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DATA BIRO KEWANGKUTAN.



STOFMAP FOLIO

Dru

NORMA BIAYA / KK
TAHUN ANGGARAN 1986 / 1987

KEGIATAN	PROPINSI										KAL - SEL	KAL - TIM	SUL - UT	SUL - TENG	SUL - SEL	SUL - TERA	MALUKU	TIM - TIM	IRIAN JAYA	RATA - RATA
	D.I. ACEH	S U M U T	SUMBAR	R I A U	J A M B I	SUM - SEL	BENGKULU	LAMPUNG	KAL - BAR	KAL - TENG										
1. P A P	75.750,-	71.055,7	70.199,2	70.213,5	70.315,-	70.112,-	70.112,-	71.237,-	73.608,-	73.608	72.742,-	74.900,-	75.925,-	76.327,-	76.741,-	76.815,-	79.436,-	79.513,-	90.237,-	74.676,12
2. Perencanaan Penggunaan areal hutan untuk Pemukiman Transmigrasi.	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6
3. Pembuatan tata batas lokasi Trans dengan kawasan hutan.	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398,-	1.398
4. Survei Kapabilitas tanah.	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4
5. R T S P.	472.565,-	462.868	448.967,7	449.387,3	449.785,3	437.545,3	436.767,3	451.033,3	467.547,3	465.743,3	465.937,3	466.150,67	472.260,67	468.334	461.244	469.336	494.782,3	484.895,3	506.929	464.846,26
6. Pembuatan peta tata guna tanah 1 : 5000.	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6
7. Pengukuran keliling batas perkamping an dan sarana Umum.	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4
8. Penyiapan Lahan :																				
a. Lahan.	740.277,91	726.462,75	749.553,12	756.851,41	761.621,91	736.102,55	736.309,46	734.930,03	786.862,33	779.071,64	756.863,06	746.379,26	751.194,31	742.103,05	755.773,15	724.391,23	772.588,34	785.680,34	812.209,23	755.538,16
b. Jln. Penghubung	210.134,91	219.920,1	226.725,96	225.922,54	212.750,70	214.857,06	208.779,33	214.160,52	228.074,73	225.816,57	211.564,19	216.091,92	283.709,10	214.357,65	218.168,07	208.971,80	222.669,02	203.302,30	224.906,8	220.572,30
c. Jln. Poros	245.157,4	256.573,4	264.513,6	263.576,3	248.209,15	250.666,57	243.575,89	249.853,9	266.087,2	263.452,7	246.824,9	252.107,2	330.993,9	250.083,9	254.529,4	243.800,4	259.780,5	237.186,0	262.391,3	243.344,38
d. Jln. Desa	206.356,55	212.577,65	219.052,-	218.430,45	213.008,12	207.901,06	205.603,15	207.312,22	221.161,69	218.972,-	201.609,27	209.065,35	235.782,14	208.618,21	212.040,39	203.615,63	216.521,82	193.435,31	222.775,58	201.696,28
e. Jembatan	134.523,70	175.238,34	140.079,32	114.466,12	128.729,35	148.697,09	128.363,93	117.886,56	128.727,49	127.452,96	130.114,68	154.301,47	122.764,52	99.757,54	182.615,09	107.600,47	125.242,86	200.857,92	196.300,98	140.195,81
f. Gorong - gorong	116.408,-	133.085,6	108.517,12	88.232,78	105.785,9	104.521,16	101.942,40	93.348,5	105.266,08	104.223,85	107.169,20	120.479,86	101.374,16	146.668,2	87.430,2	94.314,39	107.377,25	165.247,64	144.996,8	112.441,49
g. Drainase	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Penyiapan Bangunan :																				
a. Rumah Trans	668.300,-	698.000,-	716.000,-	704.000,-	637.000,-	674.000,-	673.000,-	-	738.000,-	715.000,-	899.000,-	735.000,-	-	719.000,-	682.000,-	688.000,-	977.000,-	1.080.000,-	1.323.000,-	783.900
b. Fasilitas umum.	216.064,-	194.516,-	224.168,-	204.022,4	154.728,-	177.968,-	155.600,-	252.498,3	249.300,-	196.184,-	194.392,-	215.348,-	204.252,-	215.068,-	211.808,-	193.692,-	274.304,-	221.916,-	290.000,-	212.938,35
c. Air bersih	125.800,-	124.000,-	124.000,-	123.700,-	123.500,-	123.500,-	123.300,-	124.100,-	126.300,-	126.300,-	125.700,-	127.400,-	125.200,-	126.100,-	126.000,-	126.450,-	131.450,-	129.671,-	140.347,-	126.464,10
10. Penempatan dan Pembinaan :																				
a. Penempatan s/d Pembinaan Thn. I.	2.262.838,-	2.224.009,-	2.207.427,-	2.217.415,-	2.215.723,-	2.215.723,-	2.137.500,-	2.219.000,-	2.317.521,-	2.317.521,-	2.297.125	2.319.427,-	2.289.171,-	2.310.775,-	2.307.495,-	2.325.417,-	2.403.117,-	2.400.500,-	2.675.000,-	2.298.037,05
b. Pembinaan Tahun II.																				
c. Pembinaan Tahun III.																				
d. Pembinaan Tahun IV.	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53
e. Pembinaan S/D Tahun V.																				
11. Pembinaan Pertanian Tanaman Pangan	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98
12. Pembinaan Perkebunan. T/C	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634,-	29.634
13. Pembinaan Peternakan. K/ekskub	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660,-	660
J U M L A H :	6.178.200,98	6.202.332,05	6.203.228,53	6.140.243,31	6.025.181,94	6.065.619,30	5.924.878,97	5.439.385,84	6.412.481,33	6.317.371,53	6.413.067,11	6.340.676,24	5.696.652,31	6.364.075,61	6.197.012,26	6.166.429,43	6.768.294,60	6.886.230,32	7.593.118,20	6.280.762,09
14. Administrasi Proyek. 15 %	926.730,14	930.349,80	930.484,27	921.036,49	903.777,29	909.842,89	888.731,84	815.907,87	961.872,19	947.605,72	961.960,06	951.101,43	854.497,84	954.611,34	929.551,83	924.964,41	1.015.244,19	1.032.934,54	1.138.967,73	942.114,30
T O T A L :	7.104.931,12	7.132.681,85	7.133.712,80	7.061.279,80	6.928.959,23	6.975.462,19	6.813.610,81	6.255.293,71	7.374.353,52	7.264.977,25	7.375.027,17	7.291.777,67	6.551.150,15	7.318.686,95	7.126.564,09	7.091.393,84	7.783.538,79	7.919.164,86	8.732.085,93	7.222.876,40

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PROPINSI		SUMBAR	R I A U	J A M B I	SUM - SEL	KAL - BAR	KAL - TENG	KAL - SEL	RATA-RATA
KEGIATAN									
1.	P A P (Site Selection)	70.199,2	70.213,5	70.315.	70.112.	73.608.	73.608.	74.900.	71.850,81
2.	Perencanaan Penggunaan areal hutan untuk Pemukiman Transmigrasi.	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6	1.836,6
3.	Pembuatan tata batas lokasi Trans dengan kawasan hutan.	1.398	1.398	1.398	1.398	1.398	1.398	1.398	1.398
4.	Survai Kapabilitas tanah.	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4	2.054,4
5.	R T S P.	426.837.	414.016,69	414.772,65	403.485,45	431.152.	431.152.	429.864,08	421.611,41
6.	Pembuatan peta tata guna tanah 1 : 5000.	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6	15.177,6
7.	Pengukuran keliling batas perkaplina an dan sarana Umum.	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4	46.964,4
8.	Penyiapan Lahan :								
	a. Lahan. (3)	539.209,2	430.969,5	547.882,62	529.524,30	566.039,05	560.434,71	536.916,76	530.139,45
	b. Jln. Penghubung	183.266,75	188.938,3	188.268,78	179.047,5	190.062,27	188.180,47	180.076.	185.405,72
	c. Jln. Poros.	212.577,65	219.052.	213.008,12	207.901,06	221.161,69	218.972.	209.065,35	214.535,98
	d. Jln. Desa	107.119,48	87.533,9	98.440,09	113.709,5	98.438,67	97.460,02	117.995,29	102.956,71
	e. Jembatan.	133.085,6	88.233,78	105.785,9	104.528,16	105.266,08	104.223,65	120.479,86	108.800,43
	f. Gorong - gorong.	123.749.	120.032,17	120.251,28	116.978,9	125.000.	125.000.	124.626,6	122.233,99
	g. Drainase.								
9.	Penyiapan Bangunan :								
	a. Rumah Trans	966.000.	991.000.	889.000.	886.000.	971.000.	877.000.	1.090.000.	952.857,14
	b. Fasilitas umum.	292.439.	287.196.	215.939.	233.946.	328.008,5	240.634,1	255.692,19	264.836,40
	c. Air bersih	124.000.	123.750.	125.500.	123.500.	126.300.	126.300.	127.400.	125.250
10.	Penempatan dan Pembinaan :								
	a. Penempatan s/d Pembinaan Thn.I.	2.166.168,35	2.160.927,62	2.192.372,00	2.197.372,00	2.234.600,00	2.234.600,00	2.251.197,00	2.205.319,57
	b. Pembinaan Tahun II.								
	c. Pembinaan Tahun III.	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53	298.441,53
	d. Pembinaan Tahun IV.								
	e. Pembinaan S/D Tahun V.								
11.	Pembinaan Pertanian Tanaman Pangan	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98	307.858,98
12.	Pembinaan Perkebunan.	29.634	29.634	29.634	29.634	29.634	29.634	29.634	29.634
13.	Pembinaan Peternakan.	660	660	660	660	660	660	660	660
J U M L A H :		6.048.676,74	5.885.888,97	5.885.560,95	5.870.130,38	6.174.661,77	5.981.590,46	6.222.238,64	6.009.821,13
14.	Administrasi Proyek. 15 %	907.301,51	882.883,34	882.834,14	880.519,55	926.199,26	887.238,57	933.335,79	901.473,17
T O T A L :		6.955.978,25	6.768.772,31	6.768.395,09	6.750.649,93	7.100.861,03	6.878.829,03	7.155.574,43	6.911.294,30

Site Selection and Surveys

Site Preparation (Level clearing, Roads etc)

Housing and Public Facilities

Settlement and development costs Year 1 Year 2 Year 3 Year 4 Year 5

Agriculture Development

Administration

ANALYSIS OF TRANSMIGRATION FARM MODELS: PER FAMILY COSTS

Five farm models have been analyzed: upland food crops; swamp, or wetland; PIR/NES models; spontaneous settlers; and, local settlers. These are presented in Tables 1 through 5, respectively.

A standard format has been used to analyze the models. Where a specific line item does not appear, it is because the line item has been included with a different line item unless otherwise noted. For all Bank farm models used, per family costs, if not listed in the appraisal report, were obtained by simply dividing total costs by the number of involved families.

UPLAND FARM MODELS

Nine different upland farm models have been analyzed. Five are based on MOT budget figures for the FY 1984/85 budget, and cover the provinces of East Kalimantan, Irian Jaya, Central Sulawesi, D.I. Aceh, and South Sumatra. Other models analyzed include the Bank projects Transmigration II (Jambi), IV (both Muara Whau and Sankulirang, East Kalimantan), and V (Irian Jaya). All prices for the different models are specified on the table. Exchange rates used for the analysis are (US\$ 1.00 to Rp): MOT models Rp 1100; Trans II Rp 625; Trans IV Rp 700; Trans V Rp 1100. Site selection costs have are not included for Trans II and the Trans IV models. For the MOT models, costs for Agrarian affairs are included under site selection.

Follow-Up:

1. For the MOT models, actual expenditures viz a viz budgeted figures will need to be obtained.
2. The same is true for the Bank farm models, that is, actual costs viz a viz appraisal costs will need to be obtained.
3. Costs should be updated to a common year/time period for comparative purposes.
4. The models will also need to be adjusted to account for exchange rate fluctuations.

SWAMP (WETLAND) FARM MODELS

Seven models have been analyzed, five from MOT (for the same provinces as the Upland Models) and two from the Bank Swampland Projects. The Bank models are both for South Sumatra. Again, where line items are not specified it is because they are included in a different item unless otherwise noted. For the two bank models, site selection costs were not listed in the appraisal report.

Follow Up:

As specified for the Upland Farm Model.

PIR (TREE CROP) FARM MODEL

listed above have been analyzed. In addition, the two Trans IV models (East Kalimantan) and Trans V (Irian Jaya) and NES III (South Kalimantan) and NES VI (Bengkulu, Sumatra) have been analyzed. All models are for rubber except for the Trans IV, which are both coconut models. For the Bank projects other than Trans V, site selection costs are not included. All other parameters are as mentioned above.

Follow Up:
Same as above.

SPONTANEOUS/LOCAL SETTLER MODELS

These are based on MOT estimates for FY 1984/85. The primary issues concerning these models will be to determine if they have actually been implemented, and to what extent they have been implemented, and how have actual costs varied viz a viz budget figures.

Per Family
E Kalimantan

Table 1

Upland Farm Models

	Trans II Appraisal 1979 prices	MDT 1984/85 Budget East Kalimantan	MDT 1984/85 Budget Irian Jaya	MDT 1984/85 Budget Central Sulawesi	MDT 1984/85 Budget D. I. Aceh	MDT 1984/85 Budget South Sumatra	Trans IV Appraisal 1983 Prices Muara Wahau	Trans IV Appraisal 1983 Prices Sankulirang	Trans V Appraisal 1985 Prices Irian Jaya
Site Selection		194015	194015	194015	194015	194015			484000
Agrarian Affairs	50000						38000	88000	150000
Site Preparation									
land clearing	504167	540500	824393	781875	642985	679000	780000	765000	425000
road construction	412500	728760	953673	586281	319118	746000	590000	830000	910000
housing	272933	780000	1283000	540000	679000	589100	640000	640000	750000
public facilities	62500	295813	2058567	202387	234319	227364	586000	670000	410000
Sub-Total Site Preparation	1252100	2345073	5119623	2210543	1875422	2242464	2586000	2905000	2495000
Selection, Recruitment, and Subsistence									
selection	179167	30128	30128	30128	30128	30128			400000
relocation		1036621	1036621	1036621	1036621	1036621			
subsistence supplies	264600	595390	739390	565390	582390	420318			650000
ancilliary services									
health	8333	54000	33000	16071	32120	30300			
education		3653	1978	1715	2200	5200			
MDT services	43767	5757	17058	2557	10118	9800			112000
Sub-Total Selection, Recruitment, and Subsistence	495867	1725549	1959175	1653082	1706577	1532167	890000	890000	1162000
Agricultural Development									
food crops - input package	304167	256549	256549	429	256549	256500	308000	278000	650000
- support services	64567								200000
tree crops		24695	24695		24695	24700			
livestock	110400	550	550		550	550			
industry		400	400	2100	400	400			
cooperatives	139600	1380	1380	1143	1380	1460			200000
other							200000	327000	
Sub-Total Agricultural Development	618733	283574	283574	2529	283574	283550	588000	605000	1050000
Sub-Total All Activities -									
in Rp	2416700	4548211	7455387	4060169	4059588	4252396	4152000	4480000	5341000
in US\$	3867	4135	6778	3691	3691	3866	5951	4080	4855
Project Administration - 10%	241670	454821	745539	406017	405959	425240	415200	448000	534100
in Rp	387	413	678	369	369	387	596	408	486
Total All Activities -									
in Rp	2658370	5003032	8200926	4466186	4465947	4677636	4567200	4926000	5875100
in US\$	4233	4548	7455	4060	4060	4252	6525	4488	5341

land alienation & fitting

incl agric impl
258
240
93
591

?

Table 2

Swamp (Wetland) Farm Models

	MDT 1984/85 Budget East Kalimantan	MDT 1984/85 Budget Irian Jaya	MDT 1984/85 Budget Central Sulawesi	MDT 1984/85 Budget D.I. Aceh	MDT 1984/85 Budget South Sumatra	Swamp Reclamation I 1981 prices South Sumatra	Swamp Reclamation II 1981 prices South Sumatra
Site Selection	194015	194015	194015	194015	194015		
Agrarian Affairs							
Site Preparation							
land clearing	420000		667500	527460	634000	1034733	818721
earthworks						755431	1000274
structures						512408	536998
land compensation							
road construction	539003		582678	319118	685920		
housing	802000		712300	719000	706200	574750	758760
public facilities	296506		204671	235295	231841	157104	569405
Sub-Total Site Preparation	2057509		2167349	1791873	2267961	3034425	3684097
Selection, Recruitment, and Subsistence							
selection	30128		30128	30128	30128	251821	358576
relocation	1036621		1036621	1036621	1036621		
subsistence supplies	820690		802090	641690	583382	508667	303996
ancillary services							
health	54000		16071	32120	30300	25425	
education	3653		1715	2200	5200		
MDT services	5757		2557	13118	8900		
Sub-Total Selection, Recruitment, and Subsistence	1950849		1889162	1955877	1695631	786134	662572
Agricultural Development							
food crops - input package	256549		429	256549	256500		
support services						49688	248398
tree crops	24695			24695	24700		
livestock	550			550	550		
industry	400		2100	400	400		
cooperatives	1380		1143	1380	1400		
other							
Sub-Total Agricultural Development	283574		2529	203574	283550	49688	248398
Sub-Total All Activities -							
in Rp	4485947	194015	4253075	4225339	4441157	3870246	4095067
in US\$	4078	176	3866	3841	4037	6192	4595
Project Administration - 10%	448595	19402	425308	422534	444116	40463	409507
	408	18	387	384	404	619	4595

has never mechanised

500

?

258
240

498

Swamps
E Sumatra
SE Kalimantan
Rep II sites
Rep III sites
Swamps all best +
Worst of transmigration
Saline soils
transmigration
have to buy drinking water
worst
deep peats
acidic soil
Ph too low
low Ph
most of 17 critical sites in
Swamps

see Swamps I +
Swamp II documents
for discussion of problems

impt distinction in survey

} ?

Table 3

Tree Crop (PIR) Farm Models

	MOT 1984/85 Budget East Kalimantan	MOT 1984/85 Budget Irian Jaya	MOT 1984/85 Budget Central Sulawesi	MOT 1984/85 Budget D.I. Aceh	MOT 1984/85 Budget South Sumatra	Trans IV Appraisal 1983 Prices Muara Mahau	Trans IV Appraisal 1983 Prices Sankulirang	Trans V Appraisal 1985 Prices Irian Jaya	NES III Appraisal 1979 prices Danau Saik S. Kalimantan	NES VI Appraisal 1982 prices Selama, Bengkulu, Sumatra credit non-credit total		
Site Selection								484000				
Agrarian Affairs						86000	88000	150000				
Site Preparation												
land clearing	116044	141727	134418	74558	72205	780000	765000	425000	63125	90000	90000	
road construction						580000	600000	910000	246875	379375	188750	568125
housing			62500			640000	640000	750000	265625	564375	39375	603750
public facilities	72874	19686	182227	81272		586000	670000	410000	75625		33125	33125
Sub-Total Site Preparation	188918	161413	379145	155830	72205	2586000	2905000	2495000	851250	1033750	261250	1295000
Selection, Recruitment, and Subsistence												
selection	30128	30128	30128	30128	30128			400000	155000			
relocation	360798	360798	360798	360798	360798							
subsistence supplies	93790	93790	93790	93790	93790			650000		50000		50000
ancillary services												
health	54000	33000	16071		30300				66875		137500	137500
education		1978	1715	2200	5200							
MOT services	1498	17058	2557	13118	19707			112000				
Sub-Total Selection, Recruitment, and Subsis	540214	536752	505059	500034	539923	890000	890000	1162000	221875	50000	137500	187500
Agricultural Development												
food crops - input packag			429			308000	278000	650000	30000			
- support services								200000		48750	32500	81250
tree crops						4445000	4544000	9601800	2724375	2274375		2274375
livestock												
industry	400	400	2100	400	400							
cooperatives	1380	1380	1143	1380	1400			200000	134250			
other						280000	327000		124250	227500	113750	341250
Sub-Total Agricultural Deve	1780	1780	2529	1780	1800	5033000	5149000	10651800	3016875	2550625	146250	2696875
Total All Activities -												
in Rp	730912	699945	886733	657644	613928	8597900	9032000	14942800	3899000	3634375	545000	4179375
in US\$	664	636	806	598	558	12281	12903	13584	6224	5815	872	6687

many estate
costs not
included here -
primarily
provision of settlers

Local

Table 4

	MOT 1984/85 Budget East Kalimantan	MOT 1984/85 Budget Irian Jaya	MOT 1984/85 Budget Central Sulawesi	MOT 1984/85 Budget South Sumatra
Site Selection	194015	194015	194015	194015
Agrarian Affairs				
Site Preparation				
land clearing	603750			292000
road construction	730438			595100
housing	780000			576200
public facilities	296506			216486
Sub-Total Site Preparation	2410694			1639786
Selection, Recruitment, and Subsistence				
selection	30128			30128
relocation	49000			49000
subsistence supplies	595390			513090
ancillary services				
health	54000			30300
education	3653			5200
MOT services	5757			9800
Sub-Total Selection, Recruitment, and Subsistence	737928			637518
Agricultural Development				
food crops - input package	35101			35100
- support services				
tree crops				24700
livestock				550
industry	400			400
cooperatives	1380			1400
other				
Sub-Total Agricultural Development	36881			62150
Total All Activities -				
in Rp	3379518	194015	194015	2339454
in US\$	3072	176	176	2127

→ same

very different

why relocation funds for spontaneous?

~~Cost~~ Spontaneous
Spontaneous Settler Models

Table 5

	MOT 1984/85 Budget East Kalimantan	MOT 1984/85 Budget Irian Jaya	MOT 1984/85 Budget Central Sulawesi	MOT 1984/85 Budget D.I. Aceh	MOT 1984/85 Budget South Sumatra
Site Selection	194015	194015	194015	194015	194015
<hr/>					
Agrarian Affairs					
Site Preparation					
land clearing	540500		260625	642985	407000
road construction	728761		569861	319118	588700
housing	780000		502500	515000	536200
public facilities	296506		200560	229153	214486
Sub-Total Site Preparation	2345767		1533546	1706256	1758386
Selection, Recruitment, and Subsistence					
selection	30128		30128	30128	30128
relocation	360798		360798	360798	360798
subsistence supplies	294990		251190	259990	361390
ancillary services					
health	54000		16071	32120	5800
education	3653		1715	2200	5200
MOT services	5757		2557	13118	9800
Sub-Total Selection, Recruitment, and Subsistence	749326		662459	698354	773616
Agricultural Development					
food crops - input package	9350		429	9350	9400
- support services					
tree crops					24700
livestock					550
industry	400		2100	400	400
cooperatives	1380		1143	1380	1400
other					
Sub-Total Agricultural Development	11130		2529	11130	36450
Total All Activities - in Rp	3300238		2198534	2415740	2568452
in US\$	3000		1999	2195	2335

site selection costs
always the same

? why
so
much

?

Upland Farm Models - Per Family Settlement Costs

mid-84

checked error checked checked error checked

	Trans II Appraisal Jambi	MOT 1984/85 Budget East Kalimantan	MOT 1984/85 Budget Irian Jaya	MOT 1984/85 Budget Central Sulawesi	MOT 1984/85 Budget D.I. Aceh	MOT 1984/85 Budget South Sumatra	Trans IV Appraisal Muara Wahau E. Kalimantan	Trans IV Appraisal Sankulirang E. Kalimantan	Trans V Appraisal Irian Jaya	Trans V Appraisal Sumatra
Site Selection	409735	198380	198380	198380	198380	198380	409735	409735	499877	409735
Agrarian Affairs	205515	*	*	*	*	*	93843	93843	171831	140845
Site Preparation										
land clearing	1177429	352661	842942	799467	657452	694278	831792	815796	486854	399061
road construction	963350	745157	975131	599472	326298	762785	618512	885112	1042441	854460
housing	637406	797550	1311868	654400	694278	601332	682496	682496	859155	704225
public facilities	145962	302469	2104875	206941	239591	1403249	624910	714488	469671	384977
Sub-Total Site Preparation	2924148	2397837	5234815	2260280	1917619	3461644	2757710	3097892	2858122	2342723
Selection, Recruitment, and Subsistence										
selection	418426	30806	30806	30806	30806	30806	*	*	458216	375587
relocation	*	1059945	1059945	1059945	1059945	1059945	*	*	*	*
subsistence supplies	617945	608786	756026	578725	605719	429775	*	*	744601	610329
ancillary services										
health	8709	55215	33743	16433	32843	30982	*	*	*	*
education		3735	2023	1754	2250	5317	*	*	*	*
MOT services	237045	5887	17421	2615	13413	9825	*	*	128300	105164
Sub-Total Selection, Recruitment, and Subsistence	1282125	1764374	1899963	1690276	1744975	1566650	983699	983699	1331117	1091080
Agricultural Development										
food crops - input package	354625	262321	262321	439	262321	262271	328451	296459	744601	610329
- support services	150789						*	*	229108	187793
tree crops		25251	25251		25251	25256	*	*	*	*
livestock	257828	562	562		562	562	*	*	*	*
industry		409	409	2147	409	409			*	*
cooperatives	326021	1411	1411	1169	1411	1432	298592	348713	229108	187793
Sub-Total Agricultural Development	1089263	289954	289954	2586	289954	289930	627043	645172	1202817	985915
Sub-Total All Activities - in Rp	5910785	4650546	7623112	4151523	4150929	5516604	4872031	5230342	6063765	4970299
Project Administration	*	465055	762311	415152	415093	551660	*	*	60638	49703
Total All Activities - in Rp	5910785	5115600	8385423	4566675	4566022	6068264	4872031	5230342	6124402	5020002

base number is 88000 not 50000

(194015)*
1.0225

error
3
should be 2292919

error
2
8700+1100)*
1.0225

1
error

(1) 4650546
(2) 465055
10% above
(1)(2)

NOTES:
a. All costs are expressed in terms of mid-1984 Rp. Costs have been adjusted using the December, 1984 Revised Commodity Price Forecasts for foreign exchange costs, and a general local costs derived by dividing Constant and Current GDP growth rates contained in Report No. 5597-IND Indonesia, Policies for Growth and Employment, Annex II, Tables 2.4 and 2.5. The only exception is for Trans V, where costs are deflated from mid-1985 levels to mid-1984 values. Foreign/local cost breakdowns are not specified in the appraisal report, so a weighted inflation factor has been used to deflate costs. MOT costs have been adjusted from first quarter to mid-year levels.

Year	Local	Foreign
1978 to 79	1.34	1.112
1979 to 80	1.32	1.083
1980 to 81	1.11	0.950
1981 to 82	1.08	0.981
1982 to 83	1.15	0.958
1983 to 84	1.09	0.972
1985 to 84	1.08	1.050

1.0225
April 19

TRANS V / 1.065 * 1.22

? - is this what you did

- b. Exchange rate fluctuations have been accounted for by converting all costs from Rp to US \$ using the original exchange rate, and reconvertng from US \$ to Rp using the mid-1984 exchange rate.
- c. The presence of an * next to a line item indicates that cost data for that activity are included under a different line item. A blank space indicates that no cost data for the particular line item are included.
- d. Trans II model includes one cow per ten farmers and one bull per ten cows.
- e. MOT models do not specify what type of livestock are provided to farmers.
- f. MOT models do not specify type of tree crop assistance.

REPELITA III

BUDGET ANALYSIS

① DATA

DATA SOURCE: 1979/80 and 1980/81 - Ministry of Transmigration, April, 1984
1981/82 through 1984/85 - P.T. Redecon Report

	FY 1979/80			FY 1980/81			FY 1981/82			FY 1982/83			FY 1983/84			Total Repelita III			FY 1984/85		
	Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration		
	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over
in Rp Billion																					
Ministry of Manpower and Transmigration																					
Secretary General				0.30	0.29	0.01	1.33	1.26	0.07	1.38	1.23	0.15				3.01	2.78	0.23			
D.G. Transmigration	75.88	71.68	4.20	226.73	221.97	4.76	232.63	224.68	7.95	263.81	229.09	34.72	799.05	747.42	51.63						
Sub-Total Manpower/Transmigration	75.88	71.68	4.20	227.03	222.26	4.77	233.96	225.94	8.02	265.18	230.31	34.87	802.05	750.19	51.86						
Ministry of Public Works																					
Dir. Gen. Dipta Karya	3.76	3.76	0.00				8.89	8.88	0.01	19.93	18.59	1.34									
Dir. Gen. Bina Marga	44.88	44.88	0.00				115.41	107.27	8.15	146.80	117.41	29.39									
Sub-Total Public Works	48.64	48.64	0.00	74.52	69.96	4.56	124.31	99.54	24.77	166.73	99.54	67.19	414.19	317.68	96.51						
Ministry of Agriculture																					
Secretary General	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.25	0.25	0.00			
D.G. Food Crops Agric.	8.77	8.32	0.45	13.26	12.39	0.87	14.85	13.40	1.45	18.69	13.08	5.61	21.13	6.81	14.32	76.70	54.00	22.70	18.39	0.59	17.80
BIMAS (Credit)	0.07	0.06	0.01	1.07	1.01	0.06	1.30	1.18	0.12	2.27	1.91	0.35	0.90	0.68	0.22	5.60	4.84	0.76	1.00	0.32	0.68
D.G. Livestock	0.66	0.62	0.04	1.52	1.48	0.04	2.41	2.26	0.15	5.15	4.48	0.68	2.84	1.66	1.18	12.58	10.50	2.09	1.30	0.36	0.94
D.G. Fisheries	0.13	0.10	0.03	0.29	0.28	0.01	0.49	0.49	0.00	0.79	0.54	0.25	0.66	0.09	0.57	2.36	1.50	0.86	0.10	0.03	0.07
D.G. Estates	0.88	0.88	0.00	1.51	1.36	0.15	2.16	1.96	0.20	2.43	1.98	0.46	2.21	1.05	1.16	9.20	7.23	1.97	1.20	0.06	1.14
Agric. Research	0.67	0.67	0.00	1.99	1.89	0.10	1.49	1.42	0.07	1.48	1.35	0.13	1.45	1.18	0.27	7.08	6.51	0.57	0.27	0.16	0.12
D.G. Forestry Extension	0.00	0.00	0.00	0.05	0.05	0.00	0.07	0.07	0.00	1.21	0.94	0.28				1.51	1.18	0.34			
	0.49	0.49	0.00	1.00	0.99	0.01	1.01	0.99	0.02	1.00	0.96	0.04	0.18	0.12	0.06	3.68	3.55	0.13	0.19	0.02	0.17
Sub-Total Agriculture	11.72	11.19	0.53	20.74	19.50	1.24	23.84	21.83	2.01	33.07	25.27	7.79	29.41	11.63	17.78	118.78	89.43	29.35	22.45	1.54	20.92
Ministry of Forestry																					
Inventory Regreening/													1280.29	910.67	369.62	1280.29	910.67	369.62	899.71	94.83	804.88
													132.21	99.00	33.21	33.21	132.21	33.21	49.99	20.57	29.42
Sub-Total Forestry													1412.50	1009.67	402.83	1412.50	1009.67	402.83	949.70	115.40	834.30
Department of the Interior																					
D.G. Agraria																					
Dir. Land Registration	0.85	0.85	0.00	5.41	4.44	0.97	5.48	3.99	1.49	7.50	4.70	2.80	7.38	1.47	5.91	26.62	15.45	11.17	6.79	0.87	5.92
Dir. Land Use	0.61	0.56	0.05	3.64	3.24	0.40	4.99	4.14	0.85	7.20	6.25	0.95	5.73	2.67	2.86	22.17	17.07	5.11	2.10	0.28	1.82
Dir. Land Titling	0.32	0.32	0.00	1.19	1.03	0.16	1.63	1.30	0.33	3.34	1.93	1.41	2.95	1.12	1.83	9.43	5.70	3.73	7.49	0.90	6.59
Sec. Gen.																			0.16	0.07	0.09

	FY 1979/80		FY 1980/81		FY 1981/82		FY 1982/83		FY 1983/84		Total Repelita III	
			Transmigration		Transmigration		Transmigration		Transmigration		Transmigration	
	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget
Ministry of Manpower and Transmigration												
Secretary General			0.97	0.03	0.95	0.05	0.89	0.11			0.92	0.08
D.G. Transmigration			0.98	0.02	0.97	0.03	0.87	0.13			0.94	0.06
Sub-Total Manpower Transmigration	0.94	0.06	0.98	0.02	0.97	0.03	0.87	0.13			0.94	0.06
Ministry of Public Works												
Dir. Gen. Cipta Karya							0.93	0.07				
Dir. Gen. Bina Marga							0.80	0.20				
Sub-Total Public W	1.00	0.00	0.94	0.06	0.80	0.20	0.60	0.40			0.77	0.23
Ministry of Agriculture												
Secretary General												
D.G. Food Crops Agric. BIMAS (Credit)												
D.G. Livestock												
D.G. Fisheries												
D.G. Estates												
Agric. Research												
D.G. Forestry Extension												
Sub-Total Agricult	0.95	0.05	0.94	0.06	0.92	0.08	0.76	0.24	0.40	0.60	0.75	0.25
Ministry of Forest y												
Department of the Interior												
D.G. Agraria												
Dir. Land Registration												
Dir. Land Use												
Dir. Land Titling												
Sub-Total Interior	0.97	0.03	0.85	0.15	0.78	0.22	0.71	0.29	0.34	0.66	0.66	0.34

Ministry of Transmigration

Secretary General
Inspector General
D.G. Planning
D.G. Development

Total Transmigration

Ministry of Trade and Cooperatives

D.G. Cooperatives

Sub-Total Trade and Cooperatives

Ministry of Cooperatives

D.G. Cooperatives

Sub-Total Cooperatives

Ministry of Health

Ministry of Education

Total Transmigrati	0.97	0.03	0.96	0.04	0.90	0.10	0.76	0.24	0.67	0.33	0.76	0.24
--------------------	------	------	------	------	------	------	------	------	------	------	------	------

P 66
 Q
 R
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 W
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 67 68 69

D.6. Development

Total Transmigration

Ministry of Trade
and Cooperatives

D.6. Cooperatives

Sub-Total Trade
and Cooperatives

Ministry of Cooperatives

D.6. Cooperatives

Sub-Total Cooperatives

Ministry of Health

Ministry of Education

Total Transmigration Budget	0.97	0.03	0.96	0.04	0.92	0.08	0.89	0.11
-----------------------------	------	------	------	------	------	------	------	------

of National Development Budget

	FY 1983/84		Total Repelita III	
	Transmigration		Transmigration	
	Expenditures as as % of Budget	Carry-Over as a % of Budget	Expenditures as as % of Budget	Carry-Over as a % of Budget
Ministry of Manpower and Transmigration				
Secretary General			0.94	0.06
D.G. Transmigration			0.92	0.08
Sub-Total Manpower/ Transmigration			0.92	0.08
Ministry of Public Works				
Dir. Gen. Cipta Karya			ERR	ERR
Dir. Gen. Bina Marga			ERR	ERR
			ERR	ERR
Sub-Total Public Works			0.95	0.05
Ministry of Agriculture				
Secretary General	1.00	0.00	1.00	0.00
D.G. Food Crops Agric.	0.21	0.79	0.65	0.35
BIMAS (Credit)	0.91	0.09	0.90	0.10
D.G. Livestock	0.50	0.50	0.79	0.21
D.G. Fisheries	0.08	0.92	0.53	0.47
D.G. Estates	0.23	0.77	0.71	0.29
Agric. Research	0.56	0.44	0.87	0.13
D.G. Forestry			0.87	0.13
Extension	0.91	0.09	0.98	0.02
Sub-Total Agriculture	0.42	0.58	0.74	0.26
Ministry of Forestry				
Department of the Interior				
D.G. Agraria	0.70	0.30	0.70	0.30
Dir. Land Registration				
Dir. Land Use				
Dir. Land Titling				
Sub-Total Interior	0.33	0.67	0.66	0.34
Ministry of Transmigration				

Secretary General
Inspector General
D.G. Planning
D.G. Development

Total Transmigration 0.57 0.43 0.57 0.43

Ministry of Trade
and Cooperatives

 D.G. Cooperatives

Sub-Total Trade
and Cooperatives

Ministry of Cooperatives

 D.G. Cooperatives

Sub-Total Cooperatives

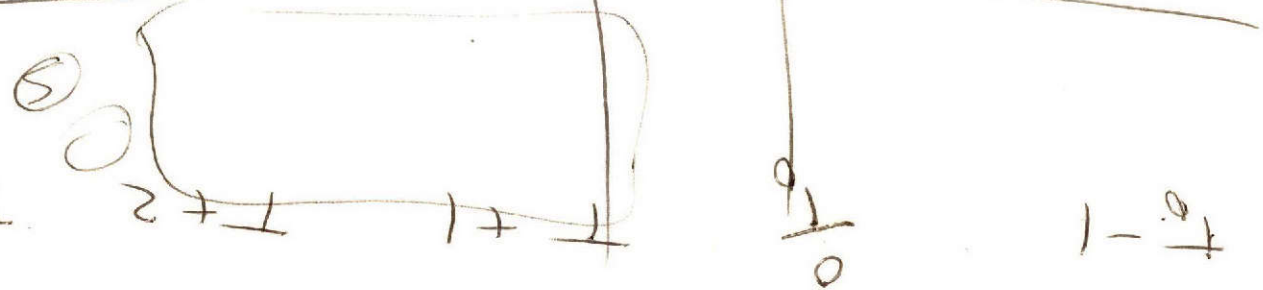
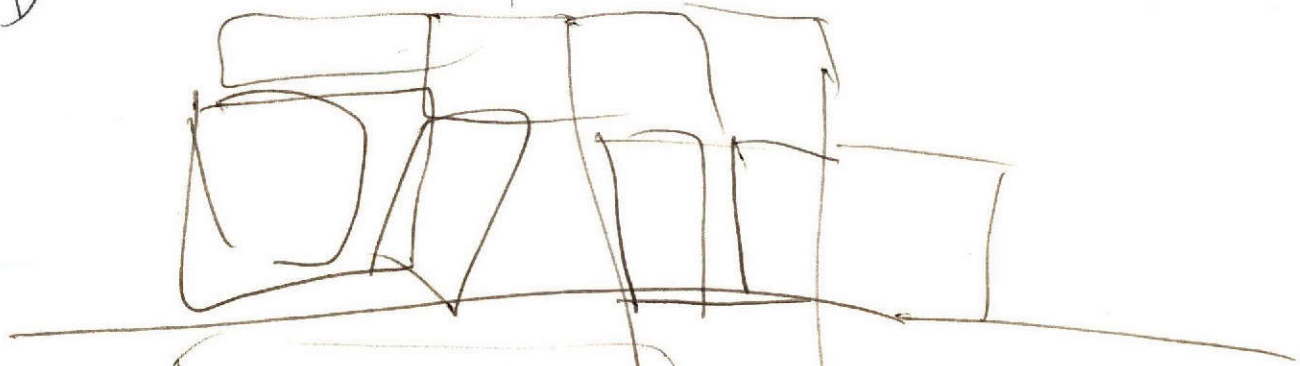
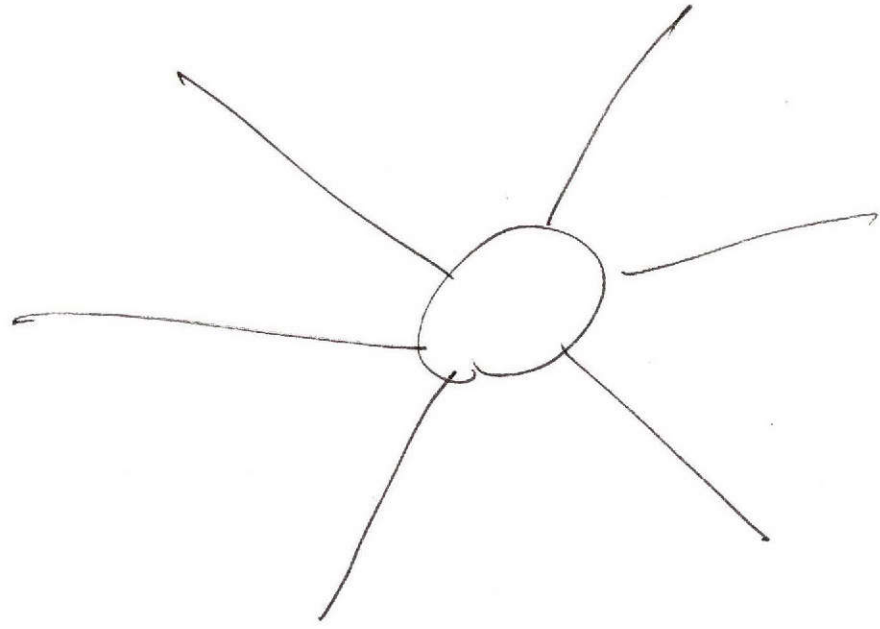
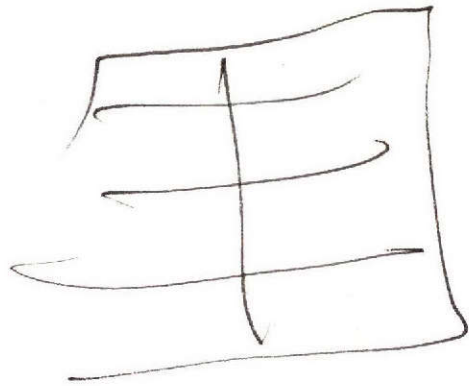
Ministry of Health

Ministry of Education

Total Transmigration Budget 0.56 0.44 0.83 0.17

Sub-Total Agricult	0.00	0.00	0.00	0.00	0.00	0.00	-0.47	0.16	-0.63	0.34	2.18	-1.84	-1.43	-1.43	0.00	-1.56	0.91	-2.47	
																		0.00	
Ministry of Forestry																		0.00	
																		0.00	
Inventory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1280.29	910.67	369.62	1280.29	910.67	369.62
Regreening/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.21	99.00	33.21	132.21	99.00	33.21
																			0.00
Sub-Total Forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1411.41	1008.91	402.50	1411.41	1008.91	402.50
																			0.00
Department of the Interior																			0.00
																			0.00
D.G. Agraria																			0.00
																			0.00
Dir. Land Regi	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.32	0.31	0.00	-0.37	0.37	0.00	-0.15	0.15	-0.01	-0.84	0.83	
Dir. Land Use	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.06	0.07	-0.01	0.62	-0.63	0.00	0.21	-0.21	0.00	0.78	-0.77	
Dir. Land Titl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.05	-0.05	-0.01	0.05	-0.05	
Sec. Gen.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
																			0.00
Sub-Total Interior	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.38	0.38	-0.02	0.25	-0.26	0.00	0.11	-0.11	-0.01	-0.02	0.00	
																			0.00
Ministry of Transmigration																			0.00
																			0.00
Secretary General																			1.50
Inspector General																			0.00
D.G. Planning																			-10.25
D.G. Development																			-96.27
																			0.00
Total Transmigration																			0.00
																			0.00
Ministry of Trade and Cooperatives																			0.00
																			0.00
D.G. Cooperatives																			0.00
																			0.00
Sub-Total Trade and Cooperatives																			0.00
																			0.00
Ministry of Cooperatives																			0.00
																			0.00
D.G. Cooperatives																			0.00
																			0.00
Sub-Total Cooperatives																			0.00
																			0.00
Ministry of Health																			0.00
																			0.00
Ministry of Education																			0.00
																			0.00
Total Transmigrati	0.00	0.00	0.00	0.00	0.00	0.00	17.97	-9.70	8.28	-63.56	-118.53	54.97	1390.19	987.80	402.39	1344.60	878.97	465.63	1397.54

Helen's
Budget Data



T+5 T+4 T+3 T+2 T+1 0 T-1 T-2 T-3

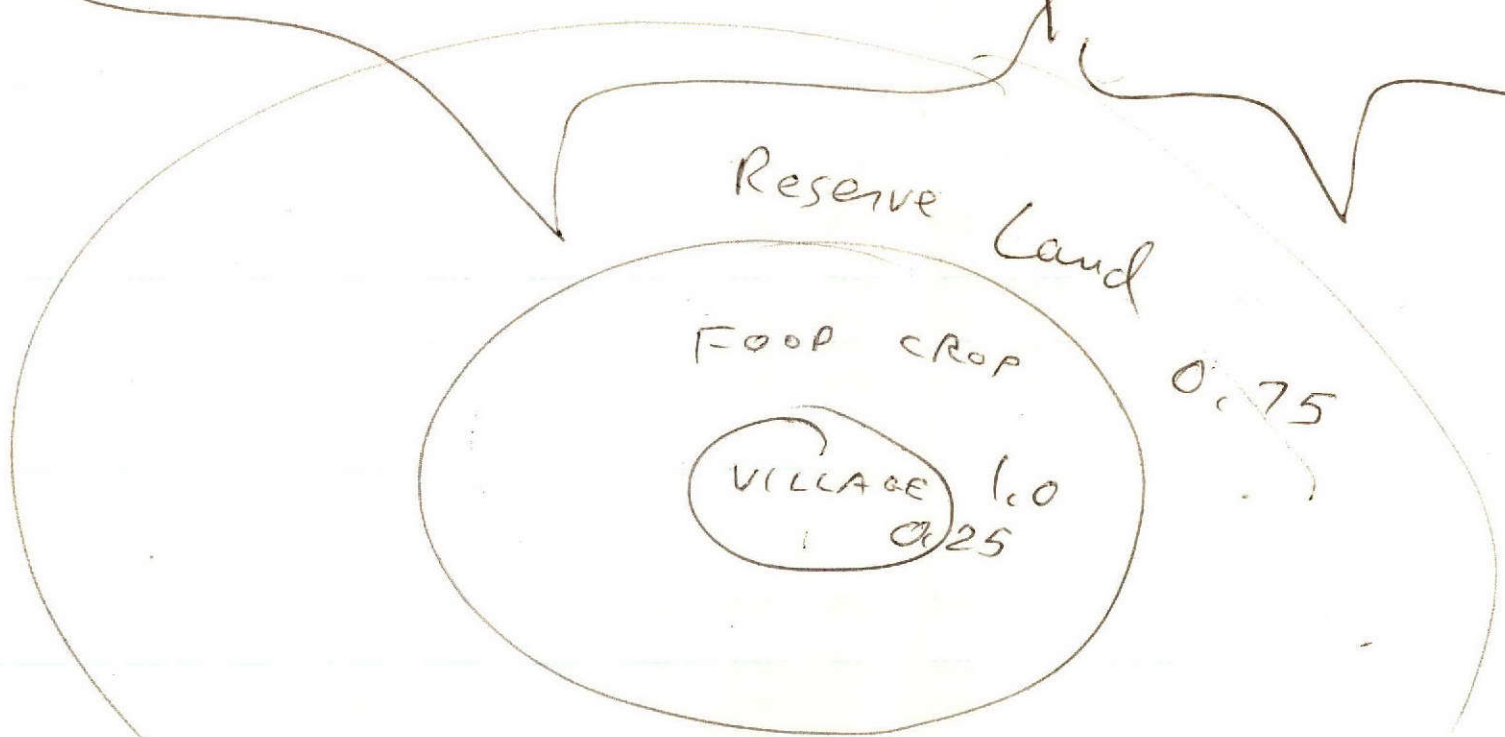


Table 1
Page 1

DATA SOURCE: 1979/80 and 1980/81 - Ministry of Transmigration, April, 1984
1981/82 through 1984/85 - P.T. Redeem Report

	FY 1979/80			FY 1980/81			FY 1981/82			FY 1982/83			FY 1983/84			Total Repelita III			FY 1984/85		
	Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration		
	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over
in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			
Ministry of Manpower and Transmigration																					
Secretary General				0.30	0.29	0.01	1.33	1.26	0.07	1.38	1.23	0.15				3.01	2.78	0.23			
D.G. Transmigration	75.88	71.68	4.20	226.75	221.97	4.78	232.63	224.68	7.95	261.81	229.09	34.72				799.05	747.42	51.63			
Sub-Total Manpower/ Transmigration	75.88	71.68	4.20	227.05	222.26	4.77	233.96	225.94	8.02	265.19	230.31	34.87				802.05	750.19	51.86			
Ministry of Public Works																					
Dir. Gen. Dapta Karya	3.76	3.76	0.00				8.89	8.88	0.01	19.93	18.59	1.34									
Dir. Gen. Bina Marga	44.89	44.88	0.00				115.41	107.27	8.15	146.81	117.41	29.39									
Sub-Total Public Works	48.64	48.64	0.00	74.52	69.96	4.56	124.31	96.56	24.77	166.73	89.54	57.19				414.19	317.59	96.51			
Ministry of Agriculture																					
Secretary General	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.25	0.25	0.00			
D.G. Food Crops Agric.	6.77	8.32	0.45	13.76	12.78	0.87	24.05	17.40	1.45	18.69	13.05	5.61	21.13	8.61	14.22	76.70	54.00	22.70	18.76	0.59	17.80
EMAS (Credit)	0.07	0.06	0.01	1.07	1.01	0.06	1.30	1.18	0.12	2.27	1.91	0.35	0.70	0.63	0.22	5.60	4.54	0.76	1.00	0.32	0.68
D.G. Livestock	0.46	0.60	0.04	1.52	1.48	0.04	2.41	2.26	0.15	5.15	4.48	0.68	2.84	1.66	1.18	12.58	10.50	2.07	1.30	0.36	0.94
D.G. Fisheries	0.13	0.10	0.03	0.29	0.29	0.01	0.49	0.47	0.02	0.79	0.54	0.25	0.46	0.49	0.57	0.56	1.30	0.65	0.10	0.03	0.07
D.G. Estates	0.80	0.98	0.00	1.51	1.38	0.15	2.16	1.96	0.20	2.43	1.98	0.46	2.21	1.05	1.16	9.20	7.23	1.97	1.20	0.68	1.14
Agric. Research	0.67	0.67	0.00	1.99	1.89	0.10	1.49	1.42	0.07	1.48	1.35	0.13	1.45	1.18	0.27	7.08	6.51	0.57	0.27	0.16	0.12
D.G. Forestry Extension	0.34	0.00	0.00	0.05	0.05	0.00	0.07	0.07	0.00	1.01	0.94	0.28				1.51	1.15	0.34			
	0.48	0.48	0.00	1.00	0.99	0.01	1.01	0.99	0.02	1.00	0.96	0.04	0.18	0.12	0.06	3.68	3.05	0.15	0.19	0.02	0.17
Sub-Total Agriculture	11.72	11.15	0.55	26.74	19.50	1.24	33.84	21.63	22.01	33.07	25.27	7.79	25.41	11.63	13.78	116.78	65.47	29.35	22.45	1.54	20.92
Ministry of Forestry																					
Inventory Reprovisioning													1080.29	913.67	769.62	1289.25	910.67	300.12	899.71	54.87	604.88
													1324.21	99.00	33.21	37.21	172.21	33.21	49.99	20.57	26.42
Sub-Total Forestry													1412.50	1009.67	402.83	1412.50	1095.67	492.67	949.70	115.40	604.30
Department of the Interior																					
D.G. Agraria																					
Dir. Land Registration	0.85	0.85	0.00	5.41	4.44	0.97	5.48	3.99	1.49	7.50	4.70	2.80	7.39	1.47	5.91	36.62	15.45	11.17	4.79	0.87	3.92
Dir. Land Use	0.61	0.56	0.05	3.64	3.24	0.40	4.99	4.14	0.85	7.20	6.35	0.85	5.73	2.87	2.86	22.17	17.07	5.11	2.10	0.28	1.82
Dir. Land Tiling	0.32	0.32	0.00	1.19	1.03	0.16	1.63	1.50	0.33	3.34	1.93	1.41	2.95	1.12	1.83	9.43	5.70	3.73	7.48	0.90	6.58
Sec. Gen.																			0.16	0.07	0.09

MOT +
P.T. Redeem -
more complete

Table 2
Page 1

	FY 1979/80			FY 1980/81			FY 1981/82			FY 1982/83			FY 1983/84			Total (expenditure)		
	Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration		
	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over
in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			
Ministry of Manpower and Transmigration																		
Secretary General				0.39	0.29	0.01	1.37	1.32	0.05	1.38	1.23	0.15				3.01	2.94	0.07
D.G. Transmigration	75.88	71.68	4.20	226.73	221.57	4.76	232.67	214.70	17.97	267.01	229.19	34.72				799.05	727.48	61.41
Sub-Total Manpower/Transmigration	75.88	71.68	4.20	227.03	222.26	4.77	233.96	216.02	17.94	268.39	230.31	34.87				802.05	740.27	61.73
Ministry of Public Works																		
Dir. Gen. Giana Karya										1.38	1.38	0.06						
Dir. Gen. Bina Karya	44.88	44.88	0.00							229.33	219.18	10.65						
Sub-Total Public Works	44.88	44.88	0.00	74.52	69.96	4.56	103.64	99.54	6.32	230.61	220.56	10.11				459.67	439.34	20.97
Ministry of Agriculture																		
Secretary General	0.05	0.05	0.00	0.05	0.05	0.00	0.25	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.75	0.25	0.00
D.G. Food Crops Agric.	8.77	8.32	0.45	13.26	12.79	0.87	14.61	12.83	1.98	18.49	11.48	7.01	21.37	6.48	16.89	76.96	49.70	27.20
D.G. Livestock	0.57	0.04	0.01	1.07	1.01	0.06	1.72	1.60	0.12	2.24	1.91	0.34	1.53	1.59	0.14	6.45	5.99	0.57
D.G. Fisheries	0.66	0.62	0.04	1.52	1.48	0.04	2.41	2.28	0.13	5.14	4.14	1.00	2.94	1.42	1.42	10.57	9.94	0.63
D.G. Estates	0.13	0.10	0.03	0.79	0.28	0.01	0.59	0.54	0.05	0.44	0.07	0.37	0.49	0.34	0.45	1.94	1.33	0.91
D.G. Research	0.89	0.88	0.00	1.51	1.34	0.15	2.14	1.91	0.23	2.43	1.85	0.57	2.20	0.50	1.70	9.19	6.52	2.67
D.G. Forestry Extension	0.67	0.67	0.00	1.99	1.89	0.10	1.50	1.40	0.10	1.43	1.34	0.10	1.43	0.60	0.60	7.07	6.12	0.95
D.G. Forestry Extension	0.00	0.00	0.00	0.05	0.05	0.00	0.07	0.07	0.00	1.71	1.92	0.22				2.25	1.99	0.20
D.G. Forestry Extension	0.49	0.49	0.00	1.00	0.57	0.01	1.00	0.99	0.01	1.00	0.99	0.01	0.97	0.95	0.09	4.42	4.21	0.11
Sub-Total Agriculture	11.72	11.19	0.53	20.74	19.50	1.74	24.71	21.87	2.64	32.73	23.09	9.64	30.64	17.06	17.78	120.24	89.51	31.80
Ministry of Forestry																		
Inventary																		
Repressing																		
Sub-Total Forestry													1.28	0.76	0.33	1.00	0.76	0.33
Department of the Interior																		
D.G. Agraria																		
Dir. Land Registration	0.25	0.25	0.00	5.41	4.44	0.77	5.49	4.31	1.18	7.50	5.07	2.43	7.36	1.62	5.76	26.63	16.29	10.34
Dir. Land Use	0.61	0.56	0.05	3.64	3.24	0.40	4.98	4.20	0.78	7.21	5.67	1.58	5.75	2.66	3.07	22.17	16.29	5.88
Dir. Land Titling	0.12	0.12	0.00	1.19	1.03	0.16	1.63	1.30	0.33	3.35	1.94	1.41	2.95	1.07	1.89	9.44	5.64	3.79
Sec. Gen.																		

MOT data
from MOT
financial
monitoring/
reporting
system

	1.78	1.70	0.05	10.24	8.71	1.53	12.10	9.81	2.29	19.06	12.44	5.42	16.06	5.35	10.71	53.24	38.24	20.00
Sub-Total Interior																		
Ministry of Transmigration																		
Secretary General													1.25	0.88	0.37	1.25	0.88	0.37
Inspector General																6.00	6.00	6.00
D.G. Planning													174.74	72.08	33.00	174.74	72.08	33.00
D.G. Development													281.73	62.09	215.64	281.73	62.09	215.64
Total Transmigration													417.96	240.07	177.87	417.96	240.07	177.87
Ministry of Trade and Cooperatives																		
D.G. Cooperatives																		
Sub-Total Trade and Cooperatives																		
Ministry of Cooperatives																		
D.G. Cooperatives																		
Sub-Total Cooperatives																		
Ministry of Health																		
Ministry of Education																		
Total Transmigration Budget	178.00	133.04	4.73	332.93	300.45	10.10	376.03	347.04	29.19	546.59	486.55	61.04	145.97	159.24	106.59	1554.30	1346.50	712.80
National Development Budget	4014.70		5916.10		6940.10				7359.60									
Transmigration Budget as % of National Development Budget	0.05		0.06		0.05				0.07									

Table 2
Page 2

ANALYSIS OF TRANSMIGRATION BUDGET:

Two data sources have been used for the analysis of the overall transmigration budget. The first is the (now not operating) Ministry of Transmigration Financial Monitoring System for the Overall Transmigration Program. The second is the Phase I Transmigration Policy and Management Review carried out by P.T. Redecon. The results of the analysis are presented in tables 1 through 5:

Table 1: Combined figures from the above two sources for Repelita III and the first year of Repelita IV. The MOT data has been used for the 1979/80-80/81 fiscal years and the Redecon data for the 1981/82-84/85 fiscal years.

Table 2: Analyzes expenditures and budget carry-overs as a percentage of total budgeted funds.

Table 3: Budget data from the MOT financial monitoring system only covering fiscal years 1979/80 through 1983/84 (Repelita III).

Table 4: Same as Table 2.

Table 5: Analyzes the incremental differences in budget funds, expenditures and carry-over funds between the two data sources. There are several discrepancies between the two sources that will eventually need to be resolved; these are addressed in detail below.

NOTE: For MOT data, FYs 1979/80-80/81 are through January, 1984. All other data are through end April, 1984. For FYs 1979/80-80/81, these budgets have already been "closed" by GOI; that is, the three year period for which budget funds can be carried over by agencies has elapsed and the funds have been returned to Bank Indonesia. The P.T. Redecon data cover only FYs 1981/82-1984/85 and are through November, 1984. FYs 1979/80-80/81 are not covered by the Redecon study. In the Redecon report all data are shown as funds carried over as a percentage of budget funds. Total budget funds were calculated by multiplying carry-over fund totals by the respective per cents of total budget to obtain the total budget figures.

RESULTS OF ANALYSIS:

There are a number of discrepancies between the two data sources that should be resolved, as detailed in Table 5. This table was derived by subtracting the MOT budget data from the Redecon data. Data that are negative show MOT figures that exceed the Redecon estimates, while data that are positive show Redecon figures that exceed MOT estimates.

The major discrepancies are in Public Works and Ministry of Forestry. For Public Works the MOT data exceed the Redecon data for all three categories (budget, expenditures, and carry-over).

For Forestry, Redecon exceeds MOT in all three categories.

Minor discrepancies exist within the Ministry of Transmigration and the Ministry of Agriculture figures. For the former, the MOT data is higher than the Redecon data, while for the latter both sources vary depending on the agency.

Another discrepancy between the two data sources is in the analysis of expenditures and carry-over as a percentage of total budget. For the Redecon data, these figures are, respectively, 76% and 24%. For the MOT data, these are 83% and 17%.

ANALYSIS OF TRANSMIGRATION FARM MODELS: PER FAMILY COSTS

Five farm models have been analyzed: upland food crops; swamp, or wetland; PIR/NES models; spontaneous settlers; and, local settlers. These are presented in Tables 1 through 5, respectively.

A standard format has been used to analyze the models. Where a specific line item does not appear, it is because the line item has been included with a different line item unless otherwise noted. For all Bank farm models used, per family costs, if not listed in the appraisal report, were obtained by simply dividing total costs by the number of involved families.

UPLAND FARM MODELS

Nine different upland farm models have been analyzed. Five are based on MOT budget figures for the FY 1984/85 budget, and cover the provinces of East Kalimantan, Irian Jaya, Central Sulawesi, D.I. Aceh, and South Sumatra. Other models analyzed include the Bank projects Transmigration II (Jambi), IV (both Muara Whau and Sankulirang, East Kalimantan), and V (Irian Jaya). All prices for the different models are specified on the table. Exchange rates used for the analysis are (US\$ 1.00 to Rp): MOT models Rp 1100; Trans II Rp 625; Trans IV Rp 700; Trans V Rp 1100. Site selection costs have are not included for Trans II and the Trans IV models. For the MOT models, costs for Agrarian affairs are included under site selection.

Follow-Up:

1. For the MOT models, actual expenditures viz a viz budgeted figures will need to be obtained.
2. The same is true for the Bank farm models, that is, actual costs viz a viz appraisal costs will need to be obtained.
3. Costs should be updated to a common year/time period for comparative purposes.
4. The models will also need to be adjusted to account for exchange rate fluctuations.

SWAMP (WETLAND) FARM MODELS

Seven models have been analyzed, five from MOT (for the same provinces as the Upland Models) and two from the Bank Swampland Projects. The Bank models are both for South Sumatra. Again, where line items are not specified it is because they are included in a different item unless otherwise noted. For the two bank models, site selection costs were not listed in the appraisal report.

Follow Up:

As specified for the Upland Farm Model.

PIR (TREE CROP) FARM MODEL

listed above have been analyzed. In addition, the two Trans IV models (East Kalimantan) and Trans V (Irian Jaya) and NES III (South Kalimantan) and NES VI (Bengkulu, Sumatra) have been analyzed. All models are for rubber except for the Trans IV, which are both coconut models. For the Bank projects other than Trans V, site selection costs are not included. All other parameters are as mentioned above.

Follow Up:
Same as above.

SPONTANEOUS/LOCAL SETTLER MODELS

These are based on MOT estimates for FY 1984/85. The primary issues concerning these models will be to determine if they have actually been implemented, and to what extent they have been implemented, and how have actual costs varied viz a viz budget figures.

*April 1984
most recent data
may or June
last year
when stopped*

ANALYSIS OF TRANSMIGRATION BUDGET:

Two data sources have been used for the analysis of the overall transmigration budget. The first is the (now not operating) Ministry of Transmigration Financial Monitoring System for the Overall Transmigration Program. The second is the Phase I Transmigration Policy and Management Review carried out by P.T. Redecon. The results of the analysis are presented in tables 1 through 5:

Table 1: Combined figures from the above two sources for Repelita III and the first year of Repelita IV. The MOT data has been used for the 1979/80-80/81 fiscal years and the Redecon data for the 1981/82-84/85 fiscal years.

Table 2: Analyzes expenditures and budget carry-overs as a percentage of total budgeted funds.

Table 3: Budget data from the MOT financial monitoring system only covering fiscal years 1979/80 through 1983/84 (Repelita III).

Table 4: Same as Table 2.

Table 5: Analyzes the incremental differences in budget funds, expenditures and carry-over funds between the two data sources. There are several discrepancies between the two sources that will eventually need to be resolved; these are addressed in detail below.

NOTE: For MOT data, FYs 1979/80-80/81 are through January, 1984. All other data are through end April, 1984. For FYs 1979/80-80/81, these budgets have already been "closed" by GOI; that is, the three year period for which budget funds can be carried over by agencies has elapsed and the funds have been returned to Bank Indonesia. The P.T. Redecon data cover only FYs 1981/82-1984/85 and are through November, 1984. FYs 1979/80-80/81 are not covered by the Redecon study. In the Redecon report all data are shown as funds carried over as a percentage of budget funds. Total budget funds were calculated by multiplying carry-over fund totals by the respective per cents of total budget to obtain the total budget figures.

RESULTS OF ANALYSIS:

There are a number of discrepancies between the two data sources that should be resolved, as detailed in Table 5. This table was derived by subtracting the MOT budget data from the Redecon data. Data that are negative show MOT figures that exceed the Redecon estimates, while data that are positive show Redecon figures that exceed MOT estimates.

The major discrepancies are in Public Works and Ministry of Forestry. For Public Works the MOT data exceed the Redecon data for all three categories (budget, expenditures, and carry-over).

For Forestry, Redecon exceeds MOT in all three categories.

Minor discrepancies exist within the Ministry of Transmigration and the Ministry of Agriculture figures. For the former, the MOT data is higher than the Redecon data, while for the latter both sources vary depending on the agency.

Another discrepancy between the two data sources is in the analysis of expenditures and carry-over as a percentage of total budget. For the Redecon data, these figures are, respectively, 76% and 24%. For the MOT data, these are 83% and 17%.

Table 1

DATA SOURCE: 1979/80 and 1980/81 - Ministry of Transmigration, April, 1984
1981/82 through 1984/85 - P.T. Redecon Report

	FY 1979/80			FY 1980/81			FY 1981/82			FY 1982/83			FY 1983/84			Total Repelita III			FY 1984/85		
	Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration		
	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over	Budget	Expenditures	Carry Over
in Rp Billion																					
Ministry of Manpower and Transmigration																					
Secretary General				0.30	0.29	0.01	1.33	1.26	0.07	1.38	1.23	0.15				3.01	2.78	0.23			
D.G. Transmigration	75.88	71.68	4.20	226.73	221.97	4.76	232.63	224.68	7.95	263.81	229.09	34.72				799.05	747.42	51.63			
Sub-Total Manpower/Transmigration	75.88	71.68	4.20	227.03	222.26	4.77	233.96	225.94	8.02	265.18	230.31	34.87				802.05	750.19	51.86			
Ministry of Public Works																					
Dir. Gen. Dpta Karya	3.76	3.76	0.00				8.89	8.88	0.01	19.93	18.59	1.34									
Dir. Gen. Bina Marpa	44.88	44.88	0.00				115.41	107.27	8.15	146.80	117.41	29.39									
Sub-Total Public Works	48.64	48.64	0.00	74.52	69.96	4.56	124.31	99.54	24.77	166.73	99.54	67.19				414.19	317.66	96.51			
Ministry of Agriculture																					
Secretary General	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.25	0.25	0.00			
D.G. Food Crops Agri.	8.77	8.32	0.45	13.26	12.39	0.87	14.25	13.40	0.85	12.69	12.05	0.64	21.13	19.61	1.52	14.32	13.70	0.62	18.39	17.80	0.59
BIMAS (Credit)	0.07	0.06	0.01	1.07	1.01	0.06	1.30	1.18	0.12	2.27	1.91	0.36	0.90	0.69	0.22	5.60	4.64	0.96	1.00	0.32	0.68
D.G. Livestock	0.56	0.62	0.04	1.52	1.48	0.04	2.41	2.26	0.15	5.15	4.98	0.17	2.84	1.66	1.18	12.58	10.56	2.02	1.30	0.36	0.94
D.G. Fisheries	0.13	0.10	0.03	0.29	0.28	0.01	0.45	0.49	-0.04	0.79	0.74	0.05	0.65	0.09	0.57	2.36	1.50	0.86	0.10	0.03	0.07
D.G. Estates	0.88	0.98	0.00	1.51	1.36	0.15	2.16	1.96	0.20	2.43	1.98	0.45	2.21	1.05	1.16	9.20	7.27	1.93	1.20	0.06	1.14
Agric. Research	0.67	0.67	0.00	1.99	1.89	0.10	1.49	1.42	0.07	1.48	1.35	0.13	1.45	1.18	0.27	7.08	6.51	0.57	0.27	0.16	0.12
D.G. Forestry Extension	0.00	0.00	0.00	0.05	0.05	0.00	0.07	0.07	0.00	1.21	0.94	0.28				1.51	1.18	0.34			
Sub-Total Agriculture	11.72	11.19	0.53	20.74	19.50	1.24	23.84	21.83	2.01	33.07	25.27	7.79	29.41	11.63	17.78	118.78	89.45	29.33	22.45	1.54	20.92
Ministry of Forestry																					
Inventory Regreening/													1280.29	910.67	369.62	1280.29	910.67	369.62	899.71	94.83	804.88
Sub-Total Forestry													132.21	98.00	33.21	132.21	98.00	33.21	49.99	20.57	29.42
Department of the Interior																					
D.B. Agraria																					
Dir. Land Registration	0.85	0.85	0.00	5.41	4.44	0.97	5.48	3.99	1.49	7.50	4.70	2.80	7.38	1.47	5.91	26.62	15.45	11.17	6.79	0.97	5.82
Dir. Land Use	0.61	0.56	0.05	3.64	3.24	0.40	4.99	4.14	0.85	7.20	6.25	0.95	5.73	2.87	2.86	22.17	17.07	5.11	2.10	0.28	1.82
Dir. Land Titling	0.32	0.32	0.00	1.19	1.03	0.16	1.63	1.30	0.33	3.34	1.93	1.41	2.95	1.12	1.83	9.43	5.70	3.73	7.49	0.90	6.59
Sec. Gen.																			0.16	0.07	0.09
Sub-Total Interior	1.78	1.73	0.05	10.24	8.71	1.53	12.10	9.43	2.67	18.04	12.88	5.16	16.06	5.46	10.60	58.22	38.22	20.01	14.38	1.14	13.24
Ministry of Transmigration																					
Secretary General													3.08	1.21	1.87	3.08	1.21	1.87	7.26	1.40	5.86
Inspector General													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D.B. Planning													152.64	100.01	52.63	152.64	100.01	52.63	149.08	10.20	138.88
D.G. Development													242.42	119.05	123.37	242.42	119.05	123.37	251.91	7.46	243.95
Total Transmigration													398.15	220.28	177.87	398.15	220.28	177.87	408.85	19.84	389.01
Ministry of Trade and Cooperatives																					
D.B. Cooperatives																					
Sub-Total Trade and Cooperatives																					
Ministry of Cooperatives																					
D.B. Cooperatives																					
Sub-Total Cooperatives																					
Ministry of Health																					
Ministry of Education																					
Total Transmigration Budget	138.02	133.24	4.78	332.53	320.43	12.10	394.20	356.74	37.47	483.03	368.02	115.01	1856.12	1247.04	609.08	3203.90	2423.47	778.41	1592.54		
National Development Budget	4014.20			5916.10			6940.10			7359.60											
Transmigration Budget as % of National Development Budget	0.03			0.04			0.06			0.07											

fees transferred to MOT

new ministry

figures from REDECON

no information on budget for transmigr

probably covered by Min Tran during 5 years - after 5 years responsible from Prov. Budget

Table 2

	FY 1979/80		FY 1980/81		FY 1981/82		FY 1982/83		FY 1983/84		Total Repelita III	
			Transmigration		Transmigration		Transmigration		Transmigration		Transmigration	
	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget
Ministry of Manpower and Transmigration												
Secretary General			0.97	0.03	0.95	0.05	0.89	0.11			0.92	0.08
D.S. Transmigration			0.98	0.02	0.97	0.03	0.87	0.13			0.94	0.06
Sub-Total Manpower and Transmigration	0.94	0.06	0.98	0.02	0.97	0.03	0.87	0.13			0.94	0.06
Ministry of Public Works												
Dir. Gen. Dpta Karya							0.93	0.07				
Dir. Gen. Bina Marga							0.80	0.20				
Sub-Total Public Works	1.00	0.00	0.94	0.06	0.80	0.20	0.60	0.40			0.77	0.23
Ministry of Agriculture												
Secretary General												
D.S. Food Crops Agric.												
BIMAS (Credit)												
D.S. Livestock												
D.S. Fisheries												
D.S. Estates												
Agric. Research												
D.S. Forestry												
Extension												
Sub-Total Agriculture	0.95	0.05	0.94	0.06	0.82	0.08	0.75	0.24	0.40	0.60	0.75	0.25
Ministry of Forestry												
Department of the Interior												
D.S. Agraria												
Dir. Land Registration												
Dir. Land Use												
Dir. Land Titling												
Sub-Total Interior	0.97	0.03	0.85	0.15	0.78	0.22	0.71	0.29	0.74	0.64	0.66	0.34
Ministry of Transmigration												
Secretary General												
Inspector General												
D.S. Planning												
D.S. Development												
Total Transmigration												
Ministry of Trade and Cooperatives												
D.S. Cooperatives												
Sub-Total Trade and Cooperatives												
Ministry of Cooperatives												
D.S. Cooperatives												
Sub-Total Cooperatives												
Ministry of Health												
Ministry of Education												
Total Transmigration	0.97	0.03	0.95	0.04	0.90	0.10	0.75	0.24	0.67	0.33	0.76	0.24

0.76 0.24

REDECON

DATA SOURCE: Ministry of Transmigration, April, 1984

	FY 1979/80			FY 1980/81			FY 1981/82			FY 1982/83			FY 1983/84			Total Repelita III		
	Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration		
	Budget in Rp Billion	Expenditures in Rp Billion	Carry Over	Budget in Rp Billion	Expenditures in Rp Billion	Carry Over	Budget in Rp Billion	Expenditures in Rp Billion	Carry Over	Budget in Rp Billion	Expenditures in Rp Billion	Carry Over	Budget in Rp Billion	Expenditures in Rp Billion	Carry Over	Budget in Rp Billion	Expenditures in Rp Billion	Carry Over
Ministry of Manpower and Transmigration																		
Secretary General				0.30	0.29	0.01	1.33	1.32	0.01	1.38	1.25	0.15				3.01	2.84	0.17
D.G. Transmigration	75.88	71.68	4.20	226.73	221.97	4.76	232.63	214.70	17.93	263.81	229.09	34.72				799.05	737.44	61.61
Sub-Total Manpower/Transmigration	75.88	71.68	4.20	227.03	222.26	4.77	233.96	216.02	17.94	265.18	230.31	34.87				802.05	740.27	61.79
Ministry of Public Works																		
Dir. Gen. Cipta Karya	3.76	3.76	0.00							1.38	1.32	0.06						
Dir. Gen. Bina Marga	44.88	44.88	0.00							229.23	219.18	10.05						
Sub-Total Public Works	48.64	48.64	0.00	74.52	69.96	4.56	105.86	99.54	6.32	230.61	220.50	10.11				459.63	438.64	20.99
Ministry of Agriculture																		
Secretary General	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.25	0.25	0.00
D.G. Food Crops Agric.	8.77	8.32	0.45	13.26	12.39	0.87	14.61	12.83	1.78	18.69	11.68	7.01	21.37	4.48	16.89	76.90	49.70	27.20
BIMAS (Credit)	0.07	0.06	0.01	1.07	1.01	0.06	1.72	1.60	0.12	2.26	1.92	0.34	1.53	1.59	0.14	6.45	5.99	0.57
D.G. Livestock	0.66	0.42	0.04	1.52	1.48	0.04	2.41	2.28	0.13	5.14	4.14	1.00	2.84	1.42	1.42	12.57	9.94	2.63
D.G. Fisheries	0.13	0.10	0.03	0.29	0.28	0.01	0.59	0.54	0.05	0.44	0.07	0.37	0.49	0.34	0.45	1.94	1.03	0.91
D.G. Estates	0.68	0.68	0.00	1.51	1.36	0.15	2.14	1.91	0.23	2.43	1.86	0.57	2.20	0.50	1.70	9.19	6.52	2.67
D.G. Research	0.67	0.67	0.00	1.99	1.89	0.10	1.50	1.40	0.10	1.43	1.36	0.12	1.43	0.89	0.65	7.07	6.12	0.95
D.G. Forestry Extension	0.00	0.00	0.00	0.05	0.05	0.00	0.07	0.07	0.00	1.24	1.02	0.22			0.60	2.25	1.95	0.30
D.G. Forestry Extension	0.49	0.49	0.00	1.00	0.99	0.01	1.00	0.99	0.01	1.00	0.99	0.01	0.93	0.85	0.08	4.42	4.31	0.11
Sub-Total Agriculture	11.72	11.19	0.53	20.74	19.50	1.24	24.31	21.67	2.64	32.73	23.09	9.64	30.84	13.06	17.78	120.34	88.51	31.83
Ministry of Forestry																		
Inventary Regreening/													1.09	0.76	0.33	1.09	0.76	0.33
Sub-Total Forestry													1.09	0.76	0.33	1.09	0.76	0.33
Department of the Interior																		
D.G. Agraria																		
Dir. Land Registration	0.65	0.85	0.00	5.41	4.44	0.97	5.49	4.31	1.18	7.50	5.07	2.43	7.38	1.62	5.76	26.63	16.29	10.34
Dir. Land Use	0.61	0.56	0.05	3.64	3.24	0.40	4.98	4.20	0.78	7.21	5.63	1.58	5.73	2.66	3.07	22.17	16.29	5.88
Dir. Land Tilling	0.32	0.32	0.00	1.19	1.03	0.16	1.63	1.30	0.33	3.35	1.94	1.41	2.95	1.07	1.89	9.44	5.66	3.79
Sec. Gen.																		
Sub-Total Interior	1.78	1.73	0.05	10.24	8.71	1.53	12.10	9.81	2.29	18.06	12.64	5.42	16.06	5.35	10.71	58.24	38.24	20.00
Ministry of Transmigration																		
Secretary General													1.25	0.88	0.37	1.25	0.88	0.37
Inspector General																0.00	0.00	0.00
D.G. Planning													134.76	72.08	62.68	134.76	72.08	62.68
D.G. Development													281.73	62.09	219.64	281.73	62.09	219.64
Total Transmigration													417.94	240.07	177.87	417.94	240.07	177.87
Ministry of Trade and Cooperatives																		
D.G. Cooperatives																		
Sub-Total Trade and Cooperatives																		
Ministry of Cooperatives																		
D.G. Cooperatives																		
Sub-Total Cooperatives																		
Ministry of Health																		
Ministry of Education																		
Total Transmigration Budget	138.02	133.24	4.78	332.53	320.43	12.10	376.23	347.04	29.19	546.59	496.55	50.04	445.93	259.24	206.69	1659.30	1546.50	312.80
National Development Budget	4014.20			5916.10			8940.10			7359.60								
Transmigration Budget as % of National Development Budget	0.03			0.06			0.05			0.07								

	FY 1979/80		FY 1980/81		FY 1981/82		FY 1982/83	
	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget	Expenditures as % of Budget	Carry-Over as a % of Budget
Ministry of Manpower and Transmigration								
Secretary General			0.97	0.03	0.99	0.01	0.89	0.11
D.G. Transmigration		0.06	0.98	0.02	0.92	0.08	0.87	0.13
Sub-Total Manpower/Transmigration	0.94	0.06	0.98	0.02	0.92	0.08	0.87	0.13
Ministry of Public Works							0.96	0.04
Dir. Gen. Ditta Karya							0.96	0.04
Dir. Gen. Bina Marga							0.55	0.04
Sub-Total Public Works	1.00	0.00	0.94	0.06	0.94	0.06	0.55	0.04
Ministry of Agriculture								
Secretary General								
D.G. Food Crops Agric.								
BIMAS (Credit)								
D.G. Livestock								
D.G. Fisheries								
D.G. Estates								
Agric. Research								
D.G. Forestry Extension								
Sub-Total Agriculture	0.95	0.05	0.94	0.06	0.89	0.11	0.71	0.29
Ministry of Forestry								
Department of the Interior								
D.G. Agraria								
Dir. Land Registration								
Dir. Land Use								
Dir. Land Tilling								
Sub-Total Interior	0.97	0.03	0.85	0.15	0.81	0.19	0.70	0.30
Ministry of Transmigration								
Secretary General								
Inspector General								
D.G. Planning								
Total Transmigration								
Ministry of Trade and Cooperatives								
D.G. Cooperatives								
Sub-Total Trade and Cooperatives								
Ministry of Cooperatives								
D.G. Cooperatives								
Sub-Total Cooperatives								
Ministry of Health								
Ministry of Education								
Total Transmigration Budget	0.97	0.03	0.95	0.04	0.92	0.08	0.89	0.11

of National Development Budget

	FY 1983/84		Total Repelita III	
	Transmigration		Transmigration	
	Expenditures as as % of Budget	Carry-Over as a % of Budget	Expenditures as as % of Budget	Carry-Over as a % of Budget
Ministry of Manpower and Transmigration				
Secretary General			0.94	0.06
D.G. Transmigration			0.92	0.98
Sub-Total Manpower/ Transmigration			0.92	0.08
Ministry of Public Works				
Dir. Gen. Cipta Karya			ERR	ERR
Dir. Gen. Bina Marga			ERR	ERR
Sub-Total Public Works			ERR	ERR
0.95			0.95	0.05
Ministry of Agriculture				
Secretary General	1.00	0.00	1.00	0.00
D.G. Food Crops Agric.	0.21	0.79	0.65	0.35
BIMAS (Credit)	0.91	0.09	0.90	0.10
D.G. Livestock	0.50	0.50	0.79	0.21
D.G. Fisheries	0.08	0.92	0.53	0.47
D.G. Estates	0.23	0.77	0.71	0.29
Agric. Research	0.56	0.44	0.87	0.13
D.G. Forestry Extension	0.91	0.09	0.87	0.13
0.98			0.98	0.02
Sub-Total Agriculture	0.42	0.58	0.74	0.26
Ministry of Forestry				
Department of the Interior				
D.G. Agraria	0.70	0.30	0.70	0.30
Dir. Land Registration				
Dir. Land Use				
Dir. Land Titling				
Sub-Total Interior	0.33	0.67	0.66	0.34
Ministry of Transmigration				
Secretary General				
Inspector General				
D.G. Planning				
D.G. Development				
Total Transmigration	0.57	0.43	0.57	0.43
Ministry of Trade and Cooperatives				
D.G. Cooperatives				
Sub-Total Trade and Cooperatives				
Ministry of Cooperatives				
D.G. Cooperatives				
Sub-Total Cooperatives				
Ministry of Health				
Ministry of Education				
Total Transmigration Budget	0.56	0.44	0.83	0.17

0.83 0.17

MOT data

Table 5

Incremental Difference - MOT estimates and P.T. Redecon

	FY 1979/80			FY 1980/81			FY 1981/82			FY 1982/83			FY 1983/84			Total Repeita III			
	Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			Transmigration			
	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	Budget	Expendi- tures	Carry Over	
in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion			in Rp Billion				
Ministry of Manpower and Transmigration																			
Secretary General																			
D.G. Transmigration																			
Sub-Total Manpower Transmigration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.92	-9.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.92	-9.92	
Ministry of Public Works																			
Dir. Gen. Digna Karva																			
Dir. Gen. Bina Marga																			
Sub-Total Public W	0.00	0.00	0.00	0.00	0.00	0.00	18.45	0.00	18.45	-63.88	-120.96	57.08	0.00	0.00	0.00	-45.44	-120.96	75.52	
Ministry of Agriculture																			
Secretary General																			
D.B. Food Crops	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.57	-0.53	0.00	1.40	-1.40	-0.24	2.33	-2.57	-0.20	4.30	-4.50	
BIMAS (Credit)	0.00	0.00	0.00	0.00	0.00	0.00	-0.42	-0.42	0.00	0.01	-0.01	0.01	-0.63	-0.71	0.08	-1.05	-1.14	0.09	
D.B. Livestock	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.02	0.01	0.34	-0.32	0.00	0.24	-0.24	0.01	0.56	-0.54	
D.B. Fisheries	0.00	0.00	0.00	0.00	0.00	0.00	-0.10	-0.05	-0.05	0.35	0.47	-0.12	0.17	0.05	0.12	0.42	0.47	-0.05	
D.B. Estates	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	-0.05	0.00	0.11	-0.11	0.01	0.55	-0.54	0.01	0.71	-0.70	
Agric. Research	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.02	-0.03	0.00	-0.01	0.01	0.02	0.38	-0.36	0.01	0.39	-0.38	
D.B. Forestry Extension	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.08	0.06	0.00	0.00	0.00	-0.78	-0.81	0.03	
	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	-0.03	0.03	-0.75	-0.73	-0.02	-0.74	-0.75	0.02	
																			-2.47
																			0.00
																			0.00
Ministry of Forestry																			
Inventory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1280.29	910.67	369.62	1280.29	910.67	369.62	369.62	
Regreening/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.21	99.00	33.21	33.21	132.21	33.21	33.21	
Sub-Total Forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1411.41	1009.67	402.83	1411.41	1009.67	402.83	402.83	
Department of the Interior																			
D.B. Agraria																			
Dir. Land Regi	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.32	0.31	0.00	-0.37	0.37	0.00	-0.15	0.15	-0.01	-0.84	0.83	
Dir. Land Use	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.06	0.07	-0.01	0.52	-0.53	0.00	0.21	-0.21	0.00	0.78	-0.77	
Dir. Land Titl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.05	-0.05	-0.01	0.05	-0.05	
Sec. Gen.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sub-Total Interior	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.38	0.38	-0.02	0.25	-0.28	0.00	0.11	-0.11	-0.01	-0.02	0.00	
Ministry of Transmigration																			
Secretary General																			
Inspector General																			
D.G. Planning																			-10.25
D.G. Development																			-96.27
Total Transmigration																			0.00
Ministry of Trade and Cooperatives																			
D.G. Cooperatives																			
Sub-Total Trade and Cooperatives																			0.00
Ministry of Cooperatives																			
D.G. Cooperatives																			
Sub-Total Cooperatives																			0.00
Ministry of Health																			
Ministry of Education																			
Total Transmigra	0.00	0.00	0.00	0.00	0.00	0.00	17.97	9.70	8.28	-63.56	-118.53	54.97	1390.19	987.80	402.79	1344.60	878.97	465.63	1397.54

neg / MOT > Redecon
post / REDECON > MOT

biggest discrepancy
Transmig - monitoring stopped before min forestry started

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TRANSMIGRATION V
FARM MODEL ANALYSIS

I.	BASIC INFORMATION - IRIAN JAYA	NPV AT 10%	TOTAL	YEAR						
				1	2	3	4	5	6	
A.	ECONOMIC PRICES (RP)									
	LABOR/H-D			600	600	600	600	600	600	600
	HENS - ANNUAL COST		1000	1000	1000	1000	1000	1000	1000	1000
	EGGS		50	50	50	50	50	50	50	50
	CATTLE - INITIAL ('000)		360	360	360	360	360	360	360	360
	CALVES ('000)		160	160	160	160	160	160	160	160
	RESIDUAL VALUE OF COWS ('000)		200	200	200	200	200	200	200	200
	RICE (PADI GABAH)/KG		195	195	195	195	247	247	247	247
	CORN/KG		253	253	253	253	232	232	232	232
	LEGUME (SOYBEAN)/KG		340	340	340	340	306	306	306	306
	CASSAVA/KG		30	30	30	30	30	30	30	30
	RUBBER SEEDLING		75	75	75	75	75	75	75	75
	RUBBER/KG DRC		759	759	759	759	759	759	759	759
	UREA/KG		250	250	250	250	344	344	344	344
	TSP/KG		255	255	255	255	286	286	286	286
	KCL/KG		192	192	192	192	214	214	214	214
	LIME/KG		100	100	100	100	100	100	100	100
	INSECTICIDE/L		3000	3000	3000	3000	3000	3000	3000	3000
	KIESERITE/KG		250	250	250	250	250	250	250	250
	LAND CLEARING FOR SECOND STAGE DEV (HA)		480	480	480	480	480	480	480	480
B.	YIELDS/HA									
	ASSUMING MONO-CROPPING; FERTILIZER = 200 KG									
	RICE (PADI GABAH)		1300	1300	1300	1300	1300	1300	1300	1300
	CORN		1800	1800	1800	1800	1800	1800	1800	1800
	LEGUME (SOYBEAN)		710	710	710	710	710	710	710	710
	CASSAVA		6000	6000	6000	6000	6000	6000	6000	6000
	INTERCROPPING FACTOR (%)		120							
	YIELDS ASSUMING INTERCROPPING									
	RICE (PADI GABAH)		1560	1560	1560	1560	1560	1560	1560	1560
	CORN		2160	2160	2160	2160	2160	2160	2160	2160
	LEGUME (SOYBEAN)		852	852	852	852	852	852	852	852
	CASSAVA		7200	7200	7200	7200	7200	7200	7200	7200
	WETLAND RICE		2600	2600	2600	2600	2600	2600	2600	2600
	RUBBER		0	0	0	0	0	0	0	0
II.	NON-OPERATING COSTS	NPV AT 10%	TOTAL							
A.	OPPORTUNITY COST OF LAND	95	320	10	10	10	10	10	10	10
B.	ESTABLISHMENT COSTS									
	PLANNING	386	425	425						
	LAND CLEARING (1.50 HA)	791	870	870						
	PRIMARY INFRASTRUCTURE	300	330	330						
	ACCESS/VILLAGE ROADS	527	580	580						
	SETTLER HOUSE	545	600	600						
	WATER SUPPLY	136	150	150						
	PUBLIC FACILITIES	227	250	250						
	FINAL DESIGN AND SUPERVISION (5%)	146	160	160						
	SETTLER TRANS AND MOBILIZATION	331	400	400	400					
	SETTLER SUPPLIES	501	650	650	300	200	150			
	SETTLER SUBSISTENCE	537	650	650	650					
	AG RESEARCH AND EXTENSION	182	200	200						
	COOPERATIVE DEVELOPMENT	182	200	200						
	LAND CERTIFICATION (AGRARIA)	102	150	150			150			
	NOT GENERAL ADMIN (2%)	102	112	112						
	SUBTOTAL	4996	5728	3878	1350	200	300	0		
	ADJUSTMENT FACTOR (%)	122								
	TOTAL	5118	5728	4228	1650	244	367	0		
C.	GOI SUPPORT COSTS									
	ADMINISTRATION (1% OF TOTAL)	546	1833	57	57	57	57	57	57	57
	ROAD MAINTENANCE (5% OF ROADS)	276	929	29	29	29	29	29	29	29
	DIKES AND CANALS MAINTENANCE	476	1600	50	50	50	50	50	50	50
	SUBTOTAL	1298	4361	136	136	136	136	136	136	136
	ADJUSTMENT FACTOR (%)	122								
	TOTAL	1587	5330	167	167	167	167	167	167	167

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D.	TOTAL NON-OPERATING COSTS	7692	12330	4906	1816	411	533	167	167
III. RETURNS									
A.	HOUSELOT								
A1	NON-LIVESTOCK								
	AVE RETURN DRYLAND	404							
	ADJUSTMENT FACTOR	2							
	RETURN TO HOUSELOT/HA	808							
	AREA (HA)	0.20							
	SUBTOTAL	5171	162	162	162	162	162	162	162
A2	CHICKENS								
	NO. OF HENS		2	4	6	8	8	8	8
	ANNUAL COST	244	2	4	6	8	8	8	8
	EGGS/HEN/YEAR	100							
	TOTAL BENEFIT	1220	10	20	30	40	40	40	40
	GROSS RETURN	976	8	16	24	32	32	32	32
	ADJUSTMENT FACTOR (%)	80							
	SUBTOTAL	781	6	13	19	26	26	26	26
A3	GOATS/OTHER SMALL LIVESTOCK								
	RETURN ON CHICKENS	781	6	13	19	26	26	26	26
	ADJUSTMENT FACTOR (%)	33							
	SUBTOTAL	258	2	4	6	8	8	8	8
A4	CATTLE								
	NO. OF CATTLE/FAMILY				1	1	1	1	1
	CATTLE PURCHASED DURING YEAR	3			1				
	INVESTMENT COST	1080			360	0	0	0	0
	OPERATING COST	775			50	25	25	25	25
	NO. OF CALVES	15			1		1		
	VALUE OF CALVES	2400			160	0	160	0	0
	RESIDUAL VALUE OF COWS	400							
	SUBTOTAL	945			-250	-25	135	-25	-25
A5	NET RETURN HOUSEPLOT (.2 HA)	7154	170	179	-63	171	331	171	171
B.	DRYLAND								
B1	AGROCHEMICALS								
	UREA KG		86	86	86	86	86	86	86
	RP/KG		250	250	250	250	344	344	344
	SUBTOTAL	914	22	22	22	22	30	30	30
	TSP KG		87	87	87	87	87	87	87
	RP/KG		255	255	255	255	286	286	286
	SUBTOTAL	785	22	22	22	22	25	25	25
	KCL KG		27	27	27	27	27	27	27
	RP/KG		192	192	192	192	214	214	214
	SUBTOTAL	183	5	5	5	5	6	6	6
	LIME KG		500	0	0	0	0	500	500
	RP/KG		100	100	100	100	100	100	100
	SUBTOTAL	350	50	0	0	0	0	50	50
	INSECTICIDE L		4	4	4	4	4	4	4
	RP/L		3000	3000	3000	3000	3000	3000	3000
	SUBTOTAL	384	12	12	12	12	12	12	12
	TOTAL COST AGROCHEMICALS/HA	2616	111	61	61	61	72	122	122
B2	DRYLAND RICE								
	SEED KG		40	40	40	40	40	40	40
	RP/KG		234	234	234	234	296	296	296
	SUBTOTAL	369	9	9	9	9	12	12	12
	LABOR M-D		180	180	180	180	180	180	180
	RP/M-D		600	600	600	600	600	600	600
	SUBTOTAL	3456	108	108	108	108	108	108	108
	MISC (10% OF LABOR COST)	346	11	11	11	11	11	11	11

TOTAL OPERATING COSTS EXCL AGCHEM	4171	128	128	128	128	131	131
YIELD KG (PADJ GABAH)		1560	1560	1560	1560	1560	1560
RP/KG		195	195	195	195	247	247
TOTAL BENEFITS	12006	304	304	304	304	385	385
NET RETURN/HA EXCL AGCHEM	7835	176	176	176	176	255	255
B3 CORN							
SEED KG		15	15	15	15	15	15
RP/KG		234	234	234	234	296	296
SUBTOTAL	139	4	4	4	4	4	4
LABOR M-D		50	50	50	50	50	50
RP/M-D		600	600	600	600	600	600
SUBTOTAL	960	30	30	30	30	30	30
MISC (10% OF LABOR COST)	96	3	3	3	3	3	3
TOTAL OPERATING COSTS EXCL AGCHEM	1195	37	37	37	37	37	37
YIELD KG		2160	2160	2160	2160	2160	2160
RP/KG		253	253	253	253	232	232
TOTAL BENEFITS	16217	546	546	546	546	501	501
NET RETURN/HA EXCL AGCHEM	15023	510	510	510	510	464	464
B4 LEGUME (SOYBEAN)							
SEED KG		15	15	15	15	15	15
RP/KG		234	234	234	234	296	296
SUBTOTAL	139	4	4	4	4	4	4
LABOR M-D		60	60	60	60	60	60
RP/M-D		600	600	600	600	600	600
SUBTOTAL	1152	36	36	36	36	36	36
MISC (10% OF LABOR COST)	115	4	4	4	4	4	4
TOTAL OPERATING COSTS EXCL AGCHEM	1406	43	43	43	43	44	44
YIELD KG		852	852	852	852	852	852
RP/KG		340	340	340	340	306	306
TOTAL BENEFITS	8459	290	290	290	290	261	261
NET RETURN/HA EXCL AGCHEM	7053	247	247	247	247	217	217
B5 CASSAVA							
SEED KG		0	0	0	0	0	0
RP/KG		234	234	234	234	296	296
SUBTOTAL	0	0	0	0	0	0	0
LABOR M-D		95	95	95	95	95	95
RP/M-D		600	600	600	600	600	600
SUBTOTAL	1824	57	57	57	57	57	57
MISC (10% OF LABOR COST)	182	6	6	6	6	6	6
TOTAL OPERATING COSTS EXCL AGCHEM	2006	63	63	63	63	63	63
YIELD KG		7200	7200	7200	7200	7200	7200
RP/KG		30	30	30	30	30	30
TOTAL BENEFITS	6912	216	216	216	216	216	216
NET RETURN/HA EXCL AGCHEM	4906	153	153	153	153	153	153
NET RETURN/HA ALL 4 CROPS EXCL AGCHEM AVE =	486	458	458	458	458	490	490
NET RETURN/HA ALL 4 CROPS INCL AGCHEM AVE =	404	348	398	398	398	417	367

C. WETLAND

C1	WETLAND RICE						
	ADDITIONAL LAND CLEARING	0.00 HA TOTAL					
	ADDITIONAL DRAINAGE		0	0	0	0	0
	SEED KG		40	40	40	40	40
	RP/KG		195	195	195	195	247
	SUBTOTAL		308	8	8	8	10
	UREA KG		84	84	84	84	84
	RP/KG		250	250	250	250	344
	SUBTOTAL		893	21	21	21	29
	TSP KG		87	87	87	87	87
	RP/KG		255	255	255	255	286
	SUBTOTAL		785	22	22	22	25
	KCL KG		27	27	27	27	27
	RP/KG		192	192	192	192	214
	SUBTOTAL		183	5	5	5	6
	LIME KG		500	0	0	0	500
	RP/KG		100	100	100	100	100
	SUBTOTAL		350	50	0	0	50
	INSECTICIDE L		4	4	4	4	4
	RP/L		3000	3000	3000	3000	3000
	SUBTOTAL		384	12	12	12	12
	LABOR M-D		195	195	195	195	195
	RP/M-D		600	600	600	600	600
	SUBTOTAL		3744	117	117	117	117
	MISC (10% OF LABOR COST)		374	12	12	12	12
	TOTAL OPERATING COSTS		7021	247	197	197	210
	YIELD KG (PADI GABAH)		2600	2600	2600	2600	2600
	RP/KG		195	195	195	195	247
	TOTAL BENEFITS		20010	507	507	507	642
	NET RETURN/HA EXCL DRAINAGE & ADDL LAND CLEAR		12988	260	310	310	432
	NUMBER OF HA =	0.0	0.0	0.0	0.0	0.0	0.0
	NET RETURN/FARM EXCL DRNGE & ADDL LAND CLEAR		0	0	0	0	0
	DRAINAGE & ADDL LAND CLEAR COSTS		0	0	0	0	0
	NET RETURN/FARM	0	0	0	0	0	0
C2	PALAWIJA						
	NET RETURN/HA EXCL AGCHEM FOR LEGUME		7053	247	247	247	217
	PLUS AGCHEM (25% ANNUAL DRYLAND AGCHEM)		654	28	15	15	18
	NET RETURN/HA INCL AGCHEM		6399	219	231	231	186
D.	RUBBER						
	LAND CLEARING LUMP SUM		63469	480			
	SEEDLINGS			500			
	RP/SEEDLING			75			
	SUBTOTAL		38	38			
	UREA KG			45	65	110	110
	RP/KG			344	344	344	344
	SUBTOTAL		1493	15	22	38	38
	TSP KG			160	105	160	160
	RP/KG			286	286	286	286
	SUBTOTAL		1113	46	30	46	46
	KCL KG			50	85	125	125
	RP/KG			214	214	214	214
	SUBTOTAL		486	11	18	27	27
	KIESERITE KG			20	20	20	20
	RP/KG			250	250	250	250
	SUBTOTAL		125	5	5	5	5

LABOR M-D		250	180	55	55	55	55
RP/L		600	600	600	600	600	600
SUBTOTAL	2100	150	108	33	33	33	33
MISC (10% OF LABOR COST)	210	15	11	3	3	3	3
TOTAL OPERATING COSTS	6044	759	194	112	152	152	152
YIELD KG		0	0	0	0	0	0
RP/KG		759	759	759	759	759	759
TOTAL BENEFITS	14611	0	0	0	0	0	0
NET RETURN/HA	8567	-759	-194	-112	-152	-152	-152
DRYLAND LABOR REQUIREMENTS	416	109	218	327	436	436	436
IV. SUMMARY							
A. MODEL BEING ANALYZED							
NO. OF CATTLE (AT FULL DEVELOPMENT)	1	0	0	1	1	1	1
DRYLAND CROPPED AREA BUILD TO	2.00 HA	0.50	1.00	1.50	2.00	2.00	2.00
DRYLAND RICE HA (80%)		0.40	0.80	1.20	1.60	1.60	1.60
CORN HA (20%)		0.10	0.20	0.30	0.40	0.40	0.40
LEGUME HA (75%)		0.38	0.75	1.13	1.50	1.50	1.50
CASSAVA HA (20%)		0.10	0.20	0.30	0.40	0.40	0.40
WETLAND RICE BUILD TO	0.00 HA	0.00	0.00	0.00	0.00	0.00	0.00
PALAWIJA HA	0.00 HA	0.00	0.00	0.00	0.00	0.00	0.00
1ST RUBBER AREA	0.00 HA						
BEGIN IN YEAR	3						
2ND RUBBER AREA	0.00 HA						
BEGIN IN YEAR	6						
B. SUMMARY OF COST/BENEFIT STREAMS							
NON-OPERATING COSTS	-7692	-12330	-4906	-1816	-411	-533	-167
HOUSELOT (INCL. CATTLE)	1929	7154	170	179	-63	171	331
DRYLAND	6502	25113	174	398	138	824	864
WETLAND	0	0	0	0	0	0	0
RUBBER	0	0	0	0	0	0	0
NET BENEFIT STREAM	738	19937	-4562	-1240	-336	461	1028
ERR =		11.3 %					
C. LABOR REQUIREMENTS							
HOUSEPLOT INCL. LIVESTOCK	PEAK MONTH	AVERAGE					
DRYLAND	6	70	70	70	70	70	70
WETLAND	65	390	109	218	303	412	412
RUBBER 1ST AREA	0	0	0	0	0	0	0
RUBBER 2ND AREA	0	0	0	0	0	0	0
TOTAL M-D/YR	71	460	179	288	373	482	482
M-D/FAMILY	33	400	400	400	400	400	400
SURPLUS (DEFICIT) M-D	-38	-60	221	112	27	-82	-82
PEAK MONTH SURPLUS (DEF)		-38	9	-9	-23	-41	-41
D. BASIC FOOD PRODUCTION (KG)							
HOUSEPLOT	/a						
DRYLAND							
RICE (PADI GABAH)	2362	624	1248	1872	2496	2496	2496
CORN	818	216	432	648	864	864	864
LEGUME (SOYBEAN)	1210	320	639	959	1278	1278	1278
CASSAVA	2726	720	1440	2160	2880	2880	2880
WETLAND							
RICE (PADI GABAH)	0	0	0	0	0	0	0
PALAWIJA	0	0	0	0	0	0	0
E. SUBSISTENCE ANALYSIS							
(KG OF RICE EQUIVALENT)	AVERAGE						
HOUSEPLOT /a	434	434	434	434	434	434	434
DRYLAND							
RICE (PADI GABAH) (.65)	1535	406	811	1217	1622	1622	1622

CORN (1.0)	818	216	432	648	864	864	864
LEGUME (SOYBEAN) (1.0)	1210	320	639	959	1278	1278	1278
CASSAVA (.3)	918	216	432	648	864	864	864
SUBTOTAL	4390	1157	2314	3471	4628	4628	4628
WETLAND							
RICE	0	0	0	0	0	0	0
PALAWIJA	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0
TOTAL	4814	1591	2748	3905	5062	5062	5062
FAMILY REQUIREMENTS	1500	1500	1500	1500	1500	1500	1500
SURPLUS (DEFICIT)	3314	91	1248	2405	3562	3562	3562

F. SUMMARY OF MODELS

(BASE CASE OF ALL MODELS INCLUDES .20 HA HOUSEPLOT,
200KG OF FERTILIZER/HA/YR)

UPLAND MODELS	ESTABLISHMENT COSTS (US\$) /a	ERR (%)		
		BASE /b	+20% /c	-15% /d
1. 1.0 HA DRYLAND /e	7000	6	3	8
2. 2.0 HA DRYLAND AND 1 COW	7840	12	8	14
3. 1.0 HA DRYLAND DECLINING TO 0.5 HA, 1.0 HA RUBBER IN YR 3 & 1.0 HA RUBBER IN YR 6	10041	9	7	10
WETLAND (SWAMPS) MODEL				
4. 2.0 HA BUNDED WETLAND AND .25 HA SECONDARY FOOD CROPS (PALAWIJA)	9040	10	7	11

/a INCLUDING ALL SOCIAL INFRASTRUCTURE COSTS. HOWEVER, 50% (US\$700) OF THESE COSTS ARE EXCLUDED FROM THE ERR CALCULATIONS
ON THE GROUNDS THAT TRANSMIGRANTS WOULD RECEIVE SUCH GOODS AND SERVICES EVEN IF THEY REMAIN IN THEIR ORIGINAL AREAS.

/b BASE CASE FOR IRIAN JAYA.

/c BASE CASE ESTABLISHMENT COSTS + 20%. FOR ESPECIALLY REMOTE AREAS OF IRIAN JAYA REQUIRING LARGE INVESTMENTS IN PRIMARY INFRASTRUCTURE.

/d BASE CASE ESTABLISHMENT COSTS - 15%. BASED ON REPELITA III TRANSMIGRATION SITES LOCATED IN EASILY ACCESSABLE AREAS SUCH AS IN SUMATRA.

/e NOT AN OFFICIAL MODEL. SHOWN HERE FOR ILLUSTRATIVE PURPOSES.

ESTAB. COST MULT.	ESTABLISHMENT COST	NPV	TOTAL	1	2	3	4	5	6	
		6737	7840	4739	1650	1084	367	0	0	
122	\$7,000	ERRs	955	19178	-4300	-1001	-164	412	978	718
147	\$8,400	11.8 % (BASE)	-950	15252	-5270	-1375	-273	256	896	636
104	\$5,950	8.4 % (+20%)	1742	19568	-3553	-739	-129	443	954	694
122	\$7,000	14.0 % (-15%)	371	18478	-4550	-1251	-364	412	978	718
		10.7 % (+S.I.)		AVE.						
M-D SAVED PER COW PER HA =	24	LABOR ANN. SURP.	-60							
		PEAK MONTH	-38							
		ANN. COSTS	46	9	-9	-23	-41	-41	-41	
		ANN. FOOD SURP.	3314	-11	11	28	49	49	49	
		SOC INFRA SAVINGS	700	250	250	200				

A. MODEL BEING ANALYZED

NO. OF CATTLE (AT FULL DEVELOPMENT)	1
DRYLAND CROPPED AREA BUILT TO	2.00 HA
DRYLAND RICE HA (80%)	
CORN HA (20%)	
LEGUME HA (75%)	
CASSAVA HA (20%)	
WETLAND RICE BUILT TO	0.00 HA
PALAWIJA HA	0.00 HA
1ST RUBBER AREA	0.00 HA
BEGIN IN YEAR	3
2ND RUBBER AREA	0.00 HA
BEGIN IN YEAR	6
FERTILIZER USE (TOTAL KG)	200
YIELD FACTOR (%) (AT 200KG=100%)	
DRYLAND RICE (PADI GABAH)	100 %

	KG	
	400	200
	146	100
		31

	CORN	100 %	183	100	19			
	LEGUME (SOYBEAN)	100 %	155	100	34			
	CASSAVA	100 %	137	100	50			
	WETLAND RICE (PADI GABAH)	100 %	131	100	69			
X.	NET RETURNS							
X1	HOUSELOT (1.2 HA)							
	NON-LIVESTOCK		5171	162	162	162	162	162
	LIVESTOCK EXCL CATTLE		1038	9	17	26	34	34
	CATTLE	109	945	0	0	-250	-25	135
	SUBTOTAL	1929	7154	170	179	-63	171	331
X2	DRYLAND							
	AGCHEM COSTS/HA			111	61	61	61	72
	CROPPED AREA /a			0.50	1.00	1.50	2.00	2.00
	TOTAL AGCHEM COSTS	1311	4975	55	61	91	122	144
	RICE							
	HA			0.40	0.80	1.20	1.60	1.60
	NET RETURN/HA			176	176	176	176	255
	SUBTOTAL EXCL AGCHEM	3122	12113	70	141	211	282	407
	CORN							
	HA			0.10	0.20	0.30	0.40	0.40
	NET RETURN/HA			510	510	510	510	464
	SUBTOTAL EXCL AGCHEM	1564	5703	51	102	153	204	185
	LEGUME							
	HA			0.38	0.75	1.13	1.50	1.50
	NET RETURN/HA			247	247	247	247	217
	SUBTOTAL EXCL AGCHEM	2764	10025	92	185	277	370	325
	CASSAVA							
	HA			0.10	0.20	0.30	0.40	0.40
	NET RETURN/HA			153	153	153	153	153
	SUBTOTAL EXCL AGCHEM	505	1870	15	31	46	61	61
	SUBTOTAL	6643	24736	174	398	596	795	835
	VALUE OF LABOR SAVINGS DUE TO CATTLE	219	857	0	0	22	29	29
	ADDITIONAL LAND CLEARING COST	361	480			480		
	SUBTOTAL DRYLAND	6502	25113	174	398	138	824	864
X3	WETLAND							
	RICE							
	NET RETURN/HA EXCL DRAINAGE & ADDL LAND CLEAR			260	310	310	310	432
	NUMBER OF HA =			0	0	0	0	0
	NET RETURN/FARM EXCL DRNGE & ADDL LAND CLEAR			0	0	0	0	0
	DRAINAGE & ADDL LAND CLEAR COSTS			0	0	0	0	0
	NET RETURN/FARM	0	0	0	0	0	0	0
	PALAWIJA							
	HA			0.00	0.00	0.00	0.00	0.00
	NET RETURN/HA			219	231	231	231	199
	SUBTOTAL	0	0	0	0	0	0	0
	VALUE OF LABOR SAVINGS DUE TO CATTLE	0	0	0	0	0	0	0
	SUBTOTAL WETLAND	0	0	0	0	0	0	0
X4	RUBBER							
	1ST RUBBER AREA							
	HA				0.00	0.00	0.00	0.00
	NET RETURN/HA				-759	-194	-112	-152
	SUBTOTAL	0	0		0	0	0	0
	2ND RUBBER AREA							
	HA							0.00
	NET RETURN/HA							-759
	SUBTOTAL	0	0					0
	SUBTOTAL RUBBER	0	0	0	0	0	0	0

Spontaneous Settler Models - Per Family Settlement Costs in Rupiah

	MDT Budget Estimates FY 1984/85		MDT Budget Estimates FY 1984/85		MDT Budget Estimates FY 1984/85		MDT Budget Estimates FY 1984/85		MDT Budget Estimates FY 1984/85	
	East Kalimantan		Irian Jaya		Central Sulawesi		D.I. Aceh		South Sumatra	
	Spontan Families	% of Total	Spontan Families	% of Total	Spontan Families	% of Total	Spontan Families	% of Total	Spontan Families	% of Total
Planning/Screening Phase										
General Screening Study	1339		1339		1339		1339		1339	
General Plan - WPP (RU WPP)	4326		4326		4326		4326		4326	
Detailed Plan - WPP (RK WPP)	3120		3120		3120		3120		3120	
General Plan - SKP (RU SKP)	8290		8290		8290		8290		8290	
Detailed Plan - SKP (RK SKP)	17356		17356		17356		17356		17356	
Detailed Plan - SP (RT SP)	39447		39447		39447		39447		39447	
Road Study	26971		26971		26971		26971		26971	
Settlement Identification	107		107		107		107		107	
Forestry Classification Study	1553		1553		1553		1553		1553	
Site Selection/Forestry Screening	1165		1165		1165		1165		1165	
Soil Fertility Survey	1712		1712		1712		1712		1712	
Water Supply/Environmental Survey	36844		36844		36844		36844		36844	
Land Use Map 1:5000	12648		12648		12648		12648		12648	
Land Parceling	39137		39137		39137		39137		39137	
Total Planning/Screening Phase	194015	6	194015	100	194015	8	194015	7	194015	7
Preparation Phase										
Land Clearing	540500				260625		642985		407000	
Road Construction										
- connecting	137500				103125		63563		108000	
- settlement	192500				144375		88988		140000	
- village	210000				147000		71400		170000	
Culverts	70000				50000		19220		80000	
Bridges	80000				100000		46566		70000	
Supervision	38761				25361		29381		30700	
House	680000				440000		440000		520000	
Water Supply - Transmigrants	100000				62500		75000		16200	
Public Facilities	94070				97326		143133		122500	
Staff Housing	50140				53021		58795		61500	
Water Supply - Public Fac.	118750				22204		4500		9500	
Supervision	33546				28009		22725		22986	
	30333									
Total Preparation Phase	2345767	71			1533546	66	1706256	65	1758386	64
Settlement/Moving Phase										
Training/Motivation	11028				11028		11028		11028	
Selection/Registration	9600				9600		9600		9600	
Health Check	9500				9500		9500		9500	
Transmigrant Packet	93790				26640		93790		93790	
Transport	341798				341798		341798		341798	
Quarters (in transito)	19000				19000		19000		19000	
Total Settlement/Movement Phase	484716	15			417566	18	484716	19	484716	19
Site Development Phase										
Rations- foodstuffs	125200				67400		86200		181100	
Rations - non-foodstuffs	76000				90000		80000		87000	
Health Services	54000				16071		32120		5800	
Settlement Management	1498				2557		10268		8700	
Education	3653				1715		2200		5200	
Motivation/Training	4259						2850		1100	
Economic Development										
- food crops	9350				429		9350		9400	
- estates									24700	
- livestock									550	
- cooperatives	400				2100		400		400	
- industry	1380				1143		1380		1400	
Total Site Development Phase	275740	8			181415	8	224768	9	325350	12
Sub-Total All Phases	3300238	100	194015	100	2326542	100	2609755	100	2762467	100
Project Administration @ 10%	330024		19402		232654		260976		276247	
Total All Phases	3630262		213417		2559196		2870731		3038714	

Local Settler Models - Per Family Settlement Costs in Rupiah

	MOT Budget Estimates FY 1984/85		MOT Budget Estimates FY 1984/85		MOT Budget Estimates FY 1984/85		MOT Budget Estimates FY 1984/85	
	East Kalimantan		Irian Jaya		Central Sulawesi		South Sumatra	
	Local Families	% of Total	Local Families	% of Total	Local Families	% of Total	Local Families	% of Total
Planning/Screening Phase								
General Screening Study	1339		1339		1339		1339	
General Plan - WPP (RU WPP)	4326		4326		4326		4326	
Detailed Plan - WPP (RK WPP)	3120		3120		3120		3120	
General Plan - SKP (RU SKP)	8290		8290		8290		8290	
Detailed Plan - SKP (RK SKP)	17356		17356		17356		17356	
Detailed Plan - SP (RT SP)	39447		39447		39447		39447	
Road Study	26971		26971		26971		26971	
Settlement Identification	107		107		107		107	
Forestry Classification Study	1553		1553		1553		1553	
Site Selection/Forestry Screening	1165		1165		1165		1165	
Soil Fertility Survey	1712		1712		1712		1712	
Water Supply/Environmental Survey	36844		36844		36844		36844	
Land Use Map 1:5000	12648		12648		12648		12648	
Land Parceling	39137		39137		39137		39137	
Total Planning/Screening Phase	194015	6	194015	100	194015	100	194015	8
Preparation Phase								
Land Clearing	603750						292000	
Road Construction							108000	
- connecting	137500						140000	
- settlement	192500						170000	
- village	210000						80000	
Culverts	70000						70000	
Bridges	80000						27100	
Supervision	40438							
House	680000						520000	
Water Supply - Transmigrants	100000						16200	
Public Facilities	94070						122500	
Staff Housing	50140						61500	
Water Supply - Public Fac.	118750						9500	
Supervision	33546						22986	
	32853							
Total Preparation Phase	2410694	71					1639786	65
Settlement/Moving Phase								
Training/Motivation	11028						11028	
Selection/Registration	9600						9600	
Health Check	9500						9500	
Transmigrant Packet	93790						93790	
Transport	30000						30000	
Quarters (in transito)	19000						19000	
Total Settlement/Movement Phase	172918	5					172918	7
Site Development Phase								
Rations- foodstuffs	273600						264300	
Rations - non-foodstuffs	228000						155000	
Health Services	54000						30300	
Settlement Management	1498						8700	
Education	3653						5200	
Motivation/Training	4259						1100	
Economic Development								
- food crops	35101						35100	
- estates							24700	
- livestock							550	
- cooperatives	400						400	
- industry	1380						1400	
Total Site Development Phase	601891	18					526750	21
Sub-Total All Phases	3379518	100	194015	100	194015	100	2533469	100
Project Administration @ 10%	337952		19402		19402		253347	
Total All Phases	3717470		213417		213417		2786816	

OEO
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 Gray Lines

Gloria -

I wasn't sure if you have standard translations for the activity list - can you check to see if okay?

Thanks,
Nick

Upland Farming Models - Per Family Settlement Costs in Rupiah

	MDT Budget Estimates FY 1984/85		MDT Budget Estimates FY 1984/85		MDT Budget Estimates FY 1984/85		MDT Budget Estimates FY 1984/85		MDT Budget Estimates FY 1984/85		
	East Kalimantan	Irian Jaya	Central Sulawesi	D.I. Aceh	South Sumatra	Sponsored Families	% of Total	Sponsored Families	% of Total	Sponsored Families	% of Total
Planning/Screening Phase											
General Screening Study	1339	1339	1339	1339	1339						
General Plan - WPP (RU WPP)	4326	4326	4326	4326	4326						
Detailed Plan - WPP (RK WPP)	3120	3120	3120	3120	3120						
General Plan - SKP (RU SKP)	8290	8290	8290	8290	8290						
Detailed Plan - SKP (RK SKP)	17356	17356	17356	17356	17356						
Detailed Plan - SP (RT SP)	39447	39447	39447	39447	39447						
Road Study	26971	26971	26971	26971	26971						
Settlement Identification	107	107	107	107	107						
Forestry Classification Study	1553	1553	1553	1553	1553						
Site Selection/Forestry Screening	1165	1165	1165	1165	1165						
Soil Fertility Survey	1712	1712	1712	1712	1712						
Water Supply/Environmental Survey	36844	36844	36844	36844	36844						
Land Use Map 1:5000	12648	12648	12648	12648	12648						
Land Parceling	39137	39137	39137	39137	39137						
Total Planning/Screening Phase	194015	4 194015	3 194015	5 194015	5 194015					5	
Preparation Phase											
Land Clearing	540500	824393	781875	642985	679000						
Road Construction											
- connecting	137500	148921	103125	63563	150000						
- settlement	192500	111102	144375	88988	210000						
- village	210000	202352	147000	71400	192500						
Culverts	70000	1443	50000	19220	80000						
Bridges	80000	435556	100000	46566	70000						
Supervision	38760	54299	41781	29381	43500						
House	680000	908000	577500	604000	570000						
Water Supply - Transmigrants	100000	375000	62500	75000	18100						
Public Facilities	94070	26719	97326	143133	127000						
Staff Housing	50140	1500000	53021	58795	67900						
Water Supply - Public Fac.	118750	429792	26315	4500	9500						
Supervision	32853	102046	25725	27891	24964						
Total Preparation Phase	2345073	52 5119623	69 2210543	54 1875422	46 2242464					53	
Settlement/Moving Phase											
Training/Motivation	11028	11028	11028	11028	11028						
Selection/Registration	9600	9600	9600	9600	9600						
Health Check	9500	9500	9500	9500	9500						
Transmigrant Packet	93790	93790	93790	93790	93790						
Transport	1017621	1017621	1017621	1017621	1017621						
Quarters (in transit)	19000	19000	19000	19000	19000						
Total Settlement/Movement Phase	1160539	26 1160539	16 1160539	29 1160539	29 1160539					27	
Site Development Phase											
Rations- foodstuffs	273600	285600	202200	258600	528						
Rations - non-foodstuffs	228000	360000	270000	240000	326000						
Health Services	54000	33000	16071	32120	30300						
Settlement Management	1498	16125	2557	10268	8700						
Education	3653	1978	1715	2200	5200						
Motivation/Training	4259	933		2850	1100						
Economic Development											
- food crops	256549	256549	429	256549	256500						
- estates	24695	24695		24695	24700						
- livestock	550	550		550	550						
- cooperatives	400	400	2100	400	400						
- industry	1380	1380	1143	1380	1400						
Total Site Development Phase	848584	19 981210	13 496215	12 829612	20 655378					15	
Sub-Total All Phases	4548211	100 7455387	100 4061312	100 4059588	100 4252396					100	
Project Administration @ 10%	454821	745539	406131	405959	425240						
Total All Phases	5003032	8200926	4467443	4465547	4677636						

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INDONESIA

SWAMP RECLAMATION PROJECT

STAFF APPRAISAL REPORT

February 23, 1981

Projects Department
East Asia and Pacific Regional Office

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3. THE PROJECT

Project Description

3.01 The proposed project - a low-cost swamp development scheme - would comprise land reclamation, settlement of transmigrants and agricultural development. It would include a system of open canals for surface drainage of a gross area of 9,000 ha and for tidal irrigation of about 15% of this area. The canal system would evacuate excess surface water during the rainy season while field bunds would maintain an optimal depth of water for rice cultivation during the wet season, and, together with tertiary controls, would facilitate the maintenance of a high water table to prevent the drying and oxidation of peats and potential acid-sulphate soil during the dry season. The proposed project works include the removal of trees and brush to clear a net area of about 7,200 ha, for division into about 3,200 house and farm plots, the construction of housing, the clearing of about 420 ha for village facilities and their construction, transporting and settling about 2,800 families from Java or Bali and about 400 local families, and supporting agricultural and community services. The project would include four studies, monitoring and evaluation and provide technical and institutional support to the main executing and coordinating agencies P4S, PTPT,^{/1} DGT, DGCK,^{/2} and JMT.

Project Works

3.02 The proposed project would include:

Hydraulic Infrastructure

- (a) A navigation canal about 9 km long; about 6 primary canals of a total length of about 24 km; about 102 secondary canals of a total length of about 196 km; and about 185 km of tertiaries.
- (b) About 204 km of small drains for about 100 hamlets.
- (c) O&M roadways along the navigation and primary canals.
- (d) About 800 tertiary control structures, 204 outlet structures for hamlet drains, 10 pedestrian bridges on the navigation and primary canals, 102 pedestrian bridges on secondary canals, 100 small jetties at hamlets, 2 navigation jetties and one primary control structure to be built at the confluence of one primary canal and the navigation canal (para. 3.04).

^{/1} Directorate of Land Preparation for Transmigration Settlement, Ministry of Public Works.

^{/2} Directorate General for Housing, Urban and Regional Development, Ministry of Public Works.

Land Clearance, Site Preparation and Housing

- (a) Manual land clearance, including felling, cutting and burning of trees and shrubs from about 7,200 ha and their subdivision into 3,200 houselots of 0.5 ha each and 3,200 farm plots of 1.75 ha each (para. 3.06).
- (b) Manual land clearance of about 420 ha for village facilities (paras. 3.18, 3.20, 4.10, and 4.13).
- (c) The construction of about 3,200 houses for transmigrants and the provision of about 22,400 barrels (7/family) or equivalent for the storage of drinking water (para. 2.09).

Community Development and Settler Relocation

- (a) Resettlement of about 2,800 families from Java or Bali and of about 400 local families wishing to settle in the project;
- (b) Construction of community facilities in seven villages one of which would be a main village, including six subhealth centers (sub-PUSKESMAS) and one health center (PUSKESMAS), seven primary schools, one lower secondary school, places of worship, a bank, and a market area. Construction of a base camp which would include quarters for construction supervisors, permanently stationed and visiting officials.
- (c) Provision of agricultural implements, and a subsistence food supplement over an 18-month period to all resettled families (para. 3.13).
- (d) Malaria control in the settlement area (para. 3.19).
- (e) Procurement of boats, generators, telecommunication, miscellaneous equipment, and supplies (Annex 1, Table 10).

Agricultural Support

- (a) Provision of rice seeds, vegetable and tree seedlings for home gardens, fertilizers and pesticides (para. 4.08).
- (b) Provision of a properly staffed rural extension center (REC), a research substation, two warehouses, one small rice mill and office space (paras. 4.10 and 4.13).

Studies, Institutional Support and Monitoring

Provision of consultants to train and assist implementing agencies in preparing an inventory of coastal and near coastal swamps, in

INDONESIA
SWAMP RECLAMATION PROJECT I

Cost Estimate

	---- (Rp million) ----			---- (US\$ thousand)----			Foreign exchange cost (I)	Base cost (I)
	Local	Foreign	Total	Local	Foreign	Total		
Reclamation and Site Preparation								
Civil Works								
Land clearing--canals, base camp, creeks	106	959	1,065	170	1,534	1,704	90	} 40
- House lots	501	270	771	802	432	1,234	35	
- Farm plots	892	481	1,373	1,428	769	2,197	35	
- Public facilities	131	71	202	210	113	323	35	
Earthworks								
Navigation, primary secondary canals, base camp fill	179	1,606	1,785	286	2,570	2,856	90	} 35
On-farm works	509	27	536	815	43	858	5	
Structures								
Base camp	95	144	239	152	230	382	60	} 21
Bridges	275	118	393	440	189	629	30	
Jetties	220	94	314	351	151	502	30	
Tidal control structure	72	215	287	115	344	459	75	
Settlement drain outlets	64	28	92	102	45	147	30	
Tertiary structures	220	95	315	352	152	504	30	
Land Compensation	62	-	62	100	-	100	-	
Subtotal	3,326	4,108	7,434	5,323	6,572	11,895	55	96
Equipment and Supplies								
Generators, radios	-	66	66	-	106	106	100	}
Workshop and miscellaneous	-	95	95	-	152	152	100	
Boats	-	45	45	-	72	72	100	
Surveying equipment	-	37	37	-	59	59	100	
Office equipment	-	2	2	-	3	3	100	
Subtotal	-	245	245	-	392	392	100		4
Base cost	3,326	4,353	7,679	5,323	6,964	12,287	55	100
Physical contingencies	499	653	1,152	798	1,045	1,843	55	
Expected price increases	1,545	1,038	2,583	2,472	1,661	4,133	38	
Total	5,370	6,044	11,414	8,593	9,670	18,263	53	
Settlers Relocation and Settlement								
Civil Works								
Houses	1,470	368	1,838	2,352	589	2,941	20	}
Village facilities	403	100	503	645	160	805	20	
Subtotal	1,873	468	2,341	2,997	749	3,746	20		49
Services, Equipment and Supplies								
Mobilization and transport	247	458	705	395	733	1,128	65	}
Supplies & tools	80	149	229	128	239	367	65	
Health equipment, supplies (boat)	-	82	82	-	131	131	100	
Subsistence	1,049	350	1,399	1,679	560	2,239	25	
Subtotal	1,376	1,039	2,415	2,202	1,663	3,865	43		51
Base cost	3,249	1,507	4,756	5,199	2,412	7,611	30	100
Physical contingencies	487	226	713	779	361	1,140	32	-
Expected price increases	1,267	376	1,643	2,027	602	2,629	23	-
Total	5,003	2,109	7,112	8,005	3,375	11,380	30	
Consulting Services								
Foreign consultants	236	613	849	376	982	1,358	72	} 56
Local consultants	658	-	658	1,054	-	1,054	0		44
Base costs	894	613	1,507	1,430	982	2,412	41	100
Physical contingencies	134	92	226	215	148	363	41	-
Expected price increases	276	139	415	442	222	664	33	-
Total	1,304	844	2,148	2,087	1,352	3,439	39	
Agricultural Supports								
Field, laboratory equipment, bicycles and Misc.	10	11	21	16	18	34	53	} 29
Buildings	26	25	51	42	40	82	50		71
Base cost	36	36	72	58	58	116	50	100
Physical contingencies	5	5	10	8	8	16	50	-
Expected price increases	3	2	5	5	3	8	50	-
Total	44	43	87	71	69	140	50	
Studies and Investigations								
Foreign consultants	424	1,277	1,701	678	2,044	2,722	75	}
Local consultants	1,217	-	1,217	1,948	-	1,948	0	
Equipment, supplies and training	-	875	875	-	1,400	1,400	100	} 100
Base cost	1,641	2,152	3,793	2,626	3,444	6,070	57	
Physical contingencies	246	323	569	393	517	910	57	
Expected price increases	403	288	691	645	461	1,106	42	
Total	2,290	2,763	5,053	3,664	4,422	8,086	55	
Administration								
Base cost	1,389	-	1,389	2,222	-	2,222	0	} 0
Physical contingencies	209	-	209	335	-	335	0	
Expected price increases	452	-	452	723	-	723	0	
Total	2,050	-	2,050	3,280	-	3,280	0	
GRAND TOTAL	16,061	11,803	27,864	25,700	18,888	44,588	42	

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INDONESIA

SWAMP RECLAMATION PROJECT I

Cost Estimate by Category of Works

	Net base cost	Taxes	Physical contin- gencies	Expected price increase	Total project cost
----- US\$ million -----					
I. Civil Works					
(a) Land clearing; canals	1.61	0.10	0.26	0.23	2.20
(b) Land clearing; plots	3.56	0.19	0.56	1.56	5.87
(c) Earthworks; canals	2.72	0.14	0.43	0.97	4.26
(d) Earthworks; tertiaries, bunds	0.80	0.04	0.13	0.29	1.26
(e) Structures; canals, base camp	2.01	0.12	0.32	0.78	3.23
(f) Structures; tertiaries	0.48	0.02	0.08	0.17	0.75
(g) Houses & village facilities	3.55	0.19	0.56	1.27	5.57
(h) Buildings; agric. support	0.08	-	0.01	0.03	0.12
(i) Land compensation	0.10	-	-	-	0.10
Subtotal	<u>14.91</u>	<u>0.80</u>	<u>2.35</u>	<u>5.30</u>	<u>23.36</u>
II. Services, Equipment & Supplies					
(a) Construction supervision equipment	0.39	-	0.05	0.03	0.47
(b) Settlers relocation	1.13	-	0.17	0.36	1.66
(c) Settlers supplies & tools	0.37	-	0.05	0.12	0.54
(d) Health equipment & supplies	0.13	-	0.02	0.04	0.19
(e) Subsistence to settlers	2.24	-	0.35	0.70	3.29
(f) Inventory, upgrading & ecological studies, equipment & training	0.85	-	0.14	0.29	1.28
(g) Groundwater study equipment	0.22	-	0.03	0.08	0.33
(h) Monitoring equipment	0.33	-	0.04	0.11	0.48
(i) Agricultural support equipment	0.03	-	-	0.01	0.04
(j) Administration	2.22	-	0.34	0.72	3.28
Subtotal	<u>7.91</u>	<u>-</u>	<u>1.19</u>	<u>2.46</u>	<u>11.56</u>
III. Consulting Services					
(a) Construction supervision					
P4S	1.49	-	0.23	0.32	2.04
PTPT	0.24	-	0.04	0.05	0.33
DGCK	0.14	-	0.02	0.03	0.19
DGT	0.10	-	0.01	0.02	0.13
JMT	0.44	-	0.06	0.09	0.59
(b) Studies and investigations					
Inventory, upgrading & ecological impact	4.05	-	0.61	0.86	5.52
(c) Monitoring	0.31	-	0.05	0.07	0.43
(d) Groundwater study	0.31	-	0.05	0.07	0.43
Subtotal	<u>7.08</u>	<u>-</u>	<u>1.07</u>	<u>1.51</u>	<u>9.66</u>
Total	<u>29.90</u>	<u>0.80</u>	<u>4.61</u>	<u>9.27</u>	<u>44.58</u>

INDONESIA
SWAMP RECLAMATION PROJECT I

Bill of Quantities and Costs /a

Item	Unit	Quantity	Unit cost ----- Rp	Total '000 -----
<u>1. Land Clearing</u>				
<u>1.1 Mechanical clearing</u>				
Navigation canal	ha	84	2,000	168,000
Primary canals	ha	177	1,553	274,881
Secondaries	ha	490	1,110	543,900
Base camp	ha	2	2,000	4,000
Creeks	ha	48	1,553	74,544
<u>1.2 Manual Land Clearing</u>				
Farm plots	ha	5,600	227	1,272,999
House lots	ha	1,600	481	770,800
Public facilities	ha	420	481	202,020
Subtotal				<u>3,311,144</u>
			<u>Rp</u>	<u>Rp '000</u>
<u>2. Earthworks</u>				
<u>2.1 Mechanical earthworks</u>				
Navigation canal	cu m	734,000	715	524,810
Primary canal	cu m	757,000	715	541,255
Secondary canals	cu m	876,000	715	626,340
Shaping embankments	ha	115	231,000	26,565
Blockage of creeks	cu m	40,000	1,000	40,000
Fill of base camp	cu m	16,000	715	11,000
Stabilization of base camp	cu m	1,500	6,600	9,900
<u>2.2 Manual Earthworks</u>				
Tertiary canals	cu m	141,000	990	179,190
Settlement drains	cu m	112,000	990	110,880
Field bunds	cu m	350,950	990	347,440
Subtotal				<u>2,417,380</u>

/a All costs are for end of 1980 and include a 5% tax on civil works.

Item	Unit	Quantity	Unit cost -----Rp	Total '000-----
3. Structures				
3.1 Bridges				
Navigation canal	ea	1	15,730	14,300
Primary canals	ea	9	7,683	62,865
Secondary canals	ea	102	3,400	315,282
3.2 Tertiary structures				
Settlement drain outlets	ea	788	439	314,999
Settlement jetties	ea	204	451	92,004
Navigation jetties	ea	102	2,700	275,400
Tidal control structure	ea	2	19,100	38,200
Base camp	ea	1	287,000	287,000
Houses (A)	sq m	180	110	19,800
Houses (B)	sq m	2,160	73	156,816
Offices	sq m	400	83	33,000
Workshop	sq m	400	66	26,400
Wells	ea	1		3,438
Subtotal				<u>1,639,704</u>
4. Settlement				
Settlers houses /a	ea	3,200	575	1,839,200
Basic villages /b	ea	6	56	333,960
Main village /b	ea	1	169	168,773
Mobilization and transport	ea	2,800 /c	252	705,100
Tools and supplies	ea	3,200	72	228,800
Subsistence package	ea	3,200	436	1,398,999
Subtotal				<u>4,674,832</u>

/a Including all material and construction costs of houses, 7 barrels/family for drinking water; 1 pit latrine.

/b See Table 7 for breakdown.

/c Java and Bali based transmigrants. Four hundred indigenous families are expected to settle by themselves.

INDONESIA
SWAMP RECLAMATION PROJECT I

Village Facilities

Item	Unit	Quantity	Unit cost ----- Rp	Total '000 -----
1. <u>Basic Village</u> (6 total)				
Office	sq m	40	55	2,200
Storage	sq m	40	35	1,400
Mosque	sq m	56	50	2,800
Meeting place	sq m	50	50	2,500
Primary school	sq m	320	60	19,200
Staff houses	sq m	300	50	15,000
Village head house	sq m	50	50	2,500
Health subcenter	sq m	80	62.5	5,000
Subtotal				<u>50,600</u>
2. <u>Main Village</u> (1 total)				
Office	sq m	108	55	5,940
Storage	sq m	54	35	1,890
Post and security	sq m	54	50	2,700
Bank	sq m	36	50	1,800
Mosque	sq m	91	50	4,550
Meeting place	sq m	135	50	6,750
Primary school	sq m	320	60	19,200
Lower secondary school	sq m	320	60	19,200
Staff houses	sq m	600	50	30,000
Village head house	sq m	75	60	4,500
Health center	sq m	250	62.5	15,625
REC	sq m	166	62.5	10,375
Agr. research	sq m	160	62.5	10,000
KUD/Coop	sq m	475	44	20,900
Subtotal				<u>153,430</u>

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INDONESIA

TRANSMIGRATION II

STAFF APPRAISAL REPORT

May 14, 1979

Regional Projects Department
East Asia and Pacific Regional Office

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INDONESIA
TRANSMIGRATION II

Cost Estimates /a

	Local	Foreign	Total	Local	Foreign	Total	Foreign
	-----	Rp million	-----	-----	US\$ million	-----	exchange (%)
Site Preparation							
Civil works							
Land clearing /b	2,250	12,875	15,125	3.6	20.6	24.2	85
Access and link roads	1,813	3,437	5,250	2.9	5.5	8.4	65
Village roads	2,500	4,625	7,125	4.0	7.4	11.4	65
Airstrips	62	250	312	0.1	0.4	0.5	70
Base camp	375	375	750	0.6	0.6	1.2	50
Subtotal	<u>7,000</u>	<u>21,562</u>	<u>28,562</u>	<u>11.2</u>	<u>34.5</u>	<u>45.7</u>	<u>75</u>
Equipment and services							
Consultant services (DGH) /c	813	2,500	3,313	1.3	4.0	5.3	60
Vehicles and equipment (DGH)	-	687	687	-	1.1	1.1	100
Airfield equipment	63	250	313	0.1	0.4	0.5	80
Site communication equipment	62	188	250	0.1	0.3	0.4	75
Training (DGH)	62	125	187	0.1	0.2	0.3	80
Administration and overhead (DGH)	1,813	250	2,063	2.9	0.4	3.3	12
Base cost	<u>9,813</u>	<u>25,562</u>	<u>35,375</u>	<u>15.7</u>	<u>40.9</u>	<u>56.6</u>	<u>72</u>
Physical contingencies /d	2,187	5,625	7,812	3.5	9.0	12.5	72
Expected price increases	4,437	11,313	15,750	7.1	18.1	25.2	72
Total	<u>16,437</u>	<u>42,500</u>	<u>58,937</u>	<u>26.3</u>	<u>68.0</u>	<u>94.3</u>	<u>72</u>
Community Development and Settler Relocation							
Civil works							
Settler housing	4,250	2,313	6,563	6.8	3.7	10.5	35
Water supply	875	750	1,625	1.4	1.2	2.6	45
Public buildings /e	1,000	875	1,875	1.6	1.4	3.0	45
Subtotal	<u>6,125</u>	<u>3,938</u>	<u>10,063</u>	<u>9.8</u>	<u>6.3</u>	<u>16.1</u>	<u>39</u>
Equipment, services and supplies							
Land alienation	1,125	375	1,500	1.8	0.6	2.4	25
Settler mobilization and transportation	2,437	2,938	5,375	3.9	4.7	8.6	55
Settler supplies and tools	563	1,000	1,563	0.9	1.6	2.5	65
Settler subsistence subsidy	4,750	1,625	6,375	7.6	2.6	10.2	25
Consultant services (DGT & JMT) /c	562	813	1,375	0.9	1.3	2.2	60
Vehicles and equipment (DGT)	-	125	125	-	0.2	0.2	100
Vehicles and equipment (DGA)	-	437	437	-	0.7	0.7	100
Light plane	-	187	187	-	0.3	0.3	100
Road maintenance equipment (DGH)	-	875	875	-	1.4	1.4	100
Research (DGT)	125	250	375	0.2	0.4	0.6	70
Training (DGT & DGA)	63	187	250	0.1	0.3	0.4	80
Administration and overhead (DGT)	1,438	187	1,625	2.3	0.3	2.6	12
Base cost	<u>17,188</u>	<u>12,937</u>	<u>30,125</u>	<u>27.5</u>	<u>20.7</u>	<u>48.2</u>	<u>43</u>
Physical contingencies /f	2,000	1,500	3,500	3.2	2.4	5.6	43
Expected price increases	8,750	6,563	15,313	14.0	10.5	24.5	43
Total	<u>27,938</u>	<u>21,000</u>	<u>48,938</u>	<u>44.7</u>	<u>33.6</u>	<u>78.3</u>	<u>43</u>

	Local	Foreign	Total	Local	Foreign	Total	Foreign
	-----	Rp million	-----	-----	US\$ million	-----	exchange
							(%)
Agricultural Support Services							
Civil works							
Seed farms	125	63	188	0.2	0.1	0.3	40
Plant protection brigade	62	-	62	0.1	-	0.1	40
Livestock component	187	125	312	0.3	0.2	0.5	40
Cooperatives	1,937	1,313	3,250	3.1	2.1	5.2	40
Transit fertilizer storage	188	62	250	0.3	0.1	0.4	25
RECs and staff housing	259	63	313	0.4	0.1	0.5	33
Subtotal	<u>2,749</u>	<u>1,626</u>	<u>4,375</u>	<u>4.3</u>	<u>2.7</u>	<u>7.0</u>	<u>39</u>
Equipment, services and supplies							
Seeds and seedlings	1,563	250	1,813	2.5	0.4	2.9	15
Rock phosphate	125	937	1,062	0.2	1.5	1.7	85
Fertilizers and pesticides	1,562	4,688	6,250	2.5	7.5	10.0	55
Seed farm equipment	-	125	125	-	0.2	0.2	100
Livestock and equipment	63	2,937	3,000	0.1	4.7	4.8	100
Equipment for cooperatives	-	938	938	-	1.5	1.5	100
Equipment for REC and PPB	63	124	187	0.1	0.2	0.3	70
Malaria and health services equipment, supplies	-	250	250	-	0.4	0.4	100
Consultant services /c	312	1,063	1,375	0.5	1.7	2.2	80
Agricultural research	187	313	500	0.3	0.5	0.8	62
Training	-	125	125	-	0.2	0.2	80
Administration and overhead	1,251	62	1,313	2.0	0.1	2.1	5
Base cost	<u>7,813</u>	<u>13,500</u>	<u>21,313</u>	<u>12.5</u>	<u>21.6</u>	<u>34.1</u>	<u>63</u>
Physical contingencies /f	875	1,500	2,375	1.4	2.4	3.8	63
Expected price increases	3,937	6,750	10,687	6.3	10.8	17.1	63
Total	<u>12,625</u>	<u>21,750</u>	<u>34,375</u>	<u>20.2</u>	<u>34.8</u>	<u>55.0</u>	<u>63</u>
Investigations and Designs							
Mapping	375	1,688	2,063	0.6	2.7	3.3	80
Consultant services /c	1,937	1,625	3,562	3.1	2.6	5.7	55
Administration and overhead	563	62	625	0.9	0.1	1.0	10
Base cost	<u>2,875</u>	<u>3,375</u>	<u>6,250</u>	<u>4.6</u>	<u>5.4</u>	<u>10.0</u>	<u>54</u>
Physical contingencies /g	312	313	625	0.5	0.5	1.0	54
Expected price increases	1,000	1,125	2,125	1.6	1.8	3.4	54
Total	<u>4,187</u>	<u>4,813</u>	<u>9,000</u>	<u>6.7</u>	<u>7.7</u>	<u>14.4</u>	<u>54</u>
GRAND TOTAL	<u>61,187</u>	<u>90,063</u>	<u>151,250</u>	<u>97.9</u>	<u>144.1</u>	<u>242.0</u>	<u>60</u>

/a In mid-1979 prices and rate of exchange of US\$1.0 = Rp 625.

/b Based on use of duty-free equipment.

/c Based on total consultant costs of US\$9,000/man-month for foreign and US\$1,500/man-month for local consultants (see Table 8 for breakdown).

/d About 25% for civil works and 10% for equipment and services.

/e Includes health centers, schools, mosques, village halls, offices and quarters for officials, guard houses and stores, markets, banks and post offices.

/f About 15% for civil works and 10% for equipment, services and supplies.

/g About 10% for services.

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INDONESIA

APPRAISAL OF THE

NUCLEUS ESTATES AND SMALLHOLDERS III PROJECT

July 18, 1979

Projects Department
East Asia and Pacific Regional Office

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INDONESIA

NUCLEUS ESTATES AND SMALLHOLDERS III PROJECT

Comparison of Development Costs per Family
(Constant 1979 US\$)

Category	Rimbo Bujang Smallholder Development /a			Danau Salak New Settlement /b		
	Credit	Non-credit	Total costs	Credit	Non-credit	Total costs
Rubber Development						
Direct costs	3,017	-	3,017	3,684	-	3,684
Machinery	680	-	680	307	-	307
Overheads (10%)	301	-	301	368	-	368
<u>Subtotal</u>	<u>3,998</u>	<u>-</u>	<u>3,998</u>	<u>4,359</u>	<u>-</u>	<u>4,359</u>
Subsistence Package						
Initial land clearing (1 ha)	-	-	-	53	-	53
Cash payment	-	-	-	48	-	48
Seed/fertilizers	-	-	-	40	-	40
Food crop center/marketing	-	52	52	-	218	218
<u>Subtotal</u>	<u>-</u>	<u>52</u>	<u>52</u>	<u>141</u>	<u>218</u>	<u>359</u>
Roads						
Machinery		---(marga land only)---		120	-	120
Civil works				275	-	275
<u>Subtotal</u>				<u>395</u>	<u>-</u>	<u>395</u>
Settler Housing	-	-	-	425	-	425
Village Infrastructure		---(marga land only)---		-	60	60
Health Services	-	-	-	-	107	107
Others						
Buildings/civil works	-	86	86	-	48	48
Equipment/vehicles	-	20	20	-	13	13
Resettlement cost	-	-	-	-	248	248
<u>Subtotal</u>	<u>-</u>	<u>106</u>	<u>106</u>	<u>-</u>	<u>309</u>	<u>309</u>
Project Management						
Management fee	-	150	150	-	186	186
Dinas Perkebunan Dearah	-	6	6	-	16	16
<u>Subtotal</u>	<u>-</u>	<u>156</u>	<u>156</u>	<u>-</u>	<u>202</u>	<u>202</u>
Total Base Costs per Family	3,998	314	4,312	5,320	896	6,216
Contingencies /c						
Physical	400	31	431	532	90	622
Price /d	1,587	154	1,741	2,117	358	2,475
<u>Subtotal</u>	<u>1,987</u>	<u>185</u>	<u>2,172</u>	<u>2,649</u>	<u>448</u>	<u>3,097</u>
Total Costs per Family	5,985	499	6,484	7,969	1,344	9,313

/a Two ha of rubber establishment for existing transmigrants and local population; 8,000 family beneficiaries.

/b Three ha of rubber for 4,000 families.

/c Contingencies on families for new settlement in 1980-81.

/d Assumed on revised inflation for civil works of 25% in 1979, 22% in 1980, 10% in 1981 and 7% thereafter; equipment at 7% from 1979 onwards.

NUCLEUS ESTATES AND SMALLHOLDERS III PROJECT

Data Available in the Staff Working Papers

VOLUME A - DANAU SALAK - PTP XVIII NUCLEUS ESTATE AND SMALLHOLDER DEVELOPMENT

<u>Nucleus Estate Danau Salak Development</u>		<u>Tables</u>
A.0	<u>Project Description (text)</u>	
A.1	<u>Physical Data</u>	
1.	Rubber Planting Program, Area Statement, Rainfall Record and Soils Analysis	1.1 - 1.7
2.	Rubber Field Establishment and Upkeep	2.1 - 2.19
3.	Rubber Yield, Production and Exploitation Cost	3.1 - 3.7
4.	Personnel and Labor Requirement	4.1 - 4.9
5.	Housing, Agricultural, Transport and Processing Equipment Requirement	5.1 - 5.9
A.2	<u>Total Project Cost and Financial Analysis</u>	
1.	Project Cost	1.1 - 1.20
2.	Financial Analysis - Danau Salak with Project	2.1 - 2.18
3.	Financial Analysis - Danau Salak without Project	3.1 - 3.13
4.	Financial Analysis - PTP XVIII - Java Estates	4.1 - 4.8
5.	Financial Analysis - Java Estates and Danau Salak without Project	5.1 - 5.2
6.	Financial Analysis - Java Estates and Danau Salak with Project	6.1 - 6.3
A.3	<u>Cost - Benefit Analysis</u>	1.1 - 1.2
<u>Danau Salak Smallholder Development</u>		
A.4	<u>Basic Physical Data</u>	
1.	Rubber Planting Program, Area Statement	1.1 - 1.3
2.	Rubber Field Establishment and Upkeep	2.1 - 2.9
3.	Rubber Yield and Production	3.1 - 3.2
4.	Village Infrastructure, Housing and Roads	4.1 - 4.6
5.	Transport and Agricultural Equipment Requirement	5.1 - 5.2
6.	Food Crop Center at Tungkap	6.1 - 6.6
7.	Farm Model	7.1 - 7.8
A.5	<u>Project Cost and Financial Analysis</u>	
1.	Project Cost	1.1 - 1.19
A.6	<u>Cost - Benefit Analysis</u>	1.1 - 1.2

VOLUME B - NUCLEUS ESTATE DEVELOPMENT - PNP I

B.0	<u>Project Description (text)</u>	<u>Tables</u>
B.1	<u>Rubber Development</u>	
	1. Area Statement	1.1 - 1.9
	2. Rainfall Record and Soil Analysis	2.1 - 2.6
	3. Nursery and Field Establishment	3.1 - 3.22
	4. Yield and Production	4.1 - 4.5
	5. Tapping and Processing	5.1 - 5.8
	6. Personnel and Housing Requirement	6.1 - 6.7
	7. Agricultural Equipment and Vehicles Requirement	7.1 - 7.12
	8. Rubber Project Cost	8.1 - 8.20
	9. Sales, Profit and Loss, Inventory Variations	9.1 - 9.10
B.2	<u>Oil Palm Development</u>	
	1. Area Statement (ha)	1.1 - 1.11
	2. Rainfall Record	2.1 - 2.4
	3. Nursery and Field Establishment	3.1 - 3.10
	4. Yield and Production	4.1 - 4.7
	5. Harvesting, Upkeep and Processing Cost	5.1 - 5.6
	6. Personnel and Housing Requirement	6.1 - 6.7
	7. Agricultural and Transport Equipment Requirement	7.1 - 7.11
	8. Oil Palm Project Cost	8.1 - 8.17
	9. Sales, Profit and Loss, Inventory Variation	9.1 - 9.15
B.3	<u>Total Project Cost and Financial Analysis</u>	1.1 - 1.13
B.4	<u>Cost - Benefit Analysis</u>	1.1 - 1.6

VOLUME C - RIMBO BUJANG SMALLHOLDER DEVELOPMENT - PTP VI

C.0	<u>Project Description (text)</u>	
C.1	<u>Basic Physical Data</u>	
	1. Rubber, Planting Program, Area Statement, Rainfall	1.1 - 1.5
	2. Rubber Field Establishment and Upkeep	2.1 - 2.18
	3. Rubber Yield and Production	3.1 - 3.6
	4. Personnel and Labor Requirements	4.1 - 4.14
	5. Housing, Vehicles and Agricultural Equipment Requirement	5.1 - 5.4
	6. Food Crop Center	6.1 - 6.5
	7. Roads	7.1 - 7.3
C.2	<u>Physical and Financial Data</u>	
	1. Farm Model without Project	1.1 - 1.4
	2. Farm Model with Project	2.1 - 2.6
C.3	<u>Project Cost and Financial Analysis</u>	1.1 - 1.15
C.4	<u>Cost - Benefit Analysis</u>	1.1 - 1.2

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STAFF APPRAISAL REPORT

INDONESIA

TRANSMIGRATION IV PROJECT

April 19, 1983

Projects Department
East Asia and Pacific Regional Office

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INDONESIA

TRANSMIGRATION IV PROJECT

Development Costs per Family
(Rp'000)

	Muara Wahau		Sangkulirang	
	Credit	Noncredit	Credit	Noncredit
Land clearing for: house, home garden and food crop village center, infrastructure, etc.	-	780	-	765
Roads and bridges /a	-	580	-	830
Settler housing	-	640	-	640
Village facilities /b	-	586	-	670
Settlement, relocation and subsistence	-	890	-	890
Agrarian service	-	88	-	88
Food crop development	-	308	-	278
Coconut establishment /c	4,445	-	4,544	-
National programs /d	-	280	-	327
Subtotal	4,445	3,872	4,544	4,161
<u>Total Development Costs per</u> <u>Family - in Rp'000</u>		8,317		8,705
- in US\$		13,310		13,930
Credit component (%)		53		52

/a Excludes access road to Batu Ampar, wharves/jetties and landing fields.

/b Includes village facilities, staff housing, equipment and vehicles for community development, settler relocation and support; excludes health, education, cooperative development facilities.

/c Includes costs for land clearing, coconut establishment, farm tracks and collection roads, development overhead, road construction, and agricultural machinery and equipment.

/d Includes the costs of health and education services and cooperative development.

INDONESIA

TRANSMIGRATION IV PROJECT

Project Cost Estimate

	Local	Foreign	Total	Local	Foreign	Total
	---- (Rp million) ----		----	-- (US\$ million) --		----
I. <u>Muara Wahau Development</u>						
<u>Site Preparation</u>						
Land clearing, liming and road construction	2,244	4,620	6,864	3.2	6.6	9.8
Wharf, landing field and Batu Ampar road	462	1,260	1,722	0.7	1.8	2.5
Agrarian services	132	70	202	0.2	0.1	0.3
Recurrent costs	924	280	1,204	1.3	0.4	1.7
Subtotal	<u>3,762</u>	<u>6,230</u>	<u>9,992</u>	<u>5.4</u>	<u>8.9</u>	<u>14.3</u>
<u>Community Development</u>						
Housing and village facilities	2,904	1,680	4,584	4.1	2.4	6.5
Health and education facilities	1,320	280	1,600	1.9	0.4	2.3
Vehicles, furnishings and equip.	66	350	416	0.1	0.5	0.6
Settler transportation and services	990	980	1,970	1.4	1.4	2.8
Settler supplies and materials	990	560	1,550	1.4	0.8	2.2
Agrarian services	132	70	202	0.2	0.1	0.3
Recurrent costs	330	140	470	0.5	0.2	0.7
Subtotal	<u>6,732</u>	<u>4,060</u>	<u>10,792</u>	<u>9.6</u>	<u>5.8</u>	<u>15.4</u>
<u>Agricultural Development - Food</u>						
<u>Crops and Livestock</u>						
Agricultural facilities (REC, PBB, FCC, seed farm and KUDs)	198	70	268	0.3	0.1	0.4
Poultry development facilities	-	-	-	-	-	-
Vehicles and equipment	66	140	206	0.1	0.2	0.3
Agricultural supplies	198	700	898	0.3	1.0	1.3
Livestock	-	-	-	-	-	-
PPL training	-	-	-	-	-	-
Soil conservation	-	-	-	-	-	-
Recurrent costs	66	-	66	0.1	-	0.1
Subtotal	<u>528</u>	<u>910</u>	<u>1,438</u>	<u>0.8</u>	<u>1.3</u>	<u>2.1</u>

	Local ---- (Rp million)	Foreign -----	Total -----	Local --- (US\$ million)	Foreign ---	Total ---
<u>Tree Crop Development -</u>						
<u>Smallholders</u>						
Tree crop establishment	3,300	2,870	6,170	4.7	4.1	8.8
Infrastructure	264	560	824	0.4	0.8	1.2
Staff housing	66	-	66	0.1	-	0.1
Vehicles and equipment	-	1,960	1,960	-	2.8	2.8
Operating costs	594	350	944	0.8	0.5	1.3
Subtotal	<u>4,224</u>	<u>5,740</u>	<u>9,964</u>	<u>6.0</u>	<u>8.2</u>	<u>14.2</u>
<u>Tree Crop Development -</u>						
<u>Estates</u>						
Tree crop establishment	330	280	610	0.5	0.4	0.9
Infrastructure	20	-	20	.03	-	.03
Estate facilities	528	840	1,368	0.8	1.2	2.0
Estate staff resettlement	13	-	13	.02	-	.02
Vehicles and equipment	66	1,120	1,186	0.1	1.6	1.7
Operating costs	66	-	66	0.1	-	0.1
Subtotal	<u>1,023</u>	<u>2,240</u>	<u>3,263</u>	<u>1.5</u>	<u>3.3</u>	<u>4.8</u>
Subtotal baseline cost	<u>16,269</u>	<u>19,180</u>	<u>35,449</u>	<u>23.3</u>	<u>27.5</u>	<u>50.8</u>
Physical contingencies	1,518	1,750	3,268	2.2	2.5	4.7
Price contingencies	4,884	3,640	8,524	7.0	5.2	12.2
<u>Total Cost of Component</u>	<u>22,671</u>	<u>24,570</u>	<u>47,241</u>	<u>32.5</u>	<u>35.2</u>	<u>67.7</u>

II. Sangkulirang DevelopmentSite Preparation

Land clearing, liming and road construction	1,320	2,800	4,120	1.9	4.0	5.9
Landing field	13	42	55	.02	.06	.08
Agrarian services	132	42	174	0.2	.06	0.2
Recurrent costs	198	70	268	0.3	0.1	0.4
Subtotal	<u>1,663</u>	<u>2,954</u>	<u>4,617</u>	<u>2.4</u>	<u>4.2</u>	<u>6.6</u>

	Local ---- (Rp million) -----	Foreign -----	Total -----	Local ---- (US\$ million) ----	Foreign -----	Total -----
<u>Community Development</u>						
Housing and village facilities	2,376	1,120	3,496	3.4	1.6	5.0
Health and education facilities	660	280	940	0.9	0.4	1.3
Vehicles, furnishings and equip.	66	350	416	0.1	0.5	0.6
Settler transportation and services	660	700	1,360	0.9	1.0	1.9
Settler supplies and materials	858	350	1,208	1.2	0.5	1.7
Agrarian services	132	70	202	0.2	0.1	0.3
Recurrent costs	264	70	334	0.4	0.1	0.5
Subtotal	<u>5,016</u>	<u>2,940</u>	<u>7,956</u>	<u>7.1</u>	<u>4.2</u>	<u>11.3</u>
<u>Agricultural Development - Food</u>						
<u>Crops and Livestock</u>						
Agricultural facilities (REC, PBB, FCC and KUDs)	132	70	202	0.2	0.1	0.3
Vehicles and equipment	20	140	160	.03	0.2	0.2
Agricultural supplies	132	490	622	0.2	0.7	0.9
Livestock	6	21	27	.01	.03	.04
PPL training	6	-	6	.01	-	.01
Soil conservation	-	-	-	-	-	-
Recurrent costs	26	7	33	.04	.01	.05
Subtotal	<u>322</u>	<u>728</u>	<u>1,050</u>	<u>0.5</u>	<u>1.0</u>	<u>1.5</u>
<u>Tree Crop Development</u>						
Tree crop establishment	2,574	2,240	4,814	3.7	3.2	6.9
Infrastructure and housing	924	770	1,694	1.3	1.1	2.4
Vehicles and equipment	132	2,100	2,232	0.2	3.0	3.2
Staff resettlement	-	-	-	-	-	-
Recurrent costs	528	280	808	0.7	0.4	1.1
Subtotal	<u>4,158</u>	<u>5,390</u>	<u>9,548</u>	<u>5.9</u>	<u>7.7</u>	<u>13.6</u>
Subtotal baseline costs	<u>11,159</u>	<u>12,012</u>	<u>23,171</u>	<u>15.9</u>	<u>17.1</u>	<u>33.0</u>
Physical contingencies	1,122	1,190	2,312	1.6	1.7	3.3
Price contingencies	2,838	1,960	4,798	4.0	2.8	6.8
<u>Total Cost of Component</u>	<u>15,119</u>	<u>15,162</u>	<u>30,281</u>	<u>21.5</u>	<u>21.6</u>	<u>43.1</u>

	Local ---- (Rp million)	Foreign -----	Total -----	Local -- (US\$ million)	Foreign --	Total --
III. <u>Program Coordination and Technical Assistance</u>						
<u>Special Unit for Bank-Assisted Projects</u>						
Equipment	198	280	478	0.3	0.4	0.7
Operating expenditures	1,056	210	1,266	1.5	0.3	1.8
Technical assistance	330	1,750	2,080	0.5	2.5	3.0
Subtotal	<u>1,584</u>	<u>2,240</u>	<u>3,824</u>	<u>2.3</u>	<u>3.2</u>	<u>5.5</u>
Other Technical Assistance	<u>66</u>	<u>1,260</u>	<u>1,326</u>	<u>0.1</u>	<u>1.8</u>	<u>1.9</u>
Subtotal baseline cost	<u>1,650</u>	<u>3,500</u>	<u>5,150</u>	<u>2.4</u>	<u>5.0</u>	<u>7.4</u>
Physical contingencies	132	280	412	0.2	0.4	0.6
Price contingencies	396	560	956	0.5	0.8	1.3
<u>Total Cost of Component</u>	<u>2,178</u>	<u>4,340</u>	<u>6,518</u>	<u>3.0</u>	<u>6.2</u>	<u>9.2</u>
<u>Total Baseline Cost</u>	<u>29,078</u>	<u>34,692</u>	<u>63,770</u>	<u>41.5</u>	<u>49.6</u>	<u>91.2</u>
Total physical contingencies	2,772	3,220	5,992	3.9	4.6	8.5
Total price contingencies	8,118	6,160	14,278	11.5	8.8	20.4
<u>Total Project Cost</u>	<u>29,968</u>	<u>44,072</u>	<u>84,040</u>	<u>57.0</u>	<u>63.0</u>	<u>120.0</u>

TRANSMIGRATION IV PROJECT

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1. Annexes to the SAR
 - Detailed cost tables
 - Detailed economic tables
 - Detailed agricultural tables

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 - Two volumes including the following papers:
 - General
 - Agricultural aspects
 - Community development
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3. Feasibility Studies for Tree Crop Development in East Kalimantan - P.T. Agriconsult
 - Muara Wahau - 2 volumes
 - Sangkulirang - 2 volumes

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STAFF APPRAISAL REPORT

INDONESIA

TRANSMIGRATION IV PROJECT

April 19, 1983

Projects Department
East Asia and Pacific Regional Office

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INDONESIA

TRANSMIGRATION IV PROJECT

Development Costs per Family
(Rp⁰⁰⁰)

	<u>Muara Wahau</u>		<u>Sangkulirang</u>	
	<u>Credit</u>	<u>Noncredit</u>	<u>Credit</u>	<u>Noncredit</u>
Land clearing for: house, home garden and food crop village center, infrastructure, etc.	-	780	-	765
Roads and bridges <u>/a</u>	-	580	-	830
Settler housing	-	640	-	640
Village facilities <u>/b</u>	-	586	-	670
Settlement, relocation and subsistence	-	890	-	890
Agrarian service	-	88	-	88
Food crop development	-	308	-	278
Coconut establishment <u>/c</u>	4,445	-	4,544	-
National programs <u>/d</u>	-	280	-	327
Subtotal	<u>4,445</u>	<u>3,872</u>	<u>4,544</u>	<u>4,161</u>
<u>Total Development Costs per</u> <u>Family - in Rp⁰⁰⁰</u>		8,317		8,705
- in US\$		13,310		13,930
Credit component (%)		53		52

/a Excludes access road to Batu Ampar, wharves/jetties and landing fields.

/b Includes village facilities, staff housing, equipment and vehicles for community development, settler relocation and support; excludes health, education, cooperative development facilities.

/c Includes costs for land clearing, coconut establishment, farm tracks and collection roads, development overhead, road construction, and agricultural machinery and equipment.

/d Includes the costs of health and education services and cooperative development.

	Local ---- (Rp million) ----	Foreign -----	Total -----	Local -- (US\$ million) --	Foreign --	Total --
III. Program Coordination and Technical Assistance						
<u>Special Unit for Bank-Assisted Projects</u>						
Equipment	198	280	478	0.3	0.4	0.7
Operating expenditures	1,056	210	1,266	1.5	0.3	1.8
Technical assistance	330	1,750	2,080	0.5	2.5	3.0
Subtotal	<u>1,584</u>	<u>2,240</u>	<u>3,824</u>	<u>2.3</u>	<u>3.2</u>	<u>5.5</u>
Other Technical Assistance	<u>66</u>	<u>1,260</u>	<u>1,326</u>	<u>0.1</u>	<u>1.8</u>	<u>1.9</u>
Subtotal baseline cost	<u>1,650</u>	<u>3,500</u>	<u>5,150</u>	<u>2.4</u>	<u>5.0</u>	<u>7.4</u>
Physical contingencies	132	280	412	0.2	0.4	0.6
Price contingencies	396	560	956	0.5	0.8	1.3
<u>Total Cost of Component</u>	<u>2,178</u>	<u>4,340</u>	<u>6,518</u>	<u>3.0</u>	<u>6.2</u>	<u>9.2</u>
<u>Total Baseline Cost</u>	<u>29,078</u>	<u>34,692</u>	<u>63,770</u>	<u>41.5</u>	<u>49.6</u>	<u>91.2</u>
Total physical contingencies	2,772	3,220	5,992	3.9	4.6	8.5
Total price contingencies	8,118	6,160	14,278	11.5	8.8	20.4
<u>Total Project Cost</u>	<u>29,968</u>	<u>44,072</u>	<u>84,040</u>	<u>57.0</u>	<u>63.0</u>	<u>120.0</u>

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80 32
81 11
82 8
83 15
84 9

1st DRAFT

TRANSMIGRATION PROGRAMME

SECOND PHASE

EVALUATION

UNDP/OPE INS/79/001

Chapter II INPUTS

2.1 Pelita I and II

The concept of transmigratioin schemes in Pelita I was very much modelled on the earlier Irrigated schemes of the Kolonisasi programme; there was a basic assumption that the mainly Javanese transmigrants would grow rice on irrigated land. Each farmer was given a total of two hectares, one hectare of "sawah", three quarters of a hectare upland of "ladang", and a homelot of a quarter hectare. Unfortunately many settlements were put on land which had not been subjected to capability studies or Irrigation feasibility. In addition, the Directorate General of Irrigation had its work cut out to rehabilitate existing projects and to complete those already started before world War II. These early transmigration projects assumed the eventual provision of Irrigation.

In the early days of the programme only Rp.260,000 (1972-1973), or US\$ 625, was provided in the budget of the DGT for one family. This amount was intended to provide the following:

1. recruitment costs	Rp. 4,000
2. transport and subsistence during travel	58,000
3. house construction	65,000
4. land clearing, one hectare	20,000
5. food during 12 months	38,000
6. some tools and farm inputs	20,000
7. miscellaneous items and overheads	55,000
TOTAL	Rp.260,000

Item 6. above, covering tools and farm inputs amounts to 7.7% of the total, which is similar to the proportion allotted to agricultural development during Repelita III. Such inputs are today provided over successive years, whereas in 1972 it was a one shot supply. The total cost per family in Pelita I was Rp. 260,000 which in 1982 prices would be US\$ 2,300. There was the assumption that the ministries of Public works, Health, Education, etc., would provide roads, Irrigation, and other services. In many cases these were not carried out for very many years. The above costs were for Government fully sponsored settlers going to then dry settlement areas. Tidal Irrigation schemes cost Rp. 310,000 per family, while assisted spontaneous transmigrants cost only Rp. 30,000 per family, to cover transportation and some site preparation in the new area.

By the beginning of Pelita II it was brought to the notice of the DGT that the DG Irrigation had a target of about 95,000 hectares in the outer Islands scheduled to be provided with Irrigation during the Five Year Plan period; all of which was to be in existing transmigration areas and farm lands of local people. There was no hope that new settlers during Pelita II could be provided with Irrigation for a very long time in the future.

Table 2.1.

UNIT COSTS OF TRANSMIGRATION, REPELITAS I-III
IN CURRENT PRICES PER FAMILY

	DGT		Other		Total	
	Rp.000	US\$	Rp.000	US\$	Rp.000	US\$
Repelita I						
1969/70	189	456	..	..	..	..
1970/71	269	648	..	..	..	..
1971/72	1,012	2,441	..	..	..	..
1972/73	206	496	..	..	..	..
1973/74	163	393	..	..	..	..
Average	213	513	..	..	..	..
Repelita II						
1974/75	609	1,468	..	..	..	..
1975/76	1,785	4,302	..	..	..	..
1976/77	1,959	4,721	..	..	..	..
1977/78	1,471	3,546	..	..	..	..
1978/79	2,212	5,331	..	..	..	..
Average	1,711	4,122	..	..	..	..
Repelita III						
1979/80	1,357	2,172	1,190	1,904	2,547	4,076
198/81	1,818	2,908	1,467	2,347	3,285	5,255
1981/82	1,915	3,107	1,692	2,707	3,607	5,814
Average	1,771	2,833	1,493	2,389	3,264	5,222

Source: DGT, May 1981

Table 2.2

UNIT COSTS OF TRANSMIGRATION ACTIVITIES
1972/73 AND 1981/82
COSTS PER FAMILY

ACTIVITY (1)	1972/73				1981/82			%Real Change Over 9 yrs (Col(8) : Col(5))
	1972/73		1981/82*		1981/82		1981/82	
	Rupiah 000	%	Rupiah 000	US\$ 000	Rupiah 000	%	US\$ (8)	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Physical Planning	..	..	..	..	24	1	38	..
Agrarian matters	..	..	..	..	38	1	61	..
Recruitment/ Transport	62	24	326	522	398	11	637	+22
House/Settlement Construction	75	29	395	632	675	24	1400	+122
Land Clearing)					581	16	930)
)	35	13	184	194)
Road Building)					964	27	1542)
Subsistence (12 months)	38	11	200	320	266	7	426	+33
Tools/Farm Inputs/ Agro Development	20	8	105	168	176	5	282	+66
Other Development	-	-	-	-	27	1	43	..
Misc./Overheads	30	12	158	253	253	7	373	..
TOTAL	260	100	1368	2189	3582	100	5732	+162

* Inflation Factor of 5.26 (Annex III, Table 9.3, IBRD 3795-IND, May 1982)

Source: I. IBRD Transmigration Sector Review, 1973
 II. Project Records, 1971/72 and 1972/73
 III. BAPPENAS (Anggaran) for 1981/82.

Table 5.1 Investment Costs of Transmigration Models
(Mid-1982 prices)

MODELS ONE AND TWO: DRYLAND LOW AND HIGH INPUTS

A. <u>Government 1982/83 Programme</u>		
	<u>Agency</u>	<u>US\$ / KK</u>
Pre-Settlement		
1.	Dept. Nakertrans	20
2.	DG Cipta Karya	250
3.	DG Agraria	220
4.	DG Bina Marga	1,840
5.	DG Transmigrasi	2,390
	Sub-Total	4,720
Post-Settlement		
6.	Dit. Pembinaan, DGT	870
7.	Dept. Pertanian	460
	Sub-Total	1,330
	TOTAL	6,050

Source: Satuan 3 Sub Sektor Transmigrasi Tahun 1982/83,
Kantor MenMudtrans.

Major Inputs by Agency

1. Management and coordination overheads
2. Physical planning
3. Land Use planning, land demarcation, land registration
4. Land clearing, road construction
5. Recruitment and training of settlers, settlement construction, transfer of settlers.
6. Inputs from agricultural agencies concerned with food crops, BIMAS, forestry, livestock, fisheries, estates and research.
7. One year subsistence package to transmigrants, administration of settlement before hand-over to local Government.

N.B. Due to the comparatively low proportions of transmigration investment disbursed post-settlement and to the similarity between all Models in most (i.e. not operations and maintenance) post settlement investment (e.g. the one year subsistence package), all investment costs in this economic analysis will be assumed, for simplicity, to occur in year 0.

Table 5.1 (contd.)

B. IBRD Trans III Batumarta Extension, 1982

<u>Component</u>	<u>US\$ / KK</u>
<u>Settlement</u>	
Imputed Physical Planning	250
Land Preparation	3,100
Settlement Construction	1,920
Settler Transfer and Subsistence	1,600
Sub-Total	6,870
<u>Agriculture</u>	
Agricultural Services	1,100
Imputed Livestock Costs	650
Sub-Total	1,750
TOTAL EXCLUDING RUBBER	8,620
Tree Crop Establishment	2,200
Sub Total	10,820
Rubber Factory	910
TOTAL	11,730

Source: Staff Appraisal Report Trans III, May 26, 1982

Major Inputs Additional to those of Government 1982/83 Programme

- Settlement
- i paved access and main settlement roads
- ii dams and valley bottom reservoirs
- iii project management unit
- Agriculture (excluding Rubber)
- iv one heifer per family
- v rural extension centre, with more than double the ratio of extension officers to farmers, and agricultural supplies for research and demonstration farming.
- vi plant protection centre
- vii farmers cooperative centre
- viii soil conservation package

Table 5.1 (contd.)

3

MODEL THREE: TREE CROPS

<u>Additional to Investment Costs of Models One or Two</u>	<u>US\$/Ha</u>
Tree Crop Establishment	2,200
Buildings, Management, Overheads @ 10%	220
Total Additional Investment	2,420

Source: IBRD Trans II Batumarta Extension, Staff
Appraisal Report, May 26, 1982.

MODEL FOUR: IRRIGATION

<u>Additional to Investment Costs of Models One or Two</u>	<u>US\$/Ha</u>
A. <u>Low Case</u>	
Small headworks, little land clearing, little land levelling, already bunded, short and fat tertiary service area	1,500
B. <u>High Case</u>	
Large headworks, much land clearing, levelling and bunding, long and thin tertiary service area	3,500

Source: Electroconsult Consultants to DGWRD
on irrigation in transmigration
areas (verbal communication)

Table 5.1 (contd.)

MODEL FIVE; TIDAL SWAMP

Additional to Investment Costs of Models One or Two

<u>Reclamation and Site Preparation</u>	<u>US\$/KK*</u>
Land Clearing (canals, base camp, creeks only, <u>not including</u> houselots, farm plots or public facilities)	532
Earthworks	1,161
Structures	820
Equipment and Supplies	122
Physical Contingencies @ 15%	395
Cost inflation end-80 to mid-82 @ 15% p.a.	<u>682</u>
Total	3,712

* Each KK to receive 0,5 Ha, houselot
plus 1,75 Ha, farm plot

(= 1,650/Ha)

Source: IBRD Swamp Reclamation Project,
Staff Appraisal Report,
February 23, 1981

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STAFF APPRAISAL REPORT

INDONESIA

NUCLEUS ESTATES AND SMALLHOLDERS VI PROJECT

March 22, 1982

Projects Department
East Asia and Pacific Regional Office

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INDONESIA

NUCLEUS ESTATES AND SMALLHOLDERS VI PROJECT

Project Cost Estimates

	Local	Foreign	Total	Local	Foreign	Total	Foreign
	---- (Rp million)	-----	-----	--- (US\$ million)	---	---	exchange (%)
<u>PTP XII Nucleus Estates</u>							
<u>Cikaso</u>							
Rubber establishment	611	499	1,110	1.0	0.8	1.8	45
Roads	186	379	565	0.3	0.6	0.9	67
Estate housing & buildings	427	349	776	0.7	0.5	1.2	45
Rubber processing	168	167	335	0.3	0.2	0.5	50
Power & water	52	106	158	-	0.2	0.2	67
Road construction equipment	-	809	809	-	1.3	1.3	100
Agricultural machinery & equipment	-	196	196	-	0.3	0.3	100
Estate vehicles	10	59	69	-	0.1	0.1	85
Office equipment & furniture	40	227	267	-	0.4	0.4	85
Operating expense	66	45	111	0.1	0.1	0.2	40
<u>Base Costs</u>	<u>1,560</u>	<u>2,836</u>	<u>4,396</u>	<u>2.5</u>	<u>4.5</u>	<u>7.0</u>	<u>65</u>
Physical contingencies	192	329	521	0.3	0.5	0.8	63
Price contingencies	765	677	1,442	1.2	1.1	2.3	47
<u>Total</u>	<u>2,517</u>	<u>3,842</u>	<u>6,359</u>	<u>4.0</u>	<u>6.2</u>	<u>10.2</u>	<u>60</u>
<u>Agrabinta</u>							
Rubber establishment	497	407	904	0.8	0.7	1.5	45
Coconut processing	1,114	2,263	3,377	1.8	3.6	5.4	67
Coconut establishment	371	303	674	0.6	0.5	1.1	45
Roads	265	536	801	0.4	0.9	1.3	67
Estate housing & buildings	75	61	136	0.1	0.1	0.2	45
Rubber processing	203	203	406	0.3	0.3	0.6	50
Power & water	69	142	211	0.1	0.2	0.3	67
Road construction equipment	-	809	809	-	1.3	1.3	100
Agricultural machinery & equipment	-	235	235	-	0.4	0.4	100
Estate vehicles	13	73	86	-	0.1	0.1	85
Office equipment & furniture	40	231	271	-	0.4	0.4	85
Operating expense	95	63	158	0.2	0.1	0.3	40
<u>Base Costs</u>	<u>2,742</u>	<u>5,326</u>	<u>8,068</u>	<u>4.4</u>	<u>8.5</u>	<u>12.9</u>	<u>66</u>
Physical contingencies	321	619	940	0.5	1.1	1.5	73
Price contingencies	1,322	1,438	2,760	2.1	2.3	4.4	52
<u>Total</u>	<u>4,385</u>	<u>7,383</u>	<u>11,768</u>	<u>7.0</u>	<u>11.8</u>	<u>18.8</u>	<u>63</u>

	Local	Foreign	Total	Local	Foreign	Total	Foreign
	----	(Rp million)	-----	---	(US\$ million)	---	exchange
							(%)
PTP XII Smallholders							
<u>Cikaso</u>							
Coconut establishment	1,052	860	1,912	1.7	1.4	3.1	45
Roads	452	917	1,369	0.7	1.5	2.2	67
Settler housing, water & sanitation	330	269	599	0.5	0.4	1.0	45
Village infrastructure	13	11	24	0.03	-	-	45
Education & health buildings	50	40	90	-	-	0.1	45
Land clearing for food crops, gardens & villages	22	18	40	-	-	-	45
Road construction equipment	-	708	708	-	1.1	1.1	100
Agricultural machinery & equipment	-	59	59	-	0.1	0.1	100
Education & health equipment & supplies	3	13	16	-	-	-	80
Settler subsistence & seed, fertilizer packages	34	11	45	-	-	-	25
Operating costs	172	115	287	0.3	0.2	0.5	40
<u>Base Costs</u>	<u>2,128</u>	<u>3,021</u>	<u>5,149</u>	<u>3.4</u>	<u>4.8</u>	<u>8.2</u>	<u>58</u>
Physical contingencies	255	364	619	0.4	0.6	1.0	40
Price contingencies	1,081	806	1,887	1.7	1.3	3.0	43
<u>Total</u>	<u>3,464</u>	<u>4,191</u>	<u>7,655</u>	<u>5.5</u>	<u>6.7</u>	<u>12.2</u>	<u>55</u>
<u>Agrabinta</u>							
Coconut establishment	1,887	1,544	3,431	3.0	2.5	5.5	45
Roads	437	888	1,325	0.7	1.4	2.1	67
Land clearing for food crops, gardens & villages	44	36	80	0.1	-	0.1	45
Settler housing, water & sanitation	622	510	1,132	1.0	0.8	1.8	45
Village infrastructure	25	21	46	-	-	-	45
Education & health buildings	95	78	173	0.2	0.1	0.3	45
Road construction equipment	-	708	708	-	1.1	1.1	100
Agricultural machinery & equipment	-	105	105	-	0.2	0.2	100
Education & health equipment & supplies	6	22	28	-	-	-	80
Settler subsistence & seed, fertilizer packages	68	22	90	0.1	-	0.1	25
Operating costs	309	206	515	0.5	0.3	0.8	40
<u>Base Costs</u>	<u>3,493</u>	<u>4,140</u>	<u>7,633</u>	<u>5.6</u>	<u>6.4</u>	<u>12.2</u>	<u>52</u>
Physical contingencies	408	489	897	0.6	0.8	1.4	58
Price contingencies	1,803	1,165	2,968	2.8	1.9	4.7	40
<u>Total</u>	<u>5,704</u>	<u>5,794</u>	<u>11,498</u>	<u>9.0</u>	<u>9.1</u>	<u>18.4</u>	<u>49</u>

	Local	Foreign	Total	Local	Foreign	Total	Foreign
	---- (Rp million)	----	----	--- (US\$ million)	---	---	exchange (%)
<u>PTP XXIII Nucleus Estate</u>							
<u>Bengkulu</u>							
Estate housing & buildings	613	501	1,114	1.0	0.8	1.8	45
Estate vehicles	23	134	157	0.1	0.2	0.3	85
<u>Base Costs</u>	<u>636</u>	<u>635</u>	<u>1,271</u>	<u>1.0</u>	<u>1.0</u>	<u>2.0</u>	<u>50</u>
Physical contingencies	94	89	183	0.2	0.1	0.3	33
Price contingencies	191	114	305	0.3	0.2	0.5	40
<u>Total</u>	<u>921</u>	<u>838</u>	<u>1,759</u>	<u>1.5</u>	<u>1.3</u>	<u>2.8</u>	<u>46</u>
<u>PTP XXIII Smallholders -</u>							
<u>Bengkulu</u>							
Rubber establishment	5,988	4,899	10,887	9.6	7.8	17.4	45
Roads	343	697	1,040	0.6	1.1	1.7	67
Land clearing for food crops, gar- dens & villages	225	185	410	0.4	0.3	0.7	45
Settler housing, water & sanitation	1,609	1,317	2,926	2.6	2.1	4.7	45
Village infrastructure	88	73	161	0.2	0.1	0.3	45
Education & health buildings	322	264	586	0.5	0.4	0.9	45
Road construction equipment	-	1,639	1,639	-	2.6	2.6	100
Agricultural machinery & equipment	-	238	238	-	0.4	0.4	100
Education & health supplies	17	65	82	-	0.1	0.1	80
Settler subsistence, seeds & ferti- lizer packages	182	60	242	0.3	0.1	0.4	25
Operating costs	980	653	1,633	1.6	1.0	2.6	40
<u>Base Costs</u>	<u>9,754</u>	<u>10,090</u>	<u>19,844</u>	<u>15.7</u>	<u>16.1</u>	<u>31.8</u>	<u>51</u>
Physical contingencies	1,094	1,126	2,220	1.8	1.8	3.6	50
Price contingencies	4,699	2,760	7,459	7.5	4.4	11.9	37
<u>Total</u>	<u>15,547</u>	<u>13,976</u>	<u>29,523</u>	<u>24.9</u>	<u>22.3</u>	<u>47.2</u>	<u>47</u>

	Local	Foreign	Total	Local	Foreign	Total	Foreign
	---- (Rp million)	-----	-----	--- (US\$ million)	---	---	exchange (%)
<u>PTP XXVIII Estate</u>							
<u>Seram</u>							
✓ Rubber establishment	2,815	2,303	5,118	4.5	3.7	8.2	45
✓ Coconut establishment	2,587	2,117	4,704	4.1	3.4	7.5	45
Roads	1,040	2,110	3,150	1.6	3.4	5.0	67
Estate housing & buildings	1,816	1,486	3,302	2.9	2.4	5.3	45
Rubber processing	811	811	1,622	1.3	1.3	2.6	50
✓ Coconut processing	1,047	2,127	3,174	1.7	3.4	5.1	67
Power & water	54	109	163	0.1	0.2	0.3	67
Road construction equipment	-	751	751	-	1.2	1.2	100
Agricultural machinery & equipment	-	652	652	-	1.0	1.0	100
Estate vehicles & boats	46	260	306	0.1	0.4	0.5	85
Estate furniture, office & work- shop equipment	666	666	1,322	1.0	1.1	2.1	50
Staff resettlement	256	110	366	0.4	0.2	0.6	30
Operating costs	589	393	982	1.0	0.6	1.6	40
<u>Base Costs</u>	<u>11,727</u>	<u>13,895</u>	<u>25,622</u>	<u>18.8</u>	<u>22.2</u>	<u>41.0</u>	<u>54</u>
Physical contingencies	1,355	1,634	2,989	2.2	2.6	4.8	54
Price contingencies	5,313	4,076	9,389	8.5	6.5	15.0	43
<u>Total</u>	<u>18,395</u>	<u>19,605</u>	<u>38,000</u>	<u>29.5</u>	<u>31.3</u>	<u>60.8</u>	<u>52</u>
<u>Program Support</u>							
Local consultants	750	-	750	1.2	-	1.2	-
Foreign consultants	-	3,125	3,125	-	5.0	5.0	100
Start-up costs	1,692	5,496	7,188	2.7	8.8	11.5	76
<u>Base Costs</u>	<u>2,442</u>	<u>8,621</u>	<u>11,063</u>	<u>3.9</u>	<u>13.8</u>	<u>17.7</u>	<u>77</u>
Physical contingencies	125	250	375	0.2	0.4	0.6	67
Price contingencies	288	462	750	0.5	0.7	1.2	59
<u>Total</u>	<u>2,855</u>	<u>9,333</u>	<u>12,188</u>	<u>4.6</u>	<u>14.9</u>	<u>19.5</u>	<u>75</u>
<u>Total Project Costs</u>							
Base cost	34,482	48,564	83,046	55.2	77.7	132.9	58
Physical contingencies	3,844	4,900	8,744	6.2	7.8	14.0	55
Price contingencies	15,462	11,498	26,960	24.7	18.4	43.1	43
<u>Total Project Cost</u>	<u>53,788</u>	<u>64,962</u>	<u>118,750</u>	<u>86.1</u>	<u>103.9</u>	<u>190.0</u>	<u>55</u>

Note: US\$ totals may not always exactly equal Rupiah amounts due to rounding.

INDONESIA

NUCLEUS ESTATES AND SMALLHOLDERS VI PROJECT

Development Cost Per Smallholder Family

	--- Cikaso ---		--Agrabinta --		-- Seluma ---	
	Coconut		Coconut		Rubber	
	Non-	Non-	Non-	Non-	Non-	Non-
	Credit	credit	Credit	credit	Credit	credit
	----- (Mid-1982, US\$/family) -----					
Tree crop establishment	2,545	-	2,476	-	3,639	-
Roads /a	46	393	53	304	66	302
Land clearing for village, food crops	46	-	53	-	144	-
Settler housing	695	44	735	45	903	63
Village infrastructure	-	21	-	31	-	53
Education and health	-	123	-	134	-	220
Road construction equipment	833	-	473	-	541	-
Agri. machinery & vehicles	69	17	70	18	78	-
Subsistence, fertilizer & seeds	52	-	60	-	80	-
Overheads	255	127	245	124	364	18
<u>Base Cost</u>	<u>4,531</u>	<u>731</u>	<u>4,165</u>	<u>656</u>	<u>5,815</u>	<u>87</u>
Physical contingencies	489	100	456	90	630	11
<u>Cost per Family</u>	<u>5,020</u>	<u>831</u>	<u>4,621</u>	<u>746</u>	<u>6,445</u>	<u>98</u>
<u>Total Cost (credit + noncredit)</u>	<u>5,851</u>		<u>5,367</u>		<u>7,431</u>	

/a This does not include the cost of the principal access roads.

Table 4.3: PROJECT AREA CROPPING PATTERNS, YIELDS AND PRODUCTION /a

	Present			Future without Project			Future with Project		
	Area (⁰⁰⁰ ha)	Yield (ton/ha)	Production (⁰⁰⁰ ton)	Area (⁰⁰⁰ ha)	Yield (ton/ha)	Production (⁰⁰⁰ ton)	Area (⁰⁰⁰ ha)	Yield (ton/ha)	Production (⁰⁰⁰ ton)
West Java									
<u>Smallholders</u>									
Upland rice	1.2	0.7	0.8	1.2	0.7	0.8	1.1	1.6	1.8
Upland rice	0.5	0.6	0.3	0.5	0.6	0.3	-	-	-
Corn	0.5	0.2	0.1	0.5	0.2	0.1	1.1	0.8	0.9
Peanuts	1.8	0.5	0.9	1.8	0.5	0.9	0.7	0.9	0.6
Coconuts	-	-	-	-	-	-	5.5	3.9	21.5
<u>Estate</u>									
Rubber	1.5	0.9	1.4	1.5	0.6	0.9	3.5	1.5	5.2
Coconut /b	0.5	-	-	0.5	2.0	1.0	1.0	3.5	3.5
Bengkulu									
<u>Smallholders</u>									
Upland rice	2.6	0.6	1.6	2.6	0.6	1.6	1.4	1.6	2.2
Corn	0.5	0.5	0.3	0.5	0.5	0.3	1.4	0.8	1.1
Peanuts	0.3	0.4	0.1	0.3	0.4	0.1	1.0	0.9	0.9
Rubber	1.3	0.3	0.4	1.3	0.3	0.4	9.5	1.5	13.9
Maluku									
<u>Estate</u>									
Rubber	-	-	-	-	-	-	4.0	2.4	8.7
Coconuts	0.8	0.4	0.3	0.8	0.4	0.3	3.0	5.0	14.9

/a This table shows yields and production at their maximum for tree crops. Because different blocks would have different yields depending on when planted this maximum yield per ha and maximum yield at the site would not necessarily coincide.

/b All coconut yields and production are expressed in dry copra (6% moisture content).

2. THE PROJECT

2.01 This project is the sixth in the Bank assisted NES series, and would continue GOI's smallholder development program using public sector estates to establish nucleus estate and smallholder tree crops and infrastructure. It would also assist the program's future expansion by rehabilitating and upgrading an existing estate which would eventually promote future smallholder development. The project would establish or rehabilitate some 17,000 ha of rubber and 9,500 ha of coconuts (11,500 for the estates and 15,000 ha for smallholders) and provide processing facilities, in the provinces of West Java, Bengkulu and Maluku; resettle some 8,450 families in West Java and Bengkulu; and rehabilitate and expand PNP XXVIII, an estate in Maluku. The project would provide technical assistance to DGE and the public estates.

Project Works

2.02 The proposed project would include:

A. West Java - PTP XII at Cikaso and Agrabinta

(a) Nucleus Estate Development

- (i) planting about 1,170 ha of rubber at Cikaso and 970 ha of rubber and 500 ha of coconuts at Agrabinta, rehabilitating about 600 ha rubber at Cikaso and 770 ha of rubber and 480 ha coconuts at Agrabinta;
- (ii) constructing estate housing and buildings at both sites;
- (iii) constructing about 30 km of collection roads (13 km at Cikaso, 17 km at Agrabinta), rehabilitating some 60 km of collection roads (24 km at Cikaso, 36 km at Agrabinta) and 160 km of farm tracks (70 km at Cikaso and 90 km at Agrabinta);
- (iv) rehabilitating a rubber factory at Cikaso (8 ton/day) and Agrabinta (9 ton/day), and constructing copra preparation facilities on both sites and a copra processing factory at Agrabinta (2 ton/hour); and
- (v) procuring vehicles, road construction and agricultural equipment and machinery.

(b) Smallholder Development

- (i) planting about 2,000 ha coconuts for about 1,350 smallholders at Cikaso and about 3,500 ha coconuts for about 2,350 smallholders at Agrabinta;
- (ii) developing about 600 ha for house gardens and food crops at Cikaso (200 ha) and Agrabinta (400 ha);
- (iii) building housing with sanitation and water supply, and the necessary village infrastructure, for about 400 families at Cikaso and 800 families at Agrabinta, and rehabilitating (including completely rebuilding some houses) houses for some 580 families at Cikaso and 1,000 families at Agrabinta;
- (iv) constructing about 21 km of principal access road, about 100 km of village roads and 150 km of farm tracks;
- (v) providing at both sites seeds, fertilizer and pesticides which the smallholders can purchase for their food crop areas, and cash payments of Rp 110,000 to families moved onto new house lots for seeds, seedlings fertilizers and pesticides (Rp 55,000), and subsistence (Rp 55,000); and
- (vi) procuring road construction and agricultural machinery and equipment for both sites.

B. Bengkulu - PTP XXIII at Seluma

(a) Nucleus Estate Development

- (i) constructing estate housing and buildings and procuring estate vehicles needed for managing smallholder development.

(b) Smallholder Development

- (i) planting about 9,500 ha rubber for about 4,750 smallholders, and developing about another 1,100 ha for house gardens and foodcrops;
- (ii) resettling about 3,400 families from Bengkulu, and building for them housing with sanitation and water supply, the necessary village infrastructure, and rehabilitating about 650 houses for existing smallholders;
- (iii) constructing about 120 km of village roads and about 285 km of farm tracks; and
- (iv) providing at the site seeds, fertilizer and pesticides which the smallholders can purchase for their food crops, and

distributing to families moved onto new house blocks an initial package of food crop and vegetable seeds, perennial seedlings, fertilizer and pesticides, plus an initial Rp 55,000 cash payment for subsistence.

- (v) procuring road construction and agricultural machinery and equipment.

C. Maluku - PNP XXVIII at Seram Island

Estate Development

- (i) planting about 4,000 ha of rubber and 3,000 ha of coconuts, and constructing estate housing, buildings and about 40 km of main access, 80 km of collection roads and 240 m of bridgeworks; and
- (ii) constructing a 40 ton/day rubber factory, copra preparation facilities and processing factory (1 ton/hour).
- (iii) procuring road construction and agricultural machinery and equipment.

D. Technical Assistance and Program Support

- (i) providing consultant services to assist Team Khusus and the estates to implement the project and identify and prepare future projects;
- (ii) providing consultant services to help strengthen SBPN, to prepare sugar projects in the Other Islands, and to strengthen staff training for sugar production; and
- (iii) providing funds for start-up activities, including planning; nursery and field development; and construction of houses, buildings and roads for future Bank-assisted tree crop projects.

Agriculture Development

2.03 West Java. All project land would be free from title or compensation disputes, and available for redistribution. At each site PTP XII would pool the land suitable for tree crop planting into blocks of at least 50 ha, and up to 500 ha. Suitability would depend on slope and present or potential land use. Because of harvesting difficulties on land too steep, the estate would plant coconuts up to about 30% slope and estate rubber up to about 35% slope. Existing irrigated or rainfed sawahs and suitable flat areas required for villages, houses and gardens or foodcrops would not be planted to tree crops. Each settler family would receive 1.5 ha of block planted coconuts. The project would redistribute project area lands so that each settler family would be left with at least 0.5 ha for their house,

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Agriculture & Division
East Asia and Pacific Regional Office

April 18, 1983

National Mapping and Development

TRANSFORMATION PROJECT

INDONESIA

STAFF APPRAISAL REPORT

APR 18 1983

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- (b) All reports will be consolidated in one report by the World Bank Project Coordinator before submission to the Bank.
- (c) A consolidated Project Completion Report will be submitted to the Bank no later than six months after loan closing.

V. PROJECT ANALYSIS

Cost Effectiveness

5.01 During Repelita III the average cost of the transmigration program was estimated at US\$5,720 (in mid-1985 values) per transmigrant family.

Table 5.1: REPELITA III AVERAGE COST PER TRANSMIGRANT FAMILY

	Cost per family/ ^a (US\$)	Percent
Settlement planning	440	8
Infrastructure and housing	2,700	47
Transport and subsistence allowance	1,150	20
Agricultural supplies and services	1,150	20
Land titling and administration	280	5
<u>Total</u>	<u>5,720</u>	<u>100</u>

^a Based on a dryland food crop model excluding the costs of secondary development.

5.02 The average cost during Repelita IV is expected to be somewhat higher at about US\$7,000 for the above model because of the remoteness of the new settlement areas (Kalimantan and Irian Jaya) which require higher infrastructure and transport costs.

5.03 Under the project the total cost of settlement planning will be US\$450 per family or 6.4% of total establishment costs. This percentage is lower than during Repelita III and is in line with the planning required for other major investment projects. These planning costs include the technical support teams to Bina Program and PLP which would be equivalent to US\$33 and US\$53 per family respectively. The cost of these teams represents 7.3% and 2.8% of the investment in settlement planning and construction and is in line with similar investment projects. The improved settlement planning and the technical support teams are expected to lead to savings of up to two to three times their nominal cost. Such savings could include more efficient planning

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INDONESIA

SECOND SWAMP RECLAMATION PROJECT

May 7, 1984

Projects Department
East Asia and Pacific Regional Office

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Table 3.1: PROJECT COMPONENTS, QUANTITIES AND EXECUTING AGENCIES

Component	Approximate quantities	Executing agency
<u>Reclamation and Settlement</u>		
<u>Reclamation</u>		
<u>Infrastructure</u>		
Primary drains	120 km	P3S
Secondary and collector drains	150 km	P3S
Hamlet drains	1,600 km	P3S
Secondary structures	170/a	P3S
Hamlet outlet structures	340	P3S
Pedestrian bridges	510/b	P3S
Jetties	470	P3S
Paddy field bunds	580 thousand cu.m./c	DGFC
<u>Land Clearing</u>		
Clearing of house lots, extended house lots and village areas	7,500 ha	PLP
Farm plots clearing	7,600 ha /c	PLP
<u>Settlement</u>		
<u>Housing and Villages</u>		
Housing	11,500 units	DGSP
Village facilities	30/d	DGSP
<u>Mobilization and Support</u>		
Mobilization and transport	11,500 families	DGMG
Supplies and support	6,000 families /c	DGMG
<u>Institutional Support</u>		
<u>Technical Assistance</u>		
Implementation management, construction, O&M /e	-	DOS, PPW /e
Implementation management and methods improvement of land clearing	-	PLP
Drinking water investigation	-	DOS
Planning upgrading of earlier developments	-	DOS
Master plan studies	-	DOS
Final land preparation through community action	-	DGMG
Agricultural research and development /g	-	AARD
Monitoring and Evaluation	-	DOS, DGFC, MOT coordinated by MOT
<u>Materials, Supplies, Plant Protection</u>		
	-	DGFC
<u>Construction</u>		
Upgrading older schemes	5,000 ha	DOS

/a Para. 3.05.

/b About 30 primary, 480 secondary bridges.

/c Six-year time slice.

/d Thirty villages, 2 secondary villages.

/e Provincial Public Works of South Sumatra.

/f Technical assistance and equipment

/g Technical assistance and funds for test farms.

III. THE PROJECT

Objectives

3.01 The major objective of the project is to support GOI's Swamp Reclamation and Settlement program which will expand considerably during the 1984-1988 Five Year Plan (Repelita (IV)). The project's main thrust is to improve the quality and efficiency of the program without increasing its costs. The project has two principal components: (a) Reclamation of about 30,000 ha of coastal swamps near Karang Agung, South Sumatra and settlement of about 11,500 families; and (b) Institutional support to the Ministry of Public Works (DOS, Provincial PW), Ministry of Transmigration (DGSP, DGMG and PLP), and the Ministry of Agriculture (DGFA, AARD) in implementation, research and related activities.

General

3.02 Reclamation and Settlement activities comprise a six year time slice of an eight year implementation schedule of draining, clearing and developing a gross area of about 30,000 ha and settling about 11,500 families. Works include construction of a drainage infrastructure, land clearing, construction of houses, village facilities and settlement of transmigrants. The six year time slice covers all main civil works and settlement, about 60% of all tertiaries, about 67% of clearing of farm plots, and about 40% of paddy-field bunds. Remaining works, estimated at \$12.3 million (in current terms) will be completed by GOI by 1991 (para. 3.29).

3.03 Institutional Support includes technical assistance to line agencies in project preparation, implementation management, drinking water investigation, planning upgrading of older schemes, planning of new development, assistance in O&M, land preparation, agricultural research, monitoring and evaluation.

3.04 Components of the project and agencies executing them are summarized in Table 3.1.

Detailed Features of Reclamation

3.05 Hydraulic Infrastructure.^{/37} The hydraulic infrastructure, shown on Map 17329, comprises 14 primary drains, spaced about 4 km and each about 8 km long connecting to surrounding rivers; about 150 km of secondaries and collector drains; about 800 km of tertiaries and about 1,600 km of hamlet drains. Up to 180 gated secondary controls will be built where required to

^{/37} Unless indicated otherwise, the works described are those included in the Bank-financed six-year time slice.

INDONESIA
SECOND SWAMP RECLAMATION PROJECT
Project Component by Time
(RP Million)

Annex 1
Table 2

	Base Costs						Total	
	84/85	85/86	86/87	87/88	88/89	89/90	RP	(US\$ '000)
A. RECLAMATION AND SETTLEMENT								
BASE CAMP	856.1	796.8	-	-	-	-	1,652.8	1,652.8
FLOOD DIKES	-	136.5	136.5	136.5	136.5	-	546.1	546.1
PRIMARY DRAINS	-	1,129.1	2,268.7	2,599.4	394.4	394.4	6,786.1	6,786.1
SECONDARIES, COLLECTORS	-	436.6	963.6	1,170.9	455.0	455.0	3,481.0	3,481.0
TERTIARIES	-	-	819.7	1,102.4	1,237.3	552.4	3,711.8	3,711.8
HAMLET DRAINS	-	-	508.1	633.0	633.0	124.8	1,898.9	1,898.9
HOUSELOTS	-	89.6	716.6	806.2	500.3	-	2,112.7	2,112.7
FIELD PLOTS	-	-	122.6	658.3	1,118.9	1,355.5	3,255.3	3,255.3
HAMLETS	-	115.3	2,879.4	2,958.7	2,686.1	85.7	8,725.0	8,725.0
VILLAGES	-	-	1,637.0	1,637.0	1,637.0	1,637.0	6,548.2	6,548.2
SETTLEMENT	-	-	1,486.8	2,653.5	2,537.1	942.2	7,619.6	7,619.6
Sub-Total RECLAMATION AND SETTLEMENT	856.1	2,703.8	11,539.1	14,355.9	11,335.5	5,547.1	46,337.5	46,337.5
B. SUPPORT WORKS								
WATER SUPPLY	-	-	111.4	111.4	-	-	222.8	222.8
UPGRADING	203.5	619.0	1,275.3	1,325.7	1,071.8	1,071.8	5,567.0	5,567.0
PLANT PROTECTION	15.6	15.6	15.6	15.6	15.6	15.6	93.5	93.5
AG RESEARCH FACILITIES	921.0	921.0	921.0	-	-	-	2,763.1	2,763.1
Sub-Total SUPPORT WORKS	1,140.1	1,555.6	2,323.3	1,452.7	1,087.4	1,087.4	8,646.4	8,646.4
C. CONSULTANTS, SUPPORT TO DOS								
IMPLEMENTATION	-	355.3	355.3	355.3	355.3	355.3	1,776.7	1,776.7
MASTER PLANS	441.1	1,323.4	-	-	-	-	1,764.6	1,764.6
DRINKING WATER INVESTIGATIONS	-	-	185.2	91.2	-	-	276.4	276.4
HYDRAULIC, WATER MANAGEMENT MONITORING	-	24.5	146.8	146.8	146.8	146.8	611.8	611.8
Sub-Total CONSULTANTS, SUPPORT TO DOS	441.1	1,703.2	687.3	593.4	502.2	502.2	4,429.5	4,429.5
D. CONSULTANTS TO PLP								
LAND CLEARING	-	69.7	139.3	139.3	69.7	-	418.0	418.0
Sub-Total CONSULTANTS TO PLP	-	69.7	139.3	139.3	69.7	-	418.0	418.0
E. CONSULTANTS TO MOT								
LAND PREPARATION	-	-	-	78.3	78.3	78.3	235.0	235.0
MONITORING AND EVALUATION	-	56.7	56.7	56.7	56.7	56.7	283.3	283.3
Sub-Total CONSULTANTS TO MOT	-	56.7	56.7	135.0	135.0	135.0	518.2	518.2
F. CONSULTANTS TO AARD								
AGRICULTURAL RESEARCH AND DEVELOPMENT	818.4	818.4	261.1	-	-	-	1,898.0	1,898.0
Sub-Total CONSULTANTS TO AARD	818.4	818.4	261.1	-	-	-	1,898.0	1,898.0
G. CONSULTANTS TO DGFC								
CROP PRODUCTION MONITORING	-	22.8	136.5	136.5	136.5	136.5	568.8	568.8
Sub-Total CONSULTANTS TO DGFC	-	22.8	136.5	136.5	136.5	136.5	568.8	568.8
H. OPERATION AND MAINTENANCE								
MAINTENANCE EQUIPMENT	-	-	750.0	750.0	-	-	1,500.0	1,500.0
Sub-Total OPERATION AND MAINTENANCE	-	-	750.0	750.0	-	-	1,500.0	1,500.0
I. TRAINING								
	-	37.8	37.8	37.8	37.8	37.8	189.2	189.2
J. ENGINEERING AND ADMINISTRATION								
	183.0	396.8	1,328.7	1,554.6	1,203.3	623.4	5,289.8	5,289.8
Total BASELINE COSTS	3,438.7	7,364.8	17,259.9	19,155.2	14,507.4	8,069.3	69,795.4	69,795.4
Physical Contingencies	515.8	1,104.7	2,594.0	2,929.1	2,287.7	1,357.4	10,788.8	10,788.8
Price Contingencies	107.8	858.4	4,589.5	7,877.1	8,406.1	5,840.1	27,678.9	27,678.9
Total PROJECT COSTS	4,062.3	9,328.0	24,443.4	29,961.4	25,201.1	15,266.9	108,263.0	108,263.0
Taxes	20.2	68.3	285.7	366.9	307.9	177.2	1,226.2	1,226.2
Foreign Exchange	2,905.3	6,243.3	10,392.1	11,275.4	7,144.0	4,361.5	42,321.6	42,321.6