,648	8,304,508
iverhead (15%)					863,679	381,997	1,245,678
	÷		TOTAL COST		6,621,539	2,928,645	9,550,184
innet continue winters at our	 ν_	2.0	157 740	7,248	707 571	14 404	322,03
anual routine maintenance of road	X.		153,768			14,496	
outine maintenance of gravel road	Ke	2.0	192,232	88,047		176,094	540,55
	_		Sub Total		692,000	190,590	
laintenance of Timber Bridge (Hew)	a2	0.0	7,240	1,178		. 0	
faintenance of Concrete Bridge (Hew)	<b>#</b> 2		1,794	2,790		0	
laintenance of Timber Bridge (Exist)	<b>e</b> ?	84.0	7,494	2,432		204,288	-
laintenance of Concrete Bridge (Exist)	<b>a</b> 2	0.0	1,232	2,402	! 0	0	
			Earthwork &	Paupanni	Unit Cost (A	!p/K#} :	4,775,09
			Tieber				41/10101
						(p/#2) 1	
	•		Concrete		Unit Cost (R	(p/s2) :	9 770 01
				Value		(Rp) :	2,339,81
		-	Surviveo Haintenance New Bridge	Rate witho	ut Bridge	(X) :	2,330,816 9.2

LINK NO : 63 (IIIB-1) LENGTH : B Km

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

							(Rp)
ITEN			<<< UNIT	COST >>>	··	<<<< col> <li>cost</li>	>>>>>
	UNIT	QUANTITY	LOCAL	FOREISN	LOCAL		TOTAL
	***		********				
Site Clearance in Light Bush	<b>6</b> ?	0.0	12.1		_	_	
Subgrade Preparation	92	16200.0	164	91		•	(
Normal Fill	83	0.0	21	. 11	340,200	•	518,40
Fill in Swamp	a3	7762.5	1,698	£68	40 407 44	0	
Normal Excavation to Spoil	e3		2,537 995	1,052	19,693,462		27,859,61
Sub Pase Course	<b>s</b> 3			. 522	0 777 005	•	
Pase Course	<b>a</b> 3	2210.0	3,221	1,347	9,357,005		13,270,04
Shoulder	a2	16000.0	4,405	2,299	9,867,200		15,016,96
Asphalt Patching	_		295	146	4,720,000		7,056,00
	#2 		3,819	l ₁ 377	(	•	
Surface Dressing (Single)	■2		605	595	19,360,000	17,040,000	38,400,00
Surface Dressing (Double)	<b>e</b> ?		757	936		-	
Earth Drain	8	400.0	937	119	374,800	•	422,40
Earth Drain in Swaap (by machine)	<b>m</b> 3	12000.0	1,210	474	14,520,000		20,208,00
Pipe Culvert D80cm		0.0	44,708	43,411	(	-	
Hasonry Culvert (80x80cm)		5.0	62,536	37,886	312,680		502,11
Retaining Wall and Wing Wall (Timber)	<b>s</b> 2	50.0	10,216	246	510,800		523,10
Retaining Wall and Wing Wall (Masonry)	23	100.0	46,225	11,968	4,622,500	1,185,800	5,809,30
Gabion Protection	n3	0.0	14,492	120	. (	0	
New Bridge (Timber)	SEI	, 1.0			. (	0	
New Bridge (Concrete)	SET	1.0			(	0	
			Sub Total		83,678,647	45,907,275	129,505,92
Overhead ( 152 )					12,551,797	6,886,091	19,437,88
			TOTAL COST		96,230,444	52,793,366	149,023,81
				**************************************		<u>-</u>	
Manual routine maintenance of road	Ka	0.0	153,769	7,248	1,230,144	57,984	1,288,12
Routine maintenance of asphalt road	Ka	0.0	381,900	137,700	3,055,200		4,156,80
			Sub Total	•	4,285,344		5,444,92
Maintenance of Timber Bridge (New)	<b>5</b> 2	0.0	7,240	1,176		_	
Maintenance of Concrete Bridge (Mew)	n2	0.0	1.794	2,790	(	0	
Maintenance of Timber Bridge (Exist)	<b>8</b> 2	238.0	7,494	2,432	1,783,572	578,816	2,362,38
Maintenance of Concrete Bridge (Exist)	a?	0.0	4,232	2,402	. (	0	
~=====================================							
			Earthwork &			Rp/Km) :	18,627,97
						Rp/m2) :	
					it Cost (	Rp/e2) :	:-
		•	•••	Value		(Rp) :	12,292,42
			Maintenance		Bridge	(X) :	3.6
•			Kew Bridge	Cost Rate		(2) :	

FROV : KALIMANTAN SELATAN

KAB : HULU SUNGAI UTARA

LINK NO : 45 (IIIC)

LENGTH : 8 Km

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

ITEH	UNIT	QUANTITY	<<< UNIT LOCAL	COST >>> Foreign	)) Local	COST (COST )>>>	>>>>> TOTAL
Site Clearance in Light Bush	<b>a</b> 2	0.0	164	71	0	0	(
Subgrade Preparation	n2	0.0	- 21	11	Ö	0	(
Normal Fill	#3	0.0	1,678	883	0	0	
Fill in Swamp	a3	0.0	2,537	1,052	. 0	. 0	•
Mormal Excavation to Spoil	23	0.0	995	522	0	. 0	
Sub Base Course	<b>e</b> 3	462.0	3,221	1,347	1,488,102	622,314	2,110,41
Base Course	n3	1920.0	4,405	2,299	8,457,600		12,871,68
Shoulder	a2	16000.0	295	146	4,720,000		7,056,00
Asphall Patching	e2	0.0	3,819	1,377	0		
Surface Dressing (Single)	n2	0.0	605	595	0	į	
Surface Dressing (Double)	в2	0.0	757	736	0	o o	
Earth Drain	2	0.0	937	119	ň	0	
Earth Drain in Swamp (by machine)	a3	0.0	1,210	474		ň	
Pipe Culvert DBOck	N.S	0.0	44,708	43,411	0	0	**
		0.0	62,536	37,886	0	ń	
Masonry Culvert (80x80cm)				246	0	0	
Retaining Hall and Ming Hall (Timber)	n2	0.0	10,216		0	. 0	
Retaining Wall and Wing Wall (Masonry)	. #3	0.0	46,225	11,868		0	· '
Sabion Protection	<b>a</b> 3	0.0	14,482	120	U	Ų	
Hen Bridge (Timber)	SEI				0	v	
New Bridge (Concrete)	SET	1.0		~-		· ·	· i
			Sub Total		14,665,702	7,372,394	22,038,09
Overhead ( 15% )					2,199,855	1,105,859	3,305,71
			TOTAL COST		18,865,557	8,478,253	25,343,81
	· 						
Manual routine maintenance of road	Ka	8.0	153,768	7,248	1,230,144	57,984	1,288,12
Routine maintenance of gravel road	Ke	8.0	192,232	88,047	1,537,856	704,376	2,242,23
			Sub Total		2,769,000	762,360	3,530,38
Haintenance of Timber Bridge (Nex)	<b>8</b> 2	0.0	7,240	1,176	0	0	
Maintenance of Concrete Bridge (New)	<b>a</b> 2	0.0	1,794	2,790	0	. 0	
Maintenance of Timber Bridge (Exist)	<b>a</b> 2	128.0	7,494	2,432	944,244	306,432	1,250.67
Maintenance of Concrete Bridge (Exist)	62	0.0	4,232	2,402	. (		
				*****	******		
			Earthwork &			Rp/Ke) :	3,167,97
•			Tieber	Bridge Un		Rp/#2) :	
			Concrete	Bridge Un	it Cost	(Ro/#2) :	
			Survived	Yalue		(Rp) :	844,16
			Maintenance	Rate without	8ridge	(2) :	13.9
· ·			Hew Bridge		-	<b>(2)</b> :	

LINK ND : 66 (IIIA) LENGTH : 15 Km

UPGRADE : 7.0m road bed, 4.5m road with surface Dressing (2)

		**************					(Rp)
1 T E H	UNIT	QUANTITY	<<< UNIT Local	COST >>> FOREIGN	< Local	(((( COST . FOREIGN	>>>>> TOTA
			**********	**********	W344224#64642		
ite Clearance in Light Bush	•2	2000.0	164	- 91	328,000	182,000	510,00
ubgrade Preparation	-2	6480.0	21	П	136,080		207,36
ormal Fill	.3	0.0	1,898	863	(		101100
ill in Swamp	<b>a</b> 3	1720.0	2,537	1,052	4,871,040	•	88,098,8
ormal Excavation to Spoil	83	70.0	995	522	69,650		
ub Base Course	₽3	1026.0	3,221	1,347	12,967,746		106,15 18,390,7 <i>8</i>
ase Course	<b>e</b> 3	5100.0	4,405	2,279	23,787,000	, ,	36,201,60
houlder	47	37500.0	295	146	11,062,500		
sphalt Patching	a2	0.0	3,819	1,377	(1,001,000)		16,537,50
urface Dressing (Single)	62	4.5	605	595			
urface Dressing (Double)	a?		757		EL 203 EA	) (17 100 000	
arth Drain	6	0.0	937	936	51,097,500	_	114,277,50
arth Drain in Swamp (by machine)	<b>a</b> 3	4800.0		119	) // / / / / / / / / / / / / / / / / / /	) 0	
			1,210	474	5,808,000	2,275,200	8,083,20
ipe Culvert D80cm	0	0.0	44,70B	43,411	(	) (	
asonry Culvert (80x80cm)	4	0.0	•	37,886	(	) (	
etaining Wall and Wing Wall (Timber)	n2	0.0	10,216	246		) 0	
etaining Wall and Wing Wall (Masonry)	e3	0.001	46,225	11,868	4,622,500	0 1,186,800	5,809,3
abion Protection	#3	0.0	14,492	120	(	) 0	
ен Bridge (Timber)	SET	( 1.0			(	0	
en Bridge (Concrete)	SET	1.0			(	0	
			Sub Total		114,750,01	92,264,282	207,014,29
verhead ( 15% )					17,212,50	13,839,642	31,052,14
			TOTAL COST		131,962,518	106,103,924	238,066,44
anual routine maintenance of road	Ka	15.0	153,769	7,248	2,306,520	0 [08,720	2,415,2
outine maintenance of asphalt road	Ke	15.0	381,900	137,700	5,728,500	2,065,500	7,794,0
			Sub Total		8,035,020	2,174,220	10,209,2
aintenance of Timber Bridge (New)	<b>=</b> 2	6.0	7,240	1,176		0	
aintenance of Concrete Bridge (Nex)	<b>-2</b>	0.0	1,794	2,790	(	0	
aintenance of Timber Bridge (Exist)	#2	141.8	7,494	2,432	1,062,274	344,736	1,407,0
aintenance of Concrete Bridge (Exist)	12	0.0	4,232	2,402	(	0	
			Earthwork &			(Rp/Ka) ;	15,871,0
				•		(Rp/e2) :	
				•	Init Cost	(Rp/e2) :	
				Value		(Rp) :	23,763,0
•			Haintenance New Bridge		ıt Bridge	(X) :	4.3
						(X) :	

PROV

KALIMANTAN SELATAN

KAB : HULU SUNGAI UTARA

68 (IIIB-1) LENGTH : 12 Km

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

							(Rp)
ITEH			(<< UNIT	COST >>>	(((		<b>&gt;&gt;&gt;&gt;&gt;</b>
	UNIT	PTITKAUD	LOCAL	FOREIGN	LOCAL	FOREIGN	A101
	_		••				**
ite Clearance in Light Bush	82	0.0	164		0	300 105	1 110 00
ubgrade Preparation	#2	66000.0	21	- 11	1,386,000	728,000	2,112,00
ormal Fill	ลวั	0.0	1,678	663	Ü	U	
ill in Swamp	£ <b>a</b>	0.0	2,537	1,052			nan ti
ormal Excavation to Spoil	аŠ		995	522	1,265,640	663,984	1,929,6
ub Base Course	■3	6329.2	3,221	1,347	20,386,353	8,525,432	28,911,71
ase Course	-≢3	3360.0	4,405	2,299	14,800,800	7,724,640	22,525,4
houlder	<b>n</b> 2	24000.0	295	146	7,080,000	3,501,000	10,584,0
sphalt Patching	· #2	0.0	3,819	1,377	0	. 0	3 5
urface Dressing (Single)	n2	4B000.0	605	595	29,040,000	28,560,000	57,600,0
urface Dressing (Double)	<b>#2</b>	0.0	757	936	0	. 0	
arth Drain		0.0	937	119	. 0	0	
arth Drain in Swamp (by machine)	a3	0.0	1,210	474	. 0	0	
ipe Culvert D80ca	· A	0.0	44,708	43,411	0	0	
asonry Culvert (B0x80cm)	8	0.0	62,536	37,886	0	. 0	
etaining Hall and Hing Hall (Timber)	n2	0.0	10,216	246	. 0	0	
etaining Wall and Wing Wall (Masonry)	a3	0.0	46,225	11,869	0	0	
abion Protection	<b>a</b> 3	0.0	14,482	120	0	0	
en Bridge (Tiaber)	SET	1.0		<u>:</u>	0	.0	* .
ew Bridge (Concrete)	SET	1.0		-+	0	. 0	
	•		Sub Total		73,958,793	49,704,056	123,662,8
verhead ( 15% )					11,093,818	7,455,608	18,549,4
	•		TOTAL COST		85,052,611	57,159,664	142,212,2
**************************************							
anual routine maintenance of road	Ke	12.0	153,768	7,248	1,845,216	86,976	1,932,1
outing maintenance of asphalt road	Ke		381,900	137,700	4,582,800	1,652,400	6,235,2
Addition woth remaine as appliant town	, n w		Sub Total	1011100	6,128,016	1,739,376	8,167,3
aintenance of Timber Bridge (New)	<b>s</b> 2	0.0	7,240	1,176	0	0	0110110
aintenance of Concrete Bridge (New)	a 2		1,794	2,790	0	Ŏ	
aintenance of limber Bridge (Exist)	#2	301.0	7,494	2,432	2,255,694	732,032	2,987,7
	#Z	0.0			412001017 A	121,021	2,791,1
aintenance of Concrete Bridge (Exist)	#t	0.0	4,232	2,402			
# W W W W W W W W W W W W W W W W W W W						को क्रम का क्रम कर गया भी तथे कि ग्रम की गरे नहीं को .	***
			Earthwork &	and the second second		p/Ka) t	11,851,0
			Tieber	Bridge Un	it Cost IR	p/m2} :	
						o/a2) t	
			Survived	Value		(Rp) :	24,743,3
the state of the s			Maintenance	N. L		(%)	5.
		4.00	nathtenante	RSCE MICLORE	. \$11002	14) i	2.

PRÓV

: KALIMANTAN SELATAN KAB : HULU SUNBAI UTARA

LINK NO : 69 (IIIB-1) LENGTH : B Km

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

			**********				(Rp)
ITEX	UNIT	MILLHAND	CCC UNIT			<<<< cost	>>>>>
			F004F	FOREIGN	LOCAL	FOREIGN	ATOT
Site Clearance in Light Bush	<b>*</b> 2	0.0	164	N.			٠.
Subgrade Preparation	e2	48000.0	21	91		-	
Mormal Fill	a3		1,678	11 863	1,008,000	•	l ₁ 536 ₁ 00
Fill in Swamp	e3		2,537		0	.*	
Normal Excavation to Spoil	<b>3</b>	10918.0	995	1,052 522	18,266,400 10,863,410	, ,	25,840,80
Sub Base Course	<b>a</b> 3		3,221	1,347		. ,	16,562,60
Base Course	<b>a</b> 3	2210.0	4,405	2,299	14,430,080		20,464,64
Shoul der	92	16000.0	295	146	9,867,200		15,016,96
Asphalt Patching	•2	0.0	3,819	1,377	4,720,000		7,056,00
Surface Dressing (Single)	a2	32000.0	605	1,377 595	19,360,000	•	10 400 00
Surface Dressing (Double)	#2	0.0	757	936	17 300,000		38,400,00
Earth Drain		0.0	937	119	0	-	
Earth Drain in Swamp (by machine)	e3	18000.0	1,210	474	21,780,000	-	70 717 86
Pipe Culvert D80cm		0.0	44,708	43,411	21,100,000	, ,	30,312,00
Masonry Cutvert (80x80cm)		0.0	62,536	37,886	0	-	
Retaining Wall and Wing Wall (Timber)	<b>a</b> 2	0.0	10,216	246	0	-	-
Retaining Wall and Wing Wall (Masonry)	<b>a</b> 3	0.0	46,225	11,868	0	•	
Gabion Protection	e3	0.0	14,482	120	0	•	
New Bridge (Timber)	SET	1.0	*****		0	•	
New Bridge (Concrete)	SET	1.0			0	•	
			Sub Total		100,295,090	54,893,916	155,189,00
Overhead ( 15% )					15,044,263	8,234,087	23,278,35
	٠		TOTAL COST		115,339,353	63,128,003	178,467,35
			**********			·	
Manual routine maintenance of road	K.	8.0	153,768	7,248	1,230,144	57,984	1,288,12
Routine maintenance of asphalt road	Ka	8.0	381,900	137,700	3,055,200	•	4,156,80
			Sub Total	,	4,285,344		5,444,92
Maintenance of Timber Bridge (New)	a?	0.0	7,240	1,176	0		
Maintenance of Concrete Bridge (New)	a2	0.0	1,794	2,790	0	0	
Naintenance of Timber Bridge (Exist)	m2	329.0	7,494	2,432	2,165,526	800,128	3,265,65
Maintenance of Concrete Bridge (Exist)	•2	. 0.0	4,232	2,402	0	0	
	•						
			Farthward L	Pavement Uni	t Cost (	Rn/Ke) :	22,308.42
				Pavement Uni Bridge Uni		Rp/Ke) :	22,308,42
	••••		Timber	Bridge Uni	t Eost (	Rp/#2) :	22,308,42
			Timber Concrete	Bridge Uni Bridge Uni	t Eost (	Rp/a21 : Rp/a21 :	
	••••		Timber Concrete Survived	Bridge Uni	t Eost ( t Cost (	Rp/#2) :	22,308,42 17,328,64 3.0

### Appendix A-4

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

1 T E H	TINU	( 1988 )	( 1999 )	( 1990 )	( 1991 )	( 1992 >	( TOTAL )
****	***				An the to the act the day to be up yet any p		*******************
CHARTENT :							
Bulldazer/Ripper	hr	191.9	578.5	490.3	0.0	0.0	1250.6
Swamp Bulldozer	hr	0.0	274.0	502.5	0.0	0.0	776.5
Hotor Grader	hr	632.2	1326.1	1185.5	0.0	0.0	
Hand-guide Vib. Roller	hr	120.4	387.1	297.6	0.0	0.0	805.1
lire Roller	hr	533.3	1249.9	399.9	0.0	0.0	2183.1
Vibratory Roller (D&I)	hr	496.0	1229.4	1337.1	0.0	0,0	3062.5
Hydraulic Excavator; Wheel	hr	0.0	1935.0	2013.0	0.0	0.0	474B.0
Wheel Loader	hr h	792.5	2176.2	2078.4	0.0	0.0	5047.1
Water Tank Truck	hr	328.2	787.3	890.2	0.0	0.0	2005.7
Dump Truck	hr	6031.6	17795.9	18116.1	0.0	0.0	41743.6
Flat Ded Truck with Crane	hr	0.0	60.0	69.4	0.0	0.0	129.4
Flat Bed Truck	hr	640.0	1544.9	528.2		0.0	2713.1
Portable Crusher/Screening	þr	191.4	415.1	242.8	0.0	0.0	849.3
Concrete Hixer	hr	0.0	60.0	63.6	0.0	0.0	123.6
Hater Pump	hr	0.0	40.0	42.6	0.0	0.0	82.6
Concrete Vibrator	hr	0.0	0.0	0.7	0.0	0.0	0.7
Asphalt Sprayer	hr	533.3	1249.9	399.9	0.0	0.0	2183.1
ADOUR :							
Handur	man day	413.1	1411.8	1366.3	0.0	0.0	3191.2
Skilled Labourer	man day	400.3	871.4	356.9	0.0	0.0	1648.6
Carpenter	man day	0.0	0.0	23.5	0.0	0.0	23.5
Nason	nan day	0.0	100.0	104.8	0.0	0.0	204.8
Labourer	man day	3601.1	12145.1	11233.0	0.0	0.0	26979.2
Driver	man day	1275.4	3647.0	3122.2	0.0	0.0	8344.6
Operator	man day	646.7	2025.0	1920.6	0.0	0.0	4592.3
ATERIAL ;							
Bitumen	1	110417.3	287221.2	92978.6	0.0	0.0	480617.1
Asphalt Oil	i	21866.6	45250.0	16400.0	0.0	0.0	83516.6
Kerosene	i	26253.7	60711.9	19708.6	0.0	0.0	106674.2
Sand	83	340.0	702.8	290.2	0.0	0.0	1333.0
Cement	bag	0.0	38.0	50.7	0.0	0.0	88.7
River Stone	. a3	0.0	100.0	104.8	0.0	0.0	204.8
Steel Haulds	set	0.0	0.0	0.0	0.0	0.0	0.0
ligher	æ3	0.0	0.0	3.1	0.0	0.0	3,1
Paint	1	0.0	0.0	0.0	0.0	0.0	0.0
Reinforcing Steel	kg	0.0	0.0	73.3	0,0	6.0	73,3
lying Wire	kg	0.0	0.0	0.6	0.0	0.0	0.6
Equivalent Royalty	n3	12894.9	34700.8	37373.2	0.0	0.0	85038.9

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

FROV : KALIMANTAN SELATAN KAB # HULU SUNGAI UTARA UNIT (1988) (1989) (1990) (1991) (1992) (10TAL) EQUIPHENT : Bulldozer/Ripper 0.0 hr 0.0 0.0 0.0 0.0 Swamp Bulldozer ħε 0.0 0.0 0.0 0.0 0.0 0.0 Motor Grader he. 164.7 279.5 292.5 0.00.0 726.7 Hand-quide Vib. Roller 333.7 hr 795.0 1080.0 0.0 0.0 2208.7 Tire Roller 164.7 hr 279.5 282.5 0.0 0.0 726.7 Vibratory Roller (D&T) hr 0.0 0.0 0.0 0.0 0.0 0.0 Hydraulic Excavator; Wheel 0.0 hr 0.0 0.0 0.0 0.0 0.0 63.2 Wheel Loader hr 136.4 168.0 0.0 0.0 367.6 Water Tank Truck hr 0.0 0.0 0.0 0.0 0.0 0.0 Dump Truck hr 1046.5 2407.4 3167.1 0.0 0.0 6621.0 1047.0 Flat Bed Truck with Crane hr 2114.5 2086.0 0.0 0.0 5247.5 Flat Red Truck 890.7 hr 1683.5 1914.5 0.0 0.0 4488.7 Portable Crusher/Screening 32.1 hr 69.6 96.0 0.0 0.0 187.7 Concrete Hixer hr 0.0 0.0 0.0 0.0 0.0 0.0 Water Pump hr 0.0 0.0 0.0 0.0 0.0 0.0 Concrete Vibrator hr 0.0 0.0 0.0 0.0 0.0 0.0 Asphalt Sprayer 0.00.0 0.0 0.0 0.0 LABOUR : Handur ∌an day 430.9 892.6 1058.4 0.0 2371.9 Skilled Labourer man day 513.1 1117.0 1299.0 0.0 0.0 2929.1 Carpenter man day 156.0 315.1 310.9 0.0 0.0 782.0 Hason man day 0.0 0.0 0.0 0.0 0.0 0.0 Labourer 4836.9 wan day 9916.2 12050.6 0.0 0.0 26803.7 546.5 Driver 1133.4 1292.1 0.0 0.0 2972.0 man day Operator 76.1 139.2 151.0 ≋an day 0.00.0 366.3 HATERIAL : Bitumen-3003.7 7155.0 9720.0 0.0 0.0 19878.7 ł Asphalt Oil 0.0 0.0 0.0 0.0 0.0 0.0 -1 Kerosene 333.7 795.0 1080.0 0.0 0.0 2208.7 1 Sand 55.6 132.5 180.0 0.0 0.0 а.Т Cement 0.0 0.0 0.0 0.0 0.0bag 0.0 River Stone 0.0 0.0 0.0 0.0 R3 Steel Moulds 0.0 0.0 0.0 0.0 0.00.0 set limber 14.1 28.6 28.2 0.0 0.0 70.9 ส3 Paint. 101.0 204.1 201.3 0.0 0.0 1 Reinforcing Steel 0.0 0.0 0.0 0.00.0 0.0 kg Tying Wire 0.0 0.0 0.00.00.00.0**Equivalent Royalty** 895.8 1932.0 2380.5 0.0 0.0 5208.3 аŠ

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

				*****	.*		
1164	TUNU	( 1988 )	( 1989 )	( 1990 )	( 1991 )	( 1992 )	( TOTAL >
DUTPHENT :		•					
ioti peni							
Bulldozer/Ripper	hr	191.8	578.5	490.3	0.0	0.0	1250.6
Snamp. Bulldozer	hr	0.0	274.0	502.5	0.0	0.0	776.5
Notor Grader	hr hr	196.9	1605.6	1468.0	0.0	0.0	3970.5
Hand-guide Vib. Roller	hr	451.1	1182.1	1377.6	0.0	0.0	3013.8
Tire Roller	hr	699.0	1529.4	682.4	0.0	0.0	2909.8
Vibratory Roller (DLT)	hr	496.0	1229.4	1337.1	0.0	0.0	3062.5
Hydraulic Excavator; Wheel	hr	0.0	1935.0	2813.0	0.0	0.0	4748.0
Wheel Loader	hr	855.7	2312.6	2246.4	0.0		5414.7
Nater Tank Truck	h <i>r</i>	328.2	787.3	870.2	0.0	0.0	2005.7
Dump Truck	hr		20203.3	21283.2	0.0	0.0	48564.6
Flat Bed Iruck with Crane	hr	1047.0	2174.5	2155.4	0.0	0.0	5376.9
Flat Bed Truck	hr	1530.7	3228.4	2442.7	0.0	0,0	7201.8
Portable Crusher/Screening	hr	223.5	484.7			0.0	1037.0
		0.0	60.0	63.6	0.0		123.6
Concrete Hixer Nater Pump	hr	0.0	40.0	42.6	0.0		82.6
Concrete Vibrator	hr	0.0	0.0	0.7	0.0	0.0	
Asphalt Sprayer	nr hr		1249.9	399.9			2183.1
naphare aprayer	. 181	, 333,3	147717	37717	0.0	<b>0.0</b>	2100.1
BOUR :		·					
Kandur	æan day	B44.0	2294.4	2424.7	0.0	0.0	5563.1
Skilled Labourer	man day	913.4	2008.4	1655.9	0.0	0.0	4577.7
Carpenter	man day	156.0	315.1	334.4	0.0	0.0	805.5
Kason	ean day	0.0	100.0	104.8	0.0	0.0	204.8
Labourer	man day	8438.0	22061.3	23283.6	0.0	0.0	53782.9
Driver	man day	1821.9	4780.4	4714.3	0.0	0.0	11316.6
Operator	man day	722.8	2164.2	2071.6	0.0	0.0	4958.6
TERIAL :						•	
Bitumen	i ·	113421.0	294376.2	92698.6	0.0	0.0	500495.8
Asphalt Oil	1	21866-6	45250.0	16400.0	0.0	0.0	83516.6
Kerosene	1	26587.4	61506.9	20788.6	0.0	0.0	100002.9
Sand	я3	395.6	835.3	470.2	0.0	0.0	1701.1
Cenent	bag	0.0	30.0	50.7	0.0	0.0	99.7
River Stone	<b>#</b> 3	0.0	100.0	104.8	0.0	0.0	204.8
Steel Houlds	set	0.0	0.0	0.0	0,0	0.0	0.0
Timber	<b>m3</b>	14.1	28.6	31.3	0.0	0.0	74.0
Paint	1	101.0	204.1	201.3	0.0	0.0	506.4
Reinforcing Steel	kg	0.0	0.0	73.3	0.0	0.0	13.3
Tying Wire	kg	0.0	0.0	0.6	0.0	0.0	0.6
Equivalent Royalty	a.3	13780.7	36712.8	39753.7	0.0	0.0	90247.2

Appendix A-5

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

PROV : KALIMAN	AN SEI	ATAN	KAB	* HULU	SUNGAI	UTARA ( 1000 Rp )			
IFEN	URIT	( 1988 )	( 1989 )	( 1990 )	< 1991 >	〈 1992 〉	( TOTAL )		
EQUIPMENT :	e ^r	80,547	242,748	232,614	0	0	556,109		
Bulldozer/Ripper	18035	2,915	9,276	7,861	Δ				
Swamp Bulldozer	11845	0	3,245	5,952	. 0	0	20,052		
Motor Grader	13675	8,645	18,134	16,211	0	0	9,197		
Hand-guide Vib. Roller	1564	188	605	465	0	0	42,990		
Tire Roller	11028	5,881	13,783	4,410	•	0	1,259		
Vibratory Roller (D&T)	6812	3,378	8,374		0	0	24,074		
Hydraulic Excavator; Wheel	12889	0	24,940	,	0	0	20,860		
Wheel Loader	16832	13,339	36,629		0	0	61,196		
Water Tank Truck	4033	1,323	3,175	3,590	•	0	84,951		
Dump Truck	5490	33,113	97,699	99,457	0	0	880,8		
Flat Bed Truck with Crane	5118	00,110	307	35S	=	0	230,269		
Flat Bed Truck	3418	2,187	5,280		0	0	662		
Portable Crusher/Screening	44400	8,498		10,780	0	0	9,272		
Concrete Mixer	8670	0	520	551	0	0	37,708		
Water Pump	486	0	19	20	V 0	0	1,071		
Concrete Vibrator	321	. 0	0	0	0	0 0	39		
Asphalt Sprayer	2026	1,080	2,532	810	0	0	0 4,422		
LABBUR :		14,766	46,750	42,631	Û	0	104,147		
Mandur	3500	l,445	4,941	4,792	0	0	11 1/0		
Skilled Labourer	2500	1,000	2,228	892	0	0	11,168		
Carpenter	3000	0	0	70	0	0	<b>4,1</b> 20 70		
Hason	3000	Ô	300	314	0	0	614		
Labourer	2000	7,202		22,466	0	0	53,958		
Driver	3000	3,826	10,941	10,266	0	0	25,033		
Operator	2000	1,293	4,050	3,841	0	ŏ	9,184		
HATERIAL :		59,915	146,317	53,592	0	0	259,824		
Bitumen	300	33,125	86,166	24,893	0	0	144,184		
Asphalt Dil	700	15,306	31,675	11,480	Ò	0	58,461		
Kerosene	250	6,563	15,177	1,927	0	0	26,667		
Sand	5000	1,700	3,514	1,451	0	0	6,665		
Cenent	5000	0	190	253	0	0	443		
River Stone	7000	Ò	900	943	0	0	1,843		
Steel Houlds	8000	0	0	0	Q	0	. 0		
liaber	80000	0	0	248	0	0	248		
Faint	2750	0	. 0	0	0	0	0		
Reinforcing Steel	750	0	()	54	Ú	0	54		
Tying Wire	1100	0	0	0	0	0	0		
Equivalent Royalty	250	3,221	8,695	9,343	0	()	21,259		

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

PROV : KALIMANI	FAN SEI	LATAN ::	KAB	: HULU	SUNGAI		( 1000 Rp )
1 T E H	1140	( 1988 )	( 1989 )	( 1990 )	( 1991 )	( 1992 )	( TOTAL )
EQUIPMENT :		21,224	43,324	49,918	0	0	114,466
Bulldozer/Ripper	16035	0	0	0	0	0	0
Swamp Bulldozer	11845	0	0	0	0	. 0	. 0
Notor Grader	13675	2,252		3,863	0	0	9,937
Hand-guide Vib. Roller	1564	521	1,243	1,689	0	0	3,453
Tire Roller	11029	1,816	3,082		0	0	8,013
Vibratory Roller (D&T)	6812	0	0		. 0	0	0
Hydraulic Excavator: Wheel	12889	0	0	0	0 .	0	0
Wheel Loader	16832	1,063	2,295	2,827	0	0	
Water Tank Truck	4033	0	0	0	0	0	. 0
Dump Truck	5490	5,745	13.216	17.387	0	0	36,348
Flat Bed Truck with Crane	5118	5,358	10.822	10,676	0	0	26,856
Flat Bed Truck	3418	3.044	5,754	6.543	Ů	0	15,341
Portable Crusher/Screening	44400	1,425	3.090	3.818	Ŏ	0	8,333
Concrete Hixer	8670	0	0	0	Ô	- 0	0
Water Pump	496	Ŏ	Ŏ	Ŏ.	Õ	0	Ŏ
Concrete Vibrator	321	0	0	0	0	Ô	0
Asphalt Sprayer	2026	•	ŏ	Ŏ	Ŏ	Ö	0
ABOUR :		14,727	30,336	36,162	0	0	81,220
Kandur	3500	1,508	3.089	3,704	0	0	8,301
Skilled Labourer	2500	1,282	2,792	3,247	0	Ò	7,321
Carpenter	3000	468	945			0	2,345
Kason	3000	0	0		. 0	Ò	0
Labourer	2000		19,832		Ö	Ò	53,606
Driver	3000	1,639		3,876	-	0	8,915
Operator	2000	152	278	302	Ö	Ö	732
HATERIAL :		2,890	6,338	7,490	0	0	16,719
Bitumen	300 :	901	2,146	2,916	0	0	5,963
Asphalt Oil	700	. 0	. 0	. 0	0	0	0
Kerasene	250	83	198	270	0	0	551
Sand :	5000	270	662	900	0	0	1,840
Cesent	5000	0	0	0	0	.0	. 0
River Stone	9000	0	0	0	0	0	0
Steel Houlds	9000	0	0	0	ŋ	0 -	0
limber	80000	1,128	2,288	2,254	0	0	5,672
Paint	2750	277	561	553	0	0	1,391
Reinforcing Steel	750	0	()	0	0	0	9
Tying Wire	1100	0 .	0	0	0	0	0
Equivalent Royalty	250	223	483	595	Ú	0	1,301

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

***************************************	ITEH UNII (1988)				******		1 1000 Rp )		
ITEH	UNII	< 1988 >	( 9971 )	< 1990 >	( 1991 )	( 1992 )	< TOTAL >		
OUIPHENT :		101,771	206,272	282,532	0	0	670,575		
Bulldozer/Ripper	16035	2,915	9,276	7,861	0	. 0	20,052		
Swamp Bulldozer	11845	0	3,245		0	0	9,197		
Notor Grader	13675	10,897	21,956	20,074	Ô	Ö	52,927		
Hand-guide Vib. Roller	1564	709	1,848	2,154	0	0	4,711		
Tire Roller	11028	7,697	16,865	7,525	0	Ŏ	32,087		
Vibratory Roller (D&I) 🦈	6812	3,378	8,374	9,108	0	0	20,860		
Hydraulic Excavator; Wheel	12889	. 0	24,940	36,256	Ŏ	ò	61,196		
Wheel Loader	16932	14,402	38,924	37,810	Ŏ	0	91,136		
Water Tank Truck	1033	1,323	3,175	3,590	0	0	8,088		
Dump Truck	5490	38,958	110,915	136,844	ů	0	266 ₁ 617		
Flat Bed Truck with Crane	5118		11,129	11,031	0	0	27,518		
Flat Bed Truck		5,231	-	8,348	Ó	0	24,518		
Portable Crusher/Screening	44400		21,520	14,598	0	0	46,041		
Concrete Nixer	8670	0	520	551	()	0	1,071		
Water Pump	486	Ö	19	20	Ö	Õ	39		
Concrete Vibrator	321	Ó	0	0	0	0	0		
Asphalt Sprayer	2026	1,080	2,532	810	Õ	ŏ	4,422		
ABOUR :		29,488	77,086	78,793	0 -	0	185,367		
Handur	3500	2,953	8,030	8,486	0	. 0	19,469		
Skilled Labourer	2500	2,282	5,020	4,139	0	0	11,441		
Carpenter	3000	468	945	1,002	0	0	2,415		
Kason	3000	0	300	314	0	0	614		
Labourer	2000	16,875	44,122	46,567	0	0	107,564		
Oriver	3000	5,465	14,341	14,142	0	0	33,948		
Operator	2000	1,445	4,328	4,143	0	0	9,916		
ATERIAL :		62,805	152,655	61,082	0	0	276,542		
Bitumen	300	34,026	88,312	27,809	0	0	150,147		
Asphalt Oil	700	15,306	31,675	11,480	0	0	58,461		
Kerosene	250	6,646	15,375	5,197	0	0	27,218		
Sand	5000	1,978	4,176	2,351	0	0	8,505		
Cenent	5000	0	190	253	0	0	443		
River Stone	9000	0	900	943	0	0	1,843		
Steel Houlds	8000	0	0	0.	0	0	0		
liaber	80000	1,128	2,209	2,504	0	0	5,920		
Paint	2750	277	561	553	0	0	1,391		
Reinforcing Steel	750	. 0	0	54	0	0	54		
Tying Wire	1100	0	0	0 070	0	0	92 540		
Equivalent Royalty	250	3,444	9,178	9,938	0	0	22,560		

### Appendix A-6

### QUANTITIES OF BRIDGE ON PROPOSED ROAD LINKS

	PROV	•	ı K	ALIMANTA	4 SEI	LATA	N	KAI	B •	HÜLU	) BUNE	BAI U	TARA	<i>}</i>	
LINK	BRIDGE NAME	Ka	Fras	<< TYPE >> (EXIST) (HEN)		SPAN CLASS	LENGTH (a)	SPAN NO (no)	SPAN Length (#)	HTDIN (a)	AREA (EXIST) (#2)	AREA (NEN) (n2)	PIER (no)	ABUT (no)	ROAD CLASS
69	MANINGAU II	2	AWN	KK			4.00	1	4.00	3.50	14.00		0	2	[1]8-1
	HANINSAU III	3	AWN	. KK			5,00	1	5.00	3.50			0	2	
	TUNDAKAN	3	AWN	KK			3.00	i	3.00	3.50	10.50		0	2	
	TUNDAKAN II	3	ANN	KK			15.00	3	5.00	3.50	52.50		2	2	
	WANGKILI	3	AKK	KK			4.00	1	4.00	3.50	14.00		0	2	
	MANGKILI II	: 4	ANN	KK			3.00	1	3.00	3.50	10.50		0	2	
	DHBR WANGKILI	5	ANN	KK			3.00	1	3.00	3.50	10.50		0	2	
	WANGKILI III	5	ANN	. KK			3.00	į	3.00	3.50	10.50		0	2	
	NANGKILI IV	6	ANN	KK			7.00	2	4.50	3.50	31.50		i	2	
	SIKUNTAR	7	akn	KK			3.00	í	3.00	3.50	10.50		Û	2	
	SIKUNTAR II	8	ANN	KK			3.00	1	3.00	3.50	10.50		0	2	

PROV :	KALIMANTAN	CEL ATAM	

KAB : HULU SUNGAI UTARA (( TYPE >> DESIGN SPAN LENGTH SPAN SPAN WIDTH AREA AREA PIER ABUT ROAD Km From (EXIST) (NEW) LUAD CLASS NO LENGTH (EXIST) (NEW) (no) (a) (#2) (a2) (no) (no) 12 KARTAS 1 Test. KK 3.00 3.00 4.00 12.00 2 IIIA KARIAS II 1 TEJL KK 3.00 3.00 4.00 12.00 0 1 TLSB 31 N.1 KK 4,00 4.00 3.50 14.00 0 2 1110 N. 1 1 TLSB ΚĶ 4.00 3.50 14.00 0 7 PLT 35 N. 1 2.00 2.00 . 1 3.50 7.00 0 2 111A 1 PLT BARU KK 8.00 4.00 3.50 28.00 55 DURIAN 1 SDRN 4.00 4.00 3.50 14.00 2 1118-2 1 SDRN N. I KK 4.00 4,00 3.50 14.00 TINGGIRAN 2 SDRN KK 4,00 4,00 3.50 14.00 **PULANTAN I** 3 SDRN KK 4.00 4.00 3.50 14.00 PULANTAN II 3 SDRN KK 4.00 4.00 3.50 14.00 PULAU III 12.00 4.00 3.50 42.00 1 PIN 59 N.I KK 4,00 4,00 1 HRDN 60 HAUR GADING 24.00 4.80 3.50 2 IIIC 84.00 4 63 BERUNAI STN 16.00 4.00 3.50 56.00 1118-1 TANJUNG SIN ΚK 16.00 5.33 3.50 56.00 2 2 PULAU 2 BIN ΚK 11.00 3.67 3.50 39.50 PANALTAN 2 GIN KK 5.00 5,00 3.50 1 17.50 2 TABUK GTH 20.00 4.00 3.50 70.00 45 KANTANGAT 1 HLG KK 6.00 3.00 3.50 21.00 2 1110 HANDALUR HLG 4,00 4.00 3.50 14.00 HLG PELAPI 2 KK 8.00 2.67 3.50 28.00 2 2 4.00 **MATURBUT** HLG KK 4.00 3 3.50 14.00 2 FEPU HL6 10.00 10.00 3.50 35.00 5 HLG 14.00 HAPAI KK 4.00 4,00 3.50 4.00 66 BINGKUANG **WKE** 4.00 3.50 14.00 0 2 111A BATUNG WK.L. 3.50 3.50 12.25 2 KK 3.50 0 N. 1 3 KKL KK 4.00 4.00 3.50 14.00 2 **GOL INSGANS** 4 **KKL** 4.00 4.00 3.50 14.00 2 2 87.50 N.I 15 WKL 25.00 6.25 3.50 1118-1 68 PALUHI PRN 10,00 5.00 3,50 35.00 2 PRN 42.00 2 12.00 6.00 3.50 **MARAMBA** KK 42.00 2 HARAUB HAWA 5 PRN KK 12.00 6.00 3,50 2 PLTAP PRN ΚĶ 24.00 B.00 3,50 84.00 14.00 4.00 4.00 3.50 BELANTI 9 PRN KK 6.00 3,50 42.00 10 PRN 12.00 ΚK BARU 42.00 KETUAR PRN 12.00 6.00 3,50 ---------2 1118-1 28.00 9.33 3,50 98.00 69 DAYAK PITAK ANN KK 1 3.00 3.50 10.50 PINDIK ANN: 3.00

4.00

4.00

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HAHINGAU I

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

PROV : KALIMANTAN SELATAN KAB : HULU BUNGAI UTARA

LINK NO : 12 (IIIA)

LENGTH : 1 Km

							( Rp )
115%	UNIT	QUANTITY		COST >>> FOREIGN	((((( L0CAL	COST FOREIGN	>>>>> total
Superstructure (limber;Span 3m;101)	<b>a</b> 2	0.00	38,966	3,912	0	0	0
Superstructure (Timber; Span Sm; 101)	<b>u</b> 2	0.00	43,049	4,209	ů	n	0
Superstructure (Timber:Span Bm;101)	<b>*</b> 2	0.00	57,019	5,529	٨	ņ	0
Superstructure (Timber;Span 3m;BN50)	e2	0.00	48,192	4,713	ń	ň	ð
Superstructure (Timber:Span 5m:BH50)	a2	0.00	52,610	5,107	Ŏ	Ò	0
Superstructure (Timber:Span 8m;8HSO)	e2	0.00	66,723	6,165	ň	ň	0
Superstructure (Concrete;Span 3m;BMSO)	a2	0.00	16,273	87,419	ñ	ň	0
Superstructure (Concrete;Span 5m;BNSO)	#2	0.00	17,696	97,527	0	Ŏ	0
Superstructure (Concrete;Span 8m;BNSO)	#2		47,245	106,131	0	Ď	. 0
Superstructure (Concrete;Span10m;BN50)	e2	0.00	53,983	120,381	0	ň	0
Superstructure (Concrete;Spant5#;BH50)	e2	0.00	58,444	141,603	Ô	ñ	0
Substructure (Pierifor limber;101)	KO	0.00	338,631	35,424	ŏ	0	. 0
Substructure (Abut; for Timber; 101)	NO	0.00	960,631	163,152	ŏ	. 0	ě
Substructure (Pier;for Timber;BNSO)	ON ON	0.00	498,037	52,429	Ô	ň	
Substructure (Abut;for Timber;BMSO)	HO	0.00	1,081,276	181,784	0	0	,
Substructure (Pier;for Concrete;BM50)	NO	0.00	1,798,331	477,161	Ô	ň	ò
Substructure (Abut;for Concrete;RM50)	KO	0.00	3,719,725	999,497	Õ	å	Č
Demolition of Bridge (Tieber->Timber)	s 2	0.00	10,970	1,462	Ů.	Õ	. 0
Denatition of Bridge (Timber-)Concrete)	a2	0.00	10,970	1,462	0.11	0	(
Demolition of Bridge (Concrete)	a2	0.00	82,929	68,697	0	Õ	Č
Haintenance of Timber Bridge (New)	<b>a</b> 2	0.00	7,240	1,176	0	0	. 0
Maintenance of Concrete Bridge (Mex)	a2	0.00	1,794	2,790	0	0	0
Maintenance of Timber Bridge (Exist)	<b>#2</b>	24,00	•	2,432	179,856	58,368	238,224
Maintenance of Concrete Bridge (Exist)	#2	0.00	4,232	2,402	0	0	0
( Without Overhead )		TOTAL COST	(Timber Brid		0	0	. 0
			(Concrete Br		0	0	(
	. 1	IOTAL COST	lwithout Main	ntenance)	0	0	(
J. Donaton J. 189 3		TOTAL PORT	ingganangan.		۸	0	
( Overhead : 15% )	. !	BIRL COST	(Timber Bride (Concrete Br	•	Ů 0	0	()
	1	INTAL PORT	(without Hair	•	0	0	0
		101KL 6031	CHICHOUL DAN	accudiice,	v	9	,

LINK NO : 31 (1110) LENGTH : 2 Km

ITEN						*****	( Rp )
1164	UNIT	VITTHAUD	CCAL COLL	COST >>> FOREIGN	CCCCAL LOCAL	COST Foreign	>>>>> Total
Superstructure (Timber;Span 3m;10T)	_4		•= =1.			~~~~~~~	
Superstructure (Timber;Span Sm;10])	e2 e2	0.00	38,866	3,812	0	0	į
Superstructure (Timber;Span Ba;10))	#2 #2	0.00	43,049	4,209	. 0	0	ļ
Superstructure (Timber:Span 3m:8850)		0.00	57,019	5,529	0	0	
Superstructure (Timber;Span 5m;BH50)	<b>e</b> 2	0.00	49,192	4,713	0	Û	
uperstructure (Timber;Span Bm;BNSO)	a? -2	0.00	52,610	5,107	Ü	0	:
	<b>#2</b>	0.00	66,723	6,465	0	. 0	4
uperstructure (Concrete:Span 3m;8850)	=2	0.00	16,273	87,419	0	. 0	
uperstructure (Concrete;Span 5a;BHSO)	•2	0.00	47,686	97,527	0	0	
uperstructure (Concrete;Span 0a;8MSO)	a2	0.00		106,131	0	0	ļ
uperstructure (Concrete;Span10m;BH50)	42	0.00	53,983	120,381	. 0	0	
uperstructure (Concrete;Span15æ;BMSO)	<b>n</b> 2	0.00	58,444	141,603	0	0	(
ubstructure (Pier; for Timber; 101)	NO-	0.00	330,631	35,424	0	0	
ubstructure (Abut;for Timber;10T)	KO	0.00	960,831	163,152	0	0	1
ubstructure (Pier;for Timber;BH50)	HO	0.00	498,037	52,429	0	0	
ubstructure (Abut;for Timber;BH50)	ИD	0.00	1,081,276	181,784	0	0	
ubstructure (Pier;for Concrete;BMSO)	: NO	0.00	1,798,331	477,161	0	0	
ubstructure (Abut; for Concrete; BH50)	NO	0.00	-	999,497	0	0	ĺ
emplition of Bridge (Timber-)Timber)	<b>a</b> 2	0.00	10,970	1,162	0	0	1
emolition of Bridge (Timber-)Concrete)	<del>s</del> 2	0.00	10,970	1,462	0	0	i
emolition of Bridge (Concrete)	<b>p</b> 2	0.00	02,929	68,697	Ō	0	1
aintenance of Timber Bridge (Kew)	•2	0.00	7,240	1,176	0	0	
aintenance of Concrete Bridge (New)	<b>a</b> 2	0.00	1,794	2,790	0	0	(
aintenance of limber Bridge (Exist)	<b>B</b> 2	28.00	7,494	2,432	209,832	69,096	277,92
aintenance of Concrete Bridge (Exist)	<b>5</b> 2	0.00	4,232	2,402	0	. 0	•
( Without Overhead )	71	DIAL COST	(Timber Bridg		0	0	
			(Concrete Bri		0	0	
	1	OTAL COST	(without Main		0	0	(
( Overhead : 157. )	 TI		(Timber Bridg		0	0	·············
v overnead v 10% /		214F C031	(Concrete Bri		n	0	,
			(without Main	-	<b>v</b>	0	

LINK NO : 35 (IIIA) LENGTH : 7 Km

	and the second s								
1.1 E H	unit	QUANILTY	((( UNIT Local	COST >>> Foreign	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	COST FORE16N	>>>>> Total		
Superstructure (Timber;Span Jm;101)	e2	0.00	39,866	3,812	0	. (1			
Superstructure (Timber;Span 5m;101)	e7	0.00	43,049	4,209	0	ò			
Superstructure (Figher: Span 8m; 101)	e2	0.00	57,019	5,529	0	ò			
Superstructure (Timber;Span 3m;BH50)	<b>a</b> 2	0.00	48,192	4,713	0.	. 0			
Superstructure (Timber; Span 5m; BN50)	<b>92</b>	0.00	52,610	5,107	ň	. 0			
Superstructure (Timber; Span 8m; BHSO)	a2	0.00	66,723	6,465	Ò	. 0			
Superstructure (Concrete; Span 3m; BM50)	a2	0.00	46,273	87,419	Ď	Ò			
Superstructure (Concrete;Span 5m;BH50)	<b></b>	0.00	47,686	97,527	Ô	. 0			
Superstructure (Concrete; Span Ba; BM50)	<b>82</b> .		17,245	106,131	Ď	. 0			
Superstructure (Concrete; Span10#; BH50)	92	0.00	53,983	120,381	ň	Ô			
Superstructure (Concrete; Span15a; BH50)	<b>82</b>	0.00	59,444	141,603	0	. 0			
Substructure (Pier; for Timber; 101)	110	0.00	338,631	35,424	ň	0			
Substructure (Abut: for Timber: 101)	OK	0.00	760,831	163,152	0	0			
Substructure (Pier; for Timber; 8N50)	KO	0.00	498,037	52,429	ŏ	ň			
Substructure (Abut;for Timber;BN50)	HO	0.00	1,081,276	181,784	Ô	0			
Substructure (Pier;for Concrete;BNSO)	NO	0.00	1,798,331	477,161	· ň	. 0			
Substructure (Abut;for Concrete;BM50)	HO		3,718,725	999,497	ň	0			
Deavlition of Bridge (Timber->Timber)	#2	0.00	10,970	1,462	Ď	Ď			
Demolition of Bridge (Timber->Concrete)	a2		10,970	1,462	Ď	Ď			
Desolition of Bridge (Concrete)	<b>n</b> 2	0.00	02,929	68,697	Ô	Ŏ			
laintenance of Timber Bridge (New)	92	0.00	7,240	1,176	0	0			
aintenance of Concrete Bridge (New)	в2	0.00	1,794	2,790	. •	0			
faintenance of Timber Bridge (Exist)	*2	35.00	7,494	2,432	262,290	85,120	347,41		
laintenance of Concrete Bridge (Exist)	<b>=</b> 2	0.00	4,232	2,402	0 -	0			
( Without Overhead )	 T	ntal chet	(Timber Bridg		0	Λ.	****		
נ אונווטטר מלהנוובשה /	,	TENJ JAIU	(Concrete Bri		ν.	n n			
	3	OTAL COST	Inithout Hair	•	0	Ö	· · · · · · · · · · · · · · · · · · ·		
( Overhead : 15% )	 1	nial rost	(Tieber Bride	 rel	0	n			
· Ascended + 10H +	•		(Concrete Bri	•	Ď	Á			
	ĭ	TPOT IATO	(without Hair	•	Ô	A			

LINE NO : 55 (1118-2) LENSTH : 4 Km

t Tri	~~~~		*******	******	**********	~~~~~~~	( Rp
ITEN	UNIT	YTTTHAUD	<<< UNIT LOCAL	COST >>> FOREIGN	CCCAL LOCAL	COST Foreign	)))))) Tota
			4 p # 6 = 2 H d = 4 - 4 M 1		************		40-54
uperstructure (Timber;Span Jm;10T)	•2	0.00	38,846	3,812	Ò	à	
uperstructure (Timber;Span 5m;101)	<b>a</b> 2	0.00	43,049	4,209	0	0	
uperstructure (Timber:Span 8m;10T)	a2	0.00	57.019	5,529	0	0	
uperstructure (limber; Span 3m; 8H5O)	52	0.00	48,192	4,713	0	V	
uperstructure (Timber:Span 5m:BMSO)	•2	0.00	52,610	5,107	Ŏ	V ^	
uperstructure (limber:Span 8m; 8H50)	•2	0.00	66,723	6,165	0	0	
uperstructure (Concrete;Span 3m;BN50)	•2	0.00	46,273	87,419	0	V	
uperstructure (Concrete;Span 5e;BH50)	<b>a</b> 2	0.00	47,686	97,527	Ö	0	
uperstructure (Concrete;Span Ba;BM50)	<b>a</b> 2		49,245	106,131	0	0	
uperstructure (Concrete; Spanion; BM50)	#2	0.00		120,381	V.	0	
uperstructure (Concrete;Span15a;BM50)	e2	0.00	58,444	141,603	ů 0	0	
ubstructure (Pier; for Timber; 101)	NO	0.00	338,631	35,424	. 0	0	
ubstructure (Abut; for Timber; 107)	NO	0.00	760,831	163,152	Ŏ	٥	
ubstructure (Pier;for Timber;8850)	NO	0.00	498,037	52,429	0	ν	
ubstructure (Abut; for Timber; BM50)	NO	0.00	1,081,276	181,784	ő	0	
ubstructure (Pier;for Concrete;8K50)	NO	0.00	1,798,331	477,161	ŏ	0	
ubstructure (Abut; for Concrete; 8X50)	HD	0.00	3,718,725	999,497	ð	0	
emolition of Bridge (Timber->Timber)	₽2	0.00	10,970	1,462	Ö	0	
exolition of Bridge (limber-)Concrete)		0.00	•	1,462	Ó	0	
exalition of Bridge (Cancrete)	<b>62</b>	0.00	82,929	68,697	Ö	Ō	
aintenance of limber Bridge (New)	<b>a</b> 2	0.00	7,240	1,176	0	0	
aintenance of Concrete Bridge (New)	<b>92</b>		1,791	2,790	ŏ	0	
aintenance of Timber Bridge (Exist)		112.00		2,132	839,328	272,384	1,111,71
aintenance of Concrete Bridge (Exist)		0.00		2,402	0	0	2,,.
OTAL AND A STATE OF THE STATE O							
( Without Overhead )	. 1	UIAL COST	(Timber Bride		0	0	
	_	A+11 'BD	(Concrete Bri		0	0	
	J.	DIAL CUST	twithout Mair	itenance)	0	0	
( Overhead : 15% )	1	1203 IATO	(lieber Bride	ip}	0	0	
, ordinedu i ida /	'	OTHE COOL	(Concrete Bri		ő	0	
			twithout Hair	-	ŏ	Ŏ	

LINK NO : 59 (IIIE) LENGTH : 8 Km

·							( Rp )
ITEK	UNIT	YTTTKAUQ	<<< UNIT	COST >>> FOREIGN	((((( Local	COST FORE 16N	///// Yotai
			*****				, to
uperstructure (Timber;Span 3m;101)	<b>e</b> 2	0.00	38,866	3,812	. 0	. 0	. (
uperstructure (Timber;Span Sm;10T)	<b>a2</b>	0.00	43.049	4,209	0	0	
uperstructure (Timber;Span Bm;101)	s7	0.00	57,019	5,529	0	0	
uperstructure (Timber:Span 3m;BHSO)	e2	0.00	48,192	4,713	. 0	0	
uperstructure (limber;Span 5m;BN50)	<b>e</b> 2	0.00	52,610	5,107	Û	0	
uperstructure (Timber;Span 8m;8M50)	<b>6</b> 2	0.00	66,723	6,465	0	0	, ,
uperstructure (Concrete;Span 3m;8MSO)	<b>a</b> 2	0.00	•	87,419	. 0	. 0	
uperstructure (Concrete; Span 5m; BH50)	a2	0.00	47,686	97,527	0	. 0	
uperstructure (Concrete;Span Ba;BH50)	s2	0.00	49,245	106,131	0	0	
uperstructure (Concrete:Span10e:8M50)	€2	0.00	53.983	120,381	0	0	
uperstructure (Concrete;Span15#;BN50)	<b>#</b> 2	0.00	58,411	141,603	0	0	
ubstructure (Fier; for Timber; 101)	NO	0.00	339,631	35,424	0	0	
ubstructure (Abut;for Timber;101)	HO	0.00	960,831	163,152	ð. ·	0	
ubstructure (Pier;for Timber;BN50)	NO	0.00	498,037	52,429	. 0	0	
ubstructure (Abut; for Timber; BNSO)	NO		1,081,276	•	0	0	
ubstructure (Pier; for Concrete; BM50)	HO	0.00	1,798,331	477, 161	. 0	0	
ubstructure (Abut; for Concrete; BM50)	ОК		3,710,725	999,497	ŋ	- 0	
emulition of Bridge (Timber->Timber)	<b>a</b> 2	· · ·	10,970	1,462	0	0	
emolition of Bridge (limber-)Concrete)	a2		10,970	1,462	0	0	
emolition of Bridge (Concrete)	<b>s</b> 2		82,929	68,697	Ŏ	0	
aintenance of Timber Bridge (New)	<b>a</b> 2	0.00	7,240	1,176	0	0	
aintenance of Concrete Bridge (New)	a2	0.00	1,794	2,790	0	0	
aintenance of Timber Bridge (Exist)	82	14.00	7,494	2,432	104,916	34,048	138,98
aintenance of Concrete Bridge (Exist)	e2	0.00	4,232	2,402	0	0	
, (1)							# * - * * * * * - = * .
( Mithout Overhead )	ł		(Timber Bridg		V	0.	
		ATAL ANDE	(Concrete Bri		() ()	0	
		UIAL CUSI	(without Mair	(Cenance)	U	. 0	
( Overhead : 15% )	1	OTAL COST	(Timber Bridg	ie)	0	0	
			(Concrete Bri		0	0	
•	,	OTAL POPT	(without Mair		0	Ô	

PROV

: KALIMANTAN BELATAN KAB : HULU SUNGAI UTARA

LINK NO : 60 (IIIC) LENGTH : 2 Km

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							( Rp )
TTEN	TINU	QUANTITY	<<< UNIT LOCAL	COST >>> FOREIGN	<<<<< LOCAL	COSY FOREIGN	>>>>> Yotal
		107			*******		
Superstructure (Timber;Span 3m;101)	e 2	0.00	38,866	3,812	0	0	(
uperstructure (Timber;Span 5m;10T)	a 2	0.00	43,049	4,209	Õ	Ŏ	
Superstructure (Timber;Span Bm;10T)	12	0.00	57,019		Ŏ	Ŏ	
uperstructure (Timber;Span 3m;8H50)	m 2	0.00	48,192	4,713	Ô	Ŏ	
Superstructure (Timber;Span 50;BM50)	#2	0.00	52,610	5,107	Ŏ	. 0	
uperstructure (Tieber;Span 8:;AM50)	e 2	0.00	66,723		0	Ô	
Superstructure (Concrete;Span 3m;BMSO)	=2	0.00	46,273	87,419	Ó	Ŏ	
uperstructure (Concrete;Span 5m;BH50)	2	0.00	-	97,527	Ö	ō	
Superstructure (Concrete; Span 8e; BH50)	a 2	0.00	49,245	106,131	0	Ŏ	
Superstructure (Concrete; Span10a; 8N50)	#2	0.00	53,983	120,381	ō	Ó	
Superstructure (Concrete; Span15m; BM50)	a 2		58,444	141,603	ò	Ò	
Substructure (Pier; for Timber; 101)	KO		338,631	35,424	Ö	ŏ	
Substructure (Abut; for Timber; 101)	NO		•	163,152	ŏ	Ŏ	
hubstructure (Pier;for Tieber;BH50)	NO		498,037	52,429	Ŏ	Ď	
ubstructure (Abut; for Timber; 8M50)	Ю	0.00	1,081,276	181,784	Ö	Ö	
ubstructure (Pierifor Concrete: 8M50)	110	0.00	1,799,331	477,161	ŏ	Ŏ	
ubstructure (Abut; for Concrete; 8H5O)	NO	0.00	3,718,725	999,497	0	0	
emolition of Bridge (limber->limber)	•2		10,770	1,462	Ō	ŏ	
emolition of Bridge (Timber-)Concrete)	#2		10,970	1,462	ò	ň	
emolition of Bridge (Concrete)	#2	•	82,929	68,697	Ö	ŏ	
aintenance of Timber Bridge (New)	a 2	0.00	7,240	1,176	0	0	
aintenance of Concrete Bridge (Kew)	#2	0.00	1,794	2,790	0.	0	
aintenance of limber Bridge (Exist)	*2	84.00	7,494	2,432	629,496	204,288	933,78
aintenance of Concrete Bridge (Exist)	a 2	0.00	4,232	2,402	. 0	. 0	·
(Without Overhead)		OTAL PROT	(Timber Bridg		0	0	
(WITHOUT OVERHEED)	,	GINT COST	(Concrete Bri		'n	0	
	. 1	DTAL COST	(without Hair		Ŏ	0	
(Overhead : 15%)	1	TAL COST	(Timber Bridg	el.	0	0	
v. drei nedu + 10% f	1	UITE 0031	(Concrete Bri		0	Ŏ	
			twithout Mair	-	Ŏ	Ŏ	

LINK NO : 63 (IIIB-1) LENGTH : 8 Km

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١.	ΝŪ	

							(Rp
ITEH	UNIT	YTITHAUD	<<< UNIT	COST >>> FOREIGN	(((((COST FOREIGN)>>>> Tota
				, , , , , , , , , , , , , , , , , , ,	A # * * * * * * * * * * * * * * * * * *		
uperstructure (Timber;Span Ja;10T)	= 2	0.00	38,855	3,812	0	. 0	•
uperstructure (Timber;Span 5m;10T)	e2	0.00	43,049	4,209	0	. 0	* *
uperstructure (Timber;Span 8m;101)	e2	0.00	57.019	5,529	0	. 0	
uperstructure (Timber;Span 3m;BM50)	a?	0.00	4B, 192	4,713	0	0 .	
uperstructure (limber;Span 5m;BH50)	a2	0.00	52,610	5,107	. 0	0	
uperstructure (Timber;Span 8m;BH50)	e 2	0.00	66,723	6,465	. 0	0	
uperstructure (Concrete;Span Ja;BHSO)	a 2	0.00	16,273	87,419	0	0	
uperstructure (Concrete; Span 5m; 8N50)	#2	0.00	47,686	97,527	O	. 0	
uperstructure (Concrete; Span 8a;8850)	#2		19,215	106,131	0	0	•
uperstructure (Concrete;SpantOx;BK50)	#2	0.00	53,983	120,391	0	0	
uperstructure (Concrete; Spani5a; BM50)	a2	0.00	58,444	111,603	ń	Ó	
ubstructure (Pier; far Timber; 10T)	NO		338,631	35,424	ň	n	
ubstructure (Abut;for Timber;101)	KO	0.00	760,831	163,152	ň	ň	٠.
ubstructure (Pierifor Timber;8850)	80	0.00	47B 037	52,429	0	ň	
ubstructure (Abut:for Timber:8850)	110	0.00	1,081,276	181,784	0	ň	•
ubstructure (Pierifor Concrete;BM50)	NO NO	0.00	1,798,331	477,161	n	Ŏ	
ubstructure (Abut; for Concrete; BM50)	NO.	0.00	3,710,725	999,497	n	Ď	·
emotition of Bridge (limber->Timber)	no •2	0.00	10,970	1,162	n.	Ď	
enolition of Bridge (limber-)Concrete)	#2		10,770	1,462	n ·	ų.	
emolition of Bridge (Concrete)	#2 #2	0.00	82,929	68,697	0	ő	
aintenance of limber Bridge (New)	g 2	0.00	7,240	1,178	a	Ó	
aintenance of Concrete Bridge (New)	e2	0.00	1,794	2,790	n	Ô	
aintenance of Timber Bridge (Exist)	a2	238.00	7,494	2,432	1,783,572	579,816	2,362,3
aintenance of Concrete Bridge (Exist)	±2	0.00	4,237	2,402	0	0	-11
(Without Overhead)	1	OTAL COST	(Timber Brid		0	0	
			(Concrete Br		0	. 0	
		OTAL COST	(without Main	ntenance)	0	0	
{ Overhead : 15% }	· · · · · · · · · · · · · · · · · · ·	OTAL COST	(Tiaber Brid	qe)	0	0	
			(Concrete Dr		0	. 0	
	1	1201 (610)	(without Main	,	۸	٥	

LINK NO : 65 (IIIC) LENGTH : 8 Km

							(Rp
ITEK	UNIT	QUARTITY	<<< UNIT LOCAL	COST >>> FOREIGN))))))	COST	>>>>>
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				runcion	LOCAL	FOREIGN	TOTA
Superstructure (limber;Span 3m;101)		3.86	98 AL	* 6.0			
Superstructure (Timber;Span 5m;107)	#2 #2	0.00	38,866	3,812	0	0	
Superstructure (Timber;Span 8m;101)		****	43,049	4,209	0	0	
	1	0.00	57,019	5,529	0	0	
Superstructure (Timber; Span 3m; BH50)	82	0.00	48,192	4,713	0	0	
Superstructure (Timber;Span 5m;DM50)	8.5	0.00	52,610	5,107	0	0	
Superstructure (Timber;Span Om;BMSO)	n3	0.00	66,723	6,465	0	0	
Superstructure (Concrete;Span 3m;BH50)	=2	0.00	46,273	87,419	0	0	
Superstructure (Concrete;Span 5m;BMSO)	øŞ	0.00	47,686	97,527	0	0	
Superstructure (Concrete;Span 8#;8H50)	*2	0.00	49,245	106,131	0	0	
Superstructure (Concrete;SpantOm;BM50)	<b>#2</b>	0.00	53,983	120,381	0	0	
Superstructure (Concrete;SpanlSm;BMSO)	•2	0.00	58,444	141,603	0	0	
Substructure (Pier; for Timber; 101)	NO	0.00	338,631	35,424	0	0	
Substructure (Abut; for Timber; 101)	NO	0.00	940,831	163,152	Ò	0	
Substructure (Pier; for Timber; BNSO)	NO	0.00	498,037	52,429	0	0	
ubstructure (Abut; for Timber; BH50)	NO	0.00	1,081,276	181.784	0	. 0	
Substructure (Pier;for Concrete;RM50)	HO	0.00	1,798,331	477,161	0	ò	
Substructure (Abut; for Concrete; BMSO)	· ND	0.00	3,718,725	999 497	. 0	0	
Demolition of Bridge (Timber->Timber)	#2	0.00	10,970	1,462	0	o.	
Demolition of Bridge (Himber-)Concrete)	<b>a</b> 2	0.00	10,970	1,462	. 0	o.	
emolition of Bridge (Concrete)	#2	0.00	82,929	68,697	0	Ŏ	
laintenance of Timber Bridge (New)	<b>a</b> 2	0.00	7,240	1,176	. 0	0	
faintenance of Concrete Bridge (New)	•2	0.00	1,794	2,790	Ŏ	0	
Maintenance of Timber Bridge (Exist)	#2	126.00	7,494	2,432	944,244	306, 132	1,250,6
laintenance of Concrete Bridge (Exist)	82	0.00	4,232	2,402	0	0	1123010
		~~~~~~	****	*******			
(Without Overhead)	ī	OTAL COST	(Timber Bridg	e)	0	0	
			(Concrete Bri	dge)	0	0	
	1.1	OTAL COST	(without Main	itenance)	0	0	
					.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,
(Overhead : 15%)	Ŧ	OTAL COST	(Timber Bridg		0	0	
•			(Concrete Bri		0	0	
	1	OTAL COST	(without Main	itenance)	0	0	

LINK NO : 66 (IIIA)

LENGTH : 15 Km

							(Rp
TIEN		*********	TINU >>>	COST >>>	/////	COST	>>>>>
	UNIT	QUANTITY	LDCAL	FORE 18N	LOCAL	FORE I SN	TOTA
operstructure (Timber;Span 3m;10T)	# 2	0.00	39,866	3,812	0	0	
uperstructure (limber;Span 5m;tOI)	a 2	0.00	43,049	4,209	0	0	
uperstructure (Timber;Span 8m;101)	a 2	0.00	57,019	5,527	0	0	
uperstructure (fiaber;Span 3m;BMSO)	a 2	0.00	48,192	4,713	. 0	0	
perstructure (Timber;Span 5m;BMSO)	92	0,00	52,610	5,107	0	0	
uperstructure (Timber;Span 8m;8M50)	#2	0.00	66,723	6,465	0	0	
perstructure (Concrete;Span 3m;BH50)	52	0.00		87,419	0	0	
uperstructure (Concrete;Span 5m;BHSO)	a 2	0.00		97,527	0	0	
uperstructure (Concrete;Span 8a;8K50)	e2	0.00	49,245	106,131	0	0	
uperstructure (Concrete;Span10m;BMS0)	•2	0.00	* **	120,381	. 0	0	
uperstructure (Concrete;Span15a;BH50)	#2	0.00	58,444	141,603	6	.0	
ubstructure (Pier;for Timber;101)	HO	0.00	338,631	35,424	0	. 0	
ubstructure (Abut; for Timber; 10T)	ND	0.00	960,831	163,152	0	0	
ubstructure (Pier; for Timber; BNSO)	NO		498,037	52,429	0.	. 0	
bstructure (Abut; for Timber; 8M50)	NO	0.00	1,081,278	181,784	0	0	•
ubstructure (Pier; for Concrete; BMSO)	NO	0.00	1,798,331	477,161	0	0	
ubstructure (Abut;for Concrete;BH50)	NO		3,710,725	999,497	0	0	
emulition of Bridge (Timber->Timber)	•2	0.00	10,970	1,462	0	. 0	
emolition of Bridge (Timber->Concrete)	*2	0.00	10,970	1,462	0	0	•
emolition of Bridge (Concrete)	#2	0.00	82,929	60,697	0	0	
intenance of limber Bridge (New)	* 2	0.00	7,240	1,176	0	0	
sintenance of Concrete Bridge (New)	. e2	0.00	1,794	2,790	0	0	
intenance of Timber Bridge (Exist)	.2	141.75	7,494	2,432	1,062,274	344,736	1,407,0
aintenance of Concrete Bridge (Exist)	a 2	0.00	4,232	2,402	0	. 0	
(Without Overhead)	 1	NIAI FREI	(Timber Brid	: ne)	0	0	, ,
COLLINAL DIFFICURE L			(Concrete Br	•	0	0	
	ī		(without Hai		Ö	Ö	÷
				~			
(Overhead : 15%)	T	OTAL COST	(Timber Brid		0	0	
			(Concrete Br		0	0	
•		OTAL COST	(without Hai	ntenancel	0	Ú	

LINK NO : 68 (IIIB-I) LENGTH : 12 Km

· · · · · · · · · · · · · · · · · · ·							(Rp)
1 7 E.H	UNIT	QUANTITY	CCC UNIT	COST >>> Foreign	<<<<< Local	COST Foreign	>>>>> TOTAL
Superstructure (Tlaber;Span 3a;101)	-0		70.011				**********
	a 2	0.00	38,866	3,812		. 0	(
Superstructure (Timber; Span 5m; 101)	n2	0.00	43,049	4,209	0	0	0
Superstructure (limber; Span 84; 101)	62	0.00	57,019	5,529	0	0	(
Superstructure (Timber; Span 3m; 8M50)	2 2	0.00	48,192	4,713	0	0	. (
Superstructure (Timber; Span 5m; BM50)	82	0.00	52,610	5,107	0	8	. (
Superstructure (Timber; Span 8m; 8H50)	92	0.00	66,723	6,465	0	0	. (
Superstructure (Concrete;Span 3e;8M50)	02	0.00	16,273	87,419	0	0	(
Superstructure (Concrete; Span Sm; BM50)	#2	0.00	47,686	97,527	0	0	(
Superstructure (Concrete; Span 8m; BM50)	e 2	0.00	49,245	106,131	0	0	(
Superstructure (Concrete; Span10#; BNSO)	•2	0.00	53,983	120,381	0	0	(
Superstructure (Concrete; Span15a; BM50)	a 2	0.00	58,444	141,603	0	0	(
Substructure (Pier; for Timber; 101)	NO	0.00	338,631	35,424	. 0	0	(
Substructure (Abut; for Timber; 101)	, NO	0.00	960,831	163,152	0	0	(
Substructure (Pier;for Timber;8850)	Ю	0.00	498,037	52,479	0	0	1
Substructore (Abut; for Timber; RM50)	NO	0.00	1,081,276	181,784	. 0	0	
Substructure (Pier; for Concrete; BM50)	. KO	0.00	1,798,331	477,161	0	0	
Substructure (Abut; for Concrete; BM50)	HO	0.00	3,718,725	999,497	0	0	
Demolition of Bridge (Timber-)Timber)	#2	0.00	10,970	1,462	0	0	(
Demolition of Bridge (Timber-)Concrete)	æ2	0.00	10,970	1,462	0	0	(
Demolition of Bridge (Concrete)	#2	0.00	82,929	68,697	0	0	Ć
Naintenance of Timber Bridge (New)	e 2	0,00	7,240	1,176	0	0	(
Maintenance of Concrete Bridge (Hew)	■2	0.00	1,794	2,790	0	0	(
Haintenance of Timber Bridge (Exist)	a2	301.00	7,494	2,432	2,255,694	732,032	2,787,726
Maintenance of Concrete Bridge (Exist)	a2		4,232	2,402	0	0	(
(Hithout Overhead)	 1	DIAL COST	(Timber Bridg	je)	0	0	(
			(Concrete Ori		0	0	(
	1	DIAL COST	(without Kain	tenance)	0	0	I
(Ourshand of EV)		DIAL COST	ITishos Osid-		0		
(Overhead : 15%)	'	DIRL COST	(Timber Bridg		υ ^	0	'
	_	DIAL BEST	(Concrete Bri		V	V	
•	1	UTAL COST	(without Hair	icenance)	0	0	

. LINK NO : 69 (IIIB-1) LENGTH : 8 Km

•							(Rp)
ITEN	UNIT	QUANTITY	<<< UNIT	COST >>> FOREIGN	{{{{{}}}}	COST Foreign)))))) Total

Superstructure (Timber;Span Jm;101)	#2	0.00	38,866	3,812	0	0	0
Superstructure (Timber; Span 5m; 10T)	a2	0.00	43,049	4,209	0 .	0	. (
Superstructure (Timber;Span Ba;107)	s2	0.00	57,019	5,529	0	0	(
Superstructure (Timber:Span Jm:8850)	#2	0.00	48, 192	4,713	. 0	. 0	. (
Superstructure (Yimber; Span 5m; 8H50)	a 2	0.00	52,610	5,107	0	. 0	. (
Superstructure (Timber; Span 8m; BM50)	•2	0.00	66,723	6,465	: 0	0	(
Superstructure (Concrete; Span Ja; BH50)	•2		46,273	87,419	0	0	•
Superstructure (Concrete; Span 5m; 9H50)	a 2	0.00	47,686	97,527	0	0	: (
Superstructure (Concrete; Span Bo; BM50)	₽2		49,245	104,131	0.	. 0	(
Superstructure (Concrete; SpantOm; BH50)	•2		53,983	120,381	0	0	. (
Superstructure (Concrete; Span15m; BMSO)	e2		58,444	141,603	0	. 0	(
Substructure (Pier; for Timber; 101)	KO	0.00	338,631	35,424	0	0	
Substructure (Abut; for Timber; 101)	NO	•	760,831	163,152	Ŏ	Ó.	. (
Substructure (Pierifor Timber: BMSO)	KO	0.00	498,037	52,429	ň	0	. (
Substructure (Abut; for Timber; BMSO)	NO NO	0.00		181,784	. 0	ň	
Substructure (Pierifor Concrete;BH50)	NO		1,798,331	477,161	. ^	0	
	NO GM	0.00	3,718,725	999,197	.0	ń	
Substructure (Abut; for Concrete; BM50)					0	n	ì
Descrition of Bridge (Timber-)Timber)	#2 -2	0.00	10,970	1,462	V	•	. (
Demolition of Bridge (Timber-)Concrete)	2 2		10,970	1,462		•	,
Demolition of Bridge (Contrete)	# 2	0.00	82,929	68,697	. 0	U	
Maintenance of Timber Bridge (New)	₽2	0.00	7,240	1,176	. 0	0	•
Haintenance of Concrete Bridge (New)	a2	0.00	1,794	2,790	0	0 .	. (
Maintenance of Timber Bridge (Exist)	a2	329.00	7,494	2,432	2,465,526	800,128	3,265,65
Maintenance of Concrete Bridge (Exist)	#2	0.00	4,232	2,402	0	0	·. (
(Without Overhead)		INTAL COST	(Timber Bridg		0	. 0	
ATTHOUGH DASHIESO L	1		(Concrete Bri		0	Ď	
			(without Hair		. 0	0	· ·
			tastubnt uarr	renancer			
(Dverhead : 15%)	1	TOTAL COST	(limber Bride	16)	0	0	
. 0.0111200 . 1011 .			(Contrete Bri	•	Ŏ	0	
		TAGG TATAL	Inithout Hair		Ď	Ď	

