

National partners and champion smallholder farmers in Mali adopt a community-based breeding program for local goats



INITIATIVE ON
Sustainable Animal
Productivity

Small ruminant value chain

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Acknowledgements

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Outcome

- Mali's first Community-Based Breeding Program (CBBP) for **goats** was launched in **2023**.
- Many indigenous breeds are included in the program, namely **Djallonké, Bali-Bali, Peulh**, and others.
- Until now, **two CBBPs** were established in two villages, namely **Siguidolo Wéré** and **Noukoula** in **Ségou cercle**. The establishment of a third CBBP in Sikasso cercle is now being discussed.
- These villages were chosen for their easy accessibility in terms of distance and security, the predominance of goats as livestock species, the presence of typical open-minded breeders focused on production and organized in cooperatives, the availability of input and service suppliers (health, feed, extension, etc.), and the low prevalence of transhumant livestock farming.
- In Siguidolo Wéré and Noukoula, a total of **183 households** were involved in the CBBP, with a total of **1,237 goats** identified. The graphs (Figures 1 and 2) below summarize the details of this output.
- Goat selection traits within Mali's CBBP include **fertility, milk yield, growth rate, longevity, adaptability**, and **resistance to diseases**.



Figure 1: Distribution of households (left) and identified animals (right) within the CBBP in Mali

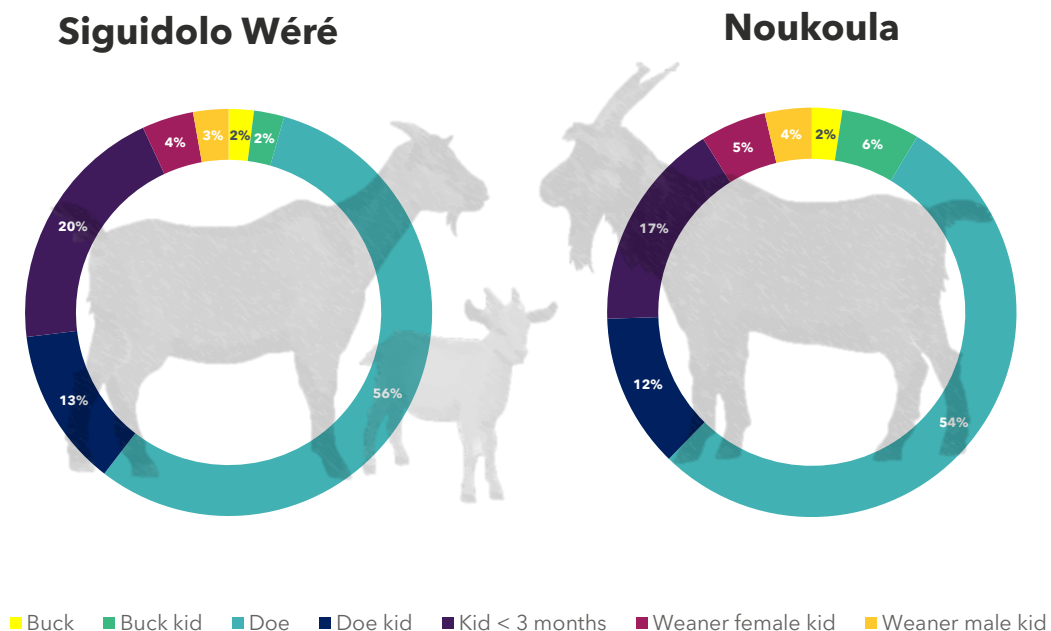


Figure 2: Flock structure in Siguidolo Wéré and Noukoula

Partners

The **International Center for Agricultural Research in the Dry Areas (ICARDA)** and the **International Livestock Research Institute (ILRI)** are leading the establishment of a CBBP in Mali, together with the national partner **Institut d'Économie Rurale (IER)** that has the national mandate of the conservation and improvement of livestock breeds in the country. IER has adopted **the innovation** and is actively contributing to the first steps of its implementation.

The design and implementation processes involved key **public, private** and **professional** stakeholders, among which are:

- Institute of Rural Economy (IER)
- Veterinary Sector of Barouéli (SV)
- National Association for Mandated Veterinarians (ANAVEM)
- Collective of Veterinarians of Mali (COVEM)
- Regional Veterinary Services Department of Ségou (DRSV)
- Council of Barouéli
- Regional Department of Animal Production and Industries of Ségou (DRPIA)
- Local Service of Animal Production and Industries of Barouéli (SLPIA)
- Malian Association for the Promotion of the Sahel (AMPROS)
- University of Ségou - Faculty of Agronomy and Animal Medicine (US/FAMA)
- Tabital Pulaaku International
- Union of Cooperative Societies of Breeders of Tamani (USCET)
- Livestock - Meat Interprofession (URF Bétail - Viande)



Figure 3. CBBP co-design workshop in Ségou, September 2023

Why did we do this research?

Despite its economic and social importance, the breeding sector of small ruminants **does not receive the necessary political attention** and has **multiple constraints** that limit production. These constraints include:

- Absence of national programs for genetic improvement.
- Poor practices in managing genetic resources.
- Uncontrolled crossbreeding, which has led to genetic erosion.
- Prevalent health issues (such as abortive and zoonotic diseases).
- Feed and feeding difficulties.
- Unsuitable habitats and high mobility of sheep flocks.

Evidence

The goat CBBP in Mali is currently in its **initial implementation phase**, and what has been achieved until now includes:

- Active **involvement of national partners** and **engagement of village leaders and key farmers** in discussing the objectives of the CBBP and facilitating the implementation.
- Definition of the breeding objectives, together with farmers' representatives and national partners: **Milk and meat production** for local goat breeds in the area, with a focus on improving fertility, milk yield, growth rate, longevity, adaptability and resistance to diseases.
- **Two enumerators** (one male and one female) were **trained and recruited** to collect data in Siguidolo Wéré and Noukoura villages in Ségou.
- **Data recording is ongoing** and involves various indicators, such as births, disposals, and milk production;
- The outputs of the analysis of baseline data collected in December 2023, including flock structure and ranking, were presented to farmers **to gather their feedback and get their agreement to move forward to the next steps**.

Next steps

- Carry out **proper and continuous data recording** to ensure consistent follow-up and monitoring and accurate performance assessment.
- Recruit **more enumerators** per village to cover a higher number of flocks efficiently.
- Follow discussions **on flock ranking with key informant farmers** in the communities.
- Start rounds of **sires' selection and certification**.
- **Dissemination of bucks improved genetic material** within the CBBPs through **artificial insemination**.
- **Synchronizing females' estrus** using adapted and appropriate protocols before artificial insemination.
- Train farmers on **integrated packages** to improve herd management.
- Expand the geographical limits of the CBBP and **spread the innovation across the country** (the implementation of a third CBBP in Sikasso is now being discussed).
- Conduct **research activities** within Mali's goat CBBP.

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