

Progress Report July 2019 to September 2019

Goat Agribusiness Project



1. Introduction

The KZN Goat Agribusiness Project is a partnership between Department of Rural Development and Land Reform (DRDLR), Department of Agriculture KZN (DARD KZN), Mdukatsani Rural Development Project (MRDP) and Heifer Project South Africa (HPSA). To this end a MOU and an SLA has been entered and the program involving contributions from all four partners was signed in August 2015, and the SLA in March 2016.

2. Background

The KZN Goat Agribusiness Project seeks to improve home food security and rural livelihoods and lead to helping to lift farmers in the 5 local municipalities of UMzinyathi, Zululand, uThukela, uMkhanyakude and uThungulu out of poverty. This will be done through a process of improving goat productivity and increasing commercialisation of homestead herds in these areas.

The project will create microbusinesses for local unemployed youth who will support farmers' productivity with these businesses. These young people will broadly be known as Community Animal Health Workers (CAHW). They will be trained up and given equipment to set up their small businesses.

3. Progress Report

CAHWs

This quarter saw a focus on training of this year's new CAHWs with a few replacement CAHWs from the previous year. This is so that we can get out in the field with their vet kits and uniforms by the end of this quarter. This new batch of 50 CAHWs and 24 replacement CAHWs are going through their final trainings now and vet kits are being prepared to be handed out at the end of September.

As was mentioned in the previous report, a new CAHW payment system has been rolled out to all existing CAHWs. This past quarter has seen a lot of time spent on sorting out teething problems. Many of which developed from CAHWs being put in the field without proper payment and reporting systems in the first place. Cards are allocated to a CAHW and signed for. This card is given a reference number that the CAHW is paid against. The vet kit that the CAHW was allocated needs to be checked for completeness and any medicines or equipment missing or used up needs to be replaced. All their paperwork is checked including treatment and sales sheets and staff confirm that the use reflects the state of the medicine left in the vet kit. Any medicines missing are debited off the first payment of the card system. Each CAHW has a set of activities that they can claim against including keeping records, doing experiments, treating animals, processing feed, assisting with dip days and supporting monthly sales. They submit a claim form that is signed by GAP staff and submitted to management staff in the field who take it through finance. This is currently an intensive process that needs to be streamlined so that staff and management can focus on other priorities in their work. That said, however, it has been a very useful process to have monies being paid directly to CAHWs. There have been no negative comments or problems.

Prepaid card payments - CAHWs stipends			
Month	Amount	No. of CAHWs	Total days worked
June 2019	R 46 068	63	411
July 2019	R 51 441	80	459
August 2019	R 61 417	107	548
Total	R 158 927	250	1 419



Vet kits are checked and verified against treatments and an ABSA pre-paid card given to each CAHW

There are a total of 222 CAHWs and 131 of them with vet kits.

The draft addendum to the SLA that was sent in February is still to be signed and the outcome of this is being awaited. These changes will also dovetail with the proposed changes sought in our interactions with DARD. It has been highlighted that there is a change needed around both the wording around supply change management but also the dates that the MOU starts at is on the last signature but both SLAs only commenced a year for DRDLR and 18 months for DARD later. Given the current reading, the MOU would need an addendum talking to commencement reflecting the start of the SLA and its activities.

Enterprise Support- Enclosures, Goat Dips and Agrivet Shops



A block mix kit is handed to each pair of CAHWs and signed for by the chairperson of the dip

As the CAHWs from the 25 new dip tanks have received training, GAP has also been delivering equipment and ingredients for energy blocks to be made by CAHWs and sold by farmers to each of the dip tank associations. These associations are the enterprises that sign for these materials. This is so that they are kept by the dip tank association so that they can be retrieved in case the CAHW moves on and needs to be replaced. Each set of two CAHWs works together making and selling these blocks. The sales are captured on a sales sheet monthly.

A letter was received from DARD Colleges supporting building a goat dip at Owen Sithole College of Agriculture (OSCA) for future trainings. A team was sent to OSCA to work with the on-farm staff to build the dip. The dip was launched on the 2nd of September with the community group and farmers from the area that we have been working with and training. The dipping took a while as goats that are new to being dipped often avoid getting into water and instead of goats going through quite quickly, each goat has to be dipped and individually ducked under the water and individually pulled out. The next dipping will be linked to a training and it is hoped by then we will also have a goat kid feeding pen that will also be built as a

demonstration feeding unit. Jabulani Gumbi and Francois Du Toit are the two on-site people we have been working with and it is hoped that after a training at Malelane and taking part in these sort of trainings and demonstrations, Jabulani will be able to start assisting in training the farmers with less and less follow up from us.



The dip tank at Owen Sithole college was built and launched this month

The 100 kid experiments were reported on in previous quarters, have been initiated across the project area with one per staff member being the starting number for a total of 12. These 12 enclosures are currently up and running and feeding the current batch of kids. There have been teething problems in both selection of the kraals and getting materials from local suppliers to kraals far from any roads. There has also been a challenge of feed where farmers have not been able to reap sufficient local stover and crop residues. Feedback of each of these is being shared in farmer cross visits and if there is sufficient areas this will be scaled up next year by the farmer's themselves.



From Nongoma to Mboza the 100 goat enclosures are full of activity

Auctions and Sales

Further discussions have taken place between ourselves and DARD and a report has been prepared and submitted to be presented the new Acting HOD per her request. We hope that this is positive progress and we have been informed in other meetings and correspondence that we can spend this year's budget. How this overlaps with previous constraints that the Department has informed us of, we do not know.

Auctions are planned for all five districts for the 3rd quarter of 2019 starting in October. We will continue to use Mr Sibisi and get maximum support from DARD support on the ground. What will happen to last year's DARD budget, we are still unclear about.

With monthly sales, they are ongoing. Some areas are going better than others. King Cetshwayo continues to have a challenge. Staff have been removed from this area for underperformance and new staff in place and we hope to be able to catch up in these areas.

In this quarter, farmers have generated R930 967 in monthly sales and sold 637 goats. This does not represent the majority of sales though as farmers we have linked up with speculators are now buying monthly from our farmers directly. We will try and get a system in place to track these numbers.



Monthly sales are attracting more regular buyers

Trainings

All 222 CAHWs that are in the field in addition to the new 2019 CAHWs are receiving trainings to refresh and review the knowledge they have. They are also getting a training of trainers so that they can take over the task of training farmer groups and dip tank committees. This links with their stipends so it is an important part of their ability to make it worth their while to focus on their CAHWs duties. It also allows the community to meet and interact with them more regularly which also leads to farmers knowing and trusting their knowledge enough for them to call them out for assistance and be prepared to pay them. They are also being trained extensively on all the new paperwork that we expect them to complete to claim stipends but also so that we can be able to report their activities and benefit to project members. Diptank and Livestock Association trainings are ongoing.

An MSD Academy of Learning will take place the last week of September with 25 staff and CAHWs attending in addition to partners from DARD and the Empangeni farmers who have been taking part in the OSCA trainings. This extension to King Cetshwayo departmental staff and farmers seems to have produced a good working relationship that we hope to extend by resource people in the area that have received training and can pass it on themselves with GAP just facilitating as we are not present in these areas.



CAHWs holding meeting, supporting trainings, collecting livestock details at dip tanks and proudly showing off their new cards

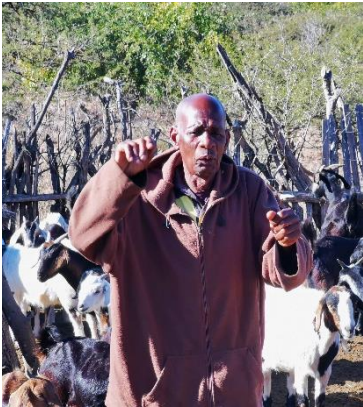
Training Materials

With the change of status around DARD funding, GAP has been working on translation of the Zulu goat book. Stock of the previous version had finished and rather than reprint the old one, many learnings of our work since it was written needed to be added and the training philosophy revised in terms of the layout of the book. This meant that the English goat book had to be re-written and is now on version three. The translation of this is almost concluded and the new goat book in English and Zulu should be ready to be printed in quarter 3. Concurrent to this is the Indigenous Chicken Production Handbook which is used in the field to link to the training systems and supporting farmer groups in improving their chicken productivity. We are planning to also have this translated into Zulu and both books will have all the partners logos on them as seen in the covers below.



The latest versions of the livestock resource books

Innovation platform



Nyoni Mchunu, Dr Manqhai Kraai and Mzevelwa Mchunu all shared insights into goat production and sales

GAP held its sixth innovation platform on the 4th and 5th of July. After initial and ongoing experiments with GAP farmers and the “100 kid experiment” which focused on reducing kid mortality in goat herds, GAP brought together buyers, sellers and other actors in the value chain to discuss movement towards commercialisation. It started with a recap of the success and learnings of the experiments and visited three farmers. A purely commercial model breeding Boer goats into Msinga stock and selling. A farmer who has been selling from his home regularly with a large herd (over 200 goats) and a farmer who has built up from 40 to 260 goats in 4 years with GAP support who is reluctant to sell.

The Innovation Platform tried to resolve the following questions:

- What is holding the farmers back from selling now that they have reduced kid mortality from 70% to 5% (on average) and herd size is increasing rather than staying flat?
- What are the risks of not selling?
- Is there demand from the buyers and what are the different buying mechanisms (auctions, mini-sales, what's app groups)
- What should herd composition look like? On average how many should be sold for certain herd sizes?

We also asked for Manqhai Kraai to come and give us feedback on her doctorate and how its findings related to herd size and mortalities. The innovation platform was well attended by farmers, scientists and speculators. The meeting brought some interesting points to the fore. The main one being that as a result of fashion brought on by the current generation of healers and sangomas, black goats had become largely unacceptable to buyers and all farmers were advised to try and breed this colour out of their goats. The other issue that came to the fore was that the process of weeding out older goats and replacing them with young ewes had not really perfected and so many farmers ended up with very old females that were not very fertile but were too old to be sold. These goats are eventually slaughtered and eaten at home and farmers see them as a waste to their productivity. Some thinking around female turnover in medium size herds needs to be done. The final point was that farmers from the 100-kid enclosures should sell at least 100 goats a year to

prevent the herd from getting too big. This would give them an income also gives them incentive to purchase medicines and dewormers with some of this money.

Most speculators felt that it was best that be directly linked to farmers as they could then phone ahead for specific animals and would often go weekly to buy goats from farmers that they knew.

The next innovation platform will be in the fourth quarter and the topic will be decided by farmers.



Mr Piet Draaier a Kalahari goat farmer, Mr Tsepiso Sedumedi shows semen samples gathered from the Tankwa's

A learning exchange took place in early August in the Northern Cape. It was centred around a herd of goats that had gone wild more than 50 years ago and had developed certain traits that were seen as worth studying and preserving. These goats, the Tankwa goats, are large, hairy and have very well-developed horns. A large research team from ARC and DAFF take samples and test the goats which they only do twice a year so that they ensure the goats stay wild.

GAP would like access some of the genetics of these goats to try out with local farmers as they are much bigger than normal indigenous goats and seem to be able to survive in much harsher environments. We are in ongoing discussions with the team and hope that we can get some of them to visit the team in KZN.

The second part of the visit was to find and meet with communal farmers in this Northern Cape/Namibia border region to understand both the goats that they keep and how they cope with the environment but also how they are sold on to KZN. Although we travelled 3000 kilometres in a week, we met very few communal farmers and those who we met had very small herds that were not as productive as we had been told. The Kalahari Kid program, which is DAFF funded, we did not get to see as despite much correspondence, including emails and phone calls, we could not get permission to enter their farms but were rather invited to their head office in Pretoria. The takeaway from the visit was that farmers prefer farming sheep as they need less labour and thus don't present a long-term problem of communal people living on private farms. The drought that we encountered seems to be dramatically reducing the numbers of sheep farmers and sheep in the area.

Research and Experiments

Scientists and small farmers tend to live in different worlds, which makes a collaborative experiment on goat weight gain and palatability something quite new. The project was launched at the Cedara Research Station in January when selected farmers from Jozini and Msinga joined up with Zandile Ndlovu, a Scientific Production Technician, to attempt to answer two burning questions: Are their goats smaller than "commercial" goats because of crossbreeding - or nutrition? And how much feed do they need to invest in an animal to get a higher price in the live goat market?

Three groups of goats were going to be tested: Hardy bush goats from Jozini and Msinga, and a pampered flock from Cedara. The veld goats came from selected GAP farmers who had each set aside four castrated goat kids, two for Cedara, two to remain at home. Both sets of animals would be weighed monthly, as Zandile explained when she outlined the project at the launch. GAP has worked hard to bridge the divide between science and the informal sector, so it wasn't the first time the farmers had been to Cedara. It was a first for their goats, however, learning to adjust to a sea of green grass and a diet that included pellets. The first results were shared at a workshop in May when the farmers returned to take a look at" their" goats, and to learn about the costs and benefits of feeding. First there was that question of weight gain. On grass and pellets Jozini, Msinga and Cedara goats performed much the same, so location was not a factor restraining growth. Feeding concentrate, however, had cost R450,00 a goat, which led to a lively discussion. Was this an amount that could be recovered if the goat was sold on the live market? The farmers said no. While the goat might be noticeably fatter, they estimated the sale price would only increase by R 200,00.



Do goats taste different eating different food and do they get bigger faster, farmers meet, talk, look and taste to decide.

There was also the question of feeding goats concentrates to make them economically viable for the meat market. The results were disappointing. When experimental goats were slaughtered for tests on palatability, they dressed at about 45%, which means that sold retail at R58,00 for mixed cuts a goat would realize between R600,00 and R900,00, as against R1200,00 on the live goat market. As a point of interest - an Estcourt butcher was given a substantial amount of goat meat, which he was unable to sell, even at half price. In KZN people eat goat meat, they don't buy it, but this may change if it is seen as a culinary speciality, another area of research which was on display at the workshop, when farmers were asked to score a delicious lunch of goat meat cooked in various ways by staff of the Department of Agriculture and Rural Development.



From community meetings to following goats to the big stage, Manqhai has carried her work with goats

It's something every herdboys knows: You can herd goats, but you can't follow them. This was something Manqhai Kraai learnt the hard way when she started her research into free-ranging goats in 2015. Try following goats and they walk faster... and faster... There is only one way to observe them: You have to know where they are going and keep them in sight. This isn't easy when the goats are foraging in arid savanna, trying to get away, and disappearing in the bush. Manqhai would become an expert tracker over time, gradually accumulating notebooks full of data on the behaviour of an animal about which little is known. The long hours of observation paid off in April when she was awarded her PH. D in Ecology at the School of Life Sciences, College of Agriculture, Engineering and Science, at the University of KwaZulu-Natal.

Manqhai had started her research with a simple question: How does the availability and quality of food affect the decisions of free-ranging goats living in different size herds? For there was no doubt they made decisions. They might submit to being kraaled together, but away from their owners the goats adjusted their herd size, big herds splitting into smaller groups, much like their wild counterparts. What did this mean for attempts to commercialize goats? Was there an optimal herd size for each landscape? Manqhai's study confirmed that to avoid competition it was better to live in a small group than a large, but although her results suggested that "small herds were better suited to the semi-arid savanna", this did not rule out goat production. Instead she suggested: "It would be beneficial to farmers to have some idea of optimal herd sizes for each landscape that would maximize production. This information could then inform farmers how often to sell animals to maximize profit."

Manqhai discussed this idea with local farmers when she had a report-back meeting on her results in July 2019. And she hadn't finished with her questions. Currently

lecturing in Animal Behaviour and Ecology at the School of Life Sciences, UKZN, she has set two honours students to work on the vegetation in her study areas. Samukelisiwe Colvel and Amanda Nzimande arrived at Ncunjane in June to start fieldwork on two subjects: The physical defences of acacia trees against goat herbivory, and the contribution of pod-bearing plants to the diet of goats in the dry season.

Monitoring



When we collect data, our staff need to be prepared to talk to farmers anywhere no matter what they find them doing

GAP has completed the census in the 25 new diptanks. The information is being captured and analysed. The annual survey that tracks progress on the baseline was carried out with 250 farmers with a further 250 in the 3rd quarter.

POEs are a subject that is discussed regularly at district and municipal project meetings. In this quarter, the management of GAP was alerted to problems in the POEs being rejected in higher numbers once they reached Pretoria. Throughout the project, POEs, in terms of the form, the format and what is necessary to be submitted with the POE has evolved as the oversight on these sorts of processes has become stricter. The GAP staff have tried hard to keep up with this. But there is often a lag between changes effected by our partner organisations and the practice in the field. The issue of signatures not complying to basic quality and having strange anomalies that were then highlighted and then sent back. The management of GAP recognised that there was a problem that was building up in this and a number of meetings with all staff. Staff were given warnings on this process and some staff were dismissed. Although this wasn't directly linked to any specific POE. The staff, at these meetings, highlighted the challenges they had in the field. Most prominently that people are recognised as project members and when family members attend, they bring the project member's ID and sign on their behalf. People are expected to bring ID books to meetings as well as submit a cell phone number linked to this ID number in some way. So that when someone phones them to ask if they were at the

given training and whether this is their ID number they can answer in the affirmative. This also becomes an issue as some of the older people do not know their cell number or give a family member's cell number. When this family is phoned, they profess to know nothing about the training. The fact that ID copies have to be collected also means that staff have to copy these in the field on the day of the workshop or training under a tree in the middle of nowhere. GAP has set up an app that captures and compresses photographs from cell phones that can be submitted as a quasi-photocopy. But of course, cheap phones, dirty screens, bad lighting and old ID books all create problems in maintaining some quality in this. GAP feels that we are on top of resolving this and hope there can be better synergy going forward but this whole process has taken staff time from planned work.

GAP has become increasingly aware that although we collect a huge amount of information that could be very useful to outsiders and government officials, the fact that it is not processed or analysed in any particular way makes it less valuable than it could be. This was also highlighted in the recent evaluation by our funder Misereor. To this end, GAP has embarked on a process of investing in our data sets. Sibusiso Khuzwayo, our M&E specialist is meeting monthly with data specialists who are mentoring him in understanding analysis processes and will going forward start processing the data to give better statistics. If partners are interested in particular questions, these can also be added to the process. Currently, these will include productivity increases, numbers increasing/decreasing through usage and sales and separately reduction because of diseases or droughts.

We have also been working with Susanne Vetter, Associate Professor, Department of Botany from Rhodes University submitting a paper for publication on the livestock statistics that have been collected as part of the GAP program and quantifying the effect of drought on communal livestock farmers in Msinga and Nkosi Langalibalele. We hope to add this paper to the literature on the benefits of goats in a country where there is less water and more bush and an increase in farmers who are prepared to farm goats.

Other Stakeholder Meetings and visibility activities

It has been a busy quarter in GAP linking with other stakeholders outside the program and introducing people to the GAP concept. To extend the reach of the GAP pilot's learnings, we are collaborating with an EU funded project that talks to how livestock farming would create jobs and improve livelihoods in future land reform extension policy. The project was launched in August in Pretoria and the first workshop will be later in September.

GAP was also approached by the DA representative, Christopher Pappas, on the Provincial Agricultural Portfolio Committee. He had seen that GAP was one of the projects that the department supports and wanted to get his own impression of it. GAP management took him around Msinga area showing him some of the goat interventions and agreed on future discussions and sharing of progress.

Dr Tim Gibbs, lecturer in African History at University College London, has also been working GAP farmers and DARD staff looking at how Livestock Associations had been set up and what useful information we can get from this process to use in the future as a best practice in setting community institutions around livestock. He has also looked into the problems that Livestock Associations have to deal with and how

the diptanks work with mainly older men. He has also been able to cross reference some of his research with some of the work he has done in the Eastern Cape on the collapse of the Livestock Associations and institutions. Once his paper has been published, we will share it with GAP stakeholders.



Professor Gibbs interviews the Chair of the Ncunjane diptank during a goat dip day (left); Mr Pappas and his research assistant meet at the 100 kid enclosure to understand GAP interventions

GAP work has also appeared in the KZN network magazine with an interview with Gugu Mbatha and separately, farmer MaYengwa. Old Mutual also showcased Gugu as a Mindspace Changemaker in their September B2B print magazine.



KZN Network magazine presented two views how GAP is experienced

Community participation

GAP was invited to come and present at a DRDLR and DARD workshop around market linkages- connecting rural producers and markets with an audience of beneficiaries and partners with DRDLR's partners in the province. The keynote address was given by the new MEC of Agriculture, Mrs Bongiwe Sithole-Moloi and both her and Mr Ben Thabethe emphasised the possible future merging of the two departments. The GAP presentation was well received and many farmers asked to be brought into future GAP activities in their areas. Uitval near Ladysmith asked us to come and present to their cooperative, Ikusasa Lemfuyo Cooperative, and Livestock Association as they would like to collaborate with GAP in setting goat monthly sales in their area and discussing whether we could approach DARD to have a goat auction in their area.



MEC Sithole- Maloi talks to the farmers about markets and rural produce and Mrs Madondo from Msinga top makes a point about mushrooms

Municipality	Total Membership	Women	Men	Youth	Disability	Enclosures
Zululand	1043	562	321	148	12	15
uThukela	660	378	218	57	7	36
uMzinyathi	1808	1025	637	128	18	135
King Cetshwayo	953	445	389	105	14	16
Umkhanyakude	1875	1128	491	234	22	33
	6339	3538	2056	672	73	235
Total groups						
Zululand	44					
uThukela	32					
uMzinyathi	89					
King Cetshwayo	32					
Umkhanyakude	59					
	256					



In collaboration with Dundee leatherworks, GAP has been working on handbags from goat skins

3.2 Progress in relation to pre-determined milestones

2nd quarter Year 4

Milestone	Year 4	Progress
Animal Health and leather CAHWs identified and trained- 3 per dip tank	There are a total of 245 trained animal health CAHWs with vet kits and uniforms	There is a total of 222 CAHWs and 131 in the field with vet kits. 50 new CAHWs were added in the first quarter and received an initial training in April.
Censuses/diptanks	25 additional diptanks have had a census with relevant agreements in place with diptanks, LAs, tribal authorities and municipality for a total of 115 diptanks	All 90 diptanks have carried out their censuses in the 1 st quarter. The 25 new dip tanks completed their censuses in this quarter. Annual baselines was completed in this quarter for 250 farmers.
Auctions	14 sales yards (non permanent sites) are having regular auctions (2 per livestock association)	In this quarter, farmers have generated R930 967 in monthly sales and sold 637 goats. There were no auctions.
Agrivet shops	12 agrivet shops are equipped and selling in Keatsdrift, Pomeroy, Weenen, Tugela Ferry, Nkandla top, Nkandla bottom, Nongoma, Jozini, Mkuze, Hluhluwe, Hlabisa, Manguzi	The 12 agrivet shops are going very well.
Experiments	2300 women are taking part in experimentation groups around goat nutrition and productivity (20 per 115 dip tanks)	We have 256 groups in the 5 districts with 3538 women taking part in experimentation groups. Total membership is 6339.
Goat enclosures- kid feeding	195 goat enclosures for kid feeding are being used (3 per 65 dip tanks)	229 have been built to date. Ongoing research around these enclosures is taking place. A pilot has been ongoing with 100 kids or more. This has been rolled out to the five districts and there are currently 12 100 kid enclosures.
Innovation platforms and research	Quarterly innovation platforms are taking place with proposed research topics emerging and lessons learned are being documented and disseminated	An innovation platform took place on July 4 th and 5 th with over 70 participants looking at moving farmers towards commercialisation. Other ongoing research includes two honours students looking at physical defences of acacia trees and a researcher from the UK around diptank committees and structures.
Increased productivity	Goat productivity has increased by 50%	This milestone is being achieved. Based on census data, productivity is measured is 60% which is an increase over the previous year of 23%. It is likely to continue to increase in the coming years as herds recover from the 3 bad years of drought. 60% is a good productivity rate in indigenous goat herds.

Livestock Association training	7 livestock associations have received quarterly trainings in agreed upon topics	Livestock Associations are being trained quarterly.
Dip tank trainings	115 dip tanks have received bi annual trainings	These are ongoing.
Herd commercialisation	5250 farmers have commercialised their herds (750 per LA)	Farmers are selling their goats more regularly as can be seen with the increasing number of monthly sales. Monthly sales were at 637 goats for this quarter. 6339 farmers are active in the project. The innovation platform looked specifically at this to get farmers more active in selling.
Exchange visits	At least one exchange visit per project (5 total) has happened with lessons learned documented. At least one visit to another country has taken place where goat markets are formalised.	Farmer exchanges are happening regularly and farmers' theme days. There was a learning exchange to the Northern Cape to learn about the Tankwa goats and to visit communal farmers. Theme days are happening weekly.
Ongoing monitoring and evaluation	Ongoing collection, compilation and analysis of data. Lessons learned collected and shared. Annual surveys. Ongoing reporting to relevant stakeholders.	25 new dips had censuses carried out. Baseline was carried out. M&E Officer currently getting further training.



Collecting and processing stover for feeding goat kids



