Performance Recording Agents Training in Tanzania
Refresher Training on New Tools for data capture in ADGG project

Livestock Genetics

Background

Performance Recording Agents (PRA) are Livestock Extension Officers deployed in Local Government Authorities (LGAs) in Tanzania. PRA have been contracted by Platform for Africa Dairy Genetic Gains project (ADGG) through the Tanzania Livestock Research Institute (TALIRI) to collate dairy productivity data and support farmers to improve their dairy management system in order to increase productivity. PRA's visit each farmer once in a month in a specified area and relay data collated to the ADGG data platform using tools developed on the ODK data platform. The data collated is mirrored on the servers of the Dairy Performance Recording Center (DPRC) in Tanzania that is managed by TALIRI in collaboration with the National Artificial Insemination Centre (NAIC). An overview of data collated through the platform is available at https://portal.adgg.ilri.org/tanzania.

The data collated is verified, linked and analyzed through the ADGG platform. Feedback on productivity attained both at individual animal level and benchmarked against other producers in the country is shared with the farmers either through one-on one interactions or through sms messages facilitated by the i-Cow platform.

The animal registration and performance monitoring process began in 2016. Through learnings on ICT tools and the rapid evolution related to big data platforms, there are periodic updates in the infrastructure operating the ADGG platform, and the tools processing information. In 2020, ADGG developed a new agile and scalable web-based data platform to collate and store data obtained from different types of farmers (smallholder, medium scale and large scale). The new platform is driven by a MySQL database hosted under Amazon cloud (Amazon Web Services - AWS). A new set of ODK tools, interlinking information at the point of data collection were developed for populating the platform (https://cgspace.cgiar.org/handle/10568/108942).

A training program was organized to familiarize the PRA's operating in Tanzania with the new tools, while at the same time obtain feedback on their experiences with field data capture, and provide feedback on the quality of data collected since inception of the project. Due to the global challenge with Covid 19, the data support team from ILRI in Nairobi was not able to travel Tanzania but participated virtually. The training was held in Dodoma on 15th December 2020.

Capacity Development of Performance Recording Agents

The training was attended by 41 participants as illustrated in Table 1. Participants were divided into two groups for efficiency in training. The local trainers were taking the participant through the tool and later join online team from Nairobi to solve few challenges that were seen in the tool.

Table 1:Number Participants trained from different regions by gender

Regions	Number of Extension Officers' trained		
	Men	Women	Total
Kilimanjaro	4	2	6
Tanga	7	0	7
Arusha	2	3	5
Iringa	3	1	4
Njombe	2	1	3
Mbeya	3	2	5
Songwe	0	1	1
Total	**21**	**10**	**31**
Supporting team: TALIRI	2	2	4
Facilitators: ILRI/TALIRI	4	2	6

Training Content

Topics covered in the training were:

1. New ODK tools
    a. Overview on operability of new tools
    b. Highlights on measurements related to weights
    c. Review on body condition scoring of animals
    d. New measurement required on animals
    e. Engaging farmers when capturing data
2. Dairy cow handling and welfare
3. AI delivery and use of Crossbred bulls based on results from evaluation of data collected on farms
4. Feedback and Interpretation of Genetic evaluation data to farmers using new index developed (https://africadgg.files.wordpress.com/2020/08/adgg-tzn-index-2020.pdf)
5. Review on strategies to capture data from different farmers

The ODK tools developed by the ILRI team and Materials developed by Tanzania team were used for training. Facilitators from TALIRI demonstrated how to take measurements, and how to score animals in order to collate growth information.

Break out groups and Practical session of heart girth measurement

Training session

Strategies for improving data capture and improving efficiency in the field

An interactive session was held with among participants in which they were tasked to identifying key challenges and opportunities on ways to improve efficiency while capturing quality data. Ideas presented by two random groups as follows:

Areas requiring urgent interventions

1. Need for new heart girth measurement tapes
2. Need for challenges noted in the new ODK tools to be addressed
3. Need to provide resources for 15 PRA's who are no longer directly engaged by TALIRI
4. Options for supporting PRA's trained on AI service provision to equip themselves with kits in order to provide AI services at a reasonable cost.

The PRA's in different groups provided feedback on what they could do as presented in the table below.

Groups	Action points
Group 1	- To have all list of the farmer in respective area and make a action plan on how to reach them monthly - Avoid capturing data in one farm twice per month - Ensure each month you have captured farmer's information - Farmer who capture their own data have to be; identified, trained, monitored to ensure they are capturing data on time. - Each PRA will visit 14 farmers in a day, which makes 350 per month - Improve data quality - PRA to improve relationship with farmers they are visiting - To be precise in taking heart girth measurements - Improve service delivered to farmer, such as AI deliver, provide advised based on data capture, provide proper sketch of dairy cow housing, encourage pregnancy diagnosis in cheap cost etc. - Remind farmer routine deworming - Sharing challenges and opportunities available in the field with the rest of the team - Ensure working gadget are well maintained - Ensure to have medical kit especially for dewomer and routine vaccine - Send data and report on time - To have ADGG file in LGAs and updated workplan to avoid inconveniences with DLFDOs - Encourage farmer to but ear tags and use it so that their animal can be identified and get feedback - Encourage farmers to be in groups so that they can be linked with market
Group 2	- Each PRA will visit 10 farmers in a day, which makes 250 per month - Delivering alternative services to farmer to generate income to enhance sustainability - Create reliability and ensure punctuality and provide quality service to farmer - Lack of airtime and fuel slow movement and data captured are not sent ontime - TALIRI to improve relation with the field team, specially communication

Issue	Action points
Plenary discussion	ODK challenges 1. Calves which graduated and monitored as Heifer are now back to calves 2. Calves registered are not seen in the ODK 3. Exit form is not functioning 4. Farmers who were registered by EADD are not seen in the ODK 5. Large scale farms animals and some from small scale farms are not seen in the ODK. 6. Animals (Calf, Heifer) registered on PAID Forms are not seen in ODK
	Resource Constraints 7. Support on airtime and field to 15 PRAs 8. Communication improved between finance team and field team

ADGG Project team

1. **International Livestock Research Institute-ILRI**
   a) **Participants**
   - Dr. Eliamoni Lyatuu; e.lyatuu@cgiar.org
   b) **Online participants**
   - Dr. Julie Ojango: j.ojango@cgiar.org
   - Jennifer Gitau :Email :j.w.gitau@cgiar.org

2. **Tanzania Livestock Research Intitute (TALIRI)**
   - Dr. Daniel Komwihangilo: danielkomwihangilo@gmail.com
   - Dr Aluna Chawala: alchawala@gmail.com
   - Gilbert Msuta: gmsuta@gmail.com
   ICT : Neema Joseph: neemajkelya@gmail.com

Annexes

1. Participant's (PRAs) opinion

   Maoni ya Wadau.doc

2. *Participant list*

   Registration for refresher training 15 [

3. *Training program*

   programme refresher.pdf