

される。前者に対しては加工技術や設計製作法，さらにセンターで開発した機械の製造技術等が主として伝授され，後者に対しては導入機械の適応性試験法や評価法，あるいは技術的分析法等が伝授されることとなる。従って前者のカリキュラムの中心は設計開発改良部門に，後者への中心は試験評価部門と技術分析部門とになるであろう。派遣専門家が直接講義や実習を担当する方式は採用されないと思われるが，カリキュラムの作成，教材・教科書の作成・充実には力を貸すこととなる。その場合，専門家はそれぞれの専門分野を中心に助言・指導を与え，必要に応じ視聴覚用教材を作成したり，workshopでの実習プランをたてたりするが，専門分野相互の関係の深さを十分理解させられるよう，専門家どうしの協力が不可欠である。

開発した機械がねらいどおり普及するよう，専門分野の業務遂行とバランスをとりながら，訓練・研修に対応する必要がある。従って5年間全く同じ内容となるのではなく，機械開発にあわせてカリキュラム等改訂しなければならないし，インドネシア国内の諸情勢を常に把握しておいて，本当に必要とされる訓練・研修内容となるよう図らなければならない。

さらに，受講生から得られる情報をセンターの諸活動に適切にフィードバックする姿勢も大切であろう。

訓練・研修を主担当とする専門家は派遣されない。派遣される専門家の全てが訓練・研修の意義とシステムを理解し，多面的に協力を進める。

8. プロジェクト候補地調査結果

(1) 場所

Province (州) - West Jawa

Kabupaten (県) - Tangerang

Kecamatan (郡) - Legok 人口 75,329 面積 9,347 ha

Desa (村) - Pagedangan

Pagedangan村 : 面積 468.64 ha (内 PTP 11 所有 63.66 ha)

人口 2,765

(2) 面積 34.9907 ha

(3) 土地所有

a. 34.9907 ha のサイト Directorate General of Estate Crops

(Directorate General of Estate Crops 下の公社 PTP 11 の所有していた 17,000

ha の農園の一部 34.9907 ha を Directorate General of Food Crops に移管することは大蔵省も承認している)

b. サイトまでの東又は南よりの 2.4 km の侵入道路

所有：Directorate General of Estate Crops

現状：Directorate General of Food Crops より公共事業省に道路の舗装を要請中である。86 / 87 年度に舗装されることを期待している。この場合、舗装経費は公共事業省が支出することになる。ただし、とりあえずは自前で道路整備しなければならない。

(4) サイト内外の状況

- 古いゴム園である。必要に応じゴムの木を撤去することに問題はない。
- 平坦ではないが、なだらかな起伏をもつ。整地は容易と思われる。
- サイトに接して個人所有の湿地、水田あり、農家も点在する。
- サイトに接する個人所有の湿地及び水田とサイトの地表面の高低差は平均 3 ~ 5 m あり、サイト内に湿地又は池はない。
- サイト内では農園労働者により一部キャッサバ等食用作物の自家用としての栽培が行われているが、必要な場合撤去に問題はないとのことであった。
- サイト内には中国人の墓地が 1 個ある。但しこの墓地はかなり古く、所有家族も不明で、必要があれば撤去に問題はないであろう(回教徒の墓は撤去に問題があるということであったが)とのことであった。
- サイトの上を 5 万ボルトの高圧線が通っているが、建物を真下につくらない限り問題とはならないであろう。
- 地下水位は高いと思われる。

(5) 土質・地質・地耐力

- 土は赤褐色の重粘土である。

(6) 電 気

- 今のところ電気はサイトより 500 m 程離れた村まできている。
しかし 5 月 25 日視察の時点ではサイトまでの延長工事が急ピッチで行われており、間もなくサイトまで電気が到達する模様。
- 所管 国営電気公社 (PLN)
- 電圧 220 V

(7) 給 水

- 市水道はきておらず、今後もくる予定はなし。
- 作物総局の考え：
 - 雑飲用水用 …… 井戸を掘る
 - 灌水用 …… 貯水池をつくる
- サイトに接して2～3 mの高低差で湿地又は水田があり（最も高い所で10 m位の高低差）、乾期にも水が多いところをみてもわかる通り、井戸を掘ると水は十分な量が確保できると思われる。雑飲用水用には簡易浄化施設を必要としよう。

(8) 下 水 道

- サイトの横は湿地帯又は水田で水が多いが、サイトはその水面より平均3～5 m高く、サイト内より外への排水は問題ないと思われる。
- サイトの横には排水路もあり、水は流れている。サイト東側を Cisauk 川が流れており、ここへ排水できると思われる。ただし、一次処理なしで生活排水を排水することができるよう下水溝は存在しない。

(9) 電 話

- 現在のところ電話線は道路距離で2.4 km（直線ならもっと短い）離れている舗装道路沿いに走っている。
- 電話公社に要請中であるが、電話の設置は6ヶ月～1年程かかると思われる。当面は無線（2 mバンド）で連絡を確保したいとのことである。

(10) 居住環境

- 学校はインドネシア人用の小学校、中学校、高校等があるが、病院と名のつくものはサイト周辺にはなく、政府のクリニック（Puskesmas）が Serpong の町に1ヶ所あるのみである。

(11) ジャカルタ市内よりサイトへの交通

(a) 交通機関

- バス路線 — 大型定期バス、不定期ミニバス共 Serpong の町まではある。
- 大型定期バス
 - ・ ジャカルタ（Tanah Abang）から Ciputat 経由で2時間毎にあり。
 - ・ 他に Tangerang, Kebayorang（Block M）、Pasar Minggu, Ciputat 始発のバスもあり。

大型定期バスの他に不定期ミニバスがあり、数は多い。

○ 道路を使用した場合の所要時間

	自家用車 (サイトまで)	バス* (Serpongの町又はその 北方1 kmの地点まで)
JKT → ^{南下} Kebayoran → Ciputat → Site	約1時間半	約2時間半～3時間
Kebayoran → ^{南下} Ciputat → Serpong → Site	1時間余り	約2時間半
Pasar Minggu → Ciputat → Serpong → Site	約1時間20分	約2時間
Kebayoran → Tangerang → Site	約55分	—

*バス(大型定期又は不定期ミニバス)を使用する場合、Serpongの町はその北方1 kmの別れ道のところで、不定期の8人乗り小型バスに乗りかえる必要あり。別れ道からサイトまで約30分かかる。

○ 鉄 道

ジャカルタ(Tanah Abang)よりSerpong行きの列車が朝9時から3時間間隔であり(1日4便)。

JKT → Serpong 約50分

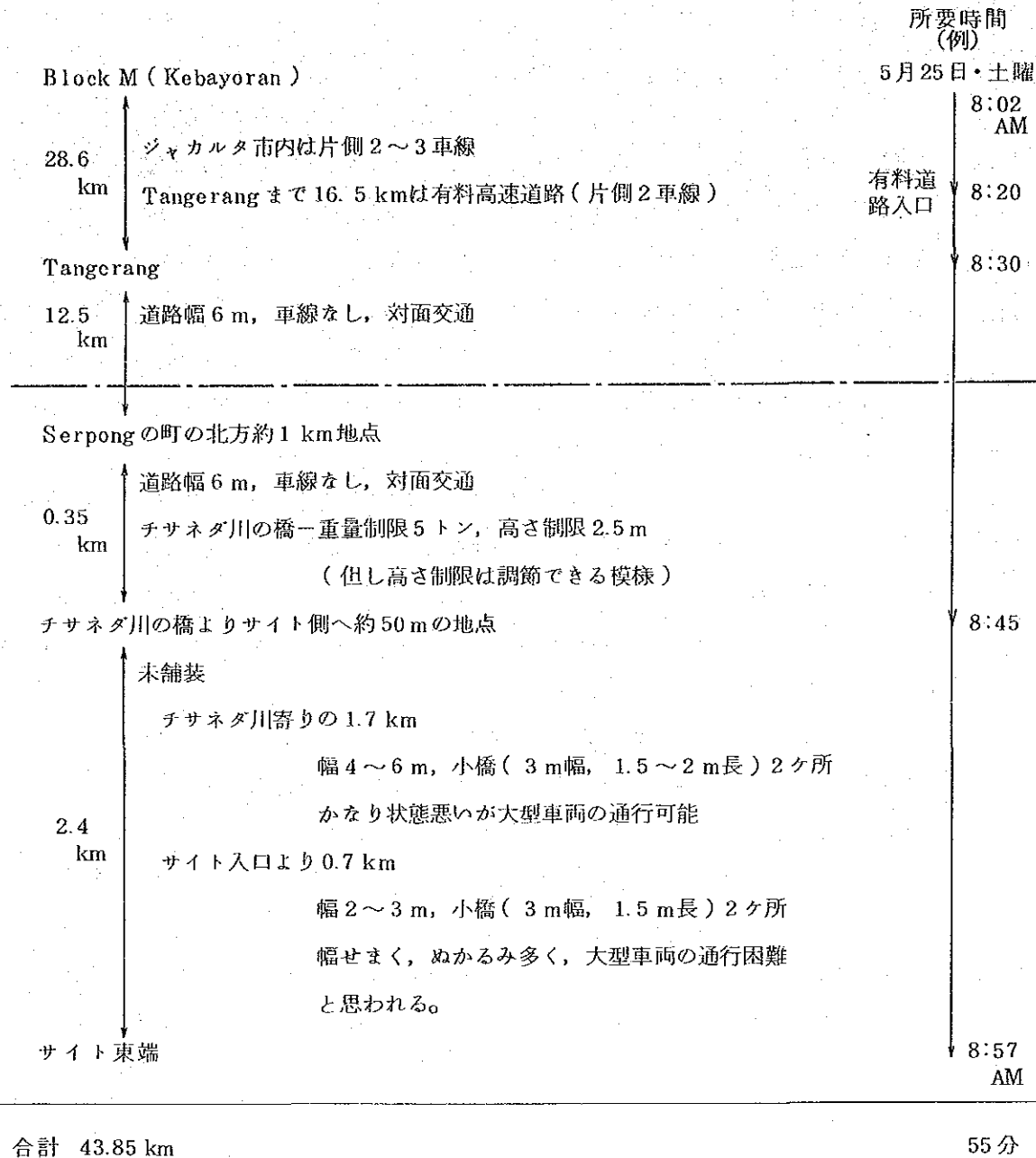
(b) 交通についての考察

- 鉄道を利用してJKTより通勤するのは時間帯、列車数よりみて不可能。
- JKT市内(Kebayoran, Pasar Minggu含む)よりバスで通勤することも、所要時間及びSerpongよりサイトまでの交通の便を考慮した場合不可能。
- JKT市内より通勤するには、日本人、インドネシア人を問わず専用の通勤用車両を使用する以外方法はない。
- サイト近在の職員に対しても、Serpong又は別れ道よりサイトまでの交通手段はプロジェクト側で確保してやらねばならないと思われる。
- 大型車両のサイトへの侵入は南側よりの方(例-②)が容易と思われる(現時点の道路事情では)。

(12) サイト内道路

道路と呼べるような整備された通路はサイト内には見当たらない。サイト周辺は今後政府としては研究学園都市にする構想をもっており、すでに進出を計画中の機関もある。

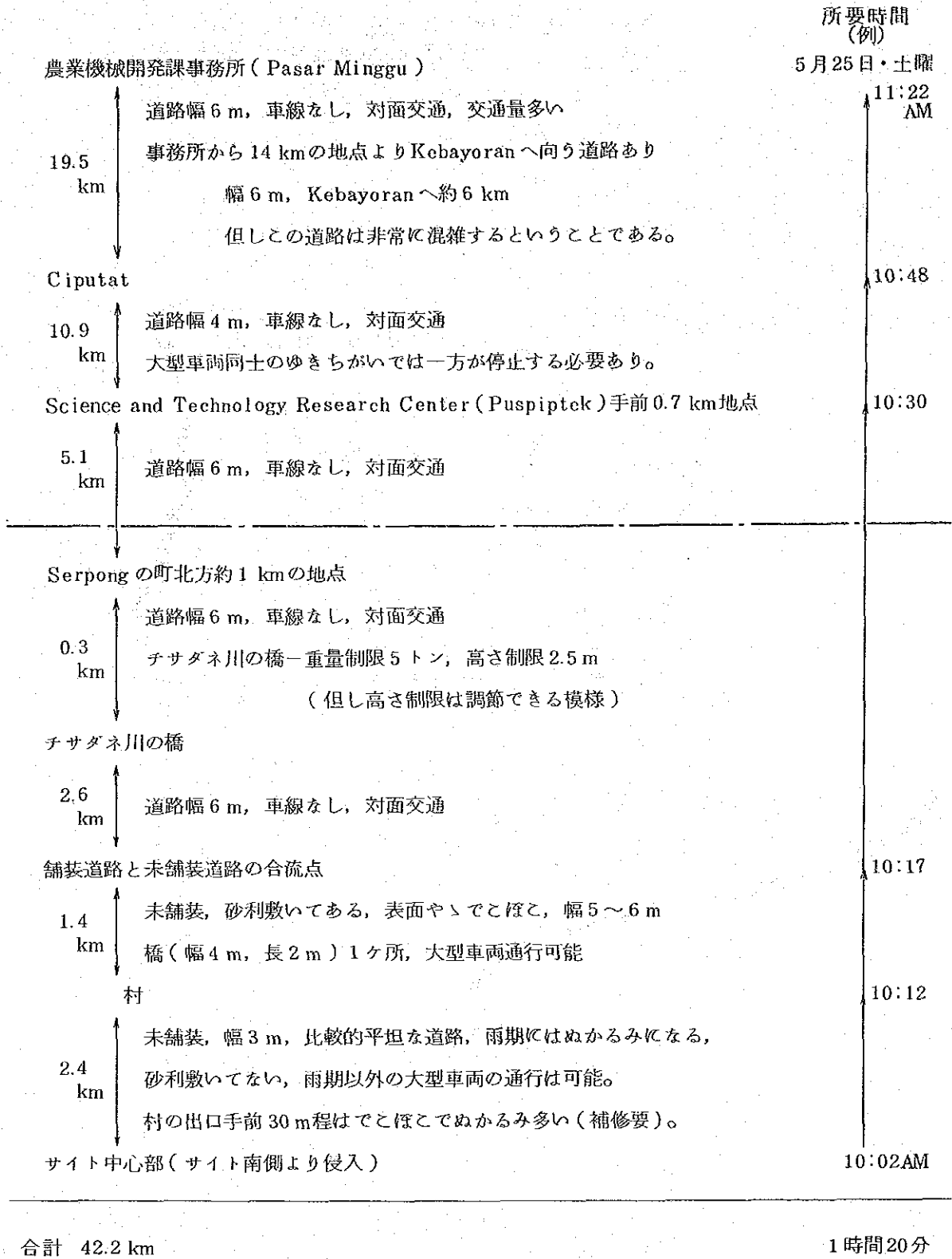
(3) 所要時間例-① 自家用車又は官用車利用



(注) ————— 線以下は例-②と入れかえてもよい。

特に説明のない区間は舗装してある。

通勤所要時間例-② 自家用車又は官用車利用

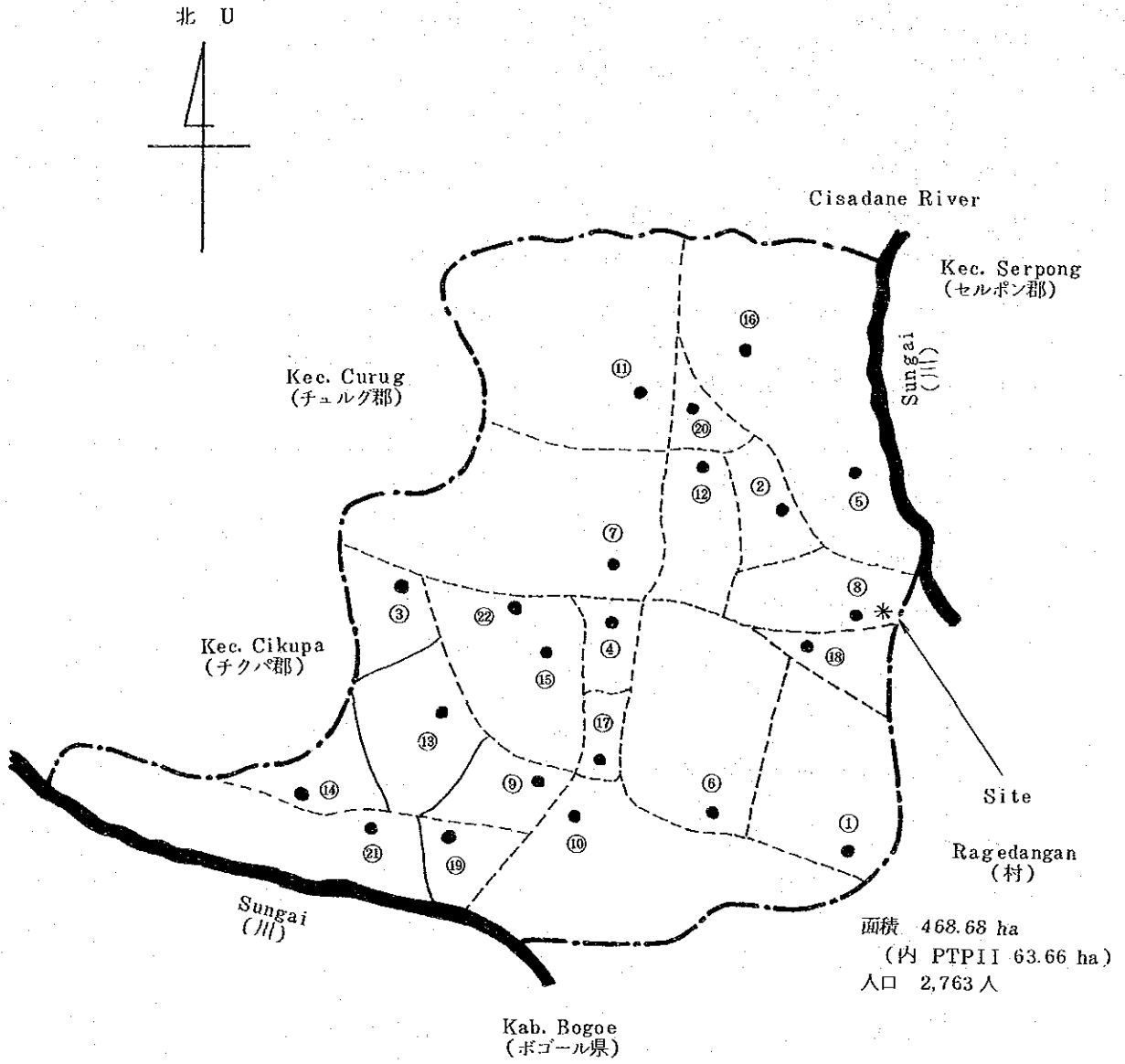


(注) —————線以下は例-①と入れかえてもよい。

特に説明のない区間は舗装してある。

PETA WILAYAH KEC. LEGOK
 KAB. DTII TANGERANG - JABAR

西ジャワ州タンゲラン県レゴク郡略図



9. 付 録

付 録 (I)

米及び主要畑作物の収穫面積、単位面積当り取量及び総生産量

インドネシア 1983 及び 1984 年

(1983 年—確定)
1984 年—暫定

農 業 省 食 糧 作 物 総 局

Harvested Area, Average and Productivity and Production
Rice and Secondary Crops

1983

1984/1985

Directorate General of Food Crops

Table 1: Harvested area, Average productivity and Production of rice in Indonesia in 1983 (Confirmed)

Province	Rice (Paddy field)				Upland rice				Rice production (Total)			
	Harvested Area (Ha)	Productivity (100kg)	Production (Ton)	Unhulled rice	Harvested Area (Ha)	Productivity (100kg)	Production (Ton)	Unhulled rice	Harvested Area (Ha)	Productivity (100kg)	Production (Ton)	Unhulled rice
1. D. I. Aceh	255,972	35.96	920,475	14,260	17.61	25,112	270,232	34.99	945,587			
2. North Sumatera	453,702	36.19	1,641,763	98,082	19.45	190,769	551,784	33.21	1,832,532			
3. West Sumatera	321,843	40.59	1,269,764	12,036	19.21	23,121	324,879	39.80	1,292,885			
4. R i a u	83,504	28.66	239,312	51,846	15.85	82,176	135,350	23.75	321,488			
5. J a m b i	142,519	28.82	410,786	20,770	16.85	34,997	163,289	27.30	445,783			
6. South Sumatera	296,142	31.03	918,877	124,117	17.11	212,364	420,259	26.92	1,131,241			
7. B e n g k u l u	57,060	35.56	202,895	28,067	16.98	47,658	85,127	29.43	250,553			
8. Lampung	190,487	39.15	745,781	134,135	16.02	214,884	324,622	29.59	960,665			
SUMATERA (Total)	1,792,229	35.43	6,349,653	483,313	17.20	831,081	2,275,542	31.56	7,180,734			
9. D. K. I. Jakarta	9,545	34.47	32,903	56	15.71	88	9,601	34.36	32,991			
10. West Jawa	1,702,192	44.21	7,524,938	129,918	18.88	245,308	1,832,110	42.41	7,770,246			
11. Central Jawa	1,268,062	47.36	6,005,988	48,294	19.73	95,271	1,316,356	46.35	6,101,259			
12. D. I. Yogyakarta	102,785	48.74	511,132	34,083	19.39	66,077	136,848	42.18	577,209			
13. East Jawa	1,405,868	49.68	6,983,702	78,372	20.78	162,890	1,484,240	48.15	7,146,592			
J A W A (Total)	4,488,432	46.92	21,058,663	290,723	19.59	569,634	4,779,155	45.26	21,628,297			
14. B a l i	164,239	44.63	733,057	4,220	13.86	5,849	168,459	43.86	738,906			
15. West Nusa Tenggara	216,462	39.10	846,388	15,303	16.90	25,858	231,765	37.63	872,246			
16. East Nusa Tenggara	62,338	31.89	198,780	70,949	14.54	103,160	133,287	22.65	301,940			
17. East Timor *)												
BALI & NUSA TENGGARA (Total)	443,039	40.14	1,778,225	90,472	14.91	134,867	533,511	35.86	1,913,092			
18. West Kalimantan	169,119	27.08	458,038	111,156	15.26	169,624	280,275	22.39	627,662			
19. Central Kalimantan	75,484	21.16	159,701	41,708	13.48	56,222	117,192	18.42	215,923			
20. South Kalimantan	275,581	25.76	709,831	31,788	15.09	47,968	307,369	24.65	757,799			
21. East Kalimantan	27,320	24.25	66,256	17,709	16.27	28,813	45,029	21.11	95,069			
KALIMANTAN (Total)	547,504	25.46	1,393,826	202,361	14.95	302,627	749,865	22.62	1,696,453			
22. North Sulawesi	62,884	39.62	249,126	10,894	17.08	18,607	73,778	36.29	267,733			
23. Central Sulawesi	77,946	29.48	229,785	33,064	14.57	48,174	111,010	25.04	277,959			
24. South Sulawesi	555,348	39.17	2,175,336	25,105	17.58	44,135	580,453	38.24	2,219,471			
25. South-East Sulawesi	17,027	31.36	53,397	25,123	16.88	42,396	42,150	22.73	95,793			
SULAWESI (Total)	713,205	37.96	2,707,644	94,186	16.28	153,312	807,391	35.43	2,860,956			
26. M a l u k u	1,067	23.99	2,560	13,776	11.82	16,283	14,843	12.69	18,843			
27. Irian Jaya	1,433	23.22	3,327	729	14.25	1,039	2,162	20.19	4,366			
MALUKU & IRIAN JAYA (Total)	2,500	23.55	5,887	14,505	11.94	17,322	17,005	13.65	23,209			
Out of Japan (Total)	3,498,477	34.97	12,235,235	864,837	16.27	1,439,209	4,383,314	31.20	13,674,444			
I N D O N E S I A	7,986,909	41.69	33,293,898	1,175,560	17.09	2,008,843	9,162,469	38.53	35,302,741			

*) Data not yet available Note: Harvested area "Net area" that produced dried unhulled rice. Polished rice: 24,005,864 ton.

Table 2: Harvested area, Average productivity and Production of secondary crops in 1983 (Confirmed)

Province	Corn			Cassava			Sweet potato		
	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)
1. D. I. Aceh	3,849	12.96	4,988	4,600	110	50,600	1,877	92	17,268
2. North Sumatra	42,723	18.07	77,197	20,878	111	231,654	16,343	82	133,838
3. West Sumatra	6,872	17.58	12,081	5,533	119	65,843	2,001	94	18,809
4. Riau	25,179	14.16	35,653	8,581	93	79,803	2,510	71	19,821
5. Jambi	1,598	13.64	2,180	2,210	96	21,216	1,013	79	8,003
6. South Sumatra	14,273	13.04	18,612	17,717	107	188,997	4,639	72	33,484
7. Bengkulu	4,511	13.70	6,180	3,062	96	29,395	3,382	77	26,041
8. Lampung	83,772	15.66	131,204	81,476	102	827,290	2,273	85	19,320
9. DKI Jakarta	182,777	15.76	288,095	144,057	104	1,494,798	34,038	81	274,584
10. West Java	115	11.22	129	278	92	2,570	55	68	375
11. Central Java	93,303	15.72	146,664	150,343	109	1,747,294	47,864	84	402,801
12. D. I. Yogyakarta	709,963	18.81	1,335,528	276,890	100	2,771,699	32,288	77	248,865
13. East Java	56,354	15.41	86,851	58,805	100	590,392	1,594	83	13,198
14. Jawa (Total)	1,160,337	17.99	2,087,057	343,234	98	3,348,818	35,528	68	242,722
15. Bali	2,020,072	18.10	3,656,229	839,550	101	8,450,773	117,329	77	907,961
16. East Nusa Tenggara	48,348	15.09	72,956	20,848	108	225,625	11,112	98	108,698
17. West Nusa Tenggara	27,836	15.80	43,981	10,076	97	97,737	9,530	85	80,774
18. East Timor	191,196	12.28	234,871	83,944	83	694,035	16,345	75	122,697
19. Bali & Nusa Tenggara (Total)	267,380	13.14	351,448	114,868	89	1,017,397	36,987	84	312,169
20. West Kalimantan	10,600	10.17	10,780	13,414	93	124,750	1,320	66	8,712
21. Central Kalimantan	3,671	12.26	4,501	7,483	91	68,095	1,404	73	10,249
22. South Kalimantan	5,783	11.13	6,436	8,969	88	78,803	2,054	62	12,735
23. East Kalimantan	9,554	11.78	11,255	4,576	90	41,184	3,385	72	24,372
24. Kalimantan (Total)	29,608	11.14	32,972	34,442	91	312,832	8,163	69	56,068
25. North Sulawesi	75,541	17.78	134,287	9,600	97	93,120	5,763	81	46,586
26. Central Sulawesi	42,305	13.00	54,996	6,374	93	59,278	4,08	76	30,461
27. South Sulawesi	314,303	15.25	479,263	31,312	102	319,158	8,542	73	62,343
28. South-East Sulawesi	56,488	13.12	74,120	26,112	88	230,230	4,686	62	29,180
29. Sulawesi (Total)	488,637	15.20	742,666	73,398	96	701,786	22,999	73	168,570
30. Maluku	10,043	10.29	10,334	4,992	88	43,666	2,320	66	15,312
31. Irian Jaya	3,710	13.83	5,131	9,531	75	71,482	58,327	82	478,363
32. Maluku & Irian Jaya (Total)	13,753	11.24	15,465	14,493	79	115,148	60,657	81	493,675
33. Out of Jawa (Total)	982,155	14.57	1,430,646	381,258	96	3,641,961	162,844	80	1,305,066
34. INDONESIA	3,002,227	16.94	5,086,875	1,220,808	99	12,102,734	280,173	79	2,213,027

Table 3: Harvested area, Average productivity and Production of secondary crops in 1983 (Confirmed)

Province	Peanut			Soy bean			Green bean (Mungo bean)		
	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)
1. D. I. Aceh	10,061	10.60	10,663	35,497	9.14	32,430	2,931	7.68	2,251
2. North Sumatra	10,406	10.31	10,726	4,437	9.43	4,185	3,899	9.89	3,856
3. West Sumatra	7,681	9.27	7,120	2,272	6.61	1,502	1,629	8.54	1,391
4. Riau	3,486	9.50	3,312	3,386	7.40	2,506	3,908	12.63	4,936
8. Jambi	836	11.46	958	1,106	8.24	911	270	10.26	277
6. South Sumatra	7,687	10.69	8,216	4,408	8.74	3,853	2,926	6.66	1,948
7. Bengkulu	3,295	11.75	3,872	1,895	7.38	1,399	476	7.02	334
8. Lampung	7,831	7.93	6,211	18,696	7.05	13,177	2,905	5.10	1,483
SUMATERA (Total)	51,283	9.96	51,078	71,597	8.36	59,963	18,944	8.70	16,476
9. D. K. I. Jakarta	155	10.00	155	-	-	-	-	-	-
10. West Java	71,008	9.41	66,824	28,067	7.30	20,478	23,951	7.19	17,231
11. Central Java	102,101	10.29	105,030	126,105	7.90	99,640	83,262	5.45	45,381
12. D. I. Yogyakarta	36,844	7.31	26,927	35,595	7.26	25,850	1,070	2.59	277
13. East Java	130,030	9.34	121,419	285,181	8.88	253,157	64,878	5.97	38,709
JAWA (Total)	340,138	9.42	320,355	474,948	8.40	399,125	173,161	5.87	101,538
14. Bali	10,900	11.45	12,490	7,444	9.85	7,332	3,693	4.88	1,508
15. West Nusa Tenggara	7,196	10.56	7,601	46,065	7.56	34,816	25,659	3.55	9,101
16. East Nusa Tenggara	11,283	10.32	11,647	268	8.34	224	16,215	7.98	12,939
17. East Timor *	-	-	-	-	-	-	-	-	-
BALI & NUSA TENGGARA (Total)	29,379	10.80	31,738	53,777	7.88	42,372	45,567	5.17	23,548
18. West Kalimantan	461	9.03	416	1,255	8.18	1,027	155	5.48	85
19. Central Kalimantan	253	7.52	190	184	8.18	151	415	6.41	266
20. South Kalimantan	10,569	10.29	10,878	1,134	7.83	888	1,000	4.96	496
21. East Kalimantan	2,484	8.47	2,104	1,824	8.19	1,494	1,026	5.68	583
KALIMANTAN (Total)	13,767	9.87	13,588	4,397	8.10	3,560	2,596	5.51	1,430
22. North Sulawesi	2,237	11.73	2,624	11,800	9.73	11,484	3,604	6.50	2,343
23. Central Sulawesi	3,609	9.81	3,540	4,899	7.61	3,728	2,627	7.60	1,997
24. South Sulawesi	32,955	9.78	32,215	11,025	8.63	9,517	44,281	6.04	26,732
25. South-East Sulawesi	2,960	6.95	2,057	4,023	8.32	3,347	1,033	6.08	628
SULAWESI (Total)	41,761	9.68	40,436	31,747	8.84	28,076	51,545	6.15	31,700
26. Maluku	1,587	8.34	1,324	156	9.16	143	514	7.29	375
27. Irian Jaya	2,599	7.32	1,902	3,154	9.08	2,864	739	6.82	504
MALUKU & IRIAN JAYA (Total)	4,186	7.71	3,226	3,310	9.08	3,007	1,253	7.02	879
Out of Jawa (Total)	140,376	19.98	140,066	164,928	8.31	136,978	119,905	6.17	74,033
INDONESIA	480,514	9.58	460,421	639,876	8.38	536,103	293,066	5.99	175,631

Harvested Area, Average and Productivity and Production
Rice and Secondary Crops

1984

— Provisional —

1984/1985

Directorate General of Food Crops

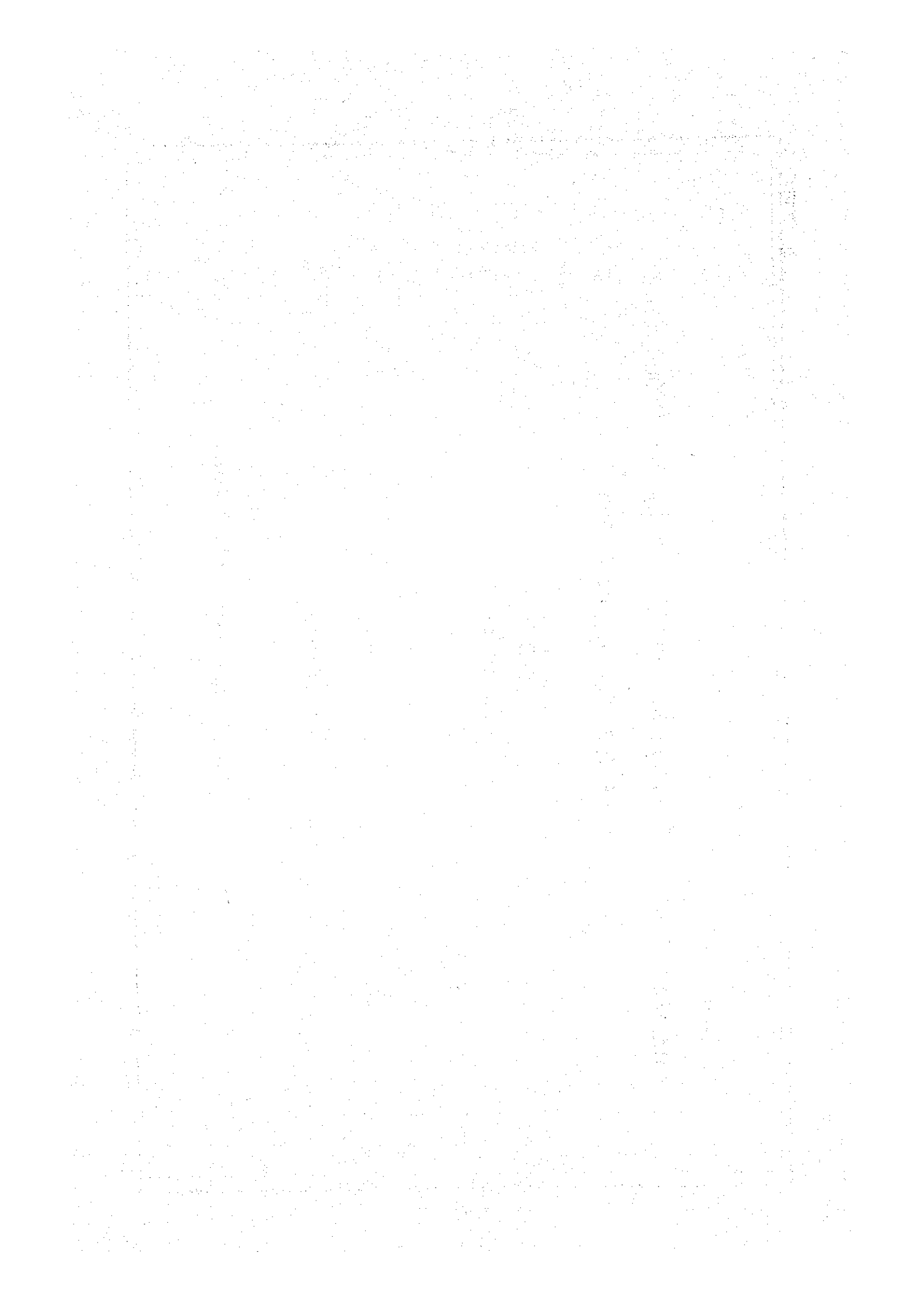


Table 4: Harvested area, Average productivity and Production of rice in Indonesia in 1984 (Provisional)

Province	Rice (Paddy field)			Upland rice			Rice Production (Total)		
	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)
1. D. I. Aceh	247,927	34.59	857,579	11,836	17.77	21,033	259,763	33.82	878,612
2. North Sumatera	478,812	38.09	1,823,795	82,588	20.85	172,196	561,400	35.55	1,995,991
3. West Sumatera	313,151	41.48	1,298,950	9,992	20.04	20,024	323,143	40.82	1,318,974
4. Riau	84,175	28.75	242,003	50,613	13.42	67,923	134,788	22.99	309,926
8. Jambi	142,947	28.77	411,259	20,962	17.04	35,719	163,909	27.27	446,978
6. South Sumatera	297,559	31.46	936,121	113,715	16.50	187,630	411,274	27.32	1,123,751
7. Bengkulu	56,537	34.82	196,862	25,486	14.83	37,796	82,023	28.51	234,658
8. Lampung	204,563	40.04	819,070	150,245	16.37	245,951	354,808	30.02	1,065,021
SUMATERA (Total)	1,825,671	36.07	6,585,639	465,437	16.94	788,272	2,291,108	32.18	7,373,911
9. D. K. I. Jakarta	9,778	35.31	34,522	39	15.85	62	9,817	35.23	34,584
10. West Java	1,818,850	44.60	8,112,071	162,424	20.92	339,718	1,981,274	42.66	8,451,789
11. Central Java	1,408,336	48.52	6,832,612	60,095	21.08	126,658	1,468,431	47.39	6,959,270
12. D. I. Yogyakarta	9,757	50.95	559,220	41,945	21.15	88,714	151,702	42.71	647,934
13. East Java	1,477,409	50.91	7,522,565	85,531	22.03	188,412	1,562,940	49.34	7,710,977
JAWA (Total)	4,824,130	47.80	23,060,990	350,034	21.24	743,564	5,174,164	46.01	23,804,554
14. Bali	165,663	45.43	752,607	3,705	14.83	5,495	169,368	44.76	758,102
15. West Nusa Tenggara	232,099	39.70	921,433	18,538	16.81	31,162	250,637	38.01	952,595
16. East Nusa Tenggara	59,466	30.90	183,750	54,617	12.13	66,250	114,083	21.91	250,000
17. East Timor *)	-	-	-	-	-	-	-	-	-
BAI & NUSA TENGGARA (Total)	457,228	40.63	1,875,790	76,860	13.39	102,907	534,088	36.71	1,960,697
18. West Kalimantan	172,802	25.76	455,138	105,395	14.21	149,766	278,197	21.38	594,904
19. Central Kalimantan	75,274	20.19	151,978	40,936	14.06	57,556	116,210	18.03	209,534
20. South Kalimantan	288,911	26.29	759,547	38,161	15.58	59,455	327,072	25.04	819,002
21. East Kalimantan	35,804	23.07	82,800	40,092	15.63	62,664	75,896	19.14	145,264
KALIMANTAN (Total)	572,791	25.13	1,439,263	224,584	14.67	329,441	797,375	22.18	1,768,704
22. North Sulawesi	63,412	40.90	259,355	12,520	16.37	20,495	75,932	36.86	279,850
23. Central Sulawesi	68,972	29.36	202,502	27,267	14.05	38,310	96,239	25.02	240,812
24. South Sulawesi	585,368	40.96	2,397,667	20,512	17.80	36,511	605,880	40.18	2,434,178
25. South-East Sulawesi	16,846	30.94	52,122	24,073	15.70	37,795	40,919	21.97	89,917
SULAWESI (Total)	734,598	39.64	2,911,646	84,372	15.78	133,111	818,970	37.18	3,044,757
26. Maluku	887	24.82	2,202	17,056	11.10	18,932	17,943	11.78	21,134
27. Irian Jaya	1,516	23.05	3,494	749	13.79	1,033	2,265	19.99	4,527
MALUKU & IRIAN JAYA (Total)	2,403	23.70	5,996	17,805	11.21	19,965	20,208	12.70	25,661
Out of Java (Total)	3,592,691	35.63	12,800,034	869,058	15.81	1,373,696	4,461,749	31.77	14,173,730
INDONESIA	8,416,821	42.61	35,861,024	1,219,092	17.37	2,117,260	9,635,913	39.41	37,978,284

*) Data not yet available. Note: Harvested area "Net area" that produced Polished Rice: 25,825,233 ton dried unhulled rice.

Table 5: Harvested area, Average productivity and Production of secondary crops in Indonesia in 1984 (Provisional)

Province	Corn			Cassava			Sweet Potato		
	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)
1. D. I. Aceh	5,119	13.33	6,824	6,311	118	74,470	2,740	97	26,578
2. North Sumatera	34,395	19.01	65,385	20,630	119	245,497	15,465	89	137,638
3. West Sumatera	7,943	16.15	12,828	6,557	124	81,307	2,512	98	24,618
4. Riau	6,788	14.60	9,910	6,711	109	73,150	1,999	75	14,992
5. Jambi	2,813	14.28	4,017	7,896	104	80,038	1,731	82	14,194
6. South Sumatera	17,090	13.70	23,413	31,562	112	353,494	5,244	84	44,050
7. Bengkulu	4,597	13.52	6,215	3,546	103	36,524	3,736	88	32,877
8. Lampung	96,955	16.28	157,843	120,415	123	1,469,063	2,246	89	19,989
SUMATERA (Total)	175,700	16.30	286,435	203,428	119	2,413,543	35,673	88	314,936
9. D. K. I. Jakarta	70	11.57	81	195	94	1,824	16	70	112
10. West Java	123,952	16.41	203,349	192,090	112	2,151,408	45,189	85	385,699
11. Central Java	572,191	20.15	1,152,882	276,305	105	2,900,031	26,747	79	210,915
12. D. I. Yogyakarta	84,953	16.54	140,488	57,412	104	595,441	1,179	80	9,419
13. East Java	1,313,574	18.67	2,453,045	350,193	102	3,585,922	35,491	75	266,552
JAWA (Total)	2,094,740	18.86	3,949,845	876,195	105	9,234,626	108,622	80	872,697
14. Bali	47,894	15.19	72,751	20,095	109	219,036	9,343	96	89,693
15. West Nusa Tenggara	32,736	16.22	53,098	13,979	101	141,188	8,633	93	80,287
16. East Nusa Tenggara	202,214	13.16	266,114	91,243	98	894,181	16,530	76	125,628
17. East Timor	-	-	-	-	-	-	-	-	-
BAI & NUSA TENGGARA (Total)	282,844	13.86	391,963	125,317	100	1,254,405	34,506	86	295,608
18. West Kalimantan	7,942	12.26	9,737	11,374	95	108,053	1,132	72	8,150
19. Central Kalimantan	3,547	12.74	4,519	6,990	96	67,104	1,385	69	9,556
20. South Kalimantan	9,652	12.89	12,441	9,710	99	96,129	6,722	68	45,710
21. East Kalimantan	5,099	12.75	6,425	7,174	102	73,175	2,264	74	16,754
KALIMANTAN (Total)	26,180	12.65	33,122	35,248	98	344,461	11,503	70	80,170
22. North Sulawesi	65,621	19.01	124,746	12,110	103	124,733	7,129	89	63,448
23. Central Sulawesi	36,750	13.90	51,082	8,041	97	77,998	4,958	83	41,151
24. South Sulawesi	263,735	15.56	410,372	29,861	101	301,596	9,459	74	69,997
25. South-East Sulawesi	58,347	14.72	85,887	29,216	94	274,630	4,794	68	32,599
SULAWESI (Total)	424,453	15.83	672,087	79,228	98	778,957	26,340	79	207,195
26. Maluku	17,659	11.54	20,378	8,861	94	83,293	7,930	72	57,096
27. Irian Jaya	3,832	14.02	5,372	10,664	90	95,976	59,337	86	510,298
MALUKU & IRIAN JAYA (Total)	21,491	11.98	25,750	19,525	92	179,269	67,267	84	567,394
Out of Jawa (Total)	930,668	15.14	1,409,357	462,746	107	4,970,635	175,289	84	1,465,303
INDONESIA	3,025,408	17.71	5,359,222	1,338,941	106	14,205,261	283,911	82	2,338,000

Table 6: Harvested area, Average productivity and Production of Secondary Crops in Indonesia in 1984 (Provisional)

Province	Peanut			Soy bean			Green bean (Mungo bean)		
	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)
	1. D. I. Aceh	11,329	11.52	13,051	38,566	9.66	37,255	3,134	6.61
2. North Sumatra	11,450	11.34	12,984	8,502	8.41	7,150	2,367	8.83	2,326
3. West Sumatra	6,827	9.76	6,663	3,505	8.30	2,909	1,497	8.12	1,216
4. Riau	1,947	10.28	2,002	2,914	7.79	1,803	1,686	12.43	2,095
8. Jambi	1,057	11.53	1,219	2,274	8.13	1,849	236	9.62	227
6. South Sumatra	15,087	11.09	16,731	10,998	8.63	9,491	3,076	7.92	2,436
7. Bengkulu	3,100	11.88	3,683	2,008	8.94	1,795	1,198	7.20	863
8. Lampung	13,782	9.96	13,727	47,438	8.45	40,085	4,651	6.04	2,810
SUMATERA (Total)	64,579	10.85	70,060	115,005	8.85	102,337	17,845	7.87	14,047
9. D. K. I. Jakarta	117	9.83	115	-	-	-	-	-	-
10. West Java	81,758	9.81	80,215	67,028	6.85	45,912	23,415	7.18	16,804
11. Central Java	96,211	10.50	101,003	133,984	8.74	117,054	66,578	6.11	40,712
12. D. I. Yogyakarta	42,142	7.78	32,801	58,123	8.11	47,112	784	3.11	244
13. East Java	139,763	9.55	133,446	336,259	9.52	320,160	79,138	6.43	50,877
JAWA (Total)	359,991	9.66	347,580	595,394	8.91	530,238	169,915	6.39	108,637
14. Bali	12,944	11.04	14,290	11,417	9.17	10,469	4,704	7.88	3,705
15. West Nusa Tenggara	9,882	10.02	9,902	59,642	8.57	51,113	29,254	3.76	10,994
16. East Nusa Tenggara	9,897	10.29	10,184	469	6.88	323	18,138	8.52	15,454
17. East Timor *	-	-	-	-	-	-	-	-	-
BALI & NUSA TENGARA (Total)	32,723	10.51	34,376	71,528	8.65	61,905	52,096	5.79	30,153
18. West Kalimantan	476	10.14	483	1,620	7.77	1,259	589	7.79	459
19. Central Kalimantan	255	8.55	218	187	8.77	164	416	6.37	265
20. South Kalimantan	11,100	10.99	12,199	3,266	8.68	2,835	771	6.29	485
21. East Kalimantan	2,662	8.94	2,380	2,132	8.49	1,810	546	4.71	257
KALIMANTAN (Total)	14,493	10.54	15,280	7,205	8.42	6,068	2,322	6.31	1,466
22. North Sulawesi	4,081	12.13	4,950	13,887	8.05	11,179	4,566	9.17	4,187
23. Central Sulawesi	3,875	10.66	4,131	5,765	8.39	4,837	2,991	7.55	2,258
24. South Sulawesi	35,382	11.00	38,920	16,481	9.13	15,047	35,714	6.61	23,611
25. South-East Sulawesi	3,107	7.48	2,324	6,289	9.02	5,673	983	6.94	683
SULAWESI (Total)	46,445	10.84	50,325	42,422	8.66	36,736	44,254	6.95	30,739
26. Maluku	2,360	8.98	2,119	2,925	9.16	2,679	2,925	7.44	2,177
27. Irian Jaya	2,728	9.88	2,695	2,705	9.70	2,624	296	9.49	281
MALUKU & IRIAN JAYA (Total)	5,088	9.46	4,814	5,630	9.42	5,303	3,221	7.63	2,458
Out of Jawa (Total)	163,328	10.71	174,855	242,390	8.76	212,349	119,738	6.59	78,863
INDONESIA	523,319	19.98	522,435	837,784	8.86	742,587	289,553	6.47	178,500

Table 7: Harvested area, Average Productivity and Production of Sorghum in 1983 (Confirmed) and 1984 (Provisional)

Province	1983 (Confirmed)		1984 (Provisional)	
	Harvested Area (Ha)	Productivity/ha (100kg)	Harvested Area (Ha)	Productivity/ha (100kg)
1. Central Jawa	10,257	13.82	10,934	13.51
2. D. I. Yogyakarta	3,071	2.16	4,169	2.29
3. East Jawa	8,068	15.19	8,548	15.14
4. West Nusa Tenggara	668	5.21	282	5.07
5. East Nusa Tenggara	15,294	5.68	..	..
Total	37,358	9.67	23,933	12.04
			36,126	28,806

.. Report not yet/not in.

付録 2

農家の稲作経営収支

(1984年)

項目	州名					
	アチエ	南スマトラ	ランボン	西スマトラ	西部ジャワ	中部ジャワ
1. 稲作付面積 (hr)	1.35	2.4	1.3	0.7	2.6	0.96
2. 作付回数 (回/年)	2	1.7	2	2	2	2.1
3. 精米ha当収量 (t/ha)	6.1	5.0	4.7	6.5	6.5	6.3
4. 粗収入 (Rp)	2,236,250	2,144,889	2,162,385	1,886,667	4,775,130	2,690,000
5. 稲作経営費 (Rp)	360,743	620,658	694,040	317,588	1,949,269	567,171
6. 稲作所得 (Rp)	1,872,765	1,524,231	1,468,344	1,568,745	2,825,856	2,122,829
7. 稲作所得率 (%)	83.8	74.5	66.1	81.4	65.1	82.4
8. 精米1kg当生産費 (Rp)	60.7	53.0	86.2	41.8	75.2	41.3
9. 農家所得 (Rp)	2,505,274	1,827,452	2,013,479	1,652,078	4,481,856	2,342,686
10. 家計費 (Rp)	1,618,796	510,033	535,378	721,833	2,037,930	892,326
11. 農家経済余剰 (Rp)	886,478	1,317,419	1,478,101	930,245	2,443,926	1,450,360
(%)	(35.4)	(72.1)	(73.4)	(56.3)	(54.5)	(61.9)

(注) 調査農家：アチエ12，南スマトラ11，ランボン13，西スマトラ3，西部ジャワ10，中部ジャワ7，計56戸 各州戸数平均

出 所：稲種子生産配布専門家 佐々木 武虎氏

集落における水田規模別農家比率

1984

面積区分	西スマトラ (Solok)		ランボン (Wonodad)	
	戸数 (戸)	比率 (%)	戸数 (戸)	比率 (%)
0.25 (ha)	11	26	42	42
0.30			1	1
0.50	15	36	34	34
0.75			17	17
1.00	16	38	4	4
1.25			2	2
計	42	(100)	100	(100)
水田面積合計 (ha)	26.25		46.8	
1戸平均面積 (ha)	0.63		0.47	

出所：稲種子生産配布専門家 佐々木 武虎氏

付録 3

インドネシアにおける農業機械の価格

(1985年6月現在)

(1) ミニトラクター

Kubota B 6100 (ロータリー付, 南スラウェシ州)

Rp 6,500,000

(2) ハンドトラクター

台湾製(ブラウのみ使用可, ロビンエンジン, 水田車輪及びブラウ付き)

Rp 1,500,000 (昨年)

Karaban Besi (Kubota 現地製, ブラウのみ使用可, 前進のみ, エンジン ER85DI

7.5 ~ 8.5 HP, ブラウ及び水田車輪付き)

Rp 1,500,000 ~ 1,600,000

Dragon workshop 製(西スマトラ)(5 HP, ブラウのみ使用可, 前進のみ, ブラウ及び水田車輪付き)

Rp 1,100,000

KUD Dwi Sri workshop 製(西スマトラ)(ブラウのみ使用可, 前進のみ, ブラウ及び水田車輪付き)

Rp 1,200,000

Tembok Jaya workshop 製(西スマトラ)(ブラウのみ使用可, 前進のみ, 5 HP, ブラウ及び水田車輪付き)

Rp 1,250,000

DSM workshop 製(西スマトラ)(ブラウのみ使用可, 前進のみ, 5 HP, ブラウ及び水田車輪付き)

Rp 1,200,000

(3) ロータリーブレード(主として日本製のミニトラクター, ハンドトラクターのロータリー用替刃)

南スラウェシ州シドランプ県 Haji Kete 製

Rp 1,000/本

(4) 脱穀機(Power thresher)

Dragon workshop 製(西スマトラ)(5 HP)

Rp 650,000 ~ 700,000

KUD Dwi Sri workshop 製(西スマトラ)

5 HP - Rp 600,000

7 HP - Rp 700,000

*車輪付き + Rp 50,000

Tembok Jaya workshop 製 (西スマトラ)

5 HP - Rp 725,000

7 HP - Rp 800,000

> 車輪付き

Fa. Sarasah Industri 製 (西スマトラ) (7 HP)

Rp 700,000 (エンジンなし Rp 400,000)

DSM workshop 製 (西スマトラ) (5 HP)

Rp 600,000

(5) Power husker

DSM workshop 製 (西スマトラ) Rp 250,000

(6) Winmower (Hand)

Tembok Jaya workshop 製 (西スマトラ)

Rp 50,000 - 合板製

(7) Hand weeder

Tembok Jaya workshop 製 (西スマトラ) (鉄製)

Rp 6,000

Fa. Sarasah Industri 製 (西スマトラ) (鉄製)

Rp 10,000

(8) Sugar cane presser

CEPER - Haji Mohammad Dhardiri 製 (中部ジャワ) (600-800 kg/時)

Rp 650,000

(9) ハンドポンプ

CEPER - Haji Mohammad Dhardiri 製 (中部ジャワ) (中国製ドラゴンポンプコピー)

Rp 14,280 (メーカー渡し価格)

付録 4

インドネシアにおける賃耕料金等

(1) 耕起, 水田植付準備

1) 南スラウェシ州ソドラップ県にて (Wiras Murni Motor)

100 台の Kubota B6100 (ミニトラクター) により賃耕 (ロータリー)

1 回耕起 Rp 45,000/ha

2 " Rp 75,000/ha

※ 運転手日当は賃耕料金の 10%

2) 西ジャワ州パプアラン, タンジュン・ナラサタ村 (Mr. Nata)

ヤンマー TS-105 (ハンドトラクター) にて賃耕 (ロータリー)

1 回耕起 Rp 35,000/ha

※ 運転手日当は賃耕料金の 20%

燃料は 1 ha 当り 20 ℓ 必要

純益は 1 ha 当り Rp 10,000~Rp 12,000

3) 西スマトラ州リマプロ・コタ県リムパナン郡アンディアン村 (Mr. Asmar)

Kubota K-75 使用の場合 (ロータリー)

1 回耕起 Rp 60,000/ha

2 " Rp 80,000/ha

D S M 社製ハンドトラクター使用の場合 (ブラウ)

1 回耕起 Rp 40,000/ha

2 " Rp 75,000/ha

(2) 動力脱穀機賃貸

西スマトラ州 KUD (村落単位組合) Dwi Sri

動力脱穀機 4 台を賃貸

農民が借りて使用した場合

粃収量の 7% を組合に物納

(3) 粃すり代

南スラウェシピンラン県 (Mr. Madong T.)

精米の 10% を支払い

精米/粃 = 65%

PENGUKURAN TANAH MENURUT PROPINSI/
Land Utilization by Province
1980/1980
(HA)

TANAMAN PANGAN/Food Crops

PROVINSI Propinsi	PEKARBANG/ TANAH UNTUK BAGUNAN KAMPUNG SE- KITARNYA Non-Cem- pound and Surroundings	TEGALAN/ KEBUN Bariland/ Garden	LADANG/ RUMAH Shifting Cultivation	PENGEMBAN- LAHAN PADANG RUMPUT/ Steppe Pasture	RAWA-RAWA (YANG TIDAK DITANAMI/ Swamps Not Cultivated)	TAMBAK Dyke	KOLAH TERBAT/ EMPANG Water Pond	TANAH YANG SEMESTARA TIDAK DIUSA- HAKAN/ Preliminary Land Not Resourced	TANAH TANJAH MAYUDAI Land With Grown	HUTAN NEGARA States Forest	PERKERUAN Estates	SAWAH Irrigated Land	LAIN-LAIN Others	JUMLAH Total
1. Daerah Istimewa Aceh	387 986	313 043	103 838	154 429	133 284	24 901	46 142	273 297	392 480	3 287 831	363 077	272 564	427 605	6 180 977
2. Sumatera Utara	284 323	453 536	234 644	356 653	230 324	5 982	20 099	430 730	581 430	2 791 147	523 785	449 574	489 758	7 051 995
3. Sumatera Barat	92 114	194 145	70 109	47 953	41 807	1	4 030	115 970	508 176	1 773 173	178 134	208 879	541 500	4 208 520
4. Riau	280 123	200 055	54 998	5 118	569 453	160	288	418 419	698 948	3 639 931	825 486	130 202	755 423	7 578 604
5. Jawa Barat	242 768	174 895	68 449	53 879	119 476	215	11 219	291 346	495 792	2 428 327	563 421	145 935	253 230	4 848 892
6. Sumatera Selatan	174 979	222 858	141 455	146 741	2 336 120	140	8 520	1 170 687	1 316 748	1 711 819	795 526	308 108	2 551 410	10 925 111
7. Bengkulu	28 963	55 035	32 851	9 531	76 414	500	903	348 044	247 574	720 217	40 218	66 077	268 339	1 894 676
8. Lampung	177 442	293 795	210 190	139 957	141 013	620	6 289	429 389	397 329	521 416	219 135	146 610	479 464	3 162 359
9. D.K.I. Jakarta	22 809	7 838	-	-	195	432	97	130	-	50	10	10 997	17 105	59 523
10. Jawa Barat	329 863	701 596	237 549	68 138	38 479	13 596	34 333	71 618	208 612	720 366	358 258	1 208 667	466 200	4 457 275
11. Jawa Tengah	572 925	780 830	5 005	3 995	3 337	24 812	2 025	5 481	25 691	510 827	73 145	1 014 864	145 568	3 168 505
12. D.I. Yogyakarta	90 430	106 287	619	95	34	-	117	327	13 689	15 027	2	66 174	19 345	412 030
13. Jawa Timur	537 638	1 061 095	21 317	5 893	4 650	90 691	654	4 589	20 077	877 291	171 416	1 190 633	190 088	4 176 032
14. Bali	23 064	156 952	-	2 123	257	659	68	7 416	13 594	116 172	110 305	99 219	32 313	562 142
15. Nusa Tenggara Barat	18 647	146 734	28 210	120 297	1 551	1 726	3 068	24 672	135 474	740 442	44 805	186 752	141 637	1 594 015
16. Nusa Tenggara Timur	84 208	241 368	265 498	784 922	6 377	46	18 197	688 914	343 218	567 415	151 662	70 042	1 201 249	4 423 112
17. Timor-Timur	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Kalimantan Barat	73 857	192 211	182 936	34 500	1 188 787	22 083	1 315	122 126	68 246	6 728 679	286 014	234 099	4 831 835	13 896 688
19. Kalimantan Tengah	299 082	126 551	112 005	147 769	771 378	7 829	187	1 295 815	287 038	10 377 956	549 454	94 414	1 271 958	15 341 436
20. Kalimantan Selatan	93 452	133 865	58 926	53 502	323 634	1 140	4 839	203 022	121 663	609 727	133 784	313 064	236 074	2 286 902
21. Kalimantan Timur	160 745	33 965	92 540	67 675	258 768	2 120	14 030	163 084	661 047	11 528 980	647 681	196 851	1 324 044	15 171 530
22. Sulawesi Utara	54 781	109 465	100 607	88 352	15 273	2 159	975	75 751	131 752	1 069 664	295 650	42 885	320 759	2 296 073
23. Sulawesi Tengah	347 625	53 370	57 377	84 536	54 689	56	181	170 932	416 609	2 944 758	115 897	41 245	331 435	4 618 710
24. Sulawesi Selatan	136 720	578 549	345 932	359 921	109 677	26 431	46 662	1 372 605	612 532	2 115 811	296 317	545 065	739 089	7 285 335
25. Sulawesi Tenggara	28 466	72 823	56 356	125 065	24 075	261	338	442 948	544 295	2 106 182	33 610	16 186	1 071 249	4 521 744
26. Maluku	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27. Irian Jaya	...	...	...	...	...	...	...	...	...	...	...	...	...	...
INDONESIA	4 543 416	6 410 801	2 481 331	2 861 008	6 379 012	226 570	224 596	8 127 220	5 502 184	57 963 208	6 866 792	7 058 950	18 106 677	129 691 765

Bst.

Bst.

インドネシアにおける州別の人口と人口増加率

PENDUDUK INDONESIA MENURUT PROPINSI / LAJU SERTA LAJU PERTUMBUHANNYA
Population of Indonesia by Province / Island and Annual Population Growth
1961, 1971, 1980, 1981, 1982, 1983
(x 100)

PROPINSI/PULAU Province/Island	PENDUDUK / Population					LAJU PERTUMBUHAN PENDUDUK PER TAHUN Annual Population Growth Rate					
	1961 ⁽¹⁾	1971 ⁽¹⁾	1980 ⁽¹⁾	1981 ⁽²⁾	1982 ⁽²⁾	1983 ⁽²⁾	1961-1971 (8)	1971-1980 (9)	1980-1981 (10)	1981-1982 (11)	1982-1983 (12)
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Daerah Istimewa Aceh	1 629.0	2 008.6	2 611.3	2 693.2	2 767.4	2 843.0	2.14	2.93	3.14	2.76	2.73
2. Sumatera Utara	4 964.7	6 821.8	8 369.9	8 597.7	8 503.5	9 015.6	2.95	2.60	2.83	2.39	2.41
3. Sumatera Barat	2 319.1	2 793.2	3 406.8	3 489.4	3 560.3	3 632.3	1.90	2.21	2.42	2.03	2.02
4. Riau	1 235.0	1 641.5	2 168.5	2 240.7	2 306.3	2 373.6	2.92	3.11	3.33	2.93	2.92
5. Jambi	744.4	1 066.1	1 446.0	1 507.9	1 566.4	1 627.2	3.09	4.07	4.28	3.68	3.88
6. Sumatera Selatan	2 773.5	3 440.6	4 629.8	4 793.7	4 944.3	5 099.7	2.20	3.32	3.54	3.14	3.14
7. Bengkulu	406.2	519.3	768.1	803.5	837.3	872.4	2.51	4.39	4.61	4.21	4.19
8. Lampung	1 667.5	2 777.0	4 624.8	4 901.8	5 176.0	5 464.7	5.29	5.77	5.99	5.59	5.58
SUMATERA	15 739.4	20 808.1	28 016.2	29 027.9	29 961.5	30 928.5	2.86	3.32	3.61	3.22	3.23
9. Jakarta	2 973.1	4 579.3	6 503.4	6 778.2	7 038.1	7 307.0	4.46	3.93	4.23	3.83	3.82
10. Jawa Barat	17 614.6	21 823.5	27 453.5	28 243.5	28 946.6	29 663.5	2.09	2.66	2.88	2.49	2.48
11. Jawa Tengah	18 407.5	21 877.1	25 372.9	25 845.0	26 226.9	26 610.5	1.64	1.64	1.86	1.48	1.46
12. Daerah Istimewa Yogyakarta	2 241.5	2 489.4	2 750.8	2 787.1	2 813.3	2 839.3	1.07	1.10	1.32	0.94	0.92
13. Jawa Timur	21 823.0	25 517.0	29 188.9	29 686.5	30 078.8	30 472.6	1.59	1.49	1.70	1.32	1.31
JAWA	63 059.7	76 086.3	91 269.5	93 340.3	95 103.4	96 892.9	1.91	2.02	2.27	1.89	1.88
14. Bali	1 782.5	2 120.3	2 469.9	2 517.0	2 555.3	2 593.9	1.77	1.69	1.91	1.52	1.51
15. Nusa Tenggara Barat	1 867.9	2 203.5	2 724.7	2 794.7	2 855.9	2 917.9	2.02	2.36	2.57	2.19	2.17
16. Nusa Tenggara Timur	1 567.3	2 295.3	2 727.2	2 796.5	2 846.4	2 896.7	1.57	1.95	2.17	1.78	1.77
17. Timor Timur	-	-	555.4	567.4	577.5	587.7	-	-	2.16	1.78	1.77
MISIA TENGGARA	5 557.7	6 619.1	8 487.2	8 675.6	8 835.1	8 996.2	1.78	2.01	2.22	1.84	1.82
18. Kalimantan Barat	1 581.0	2 019.9	2 486.1	2 548.6	2 603.0	2 658.3	2.51	2.31	2.51	2.13	2.12
19. Kalimantan Tengah	496.5	702.0	954.4	989.2	1 021.4	1 054.6	3.56	3.43	3.65	3.26	3.25
20. Kalimantan Selatan	1 473.2	1 699.1	2 064.6	2 113.7	2 155.7	2 198.4	1.45	2.16	2.38	1.99	1.98
21. Kalimantan Timur	550.8	733.8	1 218.1	1 290.7	1 362.8	1 438.7	2.94	5.73	5.96	5.59	5.57
KALIMANTAN	4 101.5	5 154.8	6 723.2	6 942.2	7 142.9	7 350.0	2.34	2.96	3.26	2.89	2.90
22. Sulawesi Utara	1 210.1	1 718.5	2 115.4	2 168.8	2 215.3	2 262.4	2.78	2.31	2.52	2.14	2.13
23. Sulawesi Tengah	693.2	913.7	1 289.6	1 342.1	1 391.4	1 442.5	2.83	3.86	4.07	3.67	3.67
24. Sulawesi Selatan	4 516.5	5 180.6	6 062.2	6 180.8	6 278.2	6 376.1	1.40	1.74	1.96	1.58	1.56
25. Sulawesi Tenggara	559.6	714.1	942.3	973.7	1 002.1	1 031.2	2.49	3.09	3.33	2.92	2.92
SULAWESI	7 079.4	8 526.9	10 409.5	10 665.4	10 887.0	11 112.2	1.90	2.22	2.46	2.08	2.07
26. Maluku	789.5	1 089.6	1 411.0	1 455.5	1 493.9	1 534.3	3.31	2.88	3.15	2.64	2.70
27. Irian Jaya	758.4	923.4	1 173.9	1 207.7	1 237.9	1 268.6	2.01	2.67	2.88	2.50	2.48
MALUKU + IRIAN JAYA	1 547.9	2 013.0	2 584.9	2 663.2	2 731.8	2 802.9	2.69	2.79	3.03	2.58	2.60
INDONESIA	97 085.6	119 206.2	147 450.3	151 314.6	154 661.7	158 062.7	2.10	2.32	2.59	2.21	2.21

Catatan: 1) Penduduk tahun 1961, 1971 dan 1980 hasil Sensus Penduduk
1961, 1971 and 1980 Population Censuses

2) Penduduk tahun 1981, 1982 dan 1983 hasil Proyeksi Penduduk.
1981, 1982 and 1983 Projected Population.

RESULTS OF THE STUDY AND FINDINGS
O F
LONG - TERM SURVEYORS
O N
THE CENTER FOR DEVELOPMENT OF
APPROPRIATE AGRICULTURAL ENGINEERING TECHNOLOGY
(ATA - 220)

M E M O R A N D U M

Surveyors :

Makoto ARIYOSHI
Toshihiko IZAWA
Katsuhiko TOMINAGA

Results of the study and findings of Long-Term Surveyors on C.D.A.A.E.T. (ATA-220) made through survey activities carried out between May 15 and June 30, 1985 are as shown below :

1. Purpose of the Project

Indonesian agriculture is supported by abundant labor supply with cheaper payment and blessed by suitable natural conditions without much fear of natural calamity.

Agricultural mechanization is being expected to be achieved appropriately without much conflict and/or contradiction with such natural and social conditions but coinciding with the development pace of industrializing society.

Rice, as a staple food in Indonesia, is at present in the excessive production temporarily, but is expected to achieve high and stable productivity in the long run with the improvement of production techniques and machinery in order to feed the fast growing population.

Machinery, needed to be developed and/or introduced for Indonesian agriculture, are to be designed, developed and improved in the Center and later produced by domestic manufacturers with the technical assistance of the Center.

Kinds of machinery being considered at present are as follows :

- a. Development and Improvement of Hand Tractor
 - Development of lighter hand tractors
 - Development of variable attachments for variable works to be carried out by single tractor.
- b. Development of Soy-bean Thresher
 - Development of multipurpose thresher that can be used for soy-bean, rice etc.
- c. Corn Sheller
 - Motor driven
 - Capacity - about 1 Ton/hour
- d. Deep placing fertilizer applicater
 - For both paddy field and upland
- e. Power Weeder
 - For paddy field
- f. Cassava Slicer
 - Both motor driven and mannual operated
 - Washer attached
- g. Peanut Sheller
 - Motor driven
 - Capacity - 500 Kg/hour
- h. D r y e r
 - For drying in the rainy season
- i. Grain Storage Tank
 - Capacity - about 5 tons

In addition to above listed machinery, rice huskers of existing rice mill units and adaptability of mini - tractors are expected to be improved.

Necessity of mechanization for secondary crops is not very high yet, but inexpensive and multipurpose machinery are expected to be developed for the particular works of some crops.

In the Center of proposed project, development and improvement of such machinery, establishment of mechanization policy and the training of manufacturers' technicians and extension workers (instructors to be) are expected to be performed, and technical transfer is expected to be achieved through these activities.

2. Executing Agency

Directorate of Food Crop Production
(Sub-Directorate of Agricultural Engineering Development)
Directorate General of Food Crops,
Department of Agriculture.

3. Relationship with other concerning Agencies

Coordination and cooperation among concerning agencies are discussed and problems are settled at National Agricultural Mechanization Committee, and activities of the Center will be planned based on the arrangement and/or understanding reached in the Committee Meeting. Research activities are basically to be carried out by Agricultural Research and Development Agency (Food Crop Research and Development Center and other relating Centers), while production and quality control of Agricultural machinery is to be covered by the Department of Industry.

Therefore, the activities of the Center are to be limited in the technical activities such as designing, development of machinery.

4. Activities Expected to be Performed in the Center

(1) Development and Improvement of Agricultural Machinery

(2) Test and Evaluation of Agricultural Machinery

Driving test and various other tests are to be carried out at the development stage in the Center, and the results are to be utilized for further improvement.

For the machinery developed at the Center then manufactured by local manufacturers, the quality and driving conditions are to be tested by the Center and necessary guidance is to be given to the manufacturers by the Center. This system can be applied to the machinery developed by manufacturers themselves, too.

For the imported machinery, adaptability tests are to be carried out.

(3) Technical Analysis for Agricultural Mechanization

Analysis and evaluation on whether the mechanization is adequate and/or can be carried out adequately are to be studied. These activities shall make up the directions to the activities of the Center.

While collecting various technical information and data needed for the technical decision making process of the Center. Kinds of machinery to be developed, their necessary functions, expected prices of the machinery developed in the Center and economical evaluation of imported machinery are to be studied as well.

For the machinery already introduced to the farmers, survey and analysis are to be conducted on the actual situation of utilization, then the way of improvement is to be studied based on the analysis.

(4) Training and Seminar

There shall be two kinds of courses namely one for manufacturers and the other one for extension workers (instructors to be).

In the training courses performed by BPLPP and BIMAS, the Center shall take part in curriculum making and the dispatch of instructors.

Indonesian side expects that the practical training should be even more materialized with the establishment of the Center.

Note:

For the standardization of agricultural machinery and their parts, the draft is prepared by the Sub-Directorate of Agricultural Engineering Development upon the request of the National Agricultural Mechanization Committee, then the draft be studied by special project team composed of Department of Agriculture, Department of Industry and manufacturers, then ultimately decided and publicized by the Department of Industry.

Standard (SII) for Agricultural machinery is so far publicized for hand sprayers, some parts of hand tractors etc.

5. Project Budget

There shall be no separate project budget. It is to be included in the budget (DIP) of the Sub-Directorate of Agricultural Engineering Development.

6. Project Site

(1) There is a difficulty in access road for the transportation of construction materials.

Southern road seems in a better condition than Eastern road. Permanent road should be constructed as early as possible.

(2) Though the terrain of the site is nearly flat, some preparation works such as levelling of land, cutting of rubber trees are necessary to be done before construction.

(3) Some public facilities such as electricity, telephone, drainage system, water supply are expected to be prepared at the earliest time.

- (4) There will be a problem of transportation for employees since the site is far from Jakarta and is no periodical public transportation around the site.

Project-operated transportation may be needed at first.

7. Related Activities Carried Out During Survey Period

- (1) Observation on the conditions of manufacturers, farmers and other concerning agencies and parties.

May 29 - June 2 : South Sulawesi - Pinrang, Sidrap,
Ujung Pandang

East Jawa - Surabaya

Central Jawa - Semarang

D.I. Yogyakarta.

June 4 - June 5 : West Jawa - Sukabumi, Bandung,
Suka Tani, Jati
Luhur, Suka Mandi.

June 12 - June 14 : West Sumatera - Padang, Sungai
Sarik, Lubuk Basung,
Bukit Tinggi.

- (2) Detailed listing up of Center buildings, facilities and equipment together with Indonesian officials for Indonesian proposal.

- (3) Listening to the detailed project plans of Indonesian side.

Proposed Organization of the Center for Development of Appropriate Agricultural Engineering Technology
 (Not Authorized)

* Possible managing staff
 Project Leader

- Director of Food Crop Production

Assistant Project Leader

- Sub-Director of Agricultural

Engineering Department

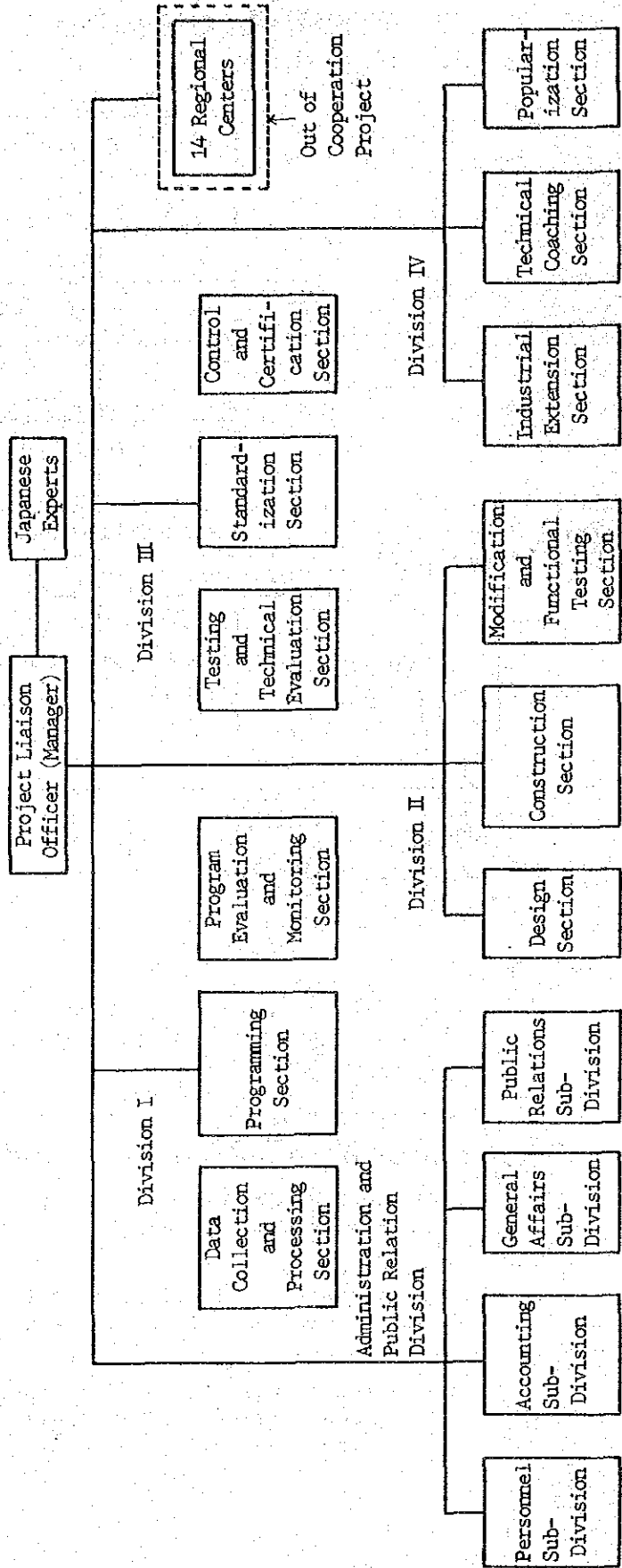
Project Liaison Officer

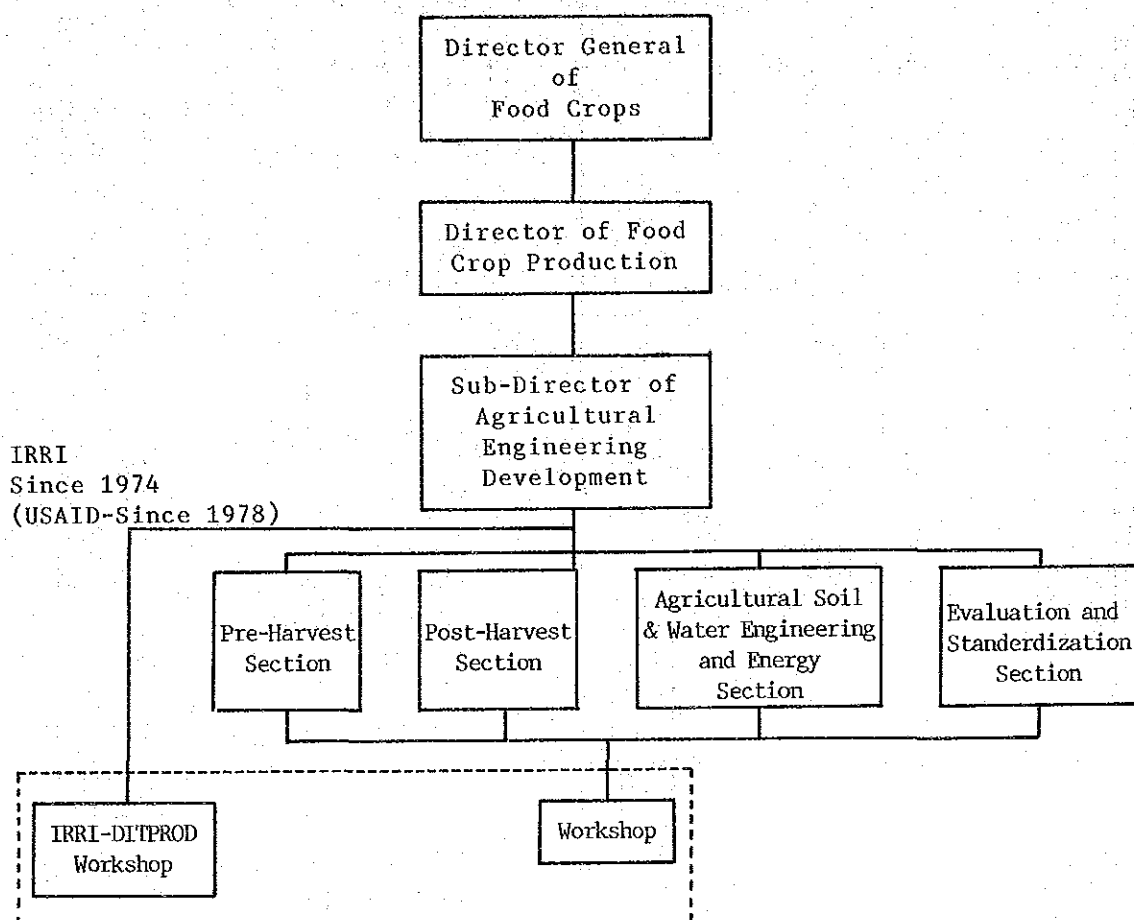
- One of the four section chiefs

* Remark:

(1) No definite plan of personnel assignment yet.

(2) Japanese experts will be attached to Project Liaison officer (Manager)





Explanation:

- (1) Activities of two workshops had been operated in the separate workshops, but works of the Sub-Directorate joined IRRI-DITPROD workshop in June, 1984 due to the planned road-widening work that would pass through workshop site, since then both workshop activities have been carried out in the same workshop.
 - (2) Payment for IRRI-DITPROD personnel:
 - Chief (Mr. Reddy) and two secretaries
 - Fully paid by USAID
 - Other personnel
 - Receive full salary from Indonesian Government
 - Receive additional allowance from USAID (Amount - 1/3 of Salary)
- * There shall be no additional allowance after the termination of IRRI-DITPROD Project, thus receive same amount as other government employees.

REQUEST OF JAPANESE EXPERTS

1. Long-Term Experts

a. Team Leader

More than 60 months (about 62 months) / 1 person
- Extra one month each before and after project period.

b. Operational Analysis and System Engineer

60 months / 1 person.

c. Design and Development Engineer

30 months / person X 2 persons = 60 months.

d. Testing and Evaluation Engineer

30 months / person X 2 persons = 60 months.

e. Liaison Officer

More than 60 months (about 62 months) / 1 person
- Extra one month each before and after project period.

2. Short - Term Experts

4 persons / 3 months each/year X 5 years = 20 persons,
60 man - months.

Specific field - as required by the Center.

EXISTING PERSONNEL OF SUB-DIRECTORATE OF
AGRICULTURAL ENGINEERING DEVELOPMENT

As of June, 1985

	Central Office				Regional Centers	
	Sub-Directorate		IRRI-DITPROD	Central Total	(14 Provinces)	
	Office	Workshop				
1. Staff and Engineers	10	5	2	17	Staff - 13	Engineers - 26*
2. Technicians	-	16	20	36]]
3. Administration	8	1	5	14	]	- 77*
T o t a l	18	22	27	67		116*

R e m a r k :

1. * Estimated Number
2. IRRI-DITPROD : USAID sponsored IRRI Project
3. Regional Centers (Sub-Centers)

Already established - 8 Centers :

North Sumatera	- Medan
West Sumatera	- Bukit Tinggi
L a m p u n g	- Tegineneng
West Jawa	- Bandung
Central Jawa	- Ungaran
East Jawa	- Waru (Surabaya)
South Sulawesi	- Ujung Pandang
South Kalimantan	- Banjar Baru.

Preparing for establishment - 6 Centers

A c e h	- Banda Aceh
West Kalimantan	- Pontianak
South Sumatera	- Palembang
Yogyakarta	- Yogyakarta
B a l i	- Denpasar
West Nusatenggara	- Mataram

4. Personnel in IRRI-DITPROD will be transferred to the Sub-Direc-
torate after the 31st of August, 1985.

Manpower planning

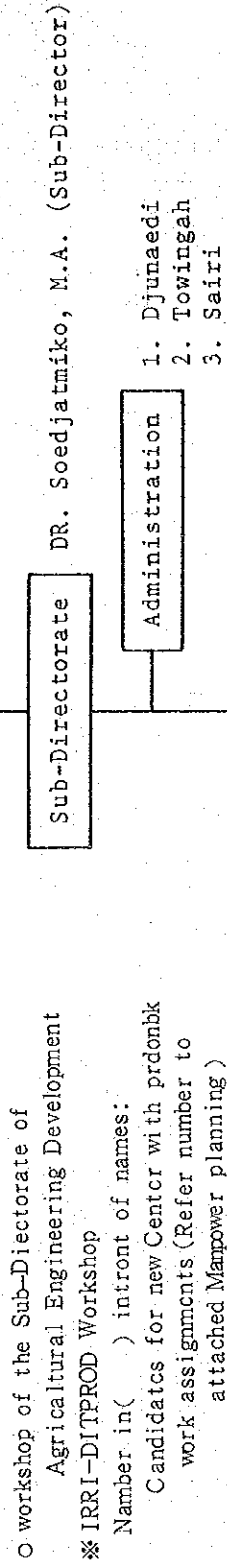
STAFFING PERSONNEL FOR THE PROJECT
(NCAM/CDAET PROJECT)

DESIGNATION SPECIFICATION	POSITION	EXISTING	REQUIRED	TO BE SUPPLIED
1. Senior Agricultural Engineer	Head Division	4	8	4
2. Junior Agricultural Engineer (UNPAD/IPB/GAMA)	Control & Actual field	5	10	5
3. Mechanical engineer (ITB)		0	3	3
4. Mechanic (Senior Technical School)		4	6	2
5. Machinist (STS)		2	4	2
6. Draftman (STS)		1	5	4
7. Operator (ST)		6	6	0
8. Skilled labor (SD)		4	4	0
9. Warehouse master		0	2	2
10. Typist (ASMI)		0	2	2
11. Driver		4	4	0
12. Laboratory instrument handler (STM)		0	4	4
13. Agronomist (IPB)		1	2	1
14. Translator (IKIP/ABA)		0	0	0
15. Librarian (IKIP)		0	1	1
Total		31	61	30*

※ (Most probably recruited as project employees at first, Possible to be promoted to Government employees later on).

Organization & Personnel of the Sub-Directorate of Agricultural Engineering Development

(Present)



	Pre-Harvest Section	Post-Harvest Section	Aggricultural Soil & Water Engineering and Energy Section	Evaluation and Standardization Section
	(1) R. Dadang Tarmana A. Eng (Chief)	(1) Ir. Handaka M. Eng (Chief)	(1) Ir. B. Gultom (Chief)	(1) Ir. Zaidir Said (Chief)
(4) * 1. Soetomo	(3)○ 1. Ir. Sardjono	(2) 1. Ir. Loekito M.	(2) * 1. Ir. Koes Sulistiadji	(2) * 1. Ir. Rudy Tjahjohutomo
(2) * 2. Ir. Subrata S.	(2)○ 2. Ir. Astu Unadi	(2) 2. Ir. Rachman Madjid	(4) 3. Ir. Lily Gandawaty R.	(6) * 4. Made Dasnaya
3. Wiyanto B. Sc	(4)○ 3. Soekardjan	(5) * 4. Soetopo	(8) * 5. Suhardjo	* 6. Sakimun
4. Ir. Bayu Sasongko	(4)○ 4. Kasiman	* 5. Endon M. Yahya	* 7. Noin	* 8. Noit
5. Soeparno	(7)○ 5. Soeparmin	* 6. Dedi Sumardi	* 9. Soelaeman	○ 9. Soelaeman
(8)○ 6. Didi Haryadi	○ 6. Soelaeman	* 7. Aceng Sulaeman	(11) * 10. Suwardi	* 11. Munir
7. Rd. Husen	(8)○ 7. Soehardi	(11) * 8. Enjam	* 12. Ny. Asiah	* 13. Sebuh
8. H. Ondi	(7)○ 8. Rasiun	9. Zen	* 14. Saini	* 15. Abd. Kodir
9. Muhayar	9. Pudji Irianti	(11) * 10. Mamat Gani	* 16. H. Arsyad	* 17. Samirun
○ 10. Mabenih	(7)○ 10. Akup Nilin	* 11. Melih		
○ 11. Asmat Sedul	(7)○ 11. Amat Suyadi	* 12. Paeran		
○ 12. Manat T.	○ 12. Nari	* 13. H. Makruf		
○ 13. Simon Debeturu	(8)○ 13. Mohammad	* 14. R. Budiman		
		* 15. Subari		
		(11)○ 16. Moh. Komad		
Recently Employed by the Workshop of the Sub-Directorate				
	○ 1. Ir. Kusno Utamo	X		
	○ 2. Supriyanto	X		
	○ 3. Supono	X		
	○ 4. Made Susata	X		
	○ 5. Suwarno	X		
	Not yet included in the number of employees			
	X (After name) Project employed			

TRAINING COURSES ON AGRICULTURAL MACHINERY IN WHICH
SUB-DIRECTORATE OF AGRICULTURAL ENGINEERING
DEVELOPMENT IS INVOLVED

(PRESENT AND PLAN IN THE COOPERATION PROJECT)

A. Training Courses

1. Present Courses

Curriculum	Trainees	Manufacturers	Extension PPL & PPM	Workers PPS
1) Industrial Extension (Test & Evaluation)		2 weeks	30 days	10 days
2) Machinery Repair, Maintenance and Utilization		-	30 days	10 days
3) Design & Prototyping (Modification)		2 weeks	30 days	10 days
Total Training Period		4 weeks	90 days	30 days

R e m a r k s :

- 1) Extension workers PPL - Agricultural High School Graduate
PPM - Junior College Graduate and/or
Experience/Promoted PPL.
PPS - University Graduate.

- 2) All groups of trainees receive all three curriculums except
manufacturers who receive only two.

3) Execution body

Manufacturers - Sub-Directorate of Agricultural
Engineering Development in cooperation
with the Metal Industry Development
Center (MIDC) of the Department of
Industry.

PPL & PPM, PPS - Training Institute for the Extension
Workers of the Department of Agricul-
ture (BLPP).

2. Plan in the Cooperation Project (Center)

- 1) Groups of trainees are same as present.
- 2) Practical training shall be intensified in all courses.
- 3) Training in Operational Analysis and System Engineering shall be added to the training courses of PPS and Subject-Matter Specialist of the Sub-Directorate of Agricultural Engineering Development.

B. Number of Trainees and Frequency of Training

1. Number of Trainees trained during 1982 - 1985 (Past)

	Training Groups		
	Manufacturers	PPI. & PPM	PPS
1) Number of Training Courses carried out during 1982-1985	J a k a r t a (Pasar Minggu) 5 courses	South Sulawesi (Batang Kaluku) 1 course	West Jawa (Ciawi) 1 course
	South Sulawesi (Maros, Bone- Bone) 2 courses	West Jawa (Cihea) 1 course	Yogyakarta 1 course
	South Kalimantan (Banjar Baru) 1 course	West Jawa (Ciawi) 1 course	
	West Sumatera (Bukit Tinggi) 4 courses		
	West Jawa (Sumedang) 1 course		
T o t a l	13	3	2
2) Average Number of Trainees in one Training Group	15 - 30 P e r s o n s	30 Persons	30 Persons
3) Total Number of Trainees trained	Persons	90 Persons	55 Persons

R e m a r k s :

1) Extension body/Sponsoring Office

Manufacturers - Sub-Directorate of Agricultural Engineering Development and IRRI-DITPROD in cooperation with the Metal Industry Development Center of the Department of Industry.

- Mostly carried out in the Regional Centers (Regional Workshops).

PPL & PPM, PPS - Training Institute for the Extension Workers of the Department of Agriculture (BLPP).

2) Training courses carried out by IRRI-DITPROD are included in above figures (Manufacturers). Sub-Directorate carried out only two courses without IRRI-DITPROD.

2. Planned Frequency of Training and Number of Trainees

a. Frequency 2 courses a year.

b. Period of Training 2 weeks - 3 months for each training.

- Training exceeding one month shall be carried out in BLPP Centers.

c. Number of Trainees

Total - about 200 trainees a year.
(Detail)

Manufacturers (Technician Level): 30 persons X 2 = 60 persons / year.

P P S 15 persons X 2 = 30 persons/year.

P P M Small Number (occasional)

P P L 30 persons X 2 = 60 persons/year.

Provincial Officer : 10 persons X 2 = 20 persons/year.

Project Employees : Upon demand.

Remark :

(1) Indonesian side wishes to intensify and strengthen the training program under the proposed Center.

FORMAL TRAINING SESSIONS BY IRRI-DITPROD

No.	Date	Location	Participants	Primary Topics
1.	Oct 6 to Oct 12, '80	Jakarta	12	Familiarization of IRRI design equipment
2.	Apr 6 to Apr 11, '81	Jakarta	22	Analysis of the equipment, extension methodology and credit requirement ... etc.
3.	May 31 to June 4, '82	Jakarta	17	
4.	Jan 24 to Jan 28, '81	Bukittinggi W. Sumatera	19	
5.	Nov 12 to Nov 19, '81	Bone-Bone S. Sulawesi	12	Blue print reading, jigs and fixture usage, cost of manufacturing and field testing and quality control.
6.	Oct 19 to Oct 21, '81	Banjar Baru S. Kalimantan	17	
7.	Mar 25 to Mar 28, '82	Maros S. Sulawesi	16	
8.	May 31 to June 4, '82	Jakarta	17	Agricultural Mechanization course
9.	Jan 9 to Jan 21, '84	Bukittinggi W. Sumatra	12	Training for making hand tractors
10.	May 15 to May 26, '84	Jakarta (Participants from Java)	8	Training for making pedal thresher/ Winnower
11.	Jan 21 to Feb 2, '85	Bukittinggi W. Sumatra	10	Training for making hand tractors and reapers

From USAID Evaluation Report on IRRI-DITPROD.

REQUEST OF COUNTERPART TRAINING IN FIVE YEARS

1. Observation

- | | |
|--|------------------------------|
| a. Design and Prototyping | : 4 weeks/person X 8 persons |
| b. Testing and Evaluation | : 4 weeks/person X 8 persons |
| c. Project Administration/
Management | : 4 weeks/person X 8 persons |
| d. System Analysis | : 4 weeks/person X 4 persons |

T o t a l 28 persons.

2. Long-Term Technical Training Courses

- | | |
|--|------------------------------|
| a. Testing and Evaluation Engineering | 6 months/person X 8 persons |
| - Theory and Practice | |
| b. Testing and Evaluation Technique | 3 months/person X 30 persons |
| - P r a c t i c e | |
| c. Operational Analysis and System Engineering | 12 months/person X 8 persons |
| d. Design and Dvelopment Engineering | 6 months/person X 12 persons |
| - Theory and Practice | |
| e. Design and Development Technique | 3 months/person X 12 persons |
| - P r a c t i c e | |

T o t a l 70 persons.

Remark : Request mentioned above is the Indonesian request as of June 8, 1985.

Harvested Area, Average and Productivity and Production
Rice and Secondary Crops

1983

1984/1985

Directorate General of Food Crops

Table 1: Harvested area, Average productivity and Production of rice in Indonesia in 1983 (Confirmed)

Province	Rice (Paddy field)				Upland rice				Rice production (Total)			
	Harvested Area (Ha)	Productivity (100kg)	Production (Ton)	Unhulled rice	Harvested Area (Ha)	Productivity (100kg)	Production (Ton)	Unhulled rice	Harvested Area (Ha)	Productivity (100kg)	Production (Ton)	Unhulled rice
1. D. I. Aceh	255,972	35.96	920,475	14,260	17.61	25,112	270,232	34.99	945,587			
2. North Sumatera	453,702	36.19	1,641,763	98,082	19.45	190,769	551,784	33.21	1,832,532			
3. West Sumatera	321,843	40.59	1,269,764	12,036	19.21	23,121	324,879	39.80	1,292,885			
4. R i a u	83,504	28.66	239,312	51,846	15.85	82,176	135,350	23.75	321,488			
5. J a m b i	142,519	28.82	410,786	20,770	16.85	34,997	163,289	27.30	445,783			
6. South Sumatera	296,142	31.03	918,877	124,117	17.11	212,364	420,259	26.92	1,131,241			
7. B e n g k u l u	57,060	35.56	202,895	28,067	16.98	47,658	85,127	29.43	250,553			
8. Lampung	190,487	39.15	745,781	134,135	16.02	214,884	324,622	29.59	960,665			
SUMATERA (Total)	1,792,229	35.43	6,349,653	483,313	17.20	831,081	2,275,542	31.56	7,180,734			
9. D. K. I. Jakarta	9,545	34.47	32,903	56	15.71	88	9,601	34.36	32,991			
10. West Java	1,702,192	44.21	7,524,938	129,918	18.88	245,308	1,832,110	42.41	7,770,246			
11. Central Java	1,268,062	47.36	6,005,988	48,294	19.73	95,271	1,316,356	46.35	6,101,259			
12. D. I. Yogyakarta	102,765	49.74	511,132	34,083	19.39	66,077	136,848	42.18	577,209			
13. East Java	1,405,868	49.68	6,983,702	78,372	20.78	162,890	1,484,240	48.15	7,146,592			
J A W A (Total)	4,488,432	46.92	21,058,663	290,723	19.59	569,634	4,779,155	45.26	21,628,297			
14. B a l i	164,239	44.63	733,057	4,220	13.86	5,849	168,459	43.86	738,906			
15. West Nusa Tenggara	216,462	39.10	846,388	15,303	16.90	25,858	231,765	37.63	872,246			
16. East Nusa Tenggara	62,338	31.89	198,780	70,949	14.54	103,160	133,287	22.65	301,940			
17. East-Timor *)												
BALI & NUSA TENGGARA (Total)	443,039	40.14	1,778,225	90,472	14.91	134,867	533,511	35.86	1,913,092			
18. West Kalimantan	169,119	27.08	458,038	111,156	15.26	169,624	280,275	22.39	627,662			
19. Central Kalimantan	75,454	21.16	159,701	41,708	13.48	56,222	117,192	18.42	215,923			
20. South Kalimantan	275,581	25.76	709,831	31,788	15.09	47,968	307,369	24.65	757,799			
21. East Kalimantan	27,320	24.25	66,256	17,709	16.27	28,813	45,029	21.11	95,069			
KALIMANTAN (Total)	547,504	25.46	1,393,826	202,361	14.95	302,627	749,865	22.62	1,696,453			
22. North Sulawesi	62,884	39.62	249,126	10,894	17.08	18,607	73,778	36.29	267,733			
23. Central Sulawesi	77,946	29.48	229,785	33,064	14.57	48,174	111,010	25.04	277,959			
24. South Sulawesi	555,348	39.17	2,175,336	25,105	17.58	44,135	580,453	38.24	2,219,471			
25. South-East Sulawesi	17,027	31.36	53,397	25,123	16.88	42,396	42,150	22.73	95,793			
SULAWESI (Total)	713,205	37.96	2,707,644	94,186	16.28	153,312	807,391	35.43	2,860,956			
26. M a l u k u	1,067	23.99	2,560	13,776	11.82	16,283	14,843	12.69	18,843			
27. Irian Jaya	1,433	23.22	3,327	729	14.25	1,039	2,162	20.19	4,366			
MALUKU & IRIAN JAYA (Total)	2,500	23.55	5,887	14,505	11.94	17,322	17,005	13.65	23,209			
Out of Japan (Total)	3,498,477	34.97	12,235,235	884,837	16.27	1,439,209	4,383,314	31.20	13,674,444			
I N D O N E S I A	7,986,909	41.69	33,293,898	1,175,560	17.09	2,008,843	9,162,469	38.53	35,302,741			

*) Data not yet available Note: Harvested area "Net area" that produced dried unhulled rice. Polished rice: 24,005,864 ton.

Table 2: Harvested area, Average productivity and Production of secondary crops in 1983 (Confirmed)

Province	Corn			Cassava			Sweet potato		
	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)
	1. D. I. Aceh	3,849	12.96	4,988	4,600	110	50,600	1,877	92	17,268
2. North Sumatra	42,723	18.07	77,197	20,878	111	231,654	16,343	82	133,838
3. West Sumatra	6,872	17.58	12,081	5,538	119	65,843	2,001	94	18,809
4. Riau	25,179	14.16	35,653	8,581	93	79,803	2,510	71	19,821
5. Jambi	1,598	13.64	2,180	2,210	96	21,216	1,013	79	8,003
6. South Sumatra	14,273	13.04	18,612	17,717	107	188,997	4,639	72	33,484
7. Bengkulu	4,511	13.70	6,180	3,062	96	29,395	3,382	77	26,041
8. Lampung	83,772	15.66	131,204	81,476	102	827,290	2,273	85	19,320
SUMATERA (Total)	182,777	15.76	288,095	144,057	104	1,494,798	34,038	81	274,584
9. D.K.I. Jakarta	115	11.22	129	278	92	2,570	55	68	375
10. West Java	93,303	15.72	146,664	160,343	109	1,747,294	47,864	84	402,801
11. Central Java	709,963	18.81	1,335,528	276,890	100	2,771,699	32,288	77	248,365
12. D. I. Yogyakarta	56,354	15.41	86,851	58,805	100	590,392	1,594	83	13,198
13. East Java	1,160,337	17.99	2,087,037	343,234	98	3,348,818	35,528	68	242,722
JAWA (Total)	2,020,072	18.10	3,656,229	839,550	101	8,460,773	117,329	77	907,961
14. Bali	48,348	15.09	72,956	20,848	108	225,625	11,112	98	108,698
15. West Nusa Tenggara	27,836	15.80	43,981	10,076	97	97,737	9,530	85	80,774
16. East Nusa Tenggara	191,196	12.28	234,871	83,944	83	694,035	16,345	75	122,697
17. East Timor	-	-	-	-	-	-	-	-	-
BALI & NUSA TENGGARA (Total)	267,380	13.14	351,448	114,868	89	1,017,397	36,987	84	312,169
18. West Kalimantan	10,600	10.17	10,780	13,414	93	124,750	1,320	66	8,712
19. Central Kalimantan	3,671	12.26	4,501	7,483	91	68,095	1,404	73	10,249
20. South Kalimantan	5,783	11.13	6,436	8,969	88	78,803	2,054	62	12,735
21. East Kalimantan	9,554	11.78	11,255	4,576	90	41,184	3,385	72	24,372
KALIMANTAN (Total)	29,608	11.14	32,972	34,442	91	312,832	8,163	69	56,068
22. North Sulawesi	75,541	17.78	134,267	9,600	97	93,120	5,763	81	46,586
23. Central Sulawesi	42,305	13.00	54,996	6,374	93	59,278	4,008	76	30,461
24. South Sulawesi	314,303	15.25	479,263	31,312	102	319,158	8,542	73	62,343
25. South-East Sulawesi	56,488	13.12	74,120	26,112	88	230,230	4,686	62	29,180
SULAWESI (Total)	488,637	15.20	742,666	73,398	96	701,786	22,999	73	168,570
26. Maluku	10,043	10.29	10,334	4,962	88	43,666	2,320	66	15,312
27. Irian Jaya	3,710	13.83	5,131	9,531	75	71,482	58,337	82	478,363
MALUKU & IRIAN JAYA (Total)	13,753	11.24	15,465	14,493	79	115,148	60,657	81	493,675
Out of Japan (Total)	982,155	14.57	1,430,646	381,258	96	3,641,961	162,844	80	1,305,066
INDONESIA	3,002,227	16.94	5,086,875	1,220,808	99	12,102,734	280,173	79	2,213,027

Table 3: Harvested area, Average productivity and Production of secondary crops in 1983 (Confirmed)

Province	Peanut			Soy bean			Green bean (Mungo bean)		
	Harvested Area (Ha)	Producti- vity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Producti- vity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Producti- vity/ha (100kg)	Production (Ton)
	1. D. I. Aceh	10,081	10.60	10,663	35,497	9.4	32,430	2,931	7.68
2. North Sumatera	10,406	10.31	10,726	4,437	9.3	4,185	3,899	9.89	3,856
3. West Sumatera	7,681	9.27	7,120	2,272	6.61	1,502	1,629	8.54	1,391
4. Riau	3,486	9.50	3,312	3,386	7.40	2,506	3,908	12.63	4,936
5. Jambi	836	11.46	958	1,106	8.24	911	270	10.26	277
6. South Sumatera	7,687	10.69	8,216	4,408	8.74	3,833	2,926	6.66	1,948
7. Bengkulu	3,295	11.75	3,872	1,895	7.38	1,399	476	7.02	334
8. Lampung	7,831	7.93	6,211	18,996	7.05	13,177	2,905	5.10	1,483
SUMATERA (Total)	51,283	9.96	51,078	71,697	8.36	59,963	18,944	8.70	16,476
9. D.K.I. Jakarta	155	10.00	155	-	-	-	-	-	-
10. West Java	71,008	9.41	66,824	28,067	7.30	20,478	23,951	7.19	17,231
11. Central Java	102,101	10.29	105,030	126,105	7.90	99,640	83,262	5.45	45,381
12. D. I. Yogyakarta	36,844	7.31	26,927	35,595	7.26	25,850	1,070	2.59	277
13. East Java	130,030	9.34	121,419	265,181	8.88	258,187	64,878	5.97	38,709
JAWA (Total)	340,138	9.42	320,355	474,948	8.40	399,125	173,161	5.87	101,598
14. Bali	10,900	11.46	12,490	7,444	9.85	7,332	3,693	4.88	1,508
15. West Nusa Tenggara	7,196	10.56	7,601	46,065	7.56	34,816	25,659	3.55	9,101
16. East Nusa Tenggara	11,283	10.32	11,647	268	8.34	224	16,215	7.98	12,939
17. East Timor	-	-	-	-	-	-	-	-	-
BALI & NUSA TENGGARA (Total)	29,379	10.80	31,738	53,777	7.88	42,372	45,367	5.17	23,548
18. West Kalimantan	461	9.03	416	1,255	8.18	1,027	155	5.48	85
19. Central Kalimantan	253	7.52	190	184	8.18	151	415	6.41	266
20. South Kalimantan	10,569	10.29	10,878	1,134	7.83	888	1,000	4.96	496
21. East Kalimantan	2,484	8.47	2,104	1,824	8.19	1,494	1,026	5.68	583
KALIMANTAN (Total)	13,767	9.87	13,588	4,397	8.10	3,560	2,596	5.51	1,430
22. North Sulawesi	2,237	11.73	2,624	11,800	9.73	11,484	3,604	6.50	2,343
23. Central Sulawesi	3,609	9.81	3,540	4,899	7.61	3,728	2,627	7.60	1,997
24. South Sulawesi	32,955	9.78	32,215	11,025	8.63	9,517	44,281	6.04	26,732
25. South-East Sulawesi	2,960	6.95	2,057	4,023	8.32	3,347	1,033	6.08	628
SULAWESI (Total)	44,761	9.68	40,436	31,747	8.84	28,076	51,545	6.15	31,700
26. Maluku	1,587	8.34	1,324	156	9.16	143	514	7.29	375
27. Irian Jaya	2,599	7.32	1,902	3,154	9.08	2,864	739	6.82	504
MALUKU & IRIAN JAYA (Total)	4,186	7.71	3,226	3,310	9.08	3,007	1,253	7.02	879
Out of Japan (Total)	140,376	19.98	140,066	164,928	8.31	136,978	119,905	6.17	74,033
INDONESIA	480,514	9.88	460,421	639,876	8.38	536,103	293,066	5.99	175,631

Harvested Area, Average and Productivity and Production
Rice and Secondary Crops

1984

— Provisional —

1984/1985

Directorate General of Food Crops

Table 4: Harvested area, Average productivity and Production of rice in Indonesia in 1984 (Provisional)

Province	Rice (Paddy field)				Upland rice				Rice Production (Total)			
	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)
	1. D. I. Aceh	247,927	34.59	857,579	11,836	17.77	21,033	259,763	33.82	878,612		
2. North Sumatera	278,812	38.09	1,823,795	82,588	20.85	172,196	561,400	35.55	1,995,991			
3. West Sumatera	313,151	41.48	1,298,950	9,992	20.04	20,024	323,143	40.82	1,318,974			
4. Riau	84,175	28.75	242,003	50,613	13.42	67,923	134,788	22.99	309,926			
5. Jambi	142,947	28.77	411,259	20,962	17.04	35,719	163,909	27.27	446,978			
6. South Sumatera	297,559	31.46	936,121	113,715	16.50	187,630	411,274	27.32	1,123,751			
7. Bengkulu	56,537	34.82	196,862	25,486	14.83	37,796	82,023	28.61	234,658			
8. Lampung	204,563	40.04	819,070	150,245	16.37	245,951	354,808	30.02	1,065,021			
SUMATERA (Total)	1,825,671	36.07	6,585,639	465,437	16.94	788,272	2,291,108	32.18	7,373,911			
9. D. K. I. Jakarta	9,778	35.31	34,522	39	15.85	62	9,817	35.23	34,584			
10. West Java	1,818,850	44.60	8,112,071	162,424	20.92	339,718	1,981,274	42.56	8,451,789			
11. Central Java	1,408,336	48.52	6,832,612	60,095	21.08	126,658	1,468,431	47.39	6,959,270			
12. D. I. Yogyakarta	109,757	50.95	559,220	41,945	21.15	88,714	151,702	42.71	647,934			
13. East Java	1,477,409	50.91	7,522,565	85,531	22.03	188,412	1,562,940	49.34	7,710,577			
JAWA (Total)	4,824,130	47.80	23,060,990	350,034	21.24	743,564	5,174,164	46.01	23,804,554			
14. Bali	165,663	45.43	752,607	3,705	14.83	5,495	169,368	44.76	758,102			
15. West Nusa Tenggara	232,099	39.70	921,433	18,538	16.81	31,162	250,637	38.01	952,595			
16. East Nusa Tenggara	59,466	30.90	183,750	54,617	12.13	66,250	114,083	21.91	250,000			
17. East Timor *)	-	-	-	-	-	-	-	-	-			
BALI & NUSA TENGGARA (Total)	457,228	40.63	1,857,790	76,860	13.39	102,907	534,088	36.71	1,960,697			
18. West Kalimantan	172,802	25.76	445,138	105,395	14.21	149,766	278,197	21.38	594,504			
19. Central Kalimantan	75,274	20.19	151,978	40,936	14.06	57,556	116,210	18.03	209,534			
20. South Kalimantan	288,911	26.29	759,547	38,161	15.58	59,455	327,072	25.04	819,002			
21. East Kalimantan	35,804	23.07	82,600	40,092	15.63	62,664	75,896	19.14	145,264			
KALIMANTAN (Total)	572,791	25.13	1,439,263	224,584	14.67	329,441	797,375	22.18	1,768,704			
22. North Sulawesi	63,412	40.90	259,355	12,520	16.37	20,495	75,932	36.86	279,850			
23. Central Sulawesi	68,972	29.36	202,502	27,267	14.05	38,310	96,239	25.02	240,812			
24. South Sulawesi	585,368	40.96	2,397,667	20,512	17.80	36,511	605,880	40.18	2,434,178			
25. South-East Sulawesi	16,846	30.94	52,122	24,073	15.70	37,795	40,919	21.97	89,917			
SULAWESI (Total)	734,598	39.64	2,911,646	84,372	15.78	133,111	818,970	37.18	3,044,757			
26. Maluku	887	24.82	2,202	17,056	11.10	18,932	17,943	11.78	21,134			
27. Irian Jaya	1,516	23.05	3,494	749	13.79	1,033	2,265	19.99	4,527			
MALUKU & IRIAN JAYA (Total)	2,403	23.70	5,695	17,805	11.21	19,965	20,208	12.70	25,661			
Out of Java (Total)	3,592,691	35.63	12,800,034	869,058	15.81	1,373,696	4,461,749	31.77	14,173,730			
INDONESIA (Total)	8,416,821	42.61	35,861,024	1,219,092	17.37	2,117,260	9,635,913	39.41	37,978,284			

*) Data not yet available. Note: Harvested area "Net area" that produced dried unbulled rice.

Polished rice: 25,825,233 ton

Table 5: Harvested area, Average productivity and Production of secondary crops in Indonesia in 1984 (Provisional)

Province	Corn			Cassava			Sweet potato		
	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)	Harvested Area (Ha)	Productivity/ha (100kg)	Production (Ton)
1. D. I. Aceh	5,119	13.33	6,824	6,311	118	74,470	2,740	97	26,578
2. North Sumatra	34,395	19.01	65,385	20,630	119	245,497	15,465	89	137,638
3. West Sumatra	7,943	16.15	12,828	6,557	124	81,307	2,512	98	24,618
4. Riau	6,788	14.60	9,910	6,711	109	73,150	1,999	75	14,992
8. Jambi	2,813	14.28	4,017	7,696	104	80,038	1,731	82	14,194
6. South Sumatra	17,090	13.70	23,413	31,562	112	353,494	5,244	84	44,050
7. Bengkulu	4,597	13.52	6,215	3,546	103	36,524	3,736	88	32,877
8. Lampung	96,955	16.28	157,843	120,415	122	1,469,063	2,246	89	19,989
SUMATERA (Total)	175,700	16.30	286,435	203,428	119	2,413,543	35,673	88	314,936
9. D. K. I. Jakarta	70	11.57	81	195	94	1,824	16	70	112
10. West Java	123,952	16.41	203,349	192,090	112	2,151,408	45,189	85	385,699
11. Central Java	572,191	20.15	1,152,882	276,305	105	2,900,031	26,747	79	210,915
12. D. I. Yogyakarta	84,953	16.54	140,488	57,412	104	595,441	1,179	80	9,419
13. East Java	1,313,574	18.67	2,453,045	350,193	102	3,585,922	35,491	75	266,552
JAWA (Total)	2,094,740	18.86	3,949,845	876,195	105	9,234,626	108,622	80	872,697
14. Bali	47,894	15.19	72,751	20,095	109	219,036	9,343	96	89,693
15. West Nusa Tenggara	32,736	16.22	53,098	13,979	101	141,188	8,633	93	80,287
16. East Nusa Tenggara	202,214	13.16	266,114	91,243	98	894,181	16,530	76	125,628
17. East Timor *	-	-	-	-	-	-	-	-	-
BALI & NUSA-TENGGARA (Total)	282,844	13.86	391,963	125,317	100	1,254,405	34,506	86	295,608
18. West Kalimantan	7,942	12.26	9,737	11,374	95	108,053	1,132	72	8,150
19. Central Kalimantan	3,547	12.74	4,519	6,990	96	67,104	1,385	69	9,556
20. South Kalimantan	9,652	12.89	12,441	9,710	99	96,129	6,722	68	45,71
21. East Kalimantan	5,039	12.75	6,425	7,174	102	73,175	2,264	74	16,754
KALIMANTAN (Total)	26,180	12.65	33,122	35,248	98	344,461	11,503	70	80,170
22. North Sulawesi	65,621	19.01	124,746	12,110	103	124,733	7,129	89	63,448
23. Central Sulawesi	36,750	13.90	51,082	8,041	97	77,998	4,958	83	41,151
24. South Sulawesi	263,735	15.56	410,372	29,861	101	301,596	9,459	74	59,997
25. South-East Sulawesi	58,347	14.72	85,887	29,216	94	274,630	4,794	68	32,599
SULAWESI (Total)	424,453	15.83	672,087	79,228	98	778,957	26,340	79	207,195
26. Maluku	17,659	11.54	20,378	8,861	94	83,293	7,930	72	57,096
27. Irian Jaya	3,832	14.02	5,372	10,664	90	95,976	59,337	86	510,298
MALUKU & IRIAN JAYA (Total)	21,491	11.98	25,750	19,525	92	179,269	67,267	84	567,394
Out of Java (Total)	930,668	15.14	1,409,357	462,746	107	4,970,635	175,289	84	1,465,303
INDONESIA	3,025,408	17.71	5,359,202	1,338,941	106	14,205,261	283,911	82	2,338,000

Table 6: Harvested area, Average Productivity and Production of Secondary Crops in Indonesia in 1984 (Provisional)

Province	Peanut			Soy bean			Green bean (Mungo bean)		
	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)	Harvested Area (Ha)	Productivity (100kg/ha)	Production (Ton)
	1. D. I. Aceh	11,329	11.52	13,051	38,566	9.66	37,255	3,134	6.61	2,074
2. North Sumatera	11,450	11.34	12,984	8,502	8.41	7,150	2,367	9.83	2,326
3. West Sumatera	6,827	9.76	6,663	3,505	8.30	2,909	1,497	8.12	1,216
4. Riau	1,947	10.28	2,002	2,314	7.79	1,803	1,686	12.43	2,095
5. Jambi	1,057	11.53	1,219	2,274	8.13	1,849	236	9.62	227
6. South Sumatera	15,087	11.09	16,731	10,998	8.63	9,491	3,076	7.92	2,436
7. Bengkulu	3,100	11.88	3,683	2,008	8.94	1,795	1,198	7.20	863
8. Lampung	13,782	9.96	13,727	47,438	8.45	40,085	4,651	6.04	2,810
<u>SUMATERA (Total)</u>	64,579	10.85	70,060	115,605	8.85	102,837	17,845	7.87	14,047
9. DKI Jakarta	117	9.83	115	-	-	-	-	-	-
10. West Java	81,758	9.81	80,215	67,028	6.85	45,912	23,415	7.16	16,804
11. Central Java	96,211	10.50	101,003	133,984	8.74	117,054	66,578	6.11	40,712
12. D. I. Yogyakarta	42,142	7.78	32,801	58,123	8.11	47,112	784	3.11	244
13. East Java	139,763	9.55	133,446	336,259	9.52	320,160	79,138	6.43	50,877
<u>JAWA (Total)</u>	353,991	9.86	347,580	595,394	8.91	530,238	169,915	6.39	108,637
14. B a l i	12,944	11.04	14,290	11,417	9.17	10,469	4,704	7.88	3,705
15. West Nusa Tenggara	9,882	10.02	9,902	59,642	8.57	51,113	29,254	3.76	10,994
16. East Nusa Tenggara	9,897	10.29	10,184	469	6.88	323	18,138	8.52	15,454
17. East Timor	-	-	-	-	-	-	-	-	-
<u>BALI & NUSA TENGGARA (Total)</u>	32,723	10.51	34,376	71,528	8.65	61,905	52,096	5.79	30,153
18. West Kalimantan	476	10.14	483	1,620	7.77	1,259	589	7.79	459
19. Central Kalimantan	255	8.55	218	187	8.77	164	416	6.37	265
20. South Kalimantan	11,100	10.99	12,199	3,266	8.68	2,835	771	6.29	485
21. East Kalimantan	2,662	8.94	2,380	2,132	8.49	1,810	546	4.71	257
<u>KALIMANTAN (Total)</u>	14,493	10.54	15,280	7,205	8.42	6,068	2,322	6.31	1,466
22. North Sulawesi	4,081	12.13	4,950	13,887	8.05	11,179	4,566	9.17	4,187
23. Central Sulawesi	3,875	10.66	4,131	5,765	8.39	4,837	2,991	7.55	2,258
24. South Sulawesi	35,382	11.00	38,920	16,481	9.13	15,047	35,714	6.61	23,611
25. South-East Sulawesi	3,107	7.48	2,324	6,289	9.02	5,673	983	6.94	683
<u>SULAWESI (Total)</u>	46,445	10.84	50,325	42,422	8.66	36,736	44,254	6.95	30,739
26. M a l u k u	2,360	8.98	2,119	2,925	9.16	2,679	2,925	7.44	2,177
27. Irian Jaya	2,728	9.88	2,695	2,705	9.70	2,624	296	9.49	261
<u>MALUKU & IRIAN JAYA (Total)</u>	5,088	9.46	4,814	5,630	9.42	5,303	3,221	7.63	2,458
<u>Out of Java (Total)</u>	163,328	10.71	174,855	242,390	8.76	212,349	119,738	6.59	78,863
<u>INDONESIA</u>	523,319	19.98	522,435	837,784	8.86	742,587	289,653	6.47	187,500

Table 7: Harvested area, Average Productivity and Production of Sorghum
in 1983 (Confirmed) and 1984 (Provisional)

Province	1983 (Confirmed)		1984 (Provisional)	
	harvested Area (Ha)	Productivity/ha (100kg)	Harvested Area (Ha)	Productivity/ha (100kg)
1. Central Jawa	10,257	13.82	10,934	13.51
2. D. I. Yogyakarta	3,071	2.16	4,169	2.29
3. East Jawa	8,068	15.19	8,548	15.14
4. West Nusa Tenggara	668	5.21	282	5.07
5. East Nusa Tenggara	15,294	5.68	..	..
Total	37,358	9.67	23,933	12.04

.. Report not yet/not in.

Number of Agricultural equipment that can be still used
in each Province in Indonesia in 1983

Province	Land Preparation Machinery					Pest & Disease Control Equipment				
	Two wheel Tractor	Mini Tractor	Small size Tractor	Big size Tractor	Hand Sprayer	Hand Duster	Knapsack Mr. Sprayer	Power Sprayer	Swing fog	
1. D. I. Aceh	120	193	44	27	15,799	17	40	5	-	
2. North Sumatera	176	225	31	47	39,200	983	239	48	-	
3. West Sumatera	187	83	23	9	15,249	74	514	158	11	
4. R i a u	124	12	17	6	3,974	71	61	7	2	
5. J a m b i	18	10	5	-	2,379	-	22	4	4	
6. South Sumatera	54	73	4	-	20,721	46	98	5	-	
7. Bengkulu	15	21	-	11	2,636	9	36	4	-	
8. Lampung	48	6	12	6	37,496	12	210	168	3	
<u>SUMATERA (Total)</u>	742	623	136	96	137,454	1,212	1,220	399	20	
9. D. K. I. Jakarta	21	5	-	-	532	-	9	-	7	
10. West Jawa	3,973	73	243	-	93,528	231	899	108	12	
11. Central Jawa	1,064	98	17	-	99,815	250	440	71	22	
12. D. I. Yogyakarta	27	30	5	1	5,772	6	83	47	2	
13. East Jawa	1,320	236	89	1	88,720	497	737	190	32	
<u>J A W A (Total)</u>	6,305	442	354	2	288,367	984	2,168	416	75	
14. B a l i	174	15	1	-	13,288	66	95	11	-	
15. West Nusa Tenggara	28	43	6	-	5,723	15	176	-	16	
16. East Nusa Tenggara	11	200	7	2	4,028	11	77	2	3	
<u>NUSA TENGGARA (Total)</u>	213	258	14	2	23,039	92	348	13	19	
17. West Kalimantan	21	29	2	1	6,070	26	104	-	6	
18. Central Kalimantan	5	7	1	-	1,175	1	16	6	-	
19. South Kalimantan	22	43	1	-	4,271	38	71	2	-	
20. East Kalimantan	12	11	22	-	3,619	10	36	17	1	
<u>KALIMANTAN (Total)</u>	60	90	26	1	15,135	75	227	25	7	
21. North Sulawesi	21	121	30	12	2,627	9	80	33	-	
22. Central Sulawesi	150	83	-	-	3,185	62	70	-	4	
23. South Sulawesi	45	924	1	8	37,831	1,175	323	14	6	
24. South-East Sulawesi	6	22	-	6	3,232	4	24	1	-	
<u>SULAWESI (Total)</u>	222	1,150	31	26	46,875	1,250	497	48	10	
<u>INDONESIA (Total)</u>	7,642	2,253	561	127	510,870	3,613	4,460	901	131	

