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Livestock

More meat, milk and eggs by and for the poor

Performance of the sheep breeders' cooperatives in Ethiopia

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Performance of the sheep breeders' cooperatives in Ethiopia

Background

Ethiopia priority country project is a 3-year project designed to consolidate the individual pilot interventions CRP research has been implementing since 2012 and translate that into a pilot integrated package. The project will generate evidence needed to attract development investment to take the intervention packages to scale by national development partners. Genetics is one of the intervention packages which was included with the rationale that small ruminant producers in Ethiopia had little or no access to genetically improved sheep and goat breeding animals. There was little capacity and skills and no supporting infrastructure in the national system to support breeding programs for smallholder sheep and goat producer. ICARDA and ILRI have worked on community-based breeding programs in Ethiopia since 2009. Successes and still existing challenges are well documented. The focus in this project is to make sure that improved genetic material from CBBPs reach the base population.

Genetics flagship has three major areas of intervention in the SMaRT pack:

- (1) Access to improved sheep/goat genetics through CBBPs and selected breeders in new target villages,
- (2) Fully certified breeding sires to support the business model of CBBPs (links to Health and LLAFS),
- (3) Fertility improvement package to enhance sheep and goat reproduction

For efficient delivery on the three areas and overall implementation of CBBP, establishment of breeders' cooperatives has been identified as the institutional set up followed for implementation and sustainability of the scheme. This report highlights the performance of the sheep breeders' cooperatives in three sites, namely Bonga, Doyogena and Menz.

A. Overall performance of Bonga cooperatives

Three cooperatives (Boka, Shuta and Shena) are considered in Bonga for SmART pack

1. Number of Participant farmers

| Sex | Dropout | | | Added | | | Current | | |
|-------|---------|--------|-------|-------|--------|-------|---------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Boka | 19 | 2 | 21 | 15 | 9 | 24 | 166 | 20 | 186 |
| Shuta | 16 | 3 | 18 | 9 | 12 | 21 | 157 | 15 | 172 |
| Shena | 0 | 0 | 0 | 17 | 3 | 20 | 47 | 5 | 52 |
| Total | 35 | 5 | 40 | 41 | 24 | 65 | 370 | 40 | 410 |

2. Follow-up of enumerators and cooperatives and technical support for cooperatives

- Four round supervision was done on data recording & management, sire utilization and animal identification during the reporting year
- Discussion with cooperative leaders and data collectors was done on how to optimize CBBP
- Training was given to farmers and enumerators

3. Pedigree and performance data recording and uploading to digital Database

- Pedigree and performance data recording were ongoing in both soft and hard copy
- Uploading in data base was done in Boka, Shuta and Shena sites
- However, due to poor connection and server error uploading data was not done as planned
- Different institutions and universities shared experience on CBBP setup and Data record and mgt, such as D/birhan, Salale, Asosa, university etc

4. Breeding ram selection and Ram dissemination (market linkage) from 2019-2021

| Village | #Selected Ram | #Disseminated Ram | #Ram being used as Top Ram | #Top ram current on Service |
|---------|---------------|-------------------|----------------------------|-----------------------------|
| Shena | 73 | 39 | 14 | 11 |
| Boka | 471 | 406 | 64 | 18 |
| Shuta | 405 | 353 | 56 | 16 |
| Total | 949 | 798 | 134 | 45 |

NB: 52 breeding rams were purchased by SMART pack project.

5. Pregnancy testing, mass synchronization and artificial insemination

| Village | #PD tested Animal | #Synchroniz ed Animal | ##Inseminat ed Animal | #Participant farmers | | |
|---------|-------------------|-----------------------|-----------------------|----------------------|--------|-------|
| | | | | Male | Female | Total |
| Shena | 180 | 124 | 104 | 76 | 25 | 101 |
| Boka | 580 | 441 | 418 | 90 | 28 | 118 |
| Shuta | 460 | 369 | 349 | 39 | 15 | 54 |
| Total | 1220 | 934 | 871 | 205 | 68 | 273 |

- Around 800 ewes were inseminated out of SMART pack and around 350 farmers participate
- Advanced Reproductive Technology Training was given for regional LFoB and AI experts which are selected from different zones (in total around 15 female and 50 male total 65) were involved in the training and experience sharing

6. Cooperative performance

- ✓ Number of cooperative members were increasing every year
- ✓ Annual auditing is done, and around 700,000 ETB amount is allocated as dividend. From this maximum dividend per participant is 3200 and minimum 246
- ✓ The dividend division is based on participation
- ✓ Boka shuta cooperative gained 3,185,200 ETB from breeding ram sale within 3 year (2019-2021)
- ✓ The total revenue generated in the Bonga CBBP (15) Cooperatives over 10 years is around 27.3 million ETB.
- ✓ From this Boka-Shuta got 7.3 million capital from sheep sale over 10 years.
- ✓ Currently Boka shuta cooperative has 1,276,000 ETB cash after dividend
- ✓ Cooperatives provide credit to their members without interest

7. Cooperative leadership

- ✓ Change old leaders and nominate new leaders based on bylaws
- ✓ Cooperative leaders supervise their members on:
 - Recording

- Housing
 - Feeding
 - Selected animal management
 - Breeding ewe selection
- ✓ Provide credits if any member faced some problems

B. Overall performance of Doyogena cooperatives

Three cooperatives are included in here: Ancha, Hawora and LemiSuticho

Table 1. Summary of breeding interventions plan and achievement in SMART-Pack

| No | Activities | sites | Status |
|----|--|-------|----------------------------|
| 1 | Finalize base line data collection and animal identification | All | Finalized |
| 2 | Upload baseline data to AniCloud | All | In progress |
| 3 | Pedigree and performance data recording and uploading | All | Completed |
| 4 | Animal ranking and breeding sire selection (based on EBV and breeding soundness, health) | All | In progress |
| 5 | Organize animal show/field day | All | Done |
| 6 | Availing list of non-selected animals for fattening/marketing | All | In progress |
| 7 | Procurement and transfer of selected breeding sires to the new sites | All | Completed |
| 8 | Training on sire certification and ultrasonography | All | Completed |
| 9 | Field implementation of certification and ultrasonography | All | Completed |
| 10 | Ewe selection, synchronization and AI | All | Planned for early December |
| 11 | Follow-up of enumerators, and technical support for cooperatives | All | In progress |
| 12 | Continuous evaluation of cooperative breeding sires | All | In progress |
| 13 | Pedigree and performance data recording and entering to computer | All | In progress |
| 14 | Breeding soundness/Breeding ram reproductive data collection | All | In progress |

1. Members/dropout/additional members

- ✓ This year (2021) male and female members increased from 278 to 351 and 46 to 55, respectively.
- ✓ There is no dropout reported from all cooperatives

Table 2. Smart pack site member's status

| Smart pack villages | Intervention condition | Members | | | | Current number of members (2021) | | |
|---------------------|------------------------|--------------------------|--------|-----------|--------|----------------------------------|--------|-------|
| | | Before SmART-Pack (2019) | | New entry | | Male | Female | Total |
| | | Male | Female | Male | Female | | | |
| Ancha_Sadicho | Old | 126 | 10 | 16 | 10 | 142 | 20 | 162 |
| Hawora_Arara | Old | 130 | 28 | 20 | 25 | 150 | 53 | 203 |
| Lemi | New | 22 | 8 | 37 | 20 | 59 | 28 | 87 |
| | | 278 | 46 | 73 | 55 | 351 | 101 | 452 |

2. Capital of the cooperatives

The cooperatives have built capital from sale of breeding rams (Table 3)

Table 1. Capital of the cooperatives

| Intervention sites | Gross capital |
|--------------------|---------------|
| Ancha_Sadicho | 250,000 |
| Hawora_Arara | 230,000 |
| Lemi suticho | 75,000 |
| Total capital | 555,000 |

3. Breeding ram distribution

Total of 249 rams were selected for breeding and 104 were disseminated to other sites and there are 44 which are currently being used.

| Sites | Selected Ram | Disseminated Ram | Number of rams currently being used |
|---------------|--------------|------------------|-------------------------------------|
| Ancha Sadicho | 102 | 37 | 16 |
| Lemi Suticho | 40 | 23 | 11 |
| Hawora Arara | 107 | 44 | 17 |
| Total | 249 | 104 | 44 |

C. Overall performance of Menz cooperatives

There are three sites in Menz (Molale, Sinamba and Zeram)

1. Number of Participant farmers in different villages

| Villages | Dropout | | | Added | | | Current | | |
|-----------------|---------|--------|-------|-------|--------|-------|---------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Molale/ keyafer | -- | - | --- | - | - | - | 46 | 12 | 58 |
| Sinamba-Boda | - | - | - | - | - | - | 50 | 7 | 57 |
| Zeram | 6 | - | 6 | - | - | - | 58 | 14 | 72 |
| Total | 6 | - | 6 | - | - | - | 154 | 31 | 185 |

2. Rams selected for CBBP in different years

| Villages | Number of rams selected in years | | | Active rams |
|----------------|----------------------------------|------|------|-------------|
| | 2019 | 2020 | 2021 | |
| Sinamba- boda | 17 | 21 | 15 | 15 |
| Molale/Keyafer | 25 | 27 | 22 | 22 |
| Zeram | - | 23 | 21 | 21 |

3. Certified rams

| Villages | Certified rams |
|----------------|----------------|
| Sinamba- boda | - |
| Molale/Keyafer | 8 |
| Zeram | 10 |

4. Follow-up of enumerators and cooperatives and technical support for cooperatives

- Ram selection based on EBV was done two time/year for every village
- Supervision was done on ear tagging, weight recording and management, sire rotation every two months
- Rams' certification was done
- Discussion with farmers about the genetic improvement program
- Training of district and kebele level animal science experts
- Training of 72 CBBP farmers

5. Data collection and uploading to digital Database

- Data collection and data uploaded to Dtreo

6. Pregnancy testing, mass synchronization and artificial insemination

| Villages | Synchronized Animal | Inseminated Animal |
|----------------|---------------------|--------------------|
| keyafer/Molale | 54 | 49 |
| Sinamba-boda | 47 | 33 |
| Zeram | 90 | 72 |
| Total | 191 | 154 |

7. Cooperative performance

- ✓ Sinamba-boda CBBP village was audited and evaluated by district cooperative experts every year
- ✓ Sinamba-boda CBBP village cooperative lend money to the cooperative members at minimal interest rate
- ✓ Zeram CBBP village is now legal cooperative and had certificate this year
- ✓ All villages are now source of rams to scaling up sites
- ✓ All villages are now legal cooperatives

8. Challenges

- Some committee members are not playing their role properly
- Current situation on the country is not allowed to purchase replacement rams

Conclusion

Performance of the cooperatives as evaluated by both technical and financial criteria in the three sites (Bonga, Doyogena and Menz) has been found to be very positive. Given that the priority country project was implemented for three years, the changes observed were encouraging. Some of the challenges mentioned from the three sites need addressing as we move forward.

