Table 17.1 Primary Profit per Ha for Wet Season Paddy and Dry Season Paddy With Project

(Unit: Rp.)

A)	Gross Income		
	6.0 ton x 133,000 (Rp./t)		798,000
B)	Production Cost		180,500
	1) Farm Input		(31,380)
	Seed	25 kg x 60 Rp./kg	1,500
	Fertilizer	Urea 250 kg x 70 Rp./kg	17,500
		TSP 100 kg x 70 Rp./kg	7,000
	Agri. chemical	4 ℓ x 1,230 Rp./ℓ	4,920
	Rodenticide	0.2 kg x 2,300 Rp./kg	460
	2) Labour Cost		147,550
	Nursery Preparation		6,250
	Ploughing & Puddling		37,500
	Transplanting		11,500
	Weeding		6,000
	Fertilization		1,500
	Application of Chemicals		5,000
	Harvesting (10% of the harvested crop)		79,800
	3) Miscellaneous Cost		1,570
C)	Primary Profit (A-B)		617,500

Table 17.2 Primary Profit per Ha for Wet Season Paddy in Irrigated Land Without Project

	Unit Yield (t/ha)	Unit Price (Rp/t)	Gross Income (Rp)	Production Cost (Rp)	Primary Profit (Rp)
Kab. Sidrap					
Dua Pitue	6.00	133,000	798,000	180,500	617,500
Kab. Bone					
Ajangale	-	-	-	-	-
Dua Boccoe	3.41	133,000	453,530	120,660	332,870
Libureng	-	-	-	-	-
Kahu	5.06	133,000	672,980	145,800	527,180
Kab. Soppeng					
Lalabata	5.65	133,000	751,450	172,450	579,000
Liliriaja	6.00	133,000	798,000	180,500	617,500
Marioriawa	3.61	133,000	480,130	118,810	361,320
Marioriwawo	5.45	133,000	724,850	167,980	556,870
Lilirilau	5.17	133,000	687,610	163,070	524,540
Kab. Wajo					
Tempe	-	-	-	-	-
Tansitolo	-	-	-	-	-
Maniang Pajo	3.74	133,000	497,420	132,660	364,760
Belawa	3.96	133,000	526,680	130,010	396,670
Sabbang Paru	-	-	-	-	-
Pammana	3.71	133,000	493,430	127,160	366,270
Takkalalla	-	-	-	-	-
Majauleng	3.76	133,000	500,080	127,530	372,550
Sajoanging	-	-	-	-	-

Table 17.3 Primary Profit per Ha for Dry Season Paddy in Irrigated Land Without Project

	Unit Yield (t/ha)	Unit Price (Rp/t)	Gross Income (Rp)	Production Cost (Rp)	Primary Profit (Rp)
Kab. Sidrap					
Dua Pitue	6.00	133,000	798,000	180,500	617,500
Kab. Bone					
Ajangale	-	-	-	-	-
Dua Boccoe	2.97	133,000	395,010	112,710	282,300
Libureng	-	-	-	-	-
Kahu	2.35	133,000	312,550	94,410	218,140
Kab. Soppeng					
Lalabata	5.35	133,000	711,550	145,150	566,400
Liliriaja	6.00	133,000	798,000	180,500	617,500
Marioriawa	6.00	133,000	798,000	180,500	617,500
Marioriwawo	4.90	133,000	651,700	140,670	511,030
Lilirilau	5.51	133,000	732,830	155,660	577,170
Kab. Wajo					
Tempe	-	-	-	-	-
Tanasitolo	-	-	-	-	-
Maniang Pajo	-	-	-	-	-
Belawa	-	-	-	-	-
Sabbang Paru	-	-	-	-	-
Pammana	-	-	-	-	-
Takkalalla	-	-	-	-	-
Majauleng	-	-	-	-	-
Sajoanging	-	-	-	-	-

Table 17.4 Primary Profit per Ha for Wet Season Paddy in Rainfed Area Without Project

	Unit Yield (t/ha)	Unit Price (Rp/t)	Gross Income (Rp)	Production Cost (Rp)	Primary Profit (Rp)
Kab. Sidrap					
Dua Pitue	3.10	133,000	412,300	104,370	307,930
Kab. Bone					
Ajangale	1.60	133,000	212,800	84,430	128,370
Dua Boccoe	1.90	133,000	252,700	88,420	164,280
Libureng	2.03	133,000	269,930	90,150	179,840
Kahu	1.58	133,000	210,140	84,170	125,970
Kab. Soppeng					
Lalabata	2.98	133,000	396,340	102,780	293,560
Liliriaja	2.70	133,000	359,100	99,070	260,030
Marioriawa	3.00	133,000	399,000	103,050	295,950
Marioriwawo	2.37	133,000	315,210	94,650	220,560
Lilirilau	2.22	133,000	295,260	92,680	202,580
Kab. Wajo					
Tempe	2.72	133,000	361,760	99,300	262,460
Tansitolo	2.51	133,000	333,830	96,500	237,330
Maniang Pajo	2.84	133,000	377,720	100,890	276,830
Belawa	3.39	133,000	450,870	108,220	342,650
Sabbang Paru	2.39	133,000	317,870	94,940	222,930
Pammana	2.78	133,000	369,740	100,090	269,650
Takkalalla	2.92	133,000	388,360	101,970	286,390
Majauleng	3.07	133,000	408,310	103,960	304,350
Sajoanging	2.40	133,000	319,200	95,080	224,120

Table 17.5 Primary Profit per Ha for Dry Season Paddy in Rainfed Area Without Project

	Unit Yield (t/ha)	Unit Price (Rp/t)	Gross Income (Rp)	Production Cost (Rp)	Primary Profit (Rp)
Kab. Sidrap					
Dua Pitue	3.89	133,000	517,370	114,880	402,490
Kab. Bone					
Ajangale	1.87	133,000	248,710	88,000	160,710
Dua Boccoe	2.05	133,000	272,650	90,390	182,260
Libureng	1.84	133,000	244,720	87,620	157,100
Kahu	2.35	133,000	312,550	94,410	218,140
Kab. Soppeng					
Lalabata	2.98	133,000	396,340	102,770	293,570
Liliriaja	3.84	133,000	510,720	114,200	396,520
Marioriawa	3.28	133,000	436,240	106,760	329,480
Marioriwawo	3.90	133,000	518,700	114,990	403,710
Lilirilau	3.75	133,000	498,750	113,000	385,750
Kab. Wajo					
Tempe	-	-	-	-	-
Tanasitolo	1.82	133,000	242,060	87,340	154,720
Maniang Pajo	2.48	133,000	329,840	96,110	233,730
Belawa	1.58	133,000	210,140	83,070	127,070
Sabbang Paru	1.75	133,000	232,750	86,390	146,360
Pammana	-	-	-	-	-
Takkalalla	2.78	133,000	369,740	100,100	269,640
Majauleng	2.50	133,000	332,500	96,380	236,120
Sajoanging	-	-	-	-	-

Table 17.6 (1) Primary Profit per Ha for Polowijo Crops in Paddy Field Without Project

Kind of Crops	Unit Yield t/ha	Unit Price Rp/t	Gross Income Rp/ha	Production Cost Rp/ha	Balance Rp/ha	Share of Each Crop ha	Primary Profit per Ha Rp
Lalabata							
Maize	0.79	46,500	36,730	39,830	-3,100	0.56	-1,740
Peanuts	0.71	250,300	177,710	91,460	86,250	0.08	6,900
Soybeans	0.75	199,900	149,920	53,400	96,520	0.32	30,890
Green beans	0.61	213,200	130,050	49,650	80,400	0.04	3,220
							(39,270)
Liliriaja							
Maize	0.94	46,500	43,710	39,830	3,880	0.90	3,490
Peanuts	0.74	250,300	185,220	91,460	99,760	0.04	3,750
Soybeans	0.73	199,900	145,930	53,400	92,530	0.01	930
Green beans	0.60	213,200	127,920	49,650	78,270	0.05	3,910
							(12,080)
Marioriawa							
Maize	0.80	46,500	37,200	39,830	-2,630	0.55	-1,450
Peanuts	0.70	250,300	175,210	91,460	83,750	0.08	6,700
Soybeans	0.75	199,900	149,920	53,400	96,520	0.29	27,990
Green beans	0.65	213,200	138,580	49,650	88,930	0.08	7,110
							(40,350)
Marioriwawo							
Maize	0.62	46,500	28,830	39,830	-11,000	0.41	4,510
Peanuts	0.71	250,300	177,710	91,460	86,250	0.19	16,390
Soybeans	0.75	199,900	149,920	53,400	96,520	0.02	1,930
Green beans	0.68	213,200	144,980	49,650	95,330	0.38	36,230
							(59,060)
Lilirilau							
Maize	0.79	46,500	36,730	39,830	-3,100	0.96	-2,980
Peanuts	0.40	250,300	100,120	91,460	8,660	0	0
Soybeans	0.71	199,900	141,930	53,400	88,530	0.03	2,660
Green beans	0.64	213,200	136,450	49,650	86,800	0.01	870
							(550)

Table 17.6 (2) Primary Profit per Ha for Polowijo Crops in Paddy Field Without Project

Kind of Crops	Unit Yield t/ha	Unit Price Rp/t	Gross Income Rp/ha	Production Cost Rp/ha	Balance Rp/ha	Share of Each Crop ha	Primary Profit per Ha Rp
Dua Pitue							
Maize	0.80	46,500	37,200	39,830	2,630	0.84	-2,210
Peanuts	0.89	250,300	222,770	91,460	131,310	0.15	19,700
Soybeans	0.43	199,900	85,960	53,400	32,560	0	0
Green beans	0.59	213,200	125,790	49,650	76,140	0.01	760
							18,200
Ajangale							
Maize	0.70	46,500	32,550	39,830	-7,280	0.63	-4,590
Peanuts	0.50	250,300	125,150	91,460	33,690	0.36	12,130
Soybeans	-	199,900	-	53,400	-	0	0
Green beans	-	213,200	-	49,650	-	0.01	0
							(7,540)
Dua Boccoe							
Maize	0.65	46,500	30,220	39,830	-9,610	0.76	-7,300
Peanuts	0.49	250,300	122,650	91,460	31,190	0.20	6,240
Soybeans	0.36	199,900	71,960	53,400	18,190	0.01	190
Green beans	0.24	213,200	51,170	49,650	1,520	0.03	50
							(-820)
Libureng							
Maize	0.72	46,500	33,480	39,830	-6,350	0.52	-3,300
Peanuts	0.54	250,300	135,160	91,460	43,700	0.37	16,170
Soybeans	0.36	199,900	71,960	53,400	18,560	0	0
Green beans	0.25	213,200	53,300	49,650	3,650	0.11	400
							(13,270)
Kahu							
Maize	0.70	46,500	32,550	39,830	-7,280	0.42	-3,060
Peanuts	0.55	250,300	137,660	91,460	46,200	0.57	26,330
Soybeans	-	199,900	-	53,400	-	0	0
Green beans	0.25	213,200	53,300	49,650	3,650	0.01	40
							(23,310)

Table 17.6 (3) Primary Profit per Ha for Polowijo Crops in Paddy Field Without Project

Kind of Crops	Unit Yield t/ha	Unit Price Rp/t	Gross Income Rp/ha	Production Cost Rp/ha	Balance Rp/ha	Share of Each Crop ha	Primary Profit per Ha Rp
Sajoanging							
Maize	0.85	6,500	39,520	39,830	-310	0.20	-60
Peanuts	0.74	250,300	185,220	91,460	93,760	0.25	23,440
Soybeans	-	199,900	-	53,400	-	0	0
Green beans	0.57	213,200	178,520	49,650	128,890	0.11	70,890
							(94,270)
Tempe							
Maize	0.87	46,500	40,450	39,830	620	0.59	370
Peanuts	0.70	250,300	175,210	91,460	83,750	0.01	840
Soybeans	0.75	199,900	149,920	53,400	96,520	0.12	11,580
Green beans	0.73	213,200	155,640	49,650	105,990	0.28	29,680
							(42,470)
Tanasitolo							
Maize	0.64	46,500	29,760	39,830	-10,070	0.22	-2,220
Peanuts	0.69	250,300	172,710	91,460	81,250	0.17	13,810
Soybeans	-	199,900	-	53,400	-	0	0
Green beans	0.59	213,200	125,790	49,650	76,140	0.61	46,450
							(58,040)
Maniang Pajo							
Maize	0.70	46,500	32,550	39,830	-7,280	0.41	-2,980
Peanuts	0.64	250,300	160,190	91,460	68,730	0.34	23,370
Soybeans	0.59	199,900	117,940	53,400	64,540	0.02	1,290
Green beans	0.52	213,200	110,860	49,650	61,210	0.23	14,080
							(35,760)
Belawa							
Maize	0.86	46,500	39,990	39,830	160	0.43	70
Peanuts	0.95	250,300	237,780	91,460	146,320	0.38	55,600
Soybeans	0.71	199,900	141,930	53,400	88,530	0.05	4,430
Green beans	0.70	213,200	149,240	49,650	99,590	0.14	13,940
							(74,040)

Table 17.6 (4) Primary Profit per Ha for Polowijo Crops in Paddy Field Without Project

Kind of Crops	Unit Yield t/ha	Unit Price Rp/t	Gross Income Rp/ha	Production Cost Rp/ha	Balance Rp/ha	Share of Each Crop ha	Primary Profit per Ha Rp
Sabbang Paru							
Maize	0.82	46,500	38,130	39,830	-1,700	0.51	-870
Peanuts	0.74	250,300	185,220	91,460	93,760	0.03	2,810
Soybeans	0.78	199,900	155,920	53,400	102,520	0.40	41,010
Green beans	0.70	213,200	149,240	49,650	99,590	0.06	5,980
							(48,930)
Pamana							
Maize	0.94	46,500	43,710	39,710	3,880	0.72	2,790
Peanuts	0.88	250,300	220,260	91,460	128,800	0.07	9,020
Soybeans	0.78	199,900	155,920	53,400	102,520	0.05	5,130
Green beans	0.68	213,200	144,980	49,650	95,330	0.16	15,250
							(32,190)
Takkalalla							
Maize	0.84	46,500	39,060	39,830	-770	0.41	-310
Peanuts	0.80	250,300	200,240	91,460	108,780	0.25	27,200
Soybeans	0.80	199,900	159,920	53,400	106,520	0.01	1,070
Green beans	9.68	36,000	123,660	49,630	74,030	0.33	24,430
							(52,390)
Majauleng							
Maize	0.95	46,500	44,170	39,830	4,340	0.28	1,220
Peanuts	0.78	250,300	195,230	91,460	103,770	0.20	20,750
Soybeans	0.70	199,900	139,930	53,400	86,530	0.02	1,730
Green beans	0.53	213,200	113,000	49,630	63,370	0.50	31,690
							(55,390)

Table 17.7 (1) Primary Profit per Ha for Polowijo Crops in Upland Area Without Project

Kind of Crops	Unit Yield t/ha	Unit Price Rp/t	Gross Income Rp/ha	Production Cost Rp/ha	Balance Rp/ha	Share of Each Crop ha	Primary Profit per Ha Rp
Lalabata							
Maize	0.79	46,500	36,730	39,030	-3,100	0.38	-1,180
Peanuts	0.71	250,300	177,710	91,460	86,250	0.05	4,310
Soybeans	0.75	199,900	149,920	53,400	96,520	0.22	21,230
Green beans	0.61	213,200	130,050	49,650	80,400	0.03	2,410
Cassava	6.53	36,000	235,080	51,410	183,670	0.07	12,860
Upland rice	1.45	133,000	192,850	50,690	142,160	0.25	35,540
							(75,170)
Liliriaja							
Maize	0.94	46,500	43,710	39,830	3,880	0.86	3,340
Peanuts	0.74	250,300	185,220	91,460	93,760	0.04	3,750
Soybeans	0.73	199,900	145,930	53,400	92,530	0	0
Green beans	0.60	213,200	127,920	49,650	78,270	0.05	3,910
Cassava	6.88	36,000	247,680	51,410	196,270	0.01	1,960
Upland rice	1.55	133,000	206,150	52,010	154,140	0.04	6,170
							(19,130)
Marioriawa							
Maize	0.80	46,500	37,200	39,830	-2,630	0.50	-1,310
Peanuts	0.70	250,300	175,210	91,460	83,750	0.07	5,860
Soybeans	0.75	199,900	149,920	53,400	96,520	0.27	26,060
Green beans	0.65	213,200	138,580	49,650	88,930	0.07	6,220
Cassava	7.54	36,000	271,440	51,410	220,030	0.06	13,200
Upland rice	1.42	133,000	188,860	50,290	138,570	0.03	4,160
							(54,190)
Marioriwawo							
Maize	0.62	46,500	28,830	39,830	-11,000	0.39	-4,290
Peanuts	0.71	250,300	177,710	91,460	86,250	0.19	16,390
Soybeans	0.75	199,900	149,920	53,400	96,520	0.02	1,930
Green beans	0.68	213,200	144,980	49,650	95,330	0.37	35,270
Cassava	6.14	36,000	221,040	51,410	169,630	0	0
Upland rice	1.33	133,000	176,890	49,090	127,800	0.03	3,830
							(53,130)
Lilirilau							
Maize	0.79	46,500	36,730	39,830	-3,100	0.95	-2,940
Peanuts	0.40	250,300	100,120	91,460	8,660	0	0
Soybeans	0.71	199,900	141,930	53,400	88,530	0.03	2,660
Green beans	0.64	213,200	136,450	49,650	86,800	0.01	870
Cassava	6.60	36,000	237,600	51,410	186,190	0	0
Upland rice	1.40	133,000	186,200	50,020	136,180	0.01	1,360
							(1,950)

Table 17.7 (2) Primary Profit per Ha for Polowijo Crops in Upland Area Without Project

Kind of Crops	Unit Yield t/ha	Unit Price Rp/t	Gross Income Rp/ha	Production Cost Rp/ha	Balance Rp/ha	Share of Each Crop ha	Primary Profit per Ha Rp
Dua Pitue							
Maize	0.80	46,500	37,200	39,830	-2,630	0.58	-1,530
Peanuts	0.89	250,300	222,770	91,460	131,310	0.10	13,130
Soybeans	0.43	199,900	85,960	53,400	32,560	0	0
Green beans	0.59	213,200	125,790	49,650	76,140	0	0
Cassava	6.05	36,000	217,800	51,410	166,390	0.10	16,640
Upland rice	0.7	133,000	43,100	40,710	52,390	0.22	11,530
							(39,770)
Ajangale							
Maize	0.70	46,500	32,550	39,830	-7,280	0.59	-4,290
Peanuts	0.50	250,300	125,150	91,460	33,690	0.34	11,450
Soybeans	-	199,900	-	53,400	-	0	-
Green beans	-	213,200	-	49,650	-	0.01	-
Cassava	4.54	36,000	163,440	51,410	12,030	0.06	6,720
Upland rice	-	133,000	-	-	-	0	-
							(13,880)
Dua Boccoe							
Maize	0.65	46,500	30,220	39,830	-9,610	0.56	-5,380
Peanuts	0.49	250,300	122,650	91,460	31,190	0.14	4,370
Soybeans	0.36	199,900	71,960	53,400	18,560	0.01	190
Green beans	0.24	213,200	51,170	49,650	1,520	0.02	30
Cassava	4.10	36,000	147,600	51,410	96,190	0.27	25,970
Upland rice	-	133,000	-	-		0	-
							(25,180)
Libureng							
Maize	0.72	46,500	33,480	39,830	-6,350	0.42	-2,670
Peanuts	0.54	250,300	135,160	91,460	43,700	0.30	13,110
Soybeans	0.36	199,900	71,960	53,400	18,560	0	0
Green beans	0.25	213,200	53,300	49,650	3,650	0.08	290
Cassava	4.79	36,000	172,440	51,410	121,030	0.06	7,260
Upland rice	1.23	133,000	163,590	47,750	115,840	0.14	16,220
							(34,210)
Kahu							
Maize	0.70	46,500	32,550	39,830	-7,280	0.34	-2,470
Peanuts	0.55	250,300	137,660	91,460	46,200	0.47	21,710
Soybeans	-	199,900	-	53,400	-	0	0
Green beans	0.25	213,200	53,300	49,650	3,650	0.01	40
Cassava	4.64	36,000	167,040	51,410	115,630	0.11	12,720
Upland rice	1.38	133,000	183,540	49,750	133,790	0.07	9,360
							(41,360)

Table 17.7 (3) Primary Profit per Ha for Polowijo Crops in Upland Area Without Project

Kind of Crops	Unit Yield t/ha	Unit Price Rp/t	Gross Income Rp/ha	Production Cost Rp/ha	Balance Rp/ha	Share of Each Crop ha	Primary Profit per Ha Rp
Sajoanging							
Maize	0.85	46,500	39,520	39,830	-310	0.16	-50
Peanuts	0.74	250,300	185,220	91,460	93,760	0.20	18,750
Soybeans	-	199,900	-	53,400	-	0	0
Green beans	0.57	213,200	178,520	49,630	128,890	0.45	58,000
Cassava	10.21	36,000	367,560	51,410	116,150	0.13	41,100
Upland rice	1.11	133,000	147,630	46,160	101,470	0.06	6,090
							(123,890)
Tempe							
Maize	0.87	46,500	40,450	39,830	620	0.49	300
Peanuts	0.70	250,300	175,210	91,460	83,750	0.01	840
Soybeans	0.75	199,900	149,920	53,400	96,520	0.10	9,650
Green beans	0.73	213,200	155,640	49,650	105,990	0.24	25,440
Cassava	8.00	36,000	288,000	51,410	236,590	0.12	28,390
Upland rice	2.12	133,000	281,960	59,600	222,360	0.04	8,890
							(73,510)
Tanasitolo							
Maize	0.64	46,500	29,760	39,830	-10,070	0.18	-1,810
Peanuts	0.69	250,300	172,710	91,460	81,250	0.14	11,370
Soybeans	-	199,900	-	53,400	-	0	0
Green beans	0.59	213,200	125,790	49,650	76,140	0.51	38,830
Cassava	8.57	36,000	308,520	51,410	257,110	0.14	35,990
Upland rice	1.69	133,000	224,770	53,880	170,890	0.03	5,130
							(89,510)
Maniang Pajo							
Maize	0.70	46,500	32,550	39,830	-7,280	0.32	-2,330
Peanuts	0.64	250,300	160,190	91,460	68,730	0.27	18,560
Soybeans	0.59	199,900	117,940	53,400	64,540	0.02	1,290
Green beans	0.52	213,200	110,860	49,650	61,210	0.18	11,020
Cassava	10.89	36,000	392,040	51,410	340,630	0.13	44,280
Upland rice	2.21	133,000	293,930	60,790	233,140	0.08	18,650
							(91,470)
Belawa							
Maize	0.86	46,500	39,990	39,830	160	0.40	60
Peanuts	0.95	250,300	237,780	91,460	146,320	0.35	51,210
Soybeans	0.71	199,900	141,930	53,400	88,530	0.05	4,430
Green beans	0.70	213,200	149,240	49,650	99,590	0.13	12,950
Cassava	8.89	36,000	320,040	51,410	268,630	0.07	18,800
Upland rice	-	133,000	-	-	-	0	-
							(87,450)

Table 17.7 (4) Primary Profit per Ha for Polowijo Crops in Upland Area Without Project

Kind of Crops	Unit Yield t/ha	Unit Price Rp/t	Gross Income Rp/ha	Production Cost Rp/ha	Balance Rp/ha	Share of Each Crop ha	Primary Profit per Ha Rp
Sabbang Paru							
Maize	0.82	46,500	38,130	39,830	-1,700	0.44	-750
Peanuts	0.74	250,300	185,220	91,460	93,760	0.02	1,870
Soybeans	0.78	199,900	155,920	53,400	102,520	0.35	35,880
Green beans	0.70	213,200	149,240	49,650	99,590	0.06	5,970
Cassava	9.78	36,000	352,080	51,410	300,670	0.03	9,020
Upland rice	2.07	133,000	275,310	58,930	216,380	0.10	21,640
							(73,630)
Pamana							
Maize	0.94	46,500	43,710	39,830	3,880	0.63	2,440
Peanuts	0.88	250,300	220,260	91,460	128,800	0.06	7,730
Soybeans	0.78	199,900	155,920	53,400	102,520	0.04	4,100
Green beans	0.68	213,200	144,980	49,650	95,330	0.14	13,350
Cassava	10.71	36,000	385,560	51,410	334,150	0.04	13,370
Upland rice	1.99	133,000	264,670	57,860	206,810	0.09	18,610
							(59,600)
Takkalalla							
Maize	0.84	46,500	39,060	39,830	-770	0.37	-280
Peanuts	0.80	250,300	200,240	91,460	108,780	0.22	23,930
Soybeans	0.80	199,900	159,920	53,400	106,520	0.01	1,060
Green beans	0.58	213,200	123,660	49,630	74,030	0.30	22,210
Cassava	9.68	36,000	348,480	51,410	297,070	0.10	29,710
Upland rice	-	133,000	-	-	-	0	-
							(76,630)
Majauleng							
Maize	0.95	46,500	44,170	39,830	4,340	0.22	950
Peanuts	0.78	250,300	195,230	91,460	103,770	0.16	16,600
Soybeans	0.70	199,900	139,930	53,400	86,530	0.01	860
Green beans	0.53	213,200	113,000	49,630	63,370	0.39	24,710
Cassava	27.2	36,000	979,200	51,410	915,830	0.06	54,950
Upland rice	2.51	133,000	333,830	64,790	269,040	0.16	43,050
							(141,120)

Table 17.8 Production Cost for Wet Season Paddy in Irrigated Land Without Project

Name of Kecamatan	Seed	Fertilizer Urea	Fertilizer TSP	Agri. Chemical	Rodenticide	Labour Cost	Miscell. Cost	Product. Cost
	Rp (kg/ha)	Rp (kg/ha)	Rp (kg/ha)	Rp (ℓ/ha)	Rp (kg/ha)	Rp	Rp	Rp
Dua Pitue	1,500 (25)	17,500 (250)	7,000 (100)	1,230 (4)	460 (0.2)	147,550	1,570	180,500
Ajangale	-	-	-	-	-	-	-	-
Dua Boccoe	1,800 (30)	4,060 (58)	1,750 (25)	1,250 (1.02)	230 (0.1)	111,100	470	120,660
Libureng	-	-	-	-	-	-	-	-
Kahu	1,800 (30)	4,550 (65)	5,810 (83)	-	-	133,050	590	145,800
Lalabata	1,800 (30)	15,400 (220)	5,950 (85)	4,920 (4)	460 (0.2)	142,145	1,775	172,450
Liliriaja	1,500 (25)	17,500 (250)	7,000 (100)	4,920 (4)	460 (0.2)	147,550	1,570	180,500
Marioriawa	1,800 (30)	2,730 (39)	30 (0.4)	180 (0.148)	50 (0.022)	113,760	260	118,810
Marioriwawo	1,800 (30)	14,350 (205)	5,600 (80)	4,920 (4)	460 (0.2)	139,490	1,360	167,980
Lilirilau	1,800 (30)	13,650 (195)	5,600 (180)	4,920 (4)	460 (0.2)	135,760	880	163,070
Tempe	-	-	-	-	-	-	-	-
Tanasitolo	-	-	-	-	-	-	-	-
Maniang Pajo	1,800 (30)	9,590 (137)	2,310 (33)	1,600 (1.3)	1,040 (0.45)	115,490	830	132,660
Belawa	1,800 (30)	6,440 (92)	1,260 (18)	1,340 (1.09)	180 (0.08)	118,420	570	130,010
Sabbang Paru	-	-	-	-	-	-	-	-
Pammana	1,800 (30)	5,950 (85)	1,750 (25)	1,850 (1.5)	160 (0.07)	115,090	560	127,160
Takkalalla	-	-	-	-	-	-	-	-
Majauleng	1,800 (30)	4,900 (70)	2,590 (37)	1,730 (1.41)	190 (0.08)	115,760	560	127,530
Sajoanging	-	-	-	-	-	-	-	-

Table 17.9 Production Cost for Dry Season Paddy in Irrigated Land Without Project

Name of Kecamatan	Seed	Fertilizer Urea	Fertilizer TSP	Agri. Chemical	Rodenticide	Labour Cost	Miscell. Cost	Product. Cost
	Rp (kg/ha)	Rp (kg/ha)	Rp (kg/ha)	Rp (l/ha)	Rp (kg/ha)	Rp	Rp	Rp
Dua Pitue	1,500 (25)	17,500 (250)	7,000 (100)	1,230 (4)	460 (0.2)	147,550	1,570	180,500
Ajangale	-	-	-	-	-	-	-	-
Dua Boccoe	1,800 (30)	2,730 (39)	1,120 (16)	1,480 (1.2)	0	105,250	330	112,710
Libureng	-	-	-	-	-	-	-	-
Kahu	1,800 (30)	0	0	0	0	92,500	100	94,410
Lalabata	1,800 (30)	5,810 (83)	140 (2)	110 (0.09)	0	136,900	390	145,150
Liliriaja	1,500 (25)	17,500 (250)	7,000 (100)	1,230 (4)	460 (0.2)	147,550	1,570	180,500
Marioriawa	1,500 (25)	17,500 (250)	7,000 (100)	1,230 (4)	460 (0.2)	147,550	1,570	180,500
Marioriwawo	1,800 (30)	6,230 (89)	350 (5)	70 (0.06)	830 (0.36)	130,920	470	140,670
Lilirilau	1,800 (30)	9,660 (138)	2,730 (39)	1,110 (0.9)	540 (0.234)	139,030	790	155,660
Tempe	-	-	-	-	-	-	-	-
Tanasitolo	-	-	-	-	-	-	-	-
Maniang Pajo	-	-	-	-	-	-	-	-
Belawa	-	-	-	-	-	-	-	-
Sabbang Paru	-	-	-	-	-	-	-	-
Pammana	-	-	-	-	-	-	-	-
Takkalalla	-	-	-	-	-	-	-	-
Majauleng	-	-	-	-	-	-	-	-
Sajoanging	-	-	-	-	-	-	-	-

Table 17.10 Production Cost for Wet Season Paddy in Rainfed Area Without Project

Name of Kecamatan	Seed	Fertilizer Urea	Fertilizer TSP	Agri. Chemical	Rodenticide	Labour Cost	Miscell. Cost	Product. Cost
	Rp (kg/ha)	Rp (kg/ha)	Rp (kg/ha)	Rp (l/ha)	Rp (kg/ha)	Rp	Rp	Rp
Dua Pitue	1,800 (30)	0	0	0	0	102,480	90	104,370
Ajangale	1,800 (30)	0	0	0	0	82,530	100	84,430
Dua Boccoe	1,800 (30)	0	0	0	0	86,520	100	88,420
Libureng	1,800 (30)	0	0	0	0	88,250	100	90,150
Kahu	1,800 (30)	0	0	0	0	82,260	110	84,170
Lalabata	1,800 (30)	0	0	0	0	100,880	100	102,780
Liliriaja	1,800 (30)	0	0	0	0	97,160	110	99,070
Marioriawa	1,800 (30)	0	0	0	0	101,150	100	103,050
Marioriwawo	1,800 (30)	0	0	0	0	92,770	80	94,650
Lilirilau	1,800 (30)	0	0	0	0	90,780	100	92,680
Tempe	1,800 (30)	0	0	0	0	97,430	70	99,300
Tanasitolo	1,800 (30)	0	0	0	0	94,630	70	96,500
Maniang Pajo	1,800 (30)	0	0	0	0	99,020	70	100,890
Belawa	1,800 (30)	0	0	0	0	106,340	80	108,220
Sabbang Paru	1,800 (30)	0	0	0	0	93,040	100	94,940
Pammana	1,800 (30)	0	0	0	0	98,220	70	100,090
Takkalalla	1,800 (30)	0	0	0	0	100,090	80	101,970
Majauleng	1,800 (30)	0	0	0	0	102,080	80	103,960
Sajoanging	1,800 (30)	0	0	0	0	93,170	110	95,080

Table 17.11 Production Cost for Dry Season Paddy in Rainfed Area Without Project

Name of Kecamatan	Seed	Fertilizer Urea	Fertilizer TSP	Agri. Chemical	Rodenticide	Labour Cost	Miscell. Cost	Product. Cost
	Rp (kg/ha)	Rp (kg/ha)	Rp (kg/ha)	Rp (l/ha)	Rp (kg/ha)	Rp	Rp	Rp
Dua Pitue	1,800 (30)	0	0	0	0	112,990	90	114,880
Ajangale	1,800 (30)	0	0	0	0	86,120	80	88,000
Dua Boccoe	1,800 (30)	0	0	0	0	88,510	80	90,390
Libureng	1,800 (30)	0	0	0	0	85,720	100	87,620
Kahu	1,800 (30)	0	0	0	0	92,500	100	94,410
Lalabata	1,800 (30)	0	0	0	0	100,880	90	102,770
Liliriaja	1,800 (30)	0	0	0	0	112,320	80	114,200
Marioriawa	1,800 (30)	0	0	0	0	104,870	90	106,760
Marioriwawo	1,800 (30)	0	0	0	0	113,120	70	114,990
Lilirilau	1,800 (30)	0	0	0	0	111,120	80	113,000
Tempe	-	-	-	-	-	-	-	-
Tanasitolo	1,800 (30)	0	0	0	0	85,460	80	87,340
Maniang Pajo	1,800 (30)	0	0	0	0	94,230	80	96,110
Belawa	1,800 (30)	0	0	0	0	81,200	70	83,070
Sabbang Paru	1,800 (30)	0	0	0	0	84,520	70	86,390
Pammana	-	-	-	-	-	-	-	-
Takkalalla	1,800 (30)	0	0	0	0	98,220	80	100,100
Majauleng	1,800 (30)	0	0	0	0	94,500	80	96,380
Sajoanging	-	-	-	-	-	-	-	-

Table 17.12 Production Cost for Upland Rice

Name of Kecamatan	Seed	Fertilizer Urea	Fertilizer TSP	Agri. Chemical	Rodenticide	Labour Cost	Miscell. Cost	Product. Cost
	Rp (kg/ha)	Rp (kg/ha)	Rp (kg/ha)	Rp (/ha)	Rp (kg/ha)	Rp	Rp	Rp
Dua Pitue	3,000 (50)	0	0	0	0	37,560	150	40,710
Ajangale	-	-	-	-	-	-	-	-
Dua Boccoe	-	-	-	-	-	-	-	-
Libureng	3,000 (50)	0	0	0	0	44,610	140	47,750
Kahu	3,000 (50)	0	0	0	0	46,600	150	49,750
Lalabata	3,000 (50)	0	0	0	0	47,540	150	50,690
Liliriaja	3,000 (50)	0	0	0	0	48,860	150	52,010
Marioriawa	3,000 (50)	0	0	0	0	47,140	150	50,290
Marioriwawo	3,000 (50)	0	0	0	0	45,940	150	49,090
Lilirilau	3,000 (50)	0	0	0	0	46,870	150	50,020
Tempe	3,000 (50)	0	0	0	0	56,450	150	50,020
Tanasitolo	3,000 (50)	0	0	0	0	50,730	150	53,880
Maniang Pajo	3,000 (50)	0	0	0	0	57,640	150	60,790
Belawa	-	-	-	-	-	-	-	-
Sabbang Paru	3,000 (50)	0	0	0	0	55,780	150	58,930
Pammana	3,000 (50)	0	0	0	0	54,710	150	57,860
Takkalalla	-	-	-	-	-	-	-	-
Majauleng	3,000 (50)	0	0	0	0	61,640	150	64,790
Sajoanging	3,000 (50)	0	0	0	0	43,010	150	46,160

Table 17.13 Production Cost per Ha for Major Polowijo Crops

(Unit: Rp)

	Maize	Peanuts	Soybeans	Green Beans	Cassava
Farm Input					
Seed	1,680	30,000	8,800	6,250	3,960
Agr. chemical	-	2,460	-	-	-
Labour Cost					
Land preparation	13,750	21,500	21,500	21,500	18,000
Seeding/planting	5,000	7,500	2,500	2,500	7,000
Weeding	5,000	10,000	7,500	7,000	10,000
Spraying	-	1,500	-	-	
Harvesting	12,500	10,000	7,500	7,000	10,000
Drying	-	4,500	3,000	3,000	-
Miscellaneous	1,900	4,000	2,600	2,400	2,450
Total	39,830	91,460	53,400	49,650	51,410

Table 17.14 Irrigation Benefit at Full Stage for Langkemme Irrigation Project

(Unit: 10^3Rp)

	With Project			Without Project			
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Benefit
Kec. Marioriwawo							
Irrigated land							
WSP/1	900	617.5	555,750	220	556.87	122,511.4	
DSP/2	720	617.5	444,600	220	511.03	112,426.6	
Rainfed area							
WSP	0		0	680	220.56	149,980.8	
DSP	0		0	390	403.71	157,446.9	
Polowijo	0		0	130	59.06	7,677.8	
Upland area							
Polowijo	0		0	0	0	0	
Sub-total			1,000,350			550,043.5	450,306.5
Kec. Liliriaja							
Irrigated land							
WSP	2,600	617.5	1,605,500	0		0	
DSP	1,890	617.5	1,167,075	0		0	
Rainfed area							
WSP	0		0	2,600	260.03	676,078	
DSP	0		0	1,530	396.52	606,675.6	
Polowijo	0		0	170	12.08	2,053.6	
Upland area							
Polowijo	0		0	0		0	
Sub-total			2,772,575			1,284,807.2	1,487,767.8
Kec. Lalabata							
Irrigated land							
WSP	1,500	617.5	926,250	0		0	
DSP	1,090	617.5	673,070	0		0	
Rainfed area							
WSP	0		0	1,500	293.56	440,340	
DSP	0		0	740	293.57	217,241.8	
Polowijo	0		0	80	39.27	3,141.6	
Upland area							
Polowijo	0		0				
Sub-total			5,372,250			660,723.4	938,601.6
Total							2,876,675.9

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.15 (1) Irrigation Benefit at Full Stage for Bila Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Benefit
Kec. Dua Pitue							
Irrigated land							
WSP/1	4,060	617.5	2,507,050	0		0	
DSP/2	2,480	617.5	1,531,400	0		0	
Rainfed area							
WSP	0		0	3,960	307.93	1,219,402.8	
DSP	0		0	0		0	
Polowijo	0		0	1,190	18.25	21,717.5	
Upland area							
Polowijo	0		0	100	3.98	398	
Sub-total			4,038,450			1,241,518.3	2,796,931.7
Kec. Maniang Pajo							
Irrigated land							
WSP	3,550	617.5	2,192,125	520	364.76	189,675.2	
DSP	2,360	617.5	1,457,300	0		0	
Rainfed area							
WSP	0		0	2,980	276.83	824,953.4	
DSP	0		0	0			
Polowijo	0		0	480	35.76	17,164.8	
Upland area							
Polowijo	0		0	50	49.39	2,469.5	
Sub-total			3,649,425			1,034,262.9	2,615,162.1
Kec. Belawa							
Irrigated land							
WSP	1,400	617.5	864,500	0		0	
DSP	840	617.5	518,700	0		0	
Rainfed area							
WSP	0		0	1,400	342.65	479,710	
DSP	0		0	0	0	0	
Polowijo	0		0	270	74.04	19,990.8	
Upland area							
Polowijo	0		0	50	3.5	175	
Sub-total			1,444,950			499,875.8	945,074.2

Note: /1: Wet season paddy
/2: Dry season paddy

- to be continued -

Table 17.15 (2) Irrigation Benefit at Full Stage for Bila Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Tanasitolo							
Irrigated land							
WSP	1,440	617.5	889,200	0		0	
DSP	870	617.5	537,225	0		0	
Rainfed area							
WSP	0		0	1,440	237.33	341,755.2	
DSP	0		0	0		0	
Polowijo	0		0	390	58.04	22,635.6	
Upland area							
Polowijo	0		0	0			
Sub-total			1,426,425			364,390.8	
Total							7,419,202.5

Table 17.16 (1) Irrigation Benefit at Full Stage for Bila Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Dua Pitue							
Irrigated land							
WSP/1	4,060	617.5	2,507,050	0		0	
DSP/2	1,970	617.5	1,216,475	0		0	
Rainfed area							
WSP	0		0	3,960	307,93	1,219,402.8	
DSP	0		0	0			
Polowijo	0		0	1,190	18.25	21,717.5	
Upland area							
Polowijo	0		0	100	3.98	398	
Sub-total			3,723,525			1,241,518.3	2,482,002.7
Kec. Maniang Pajo							
Irrigated land							
WSP	3,550	617.5	2,192,125	520	364.76	189,675.2	
DSP	1,980	617.5	1,222,650	0			
Rainfed area							
WSP	0		0	2,980	276.83	824,953.4	
DSP	0		0	0			
Polowijo	0		0	480	35.76	17,164.8	
Upland area							
Polowijo	0		0	50	49.39	2,469.5	
Sub-total			3,414,775			1,034,262.9	2,380,512.1
Kec. Belawa							
Irrigated land							
WSP	1,450	617.5	895,375	0		0	
DSP	710	617.5	438,425	0		0	
Rainfed area							
WSP	0		0	1,400	342.65	479,710	
DSP	0		0	0		0	
Polowijo	0		0	270	74.04	19,990.8	
Upland area							
Polowijo	0		0	50	3.5	175	
Sub-total			1,333,800			499,875.8	833,924.2

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.16 (2) Irrigation Benefit at Full Stage for Bila Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Tanasitolo							
Irrigated land							
WSP	940	617.5	580,450	0		0	
DSP	440	617.5	271,700	0		0	
Rainfed area							
WSP	0		0	940	237.33	223,090.2	
DSP	0		0	0	0	0	
Polowijo	0		0	250	58.04	14,510	
Upland area							
Polowijo	0		0	0		0	
Sub-total			862,150			237,600.2	614,549.8
Total							6,310,992.8

Table 17.17 (1) Irrigation Benefit at Full Stage for Bila Irrigation Project (Case 3)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Dua Pitue							
Irrigated land							
WSP/1	4,300	617.5	2,655,250	0			
DSP/2	4,300	617.5	2,655,250	0			
Rainfed area							
WSP	0		0	4,150	307.93	1,277,909.5	
DSP	0		0	0		0	
Polowijo	0		0	1,250	18.25	22,812.5	
Upland area							
Polowijo	0		0	150	3.98	597	
Sub-total	8,600		5,310,500			1,301,319	4,009,181
Kec. Maniang Pajo							
Irrigated land							
WSP	4,100	617.5	2,531,750	520	364.76	189,675.2	
DSP	4,100	617.5	2,531,750	0			
Rainfed area							
WSP	0		0	3,530	276.83	977,209.9	
DSP	0		0	0			
Polowijo	0		0	560	35.76	20,025.6	
Upland area							
Polowijo							
Sub-total	8,200		5,063,500	50	49.39	2,469.5	5,061,030.5
Kec. Belawa							
Irrigated land							
WSP	1,450	617.5	895,375	0			
DSP	1,450	617.5	895,375	0			
Rainfed area							
WSP	0		0	1,400	342.65	479,710	
DSP	0		0	0			
Polowijo	0		0	266	74.04	19,694.64	
Upland area							
Polowijo	0		0	50	3.5	175	
Sub-total	2,900		1,790,750	1,716		499,579.6	1,291,170.4

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.17 (2) Irrigation Benefit at Full Stage for Bila Irrigation Project (Case 3)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Tanasitolo							
Irrigated land							
WSP	2,150	617.5	1,327,625	0		0	
DSP	2,150	617.5	1,327,625	0		0	
Rainfed area							
WSP	0		0	2,150	237.33	510,259.5	
DSP	0		0	0			
Polowijo	0		0	580	58.04	33,663.2	
Upland area							
Polowijo	0			0	0	0	
Sub-total	4,300		2,655,250	2,730		543,922.7	2,111,327.3
Total	24,000		14,820,000	14,656		3,534,201.54	11,285,798.5

Table 17.18 Irrigation Benefit at Full Stage for Sanrogo Irrigation Project

(Unit: 10^3Rp)

	With Project			Without Project			
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Benefit
Kec. Kahu/1							
Irrigated land							
WSP/2	6,300	617.5	3,890,250	430	527.18	226,687.4	
DSP/3	5,310	617.5	3,278,925	430	218.14	93,800.2	
Rainfed area							
WSP	0		0	5,430	125.97	684,017.1	
DSP	0		0	0	0	0	
Polowijo	0		0	4,890	23.31	113,985.9	
Upland area							
Polowijo	0		0	440	108.78	113,985.9	
Sub-total			7,169,175			1,166,353.8	6,002,821.2
Kec. Libureng							
Irrigated land							
WSP	3,700	617.5	2,284,750	0	0	0	
DSP	3,290	617.5	2,031,575	0	0	0	
Rainfed area							
WSP	0		0	2,240	179.84	402,841.6	
DSP	0		0	0		0	
Polowijo	0		0	2,020	13.27	2,680.5	
Upland area							
Polowijo	0		0	1,460	34.21	49,946.6	
Sub-total			4,316,325			455,468.7	3,860,856.3
Total							9,863,677.5

Note: /1: Unit primary profit in Kecamatans Salomekko and Tonra is as same as in Kecamatan Kahu.

/2: Wet season paddy

/3: Dry season paddy

Table 17.19 Irrigation Benefit at Full Stage for Lawo Irrigation Project

(Unit: 10^3Rp)

	With Project			Without Project			
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Benefit
Kec. Lalabata							
Irrigated land							
WSP/1	1,800	617.5	1,111,500	500	570,000	289,500	
DSP/2	1,180	617.5	728,650	500	566,400	283,200	
Rainfed area							
WSP	0		0	1,300	293.56	381,628	
DSP	0		0	640	293.57	187,884.8	
Polowijo	0		0	70	39.27	2,748.9	
Upland area							
Polowijo	0		0	0		0	
Sub-total			1,840,150			1,144,961.7	695,188.3
Kec. Liliriaja							
Irrigated land							
WSP	1,200	617.5	741,000	0		0	
DSP	620	617.5	382,850	0		0	
Rainfed area							
WSP				1,200	260.03	312,036	
DSP				710	396.52	281,529.2	
Polowijo				70	12.08	845.6	
Upland area							
Polowijo				0			
Sub-total			1,123,850			594,410.8	529,439.2
Total							1,224,627.5

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.20 Irrigation Benefit at Full Stage for Boya Irrigation Project

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Dua Pitue							
Irrigated land							
WSP/1	7,770	617.5	4,797,975	6,550	617.5	4,044,625	
DSP/2	7,640	617.5	4,717,700	6,550	617.5	4,044,625	
Rainfed area							
WSP	0		0	1,220	307.93	375,674.6	
DSP	0		0	0	0		
Polowijo	0		0	40	18.25	730	
Upland area							
Polowijo	0		0	0			
Sub-total			9,515,675			8,465,654.6	1,050,020.4
Kec. Belawa							
Irrigated land							
WSP	2,230	617.5	1,377,025	1,630	396.67	646,572.1	
DSP	2,160	617.5	1,333,800	1,630	127.07	207,124.1	
Rainfed area							
WSP	0			600	342.65	205,590	
DSP	0			0			
Polowijo	0			110	74.04	8,144.4	
Upland area							
Polowijo	0			0			
Sub-total			2,710,825			1,067,430.6	1,693,394.4
Total							2,693,414.8

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.21 Irrigation Benefit at Full Stage for Gilirang Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Maniang Pajo							
Irrigated land							
WSP/1	250	617.5	154,375	0		0	
DSP/2	110	617.5	67,925	0		0	
Rainfed area							
WSP	0		0	250	276.83	69,207.5	
DSP	0		0	0	0	0	
Polowijo	0		0	40	35.76	1,430	
Upland area							
Polowijo	0		0		0	0	
Sub-total			222,300			70,637.5	151,662.5
Kec. Majauleng							
Irrigated land							
WSP	1,080	617.5	666,900	0		0	
DSP	500	617.5	308,750	0		0	
Rainfed area							
WSP	0		0	1,080	304.35	328,698	
DSP	0		0	0		0	
Polowijo	0		0	90	55.39	4,985	
Upland area							
Polowijo	0		0	0		0	
Sub-total			975,650			333,683	641,967
Kec. Sajoanging							
Irrigated land							
WSP	3,470	617.5	2,142,725	0		0	
DSP	1,590	617.5	981,825	0		0	
Rainfed area							
WSP	0		0	3,470	224.12	777,696.4	
DSP	0		0	0	0	0	
Polowijo	0		0	280	94.27	26,396	
Upland area							
Polowijo	0		0	0	0	0	
Sub-total	0		3,124,550			804,092.4	2,320,457.6
Total							3,114,087.1

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.22 Irrigation Benefit at Full Stage for Gilirang Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Maniang Pajo							
Irrigated land							
WSP/1	850	617.5	524,875	0		0	
DSP/2	850	617.5	524,875	0		0	
Rainfed area							
WSP	0			850	276.83	235,305.5	
DSP	0			0			
Polowijo	0			140	35.76	5,006	
Upland area							
Polowijo	0			0		0	
Sub-total			1,049,750			240,311.5	809,438.5
Kec. Majeuleng							
Irrigated land							
WSP	2,200	617.5	1,358,500	0		0	
DSP	2,200	617.5	1,358,500	0		0	
Rainfed area							
WSP	0		0	1,080	304.35	669,570	
DSP	0		0	0	0		
Polowijo	0		0	180	55.39	9,970.2	
Upland area							
Polowijo	0		0				
Sub-total			2,717,000			679,540.2	2,037,459.8
Kec. Sajoanging							
Irrigated land							
WSP	6,950	617.5	4,291,625	0		0	
DSP	6,950	617.5	4,291,625	0		0	
Rainfed area							
WSP	0		0	6,950	224.12	1,557,634	
DSP	0		0	0	0		
Polowijo	0		0	560	94.27	52,791	
Upland area							
Polowijo	0		0	0		0	
Sub-total			8,583,250			1,610,425	6,972,825
Total							9,819,723.3

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.23 (1) Irrigation Benefit at Full Stage for Walanae Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Benefit
Kec. Marioriwawo							
Irrigated land							
WSP/1	180	617.5	111,150	0		0	
DSP/2	180	617.5	111,150	0		0	
Rainfed area							
WSP	0		0	150	220.56	33,084	
DSP	0		0	90	403.71	36,333.9	
Polowijo	0		0	30	59.06	1,772	
Upland area							
Polowijo	0		0	30	99.35	2,981	
Sub-total			222,300			74,170.9	148,129.1
Kec. Liliriaja							
Irrigated land							
WSP	3,360	617.5	2,074,800	2,560	617.5	1,580,800	
DSP	3,360	617.5	2,074,800	2,560	617.5	1,580,800	
Rainfed area							
WSP	0		0	280	260.03	72,808.4	
DSP	0		0	170	396.52	67,408.4	
Polowijo	0		0	20	12.08	242	
Upland area							
Polowijo	0		0	520	10.71	5,569	
Sub-total			4,149,600			3,307,627.8	841,972.2
Kec. Lilirilau							
Irrigated land							
WSP	3,860	617.5	2,383,550	810	524.54	424,877.4	
DSP	3,860	617.5	2,383,550	810	577.17	467,507.7	
Rainfed area							
WSP	0		0	1,800	202.58	364,644	
DSP	0		0	0		0	
Polowijo	0		0	340	0.55	187	
Upland area							
Polowijo	0		0	1,250	1,030	1,289	
Sub-total	0		4,767,100			1,258,505.1	3,508,594.9

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.23 (2) Irrigation Benefit at Full Stage for Walanae Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Sabbang Paru							
Irrigated land							
WSP	2,800	617.5	1,729,000	0	0	0	
DSP	2,800	617.5	1,729,000	0	0	0	
Rainfed area							
WSP	0		0	2,100	222.93	468,153	
DSP	0		0	150	146.36	21,954	
Polowijo	0		0	210	4.89	1,026.9	
Upland area							
Polowijo	0		0	700	36.08	25,256	
Sub-total	0		3,458,000			516,389.9	2,941,610.1
Kec. Pammana							
Irrigated land							
WSP	6,500	617.5	4,013,750	240	366.27	87,904.8	
DSP	6,500	617.5	4,013,750	0	0	0	
Rainfed area							
WSP	0		0	5,560	269.65	1,499,254	
DSP	0		0	0	0	0	
Polowijo	0		0	1,720	32.19	55,367	
Upland area							
Polowijo	0		0	700	29.80	20,860	
Sub-total			8,027,500			1,663,385.8	6,364,114.2
Kec. Ajangale							
Irrigated land							
WSP	5,400	617.5	3,334,500	0		0	
DSP	5,400	617.5	3,334,500	0		0	
Rainfed area							
WSP	0			4,400	128.37	564,828	
DSP	0			0	0	0	
Polowijo	0			1,760	7.54	13,270.4	
Upland area							
Polowijo	0			1,000	5.69	5,690	
Sub-total			6,669,000			583,788.4	6,085,211.6

Table 17.23 (3) Irrigation Benefit at Full Stage for Walanae Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Dua Boccoe							
Irrigated land							
WSP	3,900	617.5	2,408,250	1,700	332.87	565,879	
DSP	3,900	617.5	2,408,250	1,700	282.3	479,910	
Rainfed area							
WSP	0		0	1,300	164.28	213,564	
DSP	0		0	0		0	
Polowijo	0		0	390	0.82	319.8	
Upland area							
Polowijo				900	7.55	6,795	
Sub-total			4,816,500			1,266,467.8	3,550,032.2
Total							23,439,664.3

Table 17.24 (1) Irrigation Benefit at Full Stage for Walanae Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Marioriwawo							
Irrigated land							
WSP/1	180	617.5	111,150	0		0	
DSP/2	120	617.5	74,100	0		0	
Rainfed area							
WSP	0		0	150	220.56	33,084	
DSP	0		0	90	403.71	36,333.9	
Polowijo	0		0	30	59.06	1,772	
Upland area							
Polowijo	0		0	30	99.35	2,981	
Sub-total			185,250			74,170.9	111,079.1
Kec. Liliriaja							
Irrigated land							
WSP	3,360	617.5	2,074,800	2,560	617.5	1,580,800	
DSP	3,100	617.5	1,914,250	2,560	617.5	1,580,800	
Rainfed area							
WSP	0		0	280	260.03	72,808.4	
DSP	0		0	170	396.52	67,408.4	
Polowijo	0		0	20	12.08	242	
Upland area							
Polowijo	0		0	520	10.71	5,569	
Sub-total			3,989,050			3,307,627.8	681,422.2
Kec. Lilirilau							
Irrigated land							
WSP	3,860	617.5	2,383,550	810	524.54	424,877.4	
DSP	2,860	617.5	1,766,050	810	577.17	467,507.7	
Rainfed area							
WSP	0		0	1,800	202.58	364,644	
DSP	0		0	0		0	
Polowijo	0		0	340	0.55	187	
Upland area							
Polowijo	0		0	1,250	1,030	1,289	
Sub-total			4,149,600			1,258,505.1	2,891,094.9

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.24 (2) Irrigation Benefit at Full Stage for Walanae Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Sabbang Paru							
Irrigated land							
WSP	2,800	617.5	1,729,000	0	0	0	
DSP	1,880	617.5	1,160,900	0	0	0	
Rainfed area							
WSP	0		0	2,100	222.93	468,153	
DSP	0		0	150	146.36	21,954	
Polowijo	0		0	210	4.89	1,026.9	
Upland area							
Polowijo	0		0	700	36.08	25,256	
Sub-total			2,889,900			516,389.9	2,373,510.1
Kec. Pammana							
Irrigated land							
WSP	6,500	617.5	4,013,750	240	366.27	87,904.8	
DSP	4,190	617.5	2,587,325	0	0	0	
Rainfed area							
WSP	0		0	5,560	269.65	1,499,254	
DSP	0		0	0	0	0	
Polowijo	0		0	1,720	32.19	55,367	
Upland area							
Polowijo	0		0	900	29.80	20,860	
Sub-total			6,699,875			1,663,385.8	5,036,489.2
Kec. Ajangale							
Irrigated land							
WSP	5,400	617.5	3,334,500	0		0	
DSP	3,620	617.5	2,235,350	0		0	
Rainfed area							
WSP	0			4,400	128.37	564,828	
DSP	0			0	0	0	
Polowijo	0			1,760	7.54	13,270.4	
Upland area							
Polowijo	0			1,000	5.69	5,690	
Sub-total			5,568,850			583,788.4	4,985,061.6

Table 17.24 (3) Irrigation Benefit at Full Stage for Walanae Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Benefit
Kec. Dua Boccoe							
Irrigated land							
WSP	3,900	617.5	2,408,250	1,700	332.87	565,879	
DSP	3,170	617.5	1,957,475	1,700	282.3	479,910	
Rainfed area							
WSP	0		0	1,300	164.28	213,564	
DSP	0		0	0		0	
Polowijo	0		0	390	0.82	319.8	
Upland area							
Polowijo				900	7.55	6,795	
Sub-total			4,365,725			1,266,467.8	3,099,257.2
Total							19,177,914.3

Table 17.25 Irrigation Benefit at Full Stage for Padangeng Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Marioriawa							
Irrigated land							
WSP/1	850	617.5	524,875	50	361.32	18,066	
DSP/2	510	617.5	314,925	50	617.5	30,875	
Rainfed area							
WSP	0		0	750	295.95	221,962.5	
DSP	0		0	0			
Polowijo	0		0	390	40.35	15,736.5	
Upland area							
Polowijo	0		0	50	7.04	352	
Sub-total			839,800			286,992	552,808
Kec. Lalabata							
Irrigated land							
WSP	3,350	617.5	2,068,625	2,300	579.0	1,331,700	
DSP	2,690	617.5	1,661,075	2,300	566.4	1,302,720	
Rainfed area							
WSP	0		0	980	293.56	287,688.8	
DSP	0		0	280	293.57	82,199.6	
Polowijo	0		0	50	39.27	1,963.5	
Upland area							
Polowijo	0		0	70	8.27	579	
Sub-total			3,729,700			3,006,850.9	722,849.1
Total							1,275,657.1

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.26 Irrigation Benefit at Full Stage
Padangeng Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Marioriawa							
Irrigated line							
WSP/1	850	617.5	524,875	50	316.32	18,066	
DSP/2	850	617.5	524,875	50	617.5	30,875	
Rainfed area							
WSP	0		0	750	295.95	221,962.5	
DSP	0		0	0			
Polowijo	0		0	390	40.35	15,739	
Upland area							
Polowijo	0		0	50	7.04	352	
Sub-total			1,049,750			286,992.5	762,757.5
Kec. Lalabata							
Irrigated line							
WSP	3,350	617.5	2,068,625	2,300	579.0	1,331,700	
DSP	3,350	617.5	2,068,625	2,300	566.4	1,302,720	
Rainfed area							
WSP	0		0	980	293.56	287,688.8	
DSP	0		0	480	293.57	140,913.6	
Polowijo	0		0	50	39.27	1,964	
Upland area							
Polowijo	0		0	70	8.27	579	
Sub-total			4,137,250			3,065,565.4	1,071,684.6
Total							1,834,442.1

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.27 (1) Irrigation Benefit at Full Stage for Cenranae Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Tempe							
Irrigated land							
WSP/1	90	617.5	55,575	0		0	
DSP/2	90	617.5	55,575	0		0	
Rainfed area							
WSP	0		0	90	262.46	23,621.4	
DSP	0		0	0			
Polowijo	0		0	20	42.47	849	
Upland area							
Polowijo	0		111,150	0		0	
Sub-total						24,470.4	86,679.6
Kec. Tanasitolo							
Irrigated land							
WSP	360	617.5	222,300	0		0	
DSP	360	617.5	222,300	0		0	
Rainfed area							
WSP	0		0	360	237.33	85,438.8	
DSP	0		0	0		0	
Polowijo	0		0	100	58.04	5,804	
Upland area							
Polowijo	0		0				
Sub-total			444,600			91,242.8	353,357.2
Kec. Malauleng							
Irrigated land							
WSP	1,690	617.5	1,043,575	0		0	
DSP	1,690	617.5	1,043,575	0		0	
Rainfed area							
WSP	0		0	1,690	304.35	514,351.5	
DSP	0		0	0	0	0	
Polowijo	0		0	140	55.39	7,754.6	
Upland area							
Polowijo	0		0			0	
Sub-total			2,087,150			522,106.1	1,565,043.9

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.27 (2) Irrigation Benefit at Full Stage for Cenranae Irrigation Project (Case 1)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Sajoanging							
Irrigated land							
WSP	70	617.5	43,225	0		0	
DSP	70	617.5	43,225	0		0	
Rainfed area							
WSP	0		0	70	224.12	15,688.4	
DSP	0		0	0			
Polowijo	0		0	10	94.27	942.7	
Upland area							
Polowijo	0		0	0		0	
Sub-total			86,450			16,631.1	69,818.9
Kec. Takkalalla							
Irrigated land							
WSP	90	617.5	55,575	0		0	
DSP	90	617.5	55,575	0		0	
Rainfed area							
WSP	0		0	90	286.39	25,775.1	
DSP	0		0	0			
Polowijo	0		0	10	52.39	523.9	
Upland area							
Polowijo	0		0	0		0	
Sub-total	0		111,150			26,299	84,851
Total							2,159,750.6

Table 17.28 (1) Irrigation Benefit at Full Stage for Cenranae Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Tempe							
Irrigated land							
WSP/1	90	617.5	55,575	0		0	
DSP/2	90	617.5	55,575	0		0	
Rainfed area							
WSP	0		0	90	262.46	23,621.4	
DSP	0		0	0	0	0	
Polowijo	0		0	20	42.47	849.4	
Upland area							
Polowijo	0		0	0		0	
Sub-total			111,150			24,470.8	86,679.2
Kec. Tanasitolo							
Irrigated land							
WSP	1,250	617.5	771,875	0		0	
DSP	1,250	617.5	771,875	0		0	
Rainfed area							
WSP	0		0	1,250	237.33	296,662.5	
DSP	0		0	0	0	0	
Polowijo	0		0	340	58.04	19,733.6	
Upland area							
Polowijo	0		0				
Sub-total			1,543,750			316,396.1	1,227,353.9
Kec. Majauleng							
Irrigated land							
WSP	1,250	617.5	1,642,550	0			
DSP	1,250	617.5	1,642,550	0			
Rainfed area							
WSP	0		0	2,660	304.35	809,571	
DSP	0		0	0			
Polowijo	0		0	210	55.39	11,631.9	
Upland area							
Polowijo	0		0	0		0	
Sub-total			3,285,100			821,202.9	2,463,897.1

Note: /1: Wet season paddy
/2: Dry season paddy

Table 17.28 (2) Irrigation Benefit at Full Stage for Cenranae Irrigation Project (Case 2)

(Unit: 10^3Rp)

	With Project			Without Project			Benefit
	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	Area (ha)	Unit primary profit (Rp/ha)	Total primary profit (Rp)	
Kec. Sajoanging							
Irrigated land							
WSP/1	530	617.5	327,275	0		0	
DSP/2	530	617.5	327,275	0		0	
Rainfed area							
WSP	0		0	500	224.12	112,060	
DSP	0		0	0		0	
Polowijo	0		0	40	94.27	3,770.8	
Upland area							
Polowijo	0		0	30	22.3	669	
Sub-total	0		654,550			116,499.8	538,050.2
Kec. Takkalalla							
Irrigated land							
WSP	1,970	617.5	1,216,475	0		0	
DSP	1,970	617.5	1,216,475	0		0	
Rainfed area							
WSP	0		0	1,900	286.39	544,141	
DSP	0		0	0	0		
Polowijo	0		0	110	52.39	5,762.9	
Upland area							
Polowijo	0		0	70	5.36	375.2	
Sub-total			2,432,950			556,279.1	1,882,670.9
Total							6,198,651.3

Table 17.29 Internal Rate of Return

Name of Irrigation Project	IRR (%)
Langkemme	13.5
Bila (case 1)	16.0
Bila (case 2)	14.8
Bila (case 3)	12.5
Sanrego	18.5
Lawo	13.5
Boya	10.0
Gilirang (case 1)	11.9
Gilirang (case 2)	14.0
Walanae (case 1)	
Mong dam (case 1)	10.2
Walimpong dam (case 1)	10.0
Walimpong dam (case 2)	9.9
Walimpong dam (case 3)	9.9
Walanae (case 2)	
Mong dam (case 2)	9.1
Padangeng (case 1)	9.5
Padangeng (case 2)	9.4
Cenranae (case 1)	14.5
Cenranae (case 2)	14.4

Table 17.30 Without Project Condition of Farm Budget of Typical Size Farm

	Paddy Field Holding	1.13 ha	
	Upland Field Holding	0.61 ha	
	Total Holding	1.74 ha	
	Family Size	5.73	
1.	Gross Farm Income		Rp.345,490
	Wet Season Paddy	Rp.228,250	
	Dry Season Paddy	Rp. 60,860	
	Polowijo	Rp. 56,380	
2.	Farming Expense		Rp.116,470
	Farm Input	Rp. 15,070	
	Hired Labour and Cows	Rp.100,790	
	Miscellaneous Cost	Rp. 610	
3.	Non Farm Income		Rp. 35,000
4.	Other Miscellaneous Income		Rp. 35,900
5.	Tax and Fees		Rp. 3,260
6.	Living Expenses		Rp.295,140
7.	Reserve (capacity to pay)		Rp. 1,520 (US$2.4)

Table 17.31 Forecast Annual Living Expense of Typical Size Farm in the Objective Area without Project

Item	Per Capita	%	Average Family Size Farm (5.73)
Food	30,390	59.0	174,130
Clothing	6,900	13.4	39,550
Residence	4,220	8.2	24,200
Luxury	5,610	10.9	32,170
Education	1,800	3.5	10,330
Social expence	1,600	3.1	9,150
Miscellaneous	980	1.9	5,610
Total	51,500	100.0	295,140

Note: annual increase rate = 3.0%

Table 17.32 With Project Condition of Farm Budget of Typical Size Farm

	Paddy Field Holding	1.13 ha	
	Upland Field Holding	0.61 ha	
	Total Holding	1.74 ha	
	Family Size	5.73	
1.	Gross Farm Income		Rp.856,130
	Wet Season Paddy	Rp.402,730	
	Dry Season Paddy	Rp.402,730	
	Polowijo	Rp. 50,670	
2.	Farming Expense		Rp.225,350
	Farm Input	Rp. 70,920	
	Hired Labour and Cows	Rp.150,880	
	Miscellaneous Cost	Rp. 3,550	
3.	Non Farm Income		0
4.	Other Miscellaneous Income		0
5.	Tax and Fee		Rp. 34,240
6.	Living Expenses		Rp.384,370
7.	Reserve (capacity to pay)		Rp.212,170 (US$339)

Table 17.33 Forecast Future Annual Living Expense

Item	Per Capita	%	Average Family Size (5.73)
Food	39,580	59.0	226,790
Clothing	8,990	13.4	51,510
Residence	5,500	8.2	31,520
Luxury	7,300	10.9	41,830
Education	2,350	3.5	13,470
Social expence	2,080	3.1	11,920
Miscellaneous	1,280	1.9	7,330
Total	67,080	100.0	384,370

Note: annual increase rate = 5.0%

Table 17.34 Future Farm Income of Average Size Farm of each Kecamatan in the Objective Area without Projects

(Rp)

	Gross Farm Income			Farming Cost			Net Farm Income
	Paddy	Polowijo	Total	Paddy	Polowijo	Total	
Kab.Sidrap							
1. Panca Lautang	685,300	9,740	695,040	185,640	3,410	189,050	505,990
2. Tellu Limpoe	417,560	5,960	423,520	124,330	1,570	125,900	297,620
3. Mari Tengae	1,155,640	9,160	1,164,800	304,400	1,570	305,970	858,830
4. Dua Pitue	739,120	4,820	743,940	182,340	1,730	184,070	559,870
Kab.Bone							
5. Cenrana	168,400	2,090	170,490	87,640	1,260	88,900	81,590
6. Ajangale	71,280	26,570	97,850	40,580	12,640	53,220	44,630
7. Dua Boccoe	149,490	10,130	159,620	67,220	4,020	71,240	88,380
8. Tell Siatenge	132,440	8,210	140,650	59,030	3,850	62,880	77,770
9. Ponre	135,860	59,920	195,780	55,770	27,370	83,140	112,640
10. Ulawang	17,490	70,800	88,290	8,990	50,580	59,570	28,720
11. Lamur	90,380	134,020	224,400	29,510	79,590	109,100	115,300
12. Lappariaja	196,650	128,690	325,340	70,570	73,060	143,630	181,710
13. Libureng	266,000	172,820	438,820	117,520	74,890	192,410	246,410
14. Kahu	246,920	223,210	470,130	126,540	87,760	214,300	255,830
15. Bonto Cani	145,930	57,120	203,050	66,560	37,390	103,950	99,100
Kab.Soppeng							
16. Lalabata	306,670	6,890	313,560	92,290	1,910	94,200	219,360
17. Liliriaja	430,750	22,370	453,120	112,230	10,810	123,040	330,080
18. Marioriawa	419,250	12,340	431,590	132,430	3,410	135,840	295,750
19. Marioriawo	110,170	152,730	262,900	27,160	48,100	75,260	187,640
20. Lili - Rilau	102,140	35,330	137,470	34,150	20,710	54,860	82,610
Kab.Wajo							
21. Tempe	8,080	7,380	15,460	2,700	1,670	4,370	11,090
22. Tana Sitolo	145,140	43,720	188,860	51,940	8,600	60,540	128,320
23. Maniang Pajo	514,470	134,290	648,760	166,100	32,520	198,620	450,140
24. Belawa	219,600	31,850	251,450	65,880	7,300	73,180	178,270
25. Sabang Paru	87,710	65,980	153,690	32,760	17,170	49,930	103,760
26. Pamana	138,660	76,760	215,420	45,250	21,460	66,710	148,710
27. Takkalalla	386,790	25,890	412,680	120,640	6,630	127,270	285,410
28. Majauleng	382,600	35,770	418,370	113,120	9,000	122,120	296,250
29. Sajoanging	513,770	60,550	574,320	195,030	9,230	204,260	370,060
Grand Total			10,019,370			3,377,530	6,641,840
Average			345,496			116,467	229,029

Table 17.35 (1) Future Farm Income of Average Size Farm of each Kecamatan by each Proposed Irrigation Project

(Rp)

Proposed Project Kecamatan	Number of Farm Household	Gross Farm Income			Production Cost			Net Farm Income
		Paddy	Polowijo	Total	Paddy	Polowijo	Total	
Langkemme								
Marioriwawo	3,214	199,580	152,730	352,310	64,290	48,100	112,390	239,920
Liliriaja	2,796	662,900	22,370	685,270	213,530	10,810	224,340	460,930
Lalabata	1,923	555,980	6,890	562,870	179.090	1,910	181,000	381,870
Total/Average	7,933			533,483			172,577	360,906
Bila Case-1								
Dua Pitue	2,475	1,168,990	4,370	1,173,360	376,540	1,570	378,110	795,250
Maniang Pajo	1,203	2,102,760	129,850	2,232,610	677,320	31,450	708,770	1,523,840
Belawa	1,359	762,700	30,890	793,590	245,670	7,080	252,750	540,840
Tanasitolo	1,500	684,290	43,720	728,010	220,420	8,600	229,020	498,990
Total/Average	6,537			1,231,892			392,163	839,729
Bila Case-2								
Dua Pitue	2,594	1,183,250	4,150	1,187,400	381,140	1,490	382,630	804,770
Maniang Pajo	1,392	2,102,760	129,850	2,232,610	677,320	31,450	708,770	1,523,840
Belawa	2,087	734,180	31,850	766,030	236,490	7,300	243,790	522,240
Tanasitolo	2,240	684,290	43,720	728,010	220,420	8,600	229,020	498,990
Total/Average	8,313			1,228,513			391,053	837,460
Sanrego								
Kahu	2,447	1,660,820	53,150	1,713,970	534,970	2,090	537,060	1,176,910
Salomekko	92	1,546,780	223,210	1,769,990	498,230	87,760	585,990	1,184,000
Tonra	161	1,767,740	-	1,767,740	569,410	-	569,410	1,198,330
Libureng	1,423	1,853,280	-	1,853,280	596,960	-	596,960	1,256,320
Total/Average	4,123			1,776,245			572,355	1,203,890

Table 17.35 (2) Future Farm Income of Average Size Farm of each Kecamatan by each Proposed Irrigation Project

(Rp)

Proposed Project Kecamatan	Number of Farm Household	Gross Farm Income			Production Cost			Net Farm Income
		Paddy	Polowijo	Total	Paddy	Polowijo	Total	
Lawo								
Lalabata	2,308	555,980	6,890	562,870	179,090	1,910	181,000	381,870
Liliriaja	1,290	662,900	22,370	685,270	213,530	10,810	224,340	460,930
Total/Average	3,598			624,070			202,670	421,400
Boya								
Dua Pitue	4,856	1,140,480	4,820	1,145,300	367,360	1,730	369,090	776,210
Belawa	2,165	734,180	31,850	766,030	236,490	7,300	243,790	522,240
Total/Average	7,021			955,665			306,440	649,225
Gilirang Case-1								
Maniang Pajo	86	2,074,250	134,290	2,208,540	668,140	32,520	700,660	1,507,880
Majauleng	529	1,454,110	35,770	1,489,880	468,380	9,000	477,380	1,012,500
Sajoanging	967	2,558,950	60,550	2,619,500	824,260	9,230	833,490	1,786,010
Total/Average	1,582			2,105,973			670,510	1,435,463
Gilirang Case-2								
Maniang Pajo	292	2,074,250	134,290	2,208,540	668,140	32,520	700,660	1,507,880
Majauleng	1,078	1,454,110	35,770	1,489,880	468,380	9,000	477,380	1,012,500
Sajoanging	1,936	2,558,950	60,550	2,619,500	824,260	9,230	833,490	1,786,010
Total/Average	3,306			2,105,973			670,510	1,435,463

Table 17.35 (3) Future Farm Income of Average Size Farm of each Kecamatan by each Proposed Irrigation Project

(Rp)

Proposed Project Kecamatan	Number of Farm Household	Gross Farm Income			Production Cost			Net Farm Income
		Paddy	Polowijo	Total	Paddy	Polowijo	Total	
Walanae								
Marioriwawo	536	242,350	143,380	385,730	78,060	45,160	123,220	262,510
Liliriaja	3,054	784,080	17,300	801,380	252,560	8,360	260,920	540,460
Liliriau	6,525	420,550	30,940	451,490	135,460	18,140	153,600	297,890
Sabbang Paru	4,714	727,060	41,110	768,170	234,190	10,700	244,890	523,280
Pamana	4,474	1,033,560	34,260	1,067,820	332,920	9,580	342,500	725,320
Ajangale	5,934	648,650	-	648,650	208,940	-	208,940	439,710
Dua Boccoe	5,132	541,730	-	541,730	174,500	-	174,500	367,230
Total/Average	30,369			666,424			215,510	450,914
Leworang								
Marioriawa	988	613,010	11,500	624,510	197,460	3,180	200,640	423,870
Lalabata	4,205	570,240	6,650	576,890	183,680	1,840	185,520	391,370
Total/Average	5,193			600,700			193,080	407,620
Cenranae Case-1								
Tempe	1,800	35,640	7,310	42,950	11,480	1,670	13,150	29,800
Tanasitolo	375	684,290	43,720	728,010	220,420	8,600	229,020	498,990
Majauleng	828	1,454,110	35,770	1,489,880	468,380	9,000	477,380	1,012,500
Sajoanging	19	2,558,950	60,550	2,619,500	824,260	9,230	833,490	1,786,010
Takkalalla	40	1,589,540	25,890	1,615,430	512,010	6,630	518,640	1,096,790
Total/Average	3,062			1,299,154			414,336	884,818
Cenranae Case-2								
Tempe	1,800	35,640	7,310	42,950	11,480	1,670	13,150	29,800
Tanasitolo	1,302	684,290	43,720	728,010	220,420	8,600	229,020	498,990
Majauleng	1,304	1,454,110	35,770	1,489,880	468,380	9,000	477,380	1,012,500
Sajoanging	139	2,715,770	38,350	2,754,120	874,780	9,850	884,630	1,869,490
Takkalalla	852	1,646,570	21,070	1,667,640	530,380	5,400	535,780	1,131,860
Total/Average	5,397			1,336,520			427,992	908,528

Fig. I.1 Location Map of Kecamatan and Kabupaten

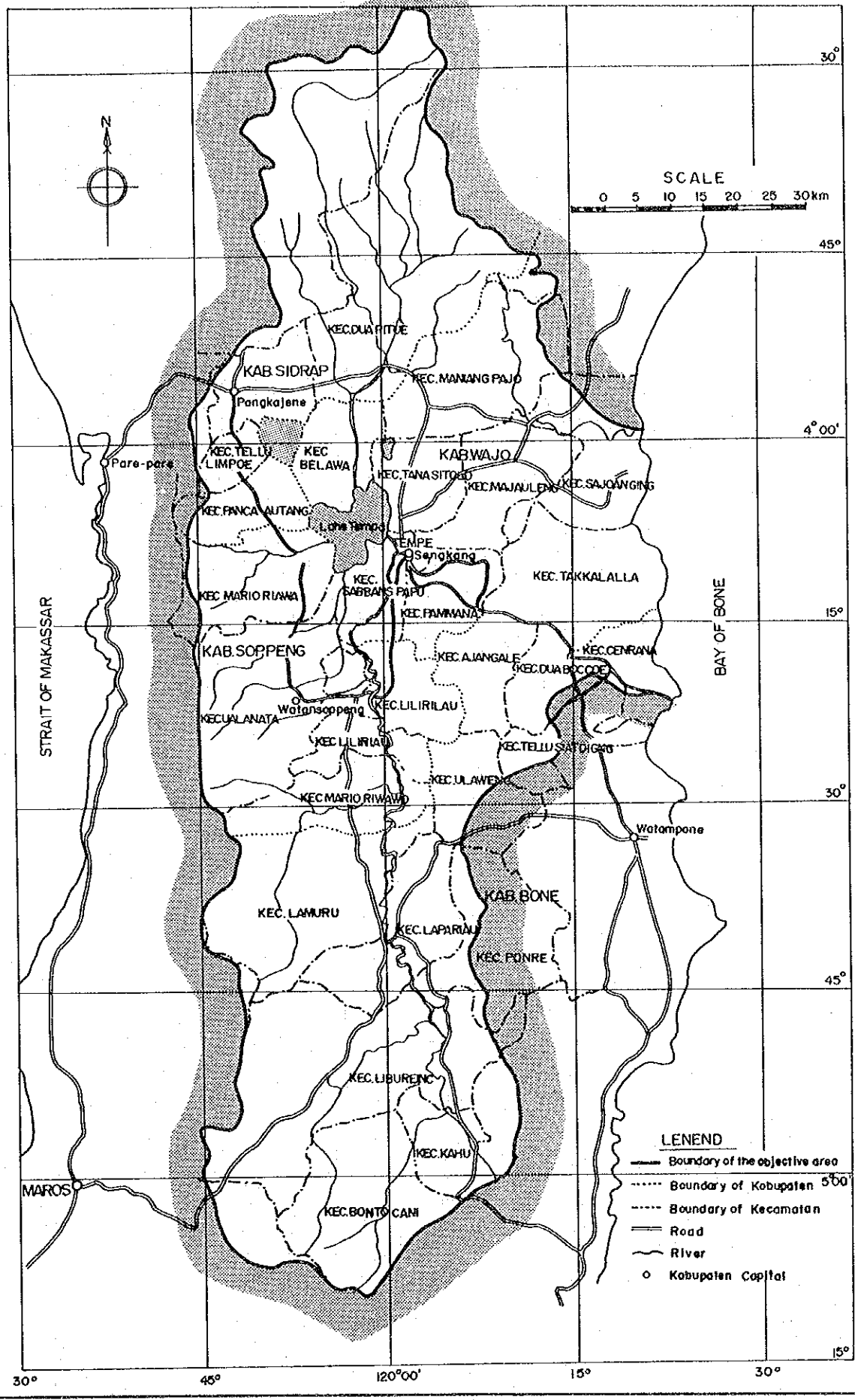


Fig. 5.1 Present Cropping Pattern (Maize)

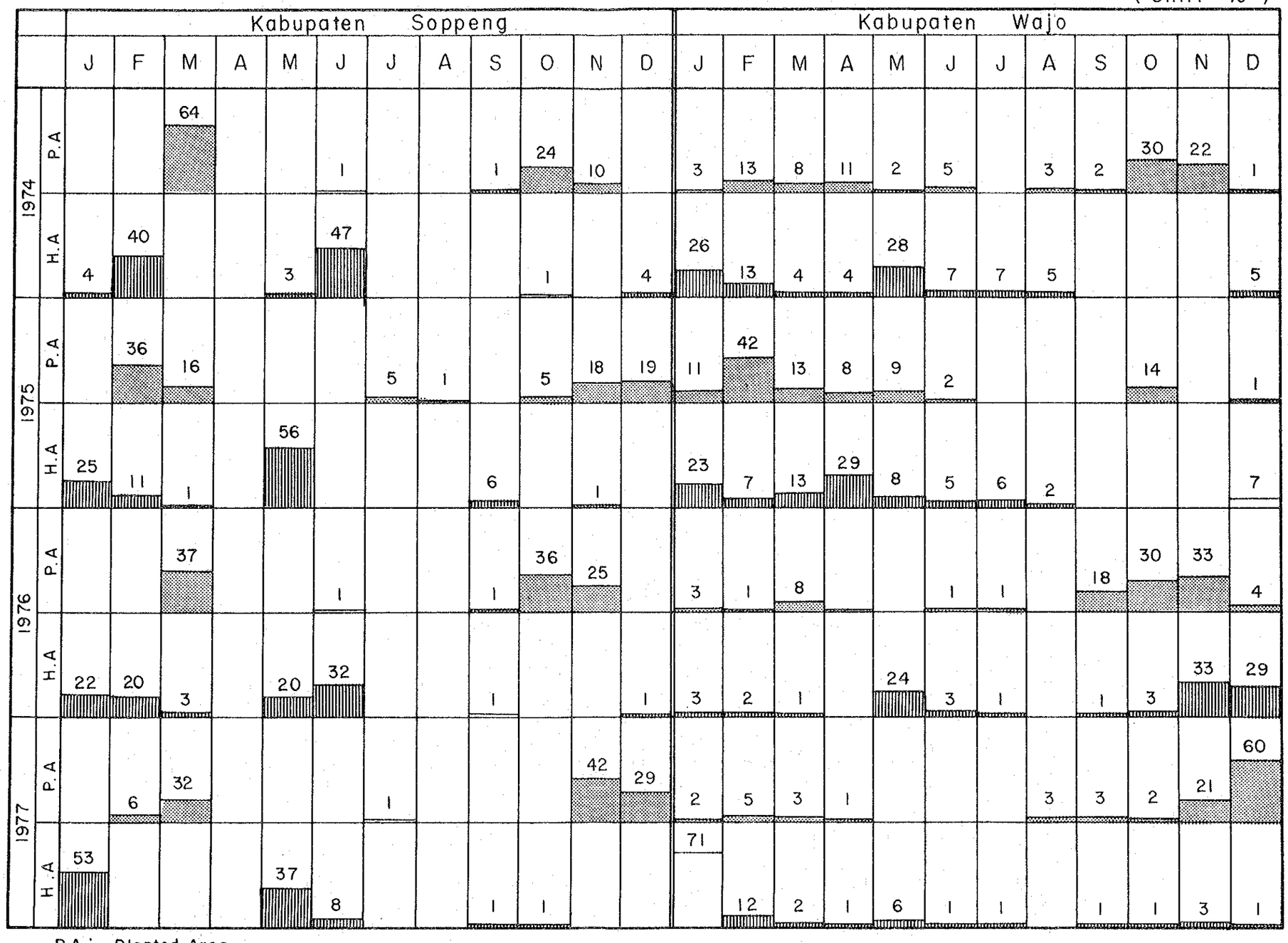
(Unit : %)

		Kabupaten Sidrap												Kabupaten Bone											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1974	P.A	39	19	2	25	5	2	2	1			3	2			27	2			1	2		9	39	17
	H.A			10	25	35	15	6	5	3				1	43	1	1	31	13			5	2		3
1975	P.A	11	39	6	7	8	1		3	1	4	4	15		1	41	5			1	8		1	16	27
	H.A	1	3	4	41	24	6	9	1	2	3	4	1	18	32	3		32	10			1	3		
1976	P.A		2	5		1		1	1	1	34	37	18			14	5			2			4	56	19
	H.A	2	5	18	3	17	3	11	2	4	6	7	22	16	33			41	10						
1977	P.A	2	2	1		2		1	2	1	2	74	15			18	14		2					4	62
	H.A	20	52	2	13			4	1	1	2	3	1	35	26			11	26			2			

P.A : Planted Area.
H.A : Harvested Area.

Fig. 5.2 Present Cropping Pattern (Maize)

(Unit: %)



P.A : Planted Area.
H.A : Harvested Area.

Fig. 5.3 Present Cropping Pattern (Peanuts).

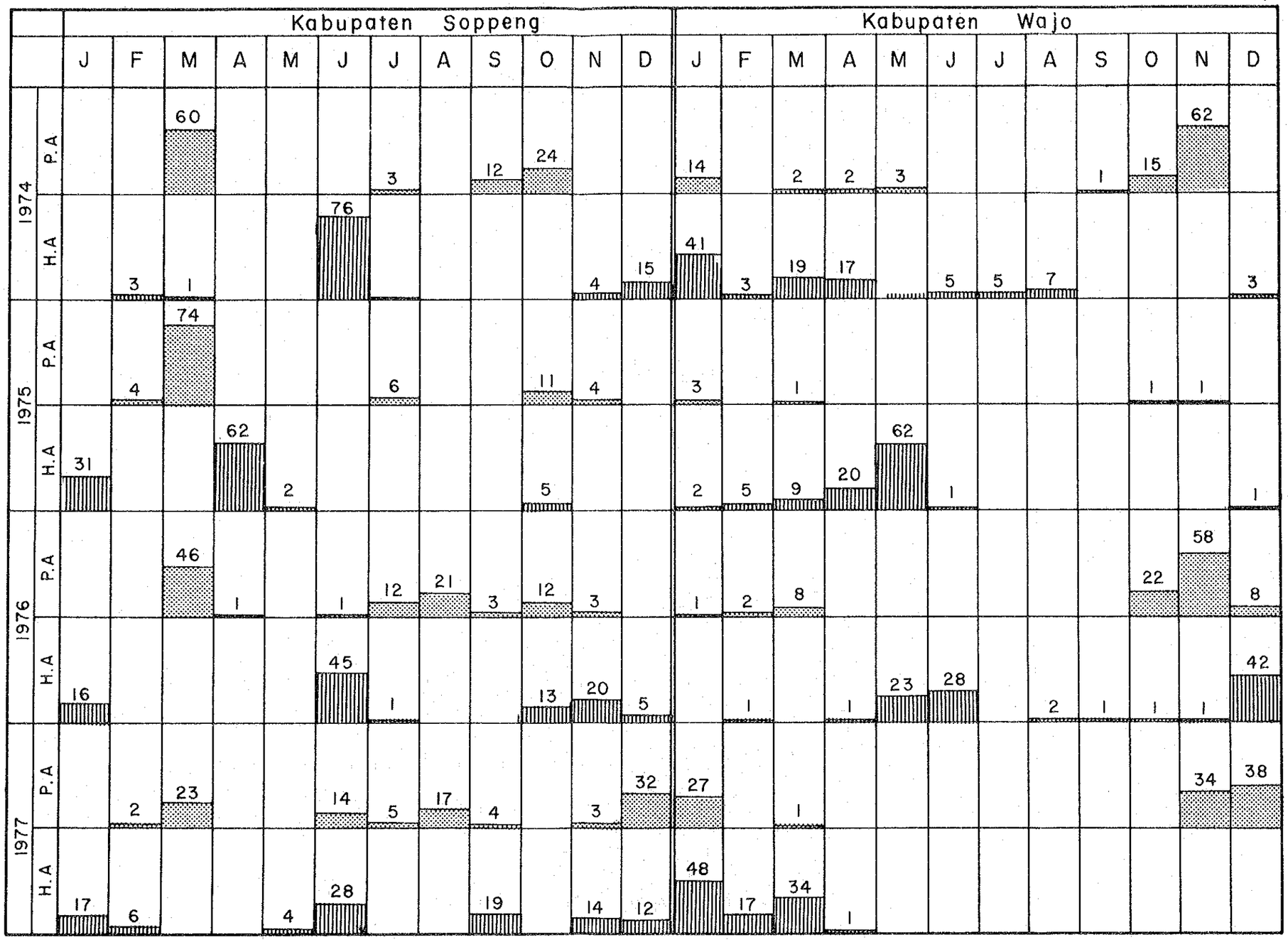
(Unit : %)

		Kabupaten Sidrap												Kabupaten Bone											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1974	P.A	10	16			2	1	14	8	12	18	4	15	1	3	1	17	1	1	3	5		6	33	27
	H.A			1	9	27			1	2		50	10		27	16	2	4	1	28	4	4	3	10	1
1975	P.A	32	12	3	31	10	5	2			4	1		2	2	34	8			1			1	28	24
	H.A	4	4	9	16	19	6	22	6	9	1		1	6	30	15	2	2	20	14			1		
1976	P.A			1	1			1	1	1	19	32	44					2	7	1			3	36	51
	H.A	3	9			9		3	11	5	5	18	37	1	27	24				2	12	34			
1977	P.A	5			6	3	8	1		3	1	39	34			11	7	1	3	4				5	69
	H.A	12	45	15	5	9	3	1		1	4	3	2	4	66	14		2	8	1		2	3		

P.A : Planted Area.
H.A : Harvested Area.

Fig. 5.4 Present Cropping Pattern (Peanuts)

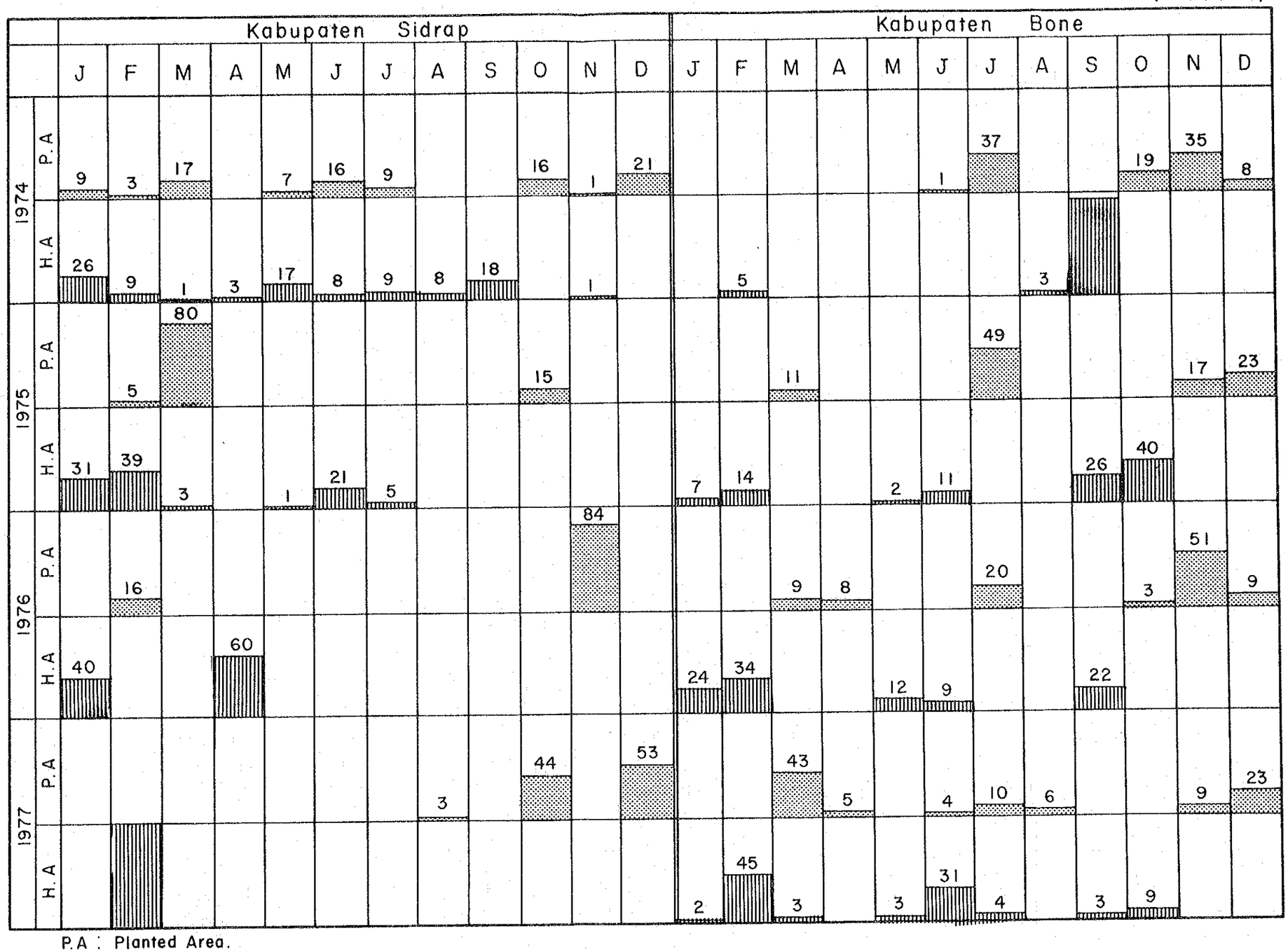
(Unit : %)



P.A: Planted Area.
H.A: Harvested Area.

Fig. 5.5 Present Cropping Pattern (Soybeans).

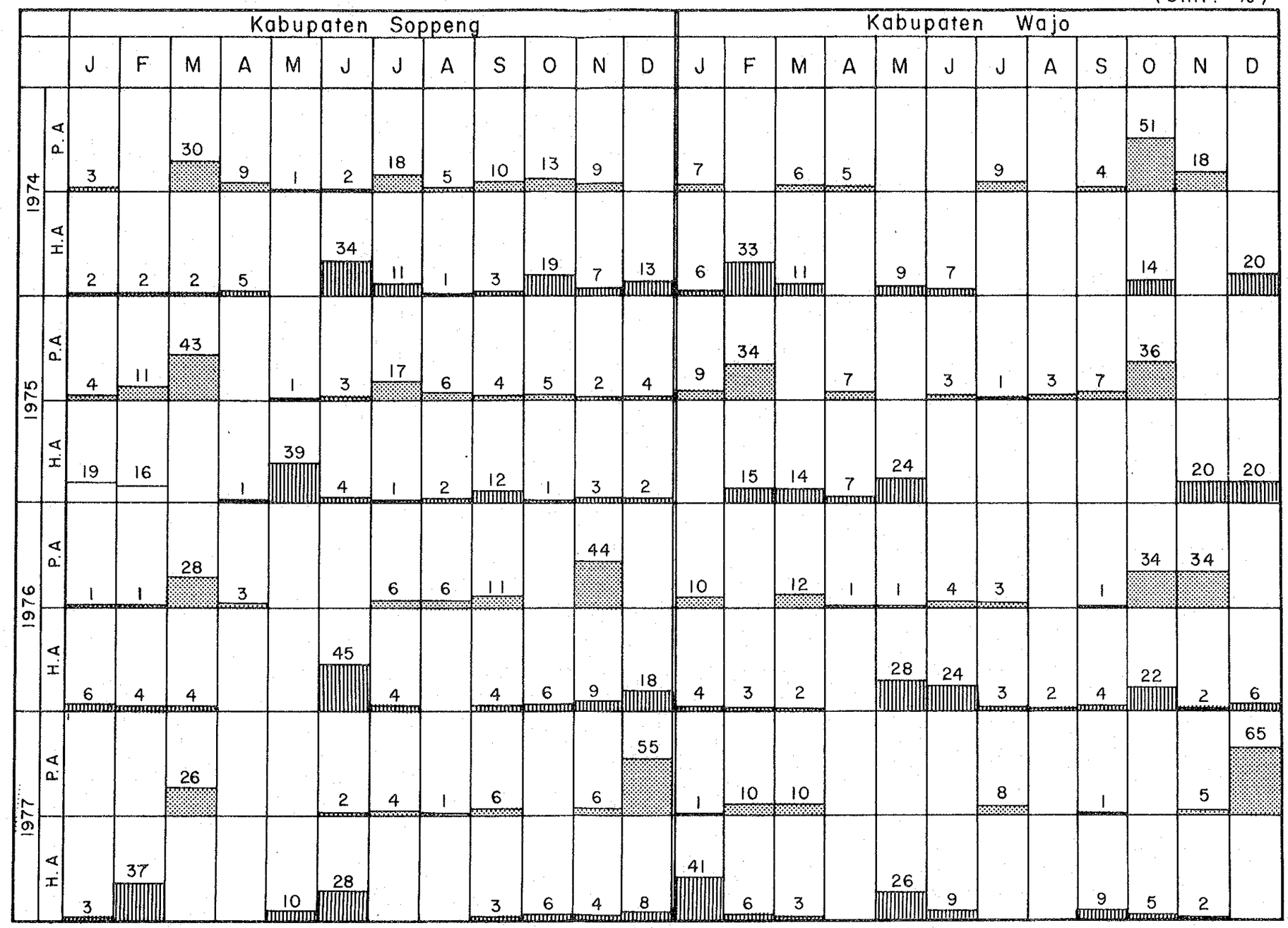
(Unit : %)



P.A : Planted Area.
H.A : Harvested Area.

Fig. 5.6 Present Cropping Pattern (Soybeans)

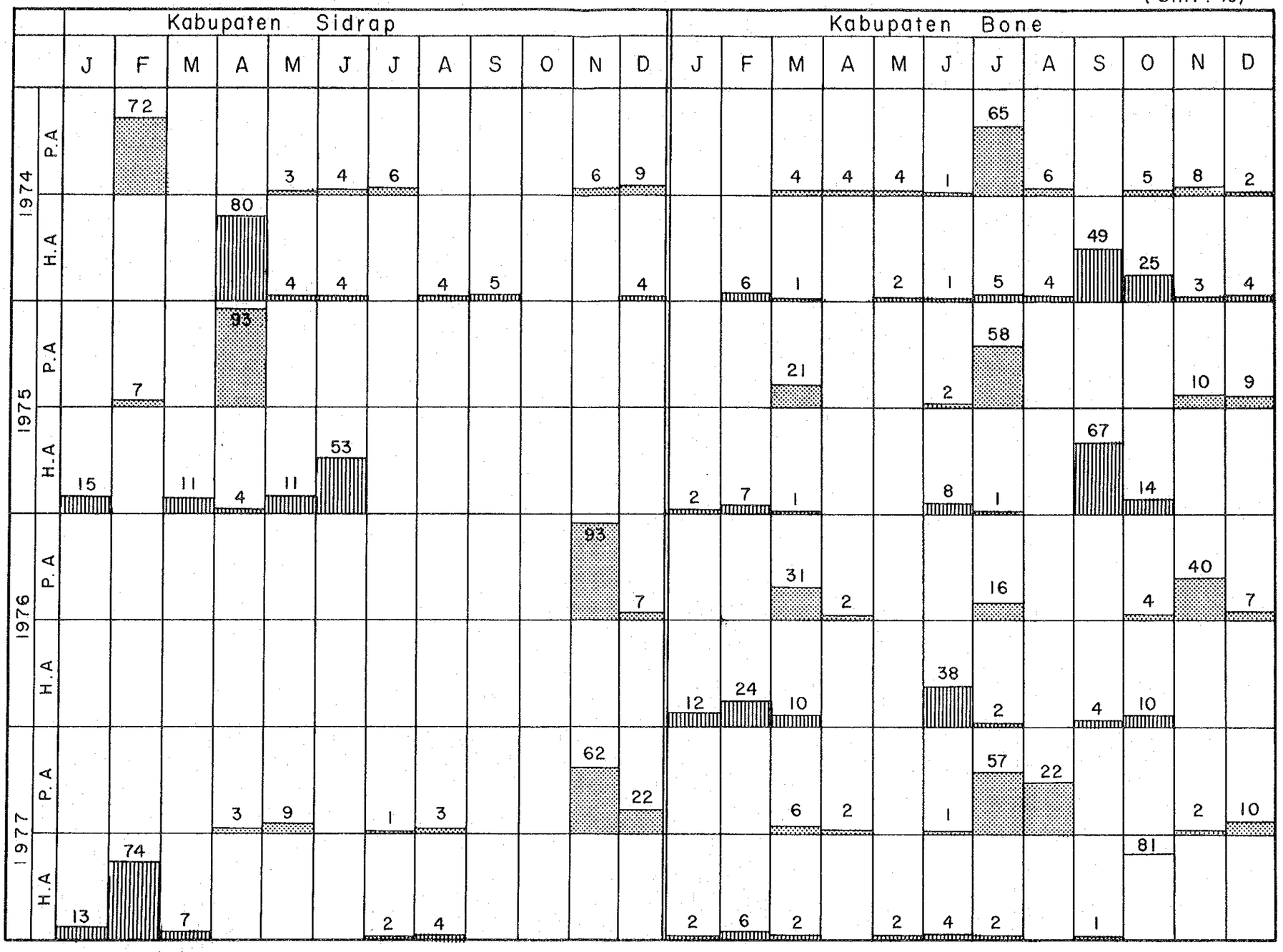
(Unit: %)



P.A: Planted Area.
H.A: Harvested Area.

Fig. 5.7 Present Cropping Pattern (Green Beans).

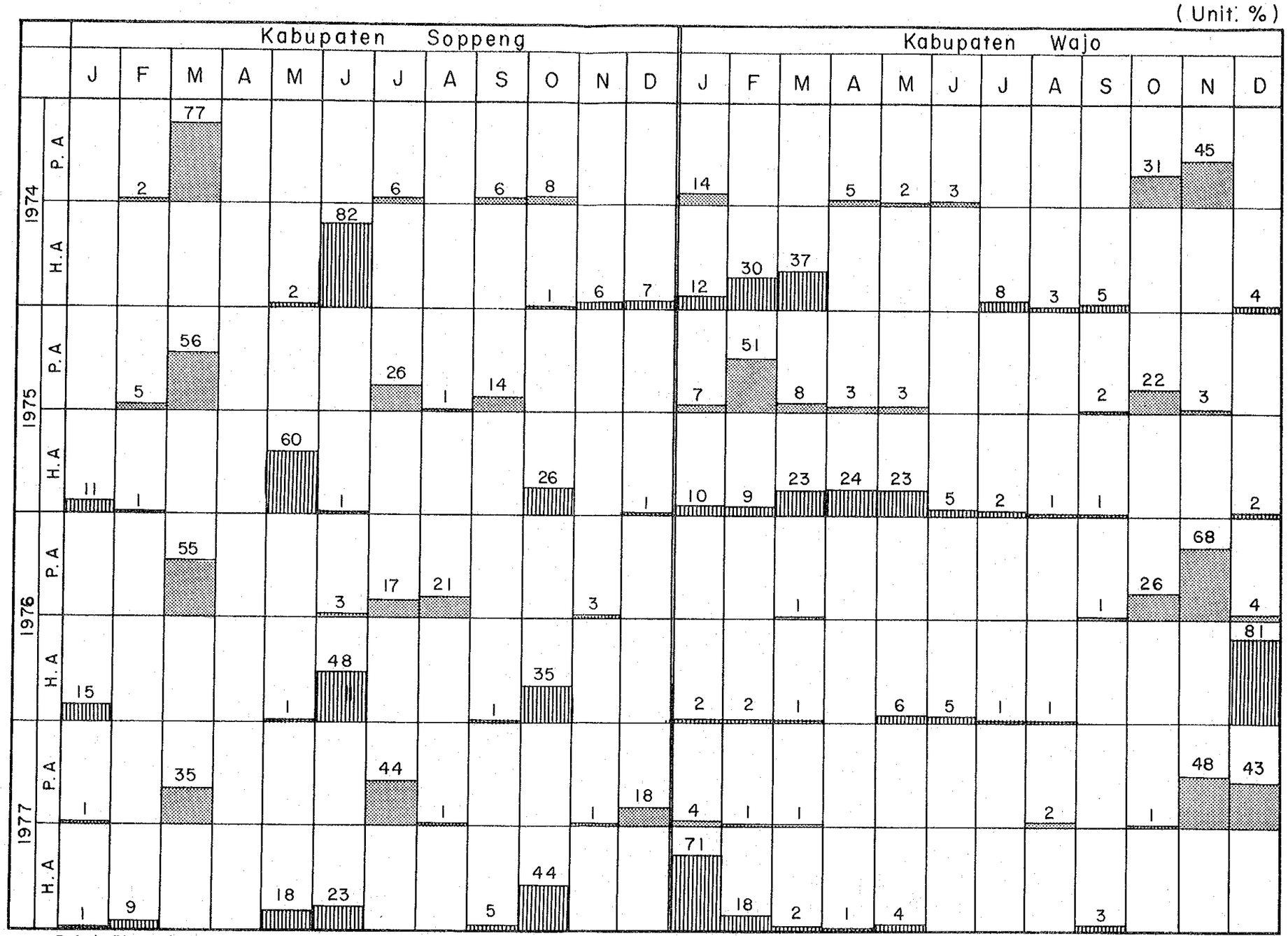
(Unit : %)



P.A : Planted Area.
H.A : Harvested Area.

Fig. 5.8 Present Cropping Pattern (Green Beans)

(Unit: %)



P.A : Planted Area.
H.A : Harvested Area.

Fig. 5.9 Present Cropping Pattern (Cassava).

(Unit : %)

		Kabupaten Sidrap												Kabupaten Bone											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1974	P.A	13	25	9	11	6	8	4	8	4	3	6	2	7	7	11	11	10	8	7	3	1	5	19	11
	H.A	3	9	27	9	6	8	6	11	8	3	6		7	9	16	7	9	12	6	6	7	7	8	6
1975	P.A	12	10	11	17	7	5	8	6	5	7	5	7	5	4	22	26	6	4	6	2		8	7	10
	H.A	8	13	4	7	7	4	11	8	7	14	6	10	11	5	12	10	8	12	9	6	6	6	9	6
1976	P.A	6	3	10	4	3	3	5	14	10	17	15	11			1	2	1	3				7	16	70
	H.A	6	9	9	7	9	2	7	8	9	7	11	16	8	5	3	4	15	13	4	7	9	11	18	3
1977	P.A	13	9	6	5	4	9	5	8	7	5	16	13	2	1	3	2	9	3	5					75
	H.A	10	11	16	7	2	2	7	5	5	5	6	5	3	2	5	7	12	12	12	11	9	8	12	7

P.A: Planted Area.
H.A: Harvested Area.

Fig. 5.10 Present Cropping Pattern (Cassava)

(Unit : %)

		Kabupaten Soppeng												Kabupaten Wajo											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1974	P.A	3	8	5	9	6	14	6		5	10	34		7	7	11	33	10	4	4	5	6	5	5	3
	H.A	9	18	10	6	2	7	4	20	8	7	6	1	10	11	10	16	10	10	6	4	8	5	4	5
1975	P.A	27	3			14	11	8		18		14	5	10	13	10	9	6	4	7	9	9	2	12	7
	H.A	20		4	5	8	7	19	1	9	13	14		11	12	10	9	6	11	7	9	8	5	5	6
1976	P.A		17		3	13	13	6			2	46		10	2	16	14	4	6	12	4	1	10	12	9
	H.A	16			8	20	20			20	14			13	7	13	10	10	8	10	8	6	4	5	6
1977	P.A	15			18	3	2	10		19		18	15	2	4	3	6	8	4	6	9	1		8	49
	H.A	12	4		18	4	7	16	4	31		4		4	7	9	8	13	8	8	8	4	5	7	18

P.A : Planted Area.
H.A : Harvested Area.

Fig. 5.11 Present Cropping Pattern (Sweet Potato).

(Unit : %)

		Kabupaten Sidrap												Kabupaten Bone											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1974	P.A	14	16	10	5	13	5	9	12	5	4	6		14	16	10	5	13	5	9	12	5	4	6	
	H.A	6	9	8	11	15	3	2	13	15	6	8	4	7	5	11	7	8	11	12	13	8	7	8	3
1975	P.A	26	4	15	9	17	2		7	2	6	5	7	5	4	11	16	9	10	6	3	2	9	12	13
	H.A	5	12	7	16	7	12	9	12	4	4		12	2	10	12	11	8	8	9	8	9	6	11	6
1976	P.A	2	3	7	4	6	2	7	6	12	20	14	17			2	2	1	1				9	13	72
	H.A	6	4	4	1	4	2	8	9	9	14	17	22	6	12	20	7	9	10	6	12	10	8		
1977	P.A	11	2	6	6		8	5	7	23	2	14	16			3	7	9	3	11					66
	H.A	13	19	15	3		4	5	2	4	6	23	6	2	6	15	19	13	15	7	5	6	10	2	

P.A : Planted Area.
H.A : Harvested Area.

Fig. 5.12 Present Cropping Pattern (Sweet Potato)

(Unit : %)

		Kabupaten Soppeng												Kabupaten Wajo											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1974	P.A	4	6	21	17	4	9	18		1	5	3	12	6	11	8	9	10	7	3	13	5	12	6	10
	H.A		10		22		20	6	11	6	9	7	9	13	7	11	16	6	13	3	7	8	6	4	6
1975	P.A	6	9		12	26			6	34		7		15	13	6	6	8	9	5	3	12	4	7	12
	H.A	6	3		10	16	2		21	24		6	12	15	12	9	12	7	10	6	7	5	4	5	8
1976	P.A	29			29		13	1			7	21		6	2	8	12	5	6	4	9	2	20	13	12
	H.A	12			18	18	6	6		36	4	1		7	11	13	9	7	8	7	6	13	7	9	3
1977	P.A	9	6	15	6	6	7	11				7	33	1	3	15	10	5	8	6	2	3		17	30
	H.A	12	7	19	4	6	11	19	6	4	10	2		19	12	12	6	8	11	6	8	2	9	4	4

P.A: Planted Area.
H.A: Harvested Area.

Fig. 5.13 Present Cropping Pattern (Paddy)

(Unit: %)

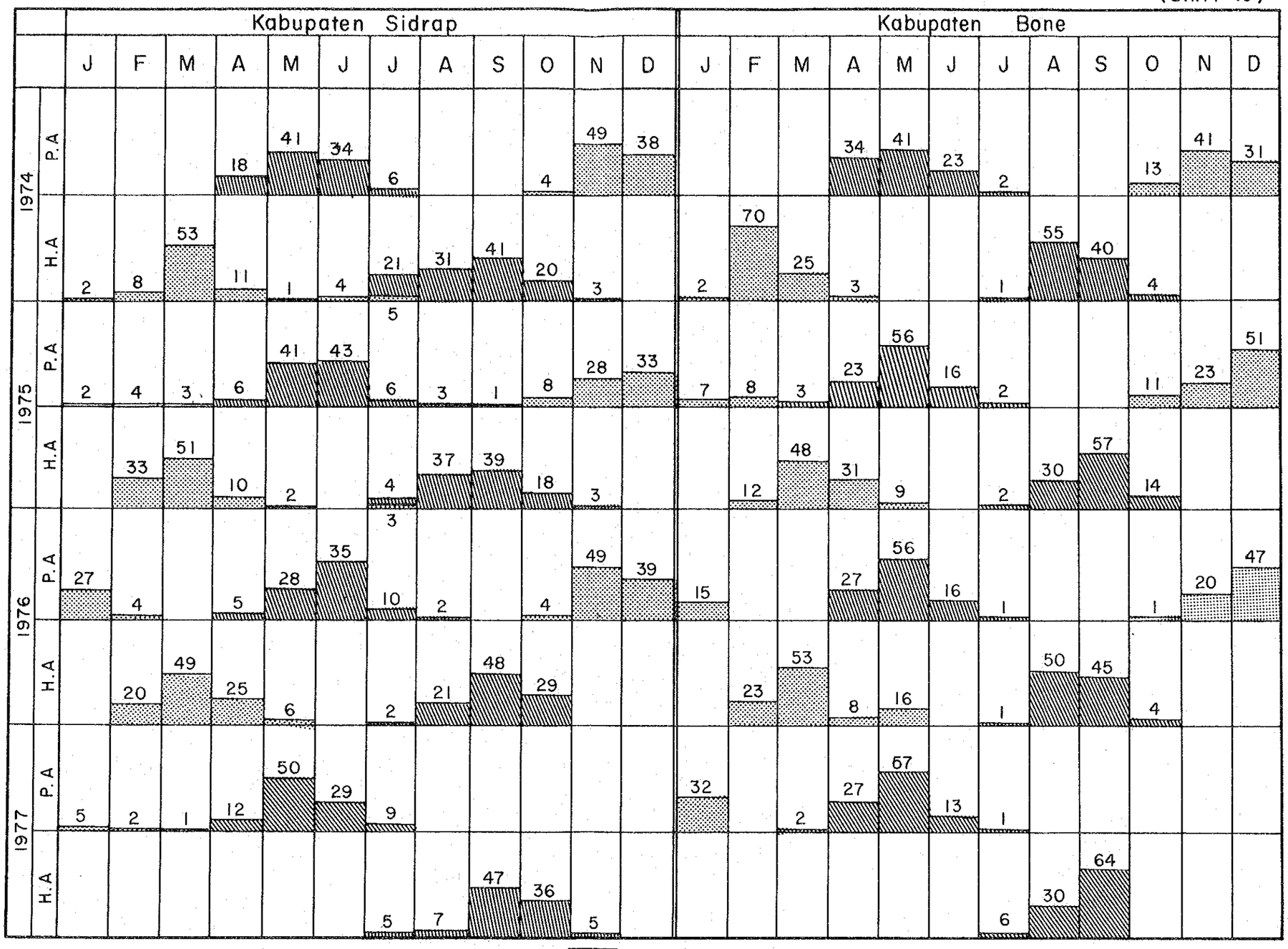


Fig. 5.14 Present Cropping Pattern (Paddy). continued

(Uinl : %)

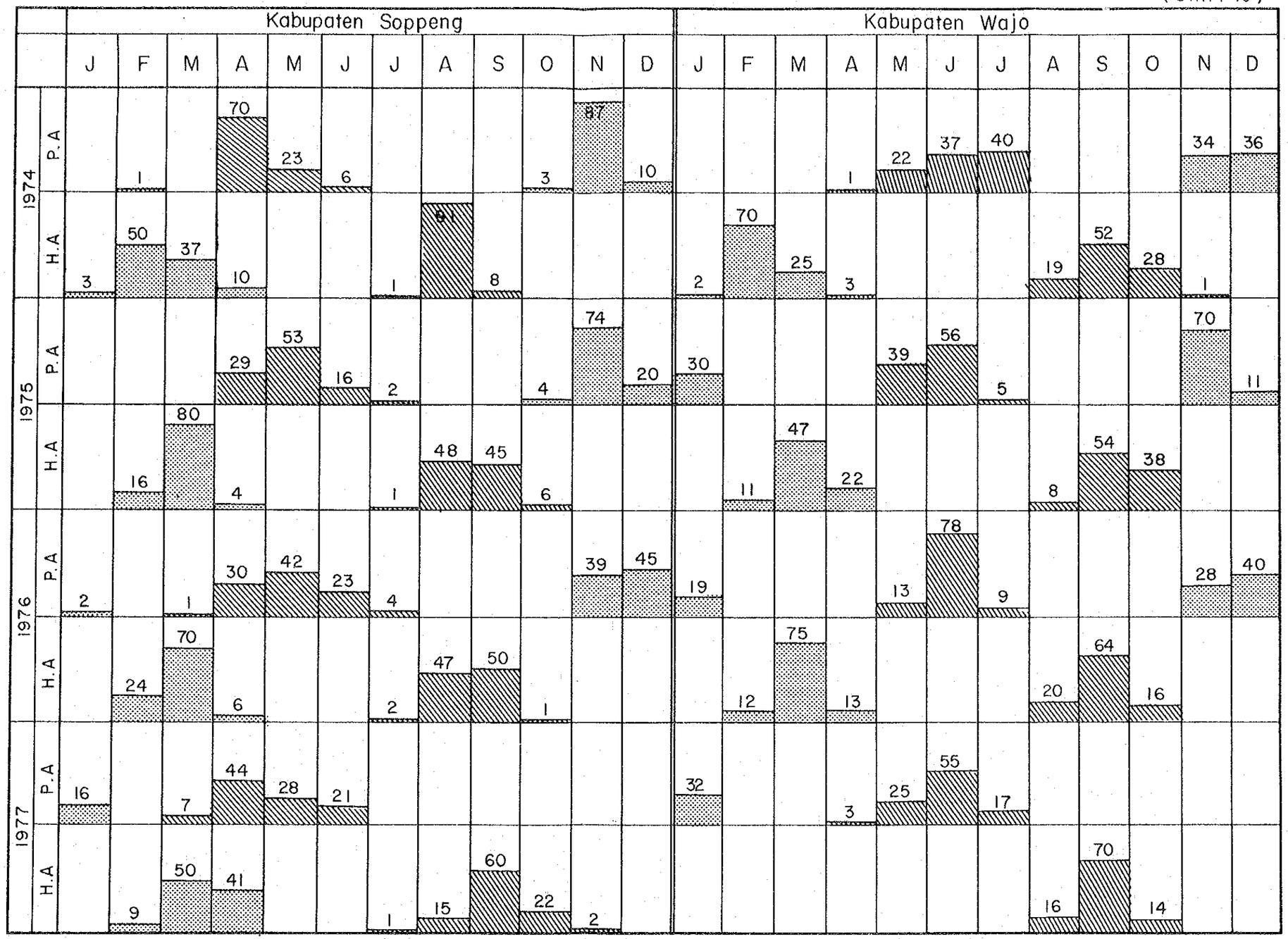


Fig. 5.15 Planted Area and Damaged Area for Paddy in Kab. Wajo.

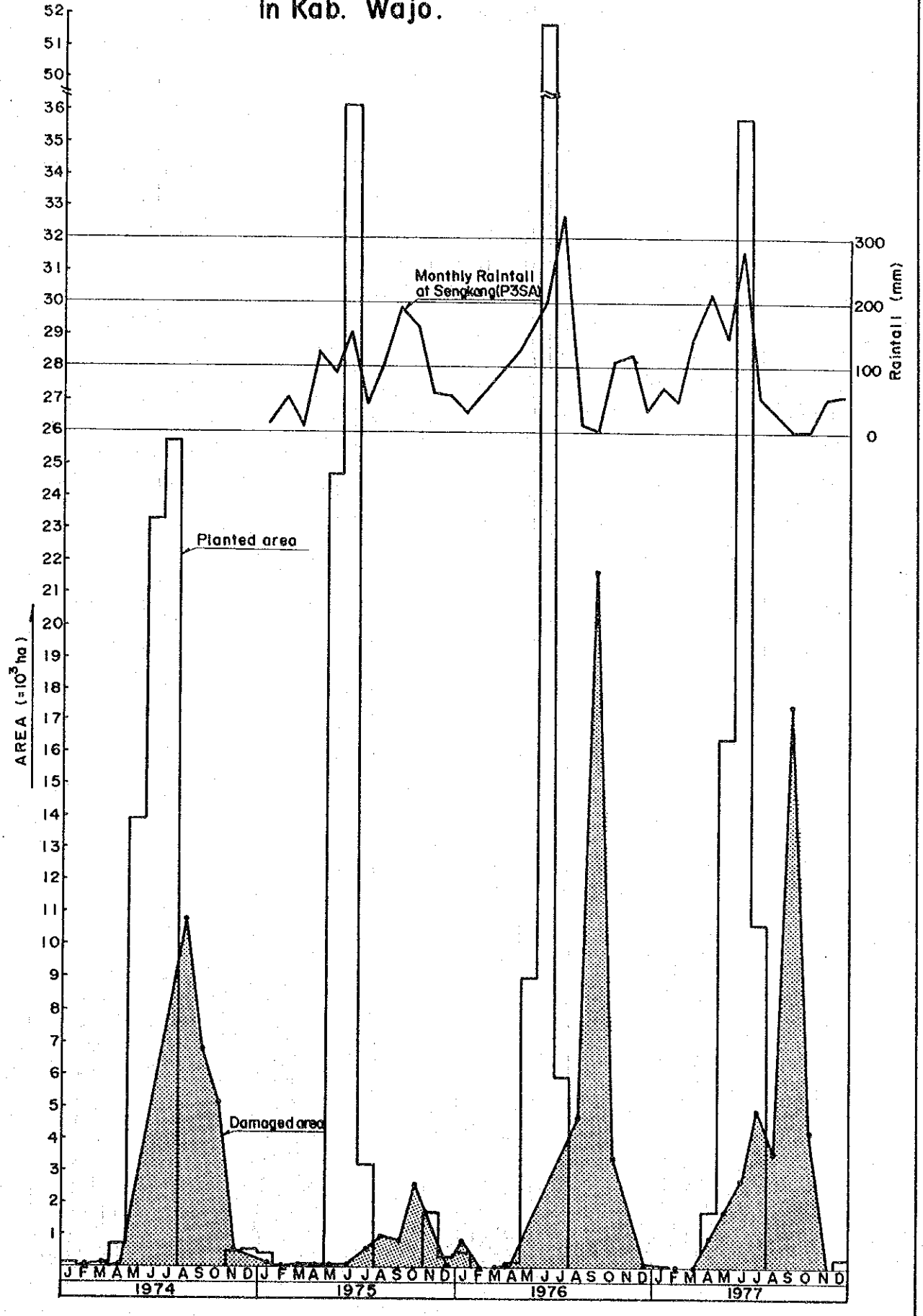


Fig. 5.16 Planted Area and Damaged Area for Paddy in Kab. Bone.

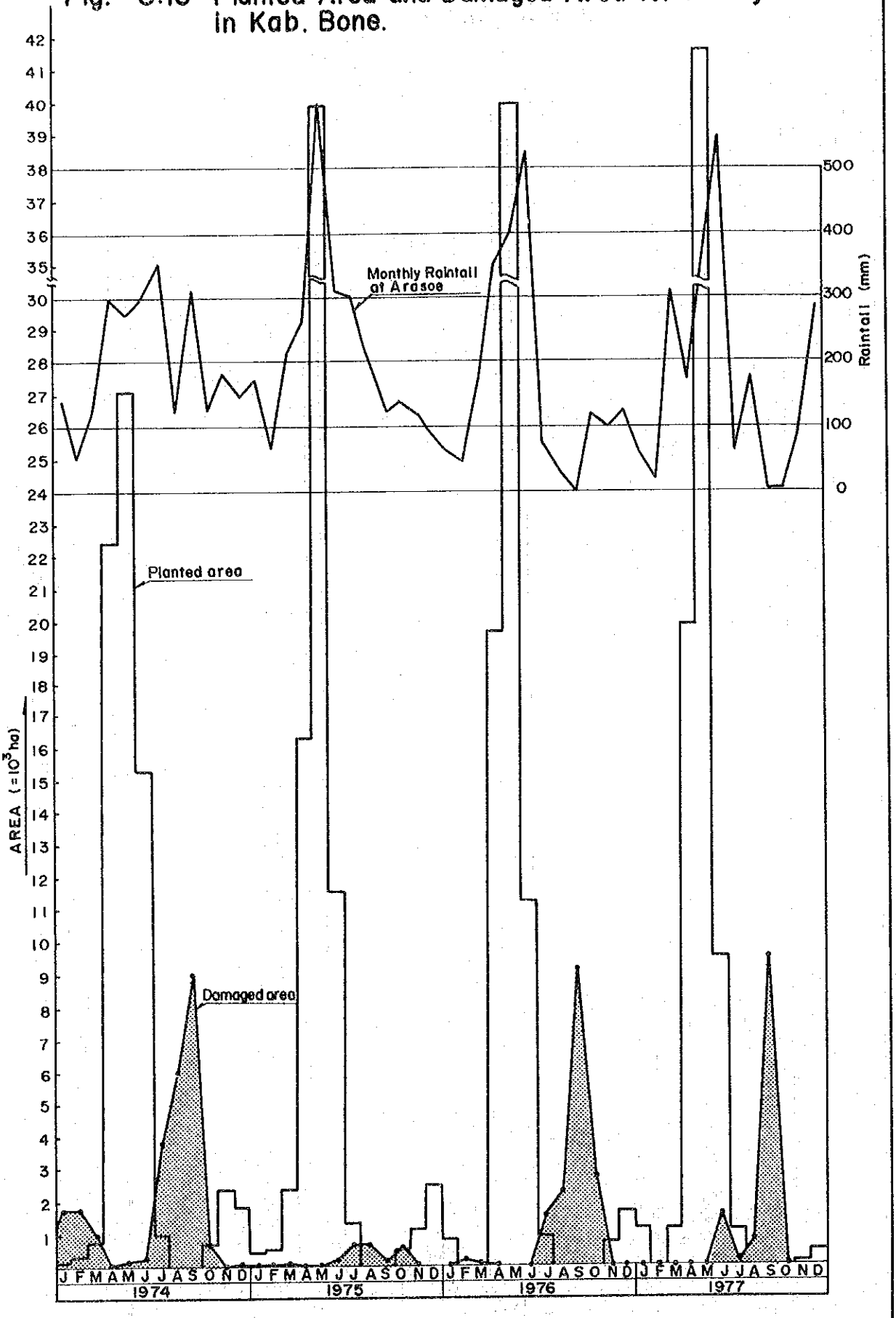


Fig. 5.17 Planted Area and Damaged Area for Paddy in Kab. Sidrap.

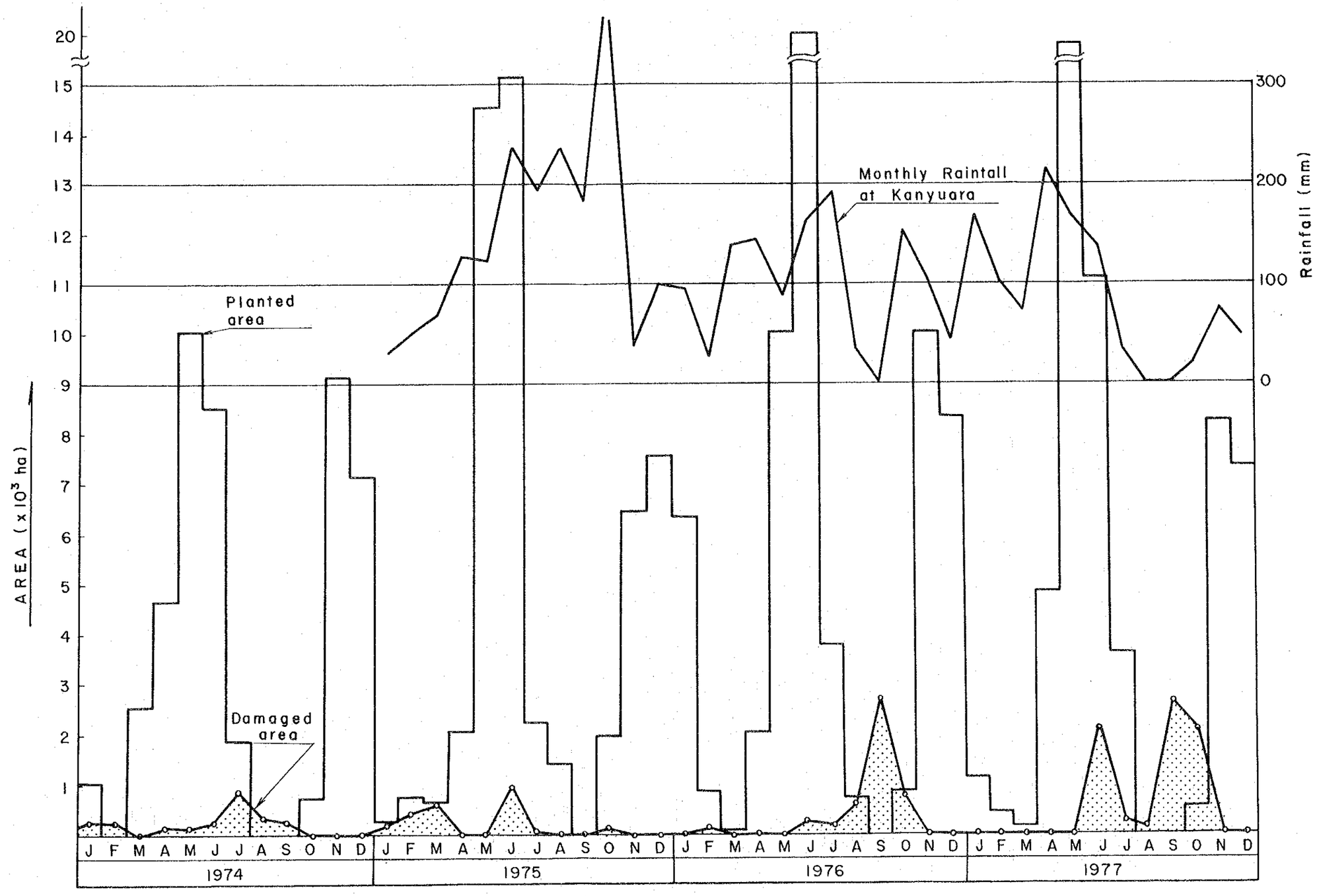


Fig. 5.18 Planted Area and Damaged Area for Paddy in Kab. Soppeng.

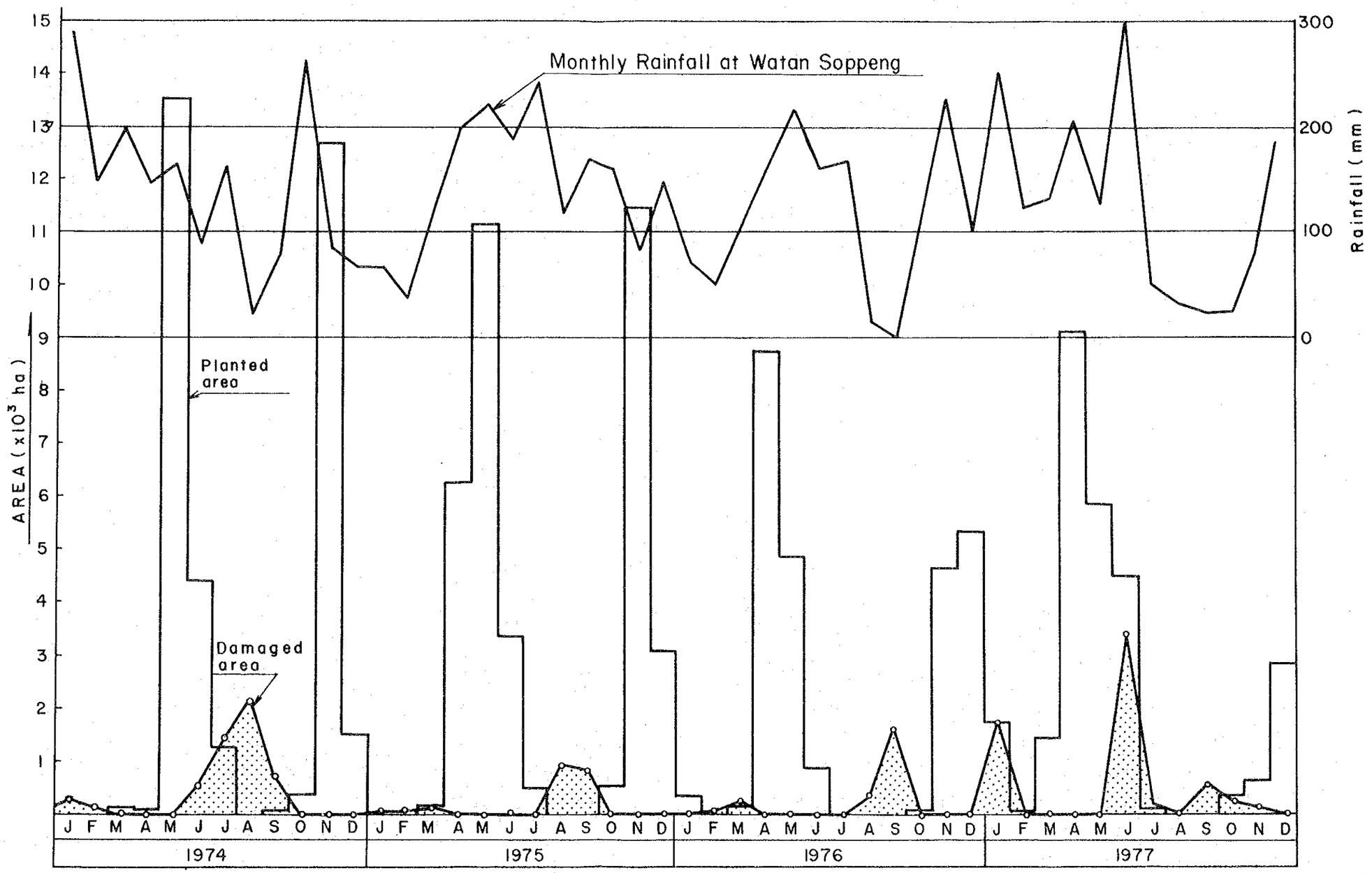


Fig. **6.1** Location Map of Existing Irrigation System.

NO.	NAME OF SYSTEM	CLASS	LOCATION	IRR. AREA IN OBJ. AREA
I	NORTH OF L. TEMPE			
1.	BULU CENRANA	TECHNIC	SIDRAP	6.261 HA
2.	LANCIRANG	S. TECH.	SIDRAP	417 HA 1/
3.	BELAWA	S. TECH.	WAJO	1.500 HA.
4.	SALO DUA	S. TECH.	WAJO	524 HA
II	NORTH & WEST OF L. SIDENRENG.			
5.	BULU TIMORANG	TECHNIC	SIDRAP	5.337 HA.
6.	SADANG	TECHNIC	SIDRAP	8.050 HA
7.	BILOKKA	S. TECH.	SIDRAP	931 HA.
8.	WETTEE	S. TECH	SIDRAP	510 HA
III	WEST & SOUTE OF L. TEMPE			
9.	LATENRENG	S. TECH	SOPPENG	800 HA 2/
10.	LAJAROXO	TECHNIC	SOPPENG	1.250 HA
11.	SALO BUNNE	TECHNIC	SOPPENG	2.100 HA.
12.	TOWELENG	S. TECH.	SOPPENG	450 HA.
13.	LEWORENG KANAN	S. TECH.	SOPPENG	708 HA.
14.	LEWORENG KIRI	S. TECH.	SOPPENG	1.192 HA.
15.	TENCO	S. TECH.	SOPPENG	500 HA.
16.	TALUMAE	S. TECH	SOPPENG	340 HA.
17.	AKAMPENG	S. TECH	SOPPENG	1.100 HA
18	LALANGE	S. TECH	SOPPENG	1.000 HA
19.	LAGARIGI	S. TECH.	SOPPENG	200 HA.
20	CENNAE	S. TECH.	SOPPENG	214 HA
21.	PAROTO	S. TECH	SOPPENG	270 HA.
22.	TAKKU	S. TECH.	SOPPENG	460 HA.
IV	HILLY INLAND			
23.	MARADDA	S. TECH	BONE	430 HA.
24.	BONGO	S. TECH	BONE	500 HA.
25	TODANG JOMPI	S. TECH.	BONE	240 HA.
V	EAST AREA			
26.	BULU PATILA	S. TECH	WAJO	240 HA
27.	UNYI	S. TECH	BONE	1.700 HA.

NOTE : 1/. CONSISTING OF 292 HA IN KAB. SIDRAP AND 125HA IN KAB. WAJO.

2/. PROPOSED IRRIGABLE AREA.

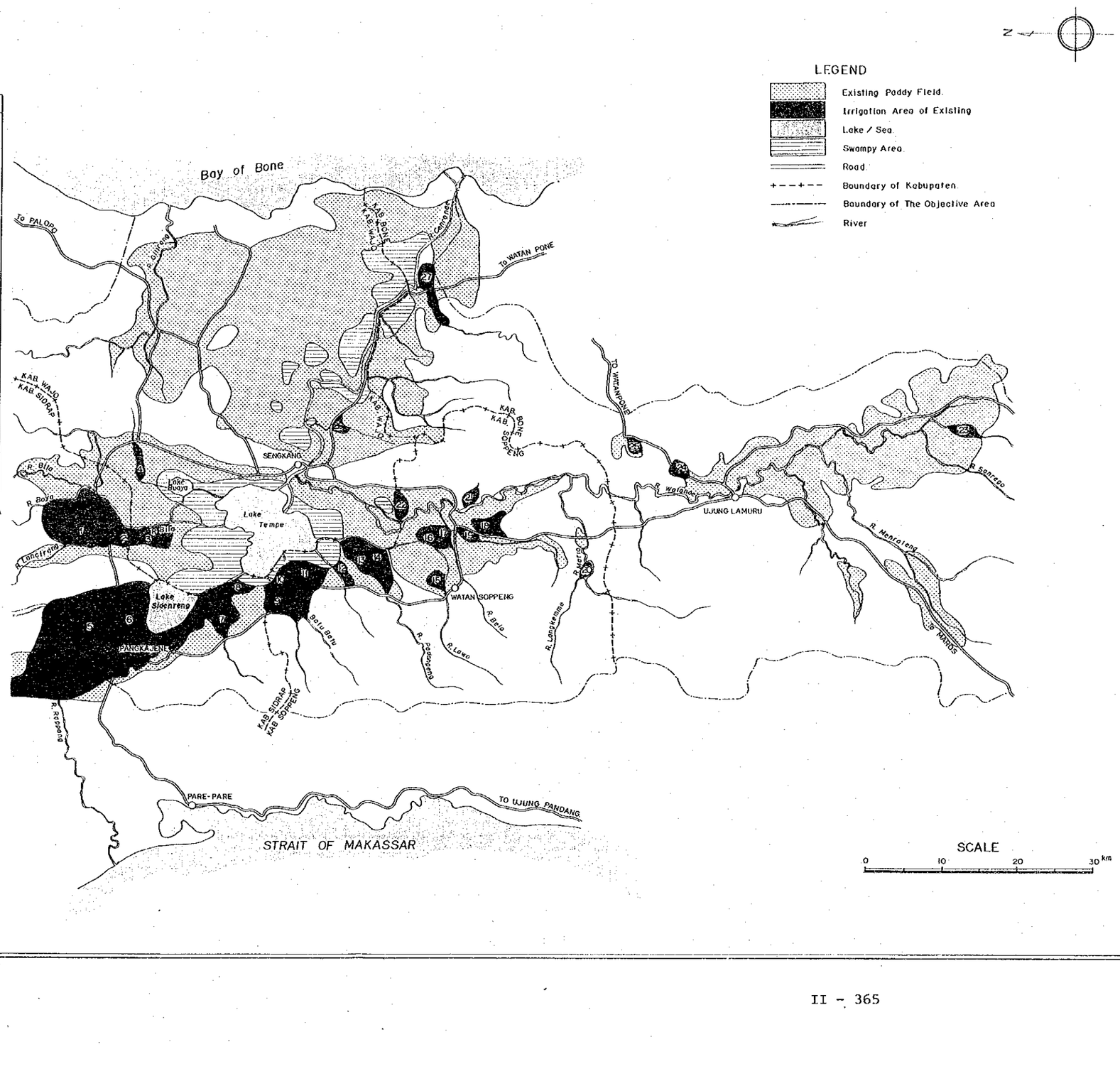
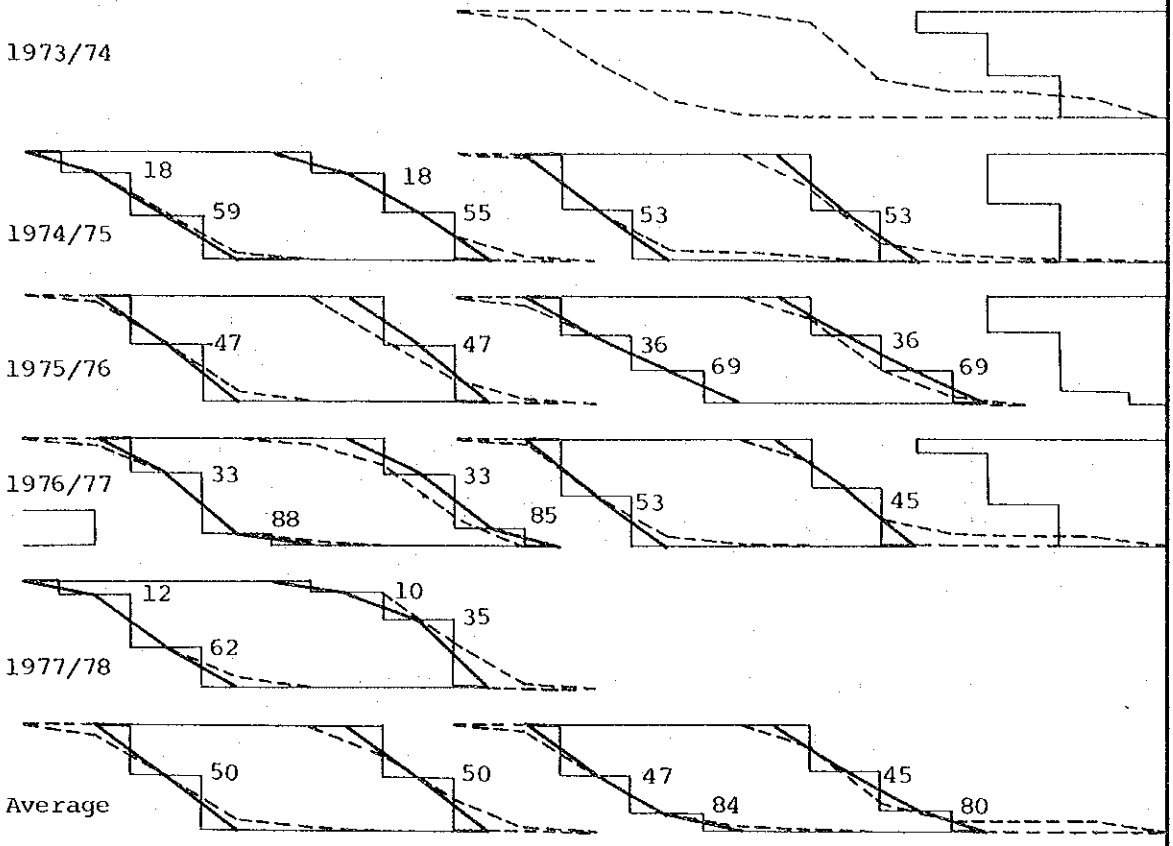


Fig. 6.2 Assumed Cropping Calender of Paddy Cultivation in Existing Irrigation System

Unit : %

1. Bulucenrana in Kab. Sidrap



2. Salobunne, Lajaroko and Cennae in Kab. Soppeng

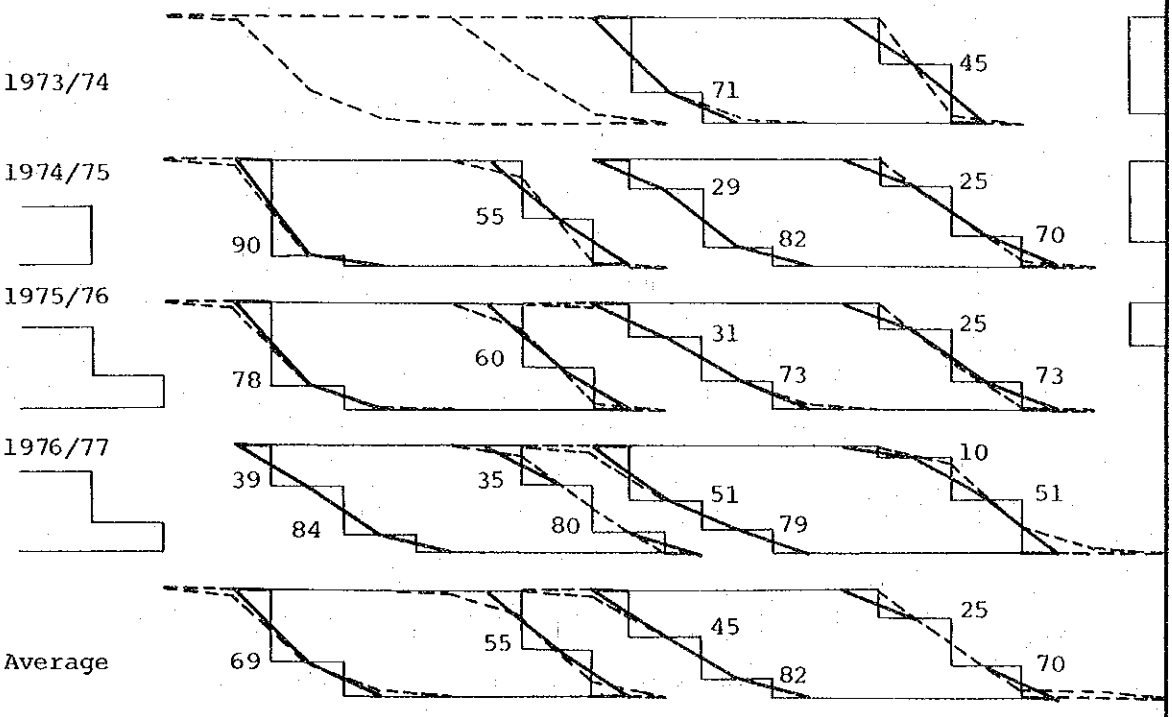
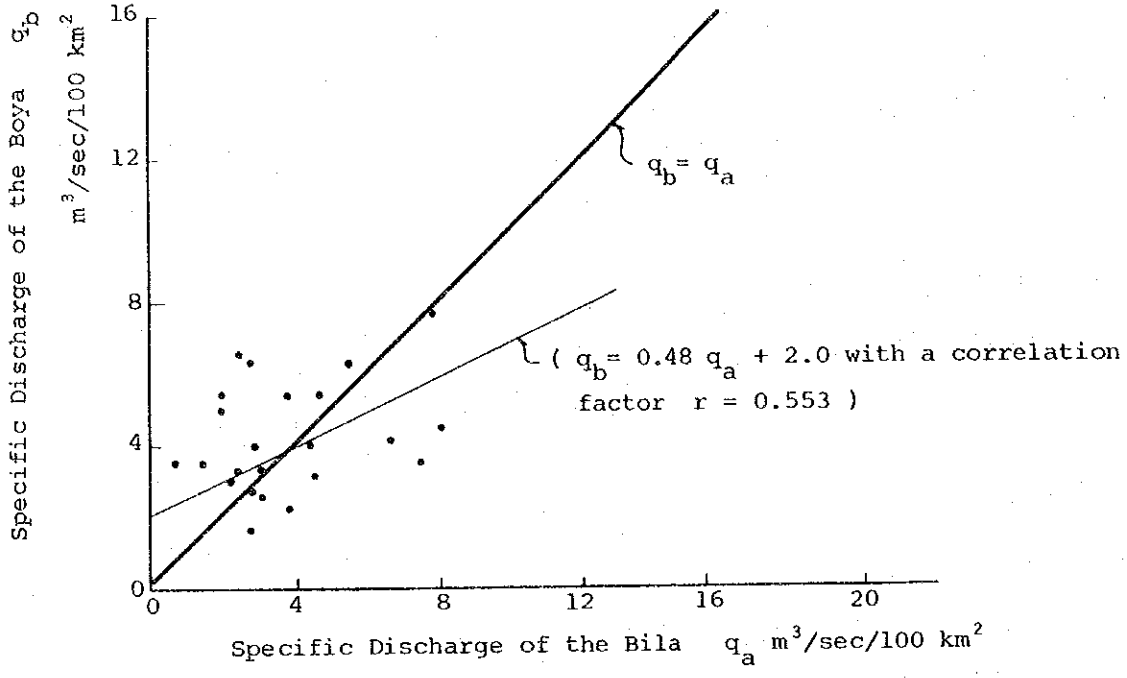


Fig. 6.3 Correlation of Specific Discharge of the Bila and The Boya / The Gilirang in the North of the Basin



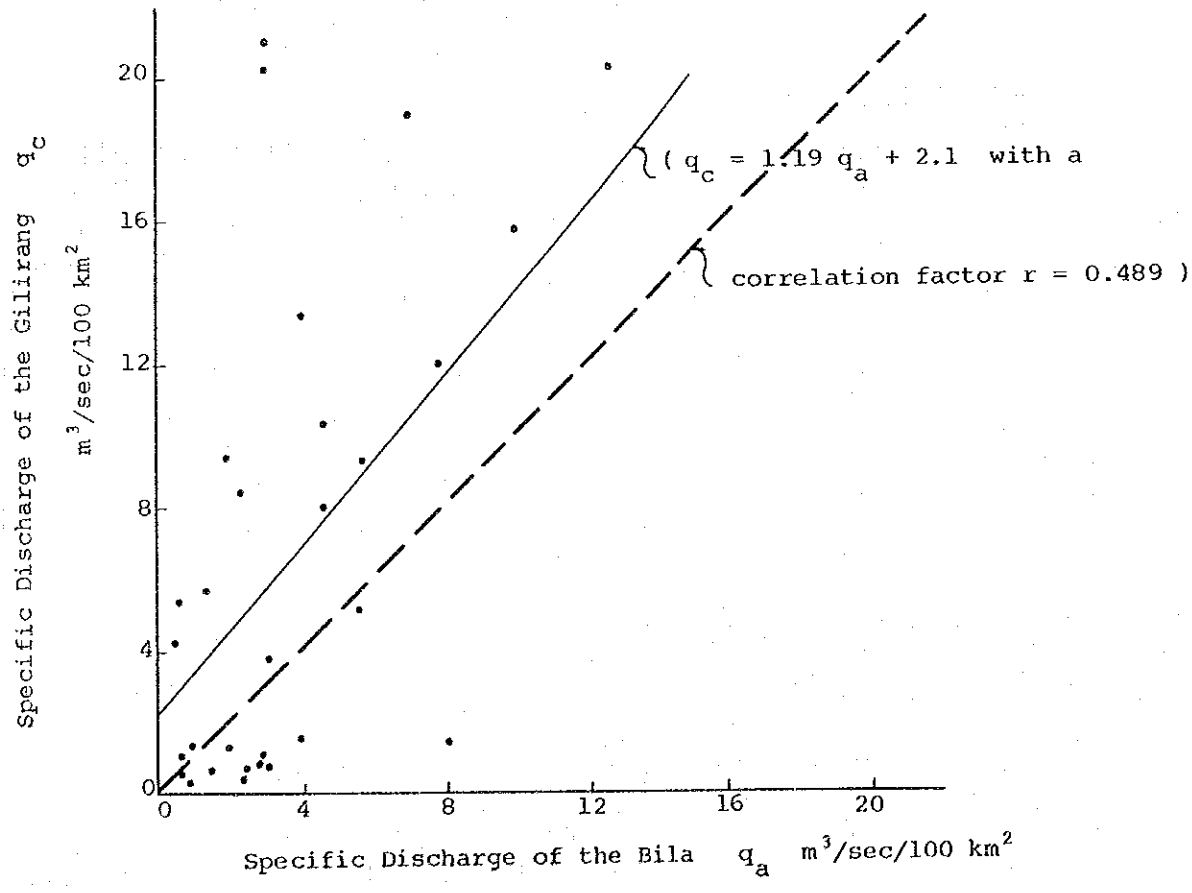
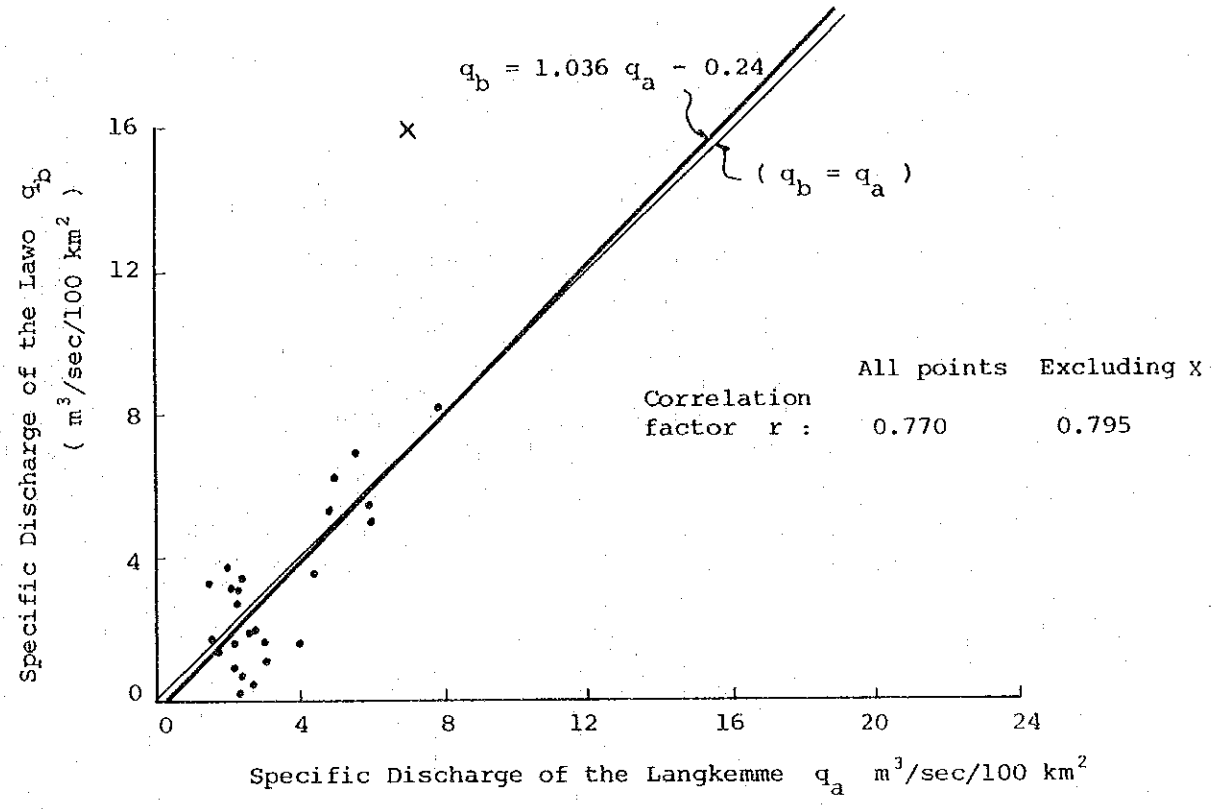


Fig. 6.4 Correlation of Specific Discharges of The Langkemme and The Lawo / The Batu-Batu in the West of L. Tempe Basin



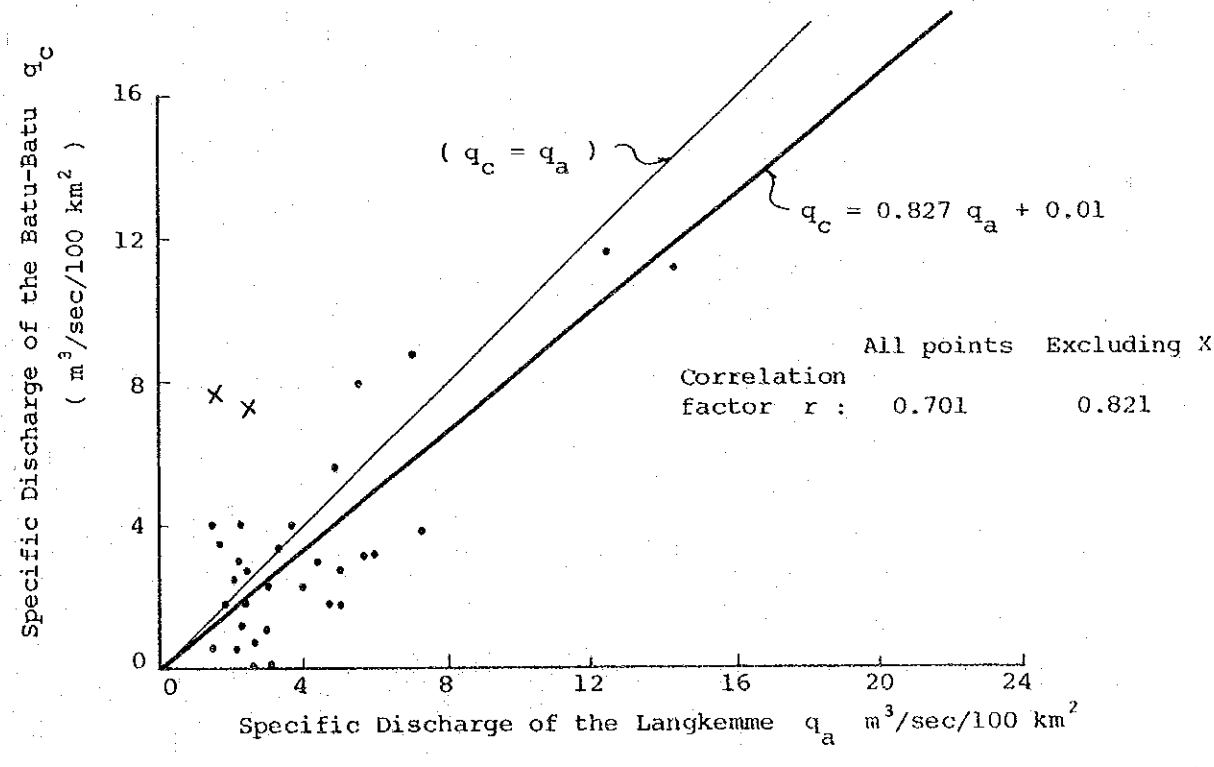


Fig. 7.1 Change of Rice Varieties during Pelita II period in 4 Kabupatens Related to The Objective Area.

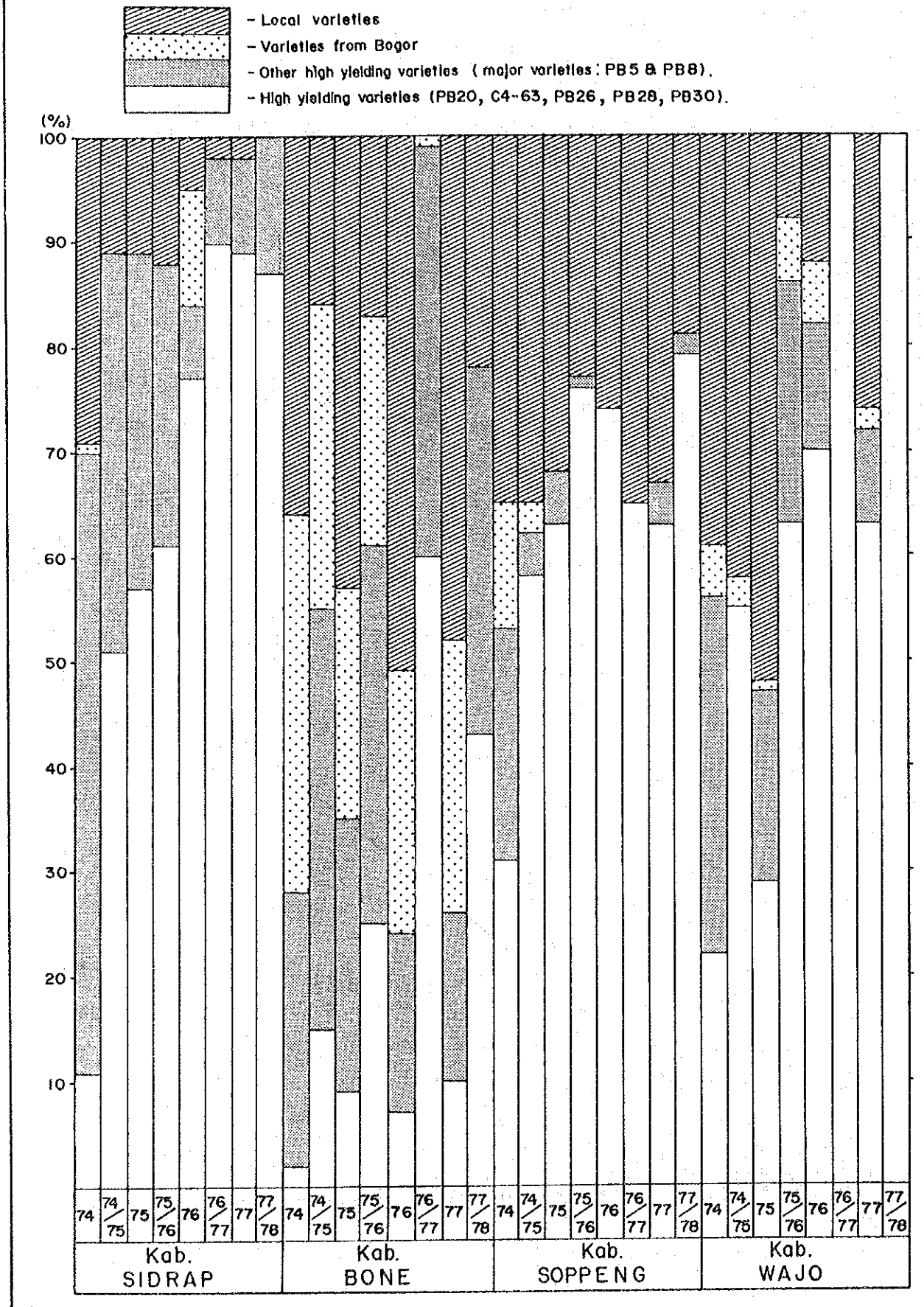


Fig. 8.1 Procedure of Yield Analysis

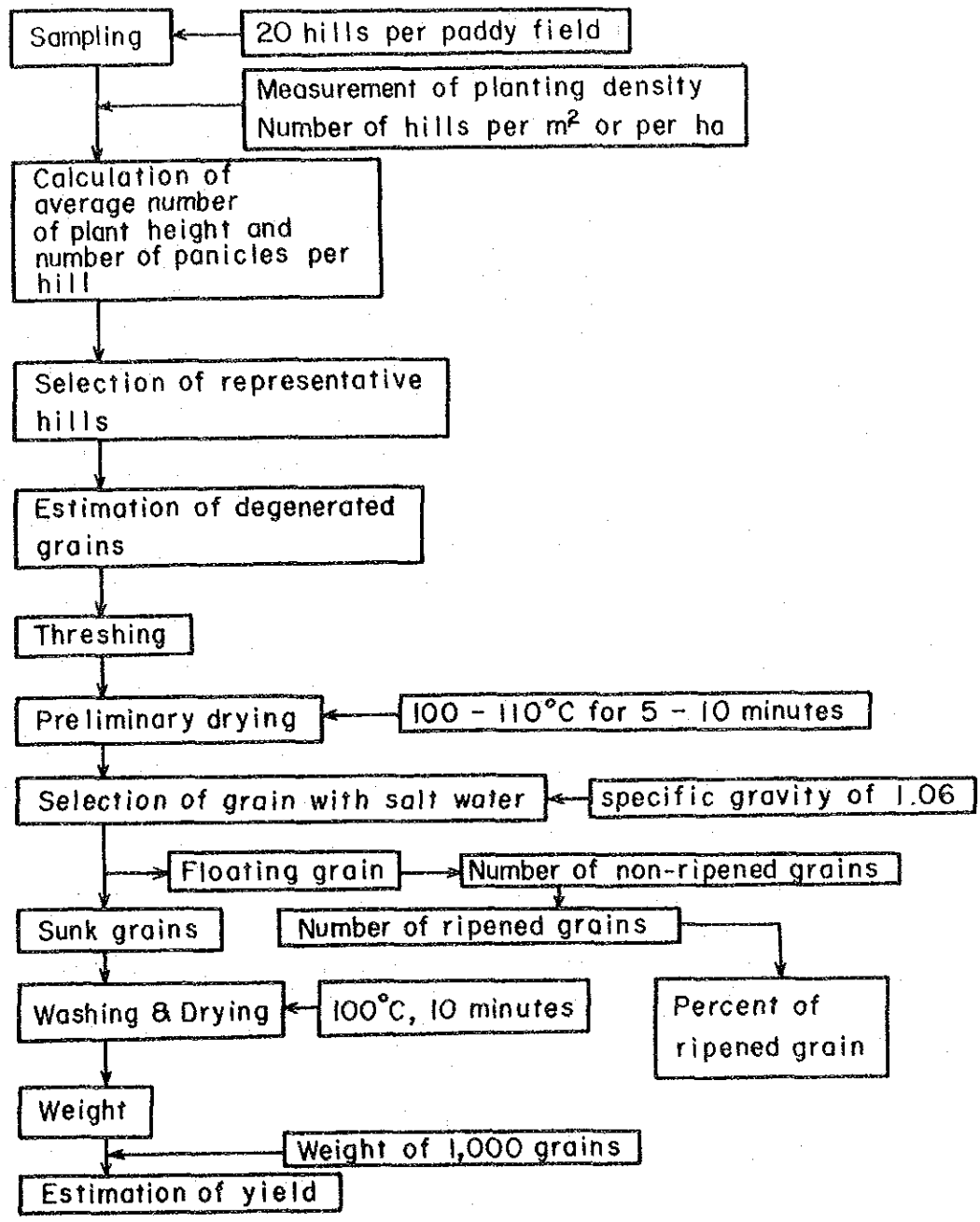


Fig. II.1 Organization Chart of South Sulawesi Branch
Research Station of Central Research Institute Agriculture

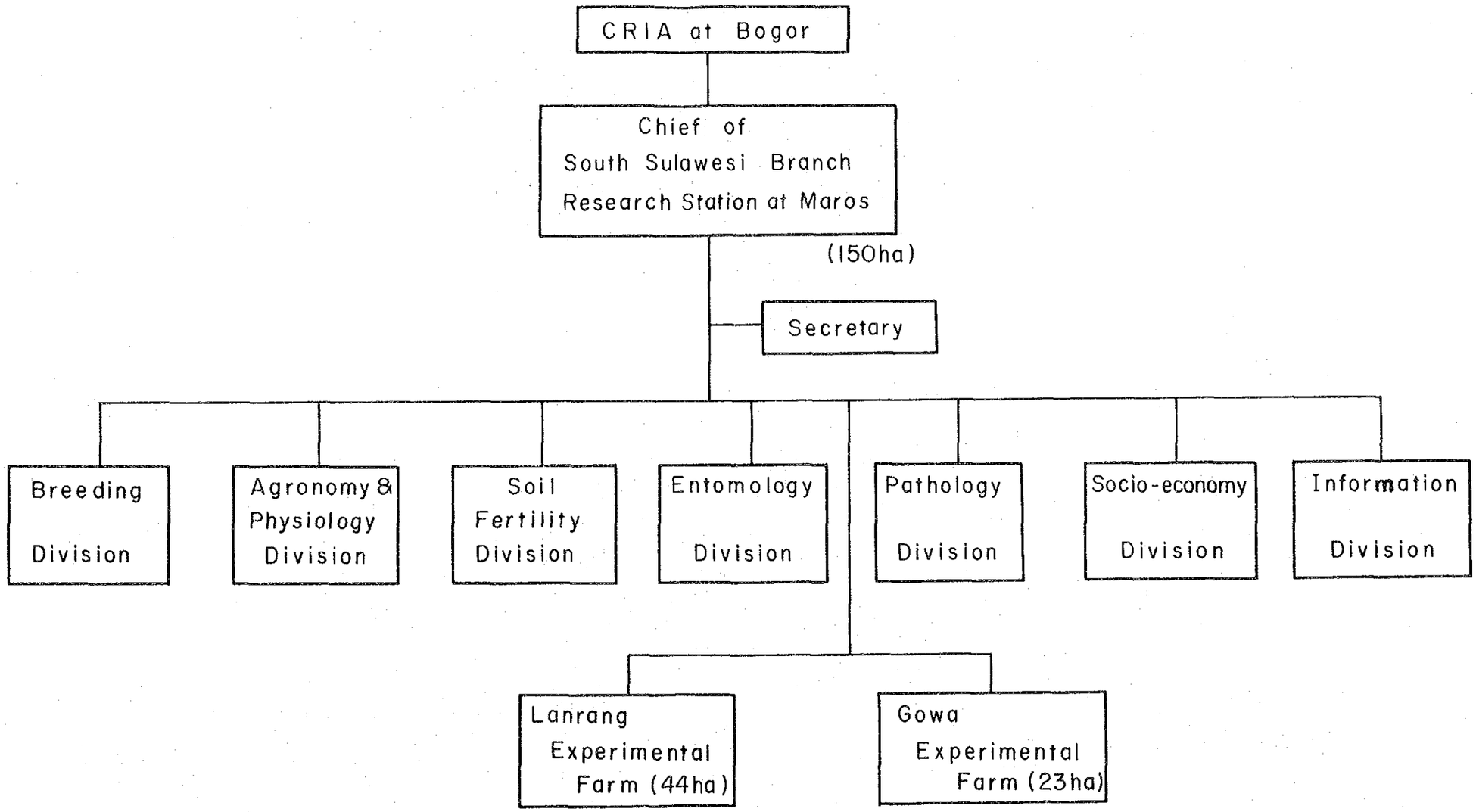


Fig. II.2 Organization Chart of Agricultural Extension Service in South Sulawesi Province

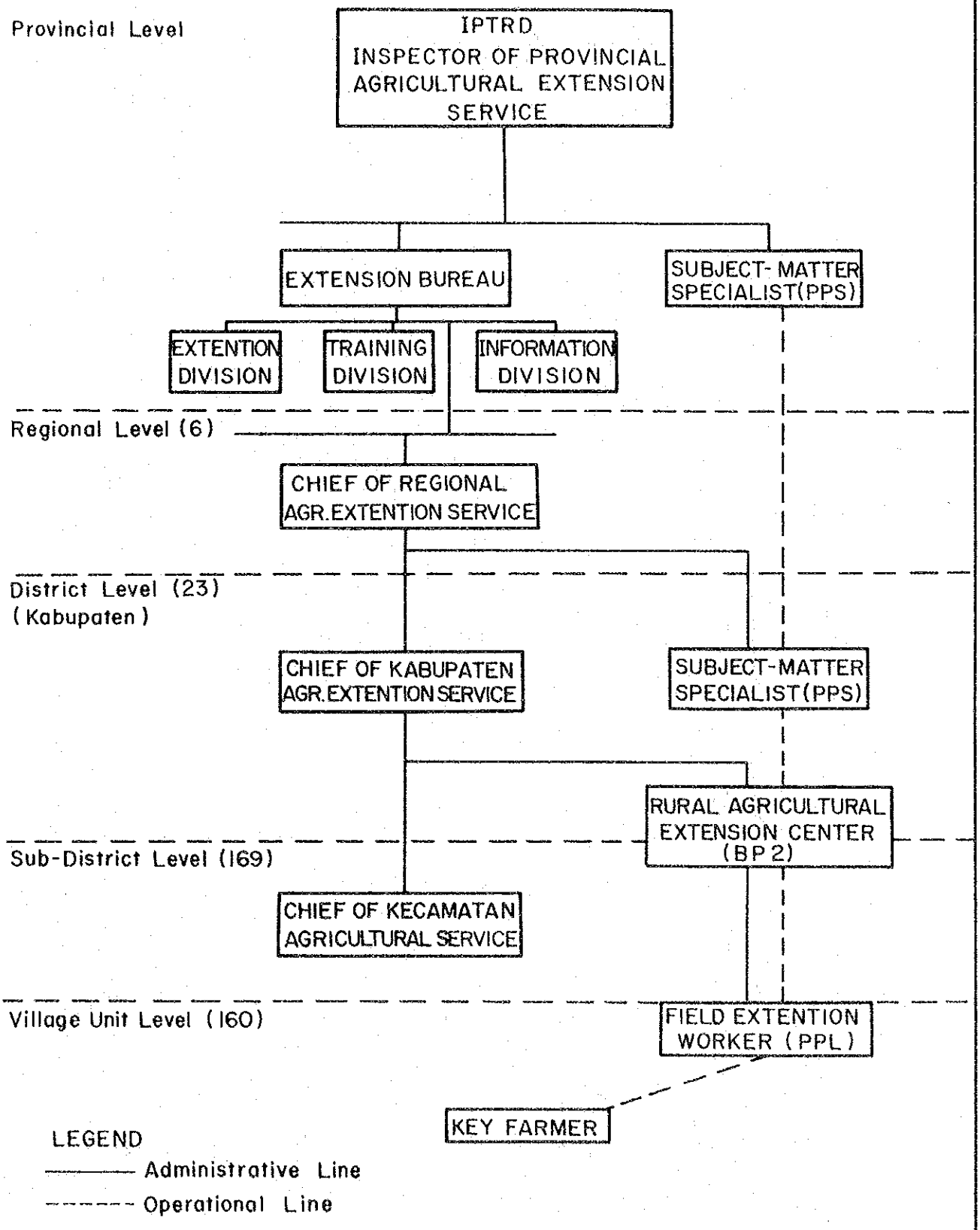
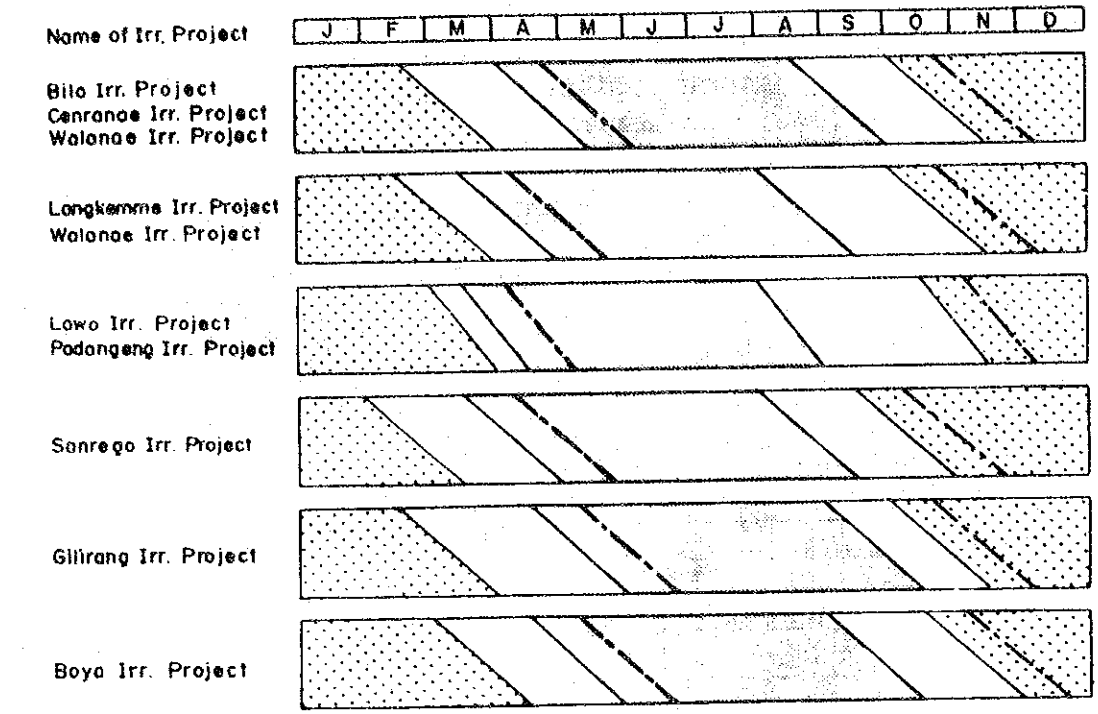


Fig. 14.1 Proposed Cropping Patterns



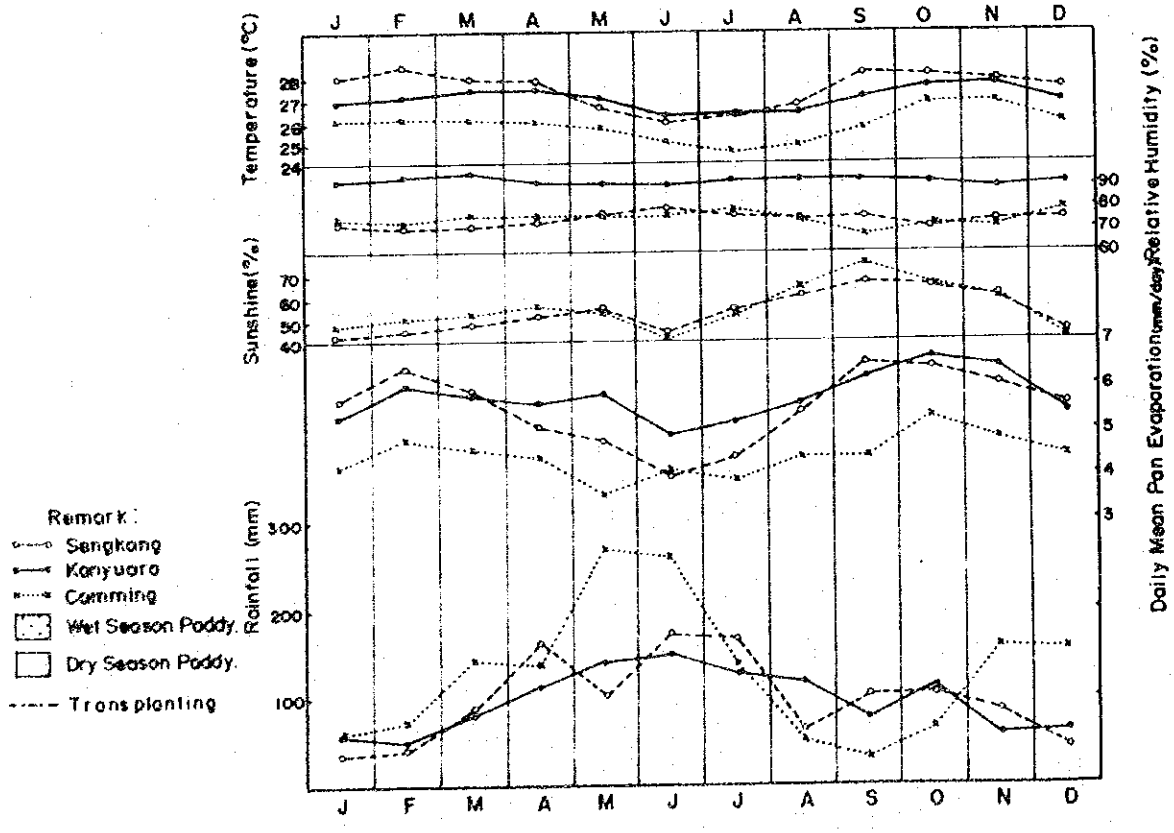


Fig. 15.1 Location Map of Proposed Irrigation Project.

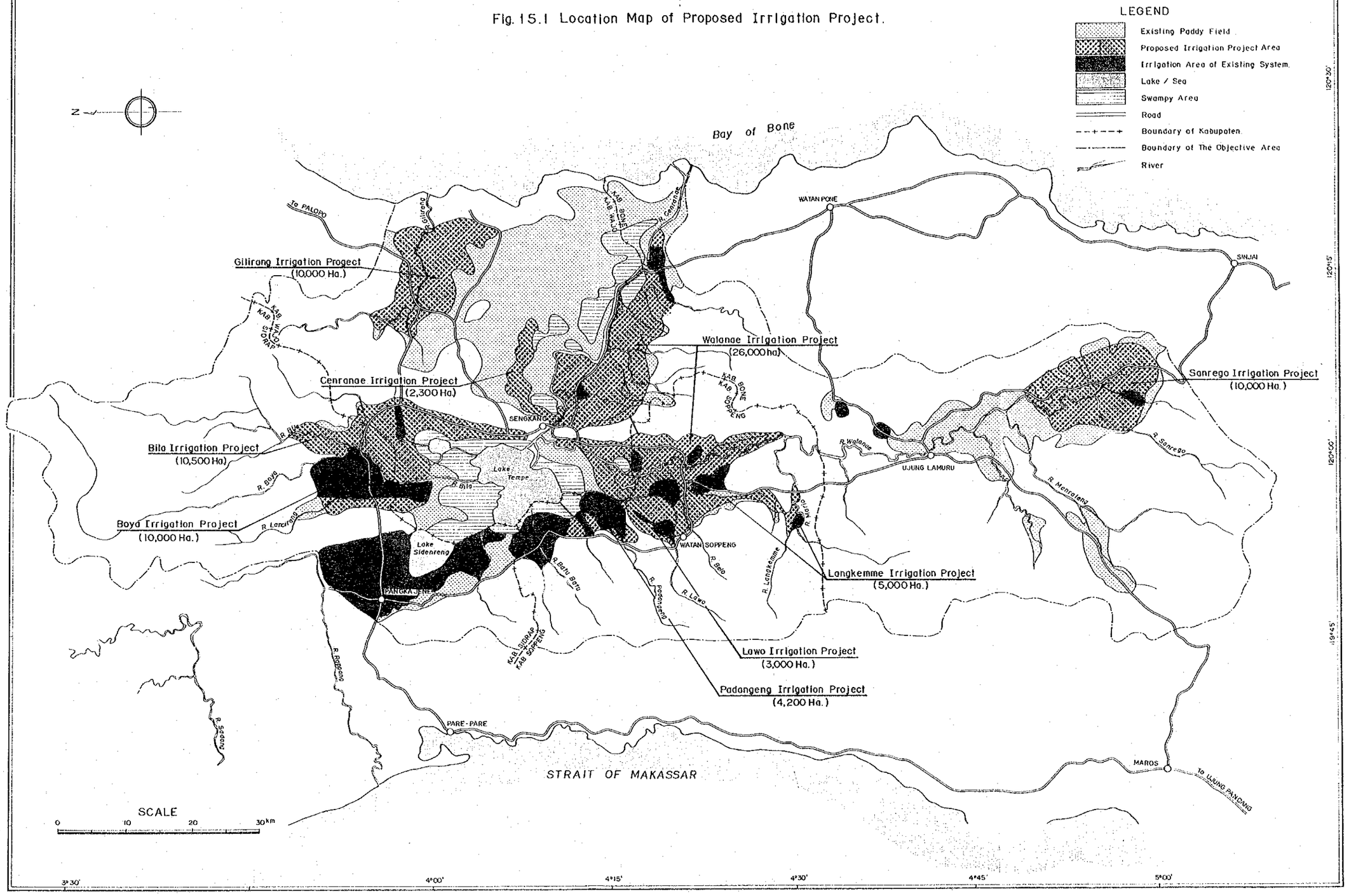


Fig. 15.2 Crop Coefficient Curve of Paddy

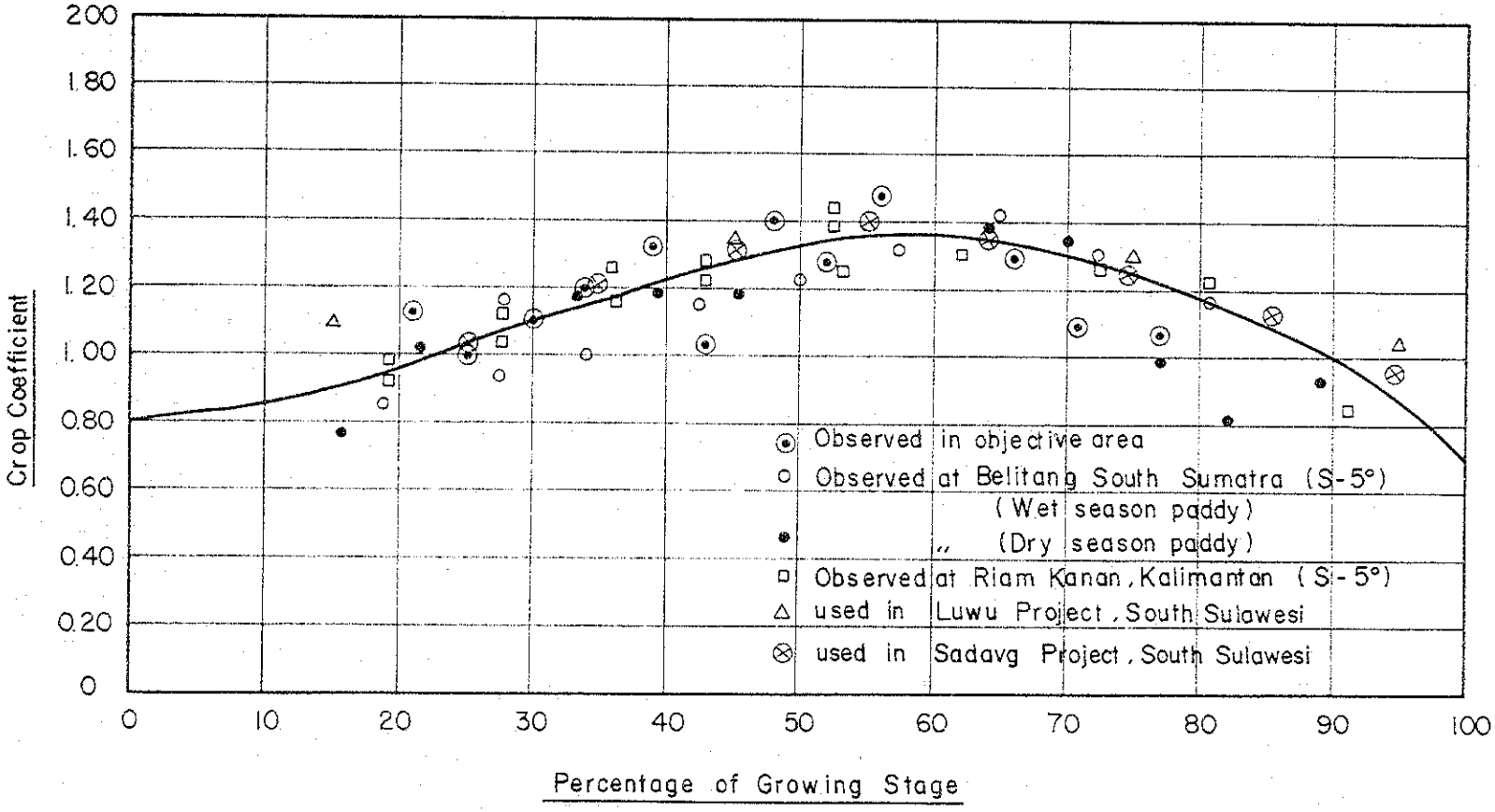
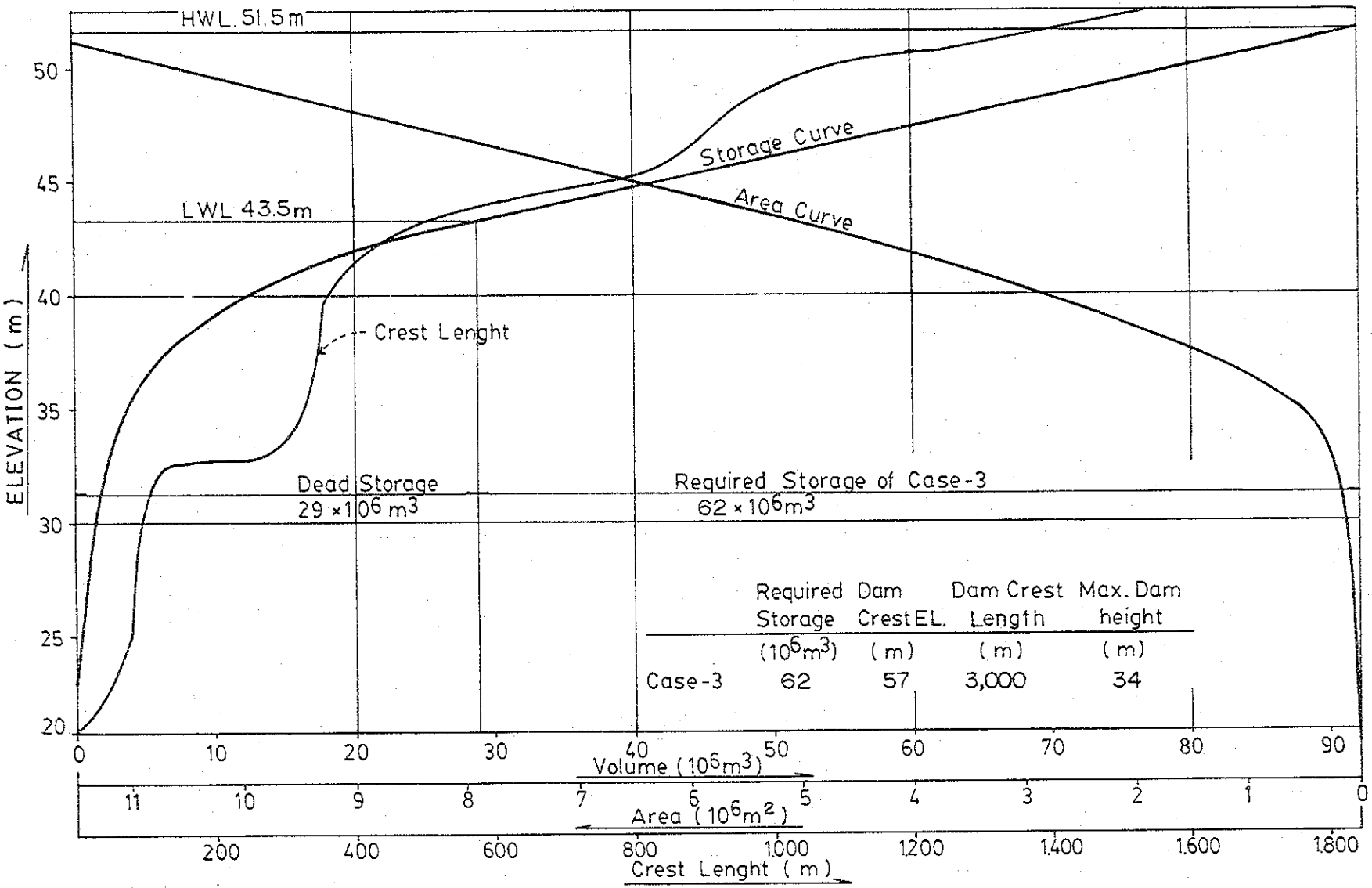


Fig. 15.3 Storage Capacity and Reservoir Area of the Alternative Bila Reservoir at Downstream Site (Case-3)

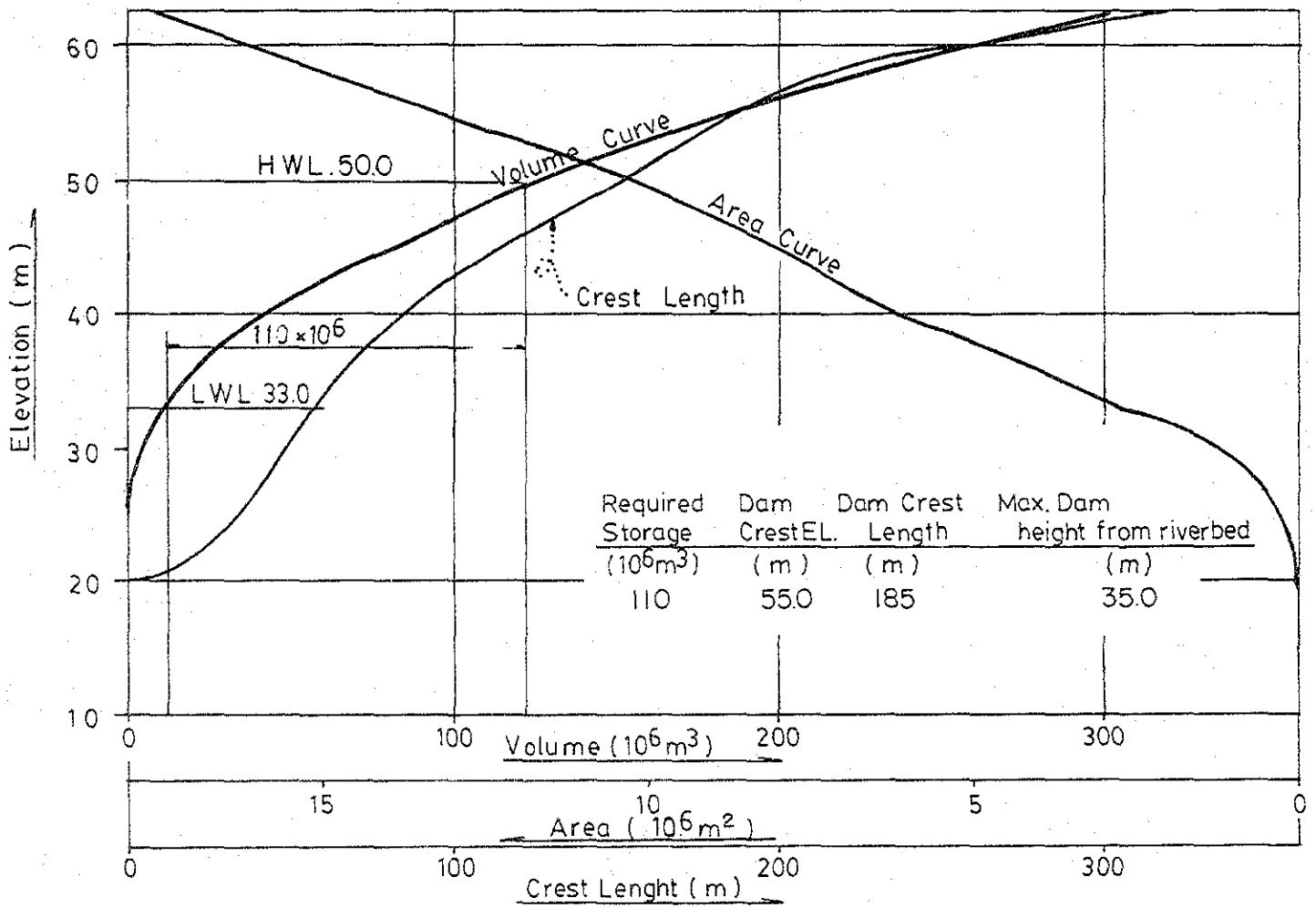
(C.A. : 376 Km^2)



	Required Storage ($10^6 m^3$)	Dam Crest EL. (m)	Dam Crest Length (m)	Max. Dam height (m)
Case-3	62	57	3,000	34

Fig. 15.4 Storage Capacity and Reservoir Area of Gilirang Dam

(C.A. : 157 Km^2)



Required Storage ($10^6 m^3$)	Dam Crest EL. (m)	Dam Crest Length (m)	Max. Dam height from riverbed (m)
110	55.0	185	35.0

Fig.15.5 Storage Capacity and Reservoir Area of Proposed Padangeng Reservoir

(C.A. : 107Km^2)

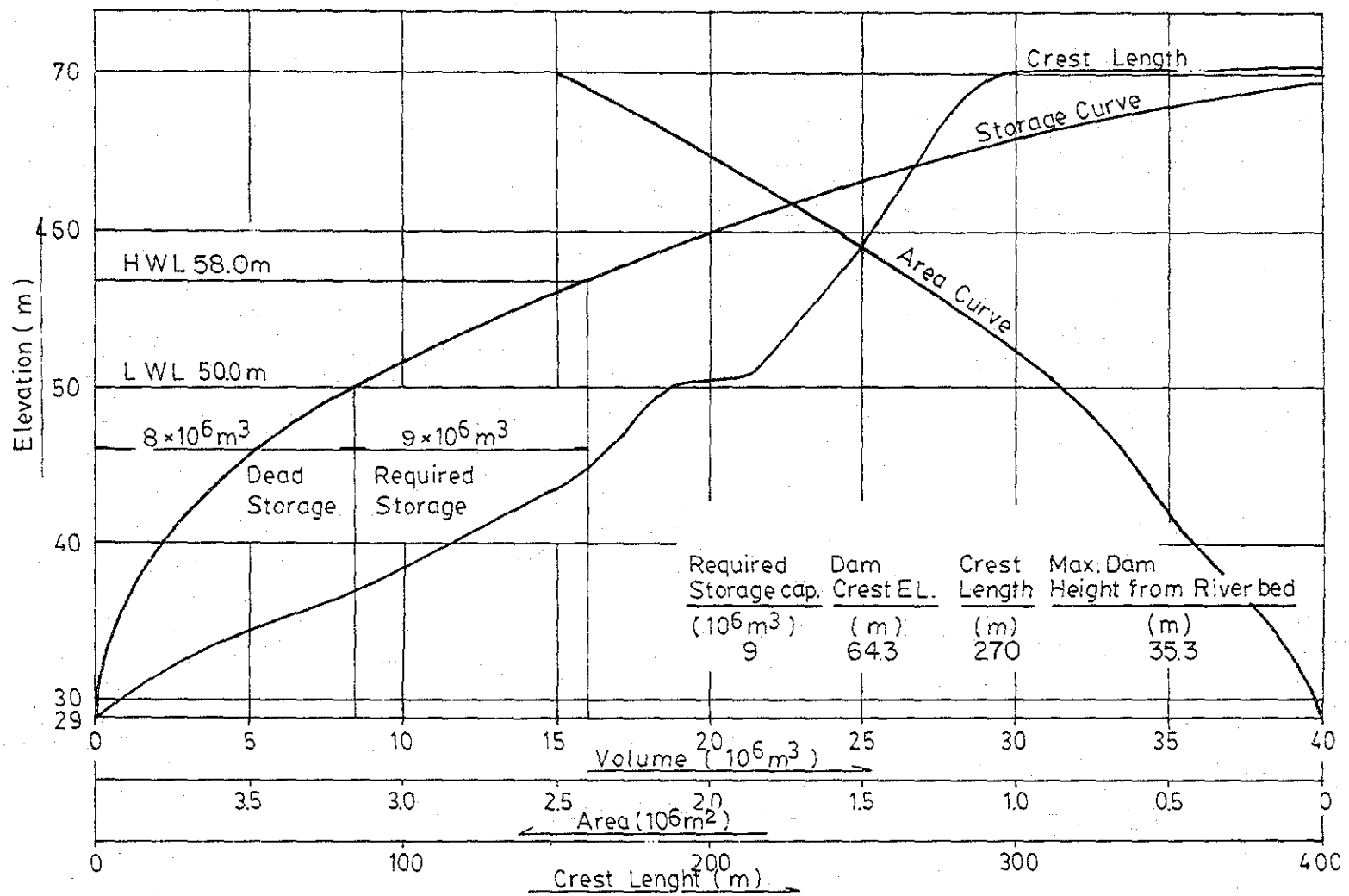
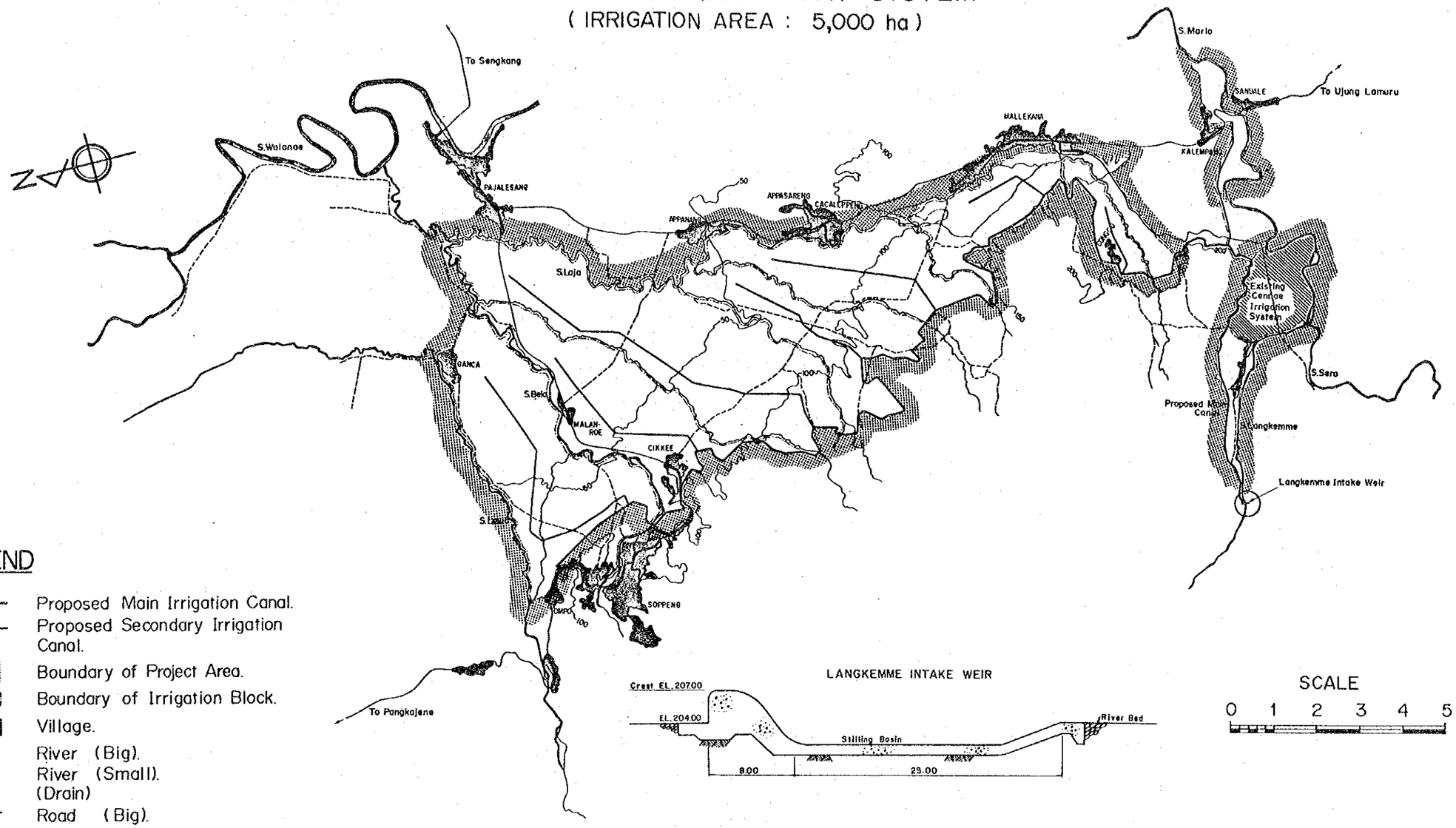


Fig.15.6 LANGKEMME IRRIGATION PROJECT

PROPOSED IRRIGATION SYSTEM

(IRRIGATION AREA : 5,000 ha)



LEGEND

- Proposed Main Irrigation Canal.
- Proposed Secondary Irrigation Canal.
- Boundary of Project Area.
- Boundary of Irrigation Block.
- Village.
- River (Big).
- River (Small).
- (Drain)
- Road (Big).
- Road (Small).
- Contour line
- Existing Irrigation System.

LANGKEMME INTAKE WEIR

SCALE

0 1 2 3 4 5 Km.

LANGKEMME INTAKE WEIR

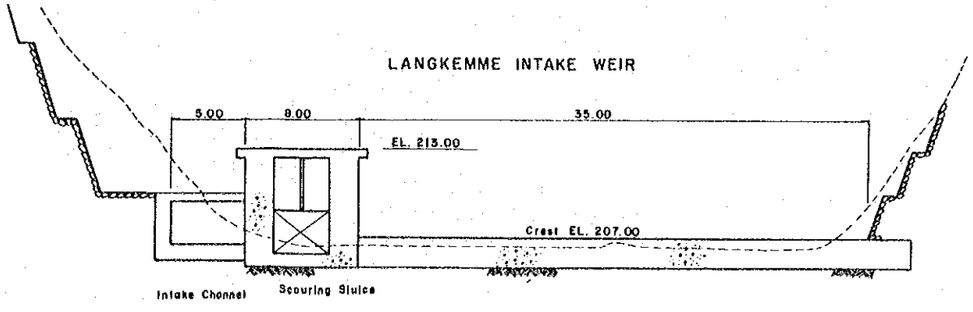
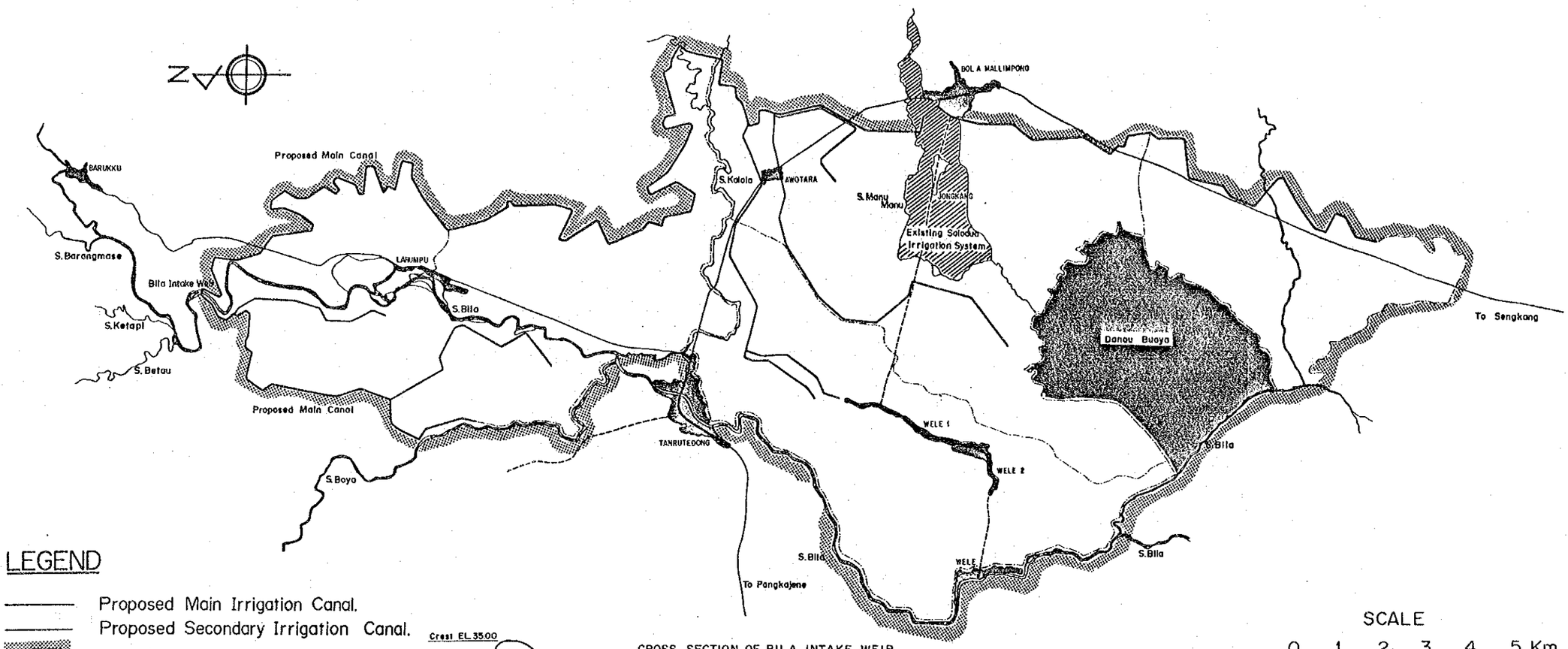


Fig.15.7 BILA IRRIGATION PROJECT

PROPOSED IRRIGATION SYSTEM

(IRRIGATION AREA : 10,500 ha)



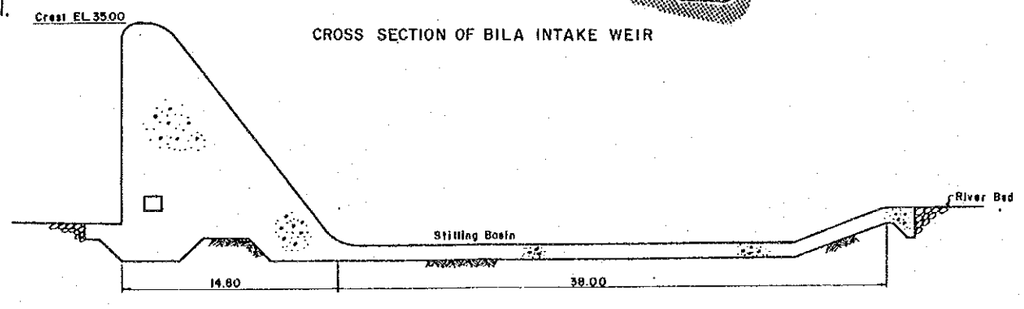
LEGEND

- Proposed Main Irrigation Canal.
- Proposed Secondary Irrigation Canal.
- Boundary of Project Area
- Boundary of Irrigation Block.
- Village
- River (Big).
- River (Small).
- (Drain)
- Road (Big).
- Road (Small)
- Contour line

SCALE

0 1 2 3 4 5 Km.

CROSS SECTION OF BILA INTAKE WEIR



BILA INTAKE WEIR

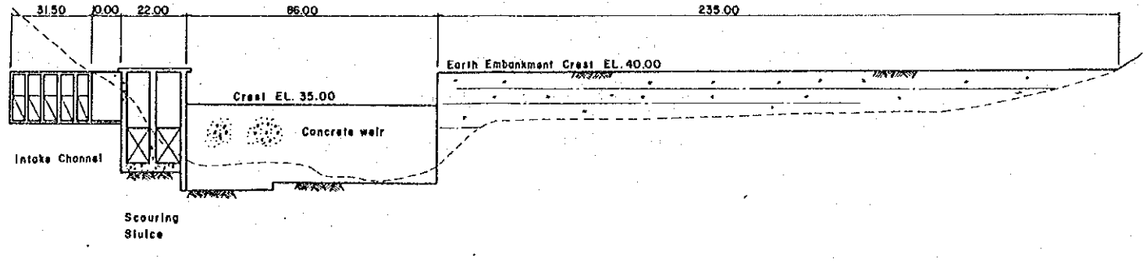
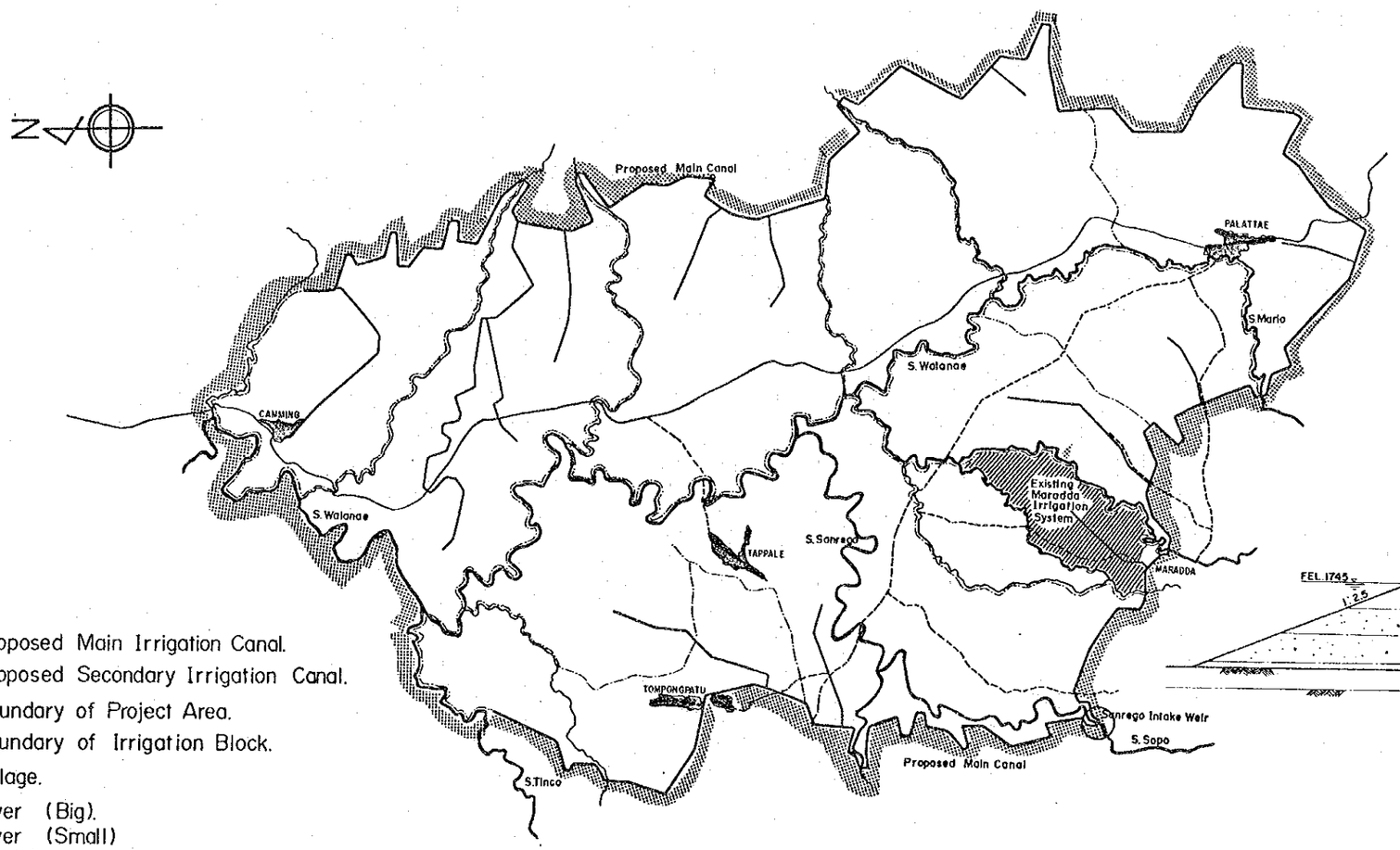


Fig.15.8 SANREGO IRRIGATION PROJECT

PROPOSED IRRIGATION SYSTEM

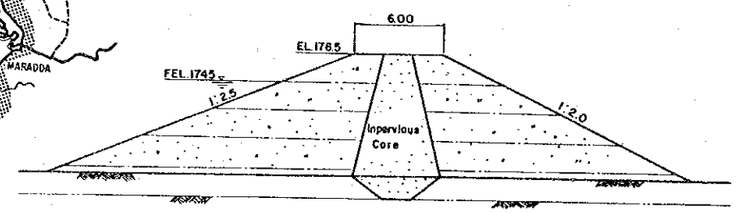
(IRRIGATION AREA : 10,000 ha)



LEGEND

- Proposed Main Irrigation Canal.
- Proposed Secondary Irrigation Canal.
- Boundary of Project Area.
- Boundary of Irrigation Block.
- Village.
- River (Big).
- River (Small) (Drain).
- Road (Big).
- Road (Small).
- Contour line
- Existing Irrigation System

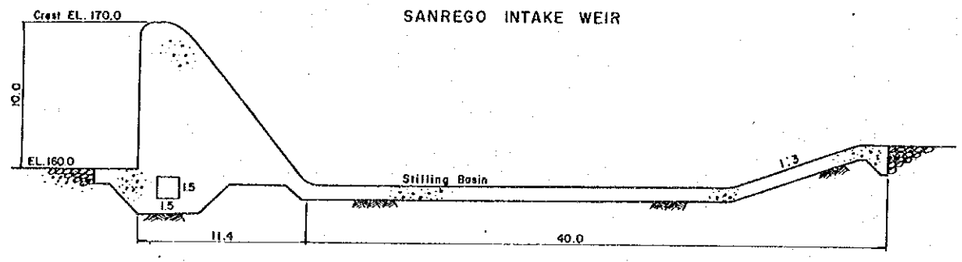
EARTH EMBANKMENT



SCALE

0 1 2 3 4 5 Km.

SANREGO INTAKE WEIR



SANREGO INTAKE WEIR

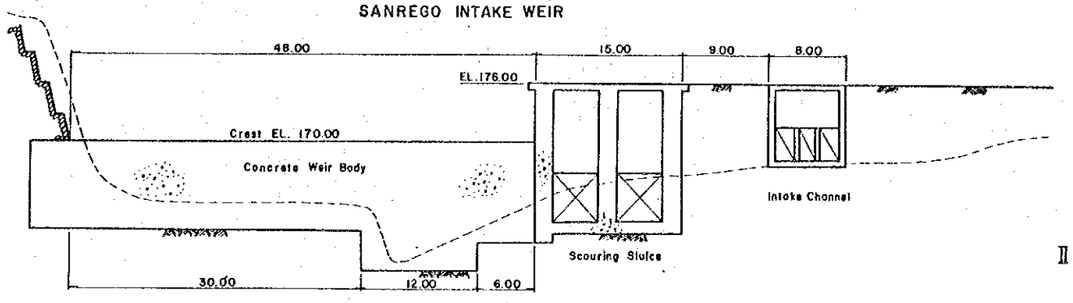
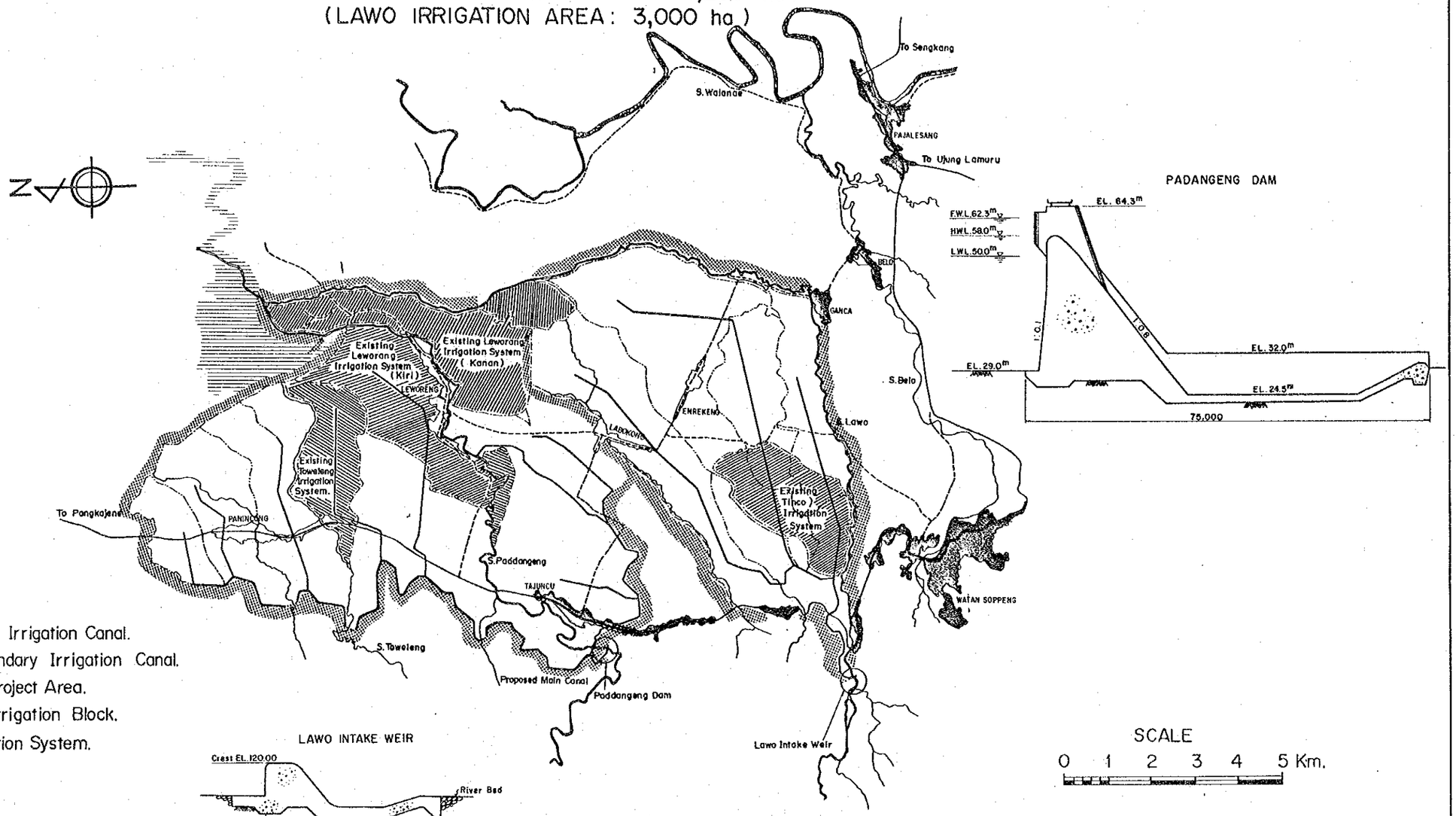


Fig.15.9 PADANGENG AND LAWO IRRIGATION PROJECTS

PROPOSED IRRIGATION SYSTEM

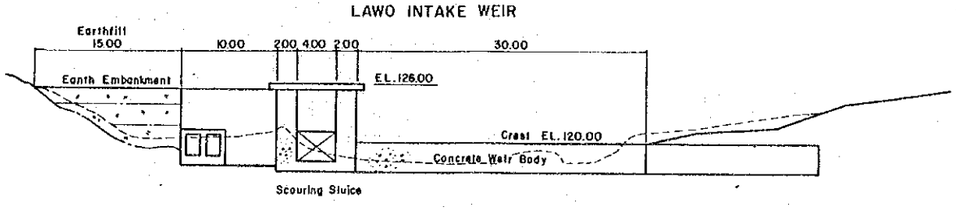
(PADANGENG IRRIGATION AREA : 4,200 ha)
(LAWO IRRIGATION AREA : 3,000 ha)



PADANGENG DAM

LAWO INTAKE WEIR

LAWO INTAKE WEIR



LEGEND

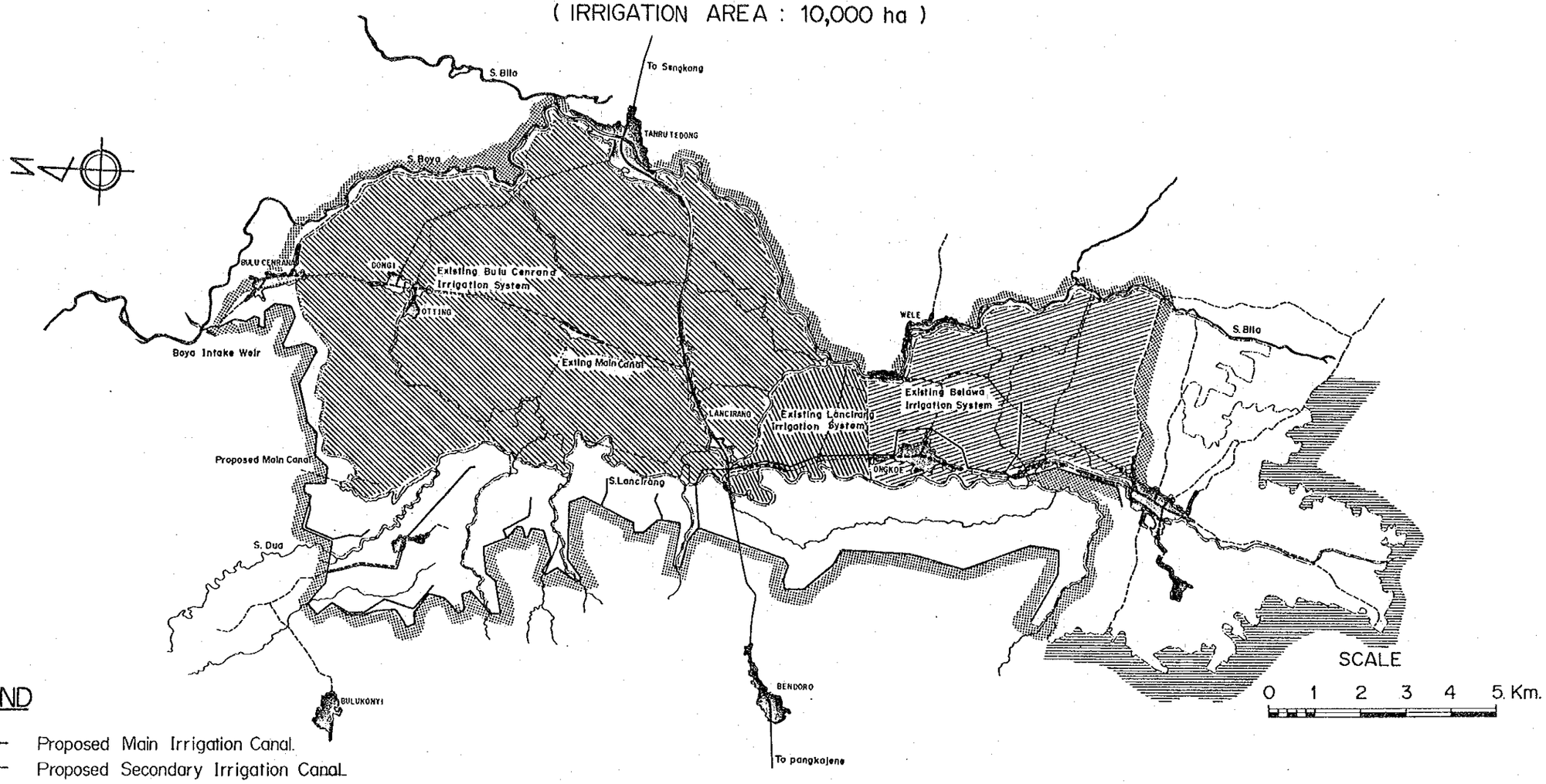
- Proposed Main Irrigation Canal.
- Proposed Secondary Irrigation Canal.
- Boundary of Project Area.
- Boundary of Irrigation Block.
- Existing Irrigation System.
- Village.
- River (Big).
- River (Small). (Drain).
- Road (Big).
- Road (Small).

SCALE
0 1 2 3 4 5 Km.

Fig.15.10 BOYA IRRIGATION PROJECT

PROPOSED IRRIGATION SYSTEM

(IRRIGATION AREA : 10,000 ha)



LEGEND

- Proposed Main Irrigation Canal.
- Proposed Secondary Irrigation Canal.
- Boundary of Project Area.
- Boundary of Irrigation Block.
- Existing Irrigation System.
- Village
- River (Big).
- River (Small).
- (Drain).
- Road (Big).
- Road (Small).

BOYA INTAKE WEIR

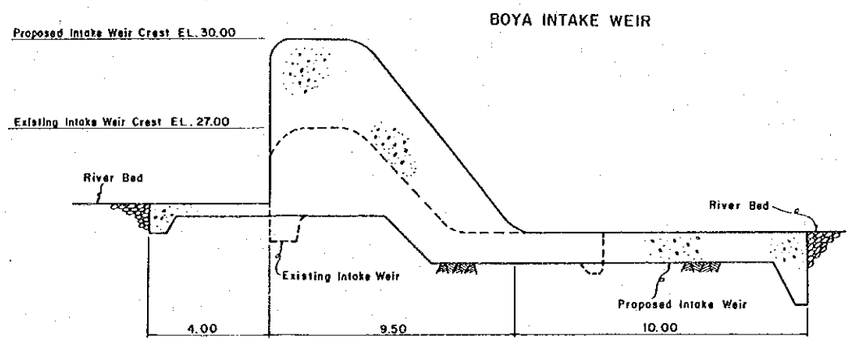
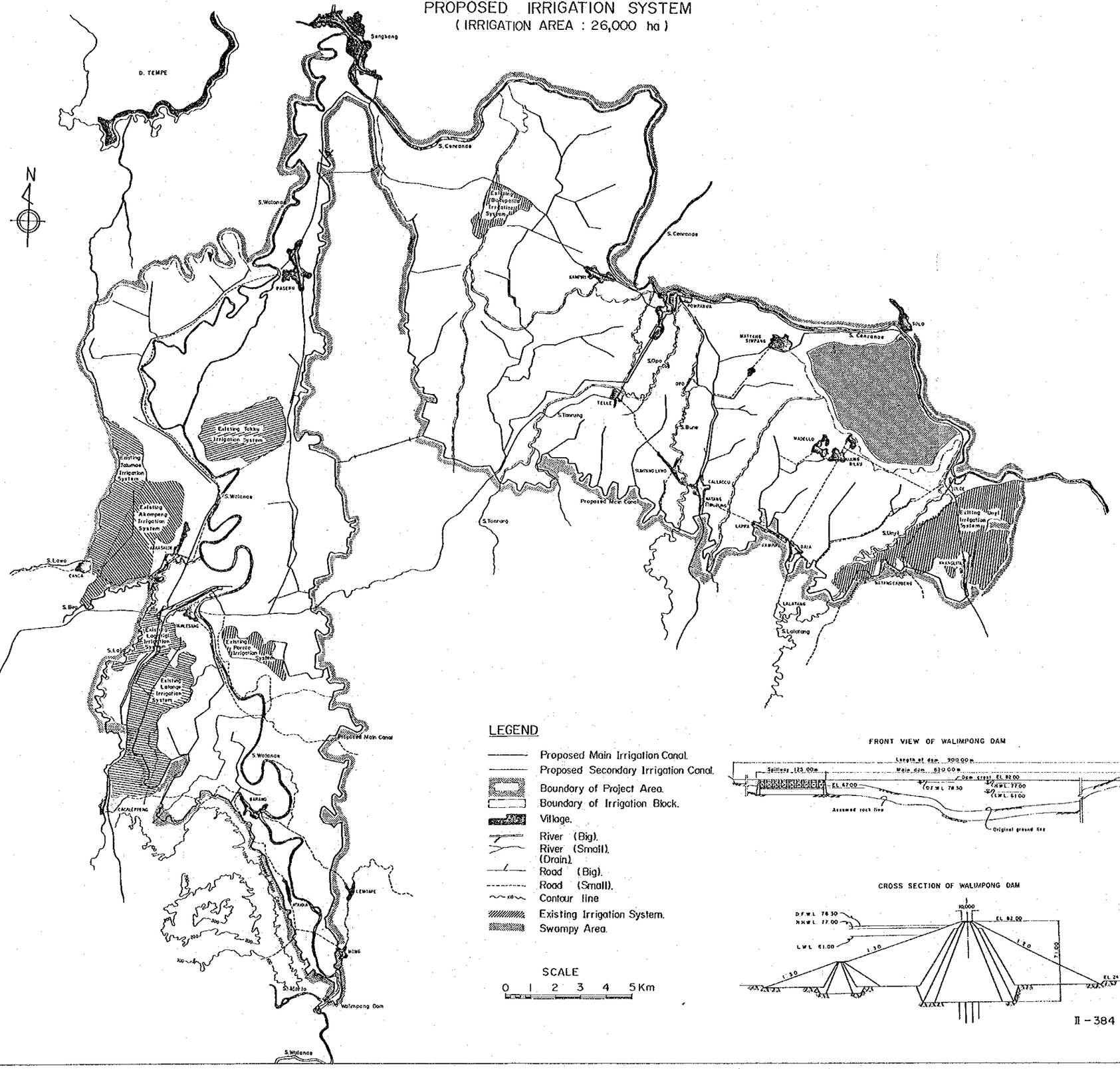


Fig.15.11 WALANAE IRRIGATION PROJECT

PROPOSED IRRIGATION SYSTEM

(IRRIGATION AREA : 26,000 ha)



LEGEND

- Proposed Main Irrigation Canal.
- Proposed Secondary Irrigation Canal.
- Boundary of Project Area.
- Boundary of Irrigation Block.
- Village.
- River (Big).
- River (Small).
- (Drain).
- Road (Big).
- Road (Small).
- Contour line
- Existing Irrigation System.
- Swampy Area.

SCALE

0 1 2 3 4 5 Km

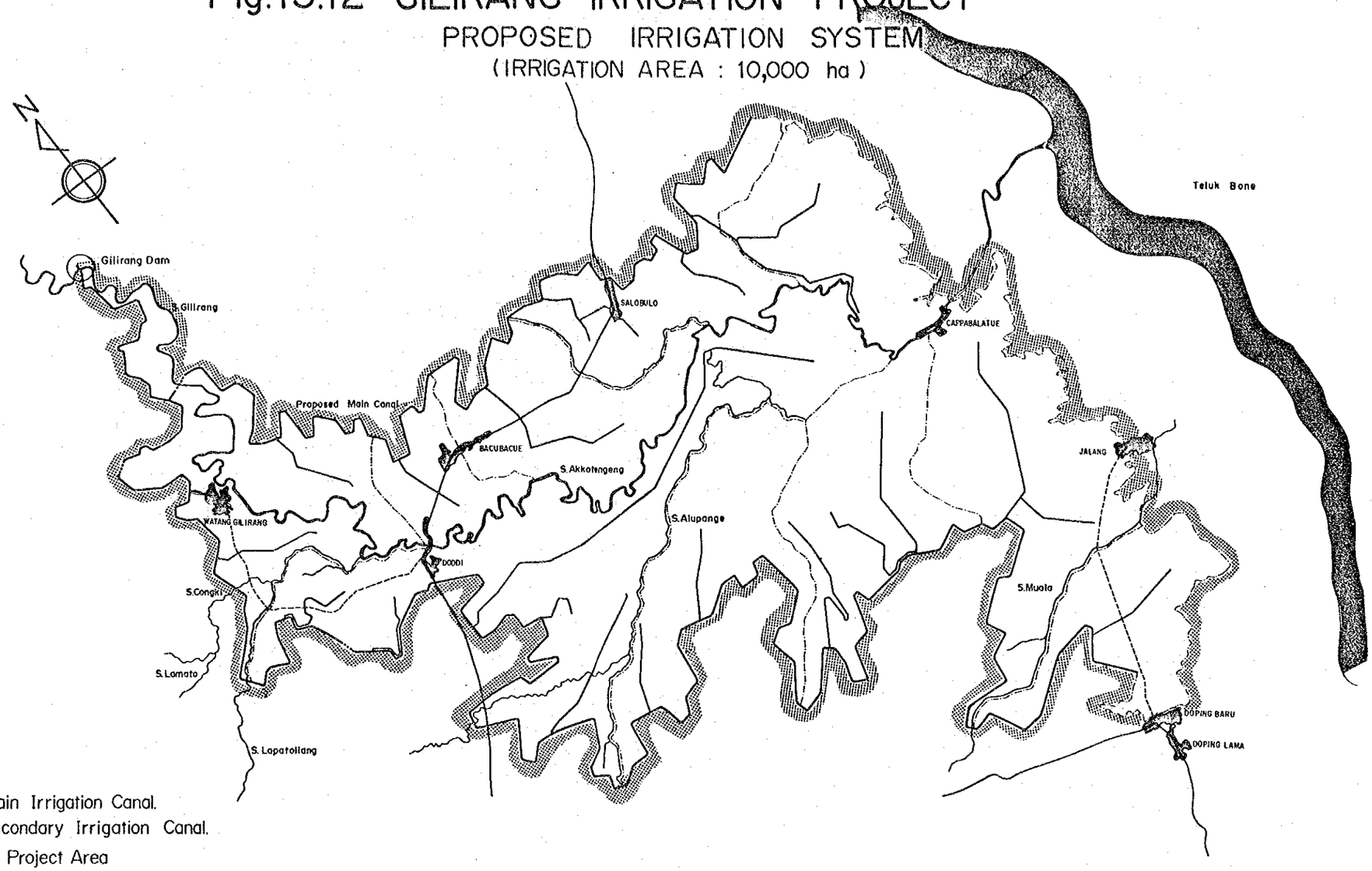
FRONT VIEW OF WALIMPONG DAM

CROSS SECTION OF WALIMPONG DAM

Fig.15.12 GILIRANG IRRIGATION PROJECT

PROPOSED IRRIGATION SYSTEM

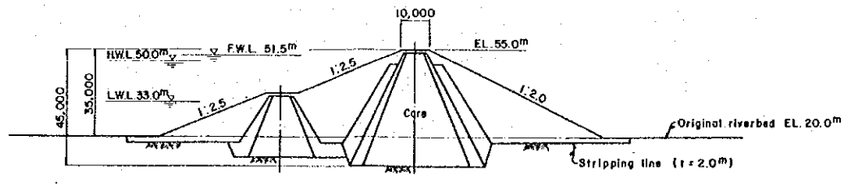
(IRRIGATION AREA : 10,000 ha)



LEGEND

- Proposed Main Irrigation Canal.
- Proposed Secondary Irrigation Canal.
- Boundary of Project Area
- Boundary of Irrigation Block.
- Village.
- River (Big).
- River (Small).
- (Drain).
- Road (Big).
- Road (Small).

GILIRANG DAM



SCALE

0 1 2 3 4 5 Km.

Fig.15.13 CENRANAE IRRIGATION PROJECT

PROPOSED IRRIGATION SYSTEM

(IRRIGATION AREA : 2,300 ha)

LEGEND

- Proposed Main Irrigation Canal.
- Proposed Secondary Irrigation Canal
- Boundary of Project Area.
- Boundary of Irrigation Block.
- Village.
- River (Big).
- River (Small). (Drain).
- Road (Big).
- Road (Small).
- Contour line.
- Swampy Area.

SCALE

0 1 2 3 4 5 Km.

Fig. 16.1 Monthly Average Market Price of Rice at Six Locations from 1970 to 1978