ANNEXES

Annex 1: Project Design Matrix (PDM) for Smallholder Irrigation Project in Kenya

Ver. 0, made on January 10th, 2005

Project Name: The Pilot Project on Smallholder Irrigation and Drainage Development
Duration: 5 years
Implementing Agencies: IDD of MWI and JICA
Target Group: 2,000 farmers at pilot scheme sites, and 300 officers of IDD, PIO and DIO and 400 farmers for In-country
Target Area: Pilot scheme sites (, Narok, Kirinyaga, Mbeere, Kajiado, Makueni)

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumption
Overall Goal: The methodology established through the Project will be used for other smallholder irrigation scheme development.	The rate of abandoned schemes after implementation will decrease.		
Project Purpose: Methodology for development of sustainable smallholder irrigation system is verified in the selected schemes	1. Income of pilot scheme farmers is increased. 2. O&M of pilot schemes are properly done.		Prices of produced crops do not slump
Outputs: 1. Irrigation infrastructures of pilot sites are provided. 2. WUAs of pilot sites are responsible for O&M of the irrigation system. 3. Improved irrigation and drainage services are provided to farmers.	• Targeted farmers at pilot sites receive necessary trainings. • No. of schemes designed • No. of schemes constructed • No. of irrigation structure constructed • No. IWUAS trained • No. of IWUAS trainings • % of targeted o&m fee collected • No. of days the farmers spend in irrigation system maintenance • % of farmers using water in each	1. Site visit reports 2. WUA Evaluation Reports 3. Training Reports 4. Farmers' committees reports	

29

	scheme		
Activities: 1.1 Confirm the whole project plan (incl. time frame & pilot sites selection) 1.2 Establish Steering Committees for each pilot site 1.3 Conduct preliminary studies 1.4 Conduct feasibility studies 1.5 Construct irrigation infrastructures 1.6 Confirm if irrigation infrastructures are working 2.1 Sensitize proposed WUAs members 2.2 Organize WUAs 2.3 Provide Trainings to WUAs 2.4 Mobilize WUAs 2.5 Evaluate WUAs 3.1 Formulate training programs for targeted farmers 3.2 Coordinate with stakeholders 3.3 Conduct trainings to WUAs 3.4 Evaluate trainings	Input Kenyan Side -Counterparts from MWI (Project Coordinator, Irrigation Engineer, Farmers organization/Training /Institutional Development,) -Counterparts from other stakeholders (Extension Service, Marketing, Institutional Development) -Useful equipments, Offices	Japanese Side -2 long-term experts Chief advisor/participatory water management, Coordinator/ Training) -Japanese and Third country Short-term experts Farmers organization(Third country) Other short-term experts may be dispatched when necessity arises Hire of local consultants in specified areas—Farmers Organization ,Technical Support Annual acceptance of counter part personnel for training in Japan and third country Provision of machinery and equipment within budgetary allocation -3 vehicles, 7 motorbikes, 1 photocopy machine, office equipment, survey equipment -Construction cost, Operational cost	

*IDLR: Irrigation, Drainage and Land Reclamation Department
*MWI: Ministry of Water and Irrigation
*JICA: Japan International Cooperation Agency
*PIO: Provincial Irrigation Office
*DIO: District Irrigation Office
*IWUA: Irrigation Water Users Association
*O&M: Operation and Maintenance

Annex 2: Proposed Project Design Matrix (PDM) for Smallholder Irrigation Project in Kenya

Ver. 1, made on 24th June, 2008

Project Name: The Project for Sustainable Smallholder Irrigation Development and Management in Central and Southern Kenya (SIDEMAN)
Duration: 5 years
Implementing Agencies: IDD of MWI and JICA
Target Group: 2,000 farmers at pilot scheme sites, and 300 officers of IDD, PIO and DIO and 400 farmers for In-country
Target Area: Pilot scheme sites (Narok South, Kirinyaga, Mbeere, Liotokitok, Makueni)

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumption
Overall Goal: The methodology established through the Project will be used for other smallholder irrigation scheme development.	The Percent of schemes applying the methodology increase.	1. DIOs field report 2. IDD Vision 2030 progress report	1. The current government support continues
Project Purpose: Methodology for development of sustainable smallholder irrigation system is verified in the selected schemes	1. Income of pilot scheme farmers is increased. 2. Functional O&M by IWUA in the pilot schemes is in place. 3. Number of CIG established within schemes should increase. 4. Reliable water supply to targeted f 5. farmers improve	1. Socio-economic survey 2. Field survey 3. National census 4. Other national statistics	1. Prices of produced crops do not slump 2. There is no drastic climate change
Outputs: 1. Irrigation infrastructures of pilot sites are provided. 2. IWUAs of pilot sites are responsible for O&M of the irrigation system. 3. Capacity of IDD and farmers are improved	1-1. No. of schemes designed 1-2. No. of schemes constructed 1-3. No. of irrigation structures constructed 1-4. Amount of water conveyed by the constructed 1-5. Time spent by farmers on O&M 1-6. Acreage under Irrigation increase 2-1. No. of IWUAs trained 2-2. Percent of targeted O&M fee collection 2-3. Records on IWUAs	1. Site visit reports 2. WUA Evaluation Reports 3. Training Reports 4. Farmers' committees reports 5. Field survey	"There is a positive attitude change towards the project goal and purpose"

	By-laws, membership, meetings, finances, stores, etc. 2-4. A list of common interest groups established 2-5. Percent of farmers receiving water in each scheme 3-1. No. in-country trainings 3-2. No. of IDD trainings 3-3. No. of trainees 3-3. Percent of trainees using new technologies 3-4. Level of knowledge acquired & application		
Activities: 1.1. Confirm the whole project plan (incl. time frame & pilot sites selection) 1.2 Establish Steering Committees for each pilot site 1.3 Conduct preliminary studies 1.4 Conduct feasibility studies 1.5.Construct irrigation infrastructures 1.6 Confirm if irrigation infrastructures are working 2.1 Sensitize proposed IWUAs members 2.2 Organize IWUAs 2.3 Provide Trainings to IWUAs 2.4 Mobilize IWUAs 2.5 Evaluate IWUAs 3.1 Formulate training programs for IDD staff and targeted farmers 3.2 Coordinate with stakeholders 3.3 Conduct trainings to IDD and targeted farmers 3.4 Evaluate trainings	**Input** **Kenyan Side** -Counterparts from MWI (Project Coordinator, Irrigation Engineer, Farmers organization/Training /Institutional Development,) -Counterparts from other stakeholders (Extension Service, Marketing, Institutional Development) -Useful equipments, Offices -Construction cost, Operational cost	**Japanese Side** -2 long-term experts Chief advisor/participatory water management, Coordinator/ Training) -Japanese and Third country Short-term experts Farmers organization(Third country) Other short-term experts may be dispatched when necessity arises Hire of local consultants in specified areas—Farmers Organization ,Technical Support Annual acceptance of counter part personnel for training in Japan and third country Provision of machinery and equipment within budgetary allocation -3 vehicles, 7 motorbikes, 1 photocopy machine, office equipment, survey equipment -Construction cost, Operational cost	**Preconditions** -Security condition around the project sites does not become bad.

*IDD: Irrigation and Drainage Department
*JICA: Japan International Cooperation Agency
*DIO: District Irrigation Office
*O&M: Operation and Maintenance
*MWI: Ministry of Water and Irrigation
*PIO: Provincial Irrigation Office
*IWUA: Irrigation Water Users Association

Annex 3: Assignment of Japanese experts

Name	assignment	Period	Affiliated office
Long-term expert			
Dr. Yasuhiro Doi	Chief advisor / Participatory Water Management	2007.2.12-2009.2.11	
Mr. Isao Tojo	Coordinator / Training Planning	2005.12.06-2008.12.05	
Short-term Expert			
Dr. Yasuhiro Doi	Chief advisor / Participatory Water Management	2006.4.16-2006.10.22	
		2005.11.1-2006.3.18	
Short-term Expert from 3rd Country			
Mr. Enrique A. Sabio	Institutional Development / Irrigation Water Users Association	2006.9.2-2006.10.12	National Irrigation Administration (NIA), Philippines
		2007.3.24-2007.6.21	

Annex 4: List of Equipment Provided by the Government of Japan

JFY 2006

No.	Item	Price	Budget type	date	unit	vendor	Model type	In charge
1	vehicle	2,066,980	Purchased by JICA KY	06/02/06	1	Toyota East AFRICA	Toyota Prad Lj120std diesel: 3000cc	HQ, MWI
2	vehicle	2,306,925	Purchased by JICA KY	06/02/15	1	DT Dobie	Nisan patrol Y61 4200CC STD Diesel	HQ, MWI
3	Video camera	80,000	Purchased by JICA KY	06/02/15	1	Technology today	DCR-DVD60 2E PAL	PMT
4	PC	495,400	Purchased by JICA KY	06/02/15	4	Technology today	IBM Think centre M51 A51 VE57DSA With 16 inch monitor CRT	Mbeere, Kiriyaga Makueni ,Kajiado
5	Ms office XP Pro		Purchased by JICA KY	06/02/15	4	Technology today	MS officceXPPro, english version	Mbeere, Kiriyaga Makueni ,Kajiado
6	printer		Purchased by JICA KY	06/02/15	4	Technology today	HP	Mbeere, Kiriyaga Makueni ,Kajiado
7	UPS		Purchased by JICA KY	06/02/15	4	Technology today	APC500VA	Mbeere, Kiriyaga Makueni ,Kajiado

No.	Item	Price	Budget type	date	unit	vendor	Model type	In charge
8	Motor bike with helmet	460,000	Purchased by JICA KY	06/03/15	2	Car & General	Suzuki TFRS IATS185	Makueni ,Kajiado
9	Photocopier, auto feeder	306,034	Purchased by JICA KY	06/02/07	1	sharp	AR-5127,AR-RP3	PMT
10	PC with PCR	463,000	Purchased by JICA KY	06/03/30	2	Science scpoe	Del optplex G520	PMT Narok
11	Printer	1,150,000	Purchased by JICA KY	06/03/30	2	Science scpoe	HP1020	PMT Narok
12	Ms office XP Pro		Purchased by JICA KY	06/03/30	2	Science scpoe	MS officceXPPro, english version	PMT Narok
13	digital camera		Purchased by JICA KY	06/03/30	2	Science scpoe	HP M417	PMT Narok
14	Note book PC		Purchased by JICA KY	06/03/30	2	Science scpoe	HP Compaq nx6110(PY499EA)	PMT
15	UPS		Purchased by JICA KY	06/03/30	2	Science scpoe	500VA APC	PMT Narok
16	Motor bike		Purchased by JICA KY	06/02/31	5	Car & General	Suzuki TFRS IATS185	Mbeere, Kiriyaga Narok 2 province

No.	Item	Price	Budget type	date	unit	vendor	Model type	In charge
17	Mini bus	3,747,667	Purchased by JICA KY	06/03/02	1	DT Dobie	Nissan Gulian	HQ, MWI
1	monitor	17,400	Purchase by project	06/01/25	1	Ebrahim electronics	TFT 15 inch	PMT
2	CD Writer	21,500	Purchase by project	06/01/25	1	Microcity ltd	Nute,DVD Writer	expert
3	Scaner	23,800	Purchase by project	06/01/25	1	Microcity ltd	Cannon LIDE60	PMT
4	Scaner	23,800	Purchase by project	06/01/25	1	Microcity ltd	Cannon LIDE60	PMT
5	Printer	30,000	Purchase by project	06/01/25	1	Microcity ltd	HP1020	PMT
6	Printer	30,000	Purchase by project	06/01/25	1	Microcity ltd	HP1020	PMT
7	Personal computer	159,880	Purchase by project	06/01/25	1	Ebrahim electronics	HP P avilion	PMT
8	PC & Monitor	159,880	Purchase by project	06/01/25	1	Ebrahim electronics	HP Pavilion A1220N	expert
9	Ms office	28,000	Purchase by project	06/02/06	1	Ebrahim electronics	Ms office professional	PMT
10	Ms office	28,000	Purchase by project	06/02/06	1	Ebrahim electronics	Ms office professional	PMT
11	Digital camera	22,300	Purchase by project	06/02/10	1	Ebrahim electronics	Olympus FE100	PMT
12	copier stand	25,000	Purchase by project	06/02/21	1	Disney service ltd	wooden	expert

13	LCD	17,400	Purchase by project	06/02/24	11	Ebrahim electronics	Horizon 5003110	expert
14	printer	15,000	Purchase by project	06/02/28	1	Pctect ltd.	HP1020	PMT
No.	Item	Price	Budget type	date	unit	vendor	Model type	In charge
15	Drill	15,975	Purchase by project	06/03/20	1	Multi timber	Black &decker KR70D730W	expert
16	screen	18,500	Purchase by project	06/03/22	1	Lion stationers	60*60 OHP screen	expert
17	scanner	21,000	Purchase by project	06/03/24	1	Pctect ltd.	Canon LIDE60	expert
18	scanner	21,000	Purchase by project	06/03/24	1	Pctect ltd.	Canon LIDE60	expert
18	Cabinet	17,000	Purchase by project	06/03/25	1	0ds and Ends	Cupboard	PMT
20	Duplicator	206,904	Purchase by project	06/03/28	1	Copy cat	Riso CP-6123	expert
21	Theodolite	742,400	Purchase by project	06/03/30	1	Science scpoe	Leica TC407 7 (2MGON)	expert
22	LCD	15,000	Purchase by project	06/03/31	1	Ebrahim electronics	Horizon5003l 10	PMT
23	LCD	15,000	Purchase by project	06/03/31	1	Ebrahim electronics	Horizon5003l 10	expert
24	Personal Computer	67,280	Purchase by project	06/03/31	1	Ebrahim electronics	HP SlimelinePC 37210N	PMT
25	Auto CADLT	123,192	Purchase by project	06/03/31	1	Gath manage	Auto CADLT2007	PMT

						ment		
26	Stand for duplicator	25,000	Purchase by project	06/05/17	1	Ebrahim electronics	Wooden on wheel	expert
27	Note PC	99,000	Purchase by project	06/08/31	1	Ebrahim electronics	HP Pavilion AV8000	OA
28	Cabinet	15,000	Purchase by project	06/09/01	1	Ods and Ends	4 drawers	OA
29	Conference table	26,000	Purchase by project	06/09/13	1	Ods and Ends	Wooden	expert
30	Carrier	34,800	Purchase by project	06/12/13	1	Toyota	Roof carrier for Prado	expert

JFY 2007

No.	Item	Price	Budget type	date	unit	vendor	Model type	In charge
31	Notebook PC	55,000	Purchase by project	07/01/19	1	Ebrahim electronics	Gate way MX6440	expert
32	Note book PC	375,000	Purchase by project	07/03/01	5	Ebrahim electronics	TOSHIBA A100-UA3	DIO
33	Safe	18,000	Purchase by project	07/03/06	1	Ods and Ends	Yale SFH42EC	PMT
34	Book shelf	46,800	Purchase by project	07/03/06	5	Ods and Ends	4 shelves wooden	expert
35	Projector	57,000	Purchase by project	07/03/06	1	Ebrahim electronics	EPSON EMP-TW10H	expert
36	Note book PC	315,000	Purchase by project	07/03/12	5	Ebrahim electronics	Gate way MX6440	expert
37	Digital camera	25,000	Purchase by project	07/03/12	1	Ebrahim electronics	Sonny cybershot PSC-545	expert

38	Data switch	33,500	Purchase by project	07/03/21	1	Ebrahim electronics	Dlink24 port SW17CH	expert
39	Video camera	148,900	Purchase by project	07/03/21	2	Ebrahim electronics	Sony DCR DVD705E	expert
40	Note book PC	275,000	Purchase by project	07/03/21	5	Ebrahim electronics	Gate way MX6440	expert
JFY 2008								
41	AutoCad	351,400	Purchase by project	08/03/31	2	Ebrahim electronics	AutoCad civil 3D	PMT
42	Facsimile	28,600	Purchase by project	08/03/31	1	Ebrahim electronics	Panasonic KX-FA57E	PMT
total		14,870,217						

Annex 5: Acceptance of Kenya Counterparts Personnel for Training in Japan

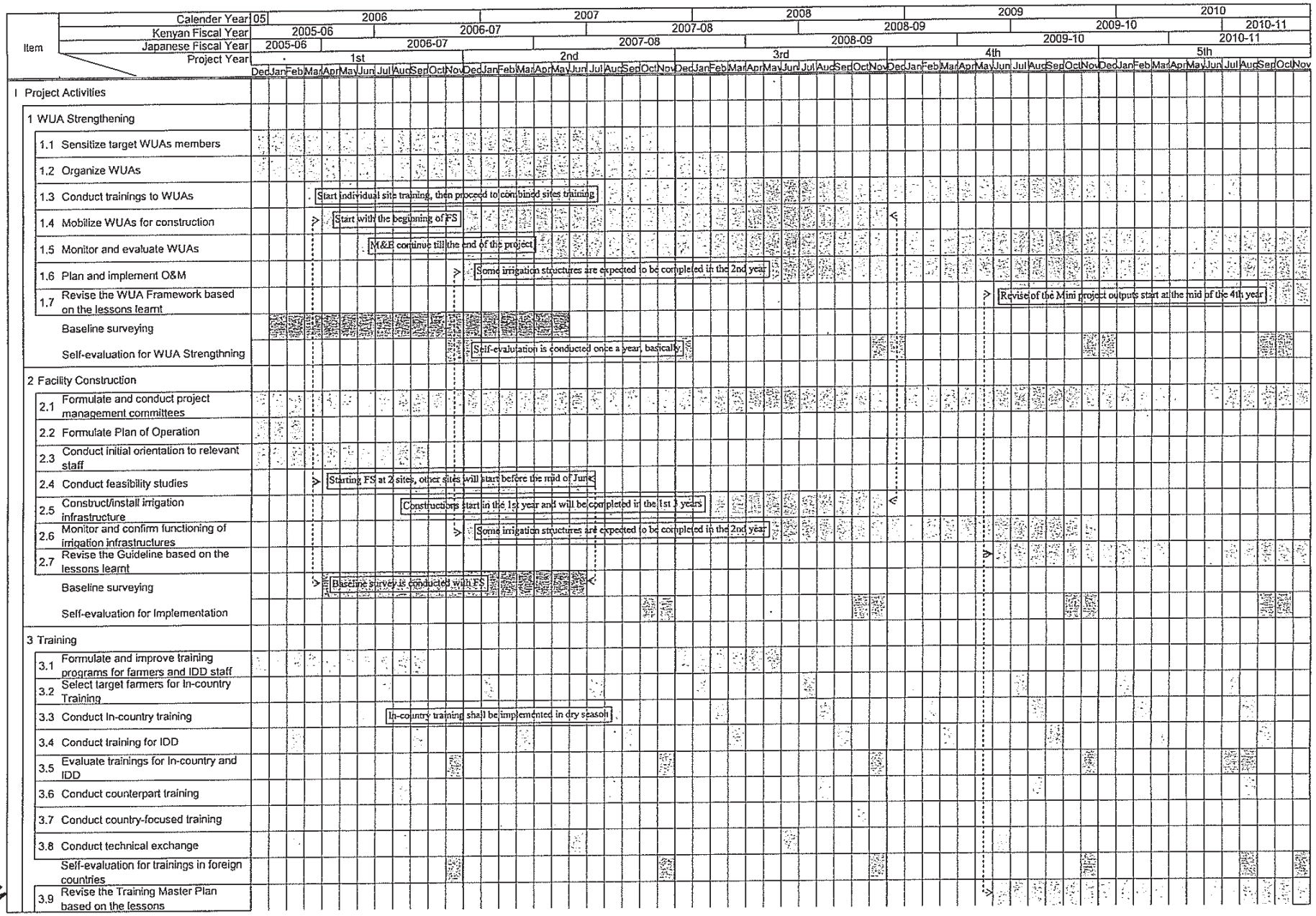
	Name	Course Title	Duration	Post	Organization
1	Eng. Raphael Ogendo	Irrigation and drainage management	2006.8.14-2006.9.28	DIO, Kajiado	Irrigation and Drainage Department, MWI
2	Eng. Martin Kamami	Irrigation and drainage management	2007.8.13-2007.9.9	Project Manager of SIDEMAN	Irrigation and Drainage Department, MWI

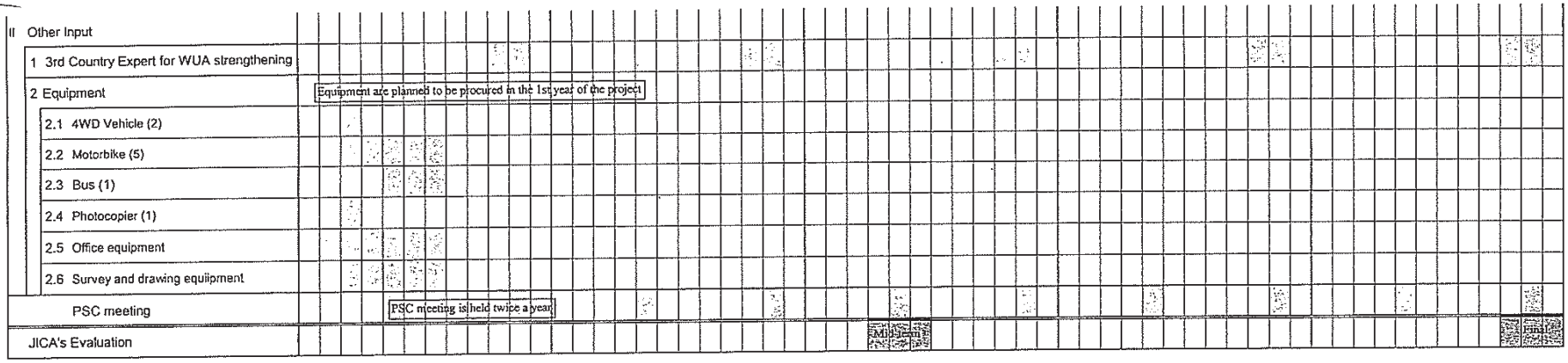
Annex 6: Allocated budget by the government of Japan

Japanese FY		2005	2006	2007	2008	Amount	% of total
Duration		2005.10-2006.3	2006.4-2007.3	2007.4-2008.3	2008.4.1-15		
1. Infrastructure	Construction		KES 8,994,294	KES 4,205,288	KES 31,121	KES 13,230,703	28%
	F/S		KES 2,412,283	KES 1,348,467		KES 3,760,750	8%
2. WUA			KES 830,681	KES 492,438		KES 1,323,119	3%
3. Capacity Building	IDD Training	KES 581,204	KES 802,982	KES 727,475	KES 28,365	KES 2,140,026	5%
	Technical Exchange	KES 743,550	KES 2,243,829			KES 2,987,379	6%
	In-country Training		KES 1,141,638	KES 2,653,996		KES 3,795,634	8%
4. Equipment		KES 13,651,332	KES 1,872,231	KES 409,800		KES 15,933,363	34%
5. Others		KES 774,854	KES 1,648,947	KES 1,342,379	KES 5,150	KES 3,771,330	8%
All	KES	KES 15,750,940	KES 19,946,885	KES 11,179,843	KES 64,636	KES 46,942,304	100%
	JPY	JPY 26,556,085	JPY 34,470,212	JPY 17,908,432	JPY 104,052	JPY 79,038,780	100%
Exchange Rate		1KSh=1.686Yen	1KSh=1.7281Yen	1KSh=1.60185Yen	1KSh=1.60981Yen		

Annex 7: Assignments of Kenyan Counterpart Personnel

	Name	Assignment	Period
1.	N.R.Kamau,	Director IDD	Dec 2005-Jan 2007
2.	C.K. Koske		Feb. 2007-date
3.	W. O. Onchoke	Project co-coordinator	Feb.2005-date
4.	P.K.Ragwa	Project manager	Dec 2005-Jan 2007
5	M. I. Kamami		Feb 2007-Sep 2007
6	G. W. Kahuro		Apr 2008-date
7	M. I. Kamami	Project Engineer	Dec 2005-Jan 2007
8	S. M Maingi		Oct 2007-date
9	A. Abwoga	Project Specialist, Farmers Organization,, Training, Institutional Development	Dec 2005-date
Provincial irrigation officers			
10	G. W. Kahuro	Central	Dec 2005-Nov 2006
11	G.M. Maithya		Dec 2006 –Date
12	G. M. Maithya	Eastern	Dec 2005-Nov 2006
13	J. K. Wairangu		Dec 2006 –Date
14	Nyanchama	Rift valley	Dec 2005-Nov 2006
15	Raphael Ogendo		Dec 2006 –Date
District Irrigation Officers			
16	F. Koome	Mbeere	Dec 2005-date
17	B. Mwangi	Kirinyaga	Dec 2005 -Jan 2007
18	G. S. Gichane		Apr 2008- date
19	C.K.Mbaabu	Makueni	Dec 2005-date
20	R Ogendo	Loitokitok	Dec 2005-Nov 2006
21	R. K. Mutiso		Dec 2006-date
22	J. Karangu	Narok South	Feb 2005 -date


Item
Calender Year 05 2006 2007 2008 2009 2010
Kenyan Fiscal Year 2005-06 2006-07 2007-08 2008-09 2009-10 2010-11
Japanese Fiscal Year 2005-06 2006-07 2007-08 2008-09 2009-10 2010-11
Project Year 1st 2nd 3rd 4th 5th
Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov
I Project Activities
1 WUA Strengthening
1.1 Sensitize target WUAs members
1.2 Organize WUAs
1.3 Conduct trainings to WUAs
Start individual site training, then proceed to combined sites training
1.4 Mobilize WUAs for construction
Start with the beginning of FS
1.5 Monitor and evaluate WUAs
M&E continue till the end of the project
1.6 Plan and implement O&M
Some irrigation structures are expected to be completed in the 2nd year
1.7 Revise the WUA Framework based on the lessons learnt
Revise of the Mini project outputs start at the mid of the 4th year
Baseline surveying
Self-evaluation for WUA Strengthning
Self-evaluation is conducted once a year, basically
2 Facility Construction
2.1 Formulate and conduct project management committees
2.2 Formulate Plan of Operation
2.3 Conduct initial orientation to relevant staff
2.4 Conduct feasibility studies
Starting FS at 2 sites, other sites will start before the mid of June
2.5 Construct/install irrigation infrastructure
Constructions start in the 1st year and will be completed in the 1st 3 years
2.6 Monitor and confirm functioning of irrigation infrastructures
Some irrigation structures are expected to be completed in the 2nd year
2.7 Revise the Guideline based on the lessons learnt
Baseline surveying
Baseline survey is conducted with FS
Self-evaluation for Implementation
3 Training
3.1 Formulate and improve training programs for farmers and IDD staff
3.2 Select target farmers for In-country Training
3.3 Conduct In-country training
In-country training shall be implemented in dry season
3.4 Conduct training for IDD
3.5 Evaluate trainings for In-country and IDD
3.6 Conduct counterpart training
3.7 Conduct country-focused training
3.8 Conduct technical exchange
Self-evaluation for trainings in foreign countries
3.9 Revise the Training Master Plan based on the lessons


II Other Input
1 3rd Country Expert for WUA strengthening
2 Equipment
Equipment are planned to be procured in the 1st year of the project
2.1 4WD Vehicle (2)
2.2 Motorbike (5)
2.3 Bus (1)
2.4 Photocopier (1)
2.5 Office equipment
2.6 Survey and drawing equipment
PSC meeting
PSC meeting is held twice a year
JICA's Evaluation

Annex 9: Progress of project activities (Evaluation Grid)

Evaluation Item	Evaluation Questions		Data source	Result
	Main Questions	Sub-questions		
Verification of Performance	Possibility/ progress to achieve outputs as planned	1 Irrigation infrastructure of pilot sites are provided 1-1 No. of schemes designed 1-2 No. of schemes and irrigation infrastructure constructed	Project reports Interviews	1-1 Six (6) draft designs of projects were done. 1-2 Construction of the designed schemes is however, yet to be completed. - Finalization of designs and feedback was noted to be taking a bit longer. For example, conclusion of *Kiarukungu* design is still outstanding. - The draft designs for both *Kanunka B* and *Koseka* irrigation schemes were done in September 2007. After feedback from HQ, the final designs were completed March 2008; - However, none of the two schemes in Narok District have actually been constructed resulting in a delay of over 8 months. - In *Kiambindu* irrigation scheme, construction is partial and the farmers cannot be able to use the facility while in *Kyeekolo* scheme they have received some pipes. The Kisioki irrigation scheme is partially constructed too.

		2 WUAs of pilot schemes are responsible for O&M of irrigation system 2-1Targetted farmers at pilot sites receive necessary training 2-2 No. of IWUAs trained no. of IWUAs trainings. 2-3 Percent (%) of targeted O&M fee collected;		- Farmers from the pilot schemes have received training sessions at scheme level. They are also responsible for the O&M in various ways; ➢ The farmers have contributed labour, locally available construction materials and money. - Sixteen (16) IWUA trainings have been conducted. A total of 530 farmers have received training at scheme level - It was also noted that the cost of farmer training has increased by 28% above the 2005 estimates - In Narok, no construction yet; but these schemes are old and so accumulated experience on O&M was observed. Kanunka B has been in existence over 3 decades while Koseka for 2 decades. ➢ Special days are set aside to clean the canal. In Kanunka B, for those members in the scheme who don't attend the canal O&M exercises, they are fined a fee which is late used in O&M. ➢ There are by-laws which are used to control scheme operations - In most cases, the groups are more cohesive as a result of the trainings Training; - Eighty six (86) participants have attended different courses. - Four (4) in-country trainings have been conducted. A total of one hundred and Fifty (150) farmers have been trained.

				Fees charged: - In Narok schemes, IWUAs have not been charging any standardized fees for O&M. - For example, in Kanunka B, members have agreed to contribute Ksh. 50 per month per farmer while in Koseka, no money contribution yet. Members have however, agreed to give some fees per month.
		3 Improved irrigation and drainage services are provided to farmers 3-1 No. of days the farmers spend in irrigation system maintenance 3-2 %age of farmers using water in each scheme		- As most of the construction in the pilot schemes has not been completed at the time of this mid-term evaluation, the two indicators could not be objectively assessed. - Valuable time has been spent in capacity development of the farmers, and water users' associations; - Farmers generally participated during the survey and construction of the infrastructure. - Although construction is yet, farmers have from *Kiambindu* and *Kyeekolo* are receiving some water from the old pipe system respectively. It was however observed that some of the pipes at *Kyeekolo* belong to farmers who have leased land and are not members of the water users' association. - The two projects have old and new members. Integration of the two groups of members is clear in *Kiambindu* but not for *Kyeekolo;* - In Kanunka B and Koseka, since the construction of the pilot

				scheme has not been done, it was not possible to objectively assess these two indicators
	Are inputs provided as planned	Were inputs from Japanese side provided? - Long and short term experts - Third country experts - Counterpart training in Japan or other countries - Equipments (name, quantity and cost) - Implementation cost	Project reports Interviews	- JICA has allocated 2 long –term experts: – chief advisor/ participatory water management and coordinator/ training; third country expert from Philippines (National Irrigation Administration) was assigned a total of 4.5 months to the project broken into two assignment periods. - Local consultants in training needs assessment, environmental impact assessment, socio-economic surveys and soil surveys were engaged. - *See list of equipment attached.*
		Were inputs from Kenyan side provided? –Counterpart –Equipments (name, quantity and cost) –Implementation cost	Project reports Interviews	- The government deployed 4 counterparts to the PMT - There seems to be a high turn over of project managers. In the last 2.5 year period, the project manager has changed 3 times! - As Project irrigation engineers have also been affected; at district level, 3 district irrigation officers (DIO) have not changed but two have been affected.

Verification of implementation process	Have the activities been implemented as planned?	Has the project been implemented as planned, are there any activities that have not been implemented?	Project reports/ Interviews	- During the project implementation, some activities have been implemented as planned. - Construction of infrastructure has however delayed while the capacity building of IDD and training of farmers component has been implemented - Initially there was a delay to implement the farmers' training component but overall this component is ongoing well. - The approach in training to IWUA has just been reviewed to become modularized from the early topic based!! This was based on a needs assessment which necessitated the change. - Both approval of designs and construction delayed. This was due to both delays in funding and also that the in charge, DIO left to Japan for training. - It was noted that project activities were done by one office and in case of his absence delay on implementation results. There was no staff to stand in his place while he was away. This delayed start of trainings and follow-up on designs for approvals.
		Are there any changes in the implementation plan? - If any what and why? - What counter measures were		- It was apparent, that the delay to implement the project components was due to institutional as well as project programming constraints. ➢ Institutional – due to approval mechanism resulting in budget execution delays by both GoK and JICA

		affected? What is the degree of participation of target group and other organizations?		➢ Programming – due to lack of anticipation and countermeasures on the part of PMT. This is partly due to few staff at IDD and approval mechanisms. - There were some delays in IWUA trainings but most of construction of the infrastructure is yet to start. This has raised concerns among the farmers, especially as they have to plan or schedule their farm operations. <u>Participation of target group</u> - Interviews revealed a high level involvement of other stakeholders in the project activities at the district level. These include relevant agencies e.g. DIOs, DSO etc. - The farmers attend meetings and make contributions through labor and cash for O&M. - The farmers have also participated through in-country trainings. ➢ They however, wish to be more involved through a predictable system of planning for training and construction when it starts! ➢ The women are particularly constrained due to cultural practice whereby traditionally they have not been involved in decision making among the Masai. Through the project, they have been encouraged to be part of the committee, and attend meetings.

	Appropriateness of management system of the project	How has the monitoring of each indicator of the output been done?	Project reports Minutes of the meetings	- The project implementation structure (PSC.PCC.PSCC) at various levels is in place. - It is noteworthy, that the PSCC meetings are *ad hoc* and the DIO do not have the resources needed to convene them. The activity is solely funded through GOK. - There is no clear methodology by the PMT to actually monitor each indicator of the output. - There is a limitation on continuously accumulating quantitative data/information for all the indicators.
		How has the monitoring of other aspects of the project been done?		Through regular meetings to monitor project activities by the PMT. This forms part of the documented project progress reporting.
		Has the PDM and PO been used in project implementation?		- The PDM and PO are the principle tools of project monitoring. - The plan of operation (PO) was formulated by PMT and this is annually approved by the PCC and the PSC - There has not been any modification of the PDM. Interviews with the PMT noted that this is necessary.
		Is there any problem on JICA's response, suggestion and communication to report of the project or change of project activities?		- There is no problem on JICA's response
	Relationship between Japanese experts and Kenyan	How is the communication between the experts and counterparts?	Interviews	- Overall, communications is good but there is room for improvement - Communications between Kenyan counterpart members and JICA experts is done through regular meetings, informal

	counterparts			conversations and etc. whenever it is necessary. - The JICA experts are accommodated in the MWI offices in Maji House, Nairobi. This proximity enabled them to effectively access their counterparts for consultation with ease. - Clarity on project operations and guidelines on roles and reporting process need be improved.
		How have experts transferred their knowledge and techniques to counterparts?		- By working together to implement project activities, sharing of information between. - The experts have been integrated in the MWI system and technology transfer is expected to occur throughout the interactions.
	Ownership of the project by the MWI (IDD)	How have counterparts involved in the decision making process of the project? Was the degree of counterparts' conscious participation in the project desirable?	Minutes of the meetings Interviews	- Evaluation team observed that the DIOs had the 3 main project documents which were the basis for the SIDEMAN project (Irrigation guidelines, IWUA framework Training Master Plan). The DIOs had also a copy of the project document. - The DIO of Mbeere and Kirinyaga districts reported that, farmers are contributing far more than what is stipulated in the Smallholder guidelines. A more flexible figure of not less than 30% was suggested to leave the option of more farmer participation.

		Was IDD supervision timely and adequate?		- The evaluation team noted a limitation on the IDD supervisory and feedback mechanisms with their field offices – the DIOs. - The PSCC despite being in place is not functioning effectively to carry out its role. - Interviews revealed that there is need to improve the PMT and Farmers link so as to provide the necessary backstopping that may be required.
		Was there any positive change in IDD after the project started?		Generally, office work environment of the DIO improved tremendously. This is in the areas; - Knowledge acquisition r and skills in design, surveys, AutoCAD and leadership. - It improved DIOs technical confidence, to handle many projects. There are positive changes noticeable in the IDD. - Provision of workstation has improved office reporting and documentation after project commencement; - The DIO is able to use Excel, and design work through the computer that was provided through the project; - Training of AutoCAD has improved timeliness in design drawing <u>But challenges still exists</u> - Getting updated application software and security from virus - Establishment of new district – South Narok and Office availability of space. This would require a vehicle. Supply of

				electricity and preparation of new office to accommodate PC workstation.
	Involvement of beneficiaries	Did the target groups participate in the project? if yes how?	Minutes of farmers' meetings Interviews	- Farmers are mainly involved in O&M through the money they contribute, labor and materials, - They also attend meetings which is key in decision making. The target groups were involved in project implementation to some extent. - The DIOs were involved in project identification, design and community mobilization; - Stakeholders, especially the relevant government agencies were involved as trainers and in carrying out surveys before start of project activities; - .Farmers are involved through the WUAs to develop by-laws for the scheme management. They make decisions in meetings; - Through the WUAs farmers have prepared watering schedules among themselves (users). This has reduced conflicts among members.
	Relationship among stakeholders	How is the communication between the PMT (Project Management Team) and PIO (Provincial Irrigation Officer) or DIO (District Irrigation Officer)?	Interviews	- At national and regional levels, communication between PMT – PIO and DIO is effective; - Communication between DIO and IWUAs/community levels is constrained due to transportation in the field. The DIO office has one Motorbike, no vehicle to challenge the rough road terrain.
		How is the relationship between DIO	Interviews	- There is a good relationship between DIO and IWUAs; but since

		and IWUAs?		there is a shortage of IDD staff, most DIOs have little time to spend at project sites. This is made worse by districts logistical challenges. - There is very good relationship between DIO and IWUAs.
		How is the communication between the project and JICA?	Interviews	Overall, there is good communication However, Interviews with counterparts revealed that there is difficult in communicating budget issues from JICA's side as it does not reveal exact annualized budget information to enable them negotiate the GoK's budget commitment
		How is the communication between the project and others?	Interviews	The project relies much on other stakeholders including ➢ Ministry of agriculture and livestock ➢ Ministry of cooperatives and marketing, ➢ Water Resource Management Authority ➢ Department of culture and social services The relation ship was observed to be quite strong.
	Others	Were there any problems during the implementation of the project? If yes which and what were the causes? how were they solved?	Minutes of the meetings Interviews Project reports	As the reforms in the water are ongoing, implementation of some of the reforms affected the smooth project implementation. The issues of feasibility studies, approvals and implementation of EIAs before construction of pilots were the main challenges. These could be looked at as challenges to overcome including; ✧ WARMA new rules and water charges by WRMA, ✧ Procurement and installation of master meters, ✧ Increase in cost of project construction,

				✧ Unforeseen delay caused by road construction at *Kiambindu* and siting of the *Kiarukungu* intake. Issues of social cultural orientation and illiteracy among the Masai were challenges in project implementation. - Specific to Masai community, inclusion of woman in pilot activities is limited due to cultural practice. - Inadequate of vehicle in the field as the district roads infrastructure is poor. Interviews with the PMT revealed that it would important to change the strategy of farmers training methodology currently in place particularly for Narok schemes. There was a suggestion from the farmers' interviews that they would prefer farmer–to– farmer field training than the class rooms lecture approach.
Relevance	Relevance as priority	Are the overall goal and the project purpose consistent with development policy of Kenya?	Document review	- Relevant policies in ➢ Strategy for revitalizing agriculture (SRA), ➢ Economic Recovery strategy (ERS) and ➢ The vision 2030. - Irrigation and increase in agriculture productivity are priority areas among national development policies. - Irrigation development is one of the flagship interventions in vision 2030.

				- Agriculture is among the key sectors that are expected to lead overall development and recovery of the Kenya economy.
		Is the project meeting the aid policy of the Ministry of foreign affairs of the Japanese government and JICA's country specific aid implementation plan for Kenya?	Document review	- JICA supports field- oriented programmes targeting reduction of poverty and equity. - The project objective is in line with smallholder support in poverty reduction, income generation and food security,
	Relevance as necessity	Does the project meet the needs of the target area or target group (IDD and WUA)?	Interviews	- The selected project areas are important; in the improvement of food security and income of the communities. - For example, evidenced by large turn out of 74% of the farmers at *Kiarukungu* during the mid-term evaluation is a clear indication of the importance attached to the project by the community
	Relevance of approach	Is the approach and target area of the project relevant?	Document review Discussion with PMT Interviews	- The approach was developed out of an earlier project (mini irrigation project) which identified the components & approach with a focus on sustainability in small holder irrigation schemes. - Target project sites were carefully selected after ex-ante evaluation based on factors such as water availability, land tenure system type, organization strength, costs and impact. They are still relevant.
		Is the number and size of target areas relevant?		- The six (6) pilot sites are diverse in the mix to test the methodology and for lessons learnt to appropriately inform national policy

		Are the means of training including the quality, costs, period of implementation, etc. relevant?		- Interviews with farmers of the Narok schemes revealed the training approach of class-room lecture may not be relevant. This is because ✧ Illiteracy is very high and therefore the use of translator ✧ Women involvement in seminar trainings and their role in decision making is limited due to cultural constraints ✧ The complexity of the land-tenure system favoring landlords attending training leaving out tenants who are also the targets under the project.
		Are the means of construction of the facilities including the quality, costs period of implementation, etc. relevant?		Most pilot sites have not been constructed; however evaluation of the partially constructed is possible. - The design of the schemes is approved by a panel of engineers with an input from the JICA advisor; - Construction work is similarly supervised by the DIO and PMT and the quality is therefore verified; - The farmers noted that the quality and cost of the pipes is good since they were sourced from a reliable dealer; - It was noted that all transactions were done through competitive bidding.

		Is the approach of the project relevant and complimenting with other assistances by donors or NGOs?		- It was observed that the DIOs were using the curriculum developed through the SIDEMAN project during the training in other projects which compliments the efforts of other development initiatives.
	Others	After ex-ante evaluation were there any changes in policy, political and economic conditions or any other condition that has influenced the progress of project implementation?	Document review Discussion with PMT Interviews	Implementation of the new water reforms and the post – election violence influenced to some extent implementation of project activities. The main changes included; ➢ WRMA water use rules and water charges ➢ Escalating cost of project implementation - New policy to pay to WRMA; permits, fees (Cash economy). Traditionally, the Masai are pastoralists. The new policy to pay for water is new - Institutional constraints including budget flow has delayed construction. - Land-tenure/use practice; landlord/tenant relationship - Culture; agro-pastoralist from pastoralist! - There are weak local governance structures though a strong communal leadership exists. - Upgrading of the access road –linking Narok town to Naroosura has been good for marketing the farmer outputs.

Effectiveness	Possibility of realization of the project purpose	How is the possibility to achieve project purpose" Methodology of development of sustainable smallholder irrigation system is verified in the selected scheme sites" by the end of the project? Indicator 1 "income of plot scheme farmers is increased" Indicator 2 "O&M of pilots schemes are properly done"	Project reportsDiscussion with PMT interviews	Indicator 1 - Income for *Kiambindu* farmers has increased through use of the 6 inch pipe and the area is no longer receiving famine relief food. - Since no construction has be done for Narok schemes, not possible to assess this indicator. Indicator 2 - It was generally observed through farmer group interview that the communities are aware that they are responsible for O&M. They expect the coordination to be done through the WUA committee. - Since none of the visited schemes had complete construction of the pilot, it is still early to assess this indicator.
		Are indicators appropriate and specific enough and possible to obtain?		- It will be necessary to review some of the indicators. Some activities may also be reconsidered according to the extent that Outputs have been achieved. Activities regarding the Construction of Infrastructure would need to be reconsidered according to budget availability
		What are the concerns that hinder achievement of project purpose if any?		- Budget alignments with project activities; delays of the AIEs to enable early planning for construction by the DIOs; JICA's limitation on funding and prediction of flow - Effective sharing of partners' information and communications at different levels.

				- Limited supervisory activities by the PSCC and PMT to monitor project outcomes. - Limited human resources at IDD. Constraint of staff causes constraints to effectively implement field operations.
	Appropriateness of the outputs in realizing the project purpose	Do outputs contribute to achieve project purpose appropriately?	Project reports Discussion with PMT Interviews	Outputs contribution towards purpose is feasible. However, Output 1 & 2 (Infrastructure and Training of Farmers) needs realignment to effect achieves PP.
		Is there any synergy effect among the outputs?		Output 2: Training to farmers are consequently strengthening WUAs improving group cohesion. This is expected to improved farmers participation especially in contribution towards the O&M activities. Training of the IDD staff has improved staff confidence in designs thus utilizing skills to increase efficiency in their daily work.
		Are there any important assumptions which affect the achievement of the project purpose? (Change of policy for smallholder irrigation, no. of IDD staff, natural disaster, unstable politics or security etc.)		- There is now un-anticipated assumption that adversely affected the achievement of the project purpose. - Security situation during the post election violence affected the market prices of the crops
Efficiency	Appropriateness of the activities and inputs in realizing outputs	Is the output achievement level adequate?	Project reports Discussion with PMT	*(see verification of achievement)*
		What are the concerns to hinder the achievement of the outputs, if any?		- The cost of construction was underestimated and is now 2 to7 times above the 2005 estimates at ex-ante evaluation

			Interviews	- The cost of farmer training has followed suit and has increased by 28%. - In view of this, it was noted that it was not possible to install all irrigation infrastructure as per the design of the irrigation schemes. - The counterparts mentioned the uncertain disbursement patterns from JICA as a hindrance.
		Are the activities and inputs sufficient to produce the outputs?		The main limitations are in terms of inputs – Financial resources are IDD staff at field level due to lack of employment in last decade.
		<u>Output</u> 1 Is the available money sufficient to construct all infrastructures? If not what are the suggestions?		There seems limited budget to sufficiently construct all infrastructures as per designs. - For example; in *Kiambindu*, further needs kshs 25,000,000 to complete the project - The construction at *Kisioki* is 35% and there is no money to line the canals. Construction work at *Kanunka* B and *Koseka* has not started but lining is estimated to cost 93 % and 69% of the total budget respectively; - *Kyeekolo* has only received pipes worth 20% of the total cost while the interventions at *Kiarukungu* has not been decided yet which is creating a lot of anxiety among the staff and the farmers. - All the pilot projects expect to get water at the end of the project intevention and there is need for more efforts by

				community, JICA and the GOK to work towards this goal.***
		Is the process of Feasibility study appropriate?		The utility of feasibility study and EIA in the infrastructure construction has been limited. Completion and approvals of EIAs is yet so as to realize the construction.
		Output 2 Does WUA training contributes to WUA strength? Is there need for change in training contents, method, training duration or M&E?		This component was rated by the counterparts as the moist outstanding because it has not been the practice at MWI. Sixteen (16) WUA trainings were conducted and 530 farmers attended. This is 27% Of the target IWUAs in target schemes were organized at the start of the project.16 WUA training were conducted –three (3) at Kiarukungu, five (5) at Kiambindu, one at Kyeekolo, five (5) in Kisioki, one (1) Koseka and one (1) at Kanunka B. The positive results of the training were clearly observed in Kiarukungu and Kiambindu in comparison with Kyeekolo during the field interviews. The groups are more cohesive as a result of the trainings. On–site training for 2–3 days is okay. Curriculum for farmers training is good and is being used by DIO for training of farmers under other projects. The duration allocated for crop selection and cropping calendar and department of social services is rather short; there is need for specialized training - One (1) topic per course) and the concepts of Farmer field

				school (FFS) and common interest groups (CIG) were suggested by some farmer groups. A refocus on approach for the some schemes (e.g. Narok) where illiteracy is very high from class-room lecture type to - WUA training approach is appropriate and the WUA training curriculum is being used in other programmes
		Output 3-1 Does IDD training contributes to IDD service delivery? Is there need for change in training contents, method, training duration or M&E?		An assessment of improvement of service delivery is wide but is feasible in the long term.
		Output 3-2 Does in-country training contributes to farmers' strengthening? Is there need for change in training contents, method, training duration or M&E?		A total of 150 farmers have attended in-country training. This presents 38% of the target number. The in-country training need to be split into 2 one week courses suggestions were made to make visit one scheme per day in order to have more farmer to farmer interaction.

Impact	Possibility to achieve the overall goal	Can overall goal "methodology established through the project will be used for other smallholder irrigation scheme development" be realized 3–5 years after the end considering the current level of inputs, outputs and activities? If not suggest what is needed to ensure that the goal is achieved	Project reports Discussion with PMT Interviews Document reviews	Comparison of SIDEMAN and Smallholder Irrigation programme Mt Kenya (SIPMK); two programs are implemented by the department of irrigation but the approaches are quite different. Designs and feasibility studies for SIPMK is contracted out and is done by consultants while SIDEMAN does is internally.The approval of designs for SIDEMAN is done at the IDD Hq but the design for other projects implemented are approved at the provincial level and soil survey, socio-economic and EIA are not conducted. The apportionment of project costs between farmers in SIDEMAN (90% grant and 10% farmer contribution) and SIPMK (50% grant and 50% loan to farmers) raises question on the IDD guidelines and the farmers who see the same DIO using different standards when it come to farmer contribution.
		Are there other factors influencing the implementation of the project besides the capacity of IDD Staff and WUAs?		Budget flows and annual allocation from project affect work planning.
		Is IDD adopting the approach in districts not covered by the SIDEMAN project? How is the budget scale of IDD for supporting smallholder irrigation		GOK is supporting and provided budget for 7 other projects in Kirinyaga, 2 in Mbeere and 2 in Makueni. There is a general increase in financial resources towards irrigation development. The budget is therefore expected to increase.

		besides SIDEMAN?		
		Is there any influence by the project on the technology?		Not easily to assess at the time of mid-term evaluation
		Is there any influence by the water sector policy and reforms?		WRMA rules-water charges and lining of canals are new and not full understood among all piloting schemes. There is less understanding of the new policy issues at local level.
		What are the concerns that hinder the achievement of the overall goal if any?		While communication among PMT and IDD is appropriate, effective communications at lower levels is still limited. - Between PMT and DIOs - Between DIOs and Farmers
	Logical relationship between the project purpose and overall goal	Was there any gap between the overall goal as ultimate direction of the project and the project purpose?	Discussion with PMT	None at the time of this mid-term evaluation
		Is there possibility that the government will continue to put effort and get budget for dissemination of the methodology established through the project to all over Kenya?	Discussion with PMT Interviews	There is already in place national instruments that indicate government commitment and budgetary allocation to the department is steadily increasing.

	Ripple effect	Are there any factors that positively or negatively influenced the project? Policy; Law system; Social and Cultural aspect (gender, human right, disparities between the rich and the poor). Change of the technology; Economic aspects of target society, relevant organization, target group Is there any measures which been taken to reduce negative influence? Are there any synergistic effects with other donor's projects, JICA's other projects or JOCV?	Project reports Discussion with PMT Interviews	Most of the factors that influenced the project were anticipated but beyond the mandates of the Project control. For example, - WRMA water use rules and water charges; - EMCA and the issue of Environmental impact assessment; - Costs of construction estimates have gone up due to high inflation. Cost of lining irrigation canals Kiambindu farmers are no longer receiving famine relief foodcost of master meter (Kshs 400,000 for 6 inch pipe, kshs 600,000 for 14 inch pipe) - More young people have become members of WUA at Kiambindu and Kiarukungu. - There is gender bias in training especially in Kyeekolo whereby women have not participated in in-country training. The same for the Masai community due to cultural orientation.
Sustainability	Policy and institutions	Is the proposed irrigation policy still favourable (promotive) to smallhoder irrigation development? Will support to smallholder irrigation continue after the end of the project?	Discussion with PMT Interviews	- The current institutional sector reforms emphasize the need to increase investment in agricultural development to bring more land under irrigation. - A major feature of these reforms is that the proposed Irrigation policy mirrors the water sector reform process and it is also anchored in the Vision 2030. - It is therefore expected that more emphasis and support on

				development of irrigation in the country would increase.
		Does the ministry have intention to continue to promote smallholder irrigation with their budget and provide series of training after the project?		- The ministry is already supporting many more projects through GOK funds. - The budget for irrigation development has increased from Kshs 26,204,000 in 2003/04 to the current Kshs. 744,000,000 in 2007/08. - The ministry is also training staff and at the moment, there are over 20 officers undergoing trainings at different levels and institutions
	Organization and finance	IDD Is there adequate capacity of IDD to continue small holder irrigation development after the project? – Allocation of human resources – Finance – O&M – Decision making process	Discussion with PMT Interviews	Through the interview, it was established that IDD staff have gained more knowledge and confidence in technical skills in smallholder irrigation development. The staff numbers are however limited, and so it is for the finance requirements to meet the current demand for infrastructural development around the irrigation schemes.
		WUA Is there adequate capacity of IWUAs to continue small holder irrigation farming after the project? –Operation maintenance and future		–There was clear indication that ,the WUAs that have undergone more trainings were more cohesive and know their responsibility in O&M – Most of the schemes were not contributing money regularly but did so when the need arises. – Most members were aware on financial status of the groups in

		improvement of irrigation facilities. -Financial condition of the group -Organized produce marketing		Kiambindu and Kiarukungu but were not the same in the other schemes. - There was no organized marketing of agriculture produce. The farmers relied on middlemen and individual farmer initiative
	Technology	Will the methodology established through the project be used all over Kenya?	Discussion with PMT Interviews	-Although WUA strengthening and farmer training using the curriculum developed through the SIDEMAN were replicated in other schemes ,it is still early to judge if the methodology will be used all over Kenya.
		What is the possibility that IDD would maintain the methodology established through the project?		-The implementation of the project is 90% grant but the farmers are expected to find other sources of funds eg loans
		Are the equipment and constructed facilities maintained well without problem?		-the office equipment is held by the HQ and the DIOs The vehicles are retained at the HQ while the motor cycles are issued to DIOs It was observed that all the equipment is maintained to support project activities
	Social, culture and environment	Are there any negative/positive influence impacts on environmental issues which affect continuation of activities	Project reports Discussion with PMT Interviews	-The EIA and socio-economic surveys did not reveal any negative impact that could influence the continuation of the project. -in most cases the project has encouraged the youth and women to take active roll in the irrigation scheme management

	Other issues	Are there any other issues necessary for the continuation of the activities?	Interviews	The project needs to go to the next level and demonstrate synergy among the 3 outputs and document accordingly. The lessons learned could feed to the policy of the IDD The GOK and JICA need to share the budget lines in time and align the project activities with the available budget Implications of the underestimate of the infrastructure costs need to be addressed jointly
Overall observation	Any observations for improvement of the project, based on the evaluation points	Can the project purpose be achieved in the remaining project duration considering the project progress, activities and outputs?		The available money for infrastructure and the level of intervention will affect the extent the methodology is verified
		Is it necessary to change inputs, activities, or output?		There is need to align activities especially in infrastructure construction and WUA strengthening. These should be well targeted and fast tracked.
		Has any new assumption arose which affects the project?		Need to understand the land tenure and farming system in the irrigation schemes


JICA