

South Sulawesi Province 9. Bantimurung Scheme (1/4)

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T 1	General			I. PKUJEO	LI FUNDA	VIENTALS				
(1)	Code Number		73080053		(7)	Number of F	armers	: 10.514		
(2)	Name of Irrigation Scheme		Bantimurun	σ	(8)	Water Resou	rce River	· Bantimurun	σ	
(3)	District (Kabupaten)		· Maros	.9	(9)	Catchment A	$rea (km^2)$	· 18	8	
(4)	Sub-district (Kecamatan)		Bantimurung	Maros Utara	(10)	Completion	Last Rehabilitation Year	1930/1986		
(5)	Registered Area (ha)		: 6.513	,,		F				
(6)	Technical Level		: Technical							
(-)										
I.2	Availability of Reports/Docu	iments & Ref	erences		(A : Availab	le, B : Avai	lable but partially, C : N	Not available/	No plan)	
	a. Design Reports of Exi	sting System(1	Full set)	b. Iı	rigation diag	am	c. As-built drawings	d. Struct	ure lists & d	iagram
	В				Α		В		А	
	e. Rehabilitation pla	n & its referen	ices	f. Cro	ops and yield	data	g. Cropping Calender	h.	WUAs data	ı
	C				Α		А		63	
			II CUDII			DILITAT	ION DI AN			
II 1	Present and Planned L and I	150	II. SUBJE	LUI AKEA	FUK KEHA	BILIIAI	ION PLAN			
11.1	Category	550	Preser	nt (ha)	Plan	(ha)	Increment (ha)	1		
	a. Irrigated paddy field		110001	5 717	1 1411	5 717	0			
	b. Rainfed paddy field			0		0	0			
	c. Upland Field			0		0	0			
	d. Uncultivated Land			0		0	0	1		
	e. Non-irrigable			0		0	0	1		
	Total			5,717		5,717	0	1		
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				III. A	AGRICULT	URE				
III.1	Present/Before Project Conc	lition								
(1)	Irrigation Performance and Cr	op Production	ad Araa in Im	righted Doddy	Field	A	Irrigated Daddy Viald	Cron	Draduation	(ton)
	Season	Doddy (ba)	Dolourito	Others (hg)	Total (ba)	Intersity	(GKG top/ba)	Doddy	Polowiio	Others
	Season I (wat)	rauuy (na)	PalaWija	Others (na)	10tal (na)		(UKU ton/na)	raddy	raiawija	Others
	Season II (dry I)	5,717			5,717	0.0%	4.5	23,727		
	Season III (dry II)	5,150	700		700	9070 12%	4.5	23,202	400	
	Total/Annual	10.873	700	0	11 573	202%	4 5	48 929	490	(
	Total/Timuai	10,075	/00	0	11,575	20270	1.0	10,727	170	C.
	 Double cropping of paddy pp B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing 	racticed almos ied through the Water shorta Farmers not t Low marketin	t in the entire e Inventory Su ge at on-farm following reco ng prices	irrigated area <i>arvey by the J.</i> level in dry so commended pro-	; paddy yield <i>ICA Study</i> eason actices	levels moder - Palawija M - Farmers Or - Extension S	rate; palawija introduced (arketing: Low market ganizations: Economic a Services: Implementa	extensively ing prices ctivities are lin tion of extensio	nited on programs	is limited
III.2 (1)	 Double cropping of paddy pr B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing 2 Development Plan Development Approaches Ensuring year round irrigatio Productivity increase of pade Strengthening of extension a 	racticed almost ted through the Water shorta, Farmers not i Low marketi	t in the entire e Inventory Si ge at on-farm following reco ng prices y at on-farm l ensification; e ed to area spe	irrigated area <i>uvey by the J.</i> level in dry se mmended pra- evel through i expansion of p cific needs: et	; paddy yield <i>ICA Study</i> eason actices rehabilitation alawija in dry pooverment	levels model - Palawija M - Farmers Or - Extension S season II	rate; palawija introduced o arketing: Low market ganizations: Economic ao Services: Implementar pups (KTs) to establish ag	extensively ing prices ctivities are lin tion of extensio ri-business orig	nited on programs ented KTs	is limited
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III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1)	Double cropping of paddy pr B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Ensuring year round irrigatio Productivity increase of pade 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; Performance a. Developed; Problems and Constraints [] Operation Causes of Problems and Const Insufficient irrigation water of	racticed almost ied through the Water shorta, Farmers not i Low marketin on water suppl dy through inte ctivities tailor res and Crop F Cropr Paddy (ha) 5,717 5,717 11,434 561 80 15 traints distribution.	t in the entire e Inventory Si ge at on-farm following reco- ng prices y at on-farm I ensification; e ed to area spe roduction red Area in Irr Palawija 1,143 1,143 443 b. Establishec b. Under deve Maintenance	irrigated area <i>arvey by the J.</i> level in dry se mmended pra vevel through 1 expansion of p cific needs; et rigated Paddy Others (ha) 0 0 1 1; eloping;	; paddy yield (CA Study eason actices rehabilitation alawija in dry npowerment Field Total (ha) 5,717 1,143 12,577 1,004 IV. WUAs 13 28 Management	levels model Palawija M Farmers Or Extension S season II of farmer gro Annual Intensity 100% 20% 220% 18%	rate; palawija introduced o arketing: Low market ganizations: Economic a Services: Implementar pups (KTs) to establish ag Irrigated Paddy Yield (GKG ton/ha) 5.5 5.5 1.0	extensively ing prices ctivities are lin tion of extension ri-business orion Crop Paddy 31,444 31,444 62,887 13,959 Registered Not yet regist	nited on programs ented KTs Production (Palawija 1,372 1,372 882	is limited
III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1)	 Double cropping of paddy primary Constraint Identifie Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Ensuring year round irrigation Productivity increase of padde Strengthening of extension a Planned Irrigation Performance 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 Insufficient irrigation water of the performance of the performa	racticed almost ied through the Water shorta, Farmers not i Low marketin on water suppl dy through inte ctivities tailor res and Crop F Crop F Paddy (ha) 5,717 5,717 11,434 561	t in the entire e Inventory Si ge at on-farm following reco- ng prices y at on-farm I ensification; e ed to area spe roduction ed Area in Irr Palawija 1,143 1,143 443 b. Establishec b. Under deve	irrigated area <i>arvey by the J.</i> level in dry se ommended pra evel through i expansion of p cific needs; ei rigated Paddy Others (ha) 0 0 1 i; eloping;	; paddy yield (CA Study eason actices rehabilitation alawija in dry npowerment Field Total (ha) 5,717 5,717 1,143 12,577 1,004 IV. WUAs 13 28 Management	levels model Palawija M Farmers Or Extension S season II of farmer gro Annual Intensity 100% 200% 220% 18%	rate; palawija introduced o arketing: Low market ganizations: Economic a Services: Implementat pups (KTs) to establish ag Irrigated Paddy Yield (GKG ton/ha) 5.5 5.5 5.5 1.0	extensively ing prices ctivities are lin tion of extension ri-business oright Crop Paddy 31,444 31,444 62,887 13,959 Registered Not yet regist	nited on programs ented KTs Production (Palawija 1,372 1,372 882	is limited
III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1)	Double cropping of paddy pr B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Ensuring year round irrigatio Productivity increase of pade Strengthening of extension a Planned Irrigation Performance Season Season I (wet) Season II (dry I) Season III	racticed almost ied through the Water shorta, Farmers not i Low marketin on water suppl dy through inte ctivities tailor res and Crop F Crop F Paddy (ha) 5,717 5,717 11,434 561	t in the entire e Inventory Si ge at on-farm following reco- ng prices y at on-farm I ensification; e ed to area spe roduction bed Area in Irr Palawija 1,143 1,143 443 b. Establishec b. Under deve	irrigated area <i>arvey by the J.</i> level in dry se sommended pra evel through i expansion of p cific needs; ef rigated Paddy Others (ha) 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	; paddy yield (CA Study eason actices rehabilitation alawija in dry npowerment Field Total (ha) 5,717 5,717 1,143 12,577 1,004 IV. WUAs 13 28 Management	levels model Palawija M Farmers Or Extension S season II of farmer gro Annual Intensity 100% 20% 220% 18%	rate; palawija introduced of arketing: Low market ganizations: Economic a Services: Implementat oups (KTs) to establish ag Irrigated Paddy Yield (GKG ton/ha) 5.5 5.5 5.5 1.0	extensively ing prices ctivities are lin tion of extension ri-business oright Crop Paddy 31,444 31,444 62,887 13,959 Registered Not yet regist	ented KTs Production (Palawija 1,372 1,372 882 ered	is limited
III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1) (2)	 Double cropping of paddy primary Constraint Identifie Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Ensuring year round irrigation Productivity increase of padde Strengthening of extension and Planned Irrigation Performance Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment Existing Condition Number a. Target; Performance Development Plan Causes of Problems and Constraints Insufficient irrigation water of the proposed Countermeasures Acceleration of WUA federation and WUA federation and the proposed Countermeasures 	racticed almost ied through the Water shorta, Farmers not i Low marketin on water suppl dy through into ctivities tailor res and Crop F Crop F Paddy (ha) 5,717 	t in the entire e Inventory St ge at on-farm following reco- ng prices y at on-farm I ensification; e ed to area spe roduction bed Area in Irr Palawija 1,143 1,143 443 b. Establishec b. Under deve	irrigated area <i>arvey by the J.</i> level in dry se sommended pra evel through i expansion of p cific needs; er rigated Paddy Others (ha) 0 0 1 ; eloping;	; paddy yield <i>ICA Study</i> eason actices rehabilitation alawija in dry npowerment Field Total (ha) 5,717 5,717 1,143 12,577 1,004 IV. WUAs 13 28 Management	levels model Palawija M Farmers Or Extension S season II of farmer gro Annual Intensity 100% 20% 220% 18%	rate; palawija introduced of arketing: Low market ganizations: Economic a Services: Implemental pups (KTs) to establish ag Irrigated Paddy Yield (GKG ton/ha) 5.5 5.5 5.5 1.0	extensively ing prices ctivities are lin tion of extension ri-business orion Paddy 31,444 31,444 62,887 13,959	ented KTs Production (Palawija 1,372 1,372 882 ered	is limited
HI.2 (1) (2) (1) (2) (3) (1) (2) (1) (2)	Double cropping of paddy pr B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Ensuring year round irrigatio Productivity increase of pade 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 Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints	racticed almost ied through the Water shorta, Farmers not i Low marketin on water suppl dy through into ctivities tailor res and Crop P Paddy (ha) 5,717 5,717 11,434 561 80 15 traints distribution.	t in the entire e Inventory St ge at on-farm following reco- ng prices y at on-farm I ensification; e ed to area spe roduction sed Area in Irr Palawija 1,143 1,143 443 b. Establishec b. Under deve Maintenance	irrigated area <i>arvey by the J.</i> level in dry se sommended pra evel through 1 expansion of p cific needs; ef rigated Paddy Others (ha) 0 0 0 1 t; eloping;	; paddy yield (CA Study eason actices rehabilitation alawija in dry npowerment Field Total (ha) 5,717 5,717 1,143 12,577 1,004 IV. WUAs 13 28 Management	levels model Palawija M Farmers Or Extension S season II of farmer gro Annual Intensity 100% 20% 220% 18% c. Not yet; c. Not yet;	rate; palawija introduced of arketing: Low market ganizations: Economic a Services: Implemental pups (KTs) to establish ag Irrigated Paddy Yield (GKG ton/ha) 5.5 5.5 5.5 1.0	extensively ing prices ctivities are lin tion of extension ri-business orion Crop Paddy 31,444 31,444 62,887 13,959	hited on programs ented KTs Production (Palawija 1,372 1,372 882	is limited
 III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1) (2) 	Double cropping of paddy pr B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Ensuring year round irrigatio Productivity increase of pade Strengthening of extension a Planned Irrigation Performance 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	racticed almost ied through the Water shorta, Farmers not i Low marketin on water suppl dy through into ctivities tailor res and Crop P Cropp Paddy (ha) 5,717 	t in the entire e Inventory St ge at on-farm following reco- ng prices y at on-farm I ensification; e ed to area spe roduction sed Area in Irr Palawija 1,143 1,143 443 b. Establishec b. Under devo	irrigated area arvey by the J. level in dry se sommended pra evel through 1 expansion of p cific needs; ef rigated Paddy Others (ha) 0 0 0 1 1; clopping;	; paddy yield (CA Study eason actices rehabilitation alawija in dry npowerment Field Total (ha) 5,717 5,717 1,143 12,577 1,004 IV. WUAs 13 28 Management	levels model Palawija M Farmers Or Extension S season II of farmer gro Annual Intensity 100% 20% 220% 18% C. Not yet; c. Not yet;	rate; palawija introduced o arketing: Low market ganizations: Economic au Services: Implementar oups (KTs) to establish ag Irrigated Paddy Yield (GKG ton/ha) 5.5 5.5 5.5 1.0	extensively ing prices ctivities are lin tion of extension ri-business orion Crop Paddy 31,444 31,444 62,887 13,959 Registered Not yet regist	hited on programs ented KTs Production (Palawija 1,372 1,372 882	is limited

					V. IRF	RIGATION	FACILITY			
V.1	Existing Co	ndition								
(1)	Overall Irrig	ation System	: D	(A: Functioni	ng well, B: Pa	rtially deterior	ated, C: Not fu	nctioning wel	II, D: Serious condition for op	peration)
(2)	Water Resol	urces Facility	:0	Main Ca	nal System :	D	8	econdary Ca	anal System : C	On-farm : D
(2) a	Type of faci	lity	· Headworks		e Scouring s	shuice gate	· 1 nos		i Condition · C	
b.	Type of wei	r	: Fixed weir		f. Intake gate	e Bute	: 2 nos.		(A: Functioning well, B: Par	tially deteriorated. C: Not
c.	Length of w	eir	: 25 m		g. Settling ba	asin	: not provided	1	functioning well, D: Serious	condition for operation)
d.	Design intak	e discharge	: 8.8 m3/s		h. Inspection	n bridge	: provided		(no info.: no information)	
(3)	Irrigation Ca	anal and Inspe	ection Road		<i>a</i>		·	1 ()	a	
	Canal	Lined (m)	Unlined (m)	Total (m)	Structu	re (nos)	Inspection	road (m)	Condition	(A: Functioning well, B: Partially deteriorated
	Nain Secondary	35 650	5 100	14,000		122		16,000	D C	C: Not functioning well.
	Becondary	55,050	5,100	40,750		122		10,000	C	D: Serious condition for
(4)	Major Probl	ems and Cons	strains							operation)
-	Water Resou	urces Facility								
	Settlem	ent or breakd	lown of apron	of weir						
	Physica	al operational	problem on f	lood/scourin	g sluice gate(s) of headwo	rks			
	Physica Internations Co	al operational	problem on 1	ntake gate(s)						
-	Cracks	or partial dan	nage on lined	canal						
	Leakag	e from lined	canal	Canar						
	Deflect	ion of lining	toward inside	of canal						
	Difficu	lty on O&M								
(5)	Causes of M	lajor Problem	s and Constra	aints						
-	Water Resou	urces Facility	of wair four	lation not an	augh faunda	tion tractman	t or insufficia	nt longth of	anron	
	Insurin	er design ins	tallation and/	or maintenan	ce of flood/s	couring sluice	$r_{\rm gate}(s)$ hrea	kdown of ho	apion vist stem guide frame or le	af
	Improp	er design, ins	tallation and/	or maintenar	ce of intake s	pate(s): break	down of hoist	stem, guide	e frame or leaf	ai
-	Irrigation Ca	anal and Rela	ted Structure			5(0), 0		,, 8		
	Improp	er regular ma	intenance or	long leave of	repair, insufi	ficient provis	ion of budget			
	Improp	er regular ma	intenance or	long leave of	repair, narro	w wide of ca	nal embankme	ent		
	No trea	tment against	groundwater	, unstable slo	ope gradient a	igainst soil pi	operty, no rep	air in long t	ime	
	No pro	vision or dam	age of inspec	tion road, dif	ficulty on pa	ssing of inspe	ection road du	e to damage	, broken	
V 2	Developme	nt Plan								
(1)	Proposed Co	ountermeasure	es for Maior I	Problems						
	Water Resou	urces Facility	j							
	Recons	truction of ap	oron of weir							
	Replace	ement of cont	rol system or	damaged eq	uipment of fl	ood/scouring	sluice gate(s)			
	Replace	ement of intal	ke gate(s)							
-	 Irrigation Ca Replace 	anal and Rela	ted Structure	sion of spaci	al traatmant a	t aross drain	to provent set	lamont		
	Replace	e canal embar	uction, provi	ial with imne	ar treatment a	and re-lining	to prevent set	liement		
	Replace	e canal embar	nkment mater	ial and re-lin	ing; or provis	sion of side d	rain, under dra	in, and wee	p holes	
	Provisi	on or repair o	f inspection r	oad with all	weather type/	pavement	, ,			
(2)	Water Resou	urces Facility		.:1:44:	T	. 1	:1:4-4:	T. (1)		
	Dam/Headw	orks body	: minor renat	of or new	Intake, civil	: large renab	ilitation	Intake	e, mechanical : replacement	t or new
(3)	Irrigation Ca	anal and Rela	ted Structure	it of new						
(3)	We	orks	No rehat	oilitation	Rehabi	litation	New cons	struction	Total	
	Canal (m)	Main		0		12,320		0	12,320	
	Callal (III)	Secondary		0		35,860		0	35,860	
	Structure	Main		0		60		6	66	
1	(nos)	Secondary		0		107		21	129	
(4)	On_farm Do	velopment						(Unit: be)		
(4)	a. Potential	reconnent	lv field	5 717	d. Non-noter	ntial naddy fi	eld	(Unit. Ind) ()]	
	b. Potential	non-irrigated	paddy field	0	e. Non-poter	ittial non-pad	dy field	0		
	c. Potential	non-paddy fie	eld	0	Total	···· · · ·		5,717	-	
1										
(5)	Rehabilitatio	on Cost (Dire	ct Cost)	0 5		(Unit	: Million Rp.)			
1	W.R.F	Irrigation	Drainage	On-Farm	Project	Total	Cost			
	6761	70 402	7 040	Develop.	Facility	00 227	per ha	WREW	Pr Resources Facility Davala	n · Development)
1	0,200	70,092	7,009	11,720	2,390	70,337	1/.2	w.n.r. walt	a resources raciity, Develo	p Development)
			Γ		VI. PR	OJECT EV	ALUATION	N		
VI.1	EIRR	11.4%]							
VI.2	<u>Prioritiza</u> tio	on Scoring								
1	Evaluation I	ndex			Full Score	Score	Evaluation In	dex	Full Score	Score Total Score
1	Irrigation	Utilization o	f Irrigation P	otential	10.0	5.0	Agricultural l	Productivity	20.0	11.0 64.3
1	System	Urgency Sustainal-114			25.0	22.0	Social Proble	m nact	15.0	9.0
1	L	Sustamadint	у		15.0	8.3	Economic im	ιρατι	15.0	7.0
VI.3	Priority Gr	oup	Group III: T	hird priority	group		VI.4	Priority Ra	nking in the Province	21
1										

South Sulawesi Province 9. Bantimurung Scheme (3/4)

Scheme	Bantimurung	District	Maros		
Technical Level	Technical	Registered Area	6,513 ha	Year of Construction	1930/86
			Irrigation (F Structure Fixed Weir Condition A Problems Crack or dat deflection of	leadworks)	D D
			Category Irrigation (F Structure Intake Condition A Problems Leakage fro design load on managen	leadworks)	D rength against material; problem cally maintenance
			Category Irrigation (N <u>Structure</u> Concrete Lin <u>Condition</u> A <u>Problems</u> Sedimentation from lined c canal.	fain Canal) ned Canal BC on; crack or damage on lir anal; deflection of lining t	☑ D ned canal; leakage oward inside of

South Sulawesi Province 9. Bantimurung Scheme

Scheme	Bantimurung	District	Maros
Technical Level	Technical	Registered Area	6,513 ha Year of Construction 1930/86
			Category Irrigation (Secondary Canal) Structure Division Structure Condition □ A □ B □ C □ D Problems Lower function of division structure; sedimentation at inside of canal; physical operation problem on structure.
			Category Agriculture, On-Farm Activity Paddy Field Condition □ A □ A □ A □ A □ C □ A □ B □ C □ D Problems Low density of on-farm canals and farm roads.
		and the set	<u>Category</u> Post-harvest Facility
	An and a second	The second	<u>Activity</u> Drying Yard
	A COLORED AND A		
			Problems

South Sulawesi Province 10. Lekopancing Scheme (1/4)

-				I PROIF	CT FUND	MENTAL	S			
L1	General			I, I KOJE			5			
(1)	Code Number		: 73080054		(7)	Number of F	armers	: 5.242		
(2)	Name of Irrigation Scheme		: Lekopanc	ing	(8)	Water Resou	irce River	: Sungai Leko	opancing	
(3)	District (Kabupaten)		: Maros	e	(9)	Catchment A	(km ²)	: 276.6	1 0	
(4)	Sub-district (Kecamatan)		: Mandai, T	anralili	(10)	Completion	/ Last Rehabilitation Year	: 1982		
(5)	Registered Area (ha)		: 3,626							
(6)	Technical Level		: Technical							
1.2	Availability of Reports/Docu	ments & Re	ferences	1.1	(A : Availab	ole, B : Avai	lable but partially, C : N	ot available/	No plan)	
	a. Design Reports of Exis	sting System(Full set)	b. 1	rrigation diag	ram	c. As-built drawings	d. Struct	ure lists & diagr	ram
	B Bababilitation plan	R its rafara		f Cr	A and wield	data	B a Cronning Colondor	h	A WILAs data	
	e. Renabilitation plan	a its referen	ices	1. CI		uata		11.	5	
	e				Л		11		5	
			II. SUBJ	ECT AREA	FOR REH	ABILITAT	TION PLAN			
II.1	Present and Planned Land U	se	ú		r			1		
	Category		Prese	ent (ha)	Plan	(ha)	Increment (ha)	-		
	a. Irrigated paddy field			2,483		2,483	0	-		
	b. Rainfed paddy field			0		0	0			
	c. Upland Field			0		0	0			
	u. Uncunivated Land			0		0	0	-		
	Total			2 483		0	0	1		
	· · · · · · ·		1	2,403	ļ			1		
				<u>III.</u>	AGRICUL	TURE				
III.1	Present/Before Project Cond	lition								
(1)	Irrigation Performance and Cre	op Productio	n					1		
	Season	Cropp	ed Area in I	rrigated Paddy	y Field	Annual	Irrigated Paddy Yield	Crop	Production (ton))
		Paddy (ha)	Palawija	Others (ha)	Total (ha)	Intensity	(GKG ton/ha)	Paddy	Palawija C	Others
	Season I (wet)	2,264			2,264	91%	4.0	9,056		
	Season II (dry I)	1 204	70	:	1 277	0%	4.0	5 016	102	
	Total/Annual	3 568	73	0	3.641	147%	4.0	5,210	183	0
	Total/Annual	5,508	/3	0	5,041	14//0	4.0	14,272	185	0
(1) (2)	 Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area & Expansion of double cropped Strengthening of extension at Planned Irrigation Performanc Season Season I (wet) Season II (dry I) Season III (dry II) Total/Annual 	Water shorta Farmers not Unstable ma a rea of pade ctivities tailo es and Crop Paddy (ha) 2,483 1,986 4,469	age at on-fari following re rrketing price ar round irrig dy; productiv red to area sp Production bed Area in In Palawija 248 497 7455	n level in dry commended p ss gation water s ity increase of becific needs; Trigated Paddy Others (ha)	season rractices upply at on-fa f paddy throu empowermer v Field Total (ha) 2,483 2,483 2,483 2,483	 Palawija M Farmers Or Extension S arm level through intensification of farmer g Annual Intensity 100% 100% 210% 	arketing: Unstable ma ganizations: Most member Services: Implementat pugh rehabilitation ation; introduction of palar roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 5.0	rketing prices ers are not activition of extension wija in dry sear gri-business or Crop Paddy 12,415 9,930 22,345	ve on programs is li son I & II riented KTs Production (ton) Palawija C 2,485 298 2,783)) Dthers 0 0
	Annual Increment	901	672	0	1,573	63%	1.0	8,073	2,600	0
IV 1	Existing Condition				IV. WUA	\$				
(1)	Number a. Target:	67	b. Establish	ed;	62	c. Not vet:	62	Registered		0
	Performance a. Developed;	0	b. Under de	veloping;	5	c. Not yet;	0	Not yet regist	ered	5
(2)	Problems and Constraints		Maintenanc	e 🗸	Management	ţ				
(3)	 Less attention to O&M activi Internal management of WU. 	ities. A								
IV.2	Development Plan									
IV.2 (1)	Development Plan Proposed Countermeasures - Acceleration of WUA establi - Improvement of WUA admin	ishment. nistration.								

					V. IRF	RIGATION	FACILITY			
V.1	Existing Co	ndition								
(1)	Overall Irrig	ation System	: C	(A: Function	ng well, B: Pa	rtially deterior	ated, C: Not fu	nctioning wel	II, D: Serious condition for op	peration)
(2)	Water Resol	urces Facility	: В	Main Ca	nal System :	D	8	econdary Ca	anal System : D	On-farm : C
(2) a	Type of faci	lity	· Headworks		e Scouring	shuice gate	· no info		i Condition · B	
b.	Type of wei	r	: Fixed weir		f. Intake gate	e Bute	: 3 nos.		(A: Functioning well, B: Par	tially deteriorated. C: Not
c.	Length of w	eir	: 24 m		g. Settling ba	asin	: not provided	1	functioning well, D: Serious	condition for operation)
d.	Design intak	e discharge	: 4.4 m3/s		h. Inspectior	n bridge	: not provided	1	(no info.: no information)	
(3)	Irrigation Ca	anal and Inspe	ection Road		i				1	
	Canal	Lined (m)	Unlined (m)	Total (m)	Structu	re (nos)	Inspection	road (m)	Condition	(A: Functioning well,
	Main	5,057	699	5,756		38		19.2(1	D	B: Partially deteriorated, C: Not functioning well
	Secondary	20,061	8,334	28,395		133		18,301	D	D: Serious condition for
(4)	Major Probl	ems and Con	strains							operation)
-	Water Resou	urces Facility	strums							
	Insuffic	cient diversion	n water due to	sedimentat	on in front of	intake				
	Inflow	of bed loads i	into canal and	decrease ca	nal flow capa	city				
	Physica	al operational	problem on i	ntake gate(s)						
-	Irrigation Ca	anal and Rela	ted Structure							
	Genera	l O&M probl	ems							
	Overag	e, lower stren	igth of canal	tura an aan	1					
	Difficu	lty on O&M	gulating struc		.1					
	Difficu									
(5)	Causes of M	lajor Problem	s and Constra	ints						
-	Water Resou	urces Facility								
	Sedime	ntation in fro	nt of intake							
	No pro	vision of settl	ing basin, no	proper gate	operation of i	ntake during	flood			
	Improp	er design, ins	tallation and/	or maintenai	ice of intake g	gate(s); break	down of hoist	, stem, guide	e frame or leaf	
-	Irrigation Ca	anal and Rela	ted Structure		1				•	
	N0 k110 Deterio	and hectome	ter post, no si	ructure plat	or mark on s	structures and	l no identificat	tion for repa	ir/maintenance	
	Deterio	ration of regi	ilating structu	re on canal	especially gat	te and metal y	vorks			
	No pro	vision or dam	age of inspec	tion road. di	fficulty on pa	ssing of inspe	ection road due	e to damage	. broken	
					· · · J · 1 ··				,	
V.2	Developmen	nt Plan								
(1)	Proposed Co	ountermeasur	es for Major I	roblems						
-	Water Resou	urces Facility								
	Dredgi	ng or flushing	g of sediment,	proper gate	operation of l	headworks ar	id intake			
	Provisi	on of settling	basin, proper	gate operati	on of intake c	luring flood				
I .	Irrigation Ca	anal and Rela	ted Structure							
	Provisi	on of kilo, he	ct-m posts. m	arking to eac	h structure w	ith structure	name			
	Replace	e and reconsti	ruction of can	al	in structure w	in straetare				
	Replace	ement and rec	construction o	f regulating	structure on c	anal				
	Provisi	on or repair o	f inspection r	oad with all	weather type/	pavement				
(2)	Water Resou	arces Facility		.:1:44:	T 1		L:1:4-4:	T. (1)		1:4-4:
	Dam/Headw	orks body	: minor renat	t or new	Intake, civii	: minor rena	Dimation	Intake	e, mechanical : large renabi	Intation
(3)	Irrigation Ca	iii anal and Rela	ted Structure	t of new						
(5)	W	orks	No rehat	oilitation	Rehabi	litation	New cons	struction	Total	
	G 1()	Main		0		3,914		0	3,914	
	Canal (m)	Secondary		0		19,309		0	19,309	
	Structure	Main		0		26		3	28	
	(nos)	Secondary		0		90		18	109	
10	0.0.7	.1						/IT '/ I '		
(4)	On-farm De	velopment	h. fiald	2 402	d N	tiol mail 1 "	ald	(Unit: ha)]	
1	a. rotential	non-irrigated	naddy field	2,483	u. Non-poter	itial paddy fi	dy field	0		
	c. Potential	non-naddy fie	paddy field	0	Total	ittiai non-pac	ay neia	2 483		
	e. i otentidi i	aon puddy ne		0	- •••••			2,705	1	
(5)	Rehabilitatio	on Cost (Dire	ct Cost)			(Unit	: Million Rp.)			
	WPE	Irrigation	Drainaga	On-Farm	Project	Total	Cost			
	vv .IX.1	ingation	Dramage	Develop.	Facility	rotai	per ha			
1	3,403	33,020	3,302	5,090	1,570	46,385	18.7 (W.R.F: Wate	er Resources Facility, Develo	p.: Development)
					VI DD4	OIFCT FV	ALIIATION	J		
VI.1	EIRR	15.0%			V 1, 1 K	OJECT EV	ALUATION			
			-							
VI.2	Prioritization	on Scoring			Full Score	Soora	Evaluation I-	dev	Epil Coore	Score Total Score
	Irrigation	Utilization o	f Irrigation D	otential	10.0	5010	Agricultural I	uen Productivity	20.0	13.0 67.7
1	System	Urgencv			25.0	20.4	Social Proble	m	15.0	9.0
1		Sustainabilit	у		15.0	8.3	Economic Im	pact	15.0	12.0
1				-						
VI.3	Priority Gr	oup	Group II: See	cond priority	group		VI.4 1	Priority Ra	nking in the Province	17
L										

Scheme	Lekopancing	District	Maros
Technical Level	Technical	Registered Area	3,626 ha Year of Construction 1982
			Category Irrigation (Main Canal) Structure Division Structure Condition □ A □ B □ C ☑ D Problems Lower function of division structure; sedimentation at inside of canal; physical operation problem on structure.
			Category Irrigation (Main Canal) Structure Lined Canal Condition □ A □ B □ C ☑ D Problems Sedimentation; crack or damage on lined canal; leakage from lined canal; deflection of lining toward inside of canal.
			Category 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.

South Sulawesi Province 10. Lekopancing Scheme (4/4)

Scheme	Lekopancing	District	Maros		
Technical Level	Technical	Registered Area	3,626 ha	Year of Construction	1982
ALVA A			Category Irrigation (S Structure Division Str Condition A Problems Lower functionside of candamage on statements	Secondary Canal) Tucture B C tion of division structure; s nal; physical operation pro structure; deterioration of g	D sedimentation at blem on structure; gates.
			Category Agriculture, Activity Land Prepau <u>Condition</u> A <u>Problems</u> Low density	, On-Farm ration by Hand Tractor B C 7 of on-farm canals and far	☑ D m roads.
			Category Agriculture, Transplantin <u>Condition</u> A <u>Problems</u> Low density	, On-Farm	D m roads.



South Sulawesi Province

11. Padaelo Scheme (1/4)

				I. PROJE	CT FUNDA	MENTAL	S				
I.1	General						*				
(1)	Code Number		: 73090179		(7)	Number of F	armers	: 4,730			
(2)	Name of Irrigation Scheme		: Padaelo		(8)	Water Resou	rce River	: Sungai Pada	elo		
(3)	Sub district (Kabupaten)		: Pangkep	r Sagari	(9)	Catchment A	rea (km ⁻)	: 150			
(-,-)	Registered Area (ha)		: 2.958	e Segen	(10)	completion /	Last Kendonnation Tear	. 1770			
(6)	Technical Level		: Technical								
I.2	Availability of Reports/Docu	ments & Ref	erences	1.1	(A : Availab	le, B : Avail	lable but partially, C : N	ot available/]	No plan)	1:	
	a. Design Reports of Exis	sting System()	rull set)	0.1	A A	ram	C. As-built drawings B	u. Struct	A	Ilagraffi	
	e. Rehabilitation plan	& its referen	ces	f. Cr	ops and yield	data	g. Cropping Calender	h.	WUAs dat	a	
	C				A		Ă		29		
			II CUDI	ECT ADEA	FOD DELL	ADILITAT					_
П 1	Present and Planned Land I	se	II. SUBJ	EU I AKEA	FUK KEH	ABILITAI	ION PLAN				_
	Category	/sc	Prese	ent (ha)	Plan	(ha)	Increment (ha)				
	a. Irrigated paddy field			1,808		2,462	654				
	b. Rainfed paddy field			654		0	-654				
	c. Upland Field			0		0	0				
	e. Non-irrigable			0		0	0				
	Total			2,462		2,462	0				
	D			III.	AGRICUL	TURE					
III.I (1)	Irrigation Performance and Cr	ntion On Production	h								
(1)		Cropp	ed Area in I	rrigated Paddy	y Field	Annual	Irrigated Paddy Yield	Crop P	roduction (ton) 1/	
	Season	Paddy (ha)	Palawija	Others (ha)	Total (ha)	Intensity	(GKG ton/ha)	Paddy	Palawija	Other	s
	Season I (wet)	1,808		<u> </u>	1,808	100%	4.5	9,771			
	Season II (dry I)	567			567	31%	4.5	2,552	328		
	Total/Annual	2 375	0	0	2 375	131%	4 5	12 323	328		0
	1 out / finitual	2,515		0	2,515	15170	1/: Irrigated	& rainfed pad	dy & palaw	rija	0
III.2 (1) (2)	Paddy Marketing Pevelopment Plan Development Approaches Expansion of irrigated area & Expansion of double croppec Strengthening of extension a Planned Irrigation Performanc Season Season I (wet) Season II (dry I)	2 ensuring yee d area of padd ctivities tailor es and Crop F Cropp Paddy (ha) 2,462 1,970	ar round irrig y; productiv ed to area sy roduction ed Area in In Palawija 492	gation water s ity increase of becific needs; rrigated Paddy Others (ha)	upply at on-fa f paddy throu empowermer y Field Total (ha) 2,462 2,462	arm level thro gh intensifica it of farmer g Annual Intensity 100%	Services: Shortage of o bugh rehabilitation & upgr ttion; introduction of palav roups (KTs) to establish a Irrigated Paddy Yield (GKG ton/ha) 5.5 5.5	ading vija in dry seas gri-business or Crop 1 Paddy 13,541 10,835	son II iented KTs Production Palawija 2,460	(ton) Other	S
1	Season III (dry II)	4 400	10.2		0	0%		24.254	2.440		0
	I otal/Annual Annual Increment	4,432	492		4,924	200%	5.5	24,376	2,460		0
IV.1 (1)	Existing Condition	30	b. Establish	ed;	IV. WUA 30	s c. Not vet:	0	Registered			0
, í	Performance a. Developed;	0	b. Under de	veloping;	9	c. Not yet;	21	Not yet registe	ered		37
(2) (3) IV.2 (1)	Problems and Constraints Operation Causes of Problems and Const - No O&M plan and program - No coordination with Distric Development Plan Proposed Countermeasures - Acceleration of WUA establi - Increase in District WRS stat	traints t WRS office. ishment and fo	Maintenanc ederation. O&M.	e J	Managemen	:					
(2)	Development Plan - Capacity building of District	WRS staff.									

	V. IRRIGATION FACILITY										
V.1	Existing Co	ndition									
(1)	Overall Irrig	ation System	: C	(A: Functioni	ng well, B: Pa	rtially deterior	ated, C: Not fi	unctioning we	ll, D: Serious c	ondition for op	eration)
	Water Resou	urces Facility	: B	Main Ca	nal System :	С		Secondary C	anal System :	D	On-farm : C
(2)	Water Resou	irces Facilty			a .						
a.	Type of facil	lity	: Headworks		e. Scouring s	sluice gate	: 1 nos.		1. Condition	: B	delle data de la CoNet
b.	Type of weil	r 	: Fixed weir		f. Intake gate	e 	: 2 nos.		(A: Functioning	ig well, B: Part	tially deteriorated, C: Not
C.	Length of We	eir a diasharas	: 65 m : 4.7 m ² /a		g. Settling ba	asin hridaa	: not provide	ea ad	functioning w	ell, D. Serious	condition for operation)
u.	Design intak	e discharge	. 4./ 1115/8		n. mspection	lonuge	. not provide	a	(10 1110 10 1	nonnation)	
(3)	Irrigation Ca	anal and Inspe	ection Road								
(3)	Canal	Lined (m)	Unlined (m)	Total (m)	Structu	re (nos)	Inspection	n road (m)	Cond	ition	A: Functioning well.
	Main	3,000	230	3,230		15	1	3,230	(<u>, 1</u>	B: Partially deteriorated,
	Secondary	5,000	16,679	21,679		85		17,453	Ι)	C: Not functioning well,
										I	D: Serious condition for
(4)	Major Proble	ems and Con	strains							(operation)
-	Water Resou	rces Facility									
	Lower s	strength again	ist design loa	d due to rust,	decay of stee	el materials o	f flood/scour	ing sluice ga	te(s)		
	Insuffic	eient diversion	n water due to	sedimentati	on in front of	intake					
	Problem	n on manager	nent for intak	e gate(s) ope	ration						
-	Sodima	inal and Kela	ted Structure	ator flow							
	Collans	e of canal	suuction or w	ater now							
	General	0 Of Canar O&M probl	ems								
	Lower 1	function of re	gulating strue	cture on cana	1						
	Difficul	lty on O&M	0 0								
(5)	Causes of M	ajor Problem	s and Constra	aints							
-	Water Resou	rces Facility									
	No over	r coating on f	lood/scouring	g sluice gate(s) to prevent	rust and deca	у				
	Sedime	ntation in fro	nt of intake	1							
	Improp Irrigation Ca	er manageme	nt or deterior	ation of intak	te gate(s)						
-	No prov	vision of settl	ing basin(sed	iments) imn	roner manage	ement of cana	1 (sediments	water nlant)			
	Improp	er maintenan	ce: insufficier	nt nos of cro	ss drain bern	n width or ca	tch drain: an	d/or steen slo	one of canal		
	No kilo	and hectome	ter post, no s	tructure plate	or mark on s	structures and	no identifica	ation for repa	ir/maintenanc	e	
	Deterio	ration of regu	lating structu	ire on canal,	especially gat	te and metal	works				
	No prov	vision or dam	age of inspec	tion road, dif	ficulty on pa	ssing of inspe	ection road du	ue to damage	, broken		
V.2	Developmer	nt Plan									
(1)	Proposed Co	ountermeasur	es for Major l	Problems							
-	Water Resou	irces Facility									
	Provisio	on of overcoa	t or replacem	ent of flood/s	scouring sluid	ce gate(s) of I	leadworks				
	Replace	ig or nusning	rol system or	damaged equ	upperation of in	take	d intake				
	Irrigation Ca	anal and Rela	ted Structure	uunnageu eq	aipinent of in	lake					
	Remova	al of sedimen	t soil and for	eign material	s from canal.	grass cutting					
	Redesig	gn of canal se	ction; provisi	on of cross d	rain, proper v	width of berm	, catch drain	, and/or prop	er slope		
	Provisio	on of kilo, he	ct-m posts, m	arking to eac	h structure w	ith structure	name				
	Replace	ement and rec	construction of	f regulating	structure on c	anal					
	Provisio	on or repair o	f inspection r	oad with all v	weather type/	pavement					
(2)	Water Resou	irces Facility		.:1:44:	T. (.1.)		.:1:44:	11			:1:4-4:
	Dam/Headw	orks body	: minor rena	t or new	Intake, civii	: minor rena	Sintation	Intake	e, mechanicai	: minor renab	intation
(3)	Irrigation Ca	nal and Rela	ted Structure	t of new							
(3)	Wo	orks	No rehal	oilitation	Rehabi	litation	New con	struction	То	tal	
	G 1()	Main		0		2,681		0		2,681	
	Canal (m)	Secondary		0		17,994		0		17,994	
	Structure	Main		0		12		1		14	
	(nos)	Secondary		0		71		14		85	
(4)	On-farm De	velopment			1.51		11	(Unit: ha)	1		
	a. Potential I	rrigated pade	ly field	1,808	d. Non-poter	itial paddy fi	eld	0	-		
	b. Potential i	non-irrigated	paddy field	654	e. Non-poter	ittiai non-pac	ay neia	2 462	-		
	c. rotentiai i	ion-paddy ne	lu	0	Total			2,402]		
(5)	Rehabilitatio	on Cost (Dire	et Cost)			(Unit	: Million Rp.)				
(-)	WDE	Turture	D	On-Farm	Project	T-(-1	Cost				
	W.K.F	Irrigation	Drainage	Develop.	Facility	Total	per ha				
1	3,228	27,101	2,710	5,382	1,570	39,991	16.2	(W.R.F: Wat	er Resources Fa	acility, Develop	p.: Development)
177.1	FIDD	21 (0/			VI. PR	OJECT EV	ALUATIO	N			
VI.1	EIKR	21.6%									
VI 2	Prioritizatio	n Scoring									
1.2	Evaluation I	ndex			Full Score	Score	Evaluation I	ndex		Full Score	Score Total Score
1	Irrigation	Utilization o	f Irrigation P	otential	10.0	5.0	Agricultural	Productivity		20.0	16.0 70.8
1	System	Urgency			25.0	19.0	Social Probl	em		15.0	7.5
1		Sustainabilit	у	-	15.0	8.3	Economic Ir	npact		15.0	15.0
I			a • =								
VI.3	Priority Gr	oup	Group I: Firs	st priority gro	up		VI.4	Priority Ra	nking in the	Province	4
L											

South Sulawesi Province 11. Padaelo Scheme (3/4)

Scheme	Padaelo	District	Pangkep
Technical Level	Technical	Registered Area	2,958 ha Year of Construction 1976
		05/14/2003	Category Irrigation (Headworks) Structure Fixed Weir Condition □ A
		05/14/2003	Category Irrigation (Main Canal) Structure Division Structure Condition □ A □ B □ C ☑ D Problems Totally damaged
		05 - 4 2003	Category 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.

South Sulawesi Province 11. Padaelo Scheme (4/4)

Scheme	Padaelo	District	Pangkep
Technical Level	Technical	Registered Area	2,958 ha Year of Construction 1976
	and the second s		<u>Category</u> Irrigation (Main Canal)
		Station of the second	<u>Structure</u> Concrete Lined Canal
	All and the second	and there added	$\begin{array}{c} \underline{Condition} \\ \square A \\ \square B \\ \hline \Box C \\ \hline \Box D \\ \hline \end{array}$
			<u>Problems</u> Crack or damage on lined canal; deflection of lining toward inside of canal.
9		V (14/2003	2
1000			<u>Category</u> Agriculture, On-Farm
A	astrong .		<u>Activity</u> Paddy Cultivation (just before harvesting)
		A CONTRACTOR OF THE OWNER	$ \begin{array}{c} \underline{Condition} \\ \square A \\ \square B \\ \hline C \\ \square D \\ \end{array} $
		05/14/2003	<u>Problems</u> Low density of on-farm canals and farm roads.
2.5.1	A		<u>Category</u> Agriculture, On-Farm
	Start Area P	No stand	<u>Activity</u> Treasher by Man Power
		E A	$\begin{array}{c} \underline{Condition} \\ \square A \\ \square B \\ \hline \Box C \\ \hline \Box D \\ \hline \end{array}$
		05/14/2008	<u>Problems</u> Low density of on-farm canals and farm roads.

South Sulawesi Province 12. Leang Lonrong Scheme

(1/4)

				I. PROJE	CT FUNDA	MENTAL	S			
I.1 (1) (2) (3) (4) (5) (6)	General : 73090179 (7) Number of Farmers : 2,137 Name of Irrigation Scheme : Leang Lonrong (8) Water Resource River : Liang Lanrong District (Kabupaten) : Pangkep (9) Catchment Area (km ²) : 31 Sub-district (Kecamatan) : Pangkajene/Bungoro (10) Completion / Last Rehabilitation Year : 1932/1988 Registered Area (ha) : 1,229 : : Technical									
I.2	Availability of Reports/Documents & References (A : Available, B : Available but partially, C : Not available/ No plan)							ram		
	e. Rehabilitation plan	& its referer	nces	f. Cr	A ops and yield	data	B g. Cropping Calender	h	A . WUAs data	
	С				А		A		19	
		,	II. SUBJ	ECT AREA	FOR REH	ABILITAT	FION PLAN			
11.1	Present and Planned Land U Category	se	Prese	nt (ha)	Plan	(ha)	Increment (ha)]		
	a. Irrigated paddy field			1,229	1,229		0	-		
	c. Upland Field			0		0	0			
	d. Uncultivated Land e. Non-irrigable			0		0	0			
	Total			1,229		1,229	0			
				III.	AGRICUL	TURE				
III.1	Present/Before Project Cond	lition								
(1)	Irrigation Performance and Cro Season	op Productio Cropp Paddy (ha)	n ed Area in Ir Palawija	rigated Paddy	Field Total (ha)	Annual Intensity	Irrigated Paddy Yield	Crop	Production (ton)) Others
	Season I (wet)	1,210	i ulu () ju	o unoro (nu)	1,210	98%	4.5	5,445	i ulu () ju	, unono
	Season II (dry I) Season III (dry II)	582			582	47%	4.5	2,619		
	Total/Annual	1,792	0	0	1,792	146%	4.5	8,064	0	0
III.2 (1)	 Double cropping of paddy introduced; annual cropping intensity still low; paddy yield levels moderate; palawija introduced substantially B. Primary Constraint Identified through the Inventory Survey by the JICA Study Irrigation & Drainage: Poor O&M at tertiary level and below Agronomic Issues: Farmers not following recommended practices Paddy Marketing Low marketing prices Paddy Marketing Inventory Survey by the JICA Study Palawija Marketing: Low competitiveness with other producing areas Farmers not following recommended practices Farmers Organizations: Managerial capacity of KTs are limited Extension Services: Implementation of extension programs is limited 									
(2)	Planned Irrigation Performanc	es and Crop	Production	rigotad Padd	· Field	Annual	Irrigated Paddy Vield	Cron	Production (ton)	
	Season	Paddy (ha)	Palawija	Others (ha)	Total (ha)	Intensity	(GKG ton/ha)	Paddy	Palawija C) Dthers
	Season I (wet) Season II (dry I)	1,229			1,229	100%	5.5	6,760 6,760		
	Season III (dry II)	0.450	246		246	20%		12,510	1,230	
	Annual Increment	2,458	246	0	2,704	74%	5.5	5,455	1,230	0
IV.1	Existing Condition									
(1)	Number a. Target; 11 b. Established; 11 c. Not yet; 0 Registered 0 Performance a. Developed; 0 b. Under developing; 11 c. Not yet; 0 Not yet registered 11									
(2)	2) Problems and Constraints									
(3)) Causes of Problems and Constraints - Insufficient water supply.									
IV.2 (1)	7.2 Development Plan 1) Proposed Countermeasures - Promotion of WUA federation.									
(2)	 Development Plan Participation to rehabilitation plan formulation. 									

37.1	R 1 1 6				V. INN	IGATION	FACILITI				
V.1 Existing Condition											
(1) Overall Irrigation System : C (A: Functioning well, B: Partially deteriorated, C: Not functioning well, D: Serious condition for operation)											
I	Water Resou	rces Facility	: B	Main Car	al System :	D	S	econdary Ca	inal System :	D	On-farm : C
(2)	Water Resou	irces Facilty									
a.	Type of facil	lity	: Headworks		e. Scouring s	sluice gate	: 2 nos.		i. Condition	: B	
b.	Type of wei	r	: Fixed weir		f. Intake gate	2	:2 nos. (L) +	- 2 nos. (R)	(A: Functioni	ng well. B: Pa	rtially deteriorated. C: Not
с	Length of w	eir	· 8 m		g Settling h	asin	· not provide	d	functioning w	ell. D: Serious	s condition for operation)
d.	Design intak	e discharge	$0.0 \text{ m}^{3/s}$		h Inspection	hridge	: not provide	d	(no info : no i	nformation)	· · · · · · · · · · · · · · · · · · ·
u.	Design max	e uisenarge	. 0.7 1115/5		n. mspection	lonuge	. not provide	u	(10 1110 10	mormation)	
	1	1 17	(; p 1								
(3)	Irrigation Ca	inal and Insp	ection Road		~				~		
	Canal	Lined (m)	Unlined	Total (m)	Structur	re (nos)	Inspection	road (m)	Cone	lition	(A: Functioning well,
	Main	3,248	4,831	8,079		37		0])	B: Partially deteriorated,
	Secondary	0	0	0		0		0])	C: Not functioning well,
											D: Serious condition for
(4)	Major Proble	ems and Con	strains								operation)
(.)	Water Resou	rces Facility	otraino								
	Dhusion	l operational	nrahlam an f	lood/coourin	aluiaa aata(a) of boodwa	wl.co				
	Filysica	i operationar		1 1 store at	g since gate(s) of fieadwo		- N			
	Lower s	strength agair	ist design loa	d due to rust,	decay of stee	el materials o	of intake gate((s)			
	Difficul	ty on O&M									
-	Irrigation Ca	inal and Rela	ted Structure								
	Leakage	e from canal									
	Impassa	ble of inspec	tion road alo	ng canal							
	Lower f	unction of re	gulating strue	ture on cana	l						
	Difficul	$t_{\rm V}$ on $\Omega \& M$	guiuting struc	dure on cuna	L						
	Difficul	ty on Oaw									
(5)	a		10								
(5)	Causes of M	ajor Problem	s and Constra	aints							
I -	Water Resou	irces Facility									
	Imprope	er design, ins	tallation and/	or maintenan	ce of flood/se	couring sluic	e gate(s); brea	akdown of h	oist, stem, gu	ide frame or	leaf
	No over	coating on i	ntake gate(s)	to prevent ru	st and decay						
	No prov	vision of insp	ection/access	road no pro	vision of insr	pection bridg	e/deck				
	Irrigation Ca	nal and Rela	ted Structure	, p	I						
	Improp	and and Reid	internance of	anal cattlan	ant of annal	than insuffic	iont frachaard	land avartar	nina		
	imprope			callal, settlell					ping	1	
	Imprope	er routine O&	M works due	e to no or nar	row wide of	road, slope e	rosion by rain	ifall then in f	low into can	al	
	Deterior	ration of regu	lating structu	re on canal, o	especially gat	te and metal	works				
	No prov	vision or dam	age of inspec	tion road, dif	ficulty on pa	ssing of insp	ection road du	ie to damage	e, broken		
V.2	Developmer	nt Plan									
(1)	Proposed Co	untermeasur	es for Major I	Problems							
(1)	Water Base	raac Eagility	es for major i	Toolems							
-	water Resol	frees Facility	1 .	1 1		1/ .	1				
	Replace	ement of cont	rol system or	damaged equ	ipment of flo	ood/scouring	sluice gate(s)			
	Provisio	on of overcoa	t or replacem	ent of intake	gate(s) of he	adworks					
	Provisio	on of inspecti	on/access roa	d, inspection	bridge/deck						
-	Irrigation Ca	anal and Rela	ted Structure								
	Repair of	of leakage fro	om canal, wid	en canal wid	e, recompact	ion of embar	ıkment				
	Provisio	on of inspecti	on road both	main and sec	ondary canal	with navem	ent				
	Replace	ment and rec	onstruction o	f regulating s	tructure on c	anal	ent				
	Drovisio	n or ronoir o	financetion r	and with all r	waathar tyma/	novomont					
	FIOVISIC	on or repair o	i inspection i		weather type/	pavement					
(2)	Water Resou	irces Facility									
	Dam/Headw	orks body	: minor rehat	oilitation	Intake, civil	: minor reha	bilitation	Intake	, mechanical	: large rehab	ilitation
	Settling basi	n	: replacemen	t or new							
(3)	Irrigation Ca	nal and Rela	ted Structure								
	Wo	orks	No rehat	oilitation	Rehabi	litation	New con	struction	To	otal	
I		Main		0		8.079		0		8.079	
I	Canal (m)	Secondary		0		0		0		0	
1	Structure	Main		0		27		л		41	
I	(nar)	Casan 1.		0		5/		4		41	
I	(nos)	Secondary		0		0		0		0	
l											
(4)	On-farm De	velopment						(Unit: ha)	1		
I	a. Potential I	rrigated pade	ly field	1,229	d. Non-poter	ntial paddy fi	eld	0			
1	b. Potential 1	non-irrigated	paddy field	0	e. Non-poter	ttial non-pac	ldy field	0			
	c. Potential r	10n-paddy fie	eld	0	Total		2	1.229			
I		1		Ű				,==>	1		
(5)	Rehabilitatio	n Cost (Dira	et Cost)			(Uni-	Million Pn				
(3)	renaoimatic		ci (())	On Farme	Droiset	(UIII	Cost				
I	W.R.F	Irrigation	Drainage	Di-Farm	rioject	Total	Cost				
I		0	-0-	Develop.	Facility		per ha				
I	4,213	14,638	1,464	2,519	1,260	24,095	19.6	(W.R.F: Wate	er Resources F	acility, Develo	p.: Development)
					VI. PRO	DJECT EV	ALUATION	N			
VI.1	EIRR	18.3%									
VL2	Prioritizatio	on Scoring									
1.2	Evaluation	ndex			Full Score	Score	Evaluation I	ndex		Full Score	Score Total Score
I	Irrigotian	Utilization -	f Irrigation D	otontial	10.0	50010	A grigesterres	Droductivit		20.0	
I	inigation	Unization o	i iiigauon P	Juential	10.0	5.0	Agricultural	riouucuvity		20.0	15.0 69.2
I	System	Urgency			25.0	20.4	Social Proble	em		15.0	10.5
I		Sustainabilit	У		15.0	8.3	Economic In	npact		15.0	12.0
1											
VI.3	Priority Gr	oup	Group I: Firs	t priority gro	up		VI.4	Priority Ra	nking in the	Province	8
					-		,	·			I

Scheme	Leang Lonrong	District	Pangkep		
Technical Level	Technical	Registered Area	1,229 ha	Year of Construction	1932/88
		5/12/2003	Category Irrigation (S Structure Check Struc Condition A Problems Lower funct problem on s no gate.	econdary Canal) ture BC ion of check structure; phys structure; sedimentation at	☑ D sical operation inside of canal;
		5/12/2003	Category Irrigation (S Structure Earth Canal Condition A Problems Sedimentatio difficulty on road.	econdary Canal)	☑ D ge from canal; l; no inspection
		5/13/2003	Category Irrigation (S Structure Drop Condition A Problems Crack or dar	econdary Canal)	⊻ D

South Sulawesi Province 12. Leang Lonrong Scheme (4/4)

Scheme	Leang Lonrong	District	Pangkep
Technical Level	Technical	Registered Area	1,229 ha Year of Construction 1932/88
		2003	Category Irrigation (Secondary Canal) Structure Earth Canal Condition A B Problems Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal; less function of inspection road.
			<u>Category</u> Agriculture, On-Farm <u>Activity</u> Land Preparation
		Condition ☐ A ☐ B ☑ C ☐ D <u>Problems</u> Low density of on-farm canals and farm roads.	
		-05/12/2003	Category Agriculture, On-Farm Activity Transplanting Condition A B C Problems Low density of on-farm canals and farm roads.