South Sulawesi Province 39. Kalaena Kanan II Scheme (1/4)

I.1				I PROIF	CT FUND	MENTAL	S			
	General			I. I KUJE	CIFUNDA	ANIENTAL	0			
(1)	Code Number		· 73220172		(7)	Number of F	armers	· 1 250		
(2)	Name of Irrigation Scheme		: Kalaena K	anan II	(8)	Water Resou	irce River	: Kalaena		
(3)	District (Kabupaten)		: Luwu Utar	a	(9)	Catchment A	vrea (km ²)	: 1,070		
(4)	Sub-district (Kecamatan)		: Buran/Wo	tu	(10)	Completion /	/ Last Rehabilitation Year	: 1980		
(5)	Registered Area (ha)		: 5,077							
(6)	Technical Level		: Technical							
I.2	Availability of Reports/Docu	ments & Rei	ferences		(A : Availab	ole, B : Avai	lable but partially, C : N	ot available/	No plan)	
	a. Design Reports of Exis	sting System(Full set)	b. I	rrigation diag	gram	 c. As-built drawings 	d. Struct	ture lists & d	iagram
	В				A		В		A	
	e. Rehabilitation plan	a & its referen	ices	f. Cr	ops and yield	data	g. Cropping Calender	h	. WUAs data	l
	U			1	A		A		18	
_			II SURI	ECT AREA	FOR REH	ARILITAT	TION PLAN			
IL1	Present and Planned Land I	Ise	11. 50 501		TOK KEN					
	Category		Preser	nt (ha)	Plan	(ha)	Increment (ha)]		
	a. Irrigated paddy field			3,072		3,787	715			
	b. Rainfed paddy field			715		0	-715			
	c. Upland Field			0	ļ	0	0			
1	d. Uncultivated Land			0		0	0			
1	e. Non-irrigable			0	ļ	0	0			
1	Total			3,787	L	3,787	0			
				m	ACDICIU	TUDE				
ш.,	Present/Ratara Drainat Canad	lition			AGKICUL	IUKE				
(1)	Irrigation Performance and Cr.	on Productice	1							
(1)		Crop	ed Area in Ir	rigated Paddy	v Field	Annual	Irrigated Paddy Yield	Crop F	roduction (to	on) 1/
1	Season	Paddy (ha)	Palawija	Others (ha)	Total (ha)	Intensity	(GKG ton/ha)	Paddy	Palawiia	Others
1	Season I (wet)	1.808		2	1.808	59%	4.0	9,020		
1	Season II (dry I)	,			0	0%		. ,== 0		
	Season III (dry II)	1,808			1,808	59%	4.0	7,232	143	
	Total/Annual	3,616	0	0	3,616	118%	4.0	16,252	143	0
							1/: Irrigated	& rainfed pad	dy & palawij	a
(2)	Problems and Constraints									
	A. Irrigation & Agriculture Pe	erformances								
	- Irrigation performances still	poor; existend	e of rainfed	field (715ha)						
	- Double cropping of paddy in	troduced; pac	ldy yield leve	els still low; p	alawija cultiv	vation not yet	introduced			
	B. Primary Constraint Identifi	ed through th	e Inventory S	Survey by the	JICA Study					
	- Irrigation & Drainage:	Poor O&M a	it tertiary leve	el and below		- Palawija M	larketing: -			
	- Agronomic Issues:	Infestation o	f pest & disea	ases		- Farmers Or	ganizations: Managerial	capacity of KT	's are limited	l
	- Paddy Marketing	Poor quality	of products			- Extension S	Services: Capability &	experiences of	of PPLs are 1	imited
(1)	2 Development Plan									
(1)	Expansion of irrigated area 8	, oncuring vo	or round irria	ntion water a	upply at on f	arm loval thr	ugh rehabilitation & ung	adina		
	- Expansion of double cropped	l area of padd	v productivi	ty increase of	f naddy throu	oh intensifics	ation: introduction of nala	wija in dry sea	son I	
	- Strengthening of extension a	ctivities tailor	red to area sp	ecific needs:	empowermer	En michonorio	roups (KTs) to establish a	ari husinasa a	50111	
(2)	Planned Irrigation Performanc	es and Crop I	Production	conno necus,	empo n ermen	nt of farmer g	TOTIOS EN EST TO ESTADUSULA	911-00150005550	riented KTs	
()	<u>G</u>	Cropp	1.4 . 7			nt of farmer g	roups (KTS) to establish a	gii-busiiless o	riented KTs	
	Season		ed Area in Ir	rigated Paddy	7 Field	nt of farmer g	Irrigated Paddy Yield	Crop	riented KTs Production (ton)
<u>ت</u>		Paddy (ha)	Palawija	rigated Paddy Others (ha)	7 Field Total (ha)	Annual Intensity	Irrigated Paddy Yield (GKG ton/ha)	Crop Paddy	riented KTs Production (Palawija	ton) Others
1	Season I (wet)	Paddy (ha) 3,787	Palawija	rigated Paddy Others (ha)	/ Field Total (ha) 3,787	Annual Intensity 100%	Irrigated Paddy Yield (GKG ton/ha) 5.0	Crop Paddy 18,935	riented KTs Production (Palawija	ton) Others
	Season I (wet) Season II (dry I)	Paddy (ha) 3,787	Palawija 379	rigated Paddy Others (ha)	7 Field Total (ha) 3,787 379	Annual Intensity 100% 10%	Irrigated Paddy Yield (GKG ton/ha) 5.0	Crop Paddy 18,935	riented KTs Production (Palawija 1,895	ton) Others
	Season II (wet) Season II (dry I) Season III (dry II)	Paddy (ha) 3,787 3,408	Palawija	rigated Paddy Others (ha)	/ Field Total (ha) 3,787 379 3,408	Annual Intensity 100% 10% 90%	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0	Crop Paddy 18,935 17,040	riented KTs Production (Palawija 1,895	ton) Others
	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual	Paddy (ha) 3,787 3,408 7,195	Palawija 379 379	rigated Paddy Others (ha)	/ Field Total (ha) 3,787 379 3,408 7,574	Annual Intensity 100% 10% 90% 200%	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0	Crop Paddy 18,935 17,040 35,975	riented KTs Production (Palawija 1,895 1,895	ton) Others 0
	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment	Paddy (ha) 3,787 3,408 7,195 3,579	ed Area in Ir Palawija 379 379 379	rigated Paddy Others (ha) 0 0 0	/ Field Total (ha) 3,787 379 3,408 7,574 3,958	Annual Intensity 100% 10% 90% 200% 82%	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723	riented KTs Production (Palawija 1,895 1,895 1,752	ton) Others 0 0 0
	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment	Paddy (ha) 3,787 3,408 7,195 3,579	ed Area in Ir Palawija 379 379 379	rigated Paddy Others (ha) 0 0	v Field Total (ha) 3,787 379 3,408 7,574 3,958	Annual Intensity 100% 10% 200% 82%	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723	Production (Palawija 1,895 1,895 1,752	ton) Others 0 0
	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment	Paddy (ha) 3,787 3,408 7,195 3,579	ed Area in Ir Palawija 379 379 379	rigated Paddy Others (ha) 0 0	v Field Total (ha) 3,787 3,79 3,408 7,574 3,958	Annual Intensity 100% 90% 200% 82%	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723	Production (Palawija 1,895 1,895 1,752	ton) Others 0 0
	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment	Paddy (ha) 3,787 3,408 7,195 3,579	Area in Ir Palawija 379 379 379 379	rigated Paddy Others (ha) 0 0	y Field Total (ha) 3,787 379 3,408 7,574 3,958	Annual Intensity 100% 10% 90% 200% 82%	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723	Production (Palawija 1,895 1,895 1,752	ton) Others 0 0 0
	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment	Paddy (ha) 3,787 3,408 7,195 3,579	Area in Ir Palawija 379 379 379 379	rigated Paddy Others (ha) 0 0	y Field Total (ha) 3,787 379 3,408 7,574 3,958	Annual Intensity 100% 10% 90% 200% 82%	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723	Production (Palawija 1,895 1,895 1,752	ton) Others 0 0
	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment	Paddy (ha) 3,787 3,408 7,195 3,579	Area in Ir Palawija 379 379 379 379	rigated Paddy Others (ha) 0 0 0	y Field Total (ha) 3,787 3,797 3,408 7,574 3,958 IV. WUA	Annual Intensity 100% 10% 90% 200% 82%	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723	Production (Palawija 1,895 1,895 1,752	ton) Others 0 0
IV. 1	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment Existing Condition Number	Paddy (ha) 3,787 3,408 7,195 3,579	h Establishe	rigated Paddy Others (ha) 0 0 0	y Field Total (ha) 3,787 3,799 3,408 7,574 3,958 IV. WUA 18	Annual Intensity 100% 10% 200% 82% \$	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723	riented KTs Production (Palawija 1,895 1,895 1,752	ton) Others 0 0
IV. 1 (1)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment Existing Condition Number a. Target; Performance a. Developed:	Paddy (ha) 3,787 3,408 7,195 3,579 3,579	ed Area in Ir Palawija 379 379 379 5. Establishe b. Under dev	rigated Paddy Others (ha) 0 0 0 0	y Field Total (ha) 3,787 379 3,408 7,574 3,958 IV. WUA 18 4	Annual Intensity 100% 10% 200% 200% 82% s c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0
IV. 1 (1)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed;	Paddy (ha) 3,787 3,408 7,195 3,579 42 42 0	ed Area in Ir Palawija 379 379 379 379 b. Establishe b. Under dev	rigated Paddy Others (ha) 0 0 0 0 0 0	y Field Total (ha) 3,787 3,799 3,408 7,574 3,958 IV. WUA 18 4	Annual Intensity 100% 10% 90% 200% 82% s c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0 0 0 18
IV. 1 (1) (2)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints	Paddy (ha) 3,787 3,408 7,195 3,579 42 0	ed Area in Ir Palawija 379 379 379 379 b. Establishe b. Under dev	rigated Paddy Others (ha) 0 0 0 0	y Field Total (ha) 3,787 3,799 3,408 7,574 3,958 IV. WUA 18 4	at of farmer g Annual Intensity 100% 10% 90% 200% 82% s c. Not yet; c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0 0
IV. 1 (1) (2)	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	Paddy (ha) 3,787 3,408 7,195 3,579 42 0	ed Area in Ir Palawija 379 379 379 379 0. Extablishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0	v Field Total (ha) 3,787 3,799 3,408 7,574 3,958 IV. WUA 18 4 Management	Annual Intensity 100% 10% 200% 200% 82% s c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0 0
IV. 1 (1) (2)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation	Paddy (ha) 3,787 3,408 7,195 3,579 42 0	ed Area in Ir Palawija 379 379 379 379 0. b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0	v Field Total (ha) 3,787 3,799 3,408 7,574 3,958 IV. WUA 18 4 Management	Annual Intensity 100% 10% 200% 200% 82% s c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0 0
IV.1 (1) (2) (3)	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 Const	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints	ed Area in Ir Palawija 379 379 379 379 0. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0	y Field Total (ha) 3,787 3,799 3,408 7,574 3,958 IV. WUA 18 4 Management	Annual Intensity 100% 10% 90% 200% 82% s c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0 0
IV. 1 (1) (2) (3)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints Less attention of WUA activity	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0	v Field Total (ha) 3,787 3,799 3,408 7,574 3,958 IV. WUA 18 4 Management	t of farmer g Annual Intensity 100% 10% 90% 200% 82% s c. Not yet; c. Not yet; t	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0
IV. 1 (1) (2) (3)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints Less attention of WUA activ. Less coordination by District	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n t WRS office.	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0	y Field Total (ha) 3,787 3,79 3,408 7,574 3,958 IV. WUA 18 4 Management	x of farmer g Annual Intensity 100% 10% 200% 82% x c. Not yet; c. Not yet; t	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0
IV.1 (1) (2) (3) IV.2	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 Constraints - Less attention of WUA activ. Less coordination by District Development Plan	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n t WRS office.	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0 4 ; eloping;	y Field Total (ha) 3,787 379 3,408 7,574 3,958 IV. WUA 18 4 Management	x to f farmer g Annual Intensity 100% 90% 200% 82% x c. Not yet; c. Not yet; t	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,895 1,752 ered	ton) Others 0 0 0
IV.1 (1) (2) (3) IV.2 (1)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints - Less attention of WUA activ Less coordination by District 2 Development Plan Proposed Countermeasures Proposed Countermeasures	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n t WRS office.	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0	y Field Total (ha) 3,787 379 3,408 7,574 3,958 IV. WUA 18 4 Management	x to f farmer g Annual Intensity 100% 10% 90% 200% 82% \$ c. Not yet; c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0 0
IV.1 (1) (2) (3) IV.2 (1)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints Less attention of WUA active Less coordination by District 2 Development Plan Proposed Countermeasures - Acceleration of WUA establiant	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n WRS office.	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0 0 4 ; reloping; ; ; 2	y Field Total (ha) 3,787 3,408 7,574 3,958 IV. WUA 18 4 Management	x of farmer g Annual Intensity 100% 10% 90% 200% 82% x c. Not yet; c. Not yet; c. Not yet; t	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0 0
IV.1 (1) (2) (3) IV.2 (1)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints Less attention of WUA active Less coordination by District 2 Development Plan Proposed Countermeasures - Acceleration of WUA establic	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n WRS office. ishment and I	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	y Field Total (ha) 3,787 379 3,408 7,574 3,958 IV. WUA 18 4 Management	x to f farmer g Annual Intensity 100% 10% 90% 200% 82% x c. Not yet; c. Not yet; c. Not yet; t	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0
IV.1 (1) (2) (3) IV.2 (1) (2)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints Less attention of WUA active Less coordination by District Development Plan Proposed Countermeasures - Acceleration of WUA establi Development Plan WUA comparison of WUA establi	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n tWRS office. ishment and I	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	y Field Total (ha) 3,787 379 3,408 7,574 3,958 IV. WUA 18 4 Management	x of farmer g Annual Intensity 100% 10% 200% 200% 82% x c. Not yet; c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,752 ered	ton) Others 0 0 0
IV.1 (1) (2) (3) IV.2 (1) (2)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints Less attention of WUA active Less coordination by District Development Plan Proposed Countermeasures - Acceleration of WUA establi Development Plan - WUA empowerment training	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n t WRS office. ishment and I 3.	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	y Field Total (ha) 3,787 379 3,408 7,574 3,958 IV. WUA 18 4 Management	x to f farmer g Annual Intensity 100% 10% 200% 200% 82% x c. Not yet; c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,895 1,752 ered	ton) Others 0 0 0
IV.1 (1) (2) (3) IV.2 (1) (2)	Season I (wet) Season II (dry I) Season III (dry II) Total/Annual Annual Increment I Existing Condition Number a. Target; Performance a. Developed; Problems and Constraints Operation Causes of Problems and Constraints Less attention of WUA active Less coordination by District Development Plan Proposed Countermeasures - Acceleration of WUA establi Development Plan - WUA empowerment training	Paddy (ha) 3,787 3,408 7,195 3,579 42 0 traints ities among n t WRS office. ishment and I 3.	b. Establishe b. Under dev Maintenance	rigated Paddy Others (ha) 0 0 0 0 vd; reloping; ; coordination	y Field Total (ha) 3,787 379 3,408 7,574 3,958 IV. WUA 18 4 Management	x of farmer g Annual Intensity 100% 10% 200% 200% 82% x c. Not yet; c. Not yet; c. Not yet;	Irrigated Paddy Yield (GKG ton/ha) 5.0 5.0 5.0 1.0	Crop Paddy 18,935 17,040 35,975 19,723 Registered Not yet regist	riented KTs Production (Palawija 1,895 1,895 1,895 1,752 ered	ton) Others 0 0 0

					V. IRR	IGATION	FACILITY	Y				
V.1	Existing Co	ndition										
(1)	Overall Irrig	ation System	C	(A: Functioni	ng well, B: Par	tially deterior	ated, C: Not f	unctioning we	ll, D: Serious c	ondition for op	eration)	
	Water Resou	urces Facility	-	Main Ca	nal System : 1	D		Secondary C	anal System :	D	On-farm	: C
(2)	Water Resou	irces Facilty			a : ,							
a.	Type of faci	iity	-		e. Scouring si	luice gate	:-		1. Condition	:-		mated C. Nat
D.	I ype of well	r :	-		I. Intake gate		:-		(A: Functioning u	ng well, B: Par	andition fo	rated, C: Not
С. Л	Design intel		-		g. Setting ba	SIN haidaa			functioning w	en, D. Senous		o operation)
a.	Design Intak	te discharge	-		n. Inspection	bridge	:-		(no info.: no i	nformation)		
(2)	Irrigation Co	nal and Incna	ation Pood									
(3)	Canal	Lined (m)	Inlined (m)	Total (m)	Structur	e (nos)	Inspectio	n road (m)	Conc	lition	A · Function	ing well
	Main		14 533	14 533	Structur	28	inspection	14 533	I	\mathbf{D}	3: Partially	deteriorated.
	Secondary	0	23 168	23 168		63		0	I)	C: Not funct	ioning well,
	Secondary	0	25,100	25,100		00		0	-]	D: Serious c	ondition for
(4)	Major Probl	ems and Cons	trains								operation)	
· · ·	Water Resou	irces Facility										
	-	5										
-	Irrigation Ca	anal and Relate	ed Structure									
	Sedime	ntation or obs	truction of w	ater flow								
	General	l O&M proble	ms									
	Difficu	lty on mainten	ance of earth	i canal								
	Lower	function of reg	gulating struc	ture on cana	1							
	Difficu	lty on O&M										
(5)	Causes of M	lajor Problems	and Constra	ints								
-	Water Resou	urces Facility										
	-											
-	Irrigation Ca	anal and Relate	ed Structure									
	No prov	vision of settli	ng basin(sed	iments), imp	roper manager	ment of cana	l (sediments)	, water plant)				
	No kilo	and hectomet	er post, no st	ructure plate	or mark on st	ructures and	l no identifica	ation for repa	ir/maintenand	ce		
	Fallen o	down and colla	apse of side s	slope, water p	plants or weed	at inside of	canal					
	Deterio	ration of regul	ating structu	re on canal,	especially gate	e and metal	works					
	No prov	vision or dama	ige of inspec	tion road, dif	ficulty on pas	sing of inspe	ection road d	ue to damage	, broken			
V.2	Developmen	nt Plan										
(1)	Proposed Co	ountermeasure	s for Major I	roblems								
-	Water Resou	irces Facility										
	-											
	Irrigation Co	nal and Palat	ad Structure									
-	Remov	al of sediment	soil and fore	ion material	e from canal	arass cutting						
	Provisi	on of kilo hec	t-m posts m	arking to eac	h structure wi	th structure	name					
	Provisi	on of concrete	lining	uning to eue	in structure wi							
	Replace	ement and reco	onstruction o	f regulating s	structure on ca	nal						
	Provisio	on or repair of	inspection r	oad with all v	weather type/r	avement						
(2)	Water Resou	irces Facility	r									
(-)	Dam/Headw	orks body	-		Intake, civil	-		Intake	e. mechanical	: -		
	Settling basi	n	-						,			
(3)	Irrigation Ca	anal and Relate	ed Structure									
(-)	Wo	orks	No rehat	oilitation	Rehabil	itation	New cor	nstruction	To	otal		
	Constant	Main		0		10,900		0		10,900		
1	Canai (m)	Secondary		0		17,376		0		17,376		
	Structure	Main		0		21		2		23		
	(nos)	Secondary		0		47		9		57		
(4)	On-farm De	velopment						(Unit: ha)	_			
	a. Potential I	Irrigated padd	y field	3,072	d. Non-poten	tial paddy fi	eld	0				
1	b. Potential	non-irrigated p	addy field	715	e. Non-potent	ttial non-pad	dy field	0				
	c. Potential 1	non-paddy fiel	d	0	Total			3,787				
1												
(5)	Rehabilitatio	on Cost (Direc	t Cost)			(Unit	: Million Rp.)	1				
I	WRF	Irrigation	Drainage	On-Farm	Project	Total	Cost					
1		manuon	2. uniu Be	Develop.	Facility		per ha	-				
1	218	43,257	4,326	8,130	1,570	57,501	15.2	(W.R.F: Wate	er Resources F	acility, Develop	b.: Developr	nent)
-	_				VIDDO	IFCTEV	ALLIATIO	N	_	_	_	
377.4	FIDD	22 40/			VI. PKC	JECT EV	ALUATIO	11				
VI.1	EIKK	22.4%										
VID	Prioritizat	n Scoring										
v 1.2	Fvaluation I	ndex			Full Score	Score	Evaluation I	ndev		Full Score	Score	Total Score
I	Irrigation	Index Utilization of	Irrigation D	otential	10.0	Score	Δ griculturel	Productivity		20.0	Scole	
1	System	Urgeney	migation PO	nentiai	25.0	-	Social Probl	em		20.0		-
	System	Sustainability	r		15.0	-	Economic Ir	nnact		15.0		
	L	Sustainaointy			15.0	-	Leononne II	npaci		15.0		_
VI 3	Priority Gr	oup	Group V: Ac	ceralation of	WUAs establ	ishment	VI 4	Priority Ro	nking in the	Province		-]
		- ~ r	r									

South Sulawesi Province 39. Kalaena Kanan II Scheme (3/4)

Scheme	Kalaena Kanan II	District	Luwu Utara
Technical Level	Technical	Registered Area	5,077 ha Year of Construction 1980
SS.39.210			Category Irrigation (Main Canal) Structure Earth Canal Condition A B C Problems Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal; no inspection road.
SS.39.209			Category Irrigation (Main Canal) Structure Earth Canal Condition □ A □ B □ C ☑ Problems D Difficulty on maintenance of earth canal; no inspection road.
SS.39.211			Category Irrigation (Secondary Canal) Structure Siphon Condition A B C D Problems Clogging by dust, garbage.

South Sulawesi Province 39. Kalaena Kanan II Scheme

Scheme	Kalaena Kanan II	District	Luwu Utara
Technical Level	Technical	Registered Area	5,077 ha Year of Construction 1980
SS.39.213			Category Irrigation (Secondary Canal) Structure Division Structure Condition A B C D Problems Lower function of division structure due to sedimentation in front of gate; physical operation problem on structure; deterioration of steel gates; damage on structure.
			Category Irrigation (Secondary Canal) Activity Earth Canal Condition □ A B ✓ Problems Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal; no inspection road.
			<u>Category</u>
***	A MALLA		Ariculture, On-Farm <u>Activity</u> Secondary Crop Cultivation □ A □ A □ A □ B ✓ Problems

South Sulawesi Province 40. Kalaena (Rt. Bendung) Scheme

(1/4)

				I. PROJE	CT FUNDA	MENTAL	S			
I.1 (1) (2) (3) (4) (5) (6)	General Code Number Name of Irrigation Scheme District (Kabupaten) Sub-district (Kecamatan) Registered Area (ha) Technical Level		: 73220173 : Kalaena (R : Luwu Utar : Mangkutar : 2,730 : Technical	tt. Bendung) a na	(7) (8) (9) (10)	Number of F Water Resou Catchment A Completion	[°] armers nrce River Area (km ²) / Last Rehabilitation Year	: 1,500 : Kalaena : 1,070 : 1980		
I.2	Availability of Reports/Doct	iments & Re	ferences Full set)	b Iı	(A : Availab	le, B : Avai	lable but partially, C: N	l <mark>ot available</mark> / d Struc	No plan) ture lists & diag	ram
	e. Rehabilitation pla	n & its referer	ices	f. Cro	A ops and yield	data	B g. Cropping Calender	h	A . WUAs data	Tam
	(;			А		Α		30	
TT 1		T	II. SUBJE	ECT AREA	FOR REH	ABILITAT	TION PLAN			
11.1	Category	Jse	Preser	nt (ha)	Plan	(ha)	Increment (ha)			
	a. Irrigated paddy field			1,823		2,154	331			
	b. Rainfed paddy field c. Upland Field			331		0	-331			
	d. Uncultivated Land			0		0	0			
	e. Non-irrigable			0		2 154	0			
	10(a)			2,134		2,134	0			
III 4	Prosont/Defens Design C	lition		III.	AGRICUL	TURE				
(1)	Irrigation Performance and Cu	op Production	1							
	Season	Cropp Paddy (ha)	ed Area in Irr Palawija	rigated Paddy Others (ha)	Field Total (ha)	Annual Intensity	Irrigated Paddy Yield (GKG ton/ha)	Crop I Paddy	Production (ton) Palawija	1/ Others
	Season I (wet)	1,823			1,823	100%	4.5	9,031		
	Season III (dry II)	1,823			1,823	100%	4.5	8,204	66	
	Total/Annual	3,646	0	0	3,646	200%	4.5	17,235	66	0
III.2 (1)	 Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area a Double cropping of paddy ir Strengthening of extension a 	Poor drainag Damage cau Limited barg & ensuring ye the entire scl cctivities tailoo	sed by rat gaining power ar round irrig neme; product red to area spo	of farmers ation water su tivity increase ecific needs; (upply at on-fa e of paddy th empowermen	 Palawija M Farmers Or Extension S arm level thro rough further armer g 	larketing: - rganizations: No collabora Services: Extension ac pugh rehabilitation & upgr r intensification; introducti roups (KTs) to establish a	tion among K tivities of PPI ading on of palawij: gri-business o	Ts Ls are limited a in dry season I riented KTs	ſ
(2)	Season	Cropp	ed Area in Iri	rigated Paddy	r Field	Annual	Irrigated Paddy Yield	Crop	Production (ton	l)
	Season L (wat)	Paddy (ha)	Palawija	Others (ha)	Total (ha)	Intensity	(GKG ton/ha)	Paddy	Palawija	Others
	Season II (dry I)	2,134	431		431	20%	5.5	11,047	2,155	
	Season III (dry II)	2,154	421	0	2,154	100%	5.5	11,847	2 155	0
	Annual Increment	662	431	0	1,093	20%	1.0	6,460	2,089	0
					IV. WUA	<u>s</u>				
IV.1	Existing Condition	20	h Establisha	d:	22	c. Not vot:	8	Registered		0
(1)	Performance a. Developed;	1	b. Under dev	eloping;	3	c. Not yet;	18	Not yet regist	tered	22
(2) (3)	Problems and Constraints Operation Causes of Problems and Cons	traints	Maintenance		Management					
цу с	- NO WUA action plan and m	eindersnip fee	conection sy	stem.						
(1) (2)	Development Plan Proposed Countermeasures - Encouragement of farmers tr - Acceleration of WUA establ Development Plan - WUA empowerment training	o vitalize WU ishment. g.	A activities.							

	B I J G										
V.I	Existing Co	ndition	D	(A E			(1 C N (C		n D G .	1	
(1)	Overall Irrig	ation System	: B	(A: Functioni	ng well, B: Par	rtially deterio	ated, C: Not f	unctioning wel	II, D: Serious co	ondition for op	Or form C
(2)	Water Paser	mees Facilty	. D	wain Ca	nai system :	C		Secondary Ca	anai system : (L C	On-Ianii . C
(2)	Type of faci	lity	·Headworks	,	e Scouring e	luice gate	· 2 nos		i Condition	B	
a. h	Type of wei	r	· Fixed weir	,	f Intake gate		· 3 nos		(A: Functionin	α well B·Par	tially deteriorated C: Not
0. C	Length of w	eir	: 104 m		a Settling ba	asin	: provided		functioning we	ell D. Serious	condition for operation)
d	Design intak	e discharge	· 10 3 m3/s		h Inspection	asin bridge	: provided		(no info : no in	formation)	condition for operation)
u.	Design intak	e uisenarge	. 17.5 115/3		n. mspeetion	lonage	. provided		(10 1110 10 11	normation)	
(3)	Irrigation Ca	nal and Insp	ection Road								
(3)	Canal	Lined (m)	Unlined (m)	Total (m)	Structu	re (nos)	Inspectio	n road (m)	Condi	ition	(A · Functioning well
	Main	11 331		11 331	Structur	29	inspection	11 331	Conta	lion	B: Partially deteriorated
	Secondary	15,006	40	15 046		35		15 046	C		C: Not functioning well,
	Secondary	10,000		10,010				,	-		D: Serious condition for
(4)	Major Probl	ems and Con	strains								operation)
(.)	Water Resou	rces Facility									
	Insuffic	ient diversio	n water due te	o sedimentati	on in front of	intake					
	Inflow	of bed loads	into canal and	decrease ca	nal flow capa	city					
)					
_	Irrigation Ca	anal and Rela	ted Structure								
	Sedime	ntation or ob	struction of w	vater flow							
	Leakag	e from canal									
	Collaps	e of canal									
(5)	Causes of M	aior Problem	s and Constra	aints							
· · ·	Water Resou	irces Facility									
	Sedime	ntation in fro	nt of intake								
	Insuffic	ient function	of settling ba	asin, no propo	er gate operati	ion of intake	during flood				
			C	· · ·	0 1		e				
-	Irrigation Ca	anal and Rela	ted Structure								
	Insuffic	ient function	of settling ba	asin(sedimen	ts), improper i	managemen	of canal (sec	liments, wate	r plant)		
	Improp	er regular ma	intenance of	canal, settlen	nent of canal t	then insuffic	ient freeboard	and overtop	ping		
	Improp	er maintenan	ce; insufficie	nt nos. of cro	ss drain, bern	n width, or c	atch drain; an	d/or steep slo	pe of canal		
V.2	Developmen	ıt Plan									
(1)	Proposed Co	ountermeasur	es for Major	Problems							
-	Water Resou	irces Facility									
	Dredgii	ng or flushing	g of sediment	, proper gate	operation of h	neadworks a	nd intake				
	Rehabil	litation of set	tling basin n	ropar gata on	arotion of inte	1	hod				
			ung ousin, p	iopei gate op	eration of mila	ake during n	50 u				
			unig ouoni, p	loper gate op	eration of filta	ake during II	500				
-	Irrigation Ca	anal and Rela	ted Structure	lopel gate op	eration of inta	ake during II	500				
-	Irrigation Ca Remov	anal and Rela al of sedimer	ted Structure at soil and for	eign material	s from canal,	grass cutting	500				
-	Irrigation Ca Remova Repair	anal and Rela al of sedimer of leakage fro	ted Structure at soil and for om canal, wic	eign material len canal wid	s from canal, le, recompacti	grass cutting ion of embar	kment				
-	Irrigation Ca Remova Repair Redesig	anal and Rela al of sedimer of leakage fro gn of canal se	ted Structure at soil and for om canal, wic ection; provisi	eign material len canal wid ion of cross d	s from canal, le, recompacti Irain, proper v	grass cutting ion of embar vidth of bern	kment , catch drain	, and/or prope	er slope		
-	Irrigation Ca Remova Repair Redesig	anal and Rela al of sedimer of leakage fro gn of canal se	ted Structure at soil and for om canal, wic ection; provis:	eign material len canal wid ion of cross d	s from canal, le, recompacti Irain, proper v	grass cutting ion of embar vidth of bern	kment h, catch drain	, and/or prope	er slope		
-	Irrigation Ca Remova Repair Redesig	anal and Rela al of sedimer of leakage fro gn of canal se	ted Structure at soil and for com canal, wice ection; provis:	eign material len canal wid ion of cross d	s from canal, le, recompacti Irain, proper v	grass cutting ion of embar vidth of berr	kment 1, catch drain	, and/or prope	er slope		
(2)	Irrigation Ca Remova Repair Redesig	anal and Rela al of sedimer of leakage fro gn of canal se urces Facility	ted Structure at soil and for om canal, wice ection; provis	eign material len canal wid ion of cross d	s from canal, le, recompacti Irain, proper v	grass cutting ion of embar vidth of berr	kment , catch drain	, and/or prope	er slope		
(2)	Irrigation Ca Removi Repair Redesig Water Resou Dam/Headw	anal and Rela al of sedimer of leakage fro gn of canal se arces Facility orks body	ted Structure at soil and for om canal, wic ection; provis	eign material len canal wid ion of cross d	s from canal, le, recompacti Irain, proper v Intake, civil	grass cutting ion of embar vidth of berr : minor reha	kment 1, catch drain bilitation	, and/or propo Intake	er slope 2, mechanical :	minor rehab	bilitation
(2)	Irrigation Ca Removi Repair Redesig Water Resou Dam/Headw Settling basis	nal and Rela al of sedimer of leakage fro gn of canal se irces Facility orks body n	ted Structure at soil and for com canal, wic ection; provis : minor reha : minor reha	eign material den canal wid ion of cross d bilitation bilitation	s from canal, le, recompacti Irain, proper v Intake, civil	grass cutting ion of embar vidth of berr : minor reha	kment 1, catch drain bilitation	, and/or prope Intake	er slope 9, mechanical :	minor rehab	pilitation
(2)	Irrigation Ca Removi Repair Redesig Water Reson Dam/Headw Settling basi Irrigation Ca	nal and Rela al of sedimer of leakage fr gn of canal se urces Facility orks body n n nal and Rela	ted Structure it soil and for om canal, wie cction; provis : minor reha : minor reha	eign material den canal wid ion of cross d bilitation bilitation	s from canal, le, recompacti rain, proper v Intake, civil	grass cutting ion of embar vidth of berr : minor reha	kment , catch drain bilitation	, and/or propo Intake	er slope e, mechanical :	minor rehab	oilitation
(2) (3)	Irrigation Ca Removi Repair Redesig Water Reson Dam/Headw Settling basi Irrigation Ca Wo	anal and Rela al of sedimer of leakage fr gn of canal se arces Facility orks body n anal and Rela orks	ted Structure it soil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha	eign material den canal wid ion of cross d bilitation bilitation	s from canal, e, recompacti rain, proper v Intake, civil Rehabi	grass cutting ion of embar vidth of berr : minor reha litation	kment , catch drain bilitation New cor	, and/or propo Intake	er slope 9, mechanical 3 Tot	al	oilitation
(2) (3)	Irrigation Ca Removi Repair Redesig Water Reson Dam/Headw Settling basi Irrigation Ca Water Canal (m)	anal and Rela al of sedimer of leakage fr gn of canal se arces Facility orks body n anal and Rela orks Main	ted Structure it soil and for om canal, wic cction; provis : minor reha : minor reha ted Structure No reha	eign material len canal wid ion of cross d bilitation <u>bilitation</u> 0	s from canal, le, recompacti Irain, proper v Intake, civil	grass cutting ion of embar vidth of bern : minor reha litation 8,951	kment h, catch drain bilitation	, and/or propo Intake	er slope e, mechanical : Tot	al 8,951	vilitation
(2) (3)	Irrigation Ca Removi Repair Redesig Water Reson Dam/Headw Settling basi Irrigation Ca Canal (m)	anal and Rela al of sedimer of leakage fr gn of canal se arces Facility orks body n anal and Rela rks Main Secondary	ted Structure it soil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha	eign material len canal wid ion of cross d bilitation bilitation 0 0	s from canal, le, recompacti Irain, proper v Intake, civil	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886	kment h, catch drain bilitation New cor	, and/or propo Intake	er slope e, mechanical : Tot	al 8,951 11,886	vilitation
(2) (3)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m)	anal and Rela al of sedimer of leakage fr gn of canal se urces Facility orks body n unal and Rela orks Main Secondary Main	ted Structure it soil and for om canal, wic cction; provis: : minor reha : minor reha ted Structure No reha	eign material len canal wid ion of cross d bilitation bilitation 0 0 0	s from canal, le, recompacti Irain, proper v Intake, civil	grass cutting ion of embar vidth of berr : minor reha litation 8,951 11,886 233	kment n, catch drain bilitation	, and/or propo Intake	er slope e, mechanical : Tot	al 8,951 11,886 25	vilitation
(2) (3)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basis Irrigation Ca Canal (m) Structure (nos)	anal and Rela al of sedimer of leakage fr gn of canal se urces Facility orks body n mal and Rela orks Main Secondary Main Secondary	ted Structure it soil and for om canal, wic section; provis : minor reha : minor reha Mo reha	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0	s from canal, le, recompacti Irain, proper v Intake, civil	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28	kment n, catch drain bilitation	, and/or properties of the second sec	er slope b, mechanical : Tot	al 8,951 11,886 25 33	pilitation
(2) (3)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos)	anal and Rela al of sedimer of leakage fro n of canal se urces Facility orks body n anal and Rela orks Main Secondary Main Secondary	ted Structure it soil and for om canal, wic section; provis : minor reha ted Structure No reha	eign material len canal wid ion of cross d bilitation <u>bilitation</u> 0 0 0 0 0	s from canal, le, recompacti Irain, proper v Intake, civil	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28	kment n, catch drain bilitation	, and/or proposed interview of the second se	er slope e, mechanical : Tot	al 8,951 11,886 25 33	oilitation
(2) (3) (4)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos)	anal and Rela al of sedimer of leakage fro n of canal se urces Facility orks body n mal and Rela orks Main Secondary Main Secondary velopment	ted Structure it soil and for om canal, wie cction; provis: : minor reha ted Structure No reha	eign material len canal wid ion of cross d bilitation bilitation $0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$	s from canal, le, recompacti Irain, proper v Intake, civil	grass cutting ion of embar vidth of berr : minor reha litation 8,951 11,886 23 28	kment n, catch drain bilitation	, and/or proposed in the struction 10 10 10 10 10 10 10 10 10 10 10 10 10	er slope , mechanical : Tot	al 8,951 11,886 25 33	bilitation
(2) (3) (4)	Irrigation Ca Removi Repair Redesig Water Reson Dam/Headw Settling basi Irrigation Ca Oral (m) Structure (nos) On-farm Detail	anal and Rela al of sedimer of leakage fro an of canal se arces Facility orks body n anal and Rela orks Main Secondary Main Secondary velopment rrigated pad	ted Structure it soil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0 0	s from canal, le, recompacti rain, proper v Intake, civil Rehabi	grass cutting ion of embar width of berr : minor reha litation 8,951 11,886 23 28 ntial paddy fi	kment h, catch drain bilitation New cor	, and/or propo Intake Istruction 0 0 0 2 6 (Unit: ha) 0	er slope , mechanical : Tot	al 8,951 11,886 25 33	bilitation
(2) (3) (4)	Irrigation Ca Removi Repair Redesig Water Reson Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential 1 b. Potential 1	anal and Rela al of sedimer of leakage fr gn of canal se arces Facility orks body n mal and Rela orks Main Secondary Main Secondary velopment irrigated pade non-irrigated	ted Structure it soil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha y field paddy field	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0 0 0 0	s from canal, le, recompacti rain, proper v Intake, civil Rehabi	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi	kment h, catch drain bilitation New cor eld	, and/or propo Intake Instruction 0 0 2 6 (Unit: ha) 0 0 0	er slope e, mechanical : Tot	al 8,951 11,886 25 33	bilitation
(2) (3) (4)	Irrigation Ca Removi Repair Redesig Water Reson Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm Dee a. Potential 1 b. Potential 1 c. Potential 1	nal and Rela al of sedimer of leakage fr gn of canal se urces Facility orks body n nal and Rela orks Main Secondary Main Secondary velopment irrigated pade non-irrigated non-paddy fit	ted Structure it soil and for om canal, wic cetion; provisi : minor reha : minor reha ted Structure No reha y field paddy field eld	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Intake, civil Rehabi d. Non-poten e. Non-poten Total	grass cutting ion of embar width of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi	kment h, catch drain bilitation New cor l eld ldy field	, and/or propo Intake nstruction 0 0 2 6 (Unit: ha) 0 0 2,154	er slope e, mechanical : Tot	al 8,951 11,886 25 33	oilitation
(2) (3) (4)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential I b. Potential I c. Potential I	nal and Rela al of sedimer of leakage fr gn of canal se urces Facility orks body n mal and Rela orks Main Secondary Main Secondary velopment frrigated pade non-irrigated non-paddy fre	ted Structure it soil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha dy field paddy field eld	eign material len canal wid ion of cross d bilitation bilitation <u>0</u> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Intake, civil Rehabi d. Non-poten e. Non-poten Total	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pad	kment h, catch drain bilitation New cor eld ldy field	, and/or proper Intake Instruction 0 0 2 6 (Unit: ha) 0 0 2,154	er slope e, mechanical : Tot	al 8,951 11,886 25 33	oilitation
(2) (3) (4)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential I b. Potential I c. Potential I c. Potential I	nal and Rela al of sedimer of leakage fr gn of canal se urces Facility orks body n mal and Rela orks Main Secondary Main Secondary velopment frrigated pade non-irrigated non-paddy fre pn Cost (Dire	ted Structure tsoil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha dy field paddy field eld et Cost)	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Intake, civil Rehabi d. Non-poten e. Non-poten Total	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pac	kment catch drain bilitation New cor eld ldy field t: Million Rp.)	, and/or propo Intake nstruction 0 0 2 6 (Unit: ha) 0 0 2,154	er slope e, mechanical : Tot	al 8,951 11,886 25 33	pilitation
(2) (3) (4) (5)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basis Irrigation Ca Canal (m) Structure (nos) On-farm Dee a. Potential 1 b. Potential 1 c. Potential 1 Rehabilitatio W.R.F	anal and Rela al of sedimer of leakage fro n of canal se urces Facility orks body n nal and Rela orks Main Secondary Main Secondary velopment rrigated pade non-irrigated non-paddy fro n Cost (Dire Irrigation	ted Structure t soil and for om canal, wic ection; provisi : minor reha : minor reha ted Structure No reha dy field paddy field eld ct Cost) Drainage	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Irain, proper v Intake, civil Rehabi	grass cutting ion of embar vidth of berr : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pad (Uni Total	kment catch drain bilitation New cor eld ldy field t: Million Rp.) Cost	, and/or proper Intake	er slope e, mechanical : Tot	al 8,951 11,886 25 33	pilitation
(2) (3) (4) (5)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential 1 b. Potential 1 c. Potential 1 Rehabilitatio	anal and Rela al of sedimer of leakage fro gn of canal se urces Facility orks body n mal and Rela orks Main Secondary Main Secondary velopment rrigated padde non-irrigated non-paddy fro non-paddy fro	ted Structure tt soil and for com canal, wic ction; provisi : minor reha : minor reha ted Structure No reha dy field paddy field eld ct Cost) Drainage	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	d. Non-poten e. Non-poten Total	grass cutting ion of embar width of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pad (Uni Total	kment catch drain bilitation eld ldy field t: Million Rp.) Cost per ha	, and/or properties of the second sec	er slope	al 8,951 11,886 25 33	bilitation
(2) (3) (4) (5)	Irrigation Ca Removi Repair , Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential 1 b. Potential 1 c. Potential 1 Rehabilitatic W.R.F 1,214	anal and Rela al of sedimer of leakage fro gn of canal se urces Facility orks body n mal and Rela orks Main Secondary Main Secondary velopment rrigated pade non-paddy fro on-paddy fro Data (Dire Irrigation 23,967	ted Structure it soil and for om canal, wic cction; provis : minor reha ted Structure No reha dy field paddy field eld ct Cost) Drainage 2,397	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Irain, proper v Intake, civil Rehabi d. Non-poten e. Non-poten Total Project Facility 1,570	grass cutting ion of embar width of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pad (Uni Total 33,734	kment n, catch drain bilitation eld ldy field t: Million Rp.) Cost per ha 15.7	, and/or proper Intake nstruction 0 2 6 (Unit: ha) 0 0 2,154 (W.R.F: Wate	er slope , mechanical : Tot	al 8,951 11,886 25 33 cility, Develo	pilitation
(2) (3) (4)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential 1 b. Potential 1 c. Potential 1 Rehabilitatic W.R.F 1,214	anal and Rela al of sedimer of leakage fro gn of canal se urces Facility oorks body n mal and Rela orks Main Secondary Main Secondary Main Secondary velopment irrigated padd non-paddy fro on Cost (Dire Irrigation 23,967	ted Structure it soil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha dy field paddy field eld ct Cost) Drainage 2,397	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 1,823 331 0 0 0,823 331 0 0 0,747 0 0,823 331 0 0 0,823 331 0 0 0,823 331 0 0 0,823 331 0 0 0,823 331 0 0 0,823 331 0 0 0,823 0,823 0,9200 0,9200 0,9200 0,9200 0,9200 0,9200 0,9200 0,9200 0,9200 0,920000000000	s from canal, le, recompacti Irain, proper v Intake, civil Rehabi d. Non-poten e. Non-poten Total Project Facility 1,570	grass cutting ion of embar width of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi ntial non-pac (Uni Total 33,734	kment h, catch drain bilitation New cor eld ldy field t: Million Rp.) Cost per ha 15.7	, and/or propo Intake nstruction 0 0 2 6 (Unit: ha) 0 0 2,154 (W.R.F: Wate	er slope , mechanical : Tot	al 8,951 11,886 25 33 cility, Develo	pilitation
(2) (3) (4) (5)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Wo Canal (m) Structure (nos) On-farm De a. Potential I b. Potential I c. Potential I Rehabilitatio W.R.F 1,214	nal and Rela al of sedimer of leakage fir gn of canal se irces Facility orks body n nal and Rela orks Main Secondary Main Secondary welopment rrigated padd non-irrigated paddy fir on Cost (Dire Irrigation 23,967	ted Structure it soil and for om canal, wic ection; provis : minor reha : minor reha ted Structure No reha dy field paddy field eld et Cost) Drainage 2,397	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Irain, proper v Intake, civil Rehabi d. Non-poten e. Non-poten Total Project Facility 1,570 VI. PR(grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pao (Uni Total 33,734	kment , catch drain bilitation New cor eld ldy field t: Million Rp.) Cost per ha 15.7 ALUATIO	, and/or propo Intake nstruction 0 0 2 6 (Unit: ha) 0 0 2,154 (W.R.F: Wate	er slope e, mechanical : Tot	al 8,951 11,886 25 33 cility, Develo	pilitation
(2) (3) (4) (5)	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Wo Canal (m) Structure (nos) On-farm De a. Potential I b. Potential I c. Potential I c. Potential I c. Potential I c. Potential I EIRR	nal and Rela al of sedimer of leakage fr gn of canal se irces Facility orks body n nal and Rela orks Main Secondary Wain Secondary velopment rrigated pade non-paddy fre n Cost (Dire Irrigation 23,967	ted Structure it soil and for om canal, wic ection; provis : minor reha : minor reha ted Structure No reha dy field paddy field eld ct Cost) Drainage 2,397	eign material len canal wid ion of cross d bilitation bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Irain, proper v Intake, civil Rehabi d. Non-poten e. Non-poten Total Project Facility 1,570 VI. PR(grass cutting ion of embar width of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pad (Uni Total 33,734	kment , catch drain bilitation New cor eld ldy field t: Million Rp.) Cost per ha 15.7 ALUATIO	, and/or propo Intake nstruction 0 0 2 6 (Unit: ha) 0 0 2,154 (W.R.F: Wate N	er slope e, mechanical : Tot er Resources Fa	al 8,951 11,886 25 33	p.: Development)
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(2) (3) (4) (5) VI.1 VI.2	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca (Canal (m) Structure (nos) On-farm De a. Potential I b. Potential I b. Potential I c. Potential I c. Potential I c. Potential I c. Potential I c. Potential I for the second W.R.F 1,214	anal and Rela al of sedimer of leakage fro gn of canal se urces Facility orks body n anal and Rela orks Main Secondary Main Secondary Main Secondary velopment frrigated pade non-irrigated non-irrigated non-paddy fie n Cost (Dire Irrigation 23,967 16.3%	ted Structure tsoil and for om canal, wic cetion; provis: : minor reha : minor reha ted Structure No reha dy field paddy field eld ct Cost) Drainage 2,397	eign material len canal wid ion of cross d bilitation bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Intake, civil Rehabi d. Non-poten e. Non-poten Total Project Facility 1,570 VI. PR(grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-paa (Uni Total 33,734 DJECT EV	kment h, catch drain bilitation New cor eld ldy field t: Million Rp.) Cost per ha 15.7 ALUATIO Evaluation I Acrianticent	, and/or propo Intake Intake Intake 0 0 2 6 (Unit: ha) 0 0 2,154 (W.R.F: Wate N	er slope e, mechanical : Tot er Resources Fa	al 8,951 11,886 25 33 cility, Develo Full Score 20.0	p: Development)
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(2) (3) (4) (5) VI.1 VI.2	Irrigation Ca Removi Repair - Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential 1 b. Potential 1 b. Potential 1 c. Potential 1 c. Potential 1 c. Potential 1 c. Potential 1 f. Potential 1 c. Potential 1 f. Potential 1 f	anal and Rela al of sedimer of leakage fro gn of canal se urces Facility orks body n mal and Rela orks Main Secondary Main Secondary Welopment Irrigated pade non-paddy fro on Cost (Dire Irrigation 23,967 16.3% on Scoring ndex Utilization c	ted Structure it soil and for om canal, wie cetion; provis : minor reha : minor reha ted Structure No reha dy field paddy field eld ct Cost) Drainage 2,397	eign material len canal wid ion of cross d bilitation bilitation bilitation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti Irain, proper v Intake, civil Rehabi d. Non-poten e. Non-poten Total Project Facility 1,570 VI. PR(Full Score 10.0 25.0	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pad (Uni Total 33,734 DJECT EV Score 5.0 18.0	kment h, catch drain bilitation New cor eld ldy field t: Million Rp.) Cost per ha 15.7 ALUATIO Evaluation I Agricultural Social Probl	, and/or properiod Intake istruction 0 0 2 6 (Unit: ha) 0 0 2,154 (W.R.F: Wate N Productivity em maget	er slope	al 8,951 11,886 25 33 cility, Develo Full Score 20.0 15.0	p.: Development) Score Total Score 14.0 63.3 7.5 10.5
(2) (3) (4) (5) VI.1 VI.2	Irrigation Ca Removi Repair , Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential 1 b. Potential 1 b. Potential 1 c. Potential 1 Rehabilitatic W.R.F 1,214 EIRR Prioritizatio Evaluation I Irrigation System	anal and Rela al of sedimer of leakage fro gn of canal se urces Facility orks body n mal and Rela orks Main Secondary Main Secondary Main Secondary velopment irrigated padd non-paddy fro on-paddy fro on Cost (Dire Irrigation 23,967 16.3% on Scoring ndex Utilization of Urgency Sustainabiliti	ted Structure it soil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha dy field paddy field eld et Cost) Drainage 2,397	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 1,823 331 0 0 0 0,7 8 331 0 0 0,7 8 7 8 5 0 0 0,7 8 7 8 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti rain, proper v Intake, civil Rehabi d. Non-poten e. Non-poten Total Project Facility 1,570 VI. PR(Full Score 10.0 25.0 15.0	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi ntial non-pac (Uni Total 33,734 DJECT EV Score 5.0 18.0 8.3	kment h, catch drain bilitation bilitation litation eld ldy field t: Million Rp.) Cost per ha 15.7 ALUATIO Evaluation I Agricultural Social Probl Economic Ir	, and/or propo Intake istruction 0 0 2 6 (Unit: ha) 0 0 2,154 (W.R.F: Wate N N Productivity em mpact	er slope	r minor rehab	p.: Development) Score Total Score 14.0 63.3 7.5 10.5
(2) (3) (4) (5) VI.1 VI.2	Irrigation Ca Removi Repair , Redesig Water Resou Dam/Headw Settling basi Irrigation Ca Canal (m) Structure (nos) On-farm De a. Potential I b. Potential I b. Potential I b. Potential I c. Potential I Rehabilitatic W.R.F 1,214 EIRR Prioritizatio Evaluation I Irrigation System	anal and Rela al of sedimer of leakage fro gn of canal se urces Facility oorks body n mal and Rela orks Main Secondary Secondary Main Secondary Main Secondary Main Secondary Secondary Main Secondary Se	ted Structure it soil and for om canal, wic cetion; provis : minor reha : minor reha ted Structure No reha dy field paddy field eld ct Cost) Drainage 2,397	eign material len canal wid ion of cross d bilitation bilitation 0 0 0 0 1,823 331 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s from canal, le, recompacti rain, proper v Intake, civil Rehabi d. Non-poten e. Non-poten Total Project Facility 1,570 VI. PR(Full Score 10.0 25.0 15.0	grass cutting ion of embar vidth of bern : minor reha litation 8,951 11,886 23 28 ntial paddy fi nttial non-pad (Uni Total 33,734 DJECT EV Score 5.0 18.0 8.3	kment h, catch drain bilitation bilitation eld idy field t: Million Rp.) Cost per ha 15.7 ALUATIO Evaluation I Agricultural Social Probl Economic Ir	, and/or propo Intake istruction 0 0 2 6 (Unit: ha) 0 0 2,154 (W.R.F: Wate N N N Productivity em npact Priority Pac	er slope , mechanical : Tot er Resources Fa er Resources Fa	r minor rehab	p.: Development) Score Total Score 14.0 63.3 7.5 10.5 24

South Sulawesi Province 40. Kalaena (Rt. Bendung) Scheme (3/4)

Scheme	Kalaena (Rt. Bendung)	District	Luwu Utara
Technical Level	Technical	Registered Area	2,730 ha Year of Construction 1980
SS.37.270			<u>Category</u> Irrigation (Main Canal) Structure
			Earth Canal
			<u>Condition</u> □ A □ B ☑ C □ D
			<u>Problems</u> Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal; no inspection road.
	09	5/28/2003	
SS.37.272			<u>Category</u> Irrigation (Main Canal)
			<u>Structure</u> Division Structure
			Condition
			<u>Problems</u> Lower function of division structure due to sedimentation in front of gate; physical operation problem on structure; deterioration of steel gates.
ATTEN TO	0	5/28/2003	
88.37.277			<u>Category</u> Irrigation (Main Canal)
			<u>Structure</u> Masonry Lined Canal
	0	5/28/2003	<u>Problems</u> Sedimentation; leakage from lined canal; crack on lined canal; deflection of lining toward inside of canal; less maintenance; and no inspection road.

South Sulawesi Province 40. Kalaena (Rt. Bendung) Scheme (4/4)

Scheme	Kalaena (Rt. Bendung)	District	Luwu Utara
Technical Level	Technical	Registered Area	2,730 ha Year of Construction 1980
SS-17 289			Category Irrigation (Secondary 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.
		05/28/2003	<u>Category</u> Ariculture, On-Farm
	In my the Alternation	29901 2003 4	Activity Paddy Cultivation <u>Condition</u> □ A □ B ☑ C □ D <u>Problems</u> Low density of on-farm canals and farm roads.
			<u>Category</u> Ariculture, On-Farm <u>Activity</u> Nursery Preparation
			Condition A B C D Problems

South Sulawesi Province

41. Kuri-Kuri, Kasambi	Scheme
(1/4)	

-				T DDO ID	COMPANY TO THE OWNER OF		0			
	<u> </u>			I. PROJE	CT FUNDA	MENTAL	S			
1.1	General		722200226			NT 1 CT		257		
(1)	Code Number		: /3220226	17	(7)	Number of F	armers	: 257		
(2)	Name of Irrigation Scheme		: Kuri-Kuri	, Kasambi	(8)	water Resol	irce Kiver	: Masamba		
(3)	District (Kabupaten)		: Luwu Uta	ira	(9)	Catchment A	Area (km²)	: 102.2		
(4)	Sub-district (Kecamatan)		: Masamba		(10)	Completion	Last Renabilitation Year	: 1993		
(5)	Registered Area (na)		: 3,000	L						
(6)	l echnical Level		: Semi Tech	hnical						
12	Availability of Doposts/Door	monte le Def				lo D. Avoi	lable but partially C.	lot available/	No plan)	
1.2	a Design Reports of Evi	eting System(I	Erences	h I	(A: Availab	re, D: Avai	c As-built drawings	d Strue	ture lists & d	liagram
	a. Design Reports of Ext	sting bystem(1	un set)	0.1	R	ram	R	d. Strue	R	падтат
	e Rehabilitation pla	n & its referen	ces	f Cr	ons and vield	data	g Cropping Calender	h	WUAs data	1
	C	;			A		A		5	
			II. SUBJ	ECT AREA	FOR REH	ABILITAT	TION PLAN			
II.1	Present and Planned Land U	Jse						1		
	Category		Prese	ent (ha)	Plan	(ha)	Increment (ha)			
	a. Irrigated paddy field			995		3,000	2,005			
	b. Rainfed paddy field			2,005		0	-2,005			
	c. Upland Field			0		0	0			
	a. Non irrigable			0		0	0			
	Total			3 000		3 000	0			
				5,000		5,000	0	1		
				III.	AGRICUL	TURE				
III.1	Present/Before Project Cond	lition								
(1)	Irrigation Performance and Cu	op Production	l					[
	Season	Croppe	ed Area in I	rrigated Paddy	/ Field	Annual	Irrigated Paddy Yield	Crop I	Production (t	on) 1/
	0	Paddy (ha)	Palawija	Others (ha)	Total (ha)	Intensity	(GKG ton/ha)	Paddy	Palawija	Others
	Season I (wet)	995			995	100%	4.0	8,993		
	Season II (dry I)	995			995	100%	4.0	3,980	401	
	Season III (dry II)	1.000	0		0	2000/	4.0	12.072	401	0
	I otal/Annual	1,990	0	0	1,990	200%	4.0	12,9/3	401 dv & polowi	0
	- Double cropping of paddy p	s attained; exis racticed in the	stence of ext entire irriga	tensive rainfect ated area; pado Survey by the	l area (2,005h ly yield levels UCA Study	a) s still low; pa	lawija not introduced yet			
III.2 (1)	 Fight Ingation performance. Double cropping of paddy p B. Primary Constraint Identified in the information of the infor	s attained; exis racticed in the <i>ied through thh</i> Poor O&M a Infestation of Low marketin & ensuring yea d area of paddy cctivities tailor	stence of ext entire irriga <i>e Inventory</i> (t main & 2r f pest & dise ng prices ar round irrig y; productiv ed to area sp	tensive rainfect ted area; pado <i>Survey by the</i> y canals eases gation water s ity increase of pecific needs;	d area (2,005h dy yield levels <i>JICA Study</i> upply at on-fa f paddy throu, empowermen	a) s still low; pa - Palawija M - Farmers O - Extension f arm level through intensific: tt of farmer g	lawija not introduced yet larketing: - rganizations: Most membe Services: Implementat pugh rehabilitation & upgr ation; introduction of palar roups (KTs) to establish a	ers are not act ion of extensi rading wija in dry sea gri-business o	ive on programs son I rriented KTs	is limited
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III.2 (1) (2) IV.1 (1) (2) (3)	Existing Condition Season II (dry I) Season III (dry I) Season II (dry I) Season III (dry I) Season III (dry I) Season II (dr	s attained; exis racticed in the Poor O&M a Infestation of Low marketin & ensuring yea d area of padd ctivities tailor ess and Crop P Paddy (ha) 3,000 2,100 5,100 3,110	stence of ext entire irriga <i>e Inventory</i> : t main & 2ry f pest & dise ng prices ar round irrig y; productiv ed to area sp troduction ed Area in In Palawija 300 300 300 0 300 4 0 300 300 300 300 3	tensive rainfect ted area; pado Survey by the y canals eases gation water s ity increase of becific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	I area (2,005H by yield levels <i>JICA Study</i> upply at on-fa f paddy throu, empowermer / Field Total (ha) 3,000 2,400 0 5,400 3,410 IV. WUA 0 0 0 0 0 Management	a) s still low; pa s still low; pa - Palawija M - Farmers Or - Extension : arm level through intensific: t of farmer g Annual Intensity 100% 80% -20% s c. Not yet; c. Not yet;	lawija not introduced yet larketing: - rganizations: Most membo Services: Implementat 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	ers are not act ion of extensi ading wija in dry see gri-business o Crop Paddy 15,000 10,500 25,500 12,527 Registered Not yet regis	ive on programs ason I priented KTs Production (Palawija 1,500 1,500 1,099	is limited (ton) Others 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1)	Existing Condition Annual Increment Annual Constraints Administrative issues on WI Development Plan Proposed Countermeasures Acceleration of WI (A estable	s attained; exis racticed in the ised through the Poor O&M a Infestation of Low marketin & ensuring yea d area of paddy ctivities tailor eses and Crop P Paddy (ha) 3,000 2,100 9 7,100 3,110 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	stence of ext entire irriga <i>e Inventory</i> : t main & 2ry f pest & dise ng prices ar round irrig y; productiv ed to area sp troduction ed Area in In Palawija 300 300 300 400 300 300 300 300 400 300 3	tensive rainfect ted area; pado Survey by the y canals eases gation water s ity increase of pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	d area (2,005h hy yield levels <i>JICA Study</i> upply at on-fa f paddy throu, empowermer / Field Total (ha) 3,000 2,400 0 5,400 3,410 IV. WUA 0 Management	a) s still low; pa s still low; pa - Palawija M - Farmers Or - Extension 1 arm level through intensific: t of farmer g Annual Intensity 100% 80% -20% s c. Not yet; c. Not yet;	lawija not introduced yet larketing: - rganizations: Most membo Services: Implementat 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	ers are not act ion of extensi ading wija in dry sea gri-business of Paddy 15,000 10,500 25,500 12,527 Registered Not yet regis	ive on programs ason I rriented KTs Production (Palawija 1,500 1,500 1,099	is limited (ton) Others
III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1)	Existing Condition Number a. Target; Performance a. Development Plan Development Plan Development Approaches Expansion of irrigated area & Expansion of double cropped Strengthening of extension a Planned Irrigation Performance Season Season II (dry I) Season III (dry II) Total/Annual Annual Increment	s attained; exis racticed in the field through the Poor O&M a Infestation of Low marketin & ensuring yea d area of paddy cctivities tailor reses and Crop P Paddy (ha) 3,000 2,100 5,100 3,110	stence of ext entire irriga <i>e Inventory</i> : t main & 2ry f pest & dise ng prices ar round irrig y; productiv ed to area sp roduction ed Area in In Palawija 300 300 300 400 300 300 300 400 300 300	tensive rainfect ted area; pado Survey by the y canals eases gation water s ity increase of pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	d area (2,005h by yield levels <i>JICA Study</i> upply at on-fa f paddy throu, empowermer 7 Field Total (ha) 3,000 2,400 0 5,400 3,410 IV. WUA 0 Management	a) s still low; pa s still low; pa - Palawija M - Farmers Or - Extension 1 arm level through intensific: t of farmer g Annual Intensity 100% 80% -20% s c. Not yet; c. Not yet;	lawija not introduced yet larketing: - rganizations: Most membo Services: Implementat 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	ers are not act ion of extensi ading wija in dry sea gri-business of Paddy 15,000 10,500 25,500 12,527 Registered Not yet regis	ive on programs ason I rriented KTs Production (Palawija 1,500 1,500 1,099	is limited (ton) Others Others O O O O O O O O O O O O O O O O O O O
III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1) (2)	Ingaringation performance Double cropping of paddy p B. Primary Constraint Identifi Irrigation & Drainage: Agronomic Issues: Paddy Marketing Development Plan Development Approaches Expansion of irrigated area & Expansion of double cropper 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 - Administrative issues on WI Development Plan Proposed Countermeasures - Acceleration of WUA establ Development Plan	s attained; exis racticed in the bied through thu Poor O&M a Infestation of Low marketin & ensuring yea d area of paddy ctivities tailor res and Crop P Paddy (ha) 3,000 2,100 5,100 3,110	stence of ext entire irriga <i>e Inventory</i> : t main & 2ry f pest & dise ng prices ar round irrig y; productiv ed to area sp troduction ed Area in In Palawija 300 300 300 4 b. Establishe b. Under de Maintenance ent.	tensive rainfect ted area; pado Survey by the y canals eases gation water s ity increase of pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	d area (2,005h dy yield levels <i>JICA Study</i> upply at on-fa f paddy throu, empowermen / Field Total (ha) 3,000 2,400 0 5,400 3,410 IV. WUA 0 Management	a) s still low; pa s still low; pa - Palawija M - Farmers Of - Extension 1 arm level through intensific: at of farmer g Annual Intensity 100% 80% -20% s c. Not yet; c. Not yet;	lawija not introduced yet larketing: - rganizations: Most membo Services: Implementat 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	ers are not act ion of extensi ading wija in dry sea gri-business of Paddy 15,000 10,500 25,500 12,527 Registered Not yet regis	ive on programs son I rriented KTs Production (Palawija 1,500 1,500 1,099	is limited (ton) Others 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1) (2)	Existing Condition Number a. Target; Performance a. Development Plan Development Plan Development Approaches Expansion of irrigated area <i>Q</i> Strengthening of extension a Planned Irrigation Performance Season Season II (dry I) Season III (dry II) Total/Annual Annual Increment	s attained; exis racticed in the bied through thu Poor O&M a Infestation of Low marketin & ensuring yea d area of paddy ctivities tailor res and Crop P Paddy (ha) 3,000 2,100 5,100 3,110	stence of ext entire irriga <i>e Inventory</i> : t main & 2ry f pest & dise ng prices ar round irrig y; productiv ed to area sp roduction ed Area in In Palawija 300 300 300 400 800 300 300 300 300	tensive rainfect ted area; pado Survey by the y canals eases gation water s ity increase of pecific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	d area (2,005h by yield levels <i>JICA Study</i> upply at on-fa f paddy throu, empowermen / Field Total (ha) 3,000 0 5,400 3,410 IV. WUA 0 Management	a) s still low; pa s still low; pa - Palawija M - Farmers Of - Extension 1 arm level through intensific: t of farmer g Annual Intensity 100% 80% -20% s c. Not yet; c. Not yet;	lawija not introduced yet larketing: - rganizations: Most membo Services: Implementat 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	ers are not act ion of extensi ading wija in dry sea gri-business of Paddy 15,000 10,500 25,500 12,527 Registered Not yet regis	ive on programs son I riented KTs Production (Palawija 1,500 1,500 1,099	is limited (ton) Others O O O O O O O O O O O O O O O O O O O
III.2 (1) (2) IV.1 (1) (2) (3) IV.2 (1) (2) (2)	Existing Condition Number a. Target; Performance a. Development Planned Irrigation & Drainage: - Agronomic Issues: - Paddy Marketing Development Plan Development Approaches Development Approaches - Expansion of irrigated area (2) - Expansion of double cropper - Strengthening of extension a Planned Irrigation Performance Season Season II (dry I) Season III (dry II) Season III (dry II) Total/Annual Annual Increment Operation Causes of Problems and Constraints Operation Causes of Problems and Constraints Administrative issues on WI Development Plan Proposed Countermeasures - Acceleration of WUA establ Development Plan	s attained; exis racticed in the bied through thu Poor O&M a Infestation of Low marketin & ensuring yea d area of paddy ctivities tailor res and Crop P Paddy (ha) 3,000 2,100 5,100 3,110	stence of ext entire irriga <i>e Inventory</i> : t main & 2ry f pest & dise ng prices ar round irrig y; productiv ed to area sp roduction ed Area in In Palawija 300 300 300 400 800 800 300 300 300 300 300	tensive rainfect ted area; pado Survey by the y canals eases gation water s ity increase of becific needs; rrigated Paddy Others (ha) 0 0 0 0 0 0 0 0 0 0 0 0 0	d area (2,005h dy yield levels <i>JICA Study</i> upply at on-fa f paddy throu, empowermen / Field Total (ha) 3,000 0 5,400 3,410 IV. WUA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	a) s still low; pa s still low; pa - Palawija M - Farmers Of - Extension 1 arm level through intensification at of farmer g Annual Intensity 100% 80% -20% s c. Not yet; c. Not yet;	lawija not introduced yet larketing: - rganizations: Most membo Services: Implementat 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	ers are not act ion of extensi ading wija in dry sea gri-business of Paddy 15,000 10,500 25,500 12,527 Registered Not yet regis	ive on programs ason I rriented KTs Production (Palawija 1,500 1,500 1,099	is limited

					V. IRR	IGATION	FACILITY	l				
V.1	Existing Co	ondition										
(1)	Overall Irrig	gation System	: C	(A: Function	ing well, B: Par	rtially deterior	ated, C: Not fi	unctioning we	ll, D: Serious c	condition for op	eration)	
	Water Reso	urces Facility	: B	Main Ca	inal System :	D		Secondary C	anal System :	D	On-farm	: C
(2)	Water Reso	urces Facilty										
a.	Type of faci	lity	: Headworks		e. Scouring s	sluice gate	: 1 nos.		1. Condition	: B		
b.	Type of wei	r	: Fixed weir		f. Intake gate		: I nos.	1	(A: Functioni	ng well, B: Par	tially deterio	orated, C: Not
с.	Length of w	eir	: 40 m		g. Settling ba	isin Isridaa	: not provide	D:	functioning w	(eff, D. Serious	condition it	or operation)
a.	Design intak	te discharge	: 2.9 m3/s		n. Inspection	oriage	: not provide	a	(no info.: no i	nformation)		
(2)	Irrigation C	anal and Incre	action Pood									
(3)	Canal	Lined (m)	Unlined (m)	Total (m)	Structu	re (nos)	Inspection	n road (m)	Conc	lition	(A · Function	ning well
	Main		7 416	7 425	Structu	2	mspection	0	I)	B: Partially	deteriorated.
	Secondary	0	769	769		2		0	I)	C: Not func	ioning well,
							1				D: Serious c	ondition for
(4)	Major Probl	ems and Con	strains								operation)	
	Water Resor	urces Facility										
	Settlem	nent or breakd	lown of stillir	g basin of w	eir							
	Physica	al operational	problem on f	lood/scourin	g sluice gate(s) of headwo	rks					
	Inflow	of bed loads i	into canal and	decrease ca	nal flow capa	city						
-	Irrigation Ca	anal and Rela	ted Structure									
	Sedime	entation or ob	struction of w	ater flow								
	Impass	able of inspec	ction road alo	ng canal								
	Lower	function of ro	cills gulating stree	ture on conc	1							
	Difficu	ltv on O&M	Summing Strue	hare on call								
(5)	Causes of M	lajor Problem	s and Constra	unts								
-	Water Resor	urces Facility										
	Insuffic	cient strength	of weir found	lation, not er	nough foundat	tion treatmen	t, or insuffici	ent length of	stilling basin			
	Improp	er design, ins	tallation and/	or maintenar	nce of flood/so	couring sluic	e gate(s); brea	akdown of ho	oist, stem, gui	de frame or le	af	
	No pro	vision of settl	ing basin, no	proper gate	operation of in	ntake during	flood					
-	Irrigation Ca	anal and Rela	ted Structure									
	No pro	vision of settl	ing basin(sed	iments), imp	roper manage	ement of cana	al (sediments,	water plant)				
	Improp	er routine O&	kM works du	e to no or na	rrow wide of 1	road, slope e	rosion by rain	ifall then in f	low into cana	1		
	No kilo	and hectome	ter post, no s	tructure plate	e or mark on s	tructures and	l no identifica	ation for repa	ur/maintenanc	ce		
	Deterio	oration of regu	ilating structu	ire on canal,	especially gat	e and metal	works		h1			
v 2	No pro	vision or dam	age of inspec	tion road, di	fficulty on pas	ssing of insp	ection road di	le to damage	, broken			
v.2 (1)	Proposed Co	ni Fian	es for Major I	Problems								
(1)	Water Reso	urces Facility		TODICITIS								
	Recons	struction of sti	illing hasin of	weir								
	Replac	ement of cont	rol system or	damaged eq	uipment of flo	ood/scouring	sluice gate(s)				
	Provisi	on of settling	basin, proper	gate operati	on of intake d	luring flood		,				
-	Irrigation Ca	anal and Rela	ted Structure	č		U						
	Remov	al of sedimen	t soil and for	eign material	s from canal,	grass cutting						
	Provisi	on of inspecti	on road both	main and se	condary canal	with pavem	ent					
	Provisi	on of kilo, he	ct-m posts, m	arking to eac	ch structure w	ith structure	name					
	Replac	ement and rec	construction c	of regulating	structure on c	anal						
	Provisi	on or repair o	f inspection r	oad with all	weather type/	pavement						
(2)	Water Kesol	urces Facility	· minor robal	ailitation	Intoleo aivil	· larga rahah	ilitation	Intole	machanical	· larga rahahi	litation	
	Sattling basi	orks body	: replacemen	t or new	Intake, civii	. large renau	intation	Intake	e, mechanicai	. large renabi	Intation	
(3)	Irrigation C	iii anal and Rela	ted Structure	t of new								
	W	orks	No rehal	oilitation	Rehabi	litation	New cor	struction	Тс	otal		
	0. 1/ 3	Main		0		7,425		742		8,168		
	Canal (m)	Secondary		0	1	769		20,910	1	21,679		
	Structure	Main		0		2		15		17		
	(nos)	Secondary		0		2		100		102		
(4)	On-farm De	velopment						(Unit: ha)	1			
	a. Potential	Irrigated pade	ly field	995	d. Non-poter	ntial paddy fi	eld	2,005	4			
	b. Potential	non-irrigated	paddy field	0	e. Non-poten	ittial non-pac	ldy field	0	4			
	c. Potential	non-paddy fie	eld	0	1 otal			3,000				
(5)	Rehabilitati	on Cost (Dir-	et Cost)			/T 1	Million Dr					
(3)	ivenaoiiitati(In Cost (Dife	ci Costj	On-Form	Project	(Uni	Cost	1				
	W.R.F	Irrigation	Drainage	Develop	Facility	Total	ner ha					
	3 644	45 767	4 577	7 178	1 570	62 736	20.9	(W.R.F: Wat	er Resources F	acility Develo	p.: Develop	nent)
	2,011	,101	.,077	,,170	1,010	0=,750	20.7			, _ = = = = = = = = = = = = = = = = = =		
					VI. PRO	DJE <u>CT</u> EV	ALUATIO	N				
VI.1	EIRR	14.2%										
VI.2	Prioritizati	on Scoring			· - · · · · ·							
	Evaluation I	ndex			Full Score	Score	Evaluation I	ndex		Full Score	Score	Total Score
	Irrigation	Utilization o	f Irrigation P	otential	10.0	-	Agricultural	Productivity		20.0		
	System	Urgency			25.0	-	Social Probl	em		15.0		-
		Sustainabilit	у		15.0	-	Economic Ir	npact		15.0		-
VI 3	Priority Cr	oun	Group V. Ac	ceralation of	f WUAs estab	lishment	VI 4	Priority Po	nking in the	Province		-
1.5	r norny Gr	oup	Stoup V. M			it	v 1.4	i norny Ka	inting in the	invince		_

South Sulawesi Province 41. Kuri-Kuri Kasambi Scheme (3/4)

Scheme	Kuri-Kuri, Kasambi	District	Luwu Utara
Technical Level	Semi-technical	Registered Area	3,000 ha Year of Construction 1993
SS.41.222		05/26/2003	Category Irrigation (Headworks) Scouring Sluice Condition □ A B C D Problems Insufficient diversion water due to sedimentation at scouring sluice.
SS H 2240		5E/26/2003	Category Irrigation (Main Canal) Structure Masonry Lined Canal □ A B C D Problems Damage on lined canal; leakage from lined canal; deflection of lining toward inside of canal; no inspection road; less maintenance.
		05/26/2003	Category Irrigation (Main Canal) Structure Masonry Lined Canal Condition □ A B ✓ Problems Sedimentation;damage on lined canal; leakage from lined canal; deflection of lining toward inside of canal; no inspection road; less maintenance.

South Sulawesi Province 41. Kuri-Kuri Kasambi Scheme

Scheme	Kuri-Kuri, Kasambi	District	Luwu Utara
Technical Level	Semi-technical	Registered Area	3,000 ha Year of Construction 1993
SSALOOT		05/26/2003	Category Irrigation (Secondary Canal) Structure Earth Canal Condition A B ✓ C Problems Sedimentation; collapse of canal; leakage from canal; difficulty on maintenance of earth canal, no inspection road.
		05/26/2003	Category Agriculture, On-Farm Activity Paddy Cultivation Condition □ A □ A □ A □ B ✓ C □ Problems Low density of on-farm canals and farm roads.
		05/26/2003	Category Agriculture, On-Farm Activity Land Preparation by Man Power Condition □ A □ A □ A □ A □ A □ A □ B ☑ C □ D Problems Low density of on-farm canals and farm roads.