



4th Dairy Development Forum

DAY TWO – TUESDAY 7TH OCTOBER 2014

Business solutions for year round availability of quality dairy feeds

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1. Background

This report is a continuation of the 4th DDF meeting, which was guided by the 3rd DDF meeting held in February 2014, where members decided to focus on Dairy Genetics in the first day and Feeds and Feeding in the second day. The DDF Advisory Committee in its meeting on 23 June 2014 tasked the TDB the Secretariat to ask Dr. Angello Mwilawa one of the senior forage scientists in the country to prepare a discussion paper on. "Availability of quality year round dairy feeds" with support from Dr. Ben Lukuyu, Dr. J. Bwire, Dr. B. Maass and Dr. A. Kitanyi. The discussions will form the basis for drawing task forces to address challenges in this area. The AC suggested that the paper should set the stage for stakeholders discussion on challenges that hinder year around availability of quality feeds as well as opportunities around feeds production, pasture seeds production, seed multiplication, seeds release and certification and other relevant issues. Follow-up planning for the Feeds and Feeding day borrowed on MilkIT project experiences else where and a contributed a framework to support the drafting of the paper. The framework had five key areas namely; Farm level feed resources; Forage Seed Systems; Compounded Feeds; Seeds; Fodder marketing and water.

2. Introductions and scene setting

2.1 Opening remarks

Once again on behalf of the DDF Advisory Committee, Dr. Yakobo Msanga welcomed the participants to Dar es Salaam and especially their willingness to participate in the important DDF meeting to discuss one of pertinent issues affecting the performance of the dairy industry in Tanzania that is Feeds and Feeding for dairy in Tanzania. Thus, discussion will focus on: *Business solutions for year-round availability of quality feeds.*

Figure 1 Dr. Msanga of MLFD giving an opening remark

A keynote paper with a title: *Situational Analysis of Year-round availability of quality feeds in Tanzania* will be presented to set a scene and guide the discussion around the challenges that hinder year round availability of quality feeds including challenges and opportunities with respect to; feed production, pasture seeds production, seed multiplication, seeds release and certification and other relevant issues. In this context feeds include; pastures, concentrates and other types of non-conventional feedstuffs.

Dr. Msanga emphasized that in this meeting it is expected that various stakeholders present will discuss the challenges affecting diverse dairy feed resources and come up with solutions to build on interventions.

2.2 Recap of Day One activities

The facilitator presented the Agenda of the Day to participants (Appendix 2) and invited the Process Steering Group (PSG) to present the highlights of Day One activities. The process was successful, however encouraged active participation in both group work and plenary sessions. Participants should avoid side meetings by consulting the Facilitator on issues for clarification and respect to other agreed meeting rules. Also, there is a need to continue creating awareness amongst value chain actors to acknowledge the fact that DDF is a mechanism through which TDB and MLFD interact with stakeholders and implement their roles.

2.3 Introductions, who is in the room

During the introduction participants were required to group themselves with respect to the positions they belong to along the value chain as actors. The value chain actors attending the meeting are shown in Figure 1 below in which out of forty one participants (41), majority are researchers (18) whereas dairy farmers and feed manufacturers were 7 and 6 respectively. Notably, the private sector was not represented implying the need to strategise better and attract a more inclusive representation in line with DDF Vision, "Towards more inclusive Dairy Development in Tanzania. Appendix 2 shows the list of participants, which combine Day 1 and Day 2.



Figure 2: Value chain actors representation in Day Two of the 4th DDF meeting

2.4 Challenge statements/questions (voting with feet) – ice breaker

Challenge statements subjected to perceptual points of view by the participants was used as an ice breaker for the theme of the day. The Facilitator asked challenging statements/questions and put on the floor five cards representing a 'Likert scale' signifying different opinions (*Agree fully; agree a bit; neutral; disagree a bit; and disagree completely*). Participants were requested to assemble near the card that best describe their opinion regarding the statements. The outcome of this exercise would assist to support the process of co-creating solutions/interventions to the identified bottlenecks during group work sessions. Three challenge statements/questions were asked and participants (number in brackets) responses are as detailed under each statement below:

2.4.1 Statement one: Forages and dairy feeds agribusiness is NOT profitable in Tanzania

DAY 2: from a horse's mouth

Huruma a farmer from Njombe Districts in Southern Highlands disagreed completely with the statement and testified that she withdrew from dairy farming and concentrated into forage production because it is very profitable. Forage production the yield is very high and good price for both pasture and forage seeds compared to maize. Prices for seeds and hay bales are; Tsh. 15,000/= and Tsh. 3,000/= respectively. The market is readily available because the demand is very high. Furthermore, she compared forage production with maize whose cost of production is very high due to required inputs i.e. fertilizers, seeds, herbicides, and labour.

Figure 3 Participants voting with feet to indicate perceptual opinion on the challenge statement

There were varying responses to the statement such that most participants out of 41 believe that forage and dairy feeds agribusiness is profitable in Tanzania by responding to *disagree completely* (15) and *disagree a bit* (11) against one participants who *agrees fully* and *agree a bit* (2). A good number of participants did not agree or disagree with the statement and were *neutral* (12).

Participants who believe that forage and dairy feeds agribusiness in Tanzania is profitable compared to growing maize due to the following reasons:

- high cost of producing maize i.e. seeds, fertilizer etc
- growing pastures, means more feeds to feed for more milk, more manure for farms and biogas and
- pastures seed market is readily available

However, participants who partially agree (*disagree a bit*) that there is business are of the opinion that there is no reliable information indicating the extent of forage demand in the country. Thus, in the absence of what is available in the market and poor quality feeds produced discourage consumers/buyers. Feed conservation is not practiced due to lack of knowledge. Also, hay making is possible only end of the growing (seasonal) and involves high cost of production due to machinery required for profitable business.

Only one participant *agreed fully* with the statement because in Tanzania, almost 90% of farmers neither grow pastures nor compound feeds. Animals are fed directly under natural grasslands or gather feeds from natural pastures for stall-feeding (cut and carry). Hence, if one attempts the business, there will be no market or a very low demand.

Two participants believe that somehow (*disagree a bit*) forage/feeds business is profitable in Tanzania due to the fact that according to data available milk 30% of milk is produced from the informal sector and only 10% goes to the market. However, farmers engage in dairy farming as a tradition or part of inheritance and not as business. Although farmers realize that good animal feeding means more milk, if there is no reliable market, they are not convinced to grow feeds/ or buy to feed for more milk.

The second majority of the responses were the *neutral group* (12) which neither agreed nor disagreed with the statement on different rating pointing out that there is no information/data on any economic analysis conducted on forage production and feed compounding to find out if it is good business. Other reasons given include:

- high risk involved in hay making because it is weather dependent
- variability and scale of production would impact greatly on the business

- high cost of production amid absence of credit support (loans) from financial institutions to the industry because it is considered risky

2.4.2 Statement two: Forage seeds in Tanzania are widely and readily available

Majority of the respondents (18) *disagree completely* with the statement followed by participants (14) who responded to *disagree a bit*. Those who *disagree completely* and those who are *neutral* (5) compared the availability of forage seeds with that of maize seeds and other traditional crops whose seeds are available in agro-dealer shops. The available literature reveals that pasture seeds are not available, and no study has been conducted to that effect. Also, the Agricultural Seed Agency (ASA) under the Ministry of Agriculture, Food Security and Cooperatives (MAFC) does not deal with forage/pasture seeds.

Although the respondents (4) who *agree a bit* mentioned that few available local seeds are of poor quality, respondents (14) who *disagree a bit* pointed out that a lot of local species are readily available providing an opportunity to conduct studies on their suitability. Reminded that many years ago local/native species from Tanzania were taken to Australia/New Zealand for improvement and brought back as good materials.

These responses are an indication that forage seeds are not widely and readily available in the country and urged ASA to review their functions and include multiplication of pasture/forage seeds.

Figure 4 Foot voting for perceptual opinion on challenge statement neutral group

3. PAPER PRESENTATION

Key note paper: BUSINESS SOLUTIONS FOR YEAR ROUND AVAILABILITY OF QUALITY FEEDS IN TANZANIA

by Mwilawa A,J; Lukuyu, B.; Kitalyi, A.J. and Maass, B.L.

An overview of the key note paper covered three major issues namely:

- (i) Constraints to dairy production in Tanzania especially inadequate dairy animal nutrition due to inadequate feed availability in dry seasons; and
- (ii) Major feed resources for dairy animals focusing on feed availability, constraints and opportunities both on-farm and off-farm.

A conceptual framework was included to represent relationships between key components impacting feed availability which included: (i) Forage seed availability, (ii) Compounded feeds, (iii) Feeds and fodder markets, (iv) Political and social issues and (v) Water

The Facilitator commended Dr. Mwilawa, and other co-Authors for both a well prepared and presented key note paper which would guide the discussions on various issues as regards the sub-theme: *Business solutions for year-round availability of quality dairy feeds* especially with a focus on the above mentioned issues.

4. Formation of groups for task force and group work

The Facilitator requested participants to form groups freely, and with reference to the outcome of the challenge questions (*voting by feet*) above together with the key note paper to identify three key issues which are critical to develop an intervention. The groups brainstormed and came up with various issues which were reviewed and clustered under three broad categories namely:

- (i) Policy and regulations
- (ii) Technological issues/tools
- (iii) Information and capacity building
- (iv) Pastures seeds availability

The above issues were used to form Task Forces as presented in Table 1 below.

Table 1: List of Task Force members for Business solutions for year – round availability of quality feeds

S/No.	Name of Task Force	Champion/Convener	Task Force Members
1.	Policy and regulations	Victor Mwita	Proches Malamsha, Lucia Chacha, Gabriel Maputa, Hubert D. Rwehumbiza, Stephen Rwabunywenge, Victor Mwita, Ngota D. Ngota, Mary S. H. Mashingo, Edgar Twine, and Ben Lukuyu
2.	Technological issues/tools	June I. Fussi	Edmund Mariki, Huruma Mhapa, Juni I, Fussi, Germana H. Laswai, Daina G. Marirula, Wende Maulaga, Angello J. M Mwilawa, Ben Lukuyu, and John de Wolf
3.	Information and capacity building	Abiliza E. Kimambo	Henry Ruhinguka, Abiliza E. Kimambo, Marka Tsoxo, Feddy P. Tesha, Corjan van Der Jagt, Brigitte Maass, Kennedy Kago and Elgius Ngailo
4.	Pasture seed availability	Ephraim Mtengeti	Ephraim Mtengeti, Charles Mutagwaba, Nazarlou Kitosi, Illuminata Melewas, Fred Wassena, Hamisi Mtwaezi, Yanik Gelnik, Monica Sigalla, Euzebius Rwiza, Mayasa Simba, Julius Bwire, Simon Fraval, John de Wolf, Datus N. Alexander, and Roy Omulo

Figure 5 Taskforce discussions on -going

5. Plenary session – Group work presentation

The four working groups namely; (i) Policy and regulations, (ii) technological issues and tools, (iii) Information and capacity building and (iv) Pasture seed availability during Group work session identified challenges and interventions with respect to each critical issue affecting all year round availability of quality dairy feeds. A summary of issues brought up in the group work is presented on Table

The Policy and regulations group identified lack of awareness of the policies and regulations governing feeds availability and utilization in the country and lack of knowledge in feed conservation and proper animal feeding as some of the challenges. Also, very little work has been done as regards Multi-purpose trees (MPTs).

The technological issues and tools group identified low uptake of feed technologies due to inadequate dissemination of information on available technologies and lack of institutional arrangement to support forage production and marketing as challenges among others.

On information and capacity building group, identified inadequate and scattered information coupled with inaccessibility of information about forage producers, seed suppliers, distributors and fodder markets as some of the challenges. Also, lack of information in areas for building capacity of stakeholders as regards the above mentioned challenges and inadequate animal nutritionists in the manufacturing industry.

Pasture seeds availability group identified lack of inventory of local varieties what they termed "landraces", pasture seed producers, distributors, good quality seeds and poor market linking stakeholders to relevant markets as among that challenges identified.

Detailed outcome from the group exercise for Group 2, 3 and 4 is shown in Appendix 3, 4 and 5 respectively.

Table 1 Summary of key issues brought up in group work

Key feed issue	Specific issues
Training and capacity building	Database on animal feeds
	Awareness and skills amongst stakeholders
	Economics of feeding
	Training on animal nutrition, production and use
	Utilization of locally available feed materials, home made rations
	Feed market information
Technological issue	Information to enhance forage markets
	Information on supply and demand of commercial feeds
	Appropriate technologies for forage harvesting, processing and conservation.
Policy and regulation	Animal feeds quality management systems
	Role of TFMA in feed quality control
	Lack of appropriate coordination of legal frameworks
	Ownership and control of grazing land (natural pasture)
Forage seed systems (Seed availability)	Involving private sector in introduction of new seed varieties
	Supply, marketing and regulation issues

6. Next Steps

The group agreed on the next steps action points and timeframe as:

- (i) 4th DDF report – in 2 week’s time by Dr. Kitalyi
- (ii) 4th DDF report distribution – in 3 week’s time by TDB Secretariat (Dr. Mayasa). Send Group emails and post to DDF – TZ wiki link
- (iii) Task Force feedback on action taken to DDF by 1st week November 2014 by Task Force Chairperson and TDB
- (iv) Implementation of Action Plan

7. Market Place

A window was provided for stakeholders to share new information and products. Mr Yaniv Glenik from Tropical Seeds East Africa, a Division of *Grupo Papalotla* in Colombia, South America had a message on their company, which specialize on seeds.

Mr. Glenik made a brief presentation titled *Bringing Brachiaria Home (Mulato II)*. Mulato II is a Brachiaria hybrid which was developed by CIAT programme in Colombia. *Bringing Brachiaria Home* programme is being implemented in East Africa in partnership between; ICIPE, CIAT, KARI, Tropical Seeds East Africa, and Advantage Crops Limited. The lessons learnt so far about Mulato II are that it is adaptable to acidic/low fertility soils and farmers love it. The current programmes involve 30,000 farmers under ICIPE supervision. There are NPT trials in Kenya and Rwanda; and production trials, in 30 sites are currently being selected across Ethiopia, Kenya, Uganda and Tanzania under the supervision of Tropical Seeds East Africa. Furthermore, Mr. Glenik informed participants that the Company needs support in the following areas; (i) Import permit, (ii) Introduction to distributors, and Research partners.

Figure 6 Mr. Yaniv Gelnik <yaniv@gelnik.com> Presenting Brachiaria - Mulato II

8. Official closing

The TDB Executive Secretary Dr. Mayasa Simba thanked for Facilitator Dr. Kitalyi good a job well done for the two days and the participants for being active in all the sessions. She remarked that this meeting sets the beginning of a future with a promise for the dairy industry in Tanzania. And welcomed the TDB Board Chairperson, Professor L. Kurwijila to officially close the meeting

Prof. Kurwijila thanked the TDB Secretariat under the leadership of Dr. Mayasa for the logistical processes to convene the two day meeting and ILRI for the financial support through the MOREMILK IT project covering Morogoro and Tanga regions. Also, other co-hosts for their various support in one way or another. Reminded, that the idea of forming a Forum was born in Morogoro during a meeting in 2012. Appreciated that participants were active in all sessions showing dedication to the task they have been called for and that those attending DDF meeting for the 1st time are acknowledging it as a space for business opportunities.

Furthermore, he pointed out that production of forages in Tanzania is not stable, thus leaves a lot to be desired, emphasized that this is Forum, thus members need to meet and create solutions for feeds

and feeding bottlenecks as identified by each Task Force (TFs). The TFs will be working similar to the Dairy Genetics sub – theme TFs who unfortunately had not met till yesterday. Emphasized that meeting is critical, we have made promises, thus let's *walk the talk*.

Prof. Kurwijila thanked the Dr. Kitalyi for taking the leading role in facilitating DDF meetings and more important for volunteering to attend *The Facilitation for Leadership Learning Workshop for Managers which was organized by PICO TEAM, February 2014 in Naivasha, Kenya*. He wished everyone safe journey back to their homes within and outside Tanzania before finally declaring the meeting officially closed.

Vote of thanks

Dr. Isabelle Baltenweck, (ILRI)'gave a vote of thanks to ILRI- Dar support staff who provided logistic support specifically Ms. Beauty Liundi and Prof. Kurwijila for officially closing the meeting with remarks to remind the Task Forces of the importance of convening meetings.

The meeting was declared closed at 1710 hours

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How can we best describe this??? It was an extra – activity but compliment from ILRI too

CELEBRATE ILRI 40th Anniversary

ILRI, Country Manager for Tanzania, Dr. Amos Omore shared with the participants the good news that ILRI is celebrating its 40th anniversary this year and that arrangement had been made for the participants to enjoy a cocktail party after the just ended 4th DDF meeting.

Apart from having fun during the cocktail, participants were asked to respond to a question which was posed as; *My unanswered question about livestock and xxxxx is¹*

¹ Where the xxx is one of the following (i) *Sustainable food and nutritional security*; (ii) *economic wellbeing*; (iii) *healthy lives*. Responses were presented in informally, engaging and interactive 'standing session' during the cocktail party. Presentations were audial recorded.

Appendix 1: 4th DDF meeting, Day two agenda**The 7th October, 2014 Sub-theme: Business solutions for year-round availability of quality dairy feeds**

Time	Event	Responsible
08:30 – 9:00	Registration	TDB Secretariat/ILRI
09:00 – 09:15	Recap of Day 1 Setting the scene	Facilitator
09:15 – 10:00	Key Note paper: Situational analysis of year-round availability of quality feeds in Tanzania	Dr. Angello Mwilawa et al.
10:00 – 10:15	Q&A	Dr. Mwilawa and Co-Authors
10:15 – 10:30	Pasture seed production, certification, release, trade and legal related issues (Feedback on coordination meeting in Morogoro 26-28 June 2014)	Mr Nezaron Kitosi/Mwita
10:30 – 10:45	Compounded feeds business and legal framework	Dr. H Mtwaenzi/Wende
10:45 – 11:00	Pasture/forage commercialization: Practical Experiences and reference to the Act or regulatory framework	Mr. Ngota/Mwita
11:00 – 11:30	Tea break	
11:30 – 12:00	<u>Plenary discussion:</u> Discussion Key issues for group work Group formation– brainstorming/ open discussion ToRs	Facilitator
12:00 – 13:30	Group work: Work plans/commitments	
13:30 – 14:30	Lunch Break	
14:30 – 15:30	Group presentation	
15:30 – 16:00	Plenary discussion: Policy conclusions and recommendation	
16:00 – 16:20	Next steps: Task forces Follow-up issues	

16:20 – 16:30	Closing	
17:30 - 19:00	Celebrate: ILRI's 40th Anniversary "My unanswered question about livestock and XXX is..." ¹	ILRI and Facilitator
19:00	Cocktail - ILRI@40 Reception	

¹ Where the XXX is one of the following: i) *sustainable food and nutritional security*; ii) *economic wellbeing*; iii) *healthy lives*. Everyone is invited to this informal, engaging and interactive 'standing session' to mark ILRI's 40th Anniversary. You stand a chance to win an ILRI@40 gift and are welcome to the Cocktail Reception that will follow.

Appendix 2: List of participants DDF Meeting Day 1 and 2

Name	Organisation	Designation	Telephone	Email
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Appendix 3: GROUP 2 PRESENTATION ON TECHNOLOGICAL ISSUES AND TOOLS

S/No.	Challenge	Interventions	Comments/Observations
1.	Low uptake of feed technologies due to inadequate dissemination of information on; <ul style="list-style-type: none"> ➤ machinery for forage harvesting and processing ➤ feed conservation ➤ homemade rations 	<ul style="list-style-type: none"> a) Dissemination of information of producers/fabricators of machines through existing Platforms, b) Promotion and demonstration of relevant technologies through Farmer Field Schools(FFS) c) Promotion for development of labour saving technologies, and affordable in terms of cost 	<ul style="list-style-type: none"> ➤ Emphasized on the need of designing proper tools and testing them for suitability by appropriate institution e.g. CARMATEC ➤ Noted the lack of information regarding forage availability ➤ Lack of animal feeds management system
2.	<p>2.1. Institutional arrangement to support forage production and marketing</p> <p>2.2 Institutional arrangement to enhance commercial feeds production and marketing</p>	<ul style="list-style-type: none"> a) Generate information and cost-benefit analysis to support forage production and marketing b) Provide farmers with information on appropriate technologies a) Generate information on concentrate feeds and marketing 	
3.	Cash flow constraints	Design affordable models to access credit	
4.	Poor seed availability	Technology on forage seed production and marketing	

Appendix 4: Group 3 presentation on information & capacity building

S/no.	Challenge	Interventions	Comments/Observations
INFORMATION			
1.	Inadequate information about producers, seed suppliers, distributors and fodder markets	Make an inventory list and create a database for ease accessibility by various stakeholders	<ul style="list-style-type: none"> ➤ Wanted to know if there is a regulation for distributing extension materials in various disciplines developed by various stakeholders especially researchers, academicians and development partners ➤ Informed that all materials have to be reviewed by MLFD in the Extension Department
2.	Available information is scattered/not consolidated in one place	Consolidate the information and disseminate to actors	
3.	Inaccessibility of information	Include more stakeholders i.e. holding one DDF meeting during <i>Maziwa</i> Week, <i>Nane Nane</i> celebrations	
CAPACITY BUILDING			
1.	Lack of information on areas in which to build capacity	Conduct study to identify areas that need capacity building	
2.	Inadequate numbers of animal nutritionists in feed manufacturing industry	Train more animal nutritionists for manufacturing industry	
3.	Capacity building of feed manufacturers	Capacity building in packaging and marketing	
4.	Lack of capacity to develop and maintain electronic database	Build capacity of the TDB Secretariat to develop and maintain an electronic database through training	

Appendix 5 Group 4 presentation on pasture seed & availability

S/No.	Challenge	Intervention	Comments/Observations
1.	1.1 Inventory of landraces, producers and distributors	To have an inventory of landraces seed producers and distributors	<ul style="list-style-type: none"> a) Noted that the role of MLFD not clearly indicated namely the Pasture Seed Farms; Vikuge and Langwira b) Suggested that any interested producer either dairy or

			pasture farmer should join this Task Force
	1. 2 Lack of released pasture seed varieties	Import released varieties from recognized Institutions and apply the same procedures for releasing in Tanzania	
	1.3 Lack of quality pasture seeds	<ul style="list-style-type: none"> a) Identify and contract farmers for seed material propagation b) Conduct quality standard test 	
	1.4 Poor market linkages	Linking farmers to the markets e.g. Tropical Seed Co. Ltd.	