

More meat, milk and eggs by and for the poor

Site-specific plans for the More Milk in Tanzania project, Morogoro region

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We also extend our appreciation to all Maziwa Zaidi implementing partners and collaborators including local government authorities, and value chain actors, especially dairy producers, input and service providers, and milk traders, for their cooperation.

Foreword

Smallholder dairy production in Tanzania is concentrated in the highland areas of Kilimanjaro, Arusha, Tanga, and Mbeya. The increased demand for fresh milk in urban centres in recent years has resulted in an expansion of smallholder dairy production around these centres. Until recently, government policy on dairy development focused mainly on large-scale State-owned farms. The new Tanzania livestock policy gives due emphasis to the development of the smallholder sector through increased supply of upgraded cattle, and animal feeds and other production inputs, including extension services (Ministry of Livestock Development, 2006).

The emphasis on smallholder dairy production in Tanzania calls for increased efforts towards the development of locally tested innovations that will increase productivity given farmers' present resources. It is in this light that the International Livestock Research Institute (ILRI) has been implementing a four-year research for development (R4D), More Milk in Tanzania (MoreMilkiT) project, to promote pro-poor rural livelihoods through milk production. The MoreMilkiT project aims to ensure more income security through enhanced access to demand-led dairy market business services and viable organizational options.

The project's strategy to achieving its goal is to promote and facilitate the formation of functional but flexible dairy market hubs (DMHs) in both the extensive and intensive milk producing project areas of Tanga and Morogoro. DMHs are collective arrangements aiming to stimulate grouping of a large number of producers or cattle or demand for inputs. These offer opportunities to produce and bulk more milk, facilitating both entry to milk markets, and group access to inputs and services. To operationalize the concept of DMHs, the project facilitated the formation of 27 new milk producer groups, and worked with three existing groups. Because of the heterogeneous nature of the producer groups in terms of their needs, challenges, resource endowments and organizational capacity, the project found it imperative to facilitate them to develop site-specific development plans (group).

This booklet outlines the site-specific plans for each group. These plans were developed in a participatory manner to capture challenges and activities that the groups can address through their own initiatives or in collaboration with the local government in their respective districts. The plans reflect the long-term development strategies and sustainability, and form the basis for future engagement with other dairy development initiatives.

15 May 2017

Prof Lusato R. Kurwijila, Project Coordinator ILRI/SUA MoreMilkiT Project Sokoine University of Agriculture, Morogoro, Tanzania

Glossary of terms

Al Artificial Insemination

BDS Business Development Services

DADPs District Agriculture Development Programs

Faida MaLi Faida Market Link, a local non-governmental organization

HI Heifer International

HIT Heifer International in Tanzania

IP Innovation Platform

iWASH Integrated Water and Sanitation Hygiene

LGAs Local Government Authorities

MAPALIO Swahili terminology for livestock routes

Maziwa Zaidi This is a Swahili word for the Tanzania dairy value chain program being led

by International Livestock Research Institute (ILRI)

MFIs Microfinance Institutes

MilkiT The short term for Milk in India and Tanzania, a project funded by

International Fund for Agriculture Development (IFAD)

More Milk in Tanzania, a four-year project funded by Irish Aid and

implemented by ILRI

MoU Memorandum of Understanding

Olelili A Maasai word for grazing land protected in wet season and being used

during the dry season by lactating cows, young and sick ones while others

are moved away to look for pastures and water.

POSA Producer Organization Sustainability Assessment

SACCOS Savings and Credit Cooperative Societies

TDB Tanzania Dairy Board

TZS Tanzania Shillings

Introduction

The International Livestock Research Institute in collaboration with Heifer International Tanzania, Faida Market Link, Sokoine University of Agriculture, and Tanzania Dairy Board have implemented the Irish Aid-funded More Milk in Tanzania project in Lushoto, Bumbuli, and Handeni districts in the Tanga region, and Mvomero and Kilosa districts in the Morogoro region. The project set out to pilot dairy market hubs, an approach to dairy value chain development that strengthens linkages between milk producers and other value chain actors. The project has facilitated the formation and registration of 27 milk producer groups, and worked with three existing groups to operationalize the concept of dairy market hubs. Efforts to grow dairy market hubs have included, among other things, the participatory formulation of site-specific plans for the 30 producer groups.

A site-specific plan documents the activities needed to establish a dairy market hub in a given project site. The plan highlights the fundamental challenges facing milk producers in a particular project site, the potential solutions, and the resources needed to execute the solutions. Project activities for each site were drawn from these plans. The plans also include some challenges and activities that are not directly within the scope of the 'Maziwa Zaidi' projects, but which the groups can address using either their own initiatives or perhaps in cooperation with local governments. The plans are therefore blueprints for the groups' future engagements with other projects outside Maziwa Zaidi. The inclusion of the roles of local governments also points to the possibility of achieving continued support from the local governments. As such, the plans provide a basis for the groups' long-term organizational development strategies and sustainability. In cases where initial target dates for addressing certain constraints have expired but remain unaddressed, development facilitators might begin by finding out the reasons behind the failure to address them.

Attached to each group's site-specific plan is the group profile. The profile provides detailed information about the group including membership segregated by gender, registration status, achievements, and areas requiring immediate support. The plans and profiles have been handed over to local government authorities (LGAs) in the five districts to enable the LGAs continue strengthening and monitoring the growth of the groups. Livestock officers from LGAs at the village and district levels have been at the forefront in implementing activities stipulated in the site-specific plans. The LGAs highly appreciate the efforts made by MoreMilkiT project in facilitating the development of these groups and have pledged to continue supporting the development of the groups. This will include working with the groups in the future to implement dairy and other livestock-related development projects.

Site-specific plans - Morogoro region

- Site 1: Mbwade village, Madoto ward, Kilosa district
- Site 2: Kwambe village, Dumila ward, Kilosa district
- Site 3: Wami Luhindo Maziwa Zaidi site-specific plan, Mvomero district
- Site 4: Wami Sokoine site-specific plan, mvomero district
- Site 5: Mabwegere village, Dumila Ward, Kilosa district
- Site 6: Mela village, Melela ward, Mvomero district
- SITE 7: Emaa Mangae site-specific plan, Mvomero district
- SITE 8: Ihombwe/Mfilisi village, Mikumi ward, Kilosa district
- Site 9: Kambala village, Hembeti ward, Mvomero District
- Site 10: Madoto village, Madoto ward, Kilosa district
- Site 11: Manyinga village, Mvomero ward, Mvomero district
- Site 12: Ulaya Kibaoni village, Mikumi ward, Kilosa district
- Site 13: Twatwatwa village, Madoto Ward, Kilosa district
- Site 14: Tanebo Kibaya site-specific plan, Mvomero district

Site 1: Mbwade village, Madoto ward, Kilosa district

Registration: Name: MBWADE LIVESTOCK PRIMARY COOPERATIVE SOCIETY LTD. GROUP No.: MGR 224 Date: September 2012

	Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
1	Inaccessibility to grazing land because of lack of planned and approved livestock route to and from grazing land	Potential solutions: Establish livestock routes within the village Establish village and ward livestock route planning committees	Training on land use, conflict aversion and resolution Linking group to LGAs Plan, identify and verify the livestock route within the villages	Facilitators Funds Stationery	Project (facilitators) LGAs	HIT LGA	July – August 2014	Livestock routes mapped

2	Scarcity of water and	Potential solution:	Follow up on	Facilitators	Project			Pasture plots
	feeds during the dry	Collectively harvest rain	training					
	season	water (water ponds and	conducted by	Funds	Group			Conserved pasture
		dams resources	MilkiT					
				Stationery	LGAs			Training
		Establish Pasture/ fodder	Follow up on					notes/reports
		plots	collection and					
			distribution of					Attendance list
		Fodder conservation in	planting materials					
		NGITIRI/ OLELILI	(seeds have been					Dams/ponds
			provided for					
		Opportunities:	establishment of				July – August	
		Availability of land for	pasture/fodder			HIT	2014	
		pastures/ fodder	plots					
		production.						
			Work with LGA to					
		Availability of land for	gain knowledge					
		dams and ponds.	on water					
			harvesting					
			M/					
			Work with LGA to					
			construct dam/					
			ponds					
			Fodder					
			conservation	1				

3	Lack of knowledge on: Dairy cattle husbandry (housing, disease control and feeding), breeding, milking techniques and quality control for value addition	Potential solution: Equip famers with knowledge on identified dairy husbandry needs Opportunities: Eagerness and willingness of cattle keepers to learn	Conduct training on Dairy cattle husbandry (housing, disease control and feeding), breeding, milking techniques and	Facilitators Funds Stationery	Project Group	TDB HIT	June –July 2014	Attendance list Training notes and handouts with cattle keepers
		Presence of local breeds which can be crossed Readiness of some farmer to sell some of their local cattle and purchase dairy cattle	milk quality control Exchange visits					
4	Low cow productivity due to genetic potential of the cows	Potential solution: Improve genetic potential of indigenous cows through crossing Opportunity: Willingness of cattle keepers to practice dairy cattle keeping as business venture	Conduct training on dairy cattle husbandry Training group members on breeds and breeding issues Arrange field exchange visits Link farmers with AI service providers Use of improved	Facilitators Stationery Venue	Project Group AI technician	НІТ	Oct. 2014 – Jan. 2015	Training notes and handouts with cattle keepers Action plans in place

			bulls					
5	Lack of affordable loans from financial/lending Institutions due to inadequate collateral/repayment guarantee	Link the group with a MFIs Link the group with traders willing to provide informal credit check-off	Identify best suited MFIs and agents willing to provide credit Link the MFIs and agents to the group Agree on credit contract terms Training on entrepreneurship		Project	FAIDA MALI		Credit contract MOU between MFIs/lender groups Attendance list Training notes and reports
6	Unreliable milk		Sensitizing group	Funds	Project	FAIDA	June - July	Contracts/MoUs
	markets and low	S	members on milk			MALI	2014	with milk
	milk prices	selling	bulk		Group			buyers/transporters

		Put in place contracts with buyers Identify more milk traders to work with Opportunities: Availability of milk in the area Presence of a cooling plant owned by a Tanga Fresh Ltd. agent	Train on milk handling and quality control Establish the cost of production Enter into contract with milk traders			TDB		Attendance list Training notes and handouts
7	Lack of access to inputs(veterinary drugs, feeds, milking and bulking/ equipment to include milking bucket and testing equipment)	Potential solution: Negotiate check off arrangement with Input suppliers Opportunity: Presence of Input supplier who is willing to work under check off system	Train farmer group and input supplier on check off arrangement	Facilitators Funds	Project	FAIDA MALI	June 2014	Attendance list Training notes and handouts Records on check off, amounts and frequency Template on a check off arrangement

Activity		Period										
	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	March 15	April 15
1			٧	٧								
2			٧	٧								
3		٧	٧									
4						٧	٧	٧	٧			
5			٧									
6		٧	٧									
7		٧										

Site 2: Kwambe village, Dumila ward, Kilosa district

Registration: Name: KWAMBE MAZIWA ZAIDI (KMZ) No.: MG/KLS/CBO/247

	Constraint (Ranked)	Potential solutions/ opportunity/intervention the problem		Resources needed	Who provides the resources	Who does the task	When	Evidence items
1	techniques	Potential solution: Farmers to acquire knowledge on identified dairy husbandry needs Opportunities: Eagerness and willingness of cattle keepers to learn Presence of local breeds which can be crossed	Conduct training on Dairy cattle husbandry (housing, disease control and feeding), breeding, milking techniques Training on-zero grazing	Funds Stationery	Project Group	HIT	June –July 2014	Attendance list Training notes and handouts with cattle keepers Application of the acquired knowledge (action plans in place)
		Readiness of some farmer to sell some of their local cattle and purchase dairy cattle Eagerness and willingness of cattle keepers to learn about cattle sheds	_					

2	Water and feeds	Potential solution:	Training on	Stationery	Project			Area established
	scarcity during the	Group members collectively	pasture/ fodder	,				with pasture /
	dry season	harvest rain water	establishment	Funds	Groups			fodder
		Dig water ponds/ dams	Identify plots for					Area conserved with
		using own available	fodder/pasture					pasture
		resources	establishment					
								Training
		Pasture/ fodder	Collection of seeds					notes/reports
		establishment	and planting					
			materials					Linkage existence
		Fodder conservation in						between the
		NGITIRI/ <i>olelili</i>	Harvest and			LGA		group/LGA and
			conserving fodder			LGA	July - August	borehole/dam
		Opportunity				HIT	2014	company
		Available land for pasture/	Working with LGA			ПП		
		fodder production	identify a					
			ponds/dam					
			company and link					
			it with the group					
			Work with LGA for					
			knowledge on					
			water harvesting					
			techniques					
			construct group					
			dam/ ponds					
			dam, ponds					

3	Conflicts with crop growers due to lack of planned and approved livestock route to & from grazing land.	Potential solutions: Restoration of old village livestock routes /establish new ones Establish village and ward livestock route planning committees	Training on land use and conflict aversion and resolution Strengthening group LGA linkage Plan, identify and verify the livestock route within the villages		Project Group LGAs	HIT	July - August 2014	Numbers of verified stock routes within the village and between villages Training notes and handouts and attendance list
4	Lack of reliable and quality input supplies (veterinary drugs, feeds milking and bulking/ equipment to include milking bucket and testing equipment)	Potential solution: Linking groups with Input suppliers Opportunities: Presence of Input supplier working in the village TDB has identified the service providers and the database can be used to provide the linkage	Identification of milk equipment dealers and linking them with group	Funds	Project Group	Faida MaLi	June 2014	MoU between the groups and milk equipment dealer

5	Lack of	Potential solution:	Determine the	Facilitators	Project	HIT	May-	Attendance
	commitment to	Sensitize group members	reason for lack of				December	(turnout) at group
	group work	benefits of pooling	commitment	Funds	Group		2014	work/meetings
		together/collective action						
			Conduct training	Experts				Group registration
		Opportunities:	on group					(certificate)
		Existence of members who	governance and					
		are willing and eager to	dynamics					
		perform						
			Conduct training					
		Existence of members who	on group					
		are willing and eager to	development and					
		learn	entrepreneur ship					
			Use influential					
			persons to					
			sensitize others					

Activity		Period										
	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	March 15	April 15
1		٧	٧									
2			٧	٧								
3			٧	٧								
4		٧										
5	٧	٧	٧	٧	٧	٧	٧	٧				

Site 3: Wami Luhindo Maziwa Zaidi site-specific plan, Mvomero district

<u>Village:</u> Wami Luhindo <u>No.</u>: MG/MVDC/CBO/00270 <u>Date:</u> 23 April 2014

	Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
1	Shortage of animal feeds and water especially in dry season. Inaccessibility of grazing land due to lack of livestock routes	Potential solutions: Allocate land for growing pastures (olelili) Establish livestock routes to access grazing land solve land disputes Harvesting rain water by digging group water ponds, dam and borehole Opportunity: Availability of land for growing pasture and presence of high water table in the locality	Identification and demarcation of fodder planting areas (olelili) Allocating livestock routes to grazing areas (mapalio) Drilling of boreholes and construction of drinking water troughs Learning on water harvesting techniques through site visit to places being practiced and advise from professional	Facilitators Funds	Project	LGA HIT	June – December 2014	Pasture plots Conserved fodder Livestock routes to/from grazing areas (mapalio)and water points allocated Boreholes and drinking troughs in place

2	Low milk yield	Potential solutions:	Link the group with	Facilitators	Project			Training notes/reports
	by the local cows and lack of improved cows	Improve genetic potential of the local cows by crossing either by use of AI or improved bulls Link with AI service provider	Al service provider Purchase of improved bulls for improving the local stocks. Conduct training on dairy cattle husbandry.	Funds		НІТ	January 2015	Group linked with AI service provider Attendance list Training notes
3	Limited	Potential solution:	Conduct training on	Facilitators	Project			Attendance list
	knowledge in:	Knowledge acquisition on	dairying as business,		and			
		identified needs such as:	record keeping, dairy	Funds	group			Training notes reports
	Entrepreneurship	*Entrepreneurship	husbandry and gross					
		*Dairy cattle husbandry	margin analysis			Faida MaLi	June –	Participatory feedback
	Dairy cattle	*Quality control					October	report on gross margin
	husbandry	*Value addition	Participatory establishment of cost			HIT	2014	
	Quality control	Opportunity:	of 1 liter of milk					
	Value addition	Cattle keepers eager and willing to learn	(involving the group and project).					

4	Unreliable milk markets and low milk prices	Potential solutions: Collective milk selling (bulking) Contracts with buyers Identify more traders to work with	Sensitization of group members on milk bulking Training on collective milk selling and milk quality Meet with potential milk buyers for dialogue and sign contracts.	Facilitators Funds	Project	Faida MaLi	July - October 2014	Contracts with buyers Attendance list Training notes reports
5	Lack of access to farm inputs due to their high cost	Potential solutions: Collectively source for inputs from reputable service providers Have a check-off arrangement with the input service provider	providers willing to	Facilitators Funds	Project	Faida MaLi	November 2014	Group linked with an input service provider Check-off arrangement with the input service provider in place and amounts accessed through it

Activity	May14	Jun14	Jul14	Aug14	Sep14	Oct14	Nov14	Dec14	Jan15	Feb15	March15	April15
Activity 1												
Activity 2												
Activity 3												

Site 4: Wami Sokoine site-specific plan, Mvomero district

Name of Group: WAMI SOKOINE No.: MG/MVDC/CBO/00323 Date: 25 April 2014

	Constraint (Ranked)	opportunity/ towards solving the needed intervention problem		Resources needed	Who provides the resources	Who does the task	When	Evidence items
1.	Scarcity of water and	Potential solutions: Allocate areas to	Explore and earmark locations for establishing	Facilitators	Project	HIT		Training notes/reports
	feeds during the dry season	establish pastures (olelili)	both pastures (olelili) and constructing a borehole	Fund	Group			Attendance list
	Scason	Harvesting rain water by constructing group borehole	Training on fodder varieties and feed conservation				June - July 2014	Pasture plots (olelili)
		Opportunity: Availability of land for growing pasture and presence of high water table in the area						Bore hole

2	Low cow productivity due to genetic potential of the cows.	Potential solutions: Use of improved bulls to cross the local cattle Use AI to service the local cows Opportunity: producers willingness to use improved bull and AI	Train the producer group on dairy cattle breeds and breeding management Map out, Identify and link producers to BDS providers (on check of system where possible) Training use and operation of check off	Facilitators Funds	Project	HIT	June - July 2014	Training notes. and handouts Attendance list MoU/contracts between service providers and the producers in place Check off use in accessing inputs and service (amounts accessed)
3.	High incidence of cattle diseases	Potential solutions: Sensitize producers on basic issues regarding disease control and dairy nutrition Link the producer group with livestock extension officer	Train the producer group on animal health (e.g. preventive medicine, good feeding and dipping) Develop and follow a vaccination calendar for controlling endemic diseases prevalent in the area Train producers on nutritional requirements of a dairy herd	Facilitators Funds	Project	HIT	June - July 2014	List of training participants Training notes. and handouts Vaccination calendar and records in place Group linked with an extension officer
4	Limited Knowledge	Potential solution: Producers to acquire	Conduct Training on business skills, pasture	Facilitators	Project	HIT Faida MaLi	June - July 2014	Training notes Attendance list

	on	knowledge on	establishment and dairy	Funds				Group linked with AI
	Dairy cattle	identified dairy	husbandry	Tullus				service provider
	husbandry,	husbandry and	Exchange visit to a					service provider
	Business	business needs.	collection center to					
		busiliess fieeus.						
	acumen ship,		witness its operation					
	Quality, control and		Link noneducanata					
	Value		Link producers to					
			sources of good quality					
	addition		dairy cattle breeds					
			Link producers to					
			reputable AI service					
			providers to improve					
			genetic potential their					
			cattle					
5.	Lack of access	Potential solutions:	Identification and linking	Funds	Project	Faida MaLi		Attendance list
	to quality	Collectively purchase	BDs providers to the	Facilitatess				
	inputs	farm inputs to	group	Facilitators				Training notes and
	(High input	benefit from						handouts
	cost)	negotiated	Train producers to					
		discount/economies	Improve farm					Records on check off,
		of scale	productivity i.e. to raise a					amounts and frequency
		_	manageable amount of				2014	
		producers to	productive dairy cattle					Template on a check off
		purchase inputs on a						arrangement
		check off						
		arrangement						
		link with a quality						
		and reliable inputs						
		supplier working in						
		the village						

Activity	May14	Jun14	Jul14	Aug14	Sep14	Oct14	Nov14	Dec14	Jan15	Feb15	March15	April15
Activity 1												
Activity 2												
Activity 3												

Site 5: Mabwegere village, Dumila ward, Kilosa district

Registration: Name: NABOISHU GROUP No: MG/KDC/EG/214 Date: 14 March 2014

Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
1 Low cow productivity due to low genetic of the local breeds.	Potential solution: improve the genetic potential through crossing local cows with improved breeds	Identification and creation of linkage between the group and AI service provider Training group members on breeds and breeding issues Conduct training on dairy cattle husbandry diseases control, calf rearing, feeding, breeding and housing.	Facilitators Funds	Project	HIT	October 2014 - January 2015	Training notes and handouts with cattle keepers Attendance list Linkage between the group and AI service provider

2	Lack of reliable and quality input supplies (veterinary drugs, feeds milking and bulking/ equipment to include milking bucket and testing equipment)	Potential solution: Linking groups with Input suppliers Opportunity: Presence of Input supplier who is ready to work under check off system	Identify and link the group with input service provider Training on check off use Pilot a check off system to facilitate payment of inputs and services accessed	Facilitators Funds	Input suppliers Group	FAIDA MALI	September 201 4	MoU between the group and milk equipment dealer Check off use in payment of inputs and services (amounts accessed)
3	Inadequate knowledge on dairy cattle husbandry (housing, disease control and feeding), breeding, milking techniques	Potential solution: Training on identified dairy husbandry needs Opportunities: Eagerness and willingness of cattle keepers to learn Presence of local breeds which can be improved/crossed Readiness of some farmer to sell some of their local cattle and purchase dairy cattle	Conduct training on dairy cattle husbandry (housing, disease control and feeding), breeding, milking techniques Exchange visits	Facilitators Funds	Project	НІТ	June 2014	Attendance list Training notes and handouts with cattle keepers

4	Water and feeds scarcity during	Potential solutions: • Group members	•Training on pasture/ fodder	Stationery	Project			Area established with pasture /fodder
	the dry season	collectively harvest rain water • Dig water ponds/ dams using own available resources • Pasture/ fodder establishment NGITIRI/ olelili • Fodder conservation Opportunity Availability land for pasture/ fodder production.	establishment •Collection of seeds and planting material •Group members to Work with LGA on knowledge in water harvesting construction of dam/ ponds Fodder conservation	Funds		ніт	July - August 201 4	Conserved pasture/fodder Training notes/reports Attendance list
5	Conflict with crop producers due to lack of planned and approved livestock route to & from grazing land	Potential solutions: Working with LGA establish village livestock routes and seek for more solutions Establish village and ward livestock route planning committees.	Training on conflict aversion, resolution and group dynamics Linking group to LGAs Plan, identify and verify the livestock route within the villages	Facilitators Funds	Project LGAs	LGA	August – September 2014	Reduction in land use associated conflicts Training notes and handouts Attendance list

6	High incidence	Potential solutions:	Carry out Training	Facilitator	Project			Existence of linkage
	of livestock	 sensitization on disease 	on diseases control					between the group and
	diseases (tick	control and animal	and proper feeding.	Funds	LGAs			input suppliers and
	borne, worms	nutrition	Carry out regular			HIT		livestock field officer
	and other viral		Vaccinations to					
	diseases)	Perform-regular dipping	control endemic		Groups			Training reports
		as scheduled	diseases in the area.					
			Linking the group				June - July 2014	Attendance list
		 Practice proper feeding 	with Input supplier					
			and livestock field					Reports on vaccinations
		Opportunity	officer					and treatments
		Presence of Livestock						
		Field Officer in the area						
		who can be linked with						
		the group						
_		5					. 2011	5
7	Lack of reliable	Potential solution:	•Identification of	Funds	Project	Faida	June 2014	Existence of Linkage
	supplier of	Link the group with	potential suppliers	Facilitators		MaLi		between the group and
	quality inputs	reliable input suppliers,	of quality inputs	Facilitators				input suppliers
	veterinary drugs	Oppositionities	•Link input supply					Training reports
	and milking equipment	Opportunity: Existence of Input	dealers to					Training reports
	(cans, buckets,	supplier who is willing to	producers					List of those attending
	cooling tanks	be paid through a check	• Conduct training on					trainings
	etc.)	off arrangement	milk handling and					trainings
	cic.j	on an angement	hygiene.					A functioning check off
			•Training on the					system in place and
			operation of a check off					members accessing
								inputs through it
			Pilot/ implement a check off					bass suroagnite
			CHECK OH					

Activity		Period										
	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	March 15	April 15
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Site 6: Mela village, Melela ward, Mvomero district

Registration: Name: EMBURIS (NEEMA) GROUP No: MG/MVDC/CBO/00272 Date: 2 April 2014

Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
1 Low cow productivity due to low genetic potential	Potential solutions: Link farmers with AI service providers to improve the local cows Use of improved bulls Opportunity Willingness of cattle keepers to practice dairy cattle keeping	Conduct training on dairy cattle husbandry — feeding, breeding, calf rearing, disease control Field exchange visits Create linkage with AI service provider and group	Facilitators Funds	Project	НІТ	December 2014	Linkage between the group and AI service provider Training notes and handouts Attendance list

2	Water and	Potential solutions:	Training on pasture/	Funds	Project			Existence of plots
	feeds scarcity	 Sensitization group on 	fodder production					established with
	during the dry	collective action for	·	Facilitators	Group			pasture/ fodder
	season	pasture/fodder	Fodder/pasture					
		production	conservation		LGA			Conserved feed
		• Fodder conservation in						
		form of hay and silage	Work with LGA for					Training notes/reports
		 Collective harvesting of 	knowledge on water-					
		rainy water	harvesting techniques					Attendance list
		Dig water ponds/ dams				HIT		
		using own available	Work with LGA to the				October	
		resources	construction of			LGA	2014	
			dams/ponds					
		Opportunities:						
		Available land for						
		pasture/ fodder						
		production and water						
		harvesting						
		Willingness of group						
		members to practice						
		pasture/fodder						
		production						
3	Inadequate	Potential solution:	Conduct training on Dairy	Facilitators	Project	TDB		Attendance list
	knowledge on	Training on identified	cattle husbandry			33		
	dairy cattle	dairy husbandry needs	(housing, disease control,	Funds	Group	HIT		Training notes and
	husbandry		feeding, breeds and				June – July	handouts with farmers
	(housing,	Opportunities:	breeding, calf rearing and				2014	
	disease control	• Eagerness and willingness	milking techniques					
	and feeding),	of farmers to learn of	Aa.a. field avalages					
	breeding, calf	local breed which can be	Arrange field exchange					
	rearing and	improved to dairy cattle	visits					
	milking	- Dandings of the form						
	techniques	 Readiness of the farmers 						

		to sell some of their local cattle and buy dairy cattle and build cow shades						
4	Lack of reliable market for milk	Potential solutions: Collective bulking and selling of milk Contract with buyers Identify more milk traders to work with	•Sensitizing group members to bulk their milk •Train on milk handling and quality control •Enter into contract with milk traders Training on business development and entrepreneurship (Cost of production)	Facilitators Funds	Project	Faida MaLi TDB	August 2014	Contracts /MoU with milk buyers Attendance list Training notes and handouts with farmers
5	Inadequate knowledge on group dynamics, and running dairy cattle keeping as an enterprise	Potential solution: Training on identified group dynamics and entrepreneurship needs Opportunity: Producer's readiness to learn on group dynamics, business skills and entrepreneurship	Conduct training on group dynamics business skills and entrepreneurship Arrange field Exchange visits	Funds Facilitators	Project	Faida MaLi HIT	January 2015	Training notes with farmers Attendance list

6	Lack of access	Potential solutions:	Identify MFIs	Funds	Project	Faida MaLi		Training notes
	to credit for use	Link groups to MFIs					November	
	in purchasing		Link the group with the	Facilitators			2014	Credit contracts/MoU
	inputs	Check-off system to	MFIs					
		access inputs on credit						Attendance list
			Train the group on check					
			off use					
			Initiate check off					

Activity		Period										
	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	March 15	April 15
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SITE 7: Emaa Mangae site-specific plan, Mvomero district

<u>Village: Mangae</u> <u>Name of Group: EMAA</u> <u>No.</u>: MG/MVDC/CBO/00267 <u>Date:</u> 25 April 2014

	Constraint (Ranked)	Potential solutions/ opportunity/intervention			Who provides the resources	Who does the task	When	Evidence items
1.	Lack of reliable milk	Potential solutions:	Identify reputable and reliable milk traders	Experts	Project	Faida MaLi		Training notes, attendance list
	market	Collective milk bulking	Linking of milk producers	Funds	Group			Contract/MoU with milk buyers in place
		Negotiate contracts with mil buyers	to the reputable buyers/traders				June - October 2014	
			Train producers on business skills and collective marketing					
			Sensitize producers on collective marketing, check-off system and dairy hub model.					

2	Low milk yield by the local cows coupled by lack of improved breeds.	Potential solution: Improve productivity by crossing the indigenous cows with improved ones	Train the producer groups on dairy cattle breeds and breeding management Identify and link producers to AI Service providers Linkage with AI service provider Use of improved bull service	Experts Funds	Project	HIT	June - July 2014	Attendance list MoU/linkage between Al service provider and the group Al service provision in place. Action plan
3	Inadequate knowledge on dairy production as a business and dairy cattle husbandry	Potential solution: Knowledge acquisition on identified needs Opportunity: Producers' willingness to learn	Train cattle keepers on business skills, pasture establishment and dairy husbandry Conduct training on farm record keeping Conduct training on Participatory Gross Margin Analysis Conduct research on costs of milk production Establish gross margin for one liter of milk Conduct exchange visits	Experts Fund	Project Producers	HIT and Faida MaLi	June - July 2014	Training notes Attendance list Training notes Cost of production report Record books kept by the producers

4	Lack of	Potential Solutions:	Train producers to improve	Facilitators	Project	Faida		Attendance lists
	access to	Access inputs and services	farm productivity		Group	MaLi	June -	
	quality	through a check off		Funds			July	Service provider identified
	inputs (high		Link producers to service				2014	and linked
	prices)	Improve farm productivity	providers					
								Check-off system in place and
		Opportunity:	Assist producers to					being used to access inputs
		Presence of several farm	collectively purchase farm					and services
		input suppliers in the	inputs					
		region who can be linked						
		with the group	Enable producers to access					
			check-off system					
			•					
5.	Scarcity of	Potential solutions:	Explore and earmark	Funds	Project	HIT	June -	Well-established pasture plots
	pasture and	*Allocate areas and grow	locations for pastures		LGA		July	(olelili)
	water in the	pastures (olelili)	(olelili) and dams/				2014	
	dry season	*Working with LGA	borehole					Dams/boreholes with drinking
		harvest rain water Group						troughs in place and used
		borehole	Follow up on size of plots					
			(olelili) and seed					
		Opportunity:	distribution					
		Availability of land for						
		growing pasture and	Construction of					
		presence of high water	dam/borehole for the					
		table in the area, which	group					
		makes it easy to get						
		ground water, i.e. short						
		wells						

Activity	May14	Jun14	Jul14	Aug14	Sep14	Oct14	Nov14	Dec14	Jan15	Feb15	March15	April15
Activity 1												
Activity 2												
Activity 3												

SITE 8: Ihombwe/Mfilisi village, Mikumi ward, Kilosa district

Registration: Name: AMKA CATTLE KEEPERS GROUP No: MG/KLS/VU/954 Date: 8 October 2013

	Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
1	Inadequate	Potential solutions:	Conduct training on	Facilitators	Project			
	knowledge on dairy cattle husbandry (housing, disease control and feeding), breeding, milking techniques, agroforestry and conservation of water sources	 Assist producers to acquire knowledge on dairy husbandry needs Group to conserve forest and water sources Opportunities: Eagerness and willingness of cattle keepers to learn Presence of local breeds which can be improved to dairy cattle Readiness of some farmer to sell some of their local cattle and purchase dairy cattle 	Dairy cattle husbandry (housing, disease control and feeding), breeding, milking techniques quality control and value addition Workshop on agroforestry and water sources conservation Field visits	Funds	Group	HIT Faida MaLi TDB		

	Low cow	Potential solution:	•Link farmers with AI	Facilitators	Project		October	Group linked to an Al
2	productivity due	Improve genetic potential	service providers		^	HIT	2014 -	provider
	to low genetic		Use of improved	Funds		l'''	January	'
	potential of	crossing	bulls				2015	Training notes and
	indigenous cows	S	•Conduct training on				2013	handouts with cattle
		Opportunity:	dairy cattle					keepers
		Willingness of farmers to	husbandry-					
		practice dairy cattle	breeding, feeding,					Attendance list
		keeping	calf rearing and					
			disease control					
			Training group					
			members on breeds					
			and breeding issues					
			field visits					
	Title I and I am a fe	Barra Malanda Mara		E. Miller	D	.u=		E
3	High incidence of	Potential solution:		Facilitator	Project	HIT		Functioning cattle dips
	livestock	Disease control and	control and	1.64	C			\(\frac{1}{2} = \frac{1}{2} =
	diseases (tick	vaccination	nutritional	LGA	Groups			Vaccination calendar
	born,	On a part weiting	requirements for animal health		Villaga			and records
	Trypanosomiasis, worms and other	Opportunities:			Village leadership			Decords of training
		 Cattle keepers willingness to learn about diseases 	maintenance and		leadership			Records of training
	viral diseases) and interaction	and disease control	production				June - July	participants
	between cattle	measures	Revive a dip in the				2014	
	and wild animals	(vaccinations /	village. •Institute				2014	
	when grazing	prophylactic) as well as						
	and at watering	instituting proper feeding	vaccination regime to control endemic					
	points	moditating proper recalling	diseases					
	·	Presence of non-						
		-11 C3EIICE OI HOII-	●Link the group with	1				

		users)	LGA to revive the village dip •Train on group dynamics to address cultural differences especially in sharing communal resources e.g. dip						
4	Scarcity of water and feeds	Potential solutions: • Group members	Training on pasture/ fodder	Facilitator	Project				Plots with pasture / Fodder
	during the dry	collectively harvest rain	production		Groups				louder
	season	-	•	Funds	J. 56.p5				conserved fodder
		Dig water ponds/ dams	and planting						
		using own available	materials				luds.		Training notes/reports
		resources	Work with LGA for				July –	۸۱۱۵	
		Pasture/ fodder	knowledge on			HIT		ust	Attendance list
		establishment NGITIRI/	water harvesting					201	
		OLELILI	techniques					4	Number of wells/ponds
		 Fodder conservation 	•Group members to						with water
			work with LGA for						
		Opportunity:	construction of						
		Available land for	dam/ ponds						
		pasture/ fodder	Fodder /pasture						
		production.	conservation						

5	Lack of reliable	Potential solution:	 Identification of 	Facilitator	Input	FAIDA		Linkage between the
	and quality input	Linking groups with	milk equipment		suppliers	MALI		group and milk
	supplies	suppliers of quality inputs	dealers and linking	Funds				equipment dealer
	(veterinary	and negotiating contract	them with groups		Group			
	drugs, feeds	terms	Training on working					Functional check off
	milking and		of a check-off					system with quality
	bulking/	Opportunity:	system					input supplies
	equipment 's	Presence of Input	Instituting a check				June 2014	
	including milking	supplier who is ready to	off arrangement					Contract/MoU with BDS
	bucket and	be paid through a check	with the input					providers
	testing	off arrangement	supplier					
	equipment)							

Activity	May14	Jun14	Jul14	Aug14	Sep14	Oct14	Nov14	Dec14	Jan15	Feb15	March15	April15
Activity 1												
Activity 2												
Activity 3												

Site 9: Kambala village, Hembeti ward, Mvomero District

Registration: Name: KIKUNDI CHA WAFUGAJI KAMBALA MAZIWA ZAIDI GROUP No: MVDC/CD/CBO00269 Date: 19 May 2014

	Constraint	Potential solutions/	Activities	Resources	Who	Who does	When	Evidence items
	(Ranked)	opportunity/intervention	needed towards	needed	provides	the task		
			solving the		the			
			problem		resources			
1	keepers and crop farmers where livestock keepers in Kambala usually invade areas belonging to the latter in a neighboring village Note: the land in contention is a valley outside Kambala village, but at the border of Kambala and other villages. It is public land that Kambala livestock keepers feel they	Potential solutions: IP to address the issue of land conflicts Assist farming households to collectively enact and abide by relevant by-laws Opportunities: All of Kambala village was allocated to livestock keepers by the Government. Livestock keepers could therefore focus on improving their village land for grazing and pasture growing without interference from crop growers and people involved in other economic activities. Government support (president offered bulls to upgrade their stocks.	Facilitate training on proper land use management Linking group to LGA Encourage livestock keepers to keep few but highly productive animals (in terms of both meat and milk) to reduce pressure on land	Facilitators Funds Experts	LGA	LGA (land department)	August 2014	Reduced cases of land wrangles Land use plan (map) in place Presence of better type of cattle with improved productivity (both meat and milk) Zero grazing or semi-intensive grazing system being practiced. Encourage pasture development thereby reducing demand for huge chunks of land for free range pastoral grazing leading to land conflicts.

2	Insufficient knowledge on dairy cattle husbandry	Potential solution: Training on dairy husbandry including housing, disease control, feeding, breeding, calf rearing and milking techniques. Opportunity: Rising demand for dairy products	Conduct training on dairy cattle housing, disease control, feeding, breeding, milking techniques Emphasize zero grazing Arrange exchange visits	Facilitators Funds Venue	Project Group	НІТ	June – July 2014	Attendance list Training notes and handouts for training and references for dairy milk producers
3	season Note: Addressing this challenge could help mitigate land conflicts	Potential solutions: Enable farmers collectively establish and manage pasture plots Sensitize producers on individual fodder conservation in form of hay and silage Opportunity: Land is available for pasture/ fodder production	Training producers on pasture/ fodder establishment Ensure the timely availability of seed and other planting materials Sensitize and train milk producers on fodder conservation techniques	Funds Facilitators/ experts Stationery	Project Groups	HIT	November 2014	Existence of plots established with pasture / fodder Farmers having feeds conserved in form of hay and silage Training notes/reports

4	Insufficient knowledge of	Potential solution: Impart in farmers	•Conduct training on	Funds	Project	Faida MaLi		Training notes with farmers
	dairy as a business	entrepreneurship skills	entrepreneurship		Groups			
		including gross margin	•	e xperts			January 2015	Attendance list
		calculation	to fellow farmers having and	Stationery				Increased volume of
		Opportunity:	properly	Stationery				milk for sale
		Farmers' readiness to	managing dairy					
		learn business skills and	cattle breeds					
		entrepreneurship	with high milk					
			production					
5	Lack of reliable	Potential solutions:	Conduct	Experts	Project	Faida MaLi		Existence of milk
	market outlets for	 Strengthen the producer 	participatory					collection centers
	milk	group by training them on	market research	Funds for	Group	Group		
		good governance.	to identify	establishing				Number of contracts
		 Put in place collective 	potential milk	milk		TDB		with milk buyers
		milk bulking and	buyers to work	collection			October 2014	
		marketing.	with.	centers with				Group members trained
		 Negotiate contracts with 	•Sensitizing group	appropriate				on milk handling, quality control and
		buyers	members to bulk and sell their	equipment				entrepreneurship
		 Identify more milk traders to work with 	milk collectively					entrepreneursinp
		traders to work with	•Train on milk					Volume of milk handled
		Opportunities:	handling and					at the collection centers
		Abundant milk	quality control					
		production particularly in	•Enter into					Existence of
		the wet season	contract with					MoUs/contracts
			milk					between actors
		 Registered cattle keepers 	traders/buyers					
		groups	Conduct training					
			on					
			entrepreneurship					

			skills (Milk Value addition)?				
6.	Low cow productivity due to the genetic potential of the indigenous breeds	Potential solution: Improve the genetic potential of by crossing the existing breeds Opportunity: Willingness of cattle keepers to practice dairy keeping	Conduct training on dairy cattle	Facilitators Stationery Venue	Project	●HI	Application of knowledge Training notes and handouts with cattle keepers Action plans in place

7	Scarcity of water	Potential solutions:		Facilitators	Project			Linkage with iWASH
	during the dry	 Collectively harvest rain 	Work with LGA					and DADPS
	season	water	for knowledge on	Funds	Group	HI		
			water harvesting					
		 Construct ponds and 	techniques	Experts		LGA		
		dams construction						
			Construct dam					
		Opportunity:	and ponds				August -	
		Presence of organizations					December	
		dealing with water	Link with water				2014	
		scarcity problems	committees					
			under iWASH					
			and DADPS who					
			are taking care of					
			present water					
			supply schemes					

Activity							Period					
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Site 10: Madoto village, Madoto ward, Kilosa district

Registration: Name: ELETO (TUSAIDIANE) GROUP No: MG/KLS/CBO/423

Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
Absence of livestock round to & from gradland/ drinking water area in village and nearby Oregit longishu villate leading to cowith cropt growers	establish livestock routes within the village to alleviate the conflict	Map and construct livestock routes Train group members on conflict resolution	Facilitators/ experts Funds Stationery	Project Group LGAs	н	July - August 2014	Livestock routes within the village and between villages

2	Scarcity of water	Potential solutions:	•Training group	Stationery	Project			Experimental pasture
	and feeds during	Group members	on pasture					plots
	the dry season	collectively harvest rain	growing	Land for both	Groups			
		water	Identify	pasture plots				Conserved fodder
			sources of	and				
		Construct water ponds/	pasture seeds	dam/pond				Training notes/reports
		dams using own available	Establish					
		resources	experimental					Land allocated to
			plots for					construction of a
		Establish pasture plots in	different					pond/dam or existence, in
		Ngitiris/olelili	pasture species					the dry season of a group-
			Identify and					managed pond
		Fodder conservation	visit places					
			where water			HI	July 2014	
		Opportunity:	harvesting has			LGA	July 2014	
		 Availability of land for 	been done			LGA		
		pasture production	Identify					
			potential land					
			for a pond or					
			dam					
			Mobilize					
			human and					
			financial					
			resources for					
			constructing a					
			dam					
			Fodder					
			conservation					

3	Insufficient	Potential solution:	Conduct training	Facilitators	Project			Training attendance list
	knowledge on	Training on identified	on Dairy cattle					
	dairy cattle	dairy husbandry needs	husbandry	Funds	Group			Training notes and
	husbandry		(housing,				June -July	handouts with cattle
	(housing/shelter,	Opportunities:	disease control	Stationery		ні	201	keepers
	disease control	Eagerness and willingness	and feeding),				4	
	and feeding),	of cattle keepers to learn	breeding,					
	breeding, milking		milking					
	techniques and	Presence of local breeds	techniques and					
	milk quality	which can be crossed	milk quality					
	control and value		control					
	addition	Readiness of some farmers						
		to sell some of their local						
		cattle and purchase dairy						
		cattle						
								!

	Low cow	Potential solution:	Conduct training	Facilitators	Project		October	Training notes and
4	productivity in	Breeding improved dairy	on dairy cattle				2014 -	handouts with cattle
	terms of milk production	cattle in the herd	•	Stationery	Group	HI	January 2015	keepers
		Opportunities:	Training group	Venue	AI technician			MoU between AI service
		Presence of indigenous	members on					provider and group
		cattle which can be	breeds and					
		improved	breeding issues					
			through field					
		Willingness of cattle	visits					
		keepers to practice dairy						
		cattle keeping	Identify and link					
			Al service					
			provider to the					
			group					
5	Lack of affordable	Potential solutions:	Identify	Funds	Project	Faida MaLi	July 2014	MoU between group and
	loans from	Link the group with a	potential MFI					agent involved in check-
	financial/lending	financial service provider	to work with	Facilitators	Group			off arrangement
	institutions	(MFI)	group					
			Seek for credit	Stationery				
		Implement a check-off	contract					
		system for short term	information	Venue				
		credit facilities	from MFI					
			 Sensitize group 					
			on benefits of					
			check off					
			system					
1			Identify value					
			chain actors					

			takanaakad to					
			interested in					
			implementing					
			check offs					
6	Lack of reliable	Potential solution:	Hold a meeting	Meeting	Group			MoU between group and
	and quality input	Linking group to input	between the	venue				input service provider
	supplies	suppliers	group and input		Project			
	(veterinary drugs,		supplier for the	Meeting		Faida MaLi		
	feeds milking and	Opportunity:	former to	facilitator				
	bulking/	Presence of input	articulate their					
	equipment to	supplier/milk trader who	input needs and					
	include milking	is ready to work under	for the latter to					
	bucket and	check off system	determine their				June 2014	
	testing		ability to meet					
	equipment)		the demand					
			Draft an MOU					
			regarding check-					
			off arrangement					
			if possible					

Activity							Period					
	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	March 15	April 15
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Site 11: Manyinga village, Mvomero ward, Mvomero district

Registration: Name: MANYINGA MAZIWA ZAIDI GROUP No: MG/MVDC/CBO/00257 Date: 5 February 2014

	Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
	adequate nowledge on	Potential solution: Training on identified	Conduct training on dairy housing,	Facilitators	Project			Attendance list
da	airy cattle usbandry	dairy husbandry needs	disease control and feeding,	Funds	Group			Training notes and handouts
	ousing, disease ontrol and		breeding, milking techniques	Stationery				
	eding),	production system		Venue				
	reeding, calf	adopted by most of	Follow-up training					
	aring and ilking	villagers, which provides an opportunity for	on-zero grazing			ніт	June 2014	
te	chniques	training on dairy	Arrange field					
		husbandry	exchange visits					

2	Low milk production due to low cow productivity	Potential solution: Increase the stock of dairy cattle in the village through the use of AI and improved bulls Opportunities: Presence of a naturally favourable environment for keeping improved dairy cattle Availability of cattle that can be improved Presence of AI expertise from LGA	Linking group with AI service providers Linking the group with nearby farmers with improved bulls and/or in-calf heifer	Facilitators Stationery Venue	Project Group LGA AI Technician	Faida MaLi HIT	October 2014 -January 2015	MoU between group and service provider Action plans in place
3	Insufficient liquidity to purchase inputs (Drugs, feeds, milking, testing and bulking equipment) and lack of access to affordable credit	Potential solutions: Collective purchase of inputs to benefit from economies of size Purchase the inputs through a credit arrangement Opportunity: Presence of input supplier who is willing to be paid through a check off system	 Link the group to the identified input suppliers Implement a check off arrangement for the payment of the inputs and services Avail information of potential lenders 	Funds Experts Venue Time	Project Group	Faida MaLi	November 2014	MoU between the group and identified service provider

		 Initiate/Improve the group access to MFIs Group members to initiate own SACCOS 	 Linking the group to the identified MFIs 				
4	J ,	Establish individual pasture/ fodder plot Emphasize fodder conservation in form of hay and silage	Follow-up training on pasture/ fodder establishment offered by MilkiT project Follow-up on individually established pasture plots initiated by MilkiT	Project	HIT	July - Dece mber 2014	Pasture plots Training notes/reports

Activity						ı	Period					
	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	March 15	April 15
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4			٧									
5			٧	٧	٧	٧	٧	٧				

Site 12: Ulaya Kibaoni village, Mikumi ward, Kilosa district

Registration: Name: MAZIWA ZAIDI GROUP No: MG/KLS/VU/413 Date: 25 November 2013

	Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
1	Scarcity of water and feeds during	Potential solutions: Collectively harvest rain	Training on pasture/ fodder	Stationery	Project			List of participants
	the dry season	water	establishment and conservation	Seeds	Groups			Application of knowledge
		Water ponds and dams	Collection of	Facilitators				Training notes and reports
		establishment and conservation	planting materials Work with LGA	Funds		HIT	July - August	
		Opportunity: Availability of land for pastures/ fodder	for knowledge on water harvesting techniques				2014	
			Construction of dam and ponds					

2	Lack of	Potential solution:	Conduct	Facilitators	Project			Attendance list
	knowledge on	Training on identified	training on					
	dairy cattle	needs:	Dairy cattle	Funds	Group			Training notes and
	husbandry	 Dairy cattle husbandry 	husbandry					handouts
	(housing/sheds,		(housing,	Stationery			June - July	
	disease control	Opportunities:	disease control				2014	Application of the
	and feeding),	Eagerness and willingness	and feeding),				2011	acquired knowledge
	breeding, milking	of cattle keepers to learn.	breeding,			HI		
	techniques and		milking					
	· ·	Presence of local breeds	techniques and					
	control for value	which can be crossed.	milk quality					
	addition		control					
		Readiness of some farmers						
		to sell some of their local						
		cattle and purchase dairy						
		cattle						

3	Lack of Identified	Potential solutions:	Training on	Facilitators	LGA			Attendance list
	and approved		efficient land	- demedeers				
	livestock routes	0 0 1	utilization and	Funds	Group	HI		Training notes and
	within the village		conflict	lanas	Group	LGA		handouts
	within the vinage		resolution	Stationery				liandouts
		Revamp and demarcate	resolution	Stationery				Allocated stock routes
		the stock routes	Linking group to LGAs					
		Opportunities						
			Plan, identify				August -	
			and verify the				September	
			livestock route				2014	
		•	within the				2011	
			villages					
		Group members are						
		willing and ready to learn						
		about pasture/fodder						
		establishment and						
		purchase seeds and other						
		planting materials for that						
		purpose						

4	High incidence of	Potential solutions:	Conduct	Facilitator	Project			Linkage between the
	livestock diseases	Training on disease control	training in					group and input suppliers
	(tick borne,	and carry out vaccinations	diseases control	Funds	Groups			
	Trypanosomiasis,		and proper					Training reports
	worms and	Perform regular dipping as	feeding for	Stationery	LGA			
	others viral	scheduled	animal health			ні		Attendance list
	diseases)		and production.					
		Practice proper feeding	Carry out					Vaccination calendar in
			Vaccinations to					place
		Opportunities:	control				June - July	
		Presence of Livestock Field	endemic				2014	vaccinations and
		Officer	diseases in the					treatments reports
			area					
		Linking the group with	Link the group					
		Input suppliers	with input					
			supplier					
			Provision of					
			vaccination					
			calendar at					
			village level					
5	Low cow			Facilitators	Project		October	Training notes and
	productivity due		on dairy cattle			НІ	2014 -	handouts with cattle
	to genetic	service providers	husbandry	Stationery			January	keepers
	potential of the						2015	
	cows	•	Training group	Venue				Application of knowledge
			members on					
		, , ,	breeds and					Action plans in place
		1	breeding issues					
		keepers to practice dairy						
		. •	Arrange field					
			exchange visits					

6	Lack of access to inputs (veterinary drugs, feeds, milking and	Linking groups with Input suppliers Negotiate check off	Identification of input suppliers Sensitize the use of a check off	Facilitator	Project Group	Faida MaLi		Linkage between group and the input supplier Functional check-off system with quality input
	bulking/ equipment to include milking bucket and testing equipment)	Opportunity: Presence of Input supplier who is ready to work under check off system	Negotiate the implementation of check off system between group and input supplier				September 2014	supplies

Activity		Period											
	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	March 15	April 15	
1			٧	٧									
2		٧	٧										
3				٧	٧								
4		٧	٧										
5						٧	٧	٧	٧				
6					٧								

Site 13: Twatwatwa village, Madoto ward, Kilosa district

Registration: Name: ENGOLON EMAA GROUP No: MG/KLS/CBO418 Date: 17 March 2014

Constraint (Ranked)	Potential solutions/ opportunity/intervention towards solving the problem Potential solution: Opportunity/intervention Activities needed towards solving the problem Conduct two initial solutions Facilities			Who provides the resources	Who does the task	When	Evidence items	
Limited knowledge on	Expose farmers (and their	•Conduct training through	Facilitators	Project			Attendance list	
dairy cattle husbandry	children where possible) to modern dairy	workshops and exchange visits on	Funds	Group	HIT	June 2014	Training notes and handouts with cattle	
(housing/shelter, disease control	husbandry knowledge regarding the identified	dairy cattle husbandry	Stationery				keepers	
and feeding), breeding, milking	issues	(housing, disease control and						
techniques and	Opportunity:	feeding),						
milk quality	Eagerness and willingness	breeding, milking						
control for value addition	of cattle keepers to learn	techniques and milk quality control						

2.	Low cow	Potential solution:	Workshops and	Facilitators	Project			Training notes and
	productivity due	Improve genetic potential	field visits to				October	handouts with cattle
	to low genetic	of herds through use of AI	model farmers on	Stationery		ні	2014	keepers
	potential of	services and improved	dairy cattle					
	indigenous cows	bulls	husbandry with	Venue				Visitors' records for
	for milk		respect to breeds					farmers/groups visited
	production	Opportunity:	and breeding					
		Willingness of cattle						
		keepers to practice dairy						
		keeping						

3	Scarcity of water	Potential solutions:	Training on	Stationery	Project			Training notes/reports
	•	Group members	pasture/ fodder	,				
	the dry season	collectively harvest rain	establishment and	Funds	Groups			List of participants
	,	water	conservation		i i			
				Facilitators				
		Pasture/ fodder	Collection of					
		establishment in Olelili	propagation					
			planting material			LGA	July -	
		Fodder conservation					December	
			Work with LGA for			HIP	2014	
		Opportunity	knowledge on					
		Availability of land for	water harvesting					
		pasture/fodder	techniques					
		production.						
		ľ	Construct dam and					
			ponds					
4	Lack of reliable	Potential solutions:	Market research	Funds	Project	Faida MaLi		Training notes/reports
	milk markets and	Identify causes of	 Collectively bulk 					
	entrepreneurship	unreliable milk markets	milk to attract	Facilitators	Group			List of participants
	skills amongst	Identify other potential	potential buyers				June - July	
	group members	milk outlets and their	Train on milk	Identified			2014	
		needs	handling and	buyers				
		 Negotiate contracts with 	quality control					
		buyers	Negotiate					
			contracts with					
		Opportunity:	milk buyers					
		Availability of milk in the	Conduct training					
		area especially in rainy	on					
		season.	entrepreneurship					
			skills					

5.	High incidence of	Potential solutions:	Conduct training	Facilitator	Project			Linkage between the group
	livestock	Disease prevention and	in diseases					and input suppliers
	diseases (tick	control	control and	Funds	Groups			
	borne,		proper feeding for		·			Training reports
	•	Practice proper feeding		Stationery	LGA	ні		
	worms and		production.	·				Attendance list
	others viral	Opportunities:	•Carry out					
	diseases)	Presence of Livestock Field	Vaccinations to					Vaccination calendar in
	-	Officer	control endemic				June - July	place
			diseases in the				2014	
		Linking the group with	area				2011	vaccinations and
		Input suppliers	●Perform regular					treatments reports
			dipping as					
			recommended					Vaccination calendar in
			Provision of					place and used
			vaccination					
			calendar at village					
			level					
	Last of access to	Potential solutions:	Identification of	Facilitates.	Dunin at			Links as historian success and
6	Lack of access to			Facilitator	Project			Linkage between group and
	inputs	Linking groups with Input	input suppliers		C ** 2 · · · · ·	Faida MaLi		the input supplier
	•	suppliers	Sensitize the use of		Group			Constinued about off contains
	drugs, feeds,	Nogatiata shaak aff						Functional check off system
	•	Negotiate check-off	a check-off system					with quality input supplies
	bulking/ equipment to	arrangement	Negotiate the					
	include milking	Opportunity:	implementation of				June 2014	
	bucket and	Presence of input supplier	'					
	testing	who is ready to work	between group					
	equipment)	under check off system	and input supplier					
	equipment)	under check on system	and input supplier					
]	

Activity							Period					
	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	March 15	April 15
1			٧	٧								
2		٧	٧									
3				٧	٧							
4		٧	٧									
5						٧	٧	٧	٧			
6					٧							
7					٧	٧	٧	٧				

Site 14: Tanebo Kibaya site-specific plan, Mvomero district

<u>Village:</u> Wami Dakawa <u>No.</u>: MG/MVDC/CBO/00239 <u>Date:</u> 23 April 2014

	Constraint (Ranked)	Potential solutions/ opportunity/intervention	Activities needed towards solving the problem	Resources needed	Who provides the resources	Who does the task	When	Evidence items
1	Inadequate Knowledge of: dairy cattle husbandry, business skills, quality control and value addition	Potential solution: Training on identified needs such as: Dairy husbandry Entrepreneurship skills Quality control Value addition Opportunity: Cattle keepers eager and willing to learn	Conduct training on animal husbandry Conduct training on entrepreneurship skills Conduct learning exchange visits Conduct quality control and value addition training	Facilitators Funds	Project Group	Faida MaLi HIT	June 2014	Attendance list Training notes Training handouts

2	Unreliable milk markets and low milk prices	* Collective milk selling (bulking) *Contracts with buyers *Identify more traders to work with Opportunity: High production of milk in wet season	Sensitization of group members on milk bulking and collective marketing Facilitate business negotiation of formal contracts with potential milk buyers	Facilitators Funds	Group Project	Faida MaLi	July 2014	Contracts/MoU with buyers Collective marketing practiced at group level
3	Lack of knowledge of cost of production of milk	Potential solution: Simple research on cost of production of milk in the area Producers to keep production records Opportunity: Group eager to learn production cost of milk so that they can negotiate sell prices	Household survey on the cost of production Training on record keeping and gross margin analysis Participatory gross margin analysis of 1litre of milk (involving groups and project)	Funds Facilitators	Project Group	Faida MaLi	August 2014	Cost of production report Record books kept by the producers Application of knowledge Attendance list

4	Low cow productivity due to the low genetic potential of the indigenous breeds for milk production	Potential solution: Improve genetic potential through use of AI services and use of dairy bulls Opportunities: Willingness of cattle keepers to practice dairy keeping	Conduct training through workshops and exchange visits on dairy cattle husbandry with respect to different types of breeds, breeding (heat detection, timely insemination)	Facilitators Stationery Venue	Project	HIT	October 2014	Training notes and handouts with cattle keepers
5	Lack of feeds during the dry season	Potential solution: Planting fodder varieties in OLELILIs Practice fodder conservation Opportunity: Availability of land for fodder production	Fodder plots identification and preparation of demonstration plots (OLELILI) Training on fodder establishment and conservation techniques	Facilitators Funds Stationery Planting material	Project Group	HIT	October 2014	Fodder production and conservation practiced Training notes/reports

6	Limited access to	Potential solution:	Identification of Facilitator Project			MoU between group		
	inputs	Collectively procure	input suppliers					and the input supplier
		inputs:	 Sensitize the use of 		Group	Faida MaLi		and milk trader for
		Linking groups with input	collective sourcing					check offs
		suppliers	and check off					
			system.					
		Introduce check-off	Identify milk				November	
		arrangement as a means	trader/cattle				2014	
		to addressing cash flow	trader/chilling				201.	
		and credit constraints	center to					
			implement check-					
		Opportunity:	off system					
		Presence of several Input						
		suppliers in the area						
7	Scarcity of	Potential solution:	Work with LGA for	Stationery	Project			Borehole
	drinking water	Collectively harvest rain	knowledge on water					
	season dar	using water ponds and	harvesting	Facilitators	Group	LGAs		Group harvesting rain
		dams	techniques					water
				Funds	LGA	Group	November	
		,	Construction of dam			Стопр	2014	
		Availability of areas to use	and ponds					
		for water harvesting in the						
		rain season						

Activity	May14	Jun14	Jul14	Aug14	Sep14	Oct14	Nov14	Dec14	Jan15	Feb15	March15	April15
Activity 1												
Activity 2												
Activity 3												

Notes

The dates indicated above are those that were agreed upon during the site planning discussion with farmer groups

Categorizing and scheduling of activities

Activities identified in all the villages fall under four broad categories:

- 1. Training in:
 - a. Various aspects of animal husbandry
 - b. Various aspects of dairy business management
 - c. Group cohesion
 - d. Land use and conflict aversion and resolution
- 2. Creating linkages between farmer groups and:
 - a. Input suppliers
 - b. Business service providers
 - c. Milk processors and traders
 - d. Local government agencies
- 3. Implementing:
 - a. Check-off arrangements
 - b. Collective action interventions including collective milk bulking and selling and collective procurement of inputs and services
- 4. Implementation of group own-projects outside the scope of MoreMilkiT:
 - a. Drilling boreholes
 - b. Constructing dams and ponds
 - c. Reclaiming/establishing livestock routes

Recommendations for scheduling of activities

- a. Trainings could be conducted concurrently with the implementation of the groups' own activities
- b. Creating business linkages could be implemented concurrently with the introduction of check-offs and collective action
- c. Scheduling should account for seasonality, school calendar, potential for synergies between implementing parties and complementarity between/among the activities, especially trainings. For instance, training in animal husbandry could be conducted simultaneously with or incorporate aspects of business management
- d. HIT and Faida MaLi should jointly determine the specific dates for the trainings

Types of hubs to be implemented in the Morogoro region

From all the site-specific plans, there is hardly any evidence for the need for hubs implementing check-offs that involve cattle traders as previously envisaged. Below are the proposed hubs to be implemented in each village.

Site 1: Mbwade Village, Madoto Ward, Kilosa District: chilling plant and milk traders

Site 2: Kwambe Village, Dumila Ward, Kilosa District: chilling plant and milk traders

Site 3: Wami Luhindo Maziwa Zaidi, Mvomero District: chilling plant and milk traders

Site 4: Wami Sokoine, Mvomero District: chilling plant and milk traders

Site 5: Mabwegere Village, Dumila Ward, Kilosa District: chilling plant and milk traders

Site 6: Mela Village, Melela Ward, Mvomero District: milk traders

Site 7: Emaa Mangae, Mvomero District: milk traders

Site 8: Ihombwe/Mfilisi Village, Mikumi Ward, Kilosa District: milk traders

Site 9: Kambala Village, Hembeti Ward, Mvomero District: chilling plant and milk traders

Site 10: Madoto Village, Madoto Ward, Kilosa District: chilling plant and milk traders

Site 11: Manyinga Village, Mvomero Ward, Mvomero District: milk traders

Site 12: Ulaya Kibaoni Village, Mikumi Ward, Kilosa District: milk traders

Site 13: Twatwatwa Village, Madoto Ward, Kilosa District: milk traders

Site 14: Wami Dakawa, Tanebo Kibaya, Mvomero District: chilling plant and milk traders