



2012 Annual report

Tanzania smallholder dairy value chain

www.livestockfish.cgiar.org

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CGIAR is a global partnership that unites organizations engaged in research for a food secure future. The CGIAR Research Program on Livestock and Fish aims to increase the productivity of small-scale livestock and fish systems in sustainable ways, making meat, milk and fish more available and affordable across the developing world. The Program brings together four CGIAR Centers: the International Livestock Research Institute (ILRI) with a mandate on livestock; WorldFish with a mandate on aquaculture; the International Center for Tropical Agriculture (CIAT), which works on forages; and the International Center for Research in the Dry Areas (ICARDA), which works on small ruminants. <http://livestockfish.cgiar.org>

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ilri.org
better lives through livestock
ILRI is a member of the CGIAR Consortium

Box 30709, Nairobi 00100, Kenya
Phone: +254 20 422 3000
Fax: +254 20 422 3001
Email: ILRI-Kenya@cgiar.org

Box 5689, Addis Ababa, Ethiopia
Phone: +251 11 617 2000
Fax: +251 11 617 2001
Email: ILRI-Ethiopia@cgiar.org

A. Key Messages

- A.1** Synthesis of progress and challenges in implementing the CGIAR Research Program (CRP) within the target value chain, including their significance for the SLOs addressed by the CRP and a brief description of any noteworthy re-orientation in the CRP in the target value chain

Progress:

The engagements in Tanzania in 2012 under the Livestock and Fish CGIAR Research Program have confirmed the pro-poor potential of dairying and the uniqueness of the commodity amongst agricultural pathways out of poverty in that country, as envisaged in the Livestock and Fish proposal. Emerging evidence from situational and value chain assessments is confirming that engagement in the dairy value chain offers a variety of opportunities for rural livelihoods and nutritional security, particularly given the tradition of cattle-keeping and rising demand, which enhance those opportunities. The pro-poor benefits from small-scale production and marketing that are becoming apparent include opportunities for intensification and enhanced productivity and incomes, employment in services and marketing, and nutrition both for the smallholder household and the poor in urban areas served by informal markets that dominate the value chain. Unlike most crop and livestock enterprises, its benefits throughout the value chain are generated daily rather than seasonally. Hence, adapting seasonal milk flows will magnify and spread the benefits. In many cases especially in short value chains that dominate selected sites in Tanzania, benefits flow disproportionately to women and other marginalized groups, a feature that needs to be protected with increasing commercialization and by addressing existing gender inequalities. An entry-point already identified in the Tanzania setting to improve the flow of these benefits is to support the uptake of scalable value chain approaches with improved organization and institutions. An appropriate balance between research and development funding is already underway to support this growth: R4D funds from Irish Aid and other agencies have been targeted to guide and accelerate implementation of larger-scale dairy development projects, notably the anticipated extension of the East Africa Dairy Development (EADD) project to Tanzania that will result in spread of benefits to the resource-poor across the Tanzanian landscape over the next decade.

Major engagement has been established through partnerships with Sokoine University of Agriculture (SUA) and the Tanzania Dairy Board (TDB). Additional partnerships have been initiated through the formation of the Dairy Development Forum (DDF), with TDB acting as the Secretariat and with ILRI as part of an Advisory Committee to the Secretariat alongside other NGOs involved in dairy development: Heifer-Tanzania, SNV Netherlands Development Organisation, Land O'Lakes (LOL), as well as the Ministry of Fisheries and Livestock Development (MLFD). The formation of the DDF is a significant early win in establishing a mechanism for raising visibility among stakeholders and policy makers, thanks to the funding support that was secured from Irish Aid at the start of 2012 to support activities that were well aligned to those envisaged for Tanzania under the program, a clear sign of commitment by Irish Aid to the CGIAR Change Process and more specifically the Livestock and Fish CGIAR Research Program.

The Irish Aid inception funding to prepare a major 4-year piloting of pro-poor smallholder dairy research-for-development allowed rapid momentum to be achieved. The Irish Aid funding, communication and organizational focus of the project is successfully providing leverage for integrating activities under other smaller projects dedicated to pro-poor dairy development including projects on feeds, food safety and nutrition under the CGIAR Research Program on Agriculture for Nutrition and Health (A4NH) and livestock data innovation under the CGIAR Research Program on Policies, Institutions and Markets. It also includes Tanzanian government and dairy industry initiatives in dairy industry promotion and co-ordination, particularly involving pre-commercial producers. The synergy created is thus

allowing the project to raise its profile with officials at local and national levels and achieve much more through sharing of resources, common tools and approaches and by concentrating efforts at common field sites. . Though rapid momentum was achieved thanks to the Irish Aid and other funding cited above, slow bureaucratic processes and failure to recruit additional staff hampered the full achievement of various specific output targets in 2012.

The smallholder dairy value chains analyzed featured a variation from pre-commercial producers with limited market access (what we are terming 'rural-to-rural' systems: R-to-R) to those better-linked to more vertically coordinated value chains ('rural-to-urban' systems: R-to-U). The inception activities identified adaptations of EADD-type of hub approaches (mainly based on Uganda experiences) to grow pre-commercial producers to be appropriate for piloting. Possible interventions to address feed and feeding issues within a sub-set of selected hubs were also identified. Geographic sites identified as ideal for piloting the interventions and drawing inferences for scaling out are in Morogoro Region (Kilosa and Mvomero districts) and in Tanga Region (Handeni and Lushoto districts). Kilosa and Handeni districts represent mostly pre-commercial rural production for rural consumption (R-to-R); while Mvomero and Lushoto districts represent relatively more commercial rural production for urban consumption (R-to-U). Urban consumption centres have been defined as those markets with over 50,000 inhabitants. These criteria guided several studies along a spectrum of pro-poor dairy value chains featuring variation from pre-commercial producers with limited market access to those better-linked to more vertically coordinated value chains that may reach as far as Dar es Salaam. Thus, the selected strata offer a range of opportunities for upgrading.

These entry points have a strong emphasis on '*check-off*' payment arrangements for inputs and services due to the widely acknowledged paucity of credit, which our own investigations confirmed. Arising from the inception phase, a proposal detailing various options for interventions for piloting during the R4D phase over the next four years was prepared and submitted. The strategy developed will address different value chain contexts, and in the process establish working collaboration with both research and development partners locally who will be able to take the intervention strategy forward as we generate evidence of its viability and benefits.

Challenges

Two challenges experienced in 2012 were:

- Lengthy bureaucratic procedures for agreements between CGIAR centers and between CGIAR and Tanzanian partner institutions. This particularly affected severely the timely execution of the planned research activities and project implementation of the IFAD funded feeds innovations project implementation by CIAT and ILRI
- Failure to recruit additional staff to support increased level of activity

The momentum so far achieved and mitigation measures put in place will reduce the impacts of the above challenges in subsequent years so no implications are identified for re-orientation in the CGIAR Research Program in the value chain. The strategy of adapting the dairy hub model from EADD's experiences in Uganda as a core institutional strategy for intervention has been confirmed by the initial work carried out in 2012, so no major reorientation of the intervention development is required at this point, and we will move towards doing more in-depth assessment and identifying other constraints that can be addressed in the value chain.

A.2 *What was the most significant achievement/success story in the year (gender disaggregated where pertinent), with references to associated evidence and website links for more details.*

Formation of the Dairy Development Forum (DDF) that was initiated that is envisaged as an informal mechanism for vertical coordination of field activities and addressing systemic bottlenecks and co-creating solutions at national and milk-shed levels with proposed membership across all key public and private sector players in the dairy sector. The DDF promises to become an influential platform for advocacy for the required policy shift towards a more inclusive dairy development in Tanzania. The TDB has welcomed the DDF proposal and will act as the Secretariat. ILRI, among others, have been nominated to be part of the Advisory Committee to support the Secretariat. A major event to launch the DDF with significant communications around it is planned for early 2013 (see <http://www.tanzaniadairyboard.or.tz/>). It is hoped that the Advisory Committee will support TDB in ensuring that the arrangement and agenda setting for the DDF will be kept open as envisaged, with concentration of agenda coming from natural alliances between members.

B. Impact Pathway and Intermediate Development Outcomes (IDOs)

Nothing needed here

C. Progress along the Impact Pathway

The CGIAR Research Program should complete section C using those indicators from the table below that are relevant to the programs position in its life cycle and to its nature. Wherever relevant, the indicators should report information sex-disaggregated or taking into account gender dimensions.

C.1 Narrative of major achievements in the value chain

The Irish Aid inception funding allowed sufficient communication and organizational focus, while supporting greater coherence through integration of other new projects towards transformation of the dairy value chain and envisaged impacts. They include externally-funded projects on feeds innovation (IFAD funded), food safety and nutrition (BMZ/GIZ and ACIAR funded, under the prevention and control of agriculture associated diseases theme of A4NH), and improvement of livestock data for investment and policy formulation (BMGF funded, under subtheme 2.3 (value chain performance aspects) of the CGIAR Research Program on Policies, Institutions and Markets. The synergy created is thus allowing the program to raise its profile with officials at local and national levels and achieve much more through sharing of resources, common tools and approaches and by concentrating efforts at common field sites. Synergistic and commonly conducted activities across these projects were: sites selection, situation analysis, rapid assessments, and a review of past success and failures. These reviews have led to understanding of the policy environment and appropriate entry points for impacting the poor and marginalized, and have informed interventions identified for piloting. Projects initiated before 2012, such as the IDRC funded crop and dairy goat project (CGP) that has strong gender and M&E components were also made certain to be delivering targeted programs outputs. A key highlight of achievements towards outcomes was the formation of the Dairy Development Forum (DDF) that will hopefully become an influential platform for communication, coordination and co-creating solutions across various projects involved in the value chain.

C.2 Progress towards outputs

The output in 2012 was to develop and apply methods and tools to identify potential interventions for improved dairy value chain (VC) performance. Following the sites selection exercise based on spatial maps and stakeholder consultations, a preliminary set of methods, models and tools for a rapid VC assessment was developed, tested and applied in selected sites in Morogoro and Tanga regions in eastern Tanzania to establish a sectoral baseline for the dairy VC. This was a joint effort with subtheme 2.3 (value chain performance aspects) of the CGIAR Research Program on Policies, Institutions and Markets and the prevention and control of agriculture associated diseases theme of the CGIAR Research Program on Agriculture for Nutrition and Health. The tools included a conceptual framework and an outline for reporting to ease comparisons across value chains. A draft situational analysis report establishing a baseline for the sector is available. It highlights current low per capita milk availability and consumption and suggests excellent opportunities for significant growth in the dairy sector in Tanzania, driven by demand growth across rapidly expanding urban centres. Rapid growth in numbers of improved dairy cattle population is already happening to fill the gap in supply. Rural households in Tanzania were found to have very low access to credit services. Nationally, only 6% of all livestock keeping households and 4% among the poorest quartile held credit. Coupled with low private sector participation in the livestock sector, this has contributed to low use of inputs (feed, breeding, animal health) and related services.

The VC assessment toolkit comprises various tools for rapid assessment of feeds, breeding, animal health and VC performance, and process guidelines for applying them were developed and applied in eight villages across four districts in the two regions. A draft more in-depth VCA report is available. Complementary to this was a constraints analysis conducted under the value chain performance aspects of the CGIAR Research Program on Policies, Institutions and Markets in the same locations. The assessments highlight low access to adequate feeding, breeding, animal health and credit services and that production of a marketable surplus remains a fundamental challenge. This has been associated with poor animal health and nutrition, alongside shortages of land, low access to working capital, and limited knowledge and information. Possible interventions to address feed and feeding issues were identified.

Activities undertaken within the selected sites under other CGIAR Research Programs included:

- Development of tools for a rapid integrated assessment (RIA) of food safety and nutrition under the CGIAR Research Program on Agriculture for Nutrition and Health through two projects funded by ACIAR and BMZ/GIZ (Safe Food, Fair Food); and
- CGIAR Research Program on Policies, Institutions and Markets which contributed a significant part of the preliminary tools that were applied in the VC besides conducting a constraints analysis of its own in the same locations.

Potential best bet interventions for improved VC performance were identified through outcome mapping that was partly informed by the above assessments and a review of past successes and failures in dairy development interventions. A complementary more detailed documentation of successes and failures of past feed related interventions was also initiated. It is anticipated that benefits from the best bets will flow disproportionately to women given their higher participation in the short value chains that dominate in selected project sites.

C.3 Progress towards the achievement of outcomes

The significant steps taken in 2012 have led to a better understanding of the policy environment and appropriate entry points for impacting the poor and marginalized including: identifying a wide range of stakeholders; constraints and opportunities; and a process for strengthening the policy environment to better support pro-poor dairying. The findings reinforce the validity of the need to focus attention on 'growing' the existing informal system of milk production and marketing that the vast majority of cattle producers are part of, so as to achieve wider impact on poor women and men. The approach is hinged on a proposed intervention strategy involving dairy hub models that will address different value chain contexts, and in the process establish working collaboration

with both research and development partners locally who will be able to take the intervention strategy forward as we generate evidence of its viability and benefits.

On the policy front, the main highlight towards outcomes was the formation of the Dairy Development Forum (DDF) that was initiated at the stakeholder gathering held in Morogoro on 9 March 2012 and a process towards its realization endorsed in June 2012 by the Annual Council (the supreme governing organ) of the Tanzania Dairy Board. The DDF is envisaged as an informal mechanism for vertical coordination of field activities and addressing systemic bottlenecks and co-creating solutions at national and milk-shed levels with proposed membership across all key public and private sector players in the dairy sector. Even though the overarching policy framework is largely supportive, the DDF is a promising initiative for advocacy for the required policy shift towards a more inclusive dairy development in Tanzania. The TDB has welcomed the DDF proposal and will act as the Secretariat. ILRI, among others, have been nominated to be part of the Advisory Committee to support the Secretariat. It is anticipated that the DDF will build on the successes of Tanga Dairy as a regional innovation platform that has provided an entry point for carrying out feed innovations activities funded by IFAD.

C.4 Progress towards Impact

Major contributions towards Level 3 achievements should be detailed

As indicated above, potential best bet interventions for improved VC performance were identified through outcome mapping to stimulate adoption of options for pro-poor dairy development. Steps were initiated through participatory exercises to link and map these to a potential impact pathway. This will be further refined in 2013 and used to begin raising awareness internally and externally of what additional activities may need to be envisaged to ensure outcomes translate into optimal impact. The additional activities will include designing appropriate specific technical packages and institutional strategies for value chain transformation towards envisaged impacts.

C.5 Traffic Light Reporting of Progress against Outputs

This table should indicate progress towards outputs with the following definitions: green = accomplished, yellow= partially accomplished, red=not accomplished. When a milestone is yellow or red, a clarification of 'why' should be provided and an indication if the milestone is postponed, or for some reason cancelled. A synthesis explanation should be provided in sections C.1-C3 above of the overall percentage of 'yellow, red and green' outputs.

For calendar year 2012 Center : International Livestock Research Institute (ILRI)		
Theme 1 Animal Health		
Objective/Outcome 1.1: Generate data and materials to improve the pro-poor management of animal health and food safety in the targeted value chains		
Output 1.1.1 Data to prioritize animal health interventions in the target value chains		
Milestones	Status	Explanation and evidence
1.1.1.1 Rapid assessment of the interaction of technology gaps, epidemiological patterns and institutional limitations in the mitigation of animal disease	Partially accomplished	<p>2012 Activity: Rapid assessment of animal health constraints conducted in smallholder systems in Tanzania dairy.</p> <p>Progress:</p> <ul style="list-style-type: none"> • Participatory epidemiology at producer level conducted alongside other VC assessments, and ranking major production diseases (Irish Aid and BMZ/GIZ funds). • Rapid integrated assessment of food safety and zoonoses at producer and consumer levels initiated; hazard identification and ranking (desk-based and participatory) (BMZ/GIZ). • Biophysical sampling for analysis of milk-borne hazards initiated • New proposal developed and submitted to BMZ has been funded. It's titled "What is killing my cow? Re-assessing diseases in smallholder dairying in Tanzania". Work to start mid-2013 <p>Achievements</p> <ul style="list-style-type: none"> • New proposal funded. Work to start mid-2013. See Safe Food, Fair Food, Dairy in Tanzania
Output 1.1.2 Information to guide farmers and market actors in the target value chains in using best practices and available technologies to manage animal health and food safety to enhance profitability and public health.		
Milestones	Status	Explanation and evidence
1.1.2.1 Recommended best practices for managing		<ul style="list-style-type: none"> • N/A for Tanzania

animal and public health in small-scale production and marketing systems in target value chains		
KNOWLEDGE, TOOLS, DATA		
Number of flagship “products” ¹ produced by CRP		Rapid Integrated Assessment of zoonoses tools tailored to the Tanzania smallholder dairy value chain Safe Food, Fair Food, Dairy in Tanzania
% of flagship products produced that have explicit target of women farmers/NRM managers		
% of flagship products produced that have been assessed for likely gender-disaggregated impact		
Number of “tools” produced by CRP --		Two. 1. Participatory epidemiology tool – for assessing current husbandry practices and animal health related constraints. See Value Chain Development - Tanzania 2. Food safety and zoonoses assessment toolkit – food safety practices and farmers awareness of zoonotic diseases. (see http://safefoodfairfood.wikispaces.com/)
% of tools that have an explicit target of women farmers --		100%
% of tools assessed for likely gender-disaggregated impact --		100%
Number of open access databases maintained by CRP		Livestock and Fish wiki: Value Chain Development - Tanzania and Safe Food, Fair Food, Dairy in Tanzania
Total number of users of these open access databases		
Number of publications in ISI journals produced by CRP		None
Number of strategic value chains analyzed by CRP		Smallholder dairy value chains featuring variation from pre-commercial producers with limited market access (R-to-R) to those better-linked to more vertically coordinated value chains (R-to-U) as described below: a) Relatively more commercial rural dairy production to urban consumption (R-to-

¹ indicates something significant enough and complete enough to have been highlighted on web pages, publicised through blog stories, press releases and/or policy briefs, and be available to those seeking information on them.

	<p>U) comprising improved cattle (exotic/ crosses) producers with intensive & semi intensive (stall-fed/semi-grazing) grazing management.</p> <p>b) Mostly pre-commercial rural dairy production to rural consumption (R-to-R) comprising Tanzania short horn Zebu producers with extensive/pastoral and sedentary grazing management</p> <p><u>Value Chain Development - Tanzania</u></p>
CAPACITY ENHANCEMENT AND INNOVATION PLATFORMS	
Number of trainees in short-term programs facilitated by CRP (male)	Irish Aid MoreMilkiT and BMZ/GIZ SFFF: 13 male were trained on the application of participatory methods for participatory epidemiology (Workshop Report being drafted).
Number of trainees in short-term programs facilitated by CRP (female)	Irish Aid MoreMilkiT and MBZ/GIZ SFFF: 3 females trained on the application of participatory methods for participatory epidemiology (Workshop Report being drafted).
Number of trainees in long-term programs facilitated by CRP (male)	Students under Safe Food, Fair Food Project CRP A4NH: 1) Fredrick Onyango (male, enrolled at University of Wageningen, The Netherlands): MSc study title: The Animal Health, Zoonoses and Food Safety Risks Identification and Ranking in Morogoro and Tanga Regions of Tanzania
Number of trainees in long-term programs facilitated by CRP (female)	Students under Safe Food, Fair Food Project CRP A4NH: 2) Fortunata Shija (female, enrolled at SUA with co-supervision from ILRI and the Federal Institute for Risk Assessment (BfR), Germany); MSc study title: Pathogen flows along the dairy value chain in Tanga Region, Tanzania 3) Ernesta Joseph (female, enrolled at SUA with co-supervision from ILRI and the Federal Institute for Risk Assessment (BfR), Germany); MSc study title: Pathogen flows along the dairy value chain in Morogoro Region; Tanzania
TECHNOLOGIES/PRACTICES IN VARIOUS STAGES OF DEVELOPMENT	
Number of technologies/NRM practices under research in the CRP (Phase I)	None
% of technologies under research that have an explicit target of women farmers	N/A
% of technologies under research that have been assessed for	N/A

likely gender-disaggregated impact	
Sub-category of the above “number of technologies” – i.e. cannot be added to the above, as they are included in the above aggregate indicator	
Number of specialized genetic stocks (accessions and genotypes of wild relatives and landraces, special mapping populations, mutation stocks, etc.) for gene discovery and pre-breeding	None
Number of published/identified new genes, markers, or QTLs and made available to scientists and breeder globally	None
Number of new germplasm with improved traits ² shared with (public and private sector) partners for testing and release (via international trials and nurseries)	None
Number of International Nurseries, Yield trials, PVS, etc. for germplasm evaluation conducted by CRP partners	None
Number of technologies /NRM practices field tested (phase II)	None
Number of technologies/NRM practices released by public and private sector partners globally (phase III)	None
POLICIES IN VARIOUS STAGES OF DEVELOPMENT	
Numbers of Policies/ Regulations/ Administrative Procedures Analyzed (Stage 1)	(1) The delivery of animal health issue of concern identified but not analysed is: Certification of para-vet practitioners is overly restricted by regulations
Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	None
Number of policies / regulations / administrative procedures presented for legislation(Stage 3)	None
Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	None
Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)	None
OUTCOMES ON THE GROUND	
Number of hectares under improved technologies or management	None

² yield potential, biotic and abiotic stress tolerance, nutritional quality, sensory and cooking quality, feed quality, etc. inbreds and hybrids.

practices as a result of CRP research	
Number of farmers and others who have applied new technologies or management practices as a result of CRP research	None

Theme 2 Genetics		
Objective/Outcome 2.1: To develop improved strains and breeding strategies that sustainably improve animal productivity in emerging small scale market orientated livestock and fish production		
Output 1.1.1 Assessment and tailored strategies for sustained genetic improvement for targeted production systems		
Milestones	Status	Explanation and evidence
2.1.1.1.1 Tools for assessing genetics-based interventions developed and tested in Tanzania	Partially accomplished	<p>2012 Activity: Tools for assessing breeding strategies and Animal Genetic Resources (AnGR) use, as part of an overall VC assessment tool, developed and tested.</p> <p>Progress:</p> <ul style="list-style-type: none"> Breeding assessments conducted alongside other VC assessments (Irish Aid and CRP funds) <p>Achievements: N/A</p> <p>2012 Activity: Tools for assessing the socio-economic performance of different breed-types within a livestock production system, developed and tested</p> <p>Progress:</p> <ul style="list-style-type: none"> None <p>Achievements: N/A</p>
Output 2.1.2 Genetically improved strains and conserved genetic resources to meet future needs.		
Milestones	Status	Explanation and evidence
2.1.2.1 Methods and capacities established to support breeding strategies in the target value chains	N/A	<ul style="list-style-type: none"> N/A for Tanzania

KNOWLEDGE, TOOLS, DATA	
Number of flagship “products” ³ produced by CRP	None
% of flagship products produced that have explicit target of women farmers/NRM managers	N/A
% of flagship products produced that have been assessed for likely gender-disaggregated impact	N/A
Number of “tools” produced by CRP --	1 Breed assessment tool – for assessing breeds kept, sources and breed preferences.
% of tools that have an explicit target of women farmers --	100%
% of tools assessed for likely gender-disaggregated impact --	100%
Number of open access databases maintained by CRP	Value Chain Development - Tanzania
Total number of users of these open access databases	
Number of publications in ISI journals produced by CRP	None
Number of strategic value chains analyzed by CRP	Smallholder dairy value chains featuring variation from pre-commercial producers with limited market access (R-to-R) to those better-linked to more vertically coordinated value chains (R-to-U) as described below: a) Relatively more commercial rural dairy production to urban consumption (R-to-U) comprising improved cattle (exotic/ crosses) producers with intensive & semi intensive (stall-fed/semi-grazing) grazing management. b) Mostly pre-commercial rural dairy production to rural consumption (R-to-R) comprising Tanzania short horn Zebu producers with extensive/pastoral and sedentary grazing management Value Chain Development - Tanzania
CAPACITY ENHANCEMENT AND INNOVATION PLATFORMS	
Number of trainees in short-term programs facilitated by CRP (male)	Irish Aid MoreMilkiT: 13 male were trained on the application of participatory methods for breeding assessment.

³ indicates something significant enough and complete enough to have been highlighted on web pages, publicised through blog stories, press releases and/or policy briefs, and be available to those seeking information on them.

Number of trainees in short-term programs facilitated by CRP (female)	Irish Aid MoreMilkIT: 3 females trained on the application of participatory methods for breeding assessment
Number of trainees in long-term programs facilitated by CRP (male)	None
Number of trainees in long-term programs facilitated by CRP (female)	
Number of technologies/NRM practices under research in the CRP (Phase I)	None
% of technologies under research that have an explicit target of women farmers	N/A
% of technologies under research that have been assessed for likely gender-disaggregated impact	N/A
Sub-category of the above “number of technologies” – i.e. cannot be added to the above, as they are included in the above aggregate indicator	
Number of specialized genetic stocks (accessions and genotypes of wild relatives and landraces, special mapping populations, mutation stocks, etc.) for gene discovery and pre-breeding	None
Number of published/identified new genes, markers, or QTLs and made available to scientists and breeder globally	None
Number of new germplasm with improved traits ⁴ shared with (public and private sector) partners for testing and release (via international trials and nurseries)	None
Number of International Nurseries, Yield trials, PVS, etc. for germplasm evaluation conducted by CRP partners	None
Number of technologies /NRM practices field tested (phase II)	None
Number of technologies/NRM practices released by public and private sector partners globally (phase III)	None
POLICIES IN VARIOUS STAGES OF DEVELOPMENT	
Numbers of Policies/ Regulations/ Administrative Procedures	(7)Delivery of genetics and breeding services issues and constraints raised by

⁴ yield potential, biotic and abiotic stress tolerance, nutritional quality, sensory and cooking quality, feed quality, etc. inbreds and hybrids.

Analyzed (Stage 1)	<p>stakeholders but not yet analysed are:</p> <ul style="list-style-type: none"> a) Certification of artificial insemination (AI) technicians is too restricted (by the Veterinary Surgeons Act) for efficient delivery of services b) The regulator of breeding services is also an active practitioner. What is the optimal public-private-partnership (PPP) for delivery of breeding services? c) Animal registration, recording and evaluation are administered by too many bodies d) Animal registration, performance recording and genetic evaluation are administered solely by a government agency with inadequate capacity to deliver on the service. What is the optimal PPP for this? e) Animal Breeding Bill needs to be submitted to Attorney General f) Brucellosis needs to be made a notifiable disease so testing and control are made mandatory and publicly funded g) There is no information system capturing livestock identification, registration, recording for breeding improvement and traceability
Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	None
Number of policies / regulations / administrative procedures presented for legislation(Stage 3)	None
Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	None
Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)	None
OUTCOMES ON THE GROUND	
Number of hectares under improved technologies or management practices as a result of CRP research	None
Number of farmers and others who have applied new technologies or management practices as a result of CRP research	None

Theme 3 Feeds and Forages

Objective/Outcome 3.1: Development actors are promoting and significant numbers of smallholder farmers and small scale aquaculture producers are using superior feed and forage options for ruminants, monogastric animals and fish responding to actual and evolving demands to enhance meat, milk and fish production and reduce the ecological footprint		
Output 3.1.1 Research platform and tools to support feed research		
Milestones	Status	Explanation and evidence
3.1.2.1 Tools that help targeting feed resources to VC and prioritize and optimize their usage in VC	Partially accomplished	2012 Activity: Characterize feed systems in VC and test feed technology and feed VC development tools. Progress: <ul style="list-style-type: none"> • Feeds assessments conducted alongside other VC assessments (Irish Aid, IFAD) • Use of FEAST tool piloted in Pemba (IFAD) Achievements: Adapted tools can be accessed under Feed Assessment: http://milkit.wikispaces.com/Feed+Assessment
Output 3.1.3 More feed of higher quality.		
Milestones	Status	Explanation and evidence
3.1.3.1 Superior food-feed-fodder and forage cultivars identified	N/A	<ul style="list-style-type: none"> • N/A for Tanzania
KNOWLEDGE, TOOLS, DATA		
Number of flagship “products” ⁵ produced by CRP		Piloting of feeds assessment FEAST tool (IFAD) adapted to the Tanzania smallholder dairy value chain Feed Assessment: http://milkit.wikispaces.com/Feed+Assessment
% of flagship products produced that have explicit target of women farmers/NRM managers		100%
% of flagship products produced that have been assessed for likely gender-disaggregated impact		100%
Number of “tools” produced by CRP --		Feed assessment tools – for assessing current feeding practices and feed-related constraints.

⁵ indicates something significant enough and complete enough to have been highlighted on web pages, publicised through blog stories, press releases and/or policy briefs, and be available to those seeking information on them.

% of tools that have an explicit target of women farmers --	100%
% of tools assessed for likely gender-disaggregated impact --	100%
Number of open access databases maintained by CRP	Value Chain Development - Tanzania
Total number of users of these open access databases	
Number of publications in ISI journals produced by CRP	None
Number of strategic value chains analyzed by CRP	<p>Smallholder dairy value chains featuring variation from pre-commercial producers with limited market access (R-to-R) to those better-linked to more vertically coordinated value chains (R-to-U) as described below:</p> <p>a) Relatively more commercial rural dairy production to urban consumption (R-to-U) comprising improved cattle (exotic/ crosses) producers with intensive & semi intensive (stall-fed/semi-grazing) grazing management.</p> <p>b) Mostly pre-commercial rural dairy production to rural consumption (R-to-R) comprising Tanzania short horn Zebu producers with extensive/pastoral and sedentary grazing management</p> <p>See Value Chain Development - Tanzania</p>
CAPACITY ENHANCEMENT AND INNOVATION PLATFORMS	
Number of trainees in short-term programs facilitated by CRP (male)	<p>IFAD funded MilkIT project</p> <ul style="list-style-type: none"> ○ 4 males from the IFAD-funded ASSP/ASDP-L Projects at the Ministry of Agriculture and Natural Resources, Pemba, were trained on the feed assessment tool, FEAST <p>Irish Aid MoreMilkIT: 13 males were trained on the application of participatory methods for feeds assessment.</p>
Number of trainees in short-term programs facilitated by CRP (female)	<p>IFAD funded MilkIT project</p> <ul style="list-style-type: none"> ○ 1 female from the IFAD-funded ASSP/ASDP-L Projects at the Ministry of Agriculture and Natural Resources, Pemba, were trained on the feed assessment tool, FEAST <p>Irish Aid MoreMilkIT: 3 females trained on the application of participatory methods for feeds assessment</p>
Number of trainees in long-term programs facilitated by CRP (male)	None

Number of trainees in long-term programs facilitated by CRP (female)	None
TECHNOLOGIES/PRACTICES IN VARIOUS STAGES OF DEVELOPMENT	
Number of technologies/NRM practices under research in the CRP (Phase I)	3. The DMHs to be piloted are: 1) DMHs revolving around chilling plants or just accessing them (if under-utilized) through transport arrangements that provide both outputs marketing and inputs and services through check-offs; 2) hubs revolving around check-offs for inputs and services provided through milk traders (a similar one is being piloted in Uganda under the East African Dairy Development project); and 3) hubs revolving around check-offs for inputs and services provided through cattle traders. see further details of Outcome Mapping under Program news: Tanzania dairy value chain stakeholders map outcomes
% of technologies under research that have an explicit target of women farmers	66%
% of technologies under research that have been assessed for likely gender-disaggregated impact	66%
Sub-category of the above “number of technologies” – i.e. cannot be added to the above, as they are included in the above aggregate indicator	
Number of specialized genetic stocks (accessions and genotypes of wild relatives and landraces, special mapping populations, mutation stocks, etc.) for gene discovery and pre-breeding	None
Number of published/identified new genes, markers, or QTLs and made available to scientists and breeder globally	None
Number of new germplasm with improved traits ⁶ shared with (public and private sector) partners for testing and release (via international trials and nurseries)	None
Number of International Nurseries, Yield trials, PVS, etc. for germplasm evaluation conducted by CRP partners	None

⁶ yield potential, biotic and abiotic stress tolerance, nutritional quality, sensory and cooking quality, feed quality, etc. inbreds and hybrids.

Number of technologies /NRM practices field tested (phase II)	None
Number of technologies/NRM practices released by public and private sector partners globally (phase III)	None
POLICIES IN VARIOUS STAGES OF DEVELOPMENT	
Numbers of Policies/ Regulations/ Administrative Procedures Analyzed (Stage 1)	(5) Feeds quality standards issues and constraints raised by stakeholders but not yet analysed are: <ul style="list-style-type: none"> a) Compounded feed standards are variable and are based on recommendation of cattle with high genetic composition. Related technical question is how to develop recommendations that take into account genetic potential of cattle b) Feed quality is variable in spite of the standards i.e. poor enforcement of standards and lack of stakeholders participation c) Sourcing and importation of forage seeds are heavily controlled by the government thus restricting free flow d) Training and certification of small scale forage seed producers are currently restricted e) Certification of small scale compounded feed producers who are currently considered illegal (this restricts opportunities to grow markets and improve quality)
Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	None
Number of policies / regulations / administrative procedures presented for legislation(Stage 3)	None
Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	None
Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)	None
OUTCOMES ON THE GROUND	
Number of hectares under improved technologies or management practices as a result of CRP research	None
Number of farmers and others who have applied new technologies	None

or management practices as a result of CRP research	
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Theme 4 (Value Chain Development (VCD) Theme		
Objective/Outcome 4.1		
Output 4.1.1 Methods and tools developed and applied to identify potential interventions for improved VC performance		
Milestones	Status	Explanation and evidence
4.1.1.1 Preliminary set of methods, models and tools for rapid VC assessment developed, and pre-tested in three value chains	Partially accomplished	<p>2012 Activity: Establish sectoral baseline through situational analyses.</p> <p>Progress:</p> <ul style="list-style-type: none"> • Draft conceptual framework and reporting outline developed (CRP funds) • Secondary data collected (Irish Aid) • Situational analysis conducted (Irish Aid) • Report being refined and edited (CRP funds) <p>Achievements: N/A</p> <p>2012 Activity: Draft generic rapid VC assessment tools completed</p> <p>Progress:</p> <ul style="list-style-type: none"> • Draft VCA toolkit and process guideline developed (Irish Aid) <p>Achievements: N/A</p>
4.1.1.2 VC assessments completed for the target VCs	Partially accomplished	<p>2012 Activity: Rapid VC assessments initiated</p> <p>Progress:</p> <ul style="list-style-type: none"> • Draft VCA methods and tools for assessing animal health, feed, breeding and VC performance developed and applied (Irish Aid CRP funds). See tool-kit (these are being refined) • VC assessments conducted (Irish Aid) • Report being refined and edited (Irish Aid) • New proposal prepared and submitted <p>Achievements:</p>

		N/A
4.1.1.3 Potential interventions at scale for improved VC performance identified and prioritised	Partially accomplished	<p>2012 Activity: Inventory of relevant experiences, strategies, best-bets established</p> <p>Progress:</p> <ul style="list-style-type: none"> • Best bet interventions for piloting identified through outcome mapping (Irish Aid) • Review of past successes and failures initiated (Irish Aid) • New proposal prepared and submitted <p>Achievements:</p> <p>N/A</p>
KNOWLEDGE, TOOLS, DATA		
Number of flagship “products” ⁷ produced by CRP		None
% of flagship products produced that have explicit target of women farmers/NRM managers		N/A
% of flagship products produced that have been assessed for likely gender-disaggregated impact		N/A
Number of “tools” produced by CRP --		<p>8, listed below:</p> <ol style="list-style-type: none"> 1. Seasonal calendar - for assessing seasonality of rainfall, income, expenditures and labour. 2. Community sketch map/institutional interactions tool – assessing institutions operating in the farmers’ environment, what they do and farmers’ perception of their importance and interactions. 3. Activity clock + decision making tool - for assessing gender roles in cattle production and milk marketing. 4. Decision-making tool – assessment of decision making and control of resources. 5. Livelihood analysis – identification of important livelihood activities and income sources. 6. Value chain mapping tool with producers – for mapping out and characterizing

⁷ indicates something significant enough and complete enough to have been highlighted on web pages, publicised through blog stories, press releases and/or policy briefs, and be available to those seeking information on them.

	<p>the market channels and the relations within the value chain.</p> <p>7. Value chain mapping tool with inputs and service providers - for mapping out and characterizing channels for inputs and services and the relations within the value chain</p> <p>8. Value chain mapping with milk traders and vendors - for mapping out and characterizing post-harvest value chain actors and the relations within the value chain</p>
% of tools that have an explicit target of women farmers --	100%
% of tools assessed for likely gender-disaggregated impact --	100%
Number of open access databases maintained by CRP	Value Chain Development - Tanzania
Total number of users of these open access databases	
Number of publications in ISI journals produced by CRP	None
Number of strategic value chains analyzed by CRP	<p>Smallholder dairy value chains featuring variation from pre-commercial producers with limited market access (R-to-R) to those better-linked to more vertically coordinated value chains (R-to-U) as described below:</p> <p>a) Relatively more commercial rural dairy production to urban consumption (R-to-U) comprising improved cattle (exotic/ crosses) producers with intensive & semi intensive (stall-fed/semi-grazing) grazing management.</p> <p>b) Mostly pre-commercial rural dairy production to rural consumption (R-to-R) comprising Tanzania short horn Zebu producers with extensive/pastoral and sedentary grazing management</p> <p>See Value Chain Development - Tanzania</p>
CAPACITY ENHANCEMENT AND INNOVATION PLATFORMS	
Number of trainees in short-term programs facilitated by CRP (male)	<p>Irish Aid MoreMilkiT:</p> <ul style="list-style-type: none"> o 13 males were trained on the application of participatory methods for value chain assessment.
Number of trainees in short-term programs facilitated by CRP (female)	<p>Irish Aid MoreMilkiT:</p> <ul style="list-style-type: none"> o 3 females trained on the application of participatory methods for value chain assessment.
Number of trainees in long-term programs facilitated by CRP	None

(male)	
Number of trainees in long-term programs facilitated by CRP (female)	None
TECHNOLOGIES/PRACTICES IN VARIOUS STAGES OF DEVELOPMENT	
Number of technologies/NRM practices under research in the CRP (Phase I)	3. The DMHs to be piloted are: 1) DMHs revolving around chilling plants or just accessing them (if under-utilized) through transport arrangements that provide both outputs marketing and inputs and services through check-offs; 2) hubs revolving around check-offs for inputs and services provided through milk traders (a similar one is being piloted in Uganda under the East African Dairy Development project); and 3) hubs revolving around check-offs for inputs and services provided through cattle traders. see further details of Outcome Mapping under Program news: Tanzania dairy value chain stakeholders map outcomes
% of technologies under research that have an explicit target of women farmers	66%
% of technologies under research that have been assessed for likely gender-disaggregated impact	66%
Sub-category of the above “number of technologies” – i.e. cannot be added to the above, as they are included in the above aggregate indicator	
Number of specialized genetic stocks (accessions and genotypes of wild relatives and landraces, special mapping populations, mutation stocks, etc.) for gene discovery and pre-breeding	None
Number of published/identified new genes, markers, or QTLs and made available to scientists and breeder globally	None
Number of new germplasm with improved traits ⁸ shared with (public and private sector) partners for testing and release (via international trials and nurseries)	None
Number of International Nurseries, Yield trials, PVS, etc. for	None

⁸ yield potential, biotic and abiotic stress tolerance, nutritional quality, sensory and cooking quality, feed quality, etc. inbreds and hybrids.

germplasm evaluation conducted by CRP partners	
Number of technologies /NRM practices field tested (phase II)	None
Number of technologies/NRM practices released by public and private sector partners globally (phase III)	None
POLICIES IN VARIOUS STAGES OF DEVELOPMENT	
Numbers of Policies/ Regulations/ Administrative Procedures Analyzed (Stage 1)	(1) Main issue identified but not yet analysed is: Lack of stakeholder controlled small-scale dairy traders' and business providers' associations to contribute to empowerment of their members
Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	None
Number of policies / regulations / administrative procedures presented for legislation(Stage 3)	None
Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	None
Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)	None
OUTCOMES ON THE GROUND	
Number of hectares under improved technologies or management practices as a result of CRP research	None
Number of farmers and others who have applied new technologies or management practices as a result of CRP research	None

Theme 5 Targeting and Sustainable Interventions		
Objective/Outcome 5.1: Effective targeting, implementation and scaling out of pro-poor sustainable animal sourced food value chains development action		
Output 5.1.1 Promising VCs and sites are identified		
Milestones	Status	Explanation and evidence

<p>5.1.1.1.Potential areas for intervention in VCs in 3 countries characterized by the end of 2012: Tanzania, Uganda, Ethiopia</p>	<p>Accomplished</p>	<p>2012 Activity: Prepare maps, tables, reports and databases.</p> <p>Progress:</p> <ul style="list-style-type: none"> Sites selection conducted <p>Achievements</p> <ul style="list-style-type: none"> Targeting report produced comprising GIS Maps and characterization (CRP funds). See Tanzania targeting report Stakeholder consultations to verify sites and ground-truthing of identified sites completed (Irish Aid). See pre site selection scoping study presentation <p>Geographic sites ideal for piloting interventions and drawing inferences for scaling out are in Morogoro Region (Kilosa and Mvomero districts) and in Tanga Region (Handeni and Lushoto districts). Kilosa and Handeni districts represent mostly pre-commercial rural production for rural consumption (R-to-R); while Mvomero and Lushoto districts represent relatively more commercial rural production for urban consumption (R-to-U). Urban consumption centres have been defined as those markets with over 50,000 inhabitants</p>
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Theme 6 Gender		
Objective/Outcome 6.1 To generate gender strategies and tools for value chain analysis and development that improve the nature and level of participation by women and marginalized groups and are used by value chain scientists and partners within the context of the CRP and beyond		
Output 6.1.1 Increased gender capacity within CG's, partner organizations, and value chain actors to diagnose and overcome gender based constraints within value chains		
Milestones	Status	Explanation and evidence
No milestone targeted in 2012	N/A	All VCA tools developed were gendered where appropriate. Further, gender mainstreaming is already generating gender-related insights; for example, potential benefits from 66% of flag-ship products identified will flow disproportionately to women because they apply to short dairy value chains dominated by women and marginalized.
KNOWLEDGE, TOOLS, DATA		

Number of flagship “products” ⁹ produced by CRP	Ex-ante gender analysis focus group discussions report used to target communities to understand the role that women and men play in goat and root crop production (IDRC through SUA)
% of flagship products produced that have explicit target of women farmers/NRM managers	100%
% of flagship products produced that have been assessed for likely gender-disaggregated impact	100%
Number of “tools” produced by CRP --	No specific one. All tools were gendered where appropriate
% of tools that have an explicit target of women farmers --	100%
% of tools assessed for likely gender-disaggregated impact --	100%
Number of open access databases maintained by CRP	Value Chain Development - Tanzania
Total number of users of these open access databases	
Number of publications in ISI journals produced by CRP	None
Number of strategic value chains analyzed by CRP	Smallholder dairy value chains featuring variation from pre-commercial producers with limited market access (R-to-R) to those better-linked to more vertically coordinated value chains (R-to-U) as described below: a) Relatively more commercial rural dairy production to urban consumption (R-to-U) comprising improved cattle (exotic/ crosses) producers with intensive & semi intensive (stall-fed/semi-grazing) grazing management. b) Mostly pre-commercial rural dairy production to rural consumption (R-to-R) comprising Tanzania short horn Zebu producers with extensive/pastoral and sedentary grazing management See Value Chain Development - Tanzania
CAPACITY ENHANCEMENT AND INNOVATION PLATFORMS	
Number of trainees in short-term programs facilitated by CRP (male)	IDRC funded CGP Project with SUA&UA – <ul style="list-style-type: none"> ○ 10 male project staff from SUA and MLDF were trained by ILRI on the gender and monitoring and evaluation in February 2012: ○ 51 males trained in community based M&E

⁹ indicates something significant enough and complete enough to have been highlighted on web pages, publicised through blog stories, press releases and/or policy briefs, and be available to those seeking information on them.

Number of trainees in short-term programs facilitated by CRP (female)	IDRC funded CGP Project with SUA&UA – <ul style="list-style-type: none"> ○ 3 female project staff from (1 SUA and 2 MLDF staff) were trained by ILRI on the gender and monitoring and evaluation in February 2012 ○ 30 females trained in community based M&E
Number of trainees in long-term programs facilitated by CRP (male)	None
Number of trainees in long-term programs facilitated by CRP (female)	None
TECHNOLOGIES/PRACTICES IN VARIOUS STAGES OF DEVELOPMENT	
Number of technologies/NRM practices under research in the CRP (Phase I)	None
% of technologies under research that have an explicit target of women farmers	N/A
% of technologies under research that have been assessed for likely gender-disaggregated impact	N/A
Sub-category of the above “number of technologies” – i.e. cannot be added to the above, as they are included in the above aggregate indicator	
Number of specialized genetic stocks (accessions and genotypes of wild relatives and landraces, special mapping populations, mutation stocks, etc.) for gene discovery and pre-breeding	None
Number of published/identified new genes, markers, or QTLs and made available to scientists and breeder globally	None
Number of new germplasm with improved traits ¹⁰ shared with (public and private sector) partners for testing and release (via international trials and nurseries)	None
Number of International Nurseries, Yield trials, PVS, etc. for germplasm evaluation conducted by CRP partners	None
Number of technologies /NRM practices field tested (phase II)	None
Number of technologies/NRM practices released by public and private sector partners globally (phase III)	None

¹⁰ yield potential, biotic and abiotic stress tolerance, nutritional quality, sensory and cooking quality, feed quality, etc. inbreds and hybrids.

POLICIES IN VARIOUS STAGES OF DEVELOPMENT	
Numbers of Policies/ Regulations/ Administrative Procedures Analyzed (Stage 1)	None
Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	None
Number of policies / regulations / administrative procedures presented for legislation(Stage 3)	None
Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	None
Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)	None
OUTCOMES ON THE GROUND	
Number of hectares under improved technologies or management practices as a result of CRP research	None
Number of farmers and others who have applied new technologies or management practices as a result of CRP research	None

Theme 7 Learning (M&E and Impact Assessment)		
Objective/Outcome 7.2 Develop a robust set of monitoring, evaluation, impact assessment and learning mechanisms to maximize the probability of achieving intended impact, document the level and manner of that impact and the outcomes that brought it about, understand and support the processes of innovation and AR4D to improve performance, and support internal M&E, planning and management		
Output 7.2.1 A monitoring, evaluation and impact assessment framework for AR4D for pro-poor value chain development		
Milestones	Status	Explanation and evidence
7.2.1 Proposal for a program M&E/IA framework developed, including VC level frameworks"	Partially Accomplished	<p>2012 Activity: Draft framework developed:</p> <p>Progress:</p> <ul style="list-style-type: none"> • Best bet interventions for piloting identified through outcome mapping (Irish Aid). See Value Chain Development - Tanzania • Steps initiated to tailor original impact pathways to reflect the identified interventions for piloting in the Tanzania context <p>Achievements</p>

		<ul style="list-style-type: none"> N/A
KNOWLEDGE, TOOLS, DATA		
Number of flagship “products” ¹¹ produced by CRP		None
% of flagship products produced that have explicit target of women farmers/NRM managers		N/A
% of flagship products produced that have been assessed for likely gender-disaggregated impact		N/A
Number of “tools” produced by CRP --		None
% of tools that have an explicit target of women farmers --		N/A
% of tools assessed for likely gender-disaggregated impact --		N/A
Number of open access databases maintained by CRP		Value Chain Development - Tanzania
Total number of users of these open access databases		
Number of publications in ISI journals produced by CRP		None
Number of strategic value chains analyzed by CRP		<p>Smallholder dairy value chains featuring variation from pre-commercial producers with limited market access (R-to-R) to those better-linked to more vertically coordinated value chains (R-to-U) as described below:</p> <p>a) Relatively more commercial rural dairy production to urban consumption (R-to-U) comprising improved cattle (exotic/ crosses) producers with intensive & semi intensive (stall-fed/semi-grazing) grazing management.</p> <p>b) Mostly pre-commercial rural dairy production to rural consumption (R-to-R) comprising Tanzania short horn Zebu producers with extensive/pastoral and sedentary grazing management</p> <p>See Value Chain Development - Tanzania</p>
CAPACITY ENHANCEMENT AND INNOVATION PLATFORMS		
Number of trainees in short-term programs facilitated by CRP (male)		None

¹¹ indicates something significant enough and complete enough to have been highlighted on web pages, publicised through blog stories, press releases and/or policy briefs, and be available to those seeking information on them.

Number of trainees in short-term programs facilitated by CRP (female)	None
Number of trainees in long-term programs facilitated by CRP (male)	None
Number of trainees in long-term programs facilitated by CRP (female)	None
TECHNOLOGIES/PRACTICES IN VARIOUS STAGES OF DEVELOPMENT	
Number of technologies/NRM practices under research in the CRP (Phase I)	None
% of technologies under research that have an explicit target of women farmers	N/A
% of technologies under research that have been assessed for likely gender-disaggregated impact	N/A
Sub-category of the above “number of technologies” – i.e. cannot be added to the above, as they are included in the above aggregate indicator	
Number of specialized genetic stocks (accessions and genotypes of wild relatives and landraces, special mapping populations, mutation stocks, etc.) for gene discovery and pre-breeding	None
Number of published/identified new genes, markers, or QTLs and made available to scientists and breeder globally	None
Number of new germplasm with improved traits ¹² shared with (public and private sector) partners for testing and release (via international trials and nurseries)	None
Number of International Nurseries, Yield trials, PVS, etc. for germplasm evaluation conducted by CRP partners	None
Number of technologies /NRM practices field tested (phase II)	None
Number of technologies/NRM practices released by public and private sector partners globally (phase III)	None
POLICIES IN VARIOUS STAGES OF DEVELOPMENT	
Numbers of Policies/ Regulations/ Administrative Procedures	None

¹² yield potential, biotic and abiotic stress tolerance, nutritional quality, sensory and cooking quality, feed quality, etc. inbreds and hybrids.

Analyzed (Stage 1)	
Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	None
Number of policies / regulations / administrative procedures presented for legislation(Stage 3)	None
Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	None
Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)	None
OUTCOMES ON THE GROUND	
Number of hectares under improved technologies or management practices as a result of CRP research	None
Number of farmers and others who have applied new technologies or management practices as a result of CRP research	None

D. Partnerships building achievements

Major engagement has been established through partnerships with Sokoine University of Agriculture (SUA) and the Tanzania Dairy Board (TDB). A key achievement was in relation to the Dairy Development Forum (DDF) that was initiated at the stakeholder gathering held in Morogoro on 9 March 2012. The DDF is envisaged as an informal mechanism for vertical coordination of field activities and addressing systemic bottlenecks and co-creating solutions at national and milk-shed levels with proposed membership across all key public and private sector players in the dairy sector. Even though the overarching policy framework is largely supportive, the DDF can be an influential platform for advocacy for the required policy shift towards a more inclusive dairy development in Tanzania. The TDB has welcomed the DDF proposal and will act as the Secretariat with ILRI as part of an Advisory Committee to the Secretariat alongside other NGOs involved in dairy development: Heifer-Tanzania, SNV Netherlands Development Organisation, Land O'Lakes (LOL), as well as Ministry of Fisheries and Livestock Development (MLFD).

The formation of the DDF is a significant early win in establishing a mechanism for raising visibility among stakeholders and policy makers, thanks to the funding support that was secured from Irish Aid at the start of 2012 to support activities that were well aligned to those envisaged for Tanzania under the Livestock and Fish CGIAR Research Program - a clear sign of commitment by Irish Aid to the CGIAR Change Process and more specifically the program.

Additionally, we scanned the NGO landscape and through the rapid assessment identified potential candidates for building of strategic partnerships during the piloting of interventions phase of the R4D. The scanning was based on the following criteria: track record on business-oriented farmer and value chain actor engagement; understanding and experience with pro-poor value chain development; understanding and experience with dairy development; demonstrated cost effectiveness and efficiency; proven capacity to deploy and manage field staff; and, experience in rural development and collective action. Candidate NGOs identified and with whom we have begun to pursue partnership agreements are Heifer Project International – Tanzania and SNV - Netherlands Development Organisation.

E. Capacity Building

Longterm students:

- 1) Fredrick Onyango (male, enrolled at University of Wageningen, The Netherlands): MSc study title: The Animal Health, Zoonoses and Food Safety Risks Identification and Ranking in Morogoro and Tanga Regions of Tanzania. Student supported under Safe Food, Fair Food Project of the CGIAR Research Program on Agriculture for Nutrition and Health
- 2) Fortunata Shija (female, enrolled at SUA with co-supervision from ILRI and the Federal Institute for Risk Assessment (BfR), Germany); MSc study title: Pathogen flows along the dairy value chain in Tanga Region, Tanzania
- 3) Ernesta Joseph (female, enrolled at SUA with co-supervision from ILRI and the Federal Institute for Risk Assessment (BfR), Germany); MSc study title: Pathogen flows along the dairy value chain in Morogoro Region; Tanzania

Shortterm

- Irish Aid funded MoreMilkiT and MBZ/GIZ funded SFFF:16 (13 male and 3 female) trained on the application of participatory methods for value chain assessment.
- IDRC funded CGP Project with SUA&UA –
 - Thirteen project staff (10 males and 3 females) from SUA and MLDF were trained by ILRI on the gender and monitoring and evaluation in February 2012:
 - For the community based M&E component, a total of 81 group members were trained (51 male and 30 female members).

- IFAD funded MilkIT project
 - Five staff (4 males and 1 female) from the IFAD-funded ASSP/ASDP-L Projects at the Ministry of Agriculture and Natural Resources, Pemba, were trained on the feed assessment tool, FEAST, in July 2012

F. Risk Management

Major risks:

1. **Insufficient resources mobilized to permit implementation of activities:** ILRI, SUA and other partners in Tanzania have addressed this by successful implementation of the Irish Aid inception phase and preparation of the implementation phase proposal, which is likely to be funded. The partners are now prepared to embark on the follow up R4D phase 2013-2016 with potential additional Irish Aid funding of €1.4m.
2. **Inclusive model for dairy development promoted by the CRP does not get visibility and consideration by policy makers and development investors in Tanzania:** This is being addressed through the support provided by the program to establish the Dairy Development Forum, as explained above.
3. **Inability to operate effectively in Tanzania due to lack of an agreement between ILRI and the government of Tanzania:** Establishing a temporary agreement with IITA for ILRI to be hosted in Tanzania under IITA's host country agreement there is nearly completed, as ILRI considers whether it needs to establish its own separate host country agreement.

G. Lessons Learned

- Analysis of variance from what was planned:
 - i. Description, if relevant, of research avenues that did not produce expected results, and description of implications for the program, such as new research directions and their expected outputs and outcomes.
 - Apart from the challenges enumerated above, progress has proceeded as planned. We highlight that though the pro-poor approach to 'grow' the identified pre-commercial dairy value chains is riskier than traditional dairy value chain development approaches that often target high potential areas with better-off farms (smallholder and otherwise) and capital intensive investments in cold chains, it will impact more people—especially among the poor with a larger share women—if successful. The program therefore needs to invest significant resources in identifying and resolving potential challenges that might prevent success. An initial step that needs immediate follow up in 2013 is the tailoring of the original impact pathways in the proposal to suit the local circumstances.
 - ii. Discussion of the cost and budget implications of the variance from the planned program.
 - As stated above, the program needs to invest significant resources to the rapidly growing demand for research to improve the dairy VC in Tanzania. It is anticipated that program resources will be available to support two additional post-docs for feed and animal health, besides the VC economist position supported through Irish Aid funding.
 - iii. In the light of the progress accomplished, confirm whether the original impact pathways in the proposal still stand or if amendments are needed to achieve expected impact. Implications of these amendments for the partnerships of the program.
 - Though the original impact pathways still stand, they need to be tailored to reflect the interventions identified for piloting in the Tanzania context.