Emergency Veterinary Relief Program
Gedo Region, Somalia

Participatory Impact Assessment

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Acknowledgments

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I wish to express my thanks to communities for their time and patients in educating us about how they survived and changes occurring within their capital assets. I also wish to thanks the many institutions and individuals who freely shared their knowledge and insights.

I believe that this exercise has been valuable 'participatory learning and sharing process' that will help fine-tune the project. The PIA exercise was very positive experience for all who participated and I hope lesson will feed into their individual programs.

Abbreviations

AHA - Animal Health Auxiliary
AHW - Animal Health Workers (includes: CAHW & AHA)
CAHW - Community Animal Health Worker
CCPP - Contagious Caprine Pleuro-pneumonia
CBPP - Contagious Bovine Pleuro-pneumonia
CBAHW - Community-based animal health worker
ECHO - European Commission Humanitarian Office
EPAG - Emergency Pastoral Assistance Group
EVK - Ethno Veterinary Knowledge
EPG - Eggs Per Gramme
FMD - Foot and Mouth Disease
HF - High Frequency
LSD - Lumpy Skin Disease
MoA - Ministry of Agriculture
NAHA - Nomadic Animal Health Auxiliary
NORDA -
OAU/IBAR - Inter-African Bureau for Animal Resources of the organisation of Africa
PIA - Participatory Impact Assessment
PRA - Participatory Rural Appraisal
PAP - Pastoralist Assistant Program
PRP - Pastoralist Recovery Program
WFP - World Food Program
SWOT - Strengths, Weakness, Opportunists, Threats
VSF –CH - Veterinares Sans Fronteres Suisse

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Executive Summary

1. The CAHW system operates under ECHO/COOPI funding. The interventions of VSF Suisse are relevant to the pastoralist and agro pastoralist whose livelihood is based on livestock. Livestock is the most important asset of the pastoralist in the region and are used for their subsistence and long-term security in the even of drought.

2. The participatory impact assessment includes 3 week of field base PRA training and field practical in Gedo region. The PIA team use the "without" and "with" approach to assessed VSF mass treatment activities in the field. The project conducted baseline and needs assessment before the intervention.

3. The staffs of VSF are highly motivated and their degree of motivations for the job reflects the fact that they all contribute to the smooth delivery of the animal health service. Staff involve in cross border interventions are working without any formal contract, job descriptions and staff policies which need to urgently corrected.

4. The level of community participation is very good and their involvement within the project attributes to the level of achievement of the project. The clients and beneficiaries are aware of the project activities and the elders of Gedo were involved in the design of phase 2 of the project.

5. The project entry point into the community has attributed to their success. The mass treatment campaign was used as a vehicle to enter the community. EPAG a local NGO played an important role in bring the local authorities and livestock owners on board at the start of the program. The community structures were recognize and the project work through the local structure. The elders help in creating the awareness amongst the pastoralist who lost hope in veterinary medicines due to an increased in poor quality drugs. The elders and livestock owners' selection selected the CAHWs.

6. The project vets conducted an initial 5-day centralized residential training course with the selected CAHW with emphasis on practical rather then theory. The training was a minimum of 10 hours a day in both theoretical and practical work spread over the 5 days. All CAHW upon completion of the training was given a mini pharmacy each. The CAHW need more training and the project would need to focus its activities towards capacity building of the CAHW in order to sustain the program.

There is a need for **decentralised farmers training** to be conducted more regularly in the community.

7. The demand for the community based animal health workers is very high. Livestock owners usually book appointment with the CAHWs and their services are highly in demand. Demand is seasonal and livestock drugs need to be based on demand. The CAHW receive good incentives from the high turn over drugs. The CAHW are walking long distances to meet the demand of the livestock owner. The area cover by a CAHW is too wide and would need a **donkey transport** to help increase their coverage.

8. Livestock is an important source of livelihoods in the region. There are increase benefits derived from livestock (income/livestock products both economic and social benefits). There are changes in livelihoods and the people feel that the lives are becoming better off now than the last 12 months due to the easy access to veterinary drugs and the availability of rains and pastures.

9. VSF relation with the local community is very good (could score 4/5) and the community appreciate the program for the level of their involvement in the project. However, there is a need to get OAU/IBAR on board for the second phase of the project.

10. The livestock sector was heavily impacted by the consecutive droughts, the lack of pasture and veterinary medicines. The baseline survey indicated that livestock condition in Gedo was extremely poor. Cattle were impacted on more than the rest of the species and therefore framers were selling their livestock cheap to invest in small stock. The level of malnutrition was high amongst women and children. Diseases were rank high amongst the rest of the other production constraints.

11. The project has made an impact through the mass treatment carried out in the community. Through the ranking exercise livestock disease was rank second and predators rank first on the list. The prices of livestock are increasing on the local market. Milk production is also increasing including the number of young. This is attributed to the increased access to veterinary medicines and advice and the availability of rains. The livestock are very responsive to the medicines and livestock owners are paying for the medicines.

12. There are changes resulting from the establishment of the community based animal health delivery system. The changes are visible in the community and livestock owners are seeing the benefits of the CAHWs. There is an increase speed of livestock problems and responds to outbreak. The primary purpose of a CBAH program is: to reduce morbidity (illness), and mortality keepers thereby increase the productivity of local livestock by improving the access of rural livestock keepers to available, basic animal health services.

13. The report is completed by recommendations for: fine-tuning the project, improving management of VSF activities, decentralisation of the central pharmacy in El-Wak Somalia and Mendara into the region through the already existing pharmacies in the region. The focus of the program should be capacity building of CAHW and local institutions after needs assessment and baselines surveys of their activities and through the farmer decentralised training.

1. Introduction

This report is based on an impact assessment of the community-based animal health programme in Gedo, funded by ECHO. It assessed the impact of the mass treatment campaigns conducted by VSF program in Gedo region. The Somali society is largely pastoralist society, which has adapted over many years to survive in semi-arid locations of Gedo. Livestock is the most important asset of the pastoral and agro pastoral people of the region and they are used for their subsistence and long-term security in the event of drought, which often occurs. The project beneficiaries are pastoralist and agro-pastoralist **who use livestock as the basis for their** livelihoods.

Livestock development is constrained by amongst the most important factors being; insecurity, the lack of livestock services, lack of central government, the impact of drought and diseases on their productive potential, the significant reduction of reproduction and the reduction of milk availability for use by households.

The project activities, cover three districts out of the six in Gedo region, these include in El wak, Garbaharey, Berdera and parts of Bula Hawa districts. Mines in and around Lanqura and Gandandowe have limited the team movement especially the notorious "Mtaar-bar zone" which was mined by Ali-iti-haad in 1997and further insecurity north of the district.

The number of CAHWs operating in Gedo Region is 48 (96%) out of the 50 CAHWs targeted to cover the accessible districts by the project. The targeted CAHWs for the region were 100 but due to the decline in security situation further north Dolow, Luuq and parts of Bula Hawa districts could not be accessible to the project. However, as the population of livestock is huge including the vast area and constant livestock migration the 50 CAHWs are diminutive and more manpower is needed to meet the demand of livestock owners.

The project has made an impact due to the mass treatment campaigns conducted for 3 to 4 months. The mass treatment has minimized the impact of drought on livestock productive potentials. The intervention of VSF Suisse into the region is necessary and farmers are seeing the potential benefits from healthy animals which are, the increase in market price of their animals, increase milk production; higher survivability for the young, livestock increase in weight, bright and beautiful). There is a growing need for vaccination against CCPP, which started in September 2002. There are growing demand for vaccination against other transmittable disease like Newcastle's for poultry, CBPP for cattle, etc.

The project has treated more than **162,387 livestock**. Shoats' accounts for 155,671, cattle 3,529, camel 3063, and donkeys 154 (figures from April to August 2002). An overall treatment is about **221,000 livestock being treated** by the project out of the 250,000 targeted within the region. Gedo have the higher number of shoats, followed by camels, cattle and donkeys.

The **lack of bases in the region has higher logistical implications** for the delivery agent (VSF) and the intermediaries who travelled longs distances to replenish their kits. Replenishment is very costly for the CAHW who spend on average 400 – 2400ksh on a monthly basis. There is a need to decentralise the current pharmacy based in El wak Kenya and Mendara into the region using the already assisting private pharmacies after a careful dialogue and memorandum of understanding with both the communities and the private stores owners. This will reduced the cost of the CAHW travelling so long distance to replenish their kits.

The community-based animal health program has become more popular due to active participation and support of the locals. The CAHWs offers a number of distinct opportunities and benefits to the pastoralist by treating their animals and making veterinary services so easily available since the collapse of the central government of Somalia.

The funding phase of the Pastoralist Assistant Program (PAP) is to phase out by the end of the year 2002 to be succeeded by a new program with more emphasis on a sustainable community-based animal health delivery system, minimized the impact of drought on livestock productive potentials;

improve livestock health and trade in the region and strengthen assistance to private pharmacies to replenish the AHW kits on a profit making basis. There is a need to promote veterinary service privatisation in the region of Gedo. This should be a carefully studied process that requires community dialogue, action plan, and memorandum of understanding with the private storeowners and the community.

1.2 Terms of references

The consultant was selected based on his experience of working on livestock development projects and the use of a decentralised veterinary services delivery program, especially the community-based animal health delivery system, as part of the veterinary extension delivery strategy. The consultant is experienced in conducting participatory approaches, training in participatory rural appraisals (PRA) and the use of the tools throughout the project cycle. His ability to work in emergency environment in Liberia, Sudan, Somalia, Ethiopia, and Guinea

1. To assess the impact of the mass treatments and vaccination campaigns carryout by VSF Suisse in Gedo region and to review the CAHW services in the project areas;
2. To identify the learning needs of the project intermediaries, identify training skills in participatory tools and impact assessments;
3. To provide PRA training and to outline methodology and PIA tools that will be used to conduct the impact assessment;
4. To conduct a practical demonstration of the tools during the field exercise and build the confidence of the team on the use of the tools; and to compile a participatory impact assessment findings report.

1.3 Background to the livestock intervention[1]

The project was established based on needs and baseline assessments conducted with the participation of the community. The consultants hired to conduct these surveys used RRA tools. The studies identified livestock production constraints such as high incidence of livestock diseases (poor body condition and high mortality); fake livestock drugs on the local market; lack of pasture (drop-out pastoralists); poor livestock market (asset depletion); milk production by over half of pre war level (malnutrition especially in mothers and children); trained animal health workers, and a private veterinary pharmacy in Elwak Somalia. The pastoralist expressed willingness to pay for the service but not a full cost of the drugs.

The Gedo project is funded by ECHO and implemented by COOPI and VSF Suisse with hierarchical objectives to improve access to food and enhance trade for the pastoralist in the Gedo region. . The purpose of the project is to strengthen the community-based animal health delivery system to improve livestock health and minimize the impact of drought and disease on their productive potential.

About 250,000 animals expected to be treated and vaccinated. 50 community-based animal health workers and 10 AHAs trained. The project kicked-off with the identification of professionals from the community with the help of the local authorities and begun the mass treatments and CCPP vaccinations for shoats in El-wak, Garbaharey, Berdera, and parts ob Bula Hawa districts. The project started with farmers paying 50% cost recovery for the services. See annex 1: time line of the VSF Gedo project

[1] The project has been document throughout the whole management cycle: needs and baseline assessments; identifications, design, planning, mobilization, implementation but have actually just begun a proper monitoring of the community based animal health workers established in July after 4 months of mass treatments and vaccination campaign

2. Participatory methodology used during the assessment

The PIA training and field travel lasted for 3 weeks in Gedo, with including one week PRA field-based training in El-wak, 2 days field preparation, 5 day data analysis and debriefing field staff and regional office in Nairobi. The security situation was good and the team did not envisage any security problem. The PIA team included a PRA trainer, two veterinarians from the project and the 4 team leaders based in the region. On completion of all interviews and investigations the team arranged a time with the elders and livestock owners and provided a feedback about findings. The PIA team visited more than 5 locations including water points or boreholes and grazing fields. Below a summary of itinerary PIA team 3 weeks activities:

Consultant's work plan for the PIA mission		
Dates	**Planed program**	**Actual days**
September 28 –October 5th	Arrived Mendara PIA training and field preparation	El-wak Kenya 8days
October 5th – 8th	Damasa, Nusdariq & borehole + grazing field	Damasa 4 days
October 8th – 10th	Arrived El-Ade; visit boreholes and grazing field + households	El-Ade 3 days
October 11th – 13th	Arrived Samarole, Elwak, El-banda, visit the private pharmacy	Samarole 3 days
October 14th – 18th	Field analysis and feedback to the field team, met EPAG – K; NORDA Mendara	Mendara 5 days

An initial 5-day field based residential PRA training was conducted in Elwak Kenya for all VSF field staff and CAHWs who were considered as the primary beneficiaries before conducting the PIA. The secondary beneficiaries were staff from the pastralist recovery program (PRP) based in Kenya. The PRA training was concerned with introducing the tools and discussing many development issues using participatory approach with emphasis on practical rather then theory. The training was conducted in Somali a language 98% of the participants' understood and spoke fluently. The facilitators were two Somalis from MoA Kenya with technical assistance from the consultant.

The PIA tools were highlighted during the PRA training. The training was a very positive experience for the participants, and trainers who shared their field experiences. There were rich exchanged of ideas and participation. I hope that energy we had during the 3 weeks in the field will be diluted and that they field staff will use their newly acquired skills to train other staff. Experience from around the world shows that training in participatory approaches and methods is particularly useful for veterinary staff involved in CAHW services and this 5 day field based training makes frequent reference to these methods. It is essential to note that PRA/PIA is not only about tools and methods, but also requires professionals to adopt a respectful, sensitive and open approach to working with communities. Therefore, veterinary are encourage to recognized their limitations and be willing to learn in partnership with local people.

The participatory impact assessment, therefore, employed informal interviews, semi structured interview techniques to generate qualitative information. Transect walk/ "Sahaan" was used including ranking and scoring, participatory mapping exercise of livestock movements, incidences of diseases; group discussions and key informants interviews. In addition the PIA team developed fieldwork checklist **see annex 2.1**

Majority of the morbidity was identified through the participatory mapping exercise in Gedo which revealed a finite set of common and predictable occurrence disease problem **as shown on the map in annex 2.2** The assessment had needs and quantitative baseline assessment data on animal health situation 'without' a community-based animal health service delivery system.

2.1 The approach "before" VSF interventions and "now" with VSF interventions

The PIA team use the 'without' and 'with' approach to assess the 6 months of project activities in Gedo region particularly; the mass treatments campaign. This approach allows the pastoralist to retrospect on the past and value the present and also to assess changes in the community capital assets and to share their perceptions about the project. Here, we were accessing the community perceptions of change and the delivery of the service. The most common tools used were ranking and scoring, group discussions and semi-structured interviews including transect (Sahaan) walk. One key learning experience of the PIA team was the use of the transect walk. Using transect walk was the best method to interview women informally. The team found it much easier to sit and shared their perceptions about the project. It was much difficult to gather the women in a central location. The tool was very helpful as we met many women during the transect walk who shared their perceptions of change within the community.

During the assessment the PIA team visited several water points and grazing field to assessed the project impact and community perceptions of the project. At one water point we met few pastoralist who had travelled for several miles in search of good pasture. They were conducting the 'Sahaan', which is usually done by the strongest man and most experienced amongst the pastoralist. We had hoped to interviewed the men but instil they became the interviewer. They asked us about vegetations, natural water pans and depths, kind of disease experience in that location, availability of drugs etc.

They interviewed other pastoralist at the borehole about the livestock and human population that have migrated into the area due to available pasture. It was a learning experience and an opportunity to see the use of the transect walk by the pastoralist and how they conducted their interviews. They spoke to men, women and children about the situation in the area. The men told the PIA team about the use of the tool and the importance of conducting such walk. They disagreed about the use of vehicle to conduct transect and caution the team to avoid such practice. They informed the team about the disadvantages or limitations in using a vehicle to conduct transect.

2.2 The service delivery chain for a community-based animal health program in Gedo region Somalia

The main purpose of the community-based animal health program[2] is to reduce morbidity (illness) and mortality (death), and thereby increase productivity of local livestock by improving the access to rural livestock keepers to affordable, basic animal health services. This is made possible through the timely contribution of many stakeholders identified in the box below:

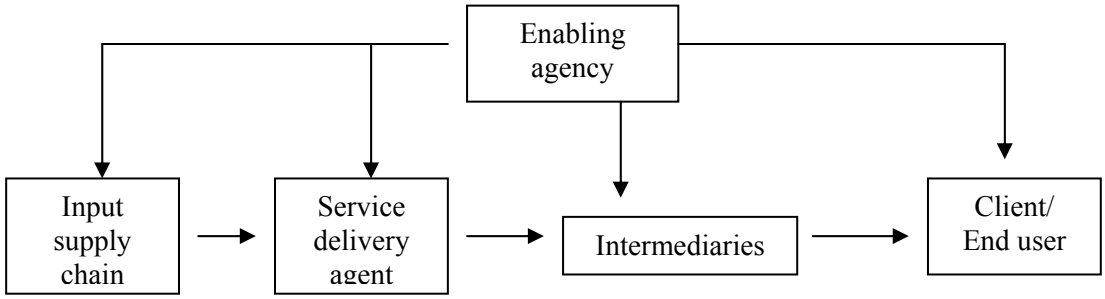
Stakeholders	Locations and descriptions
Enabling agency & input supplies	**ECHO/COOPI** representatives who fund/advise the livestock sector program- Nairobi based and supply drugs and vaccines and veterinary equipments
Service delivery agent VSF – CH	**Regional VSF – CH** and partners in Nairobi and Mandara (EPAG – K) VSF –CH field staff and program administrator, field coordinator, field vet,
Intermediaries CAHWs/AHA/Etc	AHAs; field supervisors and community-based animal health workers including the drivers and support staff in the field
Clients/beneficiaries livestock keepers & their families	Elders, local officials (create the enabling environment); pastoralist/agro pastroalist main customers to the service; herders and their families (women and children); youth groups and women institutions

The achievements of a community-based animal health delivery system highly depends on the selection procedures and criteria and placement of community-based animal health workers who are

[2] Community-based animal healthcare- A practical guide to improving primary veterinary services by Andy Cately, Stephen Blakeway and Tim Leyland

trained to recognise, and equipped with a mini pharmacy/starter kit to treat or prevent, diseases and to increase easy access to veterinary medicine and advice.

The stakeholders are presented in the flow chart below is the service delivery agent:



Different people within the communities have their own perspectives, needs and ideas for improving veterinary services and it is important to include all the stakeholders in the initial stages of community a community-based system[3]. The various interest groups within a system are sometimes called 'stakeholders' because these people have a 'stake' in what happens and will be affected, either positively or negatively, by the new service. This is an area the project has strengthens and would need to continue to involve all stakeholders within the project cycle.

3.3 Review of the VSF-Suisse field program in Gedo Region Somalia

During the eight days of PRA/PIA training, the team met together and discussed about the field activities in Gedo region. The meeting was conducted separately with the staff at Ew-wak base in Kenya: logisticians, field administrator, field vets and office securities. A separate meeting was held with the team leaders, and CAHWs who were present at the training. Before reviewing the program, we looked at management matters, SWOT analysis of the VSF program and participation throughout the project cycle.

3.1 Management matters

The program staffs in El-wak are very active and motivated but were quick to point out that they have no formal contract with VSF, job descriptions and staff policies. Although the staff have had no formal job descriptions they all seems to know what they are doing within the project. During the discussion the staff completed a task as to what they think their job descriptions. I found the staff highly motivated and willing to work but it is crucial that they all be given a written contracts and a formal job descriptions and a staff policy particularly those involved in cross border interventions. Recruitment within the Somali area is much complex and limits free access to all. It is usually done on clan afflation, security etc.

However, the level of staff and qualifications are good, for example, the pharmacist/logistician is an AHA including the administrator and 2 vets. In particular, the degree of evident motivation for the job reflects the fact that they all contribute to the smooth delivery of the animal health service. See annex 3.1 for details

The storeroom does not have a stock card in place and the project is working without an HF base radio. The project should improve its security requirements for the field or run a much higher risk. Having an HF radio is very crucial and staff should not be allowed in Gedo without a formal contract signed. Regular **team meetings**, community meetings and team building exercises are conducted. The four-team leaders/supervisors are currently on daily hire. It would be at the project advantage to include these supervisors as staff who will provide technical support the CAHWs.

[3] Community-based animal healthcare: a practical guide to improving veterinary services by Dr. Andy Cately

3.2 Three SWOT analysis were conducted 1) with staff of VSF; 2) the intermediaries and 3) the client and beneficiaries:

The PIA team observed amongst the three separate groups interviewed that there were generally good rapport between the delivery agents, the intermediaries and the clients and beneficiaries. The team also observed behaviour change, farmers' willingness to pay for the services, general appreciations for the services, increase access to veterinary medicines and advice and an increased speed of response to livestock problems. Farmers' are now experiencing increased benefits derived from healthy animals (income/livestock products both economic and social cultural benefits).

The accessibility of the AHWs activities to all the community, which VSF operates, is a critical indicator of the number of animal being treated and spatial preference in relation to distance cover between the AHWs and their client.

An essential element of impact is that, the services provided by the CAHWs are of good quality. The community appreciate the contribution of the CAHW for the development of their animals especially the poorer resource farmer who benefits from credits. **See annex 3.2, 3.3, and 3.4 for details**

The level of community support enjoyed by the AHWs is critical to the sustainability of their activities and impact those activities are having, and will continue to have in the community.

The current cost recovery is 50%, and would need to increase to market price but not abruptly to 100% cost recovery. There is obvious reaction in the case of abrupt increase in price; it is assumed that the community support will fall including incentives, which is the motivating factor of a CAHW. However, there are opportunities in the closed future to begin to the increase in prices on drugs. It is essential to involve the elders in the discussion on prise before implementing or increasing prices. This is to avoid suspicion of cheating by the community animal health workers and maintained the good rapport created.

The CAHW dislikes **were returning of empties** and **the high transport cost to replenish starter kit/mini pharmacy**. A CAHW on an average spent 400 – 2400ksh per month on replenishing drugs from El-wak and Mendara.

The returning of empties is a form of check and balance of the newly trained community-based animal health workers by the veterinary professionals. This is not actually new to the Somalis who were trained by Ministry of livestock, range management and fishery before the fall of the central government.

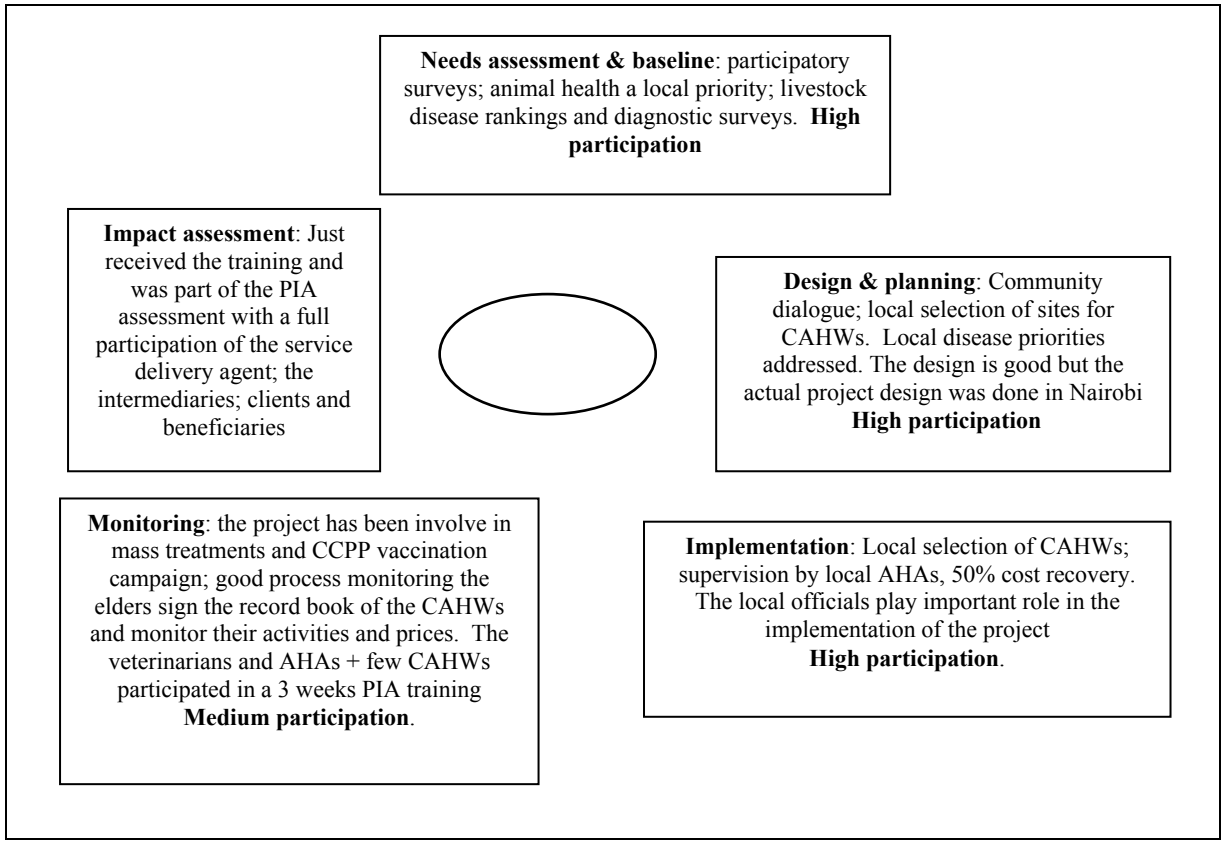
However, trained **AHA** and the former **Nomadic Animal Health Auxiliary** (NAHA) should be exempted. Returning empties should not become and endless activities if the project is to be sustainable or privatised. The community based animal health workers also expressed the need for **animal transport preferably donkeys** to increase their coverage.

Currently a CAHW cover more than 50kms on foot. The drugs are heavy therefore they carried small amount, which become depleted before arriving at actual destinations. The AHW requested burdizzo, hoof trimmer, spray pumps for the control of ticks, and more refresher training courses. The traditional method for castration is too painful and sometimes results to death. The pastroalist used **wooden mallet** to crush the spermatic cord. This sometimes damages the testis.

The clients and beneficiaries expressed their satisfactions for the services, which has reduced the incidence of disease. However, livestock are threatening by flesh eating animals/predators, which is now on the increase. The losses to predators have an economy and social implications to livestock owners.

3.3 Participation throughout the project cycle

The PIA team reviewed the level of community participation at different stages of the project highlighted by Dr. Andy Cately:



Viewing participation throughout the project cycle was an interesting exercise. During the five days field-based training, the PIA team were introduced to the 7 types of participation and participation throughout the project cycle. Participation throughout the project cycle and the 7 types of participation is considered as a mirror for a good development project. Often most projects use the functional participation approach (cooperation).

This form of participation is seen by external agencies as a means to achieve project goals. People participate by forming groups to meet predetermined project objectives; they may be involved in decision-making but only after external agents have made major decisions.

The involvement of the stakeholders throughout the project cycle by delivery agents is a good beginning and should continue for the sustainability of the project. The community were involved in the baseline, needs assessment and diagnostic surveys and the site selections. The community particularly the elders were very involved in the selection of the CAHW and team leaders. An effective community selection is therefore fundamental to the success and sustainability of a community-based animal health program or delivery system. Their selection procedures were very participatory.

The main challenges of the project is decentralising the central pharmacy into the region for easy access to the AHWs who are now spending close to 35USD on a monthly basis to replenish their kits. There are already functional pharmacies well known in the district and the community have asked VSF to work through those pharmacies to replenish the kits of the CAHWs. The elders who represented their communities ask VSF to maintain the existing structure on the ground and strength the capacity of the already existing pharmacies. The elders who attended a meeting last August help to design the next phase of the project and the decided the use of the cost recovery. They agreed that the cost recovery money be kept and use for replenishing of drugs.

The involvement of the 'stakeholders' is relevant to the project sustainability. Constant discussion amongst the stakeholders '**removed project barriers'** and increased the awareness.

An interactive participation (co-learning) – people participate in joint analysis, development of action plans and formation or strengthening of local institutions. Participation is seen as a right not just the means to project goals. The process involves interdisciplinary methodologies that seek multiple perceptive and make use of systemic and structured learning processes. As groups take control over local decisions and determine how available are used, so they have a stake in maintaining structures or practices. The community is very much involves in the project activities and many committed on their involvement within the project as high. However, the project would need to move on to the next phase by conducting more community action plan, dialogue (very good), development of a memorandum of understanding (MoU), and more community participatory evaluation exercises.

"If you think you can stay in Nairobi and decide for us here you missed the point. Here we have the elders in control for security, and management of the people. If you want to work with us you have to inform us about every step you take and we have to discuss it together. That is why we are happy with the project because they call us in Elwak and we discussed about the project, the use of cost recovery, and the future of the program. We are educated here and we can decide for ourselves". An elder in El-Ade"

The elders made this point to illustrate that the project would have to continue the level of community participation now being practiced. They elders are very active within the project and want it to remain their project. They promised to do everything to support the project. Below are the community supports to the program:

3.5 Community participation and support

- The elders and local administration provide the enabling environment (advice on security situation) and are influential in removing most of the road blocks and mines;
- Follow up the animal health workers activities in the field*; "they are at the water points monitoring our relation with the livestock owners, prices and treatment. They also sign the forms before we replenish our kits VSF" A CAHW at Damasa*
- The elders help mobilize the community and welcome the implementation of the cost recovery at the initial start of the program;
- The pastoralist inform the team about livestock movements and disease incidence/outbreaks;
- The community provides accommodations and feeding; restrain their animals; good customers who are willing to pay or provide credits for those who are unable to pay; provide milk to the CAHW while in route to distance locations; sometimes help escort the AHW. One of the pastoralist who once help the CAHW explain his experience *" the drugs was too heavy, for a man to tote on a long distance I did not go too far but was so tired – they need a donkey" after treatment the pastoralist provide an escort for the AHW;*
- Selection of the community-based animal health workers (most of the CAHW are either previously trained or a complete pastoralist, most of them are middle aged and well experienced livestock owners[4]; and provide their rich ethno veterinary knowledge (EVK)
- Transportation – provide the team with camel to transport drugs and equipment;

[4] One of the CAHW has more than 19 years of experience with the ministry of livestock, Range management and fisheries of Somalia. He sometimes uses the donkey provided by the chief of his village to cover long distances.

- Dissemination of information to other communities not easily accessible especially during the mass treatment and vaccination campaign; washing the clothes of the team without payment;

- Participated in the planning of the second phase of the project (the elders from the region were brought together to discussed the future of the project and it sustainability (privatisation was high on the agenda); In consultation with the teams, identify staff for recruitment, selection of CAHWs treatment sites etc; and provide representatives of the community to participate in the project supervisions;

- Commitment of the district commissioners; chief of police; area sheikh, the community-based institutions, local elders and the Ugas to ensuring the project success;

There are so many potential benefits, which the project currently enjoyed by involving the community and by capitalizing on these opportunities the impact of the project will become much higher.

"Go and meet your people, live and stay with them, love them, work with them. Begin with what they have, plan and develop from what they know, and in the end, when the work is over, they will say: "we did it ourselves" By Chinese philosopher Lau Tse

4. Community entry

The mass treatment campaign were a vehicle to community entry. It appears to have had several hidden objectives and its results are evident in the community. There were several community meetings with the elders and livestock owners who give their approval for the implementation of the project. Through the mass treatment there were three kinds of customers 1) believe that the treatment who cure their animals and treated all their animals 2) treated the ill animals amongst the herds 3) those who did not believe and not very much convince that the treatment would work called 'wait and see' group. The mass treatment introduced cost recovery at 50% of the actual cost of the drugs excluding actual transport and operational cost. The livestock proved their **'willingness to pay'** for the service by paying for the service.

4.1 Treatment of livestock

Treatments	Rank using 100seeds	Remarks
Treated all their herds	25	There were lots of emphasis placed on small stock, camels, donkeys during the mass treatments; the population of small stock is very high and they were most affected and households in the better-off and middle households treated all their animals based on 50% cost recovery;
Treated few of their animals	45	Treated the very weak and sick animals in their herds mostly shoats; some of the animals were far away; had cash for few treatments; Some had their animals away in Juba; duration of mass treatment too short and by the time farmers came with their livestock the team have left; poor livestock market at the time of the mass treatment and less cash in circulation;
'Wait and see'	30	Did not belief in the strength of the medicines; complaint about cost; wanted to see the reaction of the medicines before attempting to treat their animals; fear that treatment will reduce the production of their animals or harm their animals; Check whether drugs are fake; see the changes in the animals treated; Hope that the drugs will be given free after sometimes; wait to see the rain fall before treating their animals; animals in distance places; The number of animals of the poor is very small and they prefer breeding than selling the little they have to treat the others;

EPAG led the community entry for VSF based on their knowledge and working experienced in the region. They were involved in the recruitment of staff and hiring of vehicle and played a significant

role in the community dialogue with the elders. The mass treatment provided an opportunity to interact with the selected CAHW for over 20days of stay in a given community.

The team had the opportunity to observe the CAHW relations with the community, reaction to livestock (restraining), relation with people, ability to work as CAHW etc. The process was involving and participatory the team provided feedback to the elders about their observation about the selected CAHW and the community at the end evaluate the CAHW and if not suitable would select another.

The mass treatment at the very beginning affect on the livestock owner's behaviour who at the very beginning of the project was specious of the treatment based on their past experience. The level of fake livestock drugs on the local market was high and those providing the service had little or no technical knowledge about livestock. The elders and local officials at the start of the program treated their animals so as to convince the pastoralist. Some of the elders provided credit facilities to some livestock owners in order to treat their herds.

At the beginning it was difficult but after 3 weeks of treatment the demand for the service became so high. *"I treated 3 camels out of the many I had for mange but after 14 days my animals skin began to change and after few weeks those camels became bright, shining and beautiful and produce good milk"*

After the livestock owners began to see the benefits of treating their animals the demand became high. Livestock owners saw for themselves 'dead worms' in the faeces of the animals and after changes in body condition.

The project approach to community entry with the involvement of EPAG was very good and this has improved the project and community relations. The community feel very much part of the project and are willing to participate. The elders role were respected and they were involve into all stages of the project particularly the implementation and monitoring. Projects usually fail by the 'way the enter' the community. The livestock owners and the authorities expressed happy with the entry procedures by the project and the frequent consultations before any change into the project for now.

5. The selection process of a Community-based animals health workers

The sustainability of a community-based animal health delivery system depends on a careful selection process. The project discussed the importance of the community-based animal health workers and their contribution to livestock development by the elders and livestock owners who were responsible for the selection of the CAHWs. The mass treatment team increased the awareness of the community for three months before the selection and training of the CAHWs.

The community carefully selected the CAHW to work voluntarily alongside the treatment team while the team and the elders watched their performance, attitudes and capability. The mass treatment team interacted with the CAHW and watched them managed the animals, relation with the livestock owners, and the attitude towards the clients and feedback to the elders based on-the-spot assessment of the selected CAHW selected by the community.

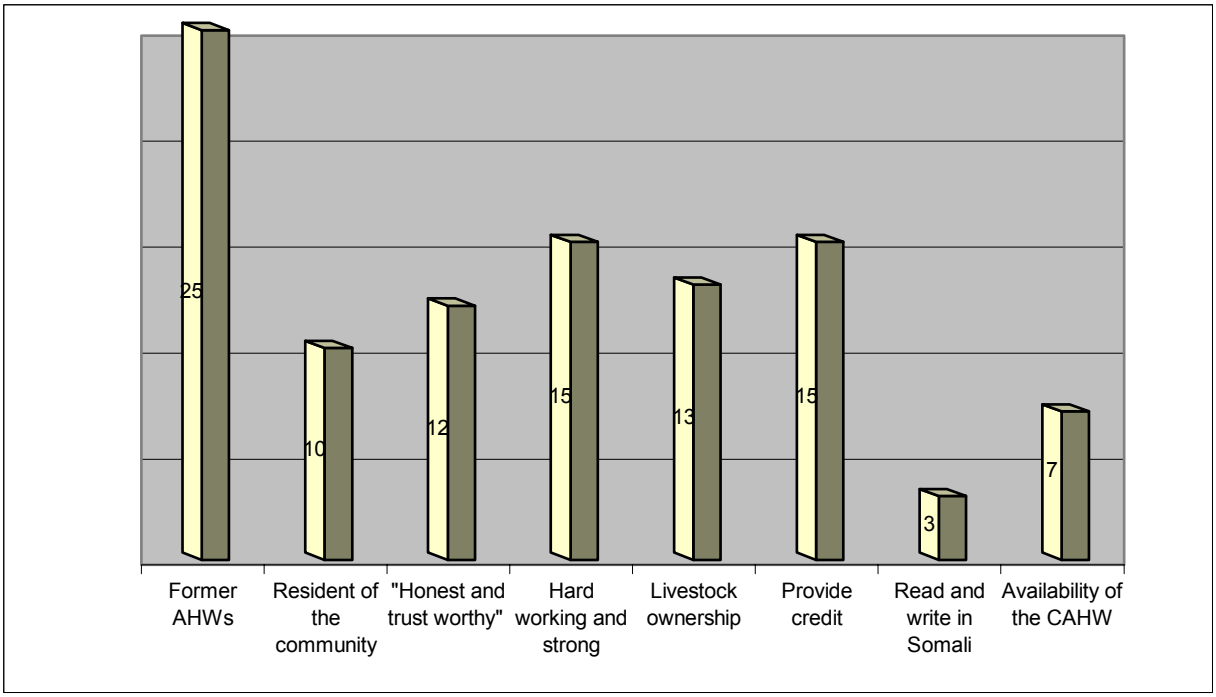
If the selected AHW performance was poor the elders went back to discussions and came up with another option. This careful process has contributed largely to the success of the program. The AHW are currently very active and motivated and willing to walk long distances.

The first preference during the selection was given to those who worked with the central government called Animal Health Auxiliary (AHA) or the Nomadic Animal Health Auxiliary (NAHA). The second preference was beneficiaries of the previously trained animal health workers by EPAG who played a larger role in the community dialogue with the elders and livestock owners responsible for selection.

Out of the 48 selected CAHW 47 are male and 1 female. The project would need to emphases the need for women involvement in the community-based animal health delivery system in Gedo. Women

do play an essential role within the development of livestock and are associated with small stocks and poultry. Their involvement is very crucial and they could be trained to treat the animals within their community and environment.

The elders identified several indicators for selection as illustrated in the graft below:



The bar chart clearly illustrates the selection process of the community-based animals health workers. A majority of the community based animal health workers have good ethno-veterinary knowledge (EVK) on livestock disease. Those selected are strong and willing to travel long distances on foot. The CAHW are receiving tremendous support from the livestock owners, which illustrates the degree to which community participation within the project. The poorer resource farmers who benefited a lot highlighted the provision of **credit by the CAHW**. The community has its own credit arrangements that are respected by all. Most of the interviewees committed on the importance of the **credit** provided by the CAHW. The elders and CAHW who provide credit to poorer resource farmers await repayment after (1) wage labour (2) sales of free resources or (3) sale of livestock. Credits are without interest.

The crucial measure of the selection of the CAHW was felt to be the results of the treatment, farmers' acceptance and support; the degree for their motivation and enthusiasm of the CAHW also reflects the fact that remuneration (incentives) is very good. The financial compensation from sales is shared at 50% of the cost recovery at the moment.

During a group meeting with the CAHWs they were asked for process indicators for an active CAHWs. Below are the process indicators listed by the Animal Health Workers.

Each criterion received equal weighting and these indicators would enabled the project assessed a CAHW against his/her colleagues, while offering services to livestock keepers.

One who often treats and replenish his/her kits; raised awareness among his clients about improving the health of their animal; report outbreaks and strange diseases to the vets;

Pay all cost recovery; migrate with the pastoralist; have good rapport with his/her clients and the community; increase coverage; provide credit for livestock keepers; provide livestock health training; proper diagnostic and treatment; taking the CAHW activity as part of livelihood; attend refresher training and meetings.

An organize community-based is an appropriate technology including the limitation and less quality drugs on the market to the use of good quality drugs with quick responds to livestock problems.

5.1 CAHW training and support

The project vets conducted an initial 5-day centralised/residential training course with emphasis on practical rather then theory. The training was a minimum of 10hours a day in both theoretical and practical work spread over the 5days. The first residential training conducted April 2002, was refresher training for recruited AHA, clerks and recorders. For these trainees it was apparent that confidence in some skills needed to be developed before conducting the mass treatment and vaccination campaign.

48 out of the 50-targeted CAHW received the first 5-day centralised/residential training in El-wak and Mendera in June – August 2002. The residential training covered the following topics: clinical examination, restraining methods, physiology of the different organs of the body of the animal, vaccination, infectious diseases, internal and external parasites, the difference between healthy and unhealthy animal, about drug handling and dosage of drugs and how to record treatments.

At the end of the training CAHW received basic veterinary equipments and a mini pharmacy which is being referred to a starter kit. **See annex 5.1 for detailed of drugs within the mini pharmacy**

The community expressed concern over the short duration training of the CAHW who are now providing a service. Some of the CAHW are unable to clearly differentiate between the different diseases and there is a need for more refresher courses so as to move into detailed coverage of diseases. There is a 5 day refresher training envisage for each CAHW by the end of November 2002 for the first phase of the project. It is important to note however, that a majority of the CAHW have good indigenous knowledge of diseases because of their long experience as pastoralist/agro pastoralist.

Training should be the main components of the CAHW kit for the sustainability of the service and to enable them provide appropriate services to the livestock keepers. **Regular training of the CAHW** is required so as to increase the livestock owner's confidence and improve the skills of the CAHW. Training of the CAHW is very essential for the **sustainability and privatisation** of the service. The project veterinarians should **prepare training materials** (for references) and **treatment guidelines** for the field supervisors and CAHW centralised technical training. The materials will feed into **decentralised training** of livestock owners.

The project veterinarian should also prepare and conduct **farmers training** on a more regular basis. The field supervisors with the help of the community-based animal health workers should conduct the decentralised training for livestock owners. The training should aim at livestock keepers and CAHW customers with emphasis on preparing 'appropriate' visual aids for illustration.

A majority of the CAHWs have worked for about 2 months **without a direct supervision** from the project. The project veterinarian used the process monitoring form to check treatments on arrival on arrival of the CAHW for replenishment. In the absence of a direct supervision of the CAHWs by the project veterinarian, the elders monitored the performance of the CAHW at the water point and attested their forms by affixing their signature or fingerprint. **The elders' control of the service** is growing and their role is very crucial for the sustainability of the service. The need for a direct supervision of the CAHW is **crucial for technical back up** and correction of the technical problems faced by the CAHW in the field.

The team leaders highlighted other areas of capacity building or support from the project veterinarians these include:

- Laboratory training (taking blood samples for testing) for better diagnoses and treatment;
- Tool for carryout disease surveillance and reporting;
- Small-scale business managements, record keeping and report writing;

- Requesting for drugs based on demand from the field;
- Report writing skills

5.2 Demand for the service and 'willingness to pay'

The community illustrates their 'willingness' and ability to pay for the service, which is now at 50% cost recovery of the total market prices of the drugs. There is a demand for the CAHW service who usually make appointments with the CAHW to treat their animals. A majority of the CAHW customers booked an appointment with the CAHW based on the increasing demand of their services. One of the most challenging activities of the CAHW is meeting the full demand of their customers in distance place due to the long distances and the heaviness' of the drugs. Livestock owner's willingness to pay for the service was a criterion of the project implementation. The demand for the services and 'willingness to pay' was measured by the quality and appropriate drugs use, AHW ability to walk long distance to treat, and the quality of the service provide by the CAHW.The current willingness to pay is also due to the appropriate use of quality drugs, at correct dosages and the quick impact it has on their livestock.

The pastoralist are willing to pay for the service that are seen important especially the de-womer, antibiotics, cevamac, and treatment against ticks. There is growing demand for the continuation of CCPP vaccinations, and other transmittable disease such as Newcastle's and CBPP. The community animal health workers have **23 different types of dugs in the mini-pharmacy/starter kit** although few are actually in demand and have a high turn over. **See annex 5.2 for list of drugs.**

The project cannot be sustainable with the number of drugs given to the CAHW and therefore drugs should be based on demand and if the CAHW see the need for other drugs could purchase it from his incentives. Drugs with a high turn over is much more profitable to the CAHWs and the y earn better incentives from it. The project needs to base the provision of drugs based on seasonal demand. See table for seasonal disease, which determines the demand.

Diseases associated with seasons

Deyr (October – December) Short rains	Jilal/ Qoraxeed (January – March) Sunny	Guu (April – June) Long rains	Xagay (July – September) Summer/ dry season
Shoats Pneumonia; worms; diarrhea; foot rot; goat pox; CCPP; orf enterotoxaemia; mange; Cattle Pneumonia; FMD; LSD; diarrhea; foot rot; 3 day sickness; tryps; Camel Pneumonia; mange; Unthriftness; orf (young); Lymphadenitis; skin necrosis; Tryps; wry neck; plant poisoning; Hemorrhage Septicemia; Donkeys Pneumonia, worms Poultry Coccidiosis, poor housing over crowding;	Shoats Pneumonia; worms; tick borne diseases; heart water (very common); CCPP; external parasites; Abortion; Unthriftness; plant poisoning; Cattle FMD; 3 days sickness; worms; mange and lice; Tryps; skin necrosis; malnutrition; enteritis; bloat; Camel Pneumonia; mange and worms (esp. in young camel very common); camel pox; abscess; mineral deficiency; Malnutrition; enteritis; Donkey Worms; cough; Poultry Coughing and sneezing, red skin in the feathers, paralysed wing or leg; neck, sometimes it shakes and died	Shoats Foot rot; pneumonia; Orf; worms; tick borne diseases; Cattle FMD; pneumonia; Tryps; worms; bovine farcy; Camel Tryps; pneumonia; pox; Worms; Orf; Wry neck syndrome; skin necrosis; foot rot; Donkey Worms; pneumonia; Poultry Coccidiosis	Shoat Diseases Pneumonia; tick borne diseases, worm; abortion; heart water; enteritis; Cattle Pneumonia; Tryps; worms; tick borne diseases; FMD; LSD (lumpy skin disease); Camel Worms (young); tick borne disease; wryneck; skin necrosis syndrome; mange; abscess; abortion; mastitis; Donkeys Worms; pneumonia; tick borne disease; Poultry Eye closed, wings drooping, stop eating and become weak; stop laying eggs; water green diarrhoea and become dehydrated

Livestock have started migrating within close proximity to permanent water points and the demand for the CAHW services likely to increase. There is a **growing demand for poultry treatment** in the region. Poultry is important for meat, eggs and income. The Somali community in Gedo do eat chicken and its products particularly the eggs. There is high population of poultry in permanent settlements. **The women expressed their desire to be trained in order to improve the health of the chicken.**

Not many are knowledgeable about poultry disease and would therefore require decentralised poultry training for poultry owners. During the assessment, the perceptions of the target beneficiaries and clients indicates the level of impact through the provision of the mini-pharmacy/starter kits and the provision of animal health services have reduced the level of disease incidence. There is also an increase in access to veterinarian medicines and advice.

Drugs are provided via the centralised pharmacy in El-wak and Mendara and via the project during supervision. The current supply route is very expensive to the CAHW and there is an urgent need to address the decentralisation of the centralised pharmacy into the region. This process would require a assessment of the current private pharmacy, community action plan, and the development of an MoU.

There is also seasonal flow of cash, which determines the level of demand for the clients as illustrated in the table below:

Seasonal prices of livestock

Deyr (October – December) Short rains	Jilal/ Qoraxeed (January – March) Sunny	Guu (April – June) Long rains	Xagay (July – September)
Shoats 1560 –2000ksh Shoats 300,000-440,000Ssh[5] (El-Ade livestock markets are El-wak and Bardera) Cattle 4680 – 6000ksh Camel 11700 – 15000ksh Donkey 3120 – 5000ksh Poultry: cock 100ksh; eggs 5ksh; hen 150ksh (poultry are largely eating during Ramadan)	Shoats 800 – 1200ksh Cattle 4000 – 5000ksh Camel 12-15,600ksh (El-wak) Donkey 4000 – 5000ksh Poultry same price as Xagay	Shoats 1560 – 1950ksh Hide, skin (shoats) 50ksh Cattle 7800 – 11700ksh Camel 13650 – 17550ksh Donkey 5070 – 5850ksh Poultry same price as Deyr	Shoats 700 – 1170ksh Cattle 6240 – 9360ksh Camel 12000 – 17550ksh Donkey 3900 – 4680ksh Poultry: cock 50ksh; egg 5ksh; mortality rate increase

Livestock owners could sell the livestock into Kenya, Bardera, Mogadishu and El-wak Somalia. Livestock markets is banned officially into Arabs countries and therefore involvement of OAU/IBAR pastoral livelihoods program is crucial in order to set up a livestock marketing information system so as to increase the possibilities for farmers to sell their livestock outside Africa. The prices of livestock is likely to be better this year due to the increase access to veterinary medicines, trained CAHW residing in the community, and the availability of pasture.

There are seasons within the year that livestock is considered non –marketable and livestock owners are breeding, having enough milk to drink and sell and there are times they would sell or de-stock their herds. There are also seasons livestock owners find distressing and would employed mechanisms to survive.

The cost of drought on livestock and diseases in the past was too high for an average pastoralist who lost a majority of their stock. Prices were low in the past (without the CAHW system) but have begun to increase and therefore, livestock owner's ability to pay for the service is likely to improve.

[5] 1 USD is equivalent to 20,000Ssh; 1KSh is equivalent to 250Ssh

Therefore the project should study the situation and began to increase the cost of drugs to market value. These indicators are requiring because it determines the clients ability to pay for the services. The demand for the services is based on livestock migration pattern see table below for details

Migration pattern and seasonal diseases[6]

Deyr (October – December) short rains - Winter	Jilal/ Qoraxeed (January –March) Sunny/ dry season	Guu (April – June) Long Rains/Autumn	Xagay (July – September) Summer/ dry season
'Sahaan' or transect walk in search of good pasture, water, etc; Migrate where so every a rain falls; animals receives water from natural pans; planting of crops; breeding; labour activities are low The crisis is over and the pastoralists are unwilling to sell their animals; breed period; Most livestock are considered 'non market goods' Few milking animals kept at the homestead; demand for livestock is high; long distance to market; sufficient milk in the field; Husbandry practices e.g. de-worming, castration, and trimmining;	Migration depends of the amount of rainfalls in Dair/dayr season; If the rains were good animals will stay around water points/travel long distance Animals returning to boreholes; at the boreholes in El-Ade for every 40 shoats equivalent to 4000Ssh to water; for every 25 cattle 25000Ssh to water; 50 camel = 75000Ssh; Body condition of the animals is good and healthy; Livestock traders from Kenya comes into Somalia to purchase livestock; By March if there is no rain pastoralist starts distress sales (de-stocking) – stress of drought Malnutrition in children particularly the under fives Camel body condition is good but market is poor due to restricted market and ban on trade to the Arab countries; In January there are less incidences of livestock diseases Harvesting of crops and restocking; transportation (stocking food); vaccination campaigns; select good grazing area and watering point;	Less migration, adequate pasture and water from the natural pans; High fertility rate; increase milk production (esp. camel); rain fed farming in the agro-pastoralist area like El-Ade; Increase malaria incidence and pneumonia in human; Increase incidence of Tryps; Reduction in worms of all livestock; pneumonia incidence high in all livestock; increase in ticks borne disease; Marriages and festivals; high production of livestock; children are healthy; good nutrition; Planting crops; site selection for good pasture; weeding; good grazing season; period for de-worming Husbandry practice e.g. castration High transport cost; poor road condition	Migration depends on Guu rains; if good less migration; if poor there is migration within the region but not to distance places as in Qoraxeed; Harvesting of crops; preparation of land for the coming season; planning for dry season i.e. livestock owners select good herds; zero grazing on farms; pan de-silting Prices on goods are high because the harbors are closed due to the violent wind and weather; Livestock prices are low; if the rains are poor these are the likely effect; change in human diet; hunger period; less milk production; poor pasture; Increase in ticks and heart water (very common); windy and resistance to diseases are very low; high mortality season (esp. in the young); lots of abortion and deaths in the young before VSF but there are many young and less mortality now; Camel migration to Afmadow, Juba, Buale, lower Shabele, Bai region

"We are very happy today because our herds size are increasing (many young) and the body condition of animals have improved" A teenage boy interviewed in the field grazing his animals.

[6] Damasa and El-walk Somalia use Kenya Shilling but El-Ade and areas far from the border uses Somalia shilling. The exchange rate to 1usd range from 20-25000 Somali shilling (ss)

5.3 The important of animal health campaign

The project to date has treated 221,000, 000 livestock in the region. Vaccination started in September 2002 after a meeting with the elders in one location before the PIA. More than 10,000 goats benefited from the CCPP vaccine. There is a growing demand for continuation of CCPP vaccines and other transmittable diseases such as Newcastle's for poultry, PPR and CBPP. The project within in 7 months of implementation has **achieved about 88% of its target**. Livestock owners have seen the importance of treating their animals, which have, improve.

The animal health campaign has increased the need for the service, the quantity of milk, quality of meat and prices on the local market. It is important to note that the **availability of rain in April** this year have an impact on animal health in the region. BUT livestock owners who treated their animals would tell you the different 'now with the service' and situation 'without' the services. From the conclusion the intervention of the project has improved livestock health by making veterinary services easily available and advice.

There have been an increased in livestock response to the treatment and reduction in livestock mortality and morbidity and an increase in the survivability of the young as compare periods 'without' the livestock service.

6 Institutional linkages

The relationship with the local institutions in the region appears to be very good and the stakeholders are willing to participate and maintain the program. The elders were brought down to El-wak Kenya to discussed about the project activities; uses of cost recovery, and the design of the second phase of the project. The role of the elders and livestock owners is very crucial within the project.

The elders are beginning to have a stronger control of the CAHW system in helping to monitor their activities: prices: and their relation with the community. The elders have a much stronger role within the community. VSF and EPAG appear to have an excellent relationship. EPAG is a local NGO operating both in Kenya and Somalia. EPAG led the community entry, selection of staff, and the hiring of vehicle for VSF- Suisse. According to EPAG, their relationship with VSF is based on the VSF community-based approach to community animal health care in the region.

The PAP concept note states clearly that they would work alongside the OAU/IBAR pastoral program to set up a livestock marketing information system to share information on market prices between key regional markets (Kismayo, Bossasso, Garissa, Wajir, Mendara and Nairobi). This is not likely to occur in phase 1 of the project due to the short duration of the first phase. The involvement of OAU/IBAR could take place within the second phase of the project. OAU/IBAR could be very instruct-mental to reducing the fears of the consumers with the setting up of a proper sero-surveillance. The surveillance system and reporting is necessary for the improvement of the service.

This kind of ad hoc reporting will increase the community opportunities and erases fears of major diseases such as rinderpest. The CAHW are the appropriate team at the community level and maintain good contact with livestock owners. This information is an appropriate tool that OAU/IBAR offices required for market search.
ADRA is responsible for water program in the region and they share training sites, information and resources, with VSF in the field. Action Against Hunger: share facilities, security information, with VSF. The PAP and the PRP share bases, staffs and operational cost. The GoK create the enabling environment for the cross border intervention in Gedo, approved selected CAHWs visit for training in Elwak and Mendara Kenya. The PAP and the host community in El-wak Kenya have good working relationship.

6.2 Monitoring and reporting

There is an involvement of the community in the monitoring of the project activities particularly the CAHWs. The community through their elders were involved in the future project design. There is a need to improve the project reporting formant and work plan which need to take a much more logical approach. There is a need for regular **monitoring and evaluation** of activities related to livestock health, market, water, etc.

A detail **monthly work plan** should be completed at the end of the monthly meeting developed by the field veterinarian and field supervisors. The work plan should include the project outputs and objectives and the field supervisors should write a monthly activities report based on their detailed work plan.

There are many useful process-monitoring forms in the field. These reporting forms served as the main sources on animal health information. The disease reporting formant could include information such as: quantifying the impact of each disease on livestock, detailed information on the outbreak that occurred (mapping the areas affected – specific locations of the outbreak); age of animal affected, species of animals affected, assessed the efficiency of the veterinary services delivery, cases of fatality rates (measure severity), collect information epidemic disease such as CBPP, CCPP, FMD, PPR etc,

The mini-pharmacies/starter kits controlled by the CAHWs need to be periodically monitored as to the movement of drugs and cost recovery.

6.3 Sustainability

The community is concerned about the sustainability of this project because *"they have seen project come and go and after their departure there is nothing to show."* Most of the institutions operating in Somalia are privately owned or managed by the community. The Somalis are business minded and are capable of providing the services demanded by the community. This makes it possible for the establishment of a privatised community based delivery system.

VSF main role in the second phase of the project would be to identify local institutions within the community, assess their capacity and put in appropriate interventions to strengthen their capacity. Capacity building of local institutions should be the main focused of VSF interventions.

"We are thinking about the future!' according to one of the elders during our discussion on sustainability. The PRA training has opened our minds to develop future plans and to see the opportunities ahead; good number of NGOs have been working here in the past they left with nothing behind to point on; we are aware that VSF will leave one day therefore we will need to have our own pharmacy preferably those that have been functioning in Elwak and other places";

"It is time we decide for ourselves and think about the future; we shall put forward our own proposal to VSF to intervene in other areas we are very satisfy with VSF activities"

VSF have an opportunity to make a good development project and the ability of the Somalis to manage several institutions on there own for many years without outside existence could increase VSF chances of making a sustainable and privatised system. The community are managing the boreholes, schools and paying teachers salaries, orphanages, milling machines etc.

An example of a private owned pharmacy is the one operated in El-wak Somalia by Hire Sheikh Hessian who is now under technical training by VSF as a CAHW. He established a pharmacy since 1995 with an initial capital of 30,000ksh. His motivation was based on a human pharmacy operated by his brother. Based on the need for veterinary service he established the pharmacy (which is about 4*4 meters sq) and now has acuminated about 250,000ksh including goods and physical cash. The PIA team assessed his store and during our discussions some clients came to purchase veterinary

drugs from his store. He also provides other services like treating his client animals and provides credit sometimes.

He received technical support from CAPE in the past and was trained in sample accounting, management of the store and recognition of diseases and giving correct dosage. The constraints he find in the business is the unavailability of drugs (would have to travel to Mogadishu and sometimes his supplies has not yet arrived; Kenya drugs are expensive); infatuation of prices due to the lack of central government; insecurity and looting on the way to or from Mogadishu. His prices include operational cost. For example: VSF provide Oxy tetracycline (20% - 100ml) for 150ksh and he sell the same for 300ksh. However, a majority of his customers are from the better-off category who preferred to treat their animals.

Hire Sheikh is currently a member of the CAHW as part of VSF technical support to the local institutions. It is an opportunity to interact with other CAHW who in the future will be attached to his pharmacy for replenishment. VSF also provide technical support through training to the other mini-pharmacies functioning in the district. There is good working relationship with those selling veterinary drugs on the region who fell less threaten by VSF activities.

The expectations of the pharmacies is that VSF will in the future attached the CAHWs to their stores on a private making business and that VSF will provide the link to manufactures who will provide them the quality drugs to supply the CAHWs. VSF role in working with the small veterinary pharmacies should be to increase veterinary sales through these pharmacies and provide technical support to both the pharmacies and the CAHWs. It is clear that one of the ways to doing this is to move the cost recovery to market price over a period of time. By setting up a sustainable system VSF will be meeting the needs of livestock producers in the form of affordable veterinary input supplies.

There are good arguments for farmers to pay 100% cost recovery for the livestock services for sustainability and privatisation and continuation of the services in the absence of the NGO. However, the tentative approach of ‘phasing in’ full cost recovery can lead to confusion and affects demand and customers client relationship. Cost recovery was introduced from the very beginning of the project and would need to go up to 100% of the market value over a period of time and livestock owners need to be aware of the changes in price.

Employing the right marketing strategies would maintain the level of customer’s relationship and increase demand. There is an abrupt response if prices kick-up so fast, there would be drop in demand, broken relationship; lack of community support, re-entry of low quality drugs on the local market, low incentives and de-motivation of CAHWs. The clients and beneficiaries need to be fully aware NOW about the increase in price of the drugs to market value. Therefore, VSF should involved the elders who will help create the awareness of the change, however, the only way the project will be sustainable is for the price to be at market value.

VSF activities in Gedo region is very essential by filling the technical ‘gap’ and by making accessible veterinary drugs and livestock services more easily available in the region. However, to support an operated profitable private business VSF will need baseline information about the stores (operation cost, training needs etc) and to workout other technical modalities and sign a memorandum of understanding. The privately owned pharmacies will supply products to the mini-pharmacy control by the CAHWs. During the baseline VSF should check the total value of stock, existing skills, training needs (pharmacy training-pharmacology and the use of veterinary drugs) etc.

The role of VSF cannot be over emphases, VSF should continue capacity building of the AHWs, establish in put supply chain to the pharmacies and conduct financial appraisal for the private pharmacies after every three months. VSF should assess the level of demand (supplies increase by CAHW and livestock owners), physical accounts and balance in stock (this is to check if the business is profitable or not), trading profit and loss statement, balance sheet (total sales and turn over) and cost and benefit analysis. In order to do this VSF would need to support the pharmacies with simple accounting principles set up preferably by the project account. VSF role will be to monitor the shops as a pilot project in order to assess if the pharmacies will be able to manage the system. The

pharmacies should from the very beginning purchase the drugs from VSF based on their demand. The financial appraisal will check if the business is a viable and profitable business.

The pharmacies current risk is the fluctuations in exchange rates and the devaluation of the Somali currency. Another risk factors are the lack of a banking sector due to the crisis and the risk of being looted by thieves on the way to or from Mogadishu. Purchasing drugs from country with high taxes relative to the purchasing power of the customers is another constraints faced by the pharmacies. The lack of a central government and the official ban of livestock to Arab Countries is a constraint to the poor macroeconomic environment existing on the commercialisation of livestock production in the region.

VSF cannot do this all its own, she need other partners on board who have the capacity and capability to strengthen other areas of need. In order to reduce the cost of veterinary drugs to livestock owners after reaching at market value, VSF needs to consider utilizing cheaper veterinary drugs from Europe with assistance of VSF Suisse office in Europe or find manufactures in Kenya who cloud make it supply cheaper but quality drugs to the pharmacies. The pharmacies should be designed as a pilot or experimental phase, putting place the foundations.

VSF should also increase the level of **decentralised farmers training** to farmers in order livestock owners to share their enthno-veterinary knowledge by doing this will improved livestock knowledge about the importance of veterinary. From experience, decentralised training helps the CAHW to treat more livestock because farmers become aware of the importance of veterinary medicines.

The future sustainability of the VSF program in Gedo should be based on the **model for sustainable animal service delivery system** adapted from Jules Pretty. The model is based on three stones illustrating an African three stones use to withhold the cooking pot. The three stones illustrates that in order for the pot to remain framed (1) **technology needs to be appropriate** (e.g. establishment of a community-based animal health delivery system, CCPP vaccination, use of the vermitan, cevamac etc).

The second stones illustrates that in order for the pot to remain framed there have to be an **organize community based.** The pot cannot be sustained in the absence of a well-organised community based. Usually project are not strong in helping to build on "**what the people already have or what the people already know"** and sometimes we damage the local structure by imposing our thoughts on the community. Here, VSF have a lot of opportunities to explore because the community is very responsive to the program and they are involved and willing to uphold the program. Secondly, most of the institutions and business are privatised and the Somalis are very business minded and they have the capability to keep a system running without outsiders support. The community manages all schools, orphanages, boreholes, graining machines with the elders serving as managers. **VSF main role in the community should be identify local structures and strengthening the ability to manage the program in the absence of its intervention.** The program is already building the capacity of the private pharmacies and would need to focus more on capacity building in phase two of the project. **Working through the already existing pharmacy** and building the capacity would be an important step towards institutional building.

The **third stone illustrates supportive institutional building arrangements** e.g. the support from the regional office to staff in the field and building the capacity of its staff to manage a development project. At the **project level** this includes our capacity to design, appraise, plan, implement, monitor, and conduct **community participatory evaluation and participatory impact assessment.** The role of the donor is significant in order to empower the delivery agent to deliver the service and on the negative side the short term funding of projects. The role of the elders is important because they create an enabling environment by removing mines and clearing of roadblocks to enable the project gain access isolated communities.

Each stone received **equal weight** and these could be considered as indicators. The project cannot be sustainable in the absence on one. VSF Suisse should have **a clear exist strategy** out of areas that she

currently operates in the region. The role of VSF in Gedo is very important and by building or supporting a privatised system in the region would lead extending in other region within Somalia.

7. Rural livelihoods and community changes within the Gedio region

Livestock is the main source of livelihoods, which is required for subsistence. The districts in which VSF operates remain relatively peaceful and the communities are rebuilding their lives. Somalia is a collapsed state with no central government but several small states and clan control. Livestock is the main yardstick used to define livelihoods. The consecutive drought had negative impact on livestock production, which had a negative impact on human welfare. Households employed coping strategies to reduce the level of impact on human welfare but most of their assets became depleted resulting to women and children becoming malnourished. Therefore CARE/ WFP had to responds to reduce the impact on human welfare[7].

Somalia long before the collapse of the state has suffered from many crisis resulting in a traumatised society. See annex 7.1 for historical profile

7.2 Community changes in Gedo region[8]

The perceptions of changes that have occurred in the community since the start of the project are (1) there have been reduction of mortality in all ages of livestock (2) increase in stock levels and greater survivability of the young (3) increase in benefits of livestock (4) increase in milk production, good quality meat and (5) increase in veterinary response to disease outbreak and the availability of pasture due to rainfall after several years consecutive drought. The livestock owners are also experiencing increase in price of the livestock as compared to the last 12 months. The project has made an impact on livestock productive potentials and is likely to have more impact if the rainfall in Dyre is good.

The PIA team visited the livestock market and assessed the change in price, for example an adult goat that was sold for 500ksh is now sold on the market for 1200 – 1500ksh and the price of donkey have grown from 2500 to 5000/800ksh. The prices of all species have grown since there have been an increased access to livestock medicines and advice.

Farmers feel that their live are becoming better off now than 12 months ago BUT with a greater expectation that their lives could be better off if there are rains and better grazing land. We discussed positive and negative changes in the natural, physical, social, human, and financial capitals. **See annex 7.2 for the changes that have occurred**

In the natural capital there are signs of improvements due to rainfalls in the region and available pasture after several years of drought. The livestock population are increasing and becoming healthier since the interventions of veterinary inputs by VSF. Change in behaviour is an important indicator of change to livestock development in the region because farmers lost interest in veterinary inputs after several years' of collapse of the central government.

The biggest change the population is in search of is peace and the establishment of a central government who will continue the service and provide better security.

7.3 Ranking rural livelihoods[9]

Livestock is an important source for livelihoods in the region. There are both pastoral and agro pastoralist occupying the region. The community keep a large number of livestock, which are used for

[7] Food security report Somalia, August report, No.9: issued September 2002
[8] The markets and trade are subject to insecurity, looting and payment at unnecessary roadblocks.
[9] Livestock plays an important role in the economic, social and cultural context of the Somali. However, droughts and restricted movement have increased the impact of drought on the livestock productive potentials thus increasing the number of dropout pastoralist and deplete the family assets and livelihood chances.

their subsistence. The table below shows that livestock is the predominant source of acquiring livelihoods in the region.

Sources of livelihoods

Sources	Damasa Elwak district	El-Ade Garbahariel District	Smarole Bardera District	Ave.	Remarks
Livestock	60	34	70	54.7	Milk, dowry, meat, income, entertainment, ghee/oil, zakaat/gifts, transport,
Traders	5	25	6	12	Petty trade, livestock, crops, money transfer, communication,
Contract labourere	16	8	10	11.3	Watering the animals, construction, farm contracts
Rain fed farms	1	16	4	7	Sorghums, maize, beans, sun flower, water melon
Firewood	10	3	3	5.3	Free resources from the natural capital
Remittances	3	10	2	5	Particularly from abroad
Beggars	5	4	5	4.7	Mainly from the pooper resource households
Total	**100**	**100**	**100**	**100**	

7.4 The importance of livestock

Livestock have many uses and importance and these include milk, meat, and dowry. Others are eggs, manure, and security as a source of cash, blood feud, and wealth. There are increased benefits derived from livestock (income/livestock products-both economic benefits and social cultural benefits.

The table provide a description of the uses and importance per species:

Shoats	Camel	Cattle	Donkeys	Poultry
Milk, meat, entertainment, quick cash, zakaat/gifts, exchange for grain, High birth rates, easily sold, soup for camel when the camel is sick, good for drought	Men's pride, high milk production, ghee, oil, enough meat, blood feud, good cash but not easily sold, Dowry, hide, good resistance to drought, transport, sweet meat, The milk is used as malaria prevention-a traditional philosophy; milk good for stomach; Survive on camel milk; water stored in stomach can be use for human survival; hide and skin (bed and rope); You can dowry the best woman in the community; "Camel owners usually do not come to town they survive on the milk"	Good cash, milk, meat, dowry (50 – 100+ depending on negotiation), Ghee, oli/butter, milk sold to maintain the household,	Transport, generate income for the home, Women vehicle, fetch water, Wood, and other households items, Donkey cart	Good medicine for cold (cook as soup), eggs for consumption, income (Ramadan and festivals), Traditional medicines against snake bit Cock 100ksh; hen 150-175ksh; egg 5ksh

Attention should be given to poultry because it important. There are high concentrations of poultry in permanent communities like Damasa, El-Ade and Elwak. There owners feed the poultry but their production constraints are poor housing and health care. Surprisingly, some women expressed their

interest in participating in the project particularly the treatment of poultry and small stock within the towns if they are provided training.

"I have a lot of chickens, I need the drugs and training in how to treat them, when the disease come we watched them died. We eat them, sell them and their eggs, we usually eat a lot of chicken during Ramadan and other festivals"

8. The social groups and wealth ranking

The ownership of livestock determines wealth in the region as described in the table below.

Wealth category[10]

Damasa (El-wak district)			
Better off (Taajirr/Hondon) 12%	Middle (Dheh-da-had) 38%	Poorer resource pastoralist (Maskin) 27%	Very poor (Faqir) 23%
Traders (owner of 1-2shops) 300 shoats 60 cattle 130 camels 10 donkeys 2-3 wives Dependent 15 – 20	Petty traders 140 shoats 50 camels 20 cattle 3 donkeys 1-2 wives Dependent 10 – 15	30 shoats 3 camels 1-2 cattle Depend on the sale of milk to purchase foodstuff and household requirement; Dependent 5 – 8	Contract laborers/wage laborers; 2-3 shoats Collect firewood and building materials; Wife 0-1 Dependent 1-6
El-Ade			
Better off (Taajirr/Hondon) 12%	Middle (Dheh-da-had) 40%	Poorer resource (Maskin) 30%	Very poor (Faqir) 18%
400 shoats 150-200 camel 300 cattle 100-150 million (SSH) Employ laborers (farm) 40 – 70 sack in a good year; 20 dependents 4 wives ("women like this kind of man")	200 shoats 100 camel 150 cattle 80 million (SSH) 9 – 15 dependents 20-30 sack (maize/sorghum) 2 wives	60 shoats 20 camel 30 cattle Farm on his own – 10sack 1-2 wives Provide labour sometimes for the better off;	Receives gifts (zakaat/ alms); the better off pastoralist according to the Quran should give 10% of his wealth to the poor; Out of 100 camel to is given to the poor; 40 goats 1 is given to the poor (3 years old animal and should be a female); the community are aware of these people; Provide labour on farms; 1 wife 5-9 dependent
Samarole (Berdera district)			
Better off (Taajirr/Hondon) 10%	Middle (Dheh-da-had) 25%	Poorer resource (Maskin) 35%	Very poor (Faqir) 30%
100camel 200cattle 300shaots Dependent 20 2-4 wives	50-60camel 60-70cattle 80-100shoats 10-15 dependents 1-2wives	5camel 3-4cattle 20shoats Dependent 5-10 1-2 wives	Contractors 1-3shoats Bring building materials; Collection of free resources (gum/sticks);

The community is traumatized by the huge devastation cased by rinderpest in the past and the consecutive drought, which impacted on livestock productive potentials.

The traditional means of restocking the very poorer resource households is though the zakaat/title given to the poorer households within the community by other livestock owners who aware of the poorer members of the household.

[10] Wealth is dependant on number of livestock owned. Camel is the men's pride because of its relevance/ importnace

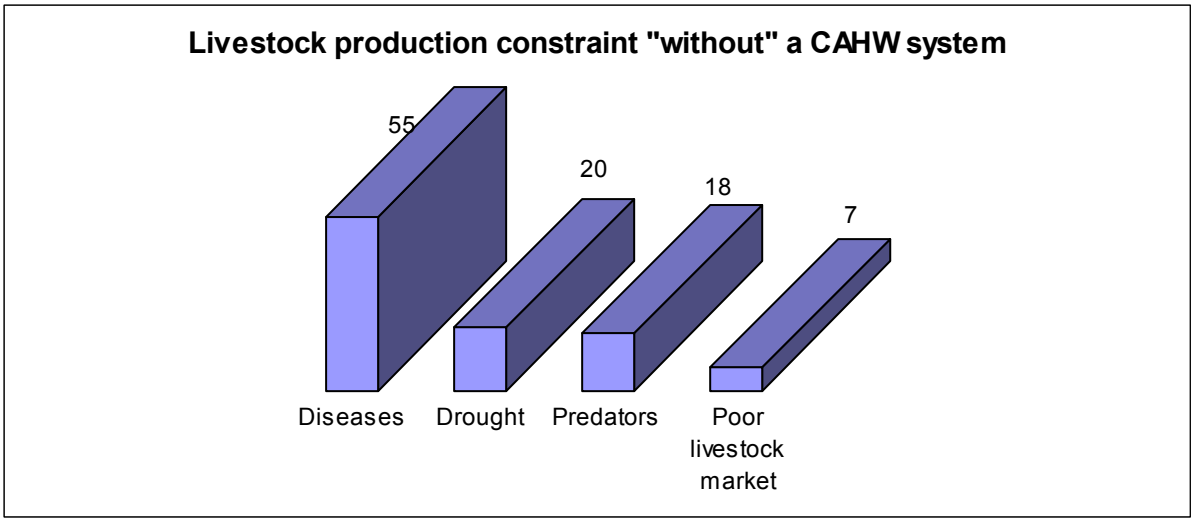
8.1 Labour profile

Women play an important role within the household food economy and currently have changed in role due to the crisis. Some of the women interviewed are women headed households and owners of livestock inherited from their husbands. They are currently involved in other activities such as arts and craft and petty trade. They are largely visible in the markets selling and are controlling the petty businesses and teashops. **See annex 8.1 for details**

"The women are better informant and can provide good history of a sick anima as compared to the men who are more concern about camel and sometimes cattle." CAHW from El-Ade

9. Livestock production constraints "without" a CAHW system

The PIA team assessed the livestock production constraints before and now:



The livestock sector was heavily impacted on by livestock disease and drought, which had a direct impacted on the human welfare. The results of the baseline indicated that livestock condition in Gedo was extremely poor and that there was absence of a functional veterinary services.

The community testified that a year ago, there were dead animals found in every parts of the field, which increase the level of dropout rate of pastoralist. Due to the increasing pressure on the livestock sectors and the devastating results, the pastoralist employed distressed strategies by selling their livestock very cheap, killing the young to maintain the mother, migrating with all the livestock outside the region leaving the family without milk and meat. Farmers were selling the livestock particularly (cattle) very cheap and investing in small stock. Cattle are the most affected speicies by drought.

Farmers who did not migrate paid to water their animals as illustrated in the table below:

Camel	Cattle	Donkey	Shoats	Human consumption
2 shilling per camel	1shilling per cow	3-4 shilling per donkey	100 head per 30shilling	40liters 10ksh water point using engine

The pastoralists pay for the service without credit. Cash earned are spent on maintaining the engine, staff salaries and other operational cost. However, poorer households find it very difficult to water their animals due to the high cost and had to migrate to boreholes where they could manually fetch and water their animals.

The FSAU reported that women and children were malnourished as a result of the impact of drought and were admitted in the feeding programmes. The situation was becoming so grave that WFP/CARE had to respond with general food distributions to cover the food deficit.

The population depends on livestock for income, food, marriage, prestige, and wealth. Livestock contribute immensely to the livelihood of the population; therefore any shock to the production will have a direct affect on women and children.

9.1 Disease that caused mortalities[11]

Shoats[12]	Cattle	Camels	Poultry
Worms 51% Heart water 32% CCPP 9% Enterotox 8%	Worms 61% (esp. young animals) Tryps 32% Anthrax 9% (seasonal and occurs in some region)	Tryps 48% Pneumonia 13% Wry neck and after nervous disorder 27% Worms (young animas) 12%	Newcastle is the most devastating disease that is responsible for about 90 – 100% of poultry mortality – nothing has been done about the problem

The farmers ranked the disease above that causes high livestock mortality before the program. Based on the devastations caused by diseases, drought and the lack of proper livestock response, VSF had to intervene with the support of ECHO to reduce livestock mortality and minimized the impact of drought on livestock productive potentials.

"No constant drugs and if we find them it is too expensive therefore we looked up to the Sheik for God prayers to save the lives of animals sometimes it work and if not we watched them died without any treatment"

9.2 Livestock condition before VSF intervention explained by the stakeholders

Before livestock interventions by VSF-CH

- Behaviour towards veterinary drugs was poor due to many years of poor quality drugs/fake drugs on the local market; lost confidence in veterinary medicine (increase confidence in the Sheik, it was left to God to decide without any form of acquiring traditional medicine or conventional medicines particularly the communicable disease);
- Irregular supplies form peddlers, using human capsules and reading of the Quran was the means of traditional response;
- A significant reduction in the number of livestock caused by diseases, drought (fast depletion of pasture), flesh eating animals;
- Reduction of milk (downward trend in food security situations – malnutrition both human and human);
- Assets depletion (many dead animals in the field, cheap livestock sales, huge de-stocking, killing the young to save the mother);
- Reliant on food ration to cover the deficit; high livestock migration for better pasture; fewer animals at homestead;
- High mortality (many carcases found in the field) and mobility; poor livestock market; "animals were very weak and we could not allow the kids to Suckle the mother"
- Purchase accuracies, Oxy tetracycline and wormcid bulus from the local market at high price and drugs could only be found in the big town on the tables of traders who brought the drugs from the Mogadishu or Kenya;
- Prolonged dry season; high incidence of worms, foot rot, heart water,
- Poor quality meat; increase in abortion, infertility; survivability in the young was poor;
- Increase in fake drugs on the local market;
- Trained livestock workers around but inactive;
- The Sheik played an important role in the absence of livestock service and he was very busy with farmers calling on him for prayers for their animals;
- Collapse of the central government and the lack of livestock interventions;
- Nobody checking after diseases – complete collapse of the livestock sector; no surveillance system;

[11] Haemonchus Contortus (round worms) – most devastating worm infestation for mainly sheep and goats. Sometimes produce allergic responses from animal. Most isolated worm during, the faecal sample analysis in the baseline study. Egg counts were averaged at 600 – 900 eggs per gramme (EPG) in most shoat sampled across the project locations.

[12] Soo gaduud kills sheep many; the sheep have bloody diarrhoea follow by sudden death

- "We were aware of when the chickens will died and when that time comes we watch them died no help"

Livestock production is the basic means of livelihood but is highly constrained by diseases, which was aggravated by the absence of veterinary service of any kind sine the collapse of the state 12 years ago. Moreover, clan conflict and failure to get quality drugs further exacerbated the problem.

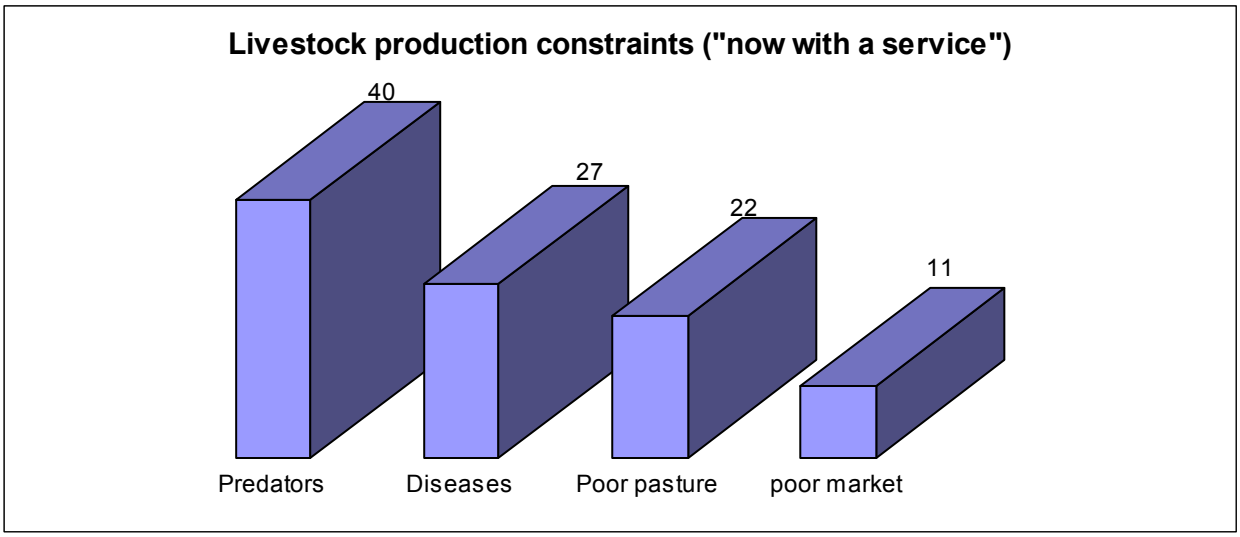
"Last September, I had 300 shoats within 1month 200died and their bodies were all in the field and we did not have chance to pick them up, they were just too much. We were many that lost our animals like this but, thank God!! That the few left by Allah are doing well now, we have seen many changes, my shoats have more than 13 new birth, milk has increase and my wife and children are becoming happy with me. Our animals are so fat now and they are beautiful."

9.3 Impact on animal health service delivery system

In actual fact, it is much clearer to see the impact of an animal health service after 2 to 3 years of interventions. However, this exercise was very essential in helping to fine-tune the project and highlight the importance of conducting such an exercise. The PIA team assessed the impact of the mass treatment and vaccination campaigns and ran some exercise with the community-based animal health worker to highlight the significance of process monitoring and impact monitoring of the animal health delivery system.

The project has made some impact on all species in the areas assessed and the pastoralist were willing to tell us about the significant change in the health of their animals. It was quite surprising as we were often stopped on the way to be congratulated by the farmers who share their joy with the team inviting us to drink some milk with them. Milk productions are increasing particularly those livestock that were treated by the program. The pastoralist informed PIA team about the change in livestock price, the price was increasing as compared to last year.

9.4 Livestock production constraints "with" CBAHW system and "changes"



Livestock production is constrained by the above but with a reduction in the incidence of diseases. The pastoralist are more concerned about the physical destruction caused by flesh eating animals specifically hyena which destruction is compared to livestock diseases by the livestock owners.

During the central government, the ministry of livestock, range management and Fishery managed wildlife but for 12 years of a collapse state, the number of flesh eating animals has grown without control. This has a direct impact on human welfare and many farmers have lost their animals and complain against Hyena, which is responsible for most of the destructions. According the pastoralists

interviewed, if one hyena enters the herds it would kill more than 60 animals. They would not just kill one and eat, But would kill as mainly as possible just within one night.

Before the intervention by VSF, farmers were very much concern about disease BUT as they gained an increased access to medicine the incidence reduced and flesh-eating animals became much of a concern. The community acknowledged their inability to deal with the constant drought, but with the existence of veterinary services they could improve the health of their animals and minimized the impact of drought on livestock productive potentials.

"My animals samples were collected under this tree by Dr. Owor, they were weak and I lost 15 shoats to diseases and drought but after de-worming my animals, I was very surprised to see the worms in the faeces and after few weeks they started putting on weight and now they provide better milk and price. I am proud of my animals and I just sold 2 in the market for 1300ksh each as compare to last year where one was sold for 500ksh."

The project use all means to increase easy accessibility to veterinary service, in July the project hired some camels to carry drugs to inaccessible communities especially Fafahdoon and other remote communities north of Gedo.

Changes that have occurred in the community since the start of the project

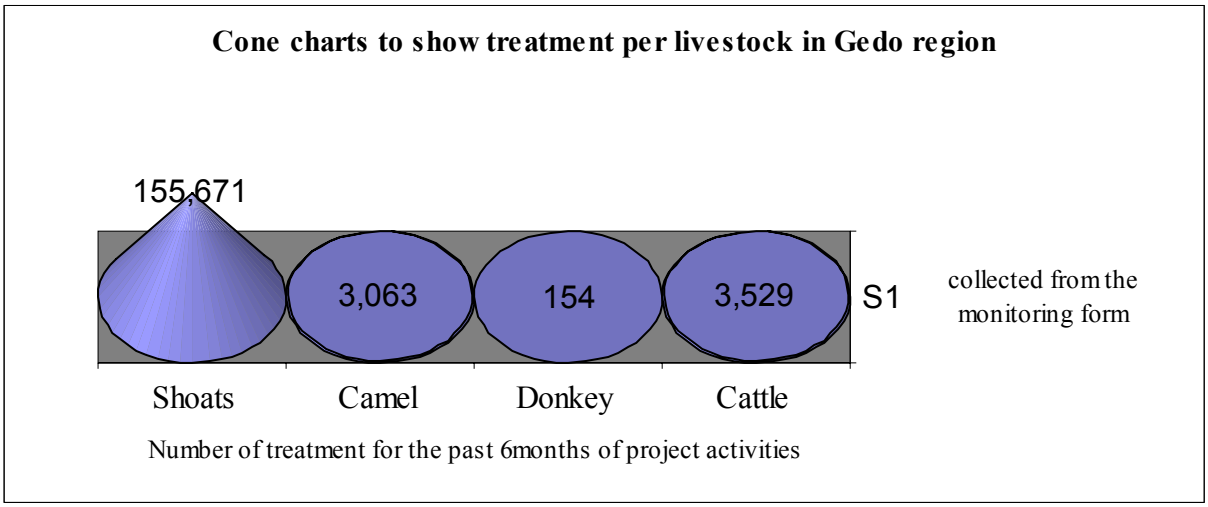
- The level of impact caused by the drought on livestock productive potentials has been minimized;
- The mass treatment and CCPP vaccination campaign helped livestock a lot;
- Animals are healthier and sold with good price; the farmers are so proud to show their animals inviting the team to drink milk;
- Saw worms in the faeces of their animals after being treated, few weeks later the animals gain weight, bright and beautiful;
- Mass treatment targeting shoats because of its significant in term of number; fewer disease;
- Good quality drugs at easy access to the pastoralist; trained CAHW; active AHW and reactivation of the AHA motivation and capabilities; all AHW have a mini pharmacy provided in the starter kit;
- Increase in the number of birth rate; few abortion cases as compare to last year; good body condition;
- Better tolerant to drought; good possibility for better market and better price with good pasture;
- Increase milk production for households consumption but would began to sell during good pasture;
- Easy access to veterinary drugs and services; higher number off-spring; better survivability; 10 – 25% of the population was ranked off-spring less than 2 months;
- No carcases found in the field as compared to the last 12months and baseline results;
- Availability of rains and pasture;
- Good relation between private pharmacy and VSF and are looking for ways towards privatisation;
- Farmers expressed surprise of the quick impact seen since the project interventions;
- Constant supply of drugs; good quality drugs and trained members of the community to deliver the service;
- De-worming and the Cevamac are good drugs with quick impact; farmers expressed satisfaction for the quality of service delivered; (vermitan and albenazole 10% drench)
- Community willingness and ability to participate within the program;
- Increase in food security options and animal production; decrease in the number of mortality caused by diseases; increase coverage;

Some of these changes have taken place due to the project activities and these include behaviour change (would treat there animals after prayers being offered by the Sheik); willingness to pay for the service; decrease in incidence of diseases (reduction in mortality and mobility); increase milk production and market price.

The farmers' have prepared the roof of their house and expect the rain for better comfort. They have de-wormed their animals and expect good pasture for better milk, good quality meat and better price. The natural capital also impact on the health of the livestock by good grazing which results to healthier and increased benefits.

"My camels had mange for 2 years, I tried all the drugs but none did work but after treating with the cevamac within 14 days period I began to see changes in the 3 camels treated. The three treated are very beautiful and bright and producing good milk. I need the team to return to treat the rest of my animals."

Gedo district have high population of small stocks and most of them were treated over the past 6 months of project activities. These figures are from April to August 2002.



During the field assessment with both livestock owners and the AHWs, the PIA team were interested in learning why shoats were treated more than other species. The responses where (1) high concentration of shoats in the area of interventions (2) most of the other livestock were out to Juba for pasture (3) the cost of treating a shoat was cheaper than treating large stock and (4) shoats were treated first as "guinea pigs" to assess the quality of drugs which many in the beginning did not trust because of the influx of fake drugs on the local market.

9.4 Diseases treated within the 6 months of project implementation

Amongst the disease treated worms had 73%, followed by tick paralysis with 18%. The livestock were in bad conditions and after de-worming the speed of response was fast and livestock owners began to de-worm a majority of their herds.

Shoats			
Diseases in Somali	**English**	**No. Treated**	**Percentage**
Goryaan	Worms	114,004	73
Mugle	Tick paralysis	28,015	18
Cada	Mange and lice	6,169	4
Dhugato	Pneumonia	3,270	2.1
Furuq/Af garafow	Pox or ORF	996	0.6
-	NSD/unknown disease	944	0.6
Qala/Shimbir	Heart water	550	0.3
Dheere	Wounds	458	0.3
Xaar/Shuban	Diarrhoea	251	0.2
-	Mineral deficiencies	331	0.2
-	Anapalasmosis	306	0.2
	Unthrift ness	171	0.1
Dhicis	Abortion	78	0.1
Raaf dilaac	Arthristis/foot rot	71	0.0
-	Abscess	20	0.0
-	Babesosis	20	0.0
Shireeiye	Mastitis	13	0.0
Dhukaan/weed	Trypansomosis	2	0.0
-	Snake bite	2	0.0
Total		**155,671**	**100**

Haemonchus Contortus (round worms) – most devastating worm infestation for mainly sheep and goats. Sometimes produce allergic responses from animal. Most isolated worm during, the faecal sample analysis in the baseline study. Egg counts were averaged at 600 – 900 eggs per gramme (EPG) in most shoat sampled across the project locations. However, there may be a need for a second sampling to do better comparison.

There is an increased access to medicines and advice and farmers have treated their animals due to the increased speed of response to livestock problems. The project also had a good entry strategy, which increased awareness of problems, its benefits, consequences and solutions to animal health. Increased veterinary response to disease outbreak like CCPP has reduced the level of mortality experienced by farmers.

A majority of the camel had migrated to Juba during the mass treatments and vaccination campaigns. Tick paralyses accounts for 42% of the 3,063 animals treated. The treatment against mange has reduced the incidence of mange amongst herds that were treated. Due to the cost of the medicine (cevamac) many farmers decided to treat only the very sick animals. Tick paralyses are contagious and treatment of fewer of animals is less helpful and there is increasing need for the project creates awareness of the disease.

Camel			
Diseases in Somali	**Disease conventional name**	**No. Treated**	**Percentage**
Cada	Tick paralyses	1,280	42
Maco	Mange	986	32.2
Geed daag	Worms	299	9.8
Furuq/Il god	Pox/Orf	130	4.2
Dheere	Wounds	96	3.1
Dhugato	Pneumonia	85	2.8
Dhukaan	Trypanosmosis	59	1.9
-	Speticaemia	27	0.9
-	Abscess	25	0.8
-	Unthrift ness	24	0.8
Qarar/garir	Skin Necrosis	21	0.7
-	Nervous disorder	8	0.3
Shimbir	Wry neck	7	0.2
-	NSD	5	0.2
Hergab	URTI/Cough	4	0.1
-	Mineral deficiencies	3	0.1
Dhicis	Abortion	2	0.0
Goos Dheere	Anthristis/foot rot	1	0.0
Shuban	Diarrhoea	1	0.0
Total		3,063	100

Farmers need to be encouraged to invest in their animals due to the increase benefits derived from livestock. Somalis are business minded and most of the services rendered within the community are being paid for. It is indeed important to considered the poorer resources farmers in such case but the community have its own unique mechanisms and credit facilities in dealing with the problem.

The project will need to increase the level of awareness and coverage to target livestock owners who did not benefit from the mass treatment through the community based animal health delivery system. One impression that the PIA team got is that farmers are aware of the increasing benefits derived form healthy animals.

Tyrpansmosis accounts for 57.2% of the cattle diseases treated followed by worms with 21.1% and tick paralysis with 12.9%. The body condition of cattle in the area assessed could be ranked as 3 out of 5. Their eyes are bright, active, no mucus discharge and there were no signs of diarrhoea. However the lack of pasture was still a major constraint.

Cattle			
Diseases in Somali	**Diseases conventional**	**No. Treated**	**Average**
Dhukaan	Trypansmosis	2019	57.2
Goryaan	Worms	744	21.1
Mugle	Tick paralysis	455	12.9
Dhugato	Pneumonia	123	3.5
-	Mineral deficiencies	82	2.3
-	NSD/unknown disease	36	1
Dheere	Wounds	21	0.6
Xaar/Shuban	Diarrhoea/enteritis	19	0.5
-	Unthrift ness	12	0.3
-	Abscess	5	0.1
Qalal	Heart water	4	0.1
Furuq	Pox/orf	3	0.1
Shimbir	Wry neck	2	0.05
-	Babesosis	2	0.0
-	Anapalasmosis	1	0.0
Gaare	Abortion	1	0.0
Total		**3,529**	**100**

Donkeys were the least treated animals although it is the most worked animals amongst all the species. Donkeys are more associated with the women and served as a means of transport and income for the households. Worms account for 68.2% of disease treated followed by pneumonia and pox.

Donkey			
Diseases in Somali	**Diseases Conventional**	**No. Treated**	**Percentage**
Goryaan	Worms	105	68.2
Dhugato	Pneumonia	21	13.6
Raaf dilaac/af garafow	Pox/orf	13	8.4
Dheere	Wounds	6	4
Canbaar	Mange	5	3.2
-	Unthrift ness	3	2
-	Nervous disorder	1	0.6
Total		**154**	**100**

Some members of the mass treatment team provided free services to the donkey, particularly those in bad conditions. The donkeys responded very well and gained weight and became a good example. Some farmers seeing the results began to treat their donkeys. Some of the women testified witnessing several dead worms in their faeces of their donkeys and how it responded quickly and begun to gain weight.

Changes that have occurred in Gedo since the start of the project

Diseases	Before VSF	Now with intervention	Remarks
Worms	16	4	The speed of recovery is very high after treatment; farmers are impressed about the results "seeing the worms in the faeces of their animals and gaining weight after"
CCPP	14	6	Vaccination was done before the occurrence of the disease; those who treated their animals report no cases amongst their herds. Shoats not treated "wait and see" are now experiencing mortality but the AHWs are treating affected animals.
Pneumonia	14	6	Most common in Xagay; increased response to treatment and farmers are pleased with the results
Mange	11	9	Most of the animals esp. the camel was in low Juba; increased speed of response to treatment – cevamac (recovered between 3 to 4 weeks);
FMD	10	10	Less concentration of cattle in the areas assessed
Heart water	16	4	Cases reported have been treated and responded quickly to treatment
Black leg	10	10	Virus – no change
Trypansasomosis	15	5	Cases being treated but could increase doing Deyr due to migration of cattle and camel return to the region
Skin Necrosis	16	4	Occur throughout the year but most common in Xaygay; traditional treatment is good
Wry Neck	12	8	More common in Xaygay; no one knows what cause this disease; they are requesting laboratory test in the community for proper diagnosis; currently use antibiotic and multivitamin to treat the disease
Pox	13	7	Seasonal and does not occur in Qoraxeed it occurs in Deyr season (October – December)
3 days sickness	14	6	Animal recover on its own
Ticks borne diseases	20	17	Most common after worms; require regular control; it continues to attach on the animals;

The project has a lot of opportunities to make a good development project although it is still an assistant project due to the lack of access to areas of high concentration of livestock. The effect of the project activities on the situation of livestock could have a much bigger impact if community participation is encouraged and farmers' decentralised training are carried out.

The process of establishing a community-based animal health project in the Gedo region is one of the best widows of opportunity that could increase the project impact in the long-term changes that can result from the project intervention. These community based animal health workers offers a number of opportunities and benefits to a collapse state of Somalia and to the livestock sector.

10. Deployment of the Community-based animal health workers

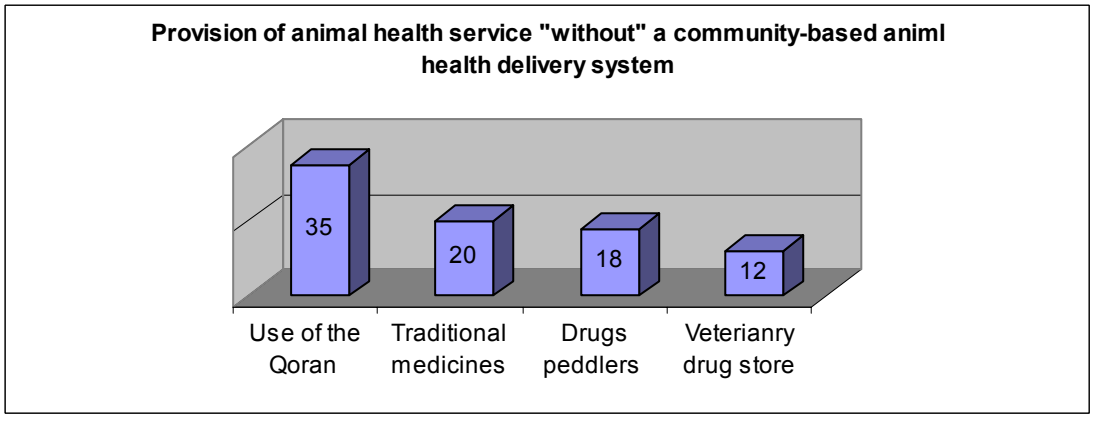
The project to date has trained 48 community-based animal health workers from the community. Pervious AHAs from the government are also serving as community-based animal health workers. **47 of the community-based animal health workers are male** with **1 female.** The establishment of a community-based animal health delivery system is one of the best appropriate technologies, which is more appropriate means of increasing the access of the livestock owners to veterinary services and advice. The community structure is responsive to the CAHW system. The community is responsive because of their involvement in the implementation and dialogue, which is empowering rather than didactic.

The community-based animal health workers service delivery system was established in June 2002 via 5 days residential training. The CAHW system is a priority to provide basic animal health extension to the community and increase **easy accessibility to veterinary medicines** and advice to the livestock owners. In general the idea of cost recovery being introduced at the start of the program intervention was a good step towards sustainability, particularly at the start of 50%.

In order to increase easy access to veterinary services, the CAHWs cover a radius of 40 – 90km away from their home community on foot. The AHW at the moment is constraint by **totting heavy load** and **covering wider scope**, which sometimes makes it impossible to meet the needs of the livestock owners. The community are concerned about the long distances travelled by the AHWs **who most time run out of drugs before arrival at actual destinations**. There is a **need for animal transport (donkey)** so as to increase coverage and treatment. **See annex 10.1 for mobility of the CAHW**

11. Types of animal health service provision available in the project area

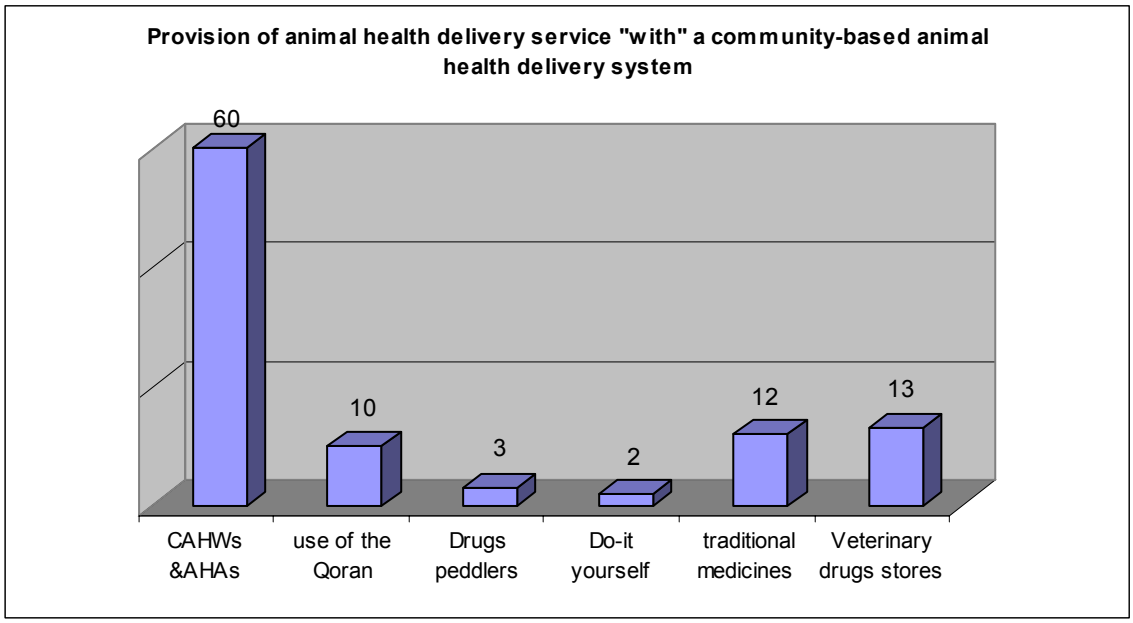
The PIA team assess the provision of animal health services 'without' a Community based animal health delivery system in Gedo region.



The use of the Holy Qoran is very significant to all Muslims. Muslims would often recite the Qoran before taking a person to the hospital or taking a treatment. In this case, the Sheik was called during outbreaks to offer prayers for God's healing and it was left onto God to decide which of the animals will survive or died without seeking veterinary medicines. The role of the Sheik became increasingly important after many livestock owner lost confidence in the use of veterinary medicines. The number of fake drugs on the market was too high and farmers had little results. Livestock owner who treated their animals (do-it-yourself) applied human capsule to treat their animals. There were other traditional remedies apply apart from the Qoran such as the use of 'Hagar' a tree to treat wounds, foot rot and ticks. Livestock owners with purchasing power bought their drugs from the privately owned stores who purchased their drugs form Mogadishu and sometimes Kenya.

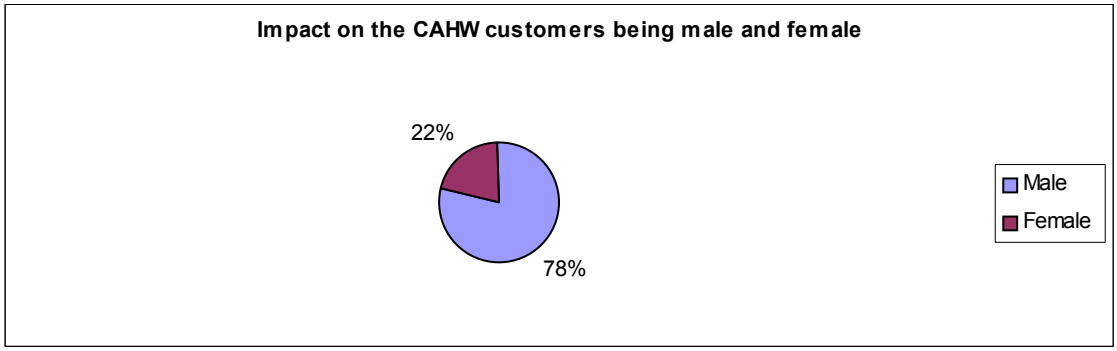
10.1 changes in the service provision resulting from the CAHW work

There are changes resulting from the establishment of the community based animal health delivery system. These changes are quite visible in the community and there is increased access to veterinary medicines and advice. Livestock owners now have a well-organized community-based animal health delivery system that they can refer to. There is an increased speed of livestock problems and response to outbreaks. The primary purpose of a community-based animal health program is: to reduce morbidity (illness), and mortality thereby increase the productivity of local livestock by improving the access of rural livestock keepers to available, basic animal health services.



The community-based animal health workers delivery system is rank 60 out of 100 seeds. The CAHW are locally based and reside in the community some are pastoralist who also migrate with the livestock owners. In the mist of difficulty in term of transport the CAHW are walking and covering more than 70kms to treat and make the service easily accessible. The community-based animal health workers also provide credit for the poorer resources farmers who repay after selling their labour or wood. Their services are very popular amongst livestock owners who provide them support. The use of the Qoran is still significant but this time they seek treatment afterwards.

The community-based animal health workers have several customers and here were assessed the impact of the customers being male and female; proportion by wealth and by relationship.



The men are the head of the household and owned all the animals except in the case of death then the woman could inherit the property. However, it is important to note that there are women headed households who are widows or divorcees and have inherited the property of their husbands. Although the male owned the animals it is the women who often informed the CAHW about a sick animal and are able to give a better case history as compare to the men who are more concern about their camels. The women and children take care of the animals, graze and milk them and therefore are very knowledgeable and tend to five better histories. Women also played an influential role in getting an animal treated and are part of a decision if an animal an animal is to be marketed. BUT a limited role as to how the money is to be used after the animals are sold.

"Women are better clients because they pay for the services without credit. The animals are active now as they are hungry but when the rains comes come back and see these animals" A CAHW

The PIA team also assessed the impact of the CAHW customers profile by wealth as illustrated in the table.

10.2 By wealth

Wealth groups	Ali Muse El-Ade	Abdulahi Hussein El-Ade	Garad Gure Garsal	Sheik Omar Samarole	Maalm Issac El-Banda	Hassan Abuna Elwak	Total	Score
Better-off	15	25	29	14	20	35	138	**3**
Middle	43	35	25	50	55	40	248	**1**
Poor	27	30	30	25	20	15	147	**2**
Very poor	15	10	16	11	5	10	67	**4**
Total	**100**	**100**	**100**	**100**	**100**	**100**	**600**	

By wealth group the middle group trend to be the best customer. "They want to be like the better-off person". The better-off household sometimes travel to Mogadishu and would bring along veterinary medicine for their animals. They also have a lot of animals and would only treat the most sick. They have other options such as vehicle transport, shops, telephone boots, etc. The poorer receive farmer find it difficult to treat their animals complaining about high price. The CAHW would treat their animals and after selling their free resources repay their debts.

10.3 By relationship

Name of CAHW and locations	Relative and neighbours	Strangers	Remarks
Ali Muse E-Ade	52	49	My relatives trust me and being my relatives thy would support me by buying my drugs and no one else except in the case that I am out of drugs; The strangers are those that I have to walk long distance to treat their animals they are not my relative/neighbours but they are also a very good customer; they do not ask for credit;
Abdulahi Hussein El-Ade	45	55	The strangers are my best customers, they are willing to pay for the drugs without credit; and when they call you make good money because you will treat a lot of animals.
Garad Gure-Garsal	58	42	My relatives constitutes most of my customers; for the strangers, I have to travel long distances to treat and they take good care of me;
Sheikh Omar Samarole	60	40	Most of the strangers come down to Smarole to water their animals and at the point I treat their animals; each day I am at the water point and the pastoralist are aware of me and my activities; the women would pressure their husbands to treat their animals;

The range of customers is encouraging in the sense that livelihood is based on livestock and livestock owners are willing to treat their animals by paying for the service.

10.4 The CAHW income sources

There is evidence that the community-based animal health workers are earning better incentives from the high turnover of Albendazole 10% drench, Vertimtan, cevamac, and other treatments against tick paralyses. See mobility table in annex 10.1 for detail. The financial compensation from drugs sales is high and therefore the CAHW are motivated to treat and increase their coverage. At the moment the CAHW shared 50% of the current cost recover which is at 50% of the total market price of the drugs. The CAHW replenished their drugs from EL-wak Kenya and Mendara at their own expense. It cost and average CAHW 400 – 2400 ksh to replenish their kits on a monthly basis. This is costly to the CAHW who need to start saving in order to purchase other drugs that are in demand.

11. Conclusion and recommendations

11.1 conclusion of the participatory impact assessment

- The program intervention is timely and their approach to community entry was very good. There is a need for the project to maintain the level of **community participation** and the **participatory methodology** within the program.

- The program has made an impact in reducing the level of livestock deaths and illness especially the mass treatment campaign.

- Livestock owners are now seeing the benefits of healthy animals, increase in market value of their livestock; milk increase; higher survivability of the young; and an increase health of the animals. The availability of rains is also a contributing factors and there is a livelihood that the level of milk production will increase.

- The **selection of the CAHW** was participatory and the results shows the level of coverage by the CAHW;

- The establishment of a community-based animal health approach is the best appropriate methodology and the response to the program is very good; the program through the CAHW system is meeting the demand of the livestock owners through the provision of veterinary services and improving the access to rural livestock keepers to avoidable, basic animal health services;

- All staff require formal contracts and TOR before departing to Somalia and there is a need to fully recruit the 4 team leaders/CAHW supervisor as member of the VSF staff;

- The project have a **good link** with its partners but there is a need for harmonization with OAU/IBAR whose role is crucial in the region; VSF moral in the community is very good but with an involvement other partners the project would make much more impact;

- The program is to think about the sustainability of the service and decentralization of the central pharmacy in El-wak and Mendara into Somalia through the already functioning pharmacies;

- Training and Capacity building should be the main focused of the program and the program should have a clear exist strategy from the current areas of operation after the second phase of the program activities.

- The program should focused on a building the private sectors to maintain the service.

11.2 Recommendation of the evaluation team

- The project needs to uphold the level of community participation and conduct several **community action plans** and regular **community participatory evaluations on a quarterly basis** (conducted by the staff who are already trained in the methodology and not a consultant) in order to addressed actual areas of needs with local solutions. Grater participation of all stakeholders/partners is essential for the sustainability of the project in the region. The project needs to identify local partners to work alongside during the implementation of phase 2.

- There is a need for the project to focus on **capacity building** of the community-based animal health workers and local institutions identified in the region.

- The project would need to recruit the four supervisors as part of its staff. All staff of the PAP needs a formal contract signed and a staff policy and all management formalities need to be cleared. The project **run higher risk** in the absence of all these **legal documentations**.

- The community is very responsive to the project but there are growing demands for the CAHW services who have to walk long distances on foot. It would be at the project **advantage to purchase livestock transport** (donkeys) for each CAHW. The CAHW are covering wider areas and the number of CAHW per geographical location is too huge to effective provide the service that livestock owners require.

- The number of drug per CAHW (23 different types) is too much and drugs should be based on demand. **High turn over drugs provide better incentives** and CAHW wanting a different type of drugs should purchase it from his/her incentives.

- The project should provide **decentralized farmers training** to livestock owners on the different species. Copy of attendances and training evaluation should be included in the monthly activities reports.

- There is a need to review the current cost recovery in order to begin moving at market price for the privatisation of the program. The project is not too far for the **privatisation of animal health service delivery systems in the project.**

- The project **should conduct baseline information** on the privately owned pharmacy and identify other local institutions and training needs. The project and the privately owned pharmacy with the participation of the elders need to develop a memorandum of understanding.

- There is a **need to work through private owned pharmacies** and to connect the CAHW system to the pharmacies for replenishment. BUT after a baseline assessment and Memorandum of Understanding is developed by all parties is signed. The role of the elders is crucial and should be part of the entire process before the decentralisation of the central pharmacy.

Annex 3.2 SWOT Analysis by the field staff of VSF Suisse Gedo project

Strengths
Good working environment; feel appreciated by line managers; full participation in the design and implementation of the project; good team spirit between field and the regional office; Flexibility within the team; result oriented and respect for professionalism; learn to work within a team and good exposure to many people; no organizational constraints that avoid carrying out activities in the field; staff are now getting married because of payment; employment have uplifted the family; Understand the culture and dynamic of the community; good relation the community in the field and the host community in Elwak; feel motivated to work with the CAHWs who constantly comes for new supplies; Competent teams; supply of quality drugs; linkages with other institutions; ability to respond to emergency but with a development focus; good entry point to the community; demand for veterinary drugs is very high (AHWs are contacted at home/call by the pastoralist); listen to the need of the stakeholders and design the project to fit their need; Livestock is the glue that holds VSF relationship with the community; 'willingness to pay'; joint monitoring with the stakeholders; high quality drugs provided by the project; the full involvement of the local authority in the design of the next phase of the project; regaining the confidence of trained veterinarian professionals and previously trained CAHWs; staff highly motivated and willing to work; Opportunity to develop career; high morale of the organization among the communities; appreciation and acceptance of the project; Somali and Kenya team well connected;
Weaknesses
Work overload; working without contract and identification card; no leaves; coverage area is still small (3 and half districts) ; working without job description; no Somali staff from in Country is employed (daily hire); bias to livestock, male dominated staff; job insecurity (what happened after phase 1 and working without contract), length of the project too short (phase 1, 9months); no long term development goals; lack of bases in Somalia, CAHW keep coming to Elwak for drugs (too costly to CAHWs incentives);
Opportunities
Project accepted and the pastoralist are 'willing to pay'; moving to development work in Gedo with sustainability and privatisation as a mean focus/next goal for phase 2; need to be more transparent on personnel recruitment (contracts, leaves, staff policy, insurances and organizational staff development policy); Clear staff benefits stated in contract including allowances; more training and capacity building of staff; new salary scale in relation to risk involved in cross border interventions; PAP and PRP to run separately and avoid politics; Livelihood based on livestock in the Gedo region; increase coverage area; demand for drugs and service is huge; opportunity to involve in poultry interventions; train more female CAHWs; decentralized pastoralist training; increase the number of CAHWs; providing transport to AHW; linking with other institutions; surveillance program;
Threats
Insecurity –clan conflict; drought/flood; El-nino; donor funding;

Annex 3.3 SWOT Analysis conducted with the project intermediaries CAHW in Gedo

Strength - likes about he program
Easy access to high quality veterinary drugs; increase speed of response to livestock problems (esp. diseases); good relation with clients and beneficiaries; good CAHWs selection procedures by the elders; good veterinary knowledge of CAHW selected; good knowledge on disease and livestock production constraints; stock levels are increasing; increase in milk production and appreciation by the livestock owners; Good Incentives gain from treatment; community support to the CAHW; good record keeping of disease treated and cost recovery collected; "It is my profession and I have work with the government for several years; now I am happy that I can once again become active and support my community" High quality drugs; "the way the people praise our medicines make me fell pride and it boost our morale. The community and the livestock owners like us and support us with milk, meat, accommodation and sometimes escort us with our load" Increase access to veterinary medicine and support from the project; level of community support enjoyed as a CAHW is very good (they provide milk and food and sometimes accommodation); participation by the elders in mobilizing the community and sometimes provide credit for the poor who repay after selling their animals or wood; "Before VSF came the animals were weak and dying same time this year this but look in to the field no dead carcascas found; the de-wormer and CCBPP vaccination did well; prices of livestock has increased as compared to last 12 months"; Participatory involvement of the community in making some decisions; PRA/PIA training and practical in the field; "Our elders were brought to Elwak to discussed the future of the program and the use of the cost recovery. That meeting was emotional because many of them did not see each other for the past 11 years." Changes in the behaviour of the livestock owners who in the past refused to treat their animals now are 'willingness to pay' for veterinary services and are good supporters of the program.
Weakness –dislikes about the program
Carrying around empty containers "only a mad man will carry empty containers around"; the Kenyan security keep informing us that Kenya is not a dumping site for empty containers; animals vaccinated became feverish (side effect of CCPP); Not being able to meet with the pastoralist demand – demand is too high and some times drugs are finished before reaching the intended locations; Kit content small (Triquin, Novidium); Lack of spray cans and camping equipments; restricted movement caused by insecurity and clan conflict; There is a high demand for the empty containers being turn over to VSF who later on destroyed them. Difficulties in following up treatment because of the instruction to bring back the empties; "I can not give follow up dosages to the livestock owners because I have to return the empties"; Lack of transportation; difficulties in finding public transport; toting drugs on a long distance become very difficult; thos have to leave some drugs behind; Replenishing the kit is very expensive; on an average a CAHW pay 400 to 1200ksh per replenishment; cost comes from CAHW incentives un refundable, on an average a CAHW may replenish his kit twice a month; Mass treatment and vaccination campaigns too short; lack of CBPP vaccination; threat by flesh eating animals; lack of Identification card;

Opportunities – improvement in the program
Provide livestock transport (donkey), this will increase coverage and number of treatments; Include burdizzo, hoof trimmer, spray pumps for the control of ticks, in the kit; train CAHW in business management and simple accounting; "Traditional method is too painful and sometimes causes death- the pastoralist used a wooden mallet to crush the spermatic cord. This sometimes damages the testis". Good security conditions along the borders where the project is heavily presence; decentralised the central pharmacy in to the region for CAHW to easily replenish their kits with less cost; Continue CCPP vaccinations and introduce CBPP NCD vaccinations into the delivery system; high demand for the service; high concentration of livestock; very good relationship with the clients; vaccination campaign for poultry and the involvement of women "*Want something that can be felt and sustainable, not when the project leaves everything brakes down"* Credit facilities provided by member of the community to help treat the poorer resource animals who repay after a short while.
Threats – extender forces
Flesh-eating animals (Hyena); insecurity and clan fighting; lack of central government " The effect of an hyena is compared to livestock disease, a man in one night lost 60 shoats".

3.4 Likes; dislikes and improvement about the project by Client and Beneficiaries

Like about the animal health delivery system
"Our animals are no more dying like before and our field are clean of dead animals. Our animals are bright; healthy and beautiful; milk production are increasing including the price on the market; good quality drugs"; Livestock services being so easily access for the past 7 to 8 years; the de-wormers are so strong after treatment we usually see the worms in the faeces; cevamac very good drugs within 14 days we start seeing changes on our camels, the mange vanish and the animals body began to shine and within few weeks looks beautiful; "First time in our history for an NGO to call us and ask about how do we want to use the money collected from our community. They told us the total amount collected and where it was kept. We also plan for the next year of the project" Very good vaccination; "we are willing to pay but half of the price for now until our animals are good and market are good"; The VSF people can listen to us and we love the project because we make decision and are part of discussions; before anything goes on here we are informed by VSF and that is the best way to work with we the Somali; The staff are friendly and they always asked us about our animals; happy that somebody has come to ask us about our feelings about the project "we are happy with the project and we will do everything to keep it here" Tell the donor that we are happy and like the project and our animals healthier and the milk are increasing but will increase more when we have good pasture; Renting the vehicle from our children; employed children from our community and training them to treat our animals; that one we like it because the knowledge will still here and they will continue to treat our animals; "We love the project and is ready to support it"

Dislikes about the project
Prices of some of the drugs are too high (cevamac) for the poorer resource farmers; less than 50% cost recovery is good for the poor people (some poorer households can not afford); no vaccination campaign against CCPP was carried out in El-Ade by the team; The current number of CAHWs is too small for the number of animals to be treated; "reduce the price of the poor"; few CAHW trained and are not on salaries; no transport for the CAHW; CAHW are carrying heavy load; "The drugs tote by the CAHW is too heavy. I escorted a CAHW and tote his bag after my experience I wish not to tote such load again – try provide donkeys the CAHWs they are suffering under the drugs and the distances are too far" The CAHW just received 5 days training and they need more training; no doctor living in our community; VSF having no base in Gedo and the pharmacy is too far; constant shortage of drugs (sometimes the drugs the CAHWs brings can treat two persons livestock; no laboratory check on diseases
Improvements
Laboratory facilities to check diseases; Kit content improve to cover more diseases; stationed veterinarian in the region and pharmacy; more training of CAHW; reduce the cost of veterinary drugs; carryout more CCPP vaccinations and include PPR NCD and CBPP vaccinations; Increase coverage; bring in poison to kill the hyena and other flesh eating animals that post threats to the livestock production; provide donkey transport for the CAHW to increase the coverage; bring pharmacy closed to the community for easy replenishment because the population of livestock will increase during this season;

Annex 8.1 Labour Profiles[1]

24 hours schedule	Men	Women	Boys	Girls
5:30 – 12:30pm	Prayers; read the Holy Quran; milk the camel; break fast; Ensure that the animals are out of the Boma; assign duties to the family; look after the camel; go for survey of pasture (sahan or transect)	Prayers; milk the animals particularly the cattle and shoats; prepare and take breakfast; Fetch water using the donkey; feed the children; put the cattle and shoats out to graze; take milk to the market; prepare lunch;	Prayers; go to Duksi (Islamic school); graze the animal; water the animal;	Prayers; go to Duksi; help mother milk the animals and prepare breakfast (tea); fetch water from wells or pans; take milk to the market
12:30 – 5:30 pm	Prepare for prayers; prayers; take lunch; take a nap; water the animals; graze the animals; gathering the animals from the field;	Prayers; take lunch; look for firewood; water the animals (especially cattle and shoats); Fetch water using the donkey; preparing mat; prepare supper	Prayers; Duksi; graze the animals; water the animals; gather the animals from the field;	Prayers; help mother prepare supper, fetch water, preparing mat; collect fire wood
5:30-6:pm	Listening to BBC	Preparing supper; wash utensils; collecting wood; fetching water; Gathering burden animals from the field and bring them back home; preparing for prayers; prayers	Gathering animals from the field; playing; collect firewood for Duksi	Preparing supper, fetching water, collecting fire wood, bring burden animals back to the Boma;
6: - 9pm	Preparing for prayers; prayers; discussing the news; Ensure animals are in the Boma (esp. camel) visiting friends; take supper; preparing for bed	Ensure animals are in the Boma; prayers; milk the animals; bath and Feed the children; prepare sleeping beds; clean the utensils; take supper;	Playing; prayers; get animals back to boma; take supper; Playing with friends; discussing daily activity and sharing fun;	Prayers; take animals to boma; prepare supper; bath smaller children; milk the animals; Take supper; clean utensils; prepare bed; ensure all utensils are packed; bed are prepare; plan for the next day with mother;
9pm – 5:30am	Planning for the next day; share BBC news with the family (esp. the wife); sleep	Ensure the children are sleeping; packing the things for the next day; sleep	Sleep	Sleep
Statistic from the field after the exercise with the pastoralist	Men work from 6 to 7 hours a day – they are less busy during the after noon from 12 – 3pm; ensure that you do not interfere with prayer and BBC 5:30 time these times are not negotiable	Women work for more than 12 hours daily but they are a bit free from 2 – 4pm; during this time they are preparing mats or at rest; inform them earlier before the meeting	The boys work for 6 hours and they have more time for play; it is easy to discuss with them particularly in the field;	The girls work for similar hours like their mother and share similar task (speaking with these girls is not very easy because they are shy

[1] These activities change according to season. The labour profile was done with pastoralist and the agro pastoralist of El-Ade in Gedo region.