



Enumerator training on data capture (left); a trained enumerator on duty for the Menz sheep CBBP (right)

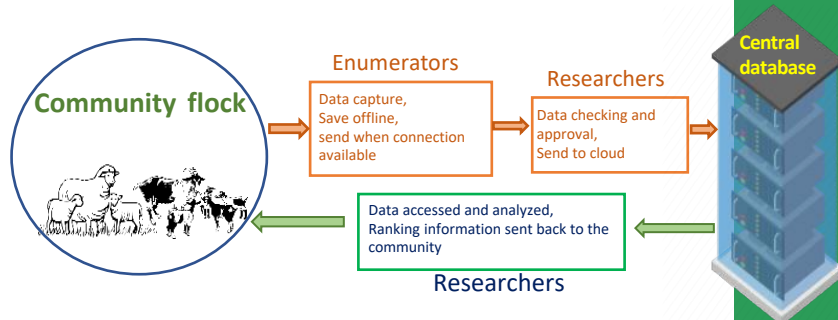
Context

- Large pedigree and performance data has been collected over 11 years in the sheep and goat CBBPs in Ethiopia.
- Traditional herd books are less efficient in managing such large data to provide timely feedback to the communities.
- They also have many data gaps.
- A digital database for the CBBPs became crucial.

Our innovative approach

We established a cloud-based genetic database platform called **AniCloud**.

- The platform integrates with the **AniCapture** mobile platform designed for offline data capture.



NUTRITION & FOOD SECURITY

Digital platform enhances genetic progress in community-based sheep and goat breeding programs in Ethiopia

- Up-to-date information on estimated breeding values and animal rankings is directly channeled to breeder organizations and used for selection decisions.
- The digital platform motivated use of more complicated evaluation models which improve accuracy of breeding values considerably.
- When upscaled, this will help create a permanent multi-country source of information.



RESEARCH PROGRAM ON Livestock

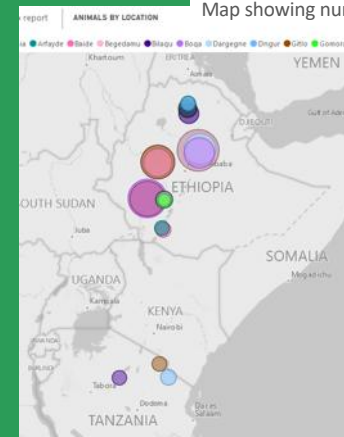
GENETICS

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Map showing number of animals by location



Outcomes

More than 90% of the 'historic' Ethiopian CBBP data is uploaded into the database, including:

- about 63K records of lambing/kidding, 118K liveweight records at different ages, 23K milk records collected from 20 villages and 1601 households

Digital field data capture has started in 6 CBBPs:

- Enumerators were equipped with tablets and trained.
- Data are now continuously received from all locations.

Future steps

Develop breed specific economic selection indices to integrate into the database.

- Refine tools based on feedback and transfer ownership to national institutions to ensure sustainability.

Partners

Regional Agricultural Research Institutes in Ethiopia, Ministry of Agriculture, AbacusBio, Embrapa



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