

PARE-PARE UJUNG PANDANG
LEGEND
Capital Town of District
Sub-District Town
––– District Boundary
Sub-District Boundary
Provincial Road
—— District Road
River
Irrigation Scheme
Technical Irrigation
Semi-Technical Irrigation
Non-Technical Irrigation
Irrigation Scheme
Name of Scheme Registered Subject Area (Ha) Area (Ha)
27. Padang Sappa12,588T10,88928. Bajo7,000ST6,462
29. Pagang Alipan 1,200 T 795
30. Makawa 1,775 NT 1,000 31. Lamasi Kanan 5,485 T 5,170
T : Technical Irrigation ST : Semi-Technical Irrigation NT : Non-Technical Irrigation

Location Map of Irrigation Schemes in Luwu District

South Sulawesi Province 27. Padang Sappa Scheme (1/4)

				I. PROJE	CT FUNDA	AMENTAL	S	_		
 (1) (2) (3) (4) (5) 	General Code Number Name of Irrigation Scheme District (Kabupaten) Sub-district (Kecamatan) Registered Area (ha) Technical Level		: 73170162 : Padang Sa : Luwu : Bupon : 12,588 : Technical	рра	(7) (8) (9) (10)	Number of F Water Resou Catchment A Completion	irce River	: 5,500 : Noling : 783 ar : 1985		
.2	Availability of Reports/Docu a. Design Reports of Exist			hI	(A : Availat		lable but partially, C : c. As-built drawings		/ No plan) cture lists & o	ligaram
	e. Rehabilitation plan	n & its referen			A ops and yield A	-	B g. Cropping Calender A		A h. WUAs dat 33	Ŭ
			II. SUBJ	ECT AREA	FOR REH	IABILITAT	TION PLAN	·		
i .1	Present and Planned Land U Category	Jse	Prese	nt (ha)	Plan	(ha)	Increment (ha)			
	a. Irrigated paddy field b. Rainfed paddy field c. Upland Field d. Uncultivated Land e. Non-irrigable			4,881 2,000 4,008 0 0		9,687 0 0 0 1,202	4,800 -2,000 -4,008) 3)		
	Total			10,889		10,889	()		
				III.	AGRICUL	TURE				
	Present/Before Project Cond Irrigation Performance and Cr		1							
	Season Season I (wet)	Cropp Paddy (ha) 4,711	ed Area in Ir Palawija	Tigated Paddy Others (ha)	Total (ha) 4,711	Annual Intensity 97%	Irrigated Paddy Yield (GKG ton/ha) 4.0	Crop Paddy 23,844	Production (1 Palawija 10,020	Others
	Season II (dry I) Season III (dry II)	3,816			0 3,816	78%	4.5	17,172	1,000	
	Total/Annual	8,527	0	0	8,527	175%	4.2 1/: Irrigate	41,016 d & rainfed pag		
,	A. Irrigation & Agriculture Po - High irrigation performance: - Double cropping of paddy pu B. Primary Constraint Identifi - Irrigation & Drainage: - Agronomic Issues: - Paddy Markating	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus	ost of the irrig the Inventory S age at on-farm sed by rat	gated areas; p Survey by the n level in dry	addy yield le JICA Study	vels low to m - Palawija M - Farmers Or	oderate; extensive rainfe arketing: - ganizations: No collabo	ed paddy & upl	ΧТs	d
(I.2 (1)	 High irrigation performance: Double cropping of paddy pp <i>Primary Constraint Identifi</i> Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t Expansion of double cropped 	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg hrough rehabi d area of padd	ost of the irrig e Inventory S age at on-farm sed by rat gaining powe ilitation & up ly; productivi	gated areas; p Survey by the n level in dry r of farmers ograding ity increase o	addy yield le <i>JICA Study</i> season f paddy throu	vels low to m - Palawija M - Farmers Or - Extension S agh further int	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio	ed paddy & upl oration among I activities of PP n of palawija in	KTs PLs are limite n dry season	II
I.2 1)	 High irrigation performance: Double cropping of paddy pp <i>Primary Constraint Identifi</i> Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t 	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg through rehabi d area of padd cetivities tailor ces and Crop F	but of the irrig the Inventory S ge at on-farm sed by rat taining powe illitation & up ty; productivity red to area sp Production	gated areas; p Survey by the n level in dry r of farmers ograding tty increase o eecific needs;	addy yield le JICA Study season f paddy throu empowermen	vels low to m - Palawija M - Farmers Or - Extension S gh further int nt of farmer g	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio roups (KTs) to establish	ed paddy & upl oration among I activities of PP n of palawija in agri-business o	KTs Ls are limite n dry season oriented KTs	II
I.2 1)	 High irrigation performance: Double cropping of paddy pp <i>B. Primary Constraint Identifi</i> Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t Expansion of double cropped Strengthening of extension a 	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg hrough rehabi d area of padd cetivities tailor ces and Crop F Cropp Paddy (ha)	but of the irrig the Inventory S ge at on-farm sed by rat taining powe illitation & up ty; productivity red to area sp Production	gated areas; p Survey by the n level in dry r of farmers ograding ity increase o	addy yield le <i>JICA Study</i> season f paddy throu empowermen y Field Total (ha)	vels low to m - Palawija M - Farmers Or - Extension S ogh further int at of farmer g Annual Intensity	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio roups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha)	ed paddy & upl activities of PP n of palawija in agri-business of Crop Paddy	KTs PLs are limite n dry season	II (ton)
I.2 1)	 High irrigation performance: Double cropping of paddy pp <i>Primary Constraint Identifi</i> Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t Expansion of double cropped Strengthening of extension a Planned Irrigation Performance Season Season I (wet) 	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg hrough rehabi d area of padd cctivities tailor ces and Crop F	but of the irrig the Inventory S ge at on-farm sed by rat aning powe ilitation & up ty; productivi- red to area sp Production red Area in Ir	gated areas; p Survey by the n level in dry r of farmers ograding ity increase o eccific needs; rigated Padd	addy yield le <i>JICA Study</i> season f paddy throu empowermen y Field Total (ha) 9,687	vels low to m - Palawija M - Farmers Ot - Extension S ogh further int at of farmer g Annual Intensity 100%	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio roups (KTs) to establish Irrigated Paddy Yield	ed paddy & upl activities of PP n of palawija in agri-business of Crop	KTs Ls are limite a dry season priented KTs p Production	II (ton)
I.2 1)	 High irrigation performance: Double cropping of paddy pp <i>Primary Constraint Identifi</i> Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t Expansion of double cropped Strengthening of extension a Planned Irrigation Performance Season Season I (wet) Season II (dry I) Season III (dry II) 	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg hrough rehabi d area of padd cetivities tailor ces and Crop F Cropp Paddy (ha) 9,687 4,844	bit of the irrig the Inventory S igge at on-farm sed by rat gaining powe illitation & up (y; productivit red to area sp Production red Area in Ir Palawija 969	gated areas; p Survey by the n level in dry r of farmers ograding ity increase o eccific needs; Trigated Paddy Others (ha)	addy yield le JICA Study season f paddy throu empowermen y Field Total (ha) 9,687 0 5,813	vels low to m - Palawija M - Farmers Or - Extension S agh further int at of farmer g Annual Intensity 100% 0% 60%	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio roups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.5	ed paddy & upl aration among I activities of PP n of palawija in agri-business o Paddy 48,435 26,642	KTs Ls are limite n dry season priented KTs Production Palawija 4,845	II (ton) Others
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1.2 1) 2)	 High irrigation performance: Double cropping of paddy pp <i>Primary Constraint Identifi</i> Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t Expansion of double cropped Strengthening of extension a Planned Irrigation Performance Season Season I (wet) Season III (dry I) Total/Annual Annual Increment 	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg hrough rehabi d area of padd tctivities tailor zes and Crop F Cropp Paddy (ha) 9,687 4,844 14,531 6,004	ost of the irrig e Inventory S ige at on-farm sed by rat gaining powe ilitation & up (y; productive red to area sp Production red Area in Ir Palawija 969 969	gated areas; p Survey by the n level in dry r of farmers ograding ity increase o eccific needs; Others (ha) 0 0 0 0	addy yield le <i>JICA Study</i> season f paddy throu empowermen y Field Total (ha) 9,687 0 5,813 15,500 6,973 IV. WUA 56	vels low to m - Palawija M - Farmers Or - Extension S agh further int at of farmer g Annual Intensity 100% 0% 60% -15%	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio roups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.5 5.2	n of palawija in agri-business of Paddy 48,435 26,642 75,077	KTs Ls are limite n dry season priented KTs Production Palawija 4,845 4,845 -6,175	II Others
1.2 1) 2)	High irrigation performance: Double cropping of paddy pp B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t Expansion of double cropped Strengthening of extension a Planned Irrigation Performance Season Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment Existing Condition Number a. Target;	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg hrough rehabi d area of padd activities tailor eses and Crop F Paddy (ha) 9,687 4,844 14,531 6,004 60 9	b. Established	gated areas; p Survey by the n level in dry r of farmers ograding ity increase o vecific needs; Trigated Paddy Others (ha) 0 0 0 0	addy yield le <i>JICA Study</i> season f paddy throu empowermen y Field Total (ha) 9,687 0 5,813 15,500 6,973 IV. WUA 56	vels low to m - Palawija M - Farmers Or - Extension S agh further int at of farmer g Annual Intensity 100% 60% 60% 60% 160% -15% s c. Not yet; c. Not yet;	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio roups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.5 5.2 1.0	ed paddy & upl activities of PP n of palawija in agri-business of Paddy 48,435 26,642 75,077 34,061	KTs Ls are limite n dry season priented KTs Production Palawija 4,845 4,845 -6,175	II Others
(1) (2) (2) (3)	High irrigation performance: Double cropping of paddy pp B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t Expansion of double croppee Strengthening of extension a Planned Irrigation Performance Season Season I (wet) Season II (dry I) Season II (dry I) Season II (dry I) Total/Annual Annual Increment Number a. Target; Performance a. Developed; Problems and Constraints	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg hrough rehabi d area of padd tctivities tailor ces and Crop F Paddy (ha) 9,687 9 4,844 14,531 6,004	bst of the irrig <i>e Inventory</i> S igge at on-farm sed by rat gaining powe ilitation & up ly; productivit red to area sp Production wed Area in Ir Palawija 969 969 969 969 969 969 969 96	gated areas; p Survey by the n level in dry r of farmers ograding ity increase o vecific needs; Trigated Paddy Others (ha) 0 0 0 0	addy yield le <i>JICA Study</i> season f paddy throu empowermer y Field Total (ha) 9,687 0 0 5,813 15,500 6,973 IV. WUA 566 31	vels low to m - Palawija M - Farmers Or - Extension S agh further int at of farmer g Annual Intensity 100% 60% 60% 60% 160% -15% s c. Not yet; c. Not yet;	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio roups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.5 5.2 1.0	ed paddy & upl activities of PP n of palawija in agri-business of Paddy 48,435 26,642 75,077 34,061	KTs Ls are limite n dry season priented KTs Production Palawija 4,845 4,845 -6,175	II (ton) Others
(1) (2) (2) (3) (3) (3)	High irrigation performance: Double cropping of paddy pp B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area t Expansion of double cropped Strengthening of extension a Planned Irrigation Performance Season Season I (wet) Season II (dry I) Season III (dry I) Season III (dry II) Total/Annual Annual Increment Problems and Constraints Operation Causes of Problems and Constraints	s attained in ir racticed in mo <i>ied through th</i> Water shorta Damage caus Limited barg hrough rehabi d area of padd uctivities tailor ess and Crop F Paddy (ha) 9,687 4,844 14,531 6,004 60 9 9 traints blishment amo	bs tof the irrig e Inventory S ige at on-farm sed by rat saining powe ilitation & up by productive red to area sp Production red Area in Ir Palawija 969 969 969 969 969 969	gated areas; p Survey by the n level in dry r of farmers pgrading ity increase o ecific needs; rrigated Paddd Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	addy yield le <i>JICA Study</i> season f paddy throu empowermen y Field Total (ha) 9,687 0 0 5,813 15,500 6,973 IV. WUA 56 31 Managemen	vels low to m - Palawija M - Farmers Or - Extension S igh further int at of farmer g Annual Intensity 100% 60% 160% -15% s c. Not yet; c. Not yet; t	oderate; extensive rainfe arketing: - ganizations: No collabo Services: Extension ensification; introductio roups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.5 5.2 1.0	ed paddy & upl activities of PP n of palawija in agri-business of Paddy 48,435 26,642 75,077 34,061	KTs Ls are limite n dry season priented KTs Production Palawija 4,845 4,845 -6,175	II Others

					V. IRF	RIGATION	FACILITY	Y			
	Existing Co										
(1)	-	ation System			-			-		condition for op	
		urces Facility	: B	Main Ca	nal System :	D		Secondary Ca	anal System	: D	On-farm : C
(2)	Water Resou	urces Facilty									
	. Type of faci		: Headworks		e. Scouring s	sluice gate	: 5 nos.		i. Condition	: B	
	. Type of wei		: Fixed weir		f. Intake gate		: 3 nos.				tially deteriorated, C: Not
с.	Length of w	eir	: 106 m		g. Settling ba		: provided		functioning w	vell, D: Serious	condition for operation)
d.	Design intak	ke discharge	: 15.1 m3/s		h. Inspection	n bridge	: not provide	ed	(no info.: no	information)	
(3)	Irrigation Ca	anal and Inspe	ection Road								
	Canal	Lined (m)	Unlined (m)	Total (m)	Structu	re (nos)	Inspection	n road (m)	Con	dition	(A: Functioning well,
	Main	3,867	6,297	10,164		29		1,676]	D	B: Partially deteriorated,
	Secondary	5,156	42,804	47,960		134		4,776]		C: Not functioning well,
											D: Serious condition for
(4)	Major Probl	ems and Cons	strains								operation)
-	Water Resou	urces Facility									
	Inflow	of bed loads i	nto canal and	decrease car	nal flow capa	city					
						-					
-	· Irrigation Ca	anal and Rela	ted Structure								
		ntation or obs		ater flow							
	Impass	able of inspec	tion road alou	ng canal							
		Ity on mainter									
(5)	Causes of M	lajor Problem	s and Constra	ints							
	· Water Resou										
		cient function	of settling ba	sin, no prope	er gate operat	ion of intake	during flood				
				, pp.	- 8 •P						
_	Irrigation Ca	anal and Rela	ted Structure								
	-	cient function		sin(sediment	ts) improper	management	of canal (sed	liments wate	r plant)		
		er routine O8	-			-			· ·	al	
		down and coll					-				
V.2	Developmen	nt Plan									
	-	ountermeasure	es for Major F	roblems							
	· Water Resou		25 Ioi Majoi I	robienis							
		litation of set	ling hasin pr	oner gate on	eration of int	ake during flo	bod				
	Rendon	intation of sea	ining ousin, pr	oper gate op	cration of ma	ake during in	Jou				
_	Irrigation Ca	anal and Rela	ted Structure								
		al of sedimen		ion material	s from canal	grass cutting					
		on of inspecti		0	,						
		on of concrete			conduity canal	with pavenix	lit				
	1 10 131	on or concrea	e ming								
(2)	Water Resou	urces Facility									
()	Dam/Headw	2	: minor rehat	oilitation	Intake, civil	: minor reha	bilitation	Intake	. mechanical	: minor rehat	oilitation
	Settling basi		: minor rehat						,		
(3)	0	anal and Rela	ted Structure								
(-)		orks	No rehat	oilitation	Rehabi	litation	New cor	nstruction	То	otal	
	G 1()	Main		0		8,843		0		8,843	
1	Canal (m)	Secondary		0		41,725		0		41,725	
	Structure	Main		0		25		3		28	
	(nos)	Secondary		0		117		23		140	
1	(-*)			9	1				1		
(4)	On-farm De	velopment						(Unit: ha)			
		Irrigated padd	ly field	4,881	d. Non-poter	ntial paddy fi	eld	2,000]		
1		non-irrigated			e. Non-poter			4,008	1		
		non-paddy fie			Total	ittiai non pae	ay nora	10,889	-		
1		Paraj ne		5	1			,007	L		
(5)	Rehabilitatio	on Cost (Dire	et Cost)			(Unit	: Million Rp.))			
(3)		Ì		On-Farm	Project		Cost	1			
	W.R.F	Irrigation	Drainage	Develop.	Facility	Total	per ha				
	3,805	96,274	9,627	35,672	3,600	148,978		(W.R.F. Wate	er Resources F	acility Develo	p.: Development)
1	5,005	70,274	2,027	55,012	5,000	110,770	15.7				r – –
					VI. PR	OJECT EV	ALUATIO	N			
VL1	EIRR	12.6%									
1			I								
VI.2	Prioritizatio	on Scoring									
	Evaluation I				Full Score	Score	Evaluation I	ndex		Full Score	Score Total Score
	Irrigation		f Irrigation Po	otential	10.0			Productivity		20.0	18.0 78.7
1	System	Urgency	3		25.0		Social Probl			15.0	13.5
	2,500	Sustainabilit	v		15.0		Economic Ir			15.0	10.5
1	L	minuoniti	,		15.0	0.5		r		10.0	
VL3	Priority Gr	oup	Group I: Firs	t priority gro	oup		VI.4	Priority Ra	nking in the	Province	2
		· ~ r	-T	1			, 1, 1				

Scheme	Padang Sappa	District	Luwu
Technical Level	Technical	Registered Area	12,588 ha Year of Construction 1985
			Category Irrigation (Headworks) Structure Fixed Weir, Intake Condition A B C D Problems Insufficient diversion water due to sedimentation in from of intake; leakage from gate leaf; insufficient strength against design load due to rust, decay of steel material; problem on management due to lack of periodically maintenance
			Category Irrigation Canal Structure Masonry Lined Canal Condition □ A B C Problems Sedimentation; leakage from lined canal; crack on lined canal; deflection of lining toward inside of canal; less maintenance; and no inspection road.
-	(d.		<u>Category</u> Irrigation (Main Canal)
			Structure Earth Canal Condition □ A □ B □ C ✓ D Problems Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal; no inspection road. To any of the second se

South Sulawesi Province 27. Padang Sappa Scheme (4/4)

Scheme	Padang Sappa	District	Luwu
Technical Level	Technical	Registered Area	12,588 ha Year of Construction 1985
			Category Irrigation (Secondary Canal) Structure Check Structure Condition □ A □ B □ C □ Problems D Problems Damage on structure; lower function of check structure due to deflection of structure; physical operation problem on structure; deterioration of gate; sedimentation at inside of canal.
			Category Agriculture, On-Farm Activity Paddy Cultivation Condition □ A □ A □ A □ A □ B ✓ Problems Low density of on-farm canals and farm roads.
			Category Agriculture, On-Farm Activity Harvesting and Treshering Condition □ A □ B ✓ C □ Problems Low density of on-farm canals and farm roads.

South Sulawesi Province 28. Bajo Scheme (1/4)

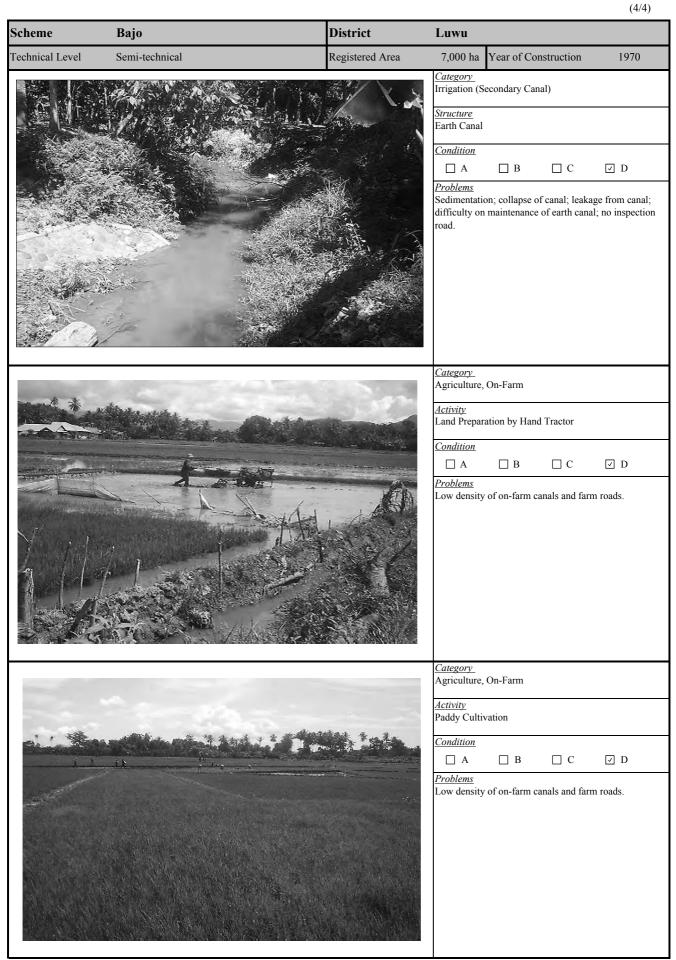
							0			
	<u> </u>			I. PROJE	CT FUNDA	AMENTAL	S			
	General									
· ·	Code Number		: 73170162		(7)	Number of F		5,035		
	Name of Irrigation Scheme		: Bajo		(8)	Water Resou	irce River	: Sungai Baj	0	
(3)	District (Kabupaten)		: Luwu		(9)	Catchment A	Area (km ²)	: 316		
(4)	Sub-district (Kecamatan)		: Bajo, Belo	pa	(10)	Completion	/ Last Rehabilitation Year	: 1970		
(5)	Registered Area (ha)		: 7,000							
(6)	Technical Level		: Semi Tech	nical						
, í										
I.2	Availability of Reports/Doc	cuments & Ret	ferences		(A : Availah	ole. B : Avai	lable but partially, C : N	Not available/	No plan)	
	a. Design Reports of Ex			b I	rrigation diag		c. As-built drawings		ture lists & o	liagram
	<u> </u>	A			A	5	В		A	
	e. Rehabilitation pl		ICES	f Cr	ops and yield	data	g. Cropping Calender	h	. WUAs dat	а
		C	ices	1. 01	A A	uata	A g. cropping calender		16	u
		c			A		Λ		10	
_			II SURI	FCT ADEA	FOD DEH	ARII ITAT	FION PLAN			
TT 1	Present and Planned Land	Use	11. SUDJ1	ECT AREA	I FOR REI					
11.1	Category	Use	Drasa	nt (ha)	Dlan	(ha)	Increment (ha)	1		
	a. Irrigated paddy field		riesei		r iali	· /	996	1		
				5,466		6,462		-		
	b. Rainfed paddy field			996		0	-996	-		
	c. Upland Field			0		0	0	-		
	d. Uncultivated Land			0		0	0	4		
	e. Non-irrigable			0		0	0	4		
	Total			6,462		6,462	0]		
				III.	AGRICUL	TURE				
	Present/Before Project Con									
(1)	Irrigation Performance and C									
	Cassar	Cropp	ed Area in Ir	rigated Padd	y Field	Annual	Irrigated Paddy Yield	Crop I	Production (t	on) 1/
l	Season	Paddy (ha)	Palawija	Others (ha)		Intensity	(GKG ton/ha)	Paddy	Palawija	Others
	Season I (wet)	5,466			5,466	100%	4.0	24,354		
	Season II (dry I)	.,			0			,		
	Season III (dry II)	4,202			4,202	77%	4.5	18,909	498	
	Total/Annual	9,668	0	0	<i>,</i>	177%	4.2	43,263	498	0
	i otali i initali	7,000	0	Ŭ	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1///0		& rainfed pad		-
(1)	- Paddy Marketing Development Plan Development Approaches - Expansion of irrigated area - Expansion of double cropp - Strengthening of extension Planned Irrigation Performan Season	ed area of padd activities tailon nees and Crop I Cropp Paddy (ha)	ilitation & up ly; productivi red to area sp	ty increase o ecific needs;	empowermen y Field Total (ha)	nt of farmer g Annual Intensity	tensification; introduction groups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha)	gri-business o Crop Paddy	dry season	II
	Season I (wet)	6,462			6,462	100%	5.0	32,310		
	Season II (dry I)				0	0%				
	Season III (dry II)	5,816	646		6,462	100%	5.5	31,988	3,230	
	Total/Annual	12,278	646	0	12,924	200%	5.2	64,298	3,230	0
	Annual Increment	2,610	646	0	3,256	23%	1.0	21,035	2,732	0
					IV. WUA	\$				
	Existing Condition									
(1)	Number a. Target;		b. Establishe			c. Not yet;	46	Registered		0
	Performance a. Developed	; 0	b. Under dev	eloping;	19	c. Not yet;	4	Not yet regist	tered	25
(2)	Problems and Constraints		Maintenance	e 7	Managemen	t				
IV.2	Causes of Problems and Com - No management system in - Less attention to O&M wor Development Plan Proposed Countermeasures - Encouragement of farmers	WUA. rks among WU		ration						
(2)	 Encouragement of farmers Development Plan WUA empowerment training 			auton.						

				V. IRF	RIGATION	FACILITY		
V.1	Existing Condition							
(1)	Overall Irrigation Sys	tem : D	(A: Function	ing well, B: Pa	rtially deterior	ated, C: Not functioning we	ll, D: Serious condition for op	peration)
	Water Resources Fac	lity : C	Main Ca	inal System :	D	Secondary C	anal System : D	On-farm : D
(2)	Water Resources Facility	lty						
a.	Type of facility	: Headworks	3	e. Scouring s	sluice gate	: 1 nos.	i. Condition : C	
b.	Type of weir	: Fixed weir		f. Intake gate	e	: 2 nos.	(A: Functioning well, B: Par	tially deteriorated, C: Not
с.	Length of weir	: 62 m		g. Settling ba		: provided	functioning well, D: Serious	condition for operation)
	Design intake dischar	ze : 8.4 m3/s		h. Inspection	n bridge	: not provided	(no info.: no information)	
						· · · F · · · · ·	(
(3)	Irrigation Canal and I	spection Road						
(-)		n) Unlined (m)	Total (m)	Structu	re (nos)	Inspection road (m)	Condition	(A: Functioning well,
	```````````````````````````````````````	500 1,600	2,100		5	0		B: Partially deteriorated,
	Secondary	0 47,275			8	0		C: Not functioning well,
	Secondary	0 17,275	17,275		0		2	D: Serious condition for
(4)	Major Problems and	onstrains						operation)
· · ·	Water Resources Fac							
	Crack or damage	-						
	Physical operation		flood/scourin	a shuice astel	s) of headwo	rke		
	Physical operation				s) of ficadwo	1K5		
	Irrigation Canal and F							
-	Sedimentation of							
	Impassable of in							
	•	*	ing canar					
	General O&M pr Lower function of		atura an ann	.1				
	Difficulty on O&	0 0	cture on cana	u				
(5)	Causes of Major Prob		ainta					
			aints					
-	Water Resources Faci	-		. 1 14				
	Collision of fore						1.1.1.1.1.1.1	
							bist, stem, guide frame or le	eaf
				ice of intake g	gate(s); break	down of hoist, stem, guid	e frame or leaf	
-	Irrigation Canal and F					. C 1 ( 1'		
						of canal (sediments, wate		
						rosion by rainfall then in f		
		· ·				I no identification for repa	ir/maintenance	
	Deterioration of						11	
va		lamage of inspec	ction road, di	fficulty on pa	ssing of insp	ection road due to damage	e, broken	
V.2		6 M .:	D 11					
(1)	Proposed Countermea	•	Problems					
-	Water Resources Faci	-		:				
	Repair of weir ci					1		
	Replacement of		r damaged eq	uipment of fi	ood/scouring	since gate(s)		
	Replacement of							
-	Irrigation Canal and F			C 1				
	Removal of sedi							
	Provision of insp							
	Provision of kilo	· ·	-			name		
	Replacement and							
$(\mathbf{n})$	Provision or repa Water Resources Faci		road with all	weather type/	pavement			
(2)		-	ilitation	Testalea aissi1	· larga rahah	ilitation Intel-		ilitation
	Dam/Headworks body	: replacemen		Intake, civil	. large reliau	Intation Intake	e, mechanical : minor rehal	onitation
(2)	Settling basin	*						
(3)	Irrigation Canal and F Works		bilitation	Rehabi	litation	New construction	Total	
	Curat (a) Main	INO TEITA	0		2,100	210		
	Canal (m) Kann Seconda		0		47,275	9,455	,	
	Structure Main	у	0			1	6	
	(nos) Seconda	77	0	+	8	77	85	
	(nos) Seconda	У	0	I	8	//	83	
(4)	On-farm Developmen	t				(Unit: ha)		
(4)	a. Potential Irrigated		5 166	d. Non-poter	ntial naddy f		1	
	b. Potential non-irriga		996	e. Non-poter			-	
	c. Potential non-padd		990	Total	ittiai non-pac	6,462	-	
	c. rotentiai non-padu	neiu	0	Total		0,402		
(5)	Rehabilitation Cost (I	irect Cost)			(Uni	: Million Rp.)		
(3)			On-Farm	Project	-	Cost		
	W.R.F Irrigati	on Drainage	Develop.	Facility	Total	per ha		
	4,506 89,0	79 8,908	13,758	2,590	118,841	A	er Resources Facility, Develo	n · Development)
	-,500 89,0	0,908	15,758	2,390	110,041	10.4 (W.K.F. Wal	a resources racinty, Develo	P. Development)
				VI. PR	OJECT EV	ALUATION		
VI.1	EIRR 13.	5%						
VI 2	Prioritization Scorin	σ						
	Evaluation Index	a		Full Score	Score	Evaluation Index	Full Score	Score Total Score
		on of Irrigation F	otential	10.0		Agricultural Productivity		
	System Urgency			25.0		Social Problem	15.0	-
	Sustaina	oility		15.0		Economic Impact	15.0	-
	· ·	· · · · · · · · · · · · · · · · · · ·					ų	
<b>VI.3</b>	Priority Group	Group V: A	cceralation of	f WUAs estab	lishment	VI.4 Priority Ra	nking in the Province	-
		-	-			•	-	

South Sulawesi Province 28. Bajo Scheme (3/4)



South Sulawesi Province 28. Bajo Scheme



South Sulawesi Province 29. Pagang Alipan Scheme (1/4)

,				I. PROJE	CT FUNDA	MENTAL	S			
	General							000		
· · /	Code Number		: 73170167			Number of F Water Resou		: 800		
	Name of Irrigation Scheme District (Kabupaten)		: Pagang Al : Luwu Sela			Catchment A		: Sungai Bat : 115	lang	
· · ·	Sub-district (Kecamatan)		: Walenrang				/ Last Rehabilitation Year			
(5)	Registered Area (ha)		: 1,200							
(6)	Technical Level		: Semi Tech	inical						
I.2	Availability of Reports/Doc	uments & Ref	erences		(A : Availab	le, B : Avai	lable but partially, C : N	ot available	(No plan)	
	a. Design Reports of Exi			b. I	rrigation diag		c. As-built drawings		cture lists & c	liagram
	A Data Difference and			6.0	B	1.4.	A	1	B n. WUAs data	
	e. Rehabilitation pla		ces	1. U	ops and yield A	data	g. Cropping Calender A	1	<u>1. wOAs data</u> 6	a
Π1	Present and Planned Land	Uso	II. SUBJI	ECT AREA	FOR REH	ABILITAT	TION PLAN			
11.1	Category		Preser	nt (ha)	Plan	(ha)	Increment (ha)	]		
	a. Irrigated paddy field			795		795	0			
	b. Rainfed paddy field			0		0	0	-		
	c. Upland Field d. Uncultivated Land			0		0	0			
	e. Non-irrigable			0		0	0	-		
	Total	-		795		795	0	]		
				m	AGRICUL	TURE				
III.1	Present/Before Project Con	dition		111.	IGNICUL	IUKL				
	Irrigation Performance and C	rop Productior							<b>.</b>	() N
	Season	^ ^ ^		rigated Paddy		Annual	Irrigated Paddy Yield	-	Production	
	Season I (wet)	Paddy (ha) 795	Palawija	Others (ha)	Total (ha) 795	Intensity 100%	(GKG ton/ha) 4.0	Paddy 3,180	Palawija	Others
	Season II (dry I)	647			647	81%	4.0	2,588		
	Season III (dry II)				0					
	Total/Annual	1,442	0	0	1,442	181%	4.0	5,768	0	0
(1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing 2 Development Plan Development Approaches - Ensuring year round irrigati - Double cropping of paddy i - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment	s attained; how racticed in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water suppl n the entire sch activities tailor ces and Crop F	st of the entii e Inventory S ge at on-farm following rec ng prices y at on-farm neme; produc ed to area sp Production	re irrigated au Survey by the n level in dry commended p level through tivity increas ecific needs; Trigated Paddy Others (ha)	rea; paddy yie JICA Study season oractices h rehabilitatio se of paddy th empowermer y Field Total (ha) 795 795 239 1,829	eld levels mo - Palawija M - Farmers Oi - Extension s n rough further	arketing: - ganizations: Economic ad Services: Extension ad	ctivities are lii tivities of PP ion of palawij gri-business o	mited Ls are limited	on II
IV.1	Existing Condition				IV. WUA	5				
	Number a. Target;		b. Establishe			c. Not yet;	5	Registered		0
	Performance a. Developed;	0	b. Under dev	veloping;	6	c. Not yet;	6	Not yet regis	tered	6
(2)	Problems and Constraints		Maintenance	e 7	Management	t				
(3)	Causes of Problems and Cons - No management system in V		oordination v	with District '	WRS.					
۲V ۶	Development Plan									
	Proposed Countermeasures - Calling attention of farmers	and public ser	vants to irrig	ation system	utilization.					
(2)	Development Plan									

			V. IRR	IGATION	FACILITY	1			
	<b>Existing Condition</b> Overall Irrigation System Water Resources Facility		ning well, B: Par Canal System :				ll, D: Serious condi anal System : D	-	ı) farm : D
a.	Water Resources Facilty Type of facility Type of weir	: Headworks : Fixed weir	e. Scouring s f. Intake gate	-	: 1 nos. : 1 nos.	-	i. Condition : B	ell B. Partially o	eteriorated, C: Not
c.	Length of weir Design intake discharge	: 36 m	g. Settling ba h. Inspection	sin	: provided : not provide	d	functioning well, I (no info.: no inform	D: Serious condit	
(3)	Irrigation Canal and Insp Canal Lined (m) Main 375	Unlined (m) Total (m)		re (nos) 13	Inspection	road (m) 1,656	Condition D		nctioning well, ially deteriorated,
(4)	Secondary 3,785 Major Problems and Con		9	33		0	D		functioning well, lous condition for on)
-	Water Resources Facility Fallen down, incline Physical operational Physical operational Irrigation Canal and Rela Sedimentation or ob General O&M probl	d, or washed away of re problem on flood/scour problem on intake gate( ted Structure struction of water flow	ng sluice gate(s s)		rks				
-	Improper design, ins Improper design, ins Irrigation Canal and Rela Insufficient function No kilo and hectomo Deterioration of reg	of concrete or masonry n stallation and/or mainten stallation and/or mainten	ance of flood/sc ance of intake g nts), improper r te or mark on s , especially gat	ouring sluice ate(s); break nanagement tructures and e and metal v	e gate(s); brea down of hoist of canal (sed no identifica works	kdown of ho t, stem, guide iments, wate tion for repa	e frame or leaf r plant) ir/maintenance	ame or leaf	
(1)	Replacement of inta Irrigation Canal and Rela Removal of sedimer Provision of kilo, he Replacement and rec	taining wall of weir trol system or damaged e ke gate(s)	als from canal, j ach structure wi g structure on ca	grass cutting ith structure anal					
	Water Resources Facility Dam/Headworks body Settling basin	: minor rehabilitation : minor rehabilitation	Intake, civil	: minor rehal	oilitation	Intake	e, mechanical : mi	nor rehabilitati	on
(3)	Irrigation Canal and Rela Works	ted Structure No rehabilitation	Rehabil	itation	New con	struction	Total	]	
ĺ	Main		0	1,093		109	Total	1,202	
1	Canal (m) Secondary		0	3,966		793		4,759	
l	Structure Main (nos) Secondary		)	9 22		2 8		10 29	
		I	1				1		
(4)	On-farm Development a. Potential Irrigated pade	ty field 70	d. Non-poten	tial paddy f	ald	(Unit: ha) 0	]		
	b. Potential non-irrigated		e. Non-poten			0			
	c. Potential non-paddy fie		) Total	•		795	]		
(5)	Rehabilitation Cost (Dire	ct Cost)		(Unit	: Million Rp.)				
	W.R.F Irrigation	Drainage On-Farm	5	Total	Cost				
	1,476 7,128	Drainage   Develop.     713   1,63	Facility 1,260	12,207	per ha	(WRE-Wot	er Resources Facilit	v Develop · Do	(elonment)
	1,470 /,128	/15 1,63	1,200	12,207	13.4	w.r.r. wate		y, Develop Dev	ciopinent)
X71 4	FIDD 17.5%		VI. PRO	DJECT EV	ALUATIO	N			
	EIRR 17.5%	]							
VI.2	Prioritization Scoring		E.,11 C	0	Friel of T	. d		1.0	T-+-1.0
	Evaluation Index Irrigation Utilization of	of Irrigation Potential	Full Score 10.0	Score -	Evaluation Ir Agricultural		Fu	ll Score Sc 20.0	ore Total Score
	System Urgency		25.0	-	Social Proble	em		15.0	-
	Sustainabili	ty	15.0	-	Economic In	npact		15.0	-
VI.3	Priority Group	Group VI: Developmen (Subject area is less that	, ,	ory	VI.4	Priority Ra	nking in the Prov	vince	-

Scheme	Pagang Alipan	District	Luwu
Technical Level	Semi-technical	Registered Area	1,200 ha Year of Construction 1977
		05/23/2003	Category         Irrigation (Headworks)         Structure         Fixed Weir         Condition         □       A         ☑       B       □         C       □         D       Problems         Crack or damage on weir crest; settlement of weir body; deflection of pier of weir.
		05/23/2003	Category         Irrigation Canal         Structure         Earth Canal         □       A       □         B       □       C       ☑         Problems       Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal; no inspection road.
		05/28/2003	Category         Irrigation (Main Canal)         Structure         Division Structure         Condition         □       A         B       □       C         Problems         Totally damaged

South Sulawesi Province 29. Pagang Alipan Scheme (4/4)

Scheme	Pagang Alipan	District	Luwu
Technical Level	Semi-technical	Registered Area	1,200 ha Year of Construction 1977
			Category         Irrigation (Secondary Canal)         Structure         Earth Canal         Condition         A       B       C       D         Problems         Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal; no inspection
		05/23/2003	road.
		-	<u>Category</u> Agriculture, On-Farm <u>Activity</u> Paddy Cultivation
- Annon			<u>Condition</u> □ A □ B □ C ☑ D
		05/23/2003	<u>Problems</u> Low density of on-farm canals and farm roads.
			<u>Category</u> Agriculture, On-Farm
A la la	No and		<u>Structure</u> Farm Road and Drainage Canal
			<u>Condition</u> □ A □ B □ C ☑ D <u>Problems</u>
		05/23/2003	

South Sulawesi Province 30. Makawa Scheme (1/4)

				I. PROJE	CT FUNDA	MENTAL	S			
	General									
· · ·	Code Number		: 73170175		(7)	Number of F	armers	: 765		
	Name of Irrigation Scheme		: Makawa		(8)	Water Resou	irce River	: Sungai Maka	awa	
	District (Kabupaten)		: Luwu Sela		(9)	Catchment A		: 108		
· · ·	Sub-district (Kecamatan)		: Walenrang	g	(10)	Completion	/ Last Rehabilitation Year	: 1969/1971		
· · ·	Registered Area (ha)		: 1,775							
(6)	Technical Level		: Non Tech	nical						
12	Availability of Reports/Doc	umants & Rat	foroncos		(A · Availab	la R·Avai	lable but partially, C : N	Jot available/ N	Vo nlan)	
1.2	a. Design Reports of Exi				rrigation diag		c. As-built drawings	d. Structu	ure lists & d	iagram
	A				A		В		A	
	e. Rehabilitation pla	n & its referen	ices	f. Cr	ops and yield	data	g. Cropping Calender	h.	WUAs data	
	(	2			А		А		5	
			II CUDI	FCT ADEA	FOD DEL	ADII ITAT	TION PLAN			
П 1	Present and Planned Land	Use	II. SUBJ	EU I AKEA	FUK KEH	ADILITAI	TION FLAN			
	Category	ese	Prese	nt (ha)	Plan	(ha)	Increment (ha)	]		
	a. Irrigated paddy field			880		1,000	120			
	b. Rainfed paddy field			120		0	-120			
	c. Upland Field			0		0	0	-		
	d. Uncultivated Land			0		0	0			
	e. Non-irrigable Total			0		0	0	1		
	10141			1,000		1,000	0	1		
				III.	AGRICUL	TURE				
	Present/Before Project Con									
(1)	Irrigation Performance and C							~		
	Season			rigated Paddy		Annual	Irrigated Paddy Yield		roduction (to	, ,
	Season I (wet)	Paddy (ha) 810	Palawija	Others (ha)	Total (ha) 810	Intensity 92%	(GKG ton/ha) 4.0	Paddy 3,540	Palawija	Others
	Season II (wet)	600			600	<u> </u>	4.0	2,400		
	Season III (dry II)	000			000	0070	1.0	2,400	60	
	Total/Annual	1,410	0	0	1,410	160%	4.0	5,940	60	0
							1/: Irrigated	& rainfed padd	ly & palawij	a
(2)	Problems and Constraints									
	A. Irrigation & Agriculture P									
	- Substantial irrigation perfor									
	- Double cropping of paddy i					ntroduced ye	t			
	B. Primary Constraint Identij		e Inventory S	Survey by the	JICA Study					
	- Irrigation & Drainage:	Flooding	c 11 ·			- Palawija M		:. CI/T	1 1	
	<ul> <li>Agronomic Issues:</li> <li>Paddy Marketing</li> </ul>	Farmers not Unstable ma			ractices	- Farmers Or	ganizations: Managerial			
				C .		Extension	Services: Extension of			
	- I addy Warketing	Unstable ma	rketing price	S		- Extension S	Services: Extension ac	cuvities of PPL	s are limited	l
111.2		Clistable ma	rketing price	s		- Extension S	Services: Extension ac	cuviues of PPL	s are limited	l
	<b>Development Plan</b> Development Approaches								s are limited	l
	<b>Development Plan</b> Development Approaches - Expansion of irrigated area	& ensuring yea	ar round irrig	gation water s		arm level thro	ough rehabilitation & upgr	rading		l
	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe	& ensuring yeard area of padd	ar round irrig y; productivi	gation water stity increase of	f paddy throu	arm level thro gh intensifica	ough rehabilitation & upgr ation; introduction of pala	rading wija in dry seas	son I	I
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a	& ensuring yea ad area of padd activities tailor	ar round irrig y; productivi ed to area sp	gation water stity increase of	f paddy throu	arm level thro gh intensifica	ough rehabilitation & upgr ation; introduction of pala	rading wija in dry seas	son I	l
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe	& ensuring yea d area of padd activities tailor ces and Crop F	ar round irrig y; productivi red to area sp Production	gation water s ity increase of secific needs;	f paddy throu empowermer	arm level thro gh intensifica at of farmer g	ough rehabilitation & upgr ation; introduction of pala roups (KTs) to establish a	rading wija in dry seas gri-business or	on I iented KTs	
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a	& ensuring yea d area of padd activities tailor ces and Crop F	ar round irrig y; productivi ed to area sp Production ed Area in Ir	ation water so ity increase of ecific needs; rigated Paddy	f paddy throu empowermer 7 Field	arm level thro gh intensifica tt of farmer g Annual	ough rehabilitation & upgr ation; introduction of pala roups (KTs) to establish a Irrigated Paddy Yield	rading wija in dry seas gri-business or Crop I	son I iented KTs Production (	ton)
(1)	<b>Development Plan</b> Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan	& ensuring yea d area of padd activities tailor ces and Crop F Cropp Paddy (ha)	ar round irrig y; productivi red to area sp Production	gation water s ity increase of secific needs;	f paddy throu empowermer 7 Field Total (ha)	arm level thro gh intensifica at of farmer g	ough rehabilitation & upgr ation; introduction of pala roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha)	rading wija in dry seas gri-business or Crop I Paddy	on I iented KTs	
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I)	& ensuring yea d area of padd activities tailor ces and Crop F	ar round irrig y; productivi ed to area sp Production ed Area in Ir	ation water s ity increase of ecific needs; rigated Paddy Others (ha)	f paddy throu empowermer 7 Field	arm level thro gh intensifica at of farmer g Annual Intensity	ough rehabilitation & upgr ation; introduction of pala roups (KTs) to establish a Irrigated Paddy Yield	rading wija in dry seas gri-business or Crop I	son I iented KTs Production (	ton)
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II)	& ensuring yea d area of padd activities tailor ces and Crop F Cropp Paddy (ha) 1,000 800	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200	gation water s ity increase of ecific needs; rigated Paddy Others (ha)	f paddy throu empowermen 7 Field Total (ha) 1,000 1,000 0	arm level through intensification of farmer generation of farmer generat	ough rehabilitation & upgr ation; introduction of palay roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0	rading wija in dry seas gri-business or Crop I Paddy 5,000 4,000	son I iented KTs Production ( Palawija 1,000	ton)
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry I) Total/Annual	& ensuring years of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 1,800	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200	ation water s ity increase of ecific needs; rigated Paddy Others (ha)	f paddy throu empowermer 7 Field Total (ha) 1,000 1,000 0 2,000	arm level through intensification of farmer generation of farmer generat	ough rehabilitation & upgr ation; introduction of palay roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000	son I iented KTs Production ( Palawija 1,000 1,000	ton)
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II)	& ensuring yea d area of padd activities tailor ces and Crop F Cropp Paddy (ha) 1,000 800	ar round irrig y; productivi red to area sp Production ed Area in Irr Palawija 200	ation water s ity increase of ecific needs; rigated Paddy Others (ha)	f paddy throu empowermen 7 Field Total (ha) 1,000 1,000 0	arm level through intensification of farmer generation of farmer generat	ough rehabilitation & upgr ation; introduction of palay roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0	rading wija in dry seas gri-business or Crop I Paddy 5,000 4,000	son I iented KTs Production ( Palawija 1,000	ton)
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry I) Total/Annual	& ensuring years of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 1,800	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200	ation water s ity increase of ecific needs; rigated Paddy Others (ha)	f paddy throu empowermer 7 Field Total (ha) 1,000 1,000 0 2,000	arm level through intensification of farmer generation of farmer generat	ough rehabilitation & upgr ation; introduction of palay roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000	son I iented KTs Production ( Palawija 1,000 1,000	ton)
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry I) Total/Annual	& ensuring years of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 1,800	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200	ation water s ity increase of ecific needs; rigated Paddy Others (ha)	f paddy throu empowermer 7 Field Total (ha) 1,000 1,000 0 2,000	arm level through intensification of farmer generation of farmer generat	ough rehabilitation & upgr ation; introduction of palay roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000	son I iented KTs Production ( Palawija 1,000 1,000	ton)
(1)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry I) Total/Annual	& ensuring years of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 1,800	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200	ation water s ity increase of ecific needs; rigated Paddy Others (ha)	Field Total (ha) 1,000 0 2,000 590	arm level thro gh intensific: tt of farmer g Annual Intensity 100% 100% 200% 40%	ough rehabilitation & upgr ation; introduction of palay roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000	son I iented KTs Production ( Palawija 1,000 1,000	ton)
(1) (2)	Development Plan Development Approaches - Expansion of irrigated area - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry I) Total/Annual Annual Increment	& ensuring years of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 1,800	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200	ation water s ity increase of ecific needs; rigated Paddy Others (ha)	f paddy throu empowermer 7 Field Total (ha) 1,000 1,000 0 2,000	arm level thro gh intensific: tt of farmer g Annual Intensity 100% 100% 200% 40%	ough rehabilitation & upgr ation; introduction of palay roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000	son I iented KTs Production ( Palawija 1,000 1,000	ton)
(1) (2) IV.1	Development Plan         Development Approaches         - Expansion of irrigated area         - Expansion of double croppe         - Strengthening of extension a         Planned Irrigation Performan         Season         Season I (wet)         Season II (dry I)         Season III (dry I)         Total/Annual         Annual Increment	& ensuring yea d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200 200	gation water s ity increase of ecific needs; rigated Paddy Others (ha) 0 0 0 0	Field Total (ha) 1,000 0 2,000 590	arm level thro gh intensific: tt of farmer g Annual Intensity 100% 0% 200% 40% <b>\$</b>	ough rehabilitation & upgr ation; introduction of palar roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060	son I iented KTs Production ( Palawija 1,000 1,000	ton)
(1) (2) IV.1	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry I)     Total/Annual     Annual Increment     Existing Condition     Number     a. Target;	& ensuring years of paddactivities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200 200 200 0	gation water s ity increase of ecific needs; rigated Paddy Others (ha) 0 0 0 0	f paddy throu           empowermer           7 Field           Total (ha)           1,000           0           2,000           590	arm level through intensification of farmer generation of farmer generat	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) IV.1	Development Plan         Development Approaches         - Expansion of irrigated area         - Expansion of double croppe         - Strengthening of extension a         Planned Irrigation Performan         Season         Season I (wet)         Season II (dry I)         Season III (dry I)         Total/Annual         Annual Increment	& ensuring years of paddactivities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200 200	gation water s ity increase of ecific needs; rigated Paddy Others (ha) 0 0 0 0	f paddy throu           empowermer           7 Field           Total (ha)           1,000           0           2,000           590	arm level thro gh intensific: tt of farmer g Annual Intensity 100% 0% 200% 40% <b>\$</b>	ough rehabilitation & upgr ation; introduction of palar roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) IV.1 (1)	Evelopment Plan         Development Approaches         - Expansion of irrigated area         - Expansion of double croppe         - Strengthening of extension a         Planned Irrigation Performan         Season         Season I (wet)         Season II (dry I)         Season III (dry I)         Season III (dry I)         Annual Increment	& ensuring years of paddactivities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200 200 200 0	gation water s ity increase of ecific needs; rigated Paddy Others (ha) 0 0 0 0	f paddy throu           empowermer           7 Field           Total (ha)           1,000           0           2,000           590	arm level through intensification of farmer generation of farmer generat	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) IV.1 (1)	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry I)     Total/Annual     Annual Increment     Existing Condition     Number     a. Target;	& ensuring yea d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi red to area sp Production ed Area in Ir Palawija 200 200 200 200 0	gation water s ity increase of ecific needs; rrigated Paddy Others (ha) 0 0 0 0	f paddy throu           empowermer           7 Field           Total (ha)           1,000           0           2,000           590	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) IV.1 (1)	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season II (dry I)     Total/Annual     Annual Increment     Number     a. Target;     Performance     a. Developed;     Problems and Constraints	& ensuring yea d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 200 0 0 0 0 0 0 0 0 0 0 0	gation water s ity increase of ecific needs; rrigated Paddy Others (ha) 0 0 0 0	Field Total (ha) 1,000 0 2,000 590 IV. WUA	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) <b>IV.1</b> (1) (2)	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry I)     Total/Annual     Annual Increment      Existing Condition     Number     a. Target;     Performance     a. Developed;      Problems and Constraints	& ensuring yee d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 200 200 0 200 200 200 200	rigation water si ity increase of vecific needs; rigated Paddy Others (ha) 0 0 0 0 0	Field           Total (ha)           1,000           0           2,000           590	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) <b>IV.1</b> (1) (2)	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry I)     Total/Annual     Annual Increment      Existing Condition     Number     a. Target;     Performance     a. Developed;  Problems and Constraints     Operation	& ensuring yee d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 200 200 0 200 200 200 200	rigation water si ity increase of vecific needs; rigated Paddy Others (ha) 0 0 0 0 0	Field           Total (ha)           1,000           0           2,000           590	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) (1) (1) (2) (3)	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry I)     Total/Annual     Annual Increment      Existing Condition     Number     a. Target;     Performance     a. Developed;      Problems and Constraints     Operation     Causes of Problems and Coms-     No management system in V	& ensuring yee d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 200 200 0 200 200 200 200	rigation water si ity increase of vecific needs; rigated Paddy Others (ha) 0 0 0 0 0	Field           Total (ha)           1,000           0           2,000           590	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b>	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry II)     Total/Annual     Annual Increment      Existing Condition     Number a. Target;     Performance a. Developed;      Problems and Constraints	& ensuring yee d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 200 200 0 200 200 200 200	rigation water si ity increase of vecific needs; rigated Paddy Others (ha) 0 0 0 0 0	Field           Total (ha)           1,000           0           2,000           590	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b>	Development Plan     Development Approaches     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season II (dry I)     Total/Annual     Annual Increment      Existing Condition     Number     a. Target;     Performance     a. Developed;      Problems and Constraints	& ensuring yea darea of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 0 200 0 0 0 0 0 0 0 0 0 0	eation water s ity increase of ecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Field           7 Field           Total (ha)           1,000           0           2,000           590   IV. WUA	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b>	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry II)     Total/Annual     Annual Increment      Existing Condition     Number a. Target;     Performance a. Developed;      Problems and Constraints	& ensuring yea darea of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 0 200 0 0 0 0 0 0 0 0 0 0	eation water s ity increase of ecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Field           7 Field           Total (ha)           1,000           0           2,000           590   IV. WUA	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b> (1)	Development Plan     Development Approaches     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season II (dry I)     Total/Annual     Annual Increment      Existing Condition     Number     a. Target;     Performance     a. Developed;      Problems and Constraints	& ensuring yea darea of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 0 200 0 0 0 0 0 0 0 0 0 0	eation water s ity increase of ecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Field           7 Field           Total (ha)           1,000           0           2,000           590   IV. WUA	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b> (1)	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry I)     Season III (dry II)     Total/Annual     Annual Increment      Existing Condition     Number     a. Target; Performance     a. Developed; Problems and Constraints     Operation     Causes of Problems and Constraints     Outermeasures     Culting attention of farmers     Development Plan     WUA empowermwnt training	& ensuring yea d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390 1,800 390 1,800 390 straints WUA and no c and public ser	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 0 200 0 0 0 0 0 0 0 0 0 0	eation water s ity increase of ecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Field           7 Field           Total (ha)           1,000           0           2,000           590   IV. WUA	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)
(1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b> (1)	Development Plan     Development Approaches     Expansion of irrigated area     Expansion of double croppe     Strengthening of extension a     Planned Irrigation Performan     Season     Season I (wet)     Season II (dry I)     Season III (dry I)     Season III (dry II)     Total/Annual     Annual Increment      Existing Condition     Number     a. Target; Performance     a. Developed; Problems and Constraints     Operation     Causes of Problems and Constraints     Operation     Development Plan     Proposed Countermeasures     Calling attention of farmers     Development Plan	& ensuring yea d area of padd activities tailor ces and Crop F Paddy (ha) 1,000 800 1,800 390 1,800 390 1,800 390 straints WUA and no c and public ser	ar round irrig y; productivi ed to area sp Production ed Area in Ir Palawija 200 200 200 0 200 0 0 0 0 0 0 0 0 0 0	eation water s ity increase of ecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Field           7 Field           Total (ha)           1,000           0           2,000           590   IV. WUA	arm level thro gh intensifica at of farmer g Annual Intensity 100% 0% 200% 40% <b>s</b> c. Not yet; c. Not yet;	ough rehabilitation & upgr ation; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	rading wija in dry seas gri-business or Paddy 5,000 4,000 9,000 3,060 Registered	son I iented KTs Production ( Palawija 1,000 1,000 940	ton)

	V. IRRIGATION FACILITY							
V.1	Existing Condition	ion						
(1)	Overall Irrigation					-	ell, D: Serious condition for o	
	Water Resources	2	Main Ca	inal System :	D	Secondary C	Canal System : D	On-farm : D
	Water Resources	2						
	Type of facility	: Headwo		e. Scouring		: 1 nos.	i. Condition : C	
	Type of weir	: Fixed w	eir	f. Intake gat		: 1 nos.		artially deteriorated, C: Not
	Length of weir	: 60 m		g. Settling b		: not provided	functioning well, D: Seriou	is condition for operation)
d.	Design intake dis	scharge : 3.1 m3/s		h. Inspection	n bridge	: not provided	(no info.: no information)	
		11 . D						
(3)		and Inspection Roa		<u>G</u> (	(	<b>T</b>	O a l'itan	(A. F.,
	Canal Lin Main	ned (m) Unlined ( 1,761 1,5			re (nos) 14	Inspection road (m)	Condition D D	(A: Functioning well, B: Partially deteriorated,
	Secondary	1,761 1,5 1,231 2,2			25		D D	C: Not functioning well,
	Secondary	1,231 2,2	29 5,400		23		D D	D: Serious condition for
(4)	Major Problems	and Constrains						operation)
· · ·	· Water Resources							
		ement, or deflection	n of pier of we	r				
		erational problem c			s) of headwo	rks		
		erational problem c			<i>b)</i> of <b>neu</b> <i>anb</i>			
-		and Related Structu						
	e	on or obstruction o						
	General O&	M problems						
	Lower funct	ion of regulating s	ructure on cana	ıl				
	Difficulty or	n O&M						
(5)	Causes of Major	Problems and Con	straints					
-	· Water Resources	Facility						
		strength of weir fo						
		0			0	0 ())	oist, stem, guide frame or	leaf
				nce of intake	gate(s); break	down of hoist, stem, guid	le frame or leaf	
-	-	and Related Structu						
						al (sediments, water plant		
						I no identification for rep	air/maintenance	
		n of regulating stru						
	No provisio	n or damage of ins	bection road, di	fficulty on pa	ssing of insp	ection road due to damage	e, broken	
V 2	Development Pl	a. <b>n</b>						
		rmeasures for Maj	or Problems					
	· Water Resources		of Floblenis					
-		ion of pier of weir						
		t of control system	or damaged eq	uinment of fl	ood/scouring	shuice gate(s)		
		t of intake gate(s)	or dumuged eq	upment of n	oou seouring	statee gate(s)		
		and Related Structu	re					
		sediment soil and		s from canal.	grass cutting			
		kilo, hect-m posts						
		t and reconstructio						
		repair of inspectio						
(2)	Water Resources	Facility						
	Dam/Headworks	body : minor re	habilitation	Intake, civil	: minor reha	bilitation Intak	e, mechanical : replaceme	nt or new
	Settling basin	*	nent or new					
(3)		and Related Structu					-	_
	Works		habilitation		litation	New construction	Total	
	Canal (m) Mai		0		1,848	370		
	Sec	ondary	0		1,938	969	,	
	Structure Mai		0		8	2		
1	(nos) Seco	ondary	0		14	7	21	
	0.0 5						、 、	
(4)	On-farm Develop			1.55		(Unit: ha	<u>/</u>	
1	a. Potential Irriga			d. Non-poter				
		irrigated paddy fiel		, <u>,</u>	nttial non-pac	,		
	c. Potential non-p	baddy field	0	Total		1,000		
(5)	Rehabilitation Co	ost (Direct Cost)			(Usi	: Million Rp.)		
(5)			On-Farm	Project		Cost		
1	W.R.F Irr	igation Drainag	e Develop.	Facility	Total	per ha		
1	2,593	8,839 88		1,260	15,687	A	ter Resources Facility, Devel	on · Development)
	2,375	0,007 00	2,112	1,200	13,007	10.7 (W.K.I. Wa	ter resources racinty, Devel	op. Development)
				VI. PR	OJECT EV	ALUATION		
VI.1	EIRR	16.6%						
1	·•							
VI.2	Prioritization So	coring						
	Evaluation Index			Full Score	Score	Evaluation Index	Full Score	Score Total Score
	-	ization of Irrigation	Potential	10.0	-	Agricultural Productivity		
1	-	ency		25.0	-	Social Problem	15.0	
1		tainability		15.0	-	Economic Impact	15.0	
1	· · · · ·	_			•		1	·
<b>VI.3</b>	<b>Priority Group</b>	Group V:	Acceralation of	f WUAs estat	olishment	VI.4 Priority Ra	anking in the Province	-
L	_							

South Sulawesi Province 30. Makawa Scheme (3/4)

Scheme	Makawa	District	Luwu
Technical Level	Non-technical	Registered Area	1,775 ha Year of Construction 1971/81
			Category         Irrigation (Main Canal)         Structure         Division Structure         Condition         A       B       C       D         Problems         Lower function of division structure due to sedimentation in front gate; physical operation problem on structure.
		05/24/2003	Category         Irrigation (Secondary Canal)         Structure         Masonry Lined Canal         Condition         A       B       C       D         Problems         Sedimentation; leakage from lined canal; crack on lined canal; deflection of lining toward inside of canal; less maintenance; and no inspection road.
		05/24/2003	Category         Irrigation (Secondary Canal)         Structure         Earth Canal         Condition         A       B       C       D         Problems         Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal; no inspection road.

## South Sulawesi Province 30. Makawa Scheme

(4/4)

Scheme	Makawa	District	Luwu
Technical Level	Non-technical	Registered Area	1,775 ha Year of Construction 1971/81
		5/24/2003	Category         Irrigation (Secondary Canal)         Structure         Division Structure         Condition         A       B       C       D         Problems         Lower function of division structure due to sedimentation in front gate; physical operation problem on structure.
			<u>Category</u> Agriculture, On-Farm <u>Activity</u>
			Land Preparation
66	A support of the second s	A to the second s	<u>Condition</u> □ A □ B □ C ☑ D
	0	5/24/2003	<u>Problems</u> Low density of on-farm canals and farm roads.
			<u>Category</u> Agriculture, On-Farm
			<u>Activity</u> Rainfed Paddy Cultivation
	0	5/24/2003	<u>Condition</u> □ A □ B □ C ☑ D <u>Problems</u> Low density of on-farm canals and farm roads.

South Sulawesi Province

## 31. Lamasi Kanan Scheme (1/4)

4)										
				I. PROJE	CT FUNDA	MENTAL	S			
	General									
· · /	Code Number		: 73170176		( )	Number of F		: 5,039		
	Name of Irrigation Scheme		: Lamasi Ka	anan	( )	Water Resou		: Lamasi		
	District (Kabupaten)		: Luwu			Catchment A		: 305		
	Sub-district (Kecamatan)		: Walenrang	g	(10)	Completion /	Last Rehabilitation Year	:: 1979/1983		
	Registered Area (ha)		: 5,485							
(6)	Technical Level		: Technical							
			•							
1.2	Availability of Reports/Doc						lable but partially, C: I c. As-built drawings		/ No plan) ture lists & d	
	a. Design Reports of Exi		Full set)	0. 1	rrigation diag A	ram	A A C. As-built drawings	d. Struc	A A	lagram
	e. Rehabilitation pla	-	ices	f Cr	ops and yield	data	g. Cropping Calender	h	. WUAs data	1
	C. Rendomation pia			1. 01	A A	uuu	A		2	•
			II. SUBJ	ECT AREA	FOR REH	ABILITAT	TION PLAN			
II.1	Present and Planned Land	Use				<i>a</i> >		1		
	Category		Prese	nt (ha)	Plan		Increment (ha)	-		
	a. Irrigated paddy field			4,290		5,147	857	-		
	b. Rainfed paddy field c. Upland Field			802		0	-802	-		
	d. Uncultivated Land			78		0	-78	-		
	e. Non-irrigable			0		23	23	-		
	Total			5,170		5,170	0	-		
l	1000	I		5,170		5,170	0	1		
				III.	AGRICUL	TURE				
	Present/Before Project Con									
(1)	Irrigation Performance and C						¥ • . • • • • - • •	-		
	Season			rigated Paddy		Annual	Irrigated Paddy Yield		Production (to	,
		Paddy (ha)	Palawija	Others (ha)		Intensity	(GKG ton/ha)	Paddy	Palawija	Others
	Season I (wet)	4,290			4,290	100%	4.0	19,165		
	Season II (dry I) Season III (dry II)	3,647			3,647	85% 0%	4.0	14,588	400	
	Total/Annual	7,937	0	0	7,937	185%	4.0	33,753	400	0
l	Total/Annual	1,931	0	0	1,931	10370		& rainfed pac		
(2)	Problems and Constraints						i). iiiigatea	ce fuilled put	uj ce pului i	ju
	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues:	es attained; how practiced in mo fied through th Water shorta Farmers not	ost of the ent <i>he Inventory</i> age at on-farr following re	ire irrigated a	rea; paddy yi JICA Study season practices	eld levels stil - Palawija M - Farmers Or	arketing: - ganizations: Unstable ma	arketing prices		
<b>III.2</b> (1)	<ul> <li>A. Irrigation &amp; Agriculture P</li> <li>High irrigation performance</li> <li>Double cropping of paddy p</li> <li>B. Primary Constraint Identif</li> <li>Irrigation &amp; Drainage:</li> <li>Agronomic Issues:</li> <li>Paddy Marketing</li> </ul> Development Plan Development Approaches <ul> <li>Ensuring year round irrigation</li> </ul>	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi	ost of the ent the Inventory ge at on-farr following re ing prices ly at on-farm	ire irrigated a Survey by the n level in dry commended p n level throug	rea; paddy yi JICA Study season practices h rehabilitatio	eld levels stil - Palawija M - Farmers Or - Extension S on	arketing: - ganizations: Unstable ma Services: Shortage of	urketing prices	ds of PPLs	
III.2 (1)	<ul> <li>A. Irrigation &amp; Agriculture P</li> <li>High irrigation performance</li> <li>Double cropping of paddy p</li> <li>B. Primary Constraint Identif</li> <li>Irrigation &amp; Drainage:</li> <li>Agronomic Issues:</li> <li>Paddy Marketing</li> </ul> Development Plan Development Approaches <ul> <li>Ensuring year round irrigati</li> <li>Expansion of double croppe</li> </ul>	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi	ost of the ent ne Inventory ge at on-farm following re ing prices ly at on-farm dy; productiv	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o	rea; paddy yi JICA Study season practices h rehabilitatio f paddy throu	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala	arketing prices operation fund awija in dry se	ds of PPLs eason I	5
III.2 (1)	<ul> <li>A. Irrigation &amp; Agriculture P</li> <li>High irrigation performance</li> <li>Double cropping of paddy p</li> <li>B. Primary Constraint Identif</li> <li>Irrigation &amp; Drainage:</li> <li>Agronomic Issues:</li> <li>Paddy Marketing</li> </ul> Development Plan Development Approaches <ul> <li>Ensuring year round irrigation</li> </ul>	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of pade activities tailou	ost of the ent ae Inventory ge at on-farr following re ing prices ly at on-farm dy; productiv red to area sp	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o	rea; paddy yi JICA Study season practices h rehabilitatio f paddy throu	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala	arketing prices operation fund awija in dry se	ds of PPLs eason I	5
III.2 (1)	<ul> <li>A. Irrigation &amp; Agriculture P</li> <li>High irrigation performance</li> <li>Double cropping of paddy p</li> <li>B. Primary Constraint Identif</li> <li>Irrigation &amp; Drainage:</li> <li>Agronomic Issues:</li> <li>Paddy Marketing</li> </ul> Development Plan Development Approaches <ul> <li>Ensuring year round irrigatie</li> <li>Expansion of double croppee</li> <li>Strengthening of extension a</li> <li>Planned Irrigation Performan</li> </ul>	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp da area of padd activities tailou ces and Crop I	ost of the ent ne Inventory ge at on-farr following re ng prices ly at on-farr ly; productiv red to area sj Production	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs;	rea; paddy yi JICA Study season bractices h rehabilitatio f paddy throu empowerme y Field	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield	rketing prices operation fund awija in dry se agri-business	ds of PPLs eason I	
<b>III.2</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailou ces and Crop D Cropp Paddy (ha)	ost of the ent ne Inventory ge at on-farr following re ng prices ly at on-farr ly; productiv red to area sj Production	ire irrigated a Survey by the n level in dry commended p n level throug ity increase o pecific needs;	rea; paddy yi JICA Study season practices h rehabilitatio f paddy throu empowerme / Field Total (ha)	eld levels stil - Palawija M - Farmers Or - Extension S on tgh intensific nt of farmer g Annual Intensity	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha)	awija in dry se agri-business Crop Paddy	ds of PPLs eason I oriented KTs	
<b>III.2</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet)	es attained; how racticed in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp d area of padd activities tailou ces and Crop p Paddy (ha) 5,147	ost of the ent <i>the Inventory</i> ge at on-farm following re ing prices ly at on-farm ly; productiv red to area sp <u>Production</u> ed Area in Ir <u>Palawija</u>	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; rrigated Paddy Others (ha)	rea; paddy yi JICA Study season practices h rehabilitatio f paddy throu empowerme 7 Field Total (ha) 5,147	eld levels stil - Palawija M - Farmers Or - Extension S on igh intensific nt of farmer g Annual Intensity 100%	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0	awija in dry se agri-business Crop Paddy 25,735	ds of PPLs eason I oriented KTs Production ( Palawija	(ton)
<b>III.2</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I)	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailou ces and Crop D Cropp Paddy (ha)	ost of the ent ne Inventory ge at on-farr following re ng prices ly at on-farm ly; productiv red to area sp Production ed Area in Ir	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; rrigated Paddy Others (ha)	rea; paddy yi JICA Study season practices h rehabilitatio f paddy throu empowerme 7 Field Total (ha) 5,147 5,147	eld levels stil - Palawija M - Farmers Or - Extension S on igh intensific int of farmer g Annual Intensity 100% 100%	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha)	awija in dry se agri-business Crop Paddy	ds of PPLs eason I oriented KTs Production (	(ton)
<b>III.2</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II)	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of pade activities tailo ces and Crop I Paddy (ha) 5,147 4,375	ost of the ent <i>the Inventory</i> igge at on-farri following re ing prices ly at on-farri ly; productiv red to area sp Production ed Area in Ir Palawija 772	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha)	rea; paddy yi JICA Study season oractices h rehabilitatio f paddy throu empowerme v Field Total (ha) 5,147 5,147 0	eld levels stil - Palawija M - Farmers Or - Extension S on ugh intensific nt of farmer g Annual Intensity 100% 0%	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0	awija in dry se agri-business Crop Paddy 25,735 21,875	ds of PPLs eason I oriented KTs Production ( Palawija 3,860	(ton) Others
<b>III.2</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Scason III (dry II) Total/Annual	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailou ces and Crop J Paddy (ha) 5,147 4,375 9,522	best of the ent the Inventory ge at on-farm following re ing prices ly at on-farm dy; productiv red to area sp Production ed Area in Ir Palawija 772 772	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha)	rea; paddy yi JICA Study season oractices h rehabilitation f paddy throu empowerme 7 Field Total (ha) 5,147 5,147 0 10,294	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 0% 200%	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610	ds of PPLs eason I oriented KTs Production ( Palawija 3,860 3,860	(ton) Others
<b>III.2</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II)	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of pade activities tailo ces and Crop I Paddy (ha) 5,147 4,375	ost of the ent <i>the Inventory</i> igge at on-farri following re ing prices ly at on-farri ly; productiv red to area sp Production ed Area in Ir Palawija 772	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha)	rea; paddy yi JICA Study season oractices h rehabilitatio f paddy throu empowerme v Field Total (ha) 5,147 5,147 0	eld levels stil - Palawija M - Farmers Or - Extension S on ugh intensific nt of farmer g Annual Intensity 100% 0%	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0	awija in dry se agri-business Crop Paddy 25,735 21,875	ds of PPLs eason I oriented KTs Production ( Palawija 3,860	(ton) Others
<b>III.2</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Scason III (dry II) Total/Annual	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailou ces and Crop J Paddy (ha) 5,147 4,375 9,522	best of the ent the Inventory ge at on-farm following re ing prices ly at on-farm dy; productiv red to area sp Production ed Area in Ir Palawija 772 772	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha)	rea; paddy yi JICA Study season oractices h rehabilitatio f paddy throu empowerme / Field Total (ha) 5,147 5,147 0 10,294 2,357	eld levels stil - Palawija M - Farmers Or - Extension S on tgh intensific nt of farmer g Annual Intensity 100% 200% 15%	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610	ds of PPLs eason I oriented KTs Production ( Palawija 3,860 3,860	(ton) Others
(1) (2)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailou ces and Crop J Paddy (ha) 5,147 4,375 9,522	best of the ent the Inventory ge at on-farm following re ing prices ly at on-farm dy; productiv red to area sp Production ed Area in Ir Palawija 772 772	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha)	rea; paddy yi JICA Study season oractices h rehabilitation f paddy throu empowerme 7 Field Total (ha) 5,147 5,147 0 10,294	eld levels stil - Palawija M - Farmers Or - Extension S on tgh intensific nt of farmer g Annual Intensity 100% 200% 15%	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610	ds of PPLs eason I oriented KTs Production ( Palawija 3,860 3,860	(ton) Others
(1) (2) (2)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati- - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment Existing Condition	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailo ces and Crop I Paddy (ha) 5,147 4,375 9,522 1,585	by the entities of the entities in the enventory of the entities of the entits of the entities of the entities of the entits of the entities o	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha)	rea; paddy yi JICA Study season oractices h rehabilitatio f paddy throu empowerme / Field Total (ha) 5,147 0 10,294 2,357	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 00% 200% 15% S	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857	ds of PPLs eason I oriented KTs Production ( Palawija 3,860 3,860	ton) Others 0 0
(1) (2) <b>IV.1</b> (1)	A. Irrigation & Agriculture P         - High irrigation performance         - Double cropping of paddy p         B. Primary Constraint Identify         - Irrigation & Drainage:         - Agronomic Issues:         - Paddy Marketing         Development Plan         Development Approaches         - Ensuring year round irrigati         - Expansion of double croppe         - Strengthening of extension a         Planned Irrigation Performan         Season I (wet)         Season II (wtp I)         Season III (dry I)         Total/Annual         Annual Increment	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailou ces and Crop I Cropp Paddy (ha) 5,147 4,375 9,522 1,585	b. Established	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha) 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitatio f paddy throu empowerme 7 Field Total (ha) 5,147 5,147 0 10,294 2,357 <b>IV. WUA</b>	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 00% 200% 15% s c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	ton) Others 0 0 0
(1) (2) <b>IV.1</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati- - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment Existing Condition	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailou ces and Crop I Cropp Paddy (ha) 5,147 4,375 9,522 1,585	by the entities of the entities in the enventory of the entities of the entits of the entities of the entities of the entits of the entities o	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha) 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitatio f paddy throu empowerme 7 Field Total (ha) 5,147 5,147 0 10,294 2,357 <b>IV. WUA</b>	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 00% 200% 15% S	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	ton) Others 0 0
(1) (1) (2) [V.1 (1)	A. Irrigation & Agriculture P         - High irrigation performance         - Double cropping of paddy p         B. Primary Constraint Identify         - Irrigation & Drainage:         - Agronomic Issues:         - Paddy Marketing         Development Plan         Development Approaches         - Ensuring year round irrigati         - Expansion of double croppe         - Strengthening of extension a         Planned Irrigation Performan         Season I (wet)         Season II (wtp I)         Season III (dry I)         Total/Annual         Annual Increment	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ed area of padd activities tailou ces and Crop J Croppy Paddy (ha) 5,147 4,375 9,522 1,585	b. Established	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha) 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitatio f paddy throu empowerme 7 Field Total (ha) 5,147 5,147 0 10,294 2,357 <b>IV. WUA</b>	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0
<b>III.2</b> (1) (2) <b>IV.1</b> (1) (2) (3)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry I) Total/Annual Annual Increment	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ded area of padd activities tailou ces and Crop J Paddy (ha) 5,147 4,375 9,522 1,585	b. Establishe b. Establishe b. Under der b. Establishe b. Under der b. Establishe b. Under der b. Establishe b. Under der b. Establishe b. Under der	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha) 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitatii f paddy throu empowerme / Field Total (ha) 5,147 0,10,294 2,357 IV. WUA	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0
<b>III.2</b> (1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b>	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season I (wet) Season I (wet) Season II (dry I) Season II (dry I) Season III (dry I) Season III (dry I) Season III (dry I) Total/Annual Annual Increment	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp ded area of padd activities tailou ces and Crop J Paddy (ha) 5,147 4,375 9,522 1,585	b. Establishe b. Establishe b. Under der b. Establishe b. Under der b. Establishe b. Under der b. Establishe b. Under der b. Establishe b. Under der	ire irrigated a Survey by the n level in dry commended p n level throug rity increase o pecific needs; Trigated Paddy Others (ha) 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitatii f paddy throu empowerme / Field Total (ha) 5,147 0,10,294 2,357 IV. WUA	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0
(1) (2) (1) (2) (1) (2) (3) (1) (2) (3) (1) (2) (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season I (wet) Season I (wet) Season II (dry I) Season III (dry I) Season III (dry I) Total/Annual Annual Increment  Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Const- No attention to O&M amon, - No coordination with Distric Development Plan Proposed Countermeasures	es attained; how practiced in mo fied through th Water shorta Farmers not Low marketi on water supp ed area of padd activities tailor ces and Crop I Croppp Paddy (ha) 5,147 4,375 9,522 1,585	b. Establish b. Under de b. Establish b. Under de b. Establish b. Under de b. Establish	ire irrigated a Survey by the n level in dry commended p in level throug ity increase o pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitation f paddy throu empowerme 7 Field Total (ha) 5,147 0 10,294 2,357 IV. WUA 111 111	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0
(1) (2) (1) (2) (1) (2) (3) (1) (2) (3) (1) (2) (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season I (wet) Season I (wet) Season II (dry I) Season II (dry I) Season III (dry I) Season III (dry I) Season III (dry I) Total/Annual Annual Increment	es attained; how practiced in mo fied through th Water shorta Farmers not Low marketi on water supp ed area of padd activities tailor ces and Crop I Croppp Paddy (ha) 5,147 4,375 9,522 1,585	b. Establish b. Under de b. Establish b. Under de b. Establish b. Under de b. Establish	ire irrigated a Survey by the n level in dry commended p in level throug ity increase o pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitation f paddy throu empowerme 7 Field Total (ha) 5,147 0 10,294 2,357 IV. WUA 111 111	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0
<b>III.2</b> (1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b> (1)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performane Season Season I (wet) Season II (dry I) Season II (dry I) Season III (dry II) Total/Annual Annual Increment  Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Const- No attention to O&M amon, - No coordination with Distrib Development Plan Proposed Countermeasures - Calling attention of farmers	es attained; how practiced in mo fied through th Water shorta Farmers not Low marketi on water supp ed area of padd activities tailor ces and Crop I Croppp Paddy (ha) 5,147 4,375 9,522 1,585	b. Establish b. Under de b. Establish b. Under de b. Establish b. Under de b. Establish	ire irrigated a Survey by the n level in dry commended p in level throug ity increase o pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitation f paddy throu empowerme 7 Field Total (ha) 5,147 0 10,294 2,357 IV. WUA 111 111	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0
<b>III.2</b> (1) (2) <b>IV.1</b> (1) (2) (3) <b>IV.2</b> (1) (2)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing  Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performane Season Season I (wet) Season II (dry I) Season II (dry I) Season III (dry II) Total/Annual Annual Increment  Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints - No attention to O&M amon, - No coordination with Distri Development Plan Proposed Countermeasures - Calling attention of farmers Development Plan	es attained; how practiced in mot <i>fied through th</i> Water shorta Farmers not Low marketi on water supp d area of padd activities tailou ces and Crop J Paddy (ha) 5,147 4,375 9,522 1,585	b. Establish b. Under de b. Establish b. Under de b. Establish b. Under de b. Establish	ire irrigated a Survey by the n level in dry commended p in level throug ity increase o pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitation f paddy throu empowerme 7 Field Total (ha) 5,147 0 10,294 2,357 IV. WUA 111 111	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0
III.2 (1) (2) (1) (2) (3) (2) (1) (2) (2)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performan Season Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints - No attention to O&M amon, - No coordination with Distric Development Plan Proposed Countermeasures - Calling attention of farmers Development Plan - WUA empowermwnt trainin	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp d area of padd activities tailor ces and Crop J Paddy (ha) 5,147 4,375 9,522 1,585	b. Establish b. Under de b. Establish b. Under de b. Establish b. Under de b. Establish	ire irrigated a Survey by the n level in dry commended p in level throug ity increase o pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitation f paddy throu empowerme 7 Field Total (ha) 5,147 0 10,294 2,357 IV. WUA 111 111	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0
III.2 (1) (2) (1) (2) (3) (2) (1) (2) (2)	A. Irrigation & Agriculture P - High irrigation performance - Double cropping of paddy p B. Primary Constraint Identif - Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches - Ensuring year round irrigati - Expansion of double croppe - Strengthening of extension a Planned Irrigation Performane Season Season I (wet) Season II (dry I) Season II (dry I) Season III (dry II) Total/Annual Annual Increment  Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints - No attention to O&M amon, - No coordination with Distri Development Plan Proposed Countermeasures - Calling attention of farmers Development Plan	es attained; how practiced in mo <i>fied through th</i> Water shorta Farmers not Low marketi on water supp d area of padd activities tailor ces and Crop J Paddy (ha) 5,147 4,375 9,522 1,585	b. Establish b. Under de b. Establish b. Under de b. Establish b. Under de b. Establish	ire irrigated a Survey by the n level in dry commended p in level throug ity increase o pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	rea; paddy yi JICA Study season oractices h rehabilitation f paddy throu empowerme 7 Field Total (ha) 5,147 0 10,294 2,357 IV. WUA 111 111	eld levels stil - Palawija M - Farmers Or - Extension S on agh intensific nt of farmer g Annual Intensity 100% 100% 0% 200% 15% s c. Not yet; c. Not yet;	arketing: - ganizations: Unstable ma Services: Shortage of ation; introduction of pala groups (KTs) to establish Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0 1.0	awija in dry se agri-business Crop Paddy 25,735 21,875 47,610 13,857 Registered	eason I oriented KTs Production ( Palawija 3,860 3,860 3,460	(ton) Others 0 0 0

V. IRRIGATION FACILITY										
V.1	Existing Condi									
(1)	Overall Irrigation				lly deterior		-	ll, D: Serious condit	ion for ope	
	Water Resource	2	Main Ca	nal System : D		:	Secondary C	anal System : D		On-farm : C
(2)	Water Resource									
	Type of facility			e. Scouring slu	ice gate	: 2 nos.		i. Condition : C		
	Type of weir	: Fixed we		f. Intake gate		: 2 nos.				ally deteriorated, C: Not
	Length of weir	: 80 m		g. Settling basi		: provided	1	-		condition for operation)
d.	. Design intake di	ischarge : 7.5 m3/s		h. Inspection b	ndge	: not provide	ed	(no info.: no inform	nation)	
(2)	Initiantian Contal	and Insuration Date								
(3)		and Inspection Road		Structure	(noc)	Increation	n road (m)	Condition	(	A: Functioning well,
	Main	11,009 1,87	· · ·	Structure	(1105) 62	Inspection	11,279	D		: Partially deteriorated,
	Secondary	0 32,92			73		5,700			: Not functioning well,
	Secondary	0 52,92	0 52,920		15		5,700	D		: Serious condition for
(4)	Major Problems	and Constrains							0	peration)
· · ·	- Water Resource									· ·
		or breakdown of stil	ing basin of w	eir						
		perational problem of			of headwo	rks				
		perational problem or								
-		and Related Structur								
	0	tion or obstruction of								
	Impassable	of inspection road a	long canal							
	Overage, lo	ower strength of cana	1							
	Difficulty of	on maintenance of ea	rth canal							
	Difficulty of									
(5)		r Problems and Cons	traints							
-	<ul> <li>Water Resource</li> </ul>	•								
		t strength of weir fou								
		esign, installation an							ame or lea	ıf
		esign, installation an		ce of intake gat	e(s); break	down of hois	t, stem, guid	e frame or leaf		
-	0	and Related Structur		、 ·				•		
		t function of settling								
		outine O&M works o					ifall then in f	low into canal		
		on of canal, no or ins								
		n and collapse of sid on or damage of insp					ia ta damaga	brokon		
V 2	Development P		ection road, di	ficulty off passi	ng or mspe		le to damage	, bioken		
		ermeasures for Majo	r Problems							
	- Water Resource		TTOOLEIIIS							
		tion of stilling basin	of weir							
		nt of control system		upment of floor	1/scouring	sluice gate(s)	)			
	•	nt of intake gate(s)				8	,			
-		and Related Structur	e							
	Removal o	f sediment soil and fo	oreign material	s from canal, gr	ass cutting					
	Provision c	of inspection road bot	h main and sec	ondary canal w	ith paveme	ent				
	Replace an	d reconstruction of c	anal							
		of concrete lining								
		or repair of inspection	road with all	weather type/pa	vement					
(2)	Water Resource									
	Dam/Headwork	2		Intake, civil : 1	arge rehab	ilitation	Intake	e, mechanical : larg	ge rehabili	itation
(2)	Settling basin	: large reha								
(3)	Works	and Related Structur	abilitation	Rehabilita	tion	Now com	struction	Total		
	Ma		0	Kellabilita	12,879	New con	0		12,879	
	(ana)(m)	condary	0		32,928		0		32,928	
	Structure Ma	2	0		62		6		68	
		condary	0		73		15		88	
	(		5	L	15		15	1	00	
(4)	On-farm Develo	opment					(Unit: ha)			
		ated paddy field	4,290	d. Non-potentia	al paddy fi	eld	398	]		
I	b. Potential non	-irrigated paddy field	404	e. Non-potentti			0	1		
	c. Potential non-		78	Total			5,170	-		
							, , , , , , , , , , , , , , , , , , ,	-		
(5)	Rehabilitation C	Cost (Direct Cost)			(Unit	: Million Rp.)				
	W.R.F Ir	rigation Drains	On-Farm	Project	Total	Cost				
	VV.K.F II	rigation Drainage	Develop.	Facility	Total	per ha				
	2,801	74,889 7,48	9 11,249	2,590	99,018	19.2	(W.R.F: Wate	er Resources Facility	, Develop	.: Development)
				<u>.</u>						
		11 (0)		VI. PROJ	ECT EV	ALUATIO	N			
VI.1	EIRR	11.6%								
VI 2	Drionitization 6	Cooring								
V1.2	Prioritization S Evaluation Inde			Full Score	Score	Evaluation I	ndev	E1	l Score	Score Total Score
		x ilization of Irrigation	Potential	10.0		Agricultural		rui	20.0	14.0 69.2
I		gency	1 otoritiai	25.0		Social Proble	2		15.0	14.0 69.2
1		stainability		15.0		Economic In			15.0	9.0
1	50.			15.0	0.5	III	<u>r</u>	l.		2.0
VI.3	Priority Group	Group I: F	irst priority gro	up		VI.4	Priority Ra	nking in the Prov	ince	8
1	., <b>P</b>			_			.,		- L_	

South Sulawesi Province 31. Lamasi Kanan Scheme (3/4)

Scheme	Lamasi Kanan	District	Luwu	
Technical Level	Technical	Registered Area	5,485 ha Year of Construction 1979	0/83
		05/24/2003	Category         Irrigation (Headworks)         Structure         Fixed Weir         Condition         □       A       □         B       ☑       C       □         Problems       Crack or damage on weir crest; settlement of weir deflection of pier of weir; rock sedimentation at weith the set of the set o	body; eir.
		05/24/2003	Category         Irrigation (Headworks)         Structure         Intake         Condition         □       A       □       B       ☑       C       □       D         Problems         Insufficient diversion water due to sedimentation i         front of intake; leakage from gate leaf; insufficient         strength against design load due to rust, decay of         material; problem on management due to lack of         periodically maintenance	t steel
		05/24/2003	Category         Irrigation (Main Canal)         Structure         Earth Canal         □       A       □       B       □       C       D         Problems         Sedimentation; collapse of canal; leakage from car         difficulty on maintenance of earth canal; no inspec         road.	nal;

South Sulawesi Province 31. Lamasi Kanan Scheme

Scheme	Lamasi Kanan	District	Luwu
Technical Level	Technical	Registered Area	5,485 ha Year of Construction 1979/83
			<u>Category</u> Irrigation (Main Canal)
			<u>Structure</u>
		ANT INST	Drop <u>Condition</u>
			$\square A \square B \bigcirc C \square D$
		- marked and a second	<u>Problems</u> Sedimentation at inside of canal; clogging of drop
			structure.
		A george	
and the second	- Part - Store	05/24/2002	
		05/24/2003	
		and the second sec	Category
			Agriculture, On-Farm
			<u>Activity</u> Paddy Cultivation
		To a	<u>Condition</u>
· · · · ·	1.34	A CALL CAL	A B C D <u>Problems</u>
			Low density of on-farm canals and farm roads.
5	e	CARLES AND	
E S M	C. Z. MA	MAN IAN SAL	
教会社	A CALLE	05/24/2003	
		C DYC FILL	
			<u>Category</u> Post-harvest Facility
1			Activity
grand and a			Storage & Drying Yard
	THE REAL PROPERTY IN		<u>Condition</u> □ A □ B ☑ C □ D
		P P P P P P P P P P P P P P P P P P P	<u>Problems</u>
	IDY II AT		
6 - C		42	
	North	ALL ALL	
- 7		05/24/2003	
1		03/24/2003	
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