

**MINISTRY OF ANIMAL RESOURCES AND FISHERIES
REPUBLIC OF SOUTH SUDAN**



**OFFICIAL FRAMEWORK OF THE
MINIMUM STANDARDS AND GUIDELINES FOR COMMUNITY
ANIMAL HEALTH SERVICE DELIVERY SYSTEM IN SOUTH
SUDAN (MSGCSS)**

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**OFFICIAL FRAMEWORK OF THE
MINIMUM STANDARDS AND GUIDELINES FOR COMMUNITY
ANIMAL HEALTH PRACTICE IN SOUTH SUDAN**

Chapter 1: General guidelines for the establishment of Community Animal Health Services system.

This section of the Minimum Standards and guidelines provides an overview of the key features of CAH Services systems. It is recommended that all GOs and NGOs are familiar with each of the main stages in the design and implementation of CAH service delivery systems.

Chapter 2: Training curriculum and guidance for Community Animal Health workers training.

This section of the Minimum Standards and guidelines provides a training curriculum and guidance on the planning and implementation

Chapter 3: Monitoring and Supervision minimum standards and guidelines for Community Animal Health Services System.

This section of the minimum standards and guidelines provides areas that must be considered to effectively implement a CAH System

Chapter 4: Sustainability and Steps Forward for Community Animal Health Services system.

This section of the minimum standards and guidelines deals with the Sustainability of CAH System and indicates the steps forward

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Introduction

The Community Animal Health Workers (CAHWs), also known as para-veterinarians, were highly successful in both implementing Rinderpest vaccination programs and providing basic animal health services in marginalized areas of South Sudan (SS). They also played critical roles of ensuring adequate links between government veterinary services and livestock producers in remote areas.

However, despite this effective contribution in the promotion of the livestock sector, the activities of the CAHWs have been more difficult to sustain for various physical, economic, and institutional reasons. Physically, the intervention areas are isolated and have very weak infrastructure, resulting hence in very high transaction costs for service provision. Institutionally, various actors have been slow in moving away from direct provision of veterinary services through aid projects. A further complication factor has been the recurrent drought and the provision of veterinary inputs through humanitarian programmes, some of which have limited flexibility in terms of fostering innovative private sector involvement.

CAH system in South Sudan

Historically, “Operation Lifeline Sudan livestock programme,” a programme of a consortium of UN agencies, NGOs, and CBOs, started a community-based rinderpest control programme in 1993. In 1994, the programme widened to control other diseases through the development of CAH systems. Its activities then included participatory baseline surveys, community dialogue to identify priorities and develop social contracts, training of community-based animal health workers, Animal Health Auxiliaries, and Stockpersons. Furthermore, the activities also included the development of Veterinary Coordination Committees, as well as monitoring and evaluation. According to FAO (2009), from 1,500 to 2000 CAHWs have been trained in SS as of 1998, and 80% of them are practicing in agropastoralist areas, with an estimated drop rate of 12%.

The CAH system has been credited with the vaccination of more than 1 million cattle against rinderpest annually from 1993 to 1998, and with increasing numbers of other vaccinations and therapeutic interventions covering cattle, sheep, goats and poultry. Since the 2005 peace agreement, the major constraints facing the system have shifted from the security field to those related to capacity building initiatives targeting actors. Pertinent concerns have been expressed over access to veterinary inputs –drugs, and equipment, a lack of mobility, poor infrastructure resulting in a minimal trade in animal products. Promoting CAH systems in an under-developed agro-pastoralist area such as southern Sudan is a viable approach of delivering basic animal health services to the communities, and can therefore, form the basis on which to build a sustainable and reliable private veterinarian practice in the country.

In fact, a close attention to the relatively short history of the paraveterinary practice in SS reveals that the CAHWs used to operate on a full cost recovery basis until the 2005 peace

agreement, suggesting that the practice is profitable. As a result, the model deems of interest and can be extended to selected states such as Northern Bahar el Gahzal, West Bahar el Gahzal, and Lakes, where the Sudan Productive Capacity Recovery Project (SPCRP) is currently implemented. This is particularly exciting in a context where the livestock owners are willing to pay for veterinary services they receive.

These states are large, isolated, and have very weak infrastructure, contrasting with the fact that the government lacks in technical, and financial resources to meet the increasing demands for CAH services. On the other hand, Aid agencies have already understood the practical worth of the paraveterinary concept and therefore, most of the NGOs have actively promoted the CAH practice to provide direct veterinary services to the communities they serve. Owing to the important roles the CAHW plays in livestock vaccination campaigns and other forms of animal health service delivery within their communities, this category of actors is fully recognized by the government of SS, so their role is highly valued through the importance the official veterinary services grant to them.

For example, the public veterinary services partner with the CAHWs in the following areas:

- CAHWs can access to government veterinary drug stocks at county level and some of them can receive credit from their County, as it is the case in West Aweli
- the government sells drugs to individual customers at a price that includes the fees for the CAHW services in the State.
- the government recruits the most talented CAHWs as extension agents at field level through the official veterinary services
- the government appreciates the contribution of the CAHWs in the early warning system for the prevention and control of animal diseases at field level
- the government, with the support from FAO and various NGOs seeks to promote primary animal health care in its 10 States operating on a strong and reliable network of CAH system.

As a matter of fact, the government is committed to supporting the privatization of the veterinary service delivery in remote areas. This commitment was demonstrated by H.E. Dr. Martin Elia, the Minister of MARF through his speech at the occasion of the Community Animal Health Services delivery workshop, held on 25-27, October 2011 at Bridge Hotel, Juba.

The objective of the *National Minimum Standards and Guidelines for Community Animal Health Services Systems* is to provide a standard guideline for all agencies involved in CAH services in South Sudan. It is intended that this first version of the document will be reviewed after three years. The present document is made up of four chapters as follows:

1. Chapter One: Need Assessment and Selection
2. Chapter Two: Training
3. Chapter Three: Monitoring and Evaluation
4. Chapter Four: Sustainability and ways forward

Chapter One

General Guidelines for Need Assessment, Candidates Selection, and Establishment, for Community Animal Health Services.

This section of the Minimum Standards and guidelines provides an overview of the key features of CAH Services systems. It is recommended that all GOs and NGOs become familiar with each of the main stages required for each process of need assessment and candidates selection.

1.1 Needs Assessment

1.1.1 General

Community Animal Health Workers (CAHWs) are selected by their communities to receive basic training in primary animal health care. Ideally, the CAHW is a private actor supervised at field level by NGOs, and government (SP and AHA). The supervisor is also responsible for supplying the CAHW with veterinary medicines. The official veterinary services play a regulatory role over all these categories of actors, starting from their selection and training, and ending with the practical aspects of their day-to-day practice.

The establishment of an effective and sustainable CAHW system goes through a number of key stages, some of which are described below:

- identification of communities in need of CAHWs
- initiation of a community dialogue and a baseline survey, including an analysis of indigenous knowledge and gender roles in livestock production
- acknowledgement of the selection criteria by the community, which thereafter suggests a list of candidates
- selection of candidates to be trained: the selection is conducted by a committee made up of a representative of the official veterinary services, the area private veterinarian/pharmacist/SP/AHA, and community members
- training and evaluation of CAHWs by a board of government-accredited trainers following the Minimum Standards and Guidelines set up with that regard
- establishment /activation of CAHWs within their communities under the supervision of a veterinarian or SP or AHA
- enhancement of CAHWs skills through annual refresher courses as part of their preparation for each subsequent campaign. This activity is scheduled to supplement the ongoing opportunity for learning on-the-job (monitoring) provided by supervisors.

Both inspection of the training sessions and evaluation of the trainees will be conducted by the government veterinary services to ensure compliance with ethical and technical standards.

1.1.2 Objectives:

The objectives of this document can be summarized as follows:

- to promote the system of community-based animal health services throughout the Southern Sudan
- to assess the current national animal health service delivery systems so as to identify the relevant challenges and opportunities
- to capitalize animal health-related issues faced by the community and to translate that information in training packages to upgrade CAHWs' skills
- to provide baseline information that can be used to assess the impact of CAHW's activities on their community livelihoods

It is recommended that Interactive Participatory Rapid Appraisal approaches and methods be used during the baseline survey, complemented with conventional data from NGOs, government records, and previous surveys or research studies.

1.1.3 Minimum requirements

1.1.3.1 Livelihood and Social Organization

It is important to obtain a good understanding of concepts such as livestock ownership, people's way of life, their coping mechanisms/survival tactics, and the relationships with their opinion leaders, as well as their decision making processes.

1.1.3.2 Animal diseases

The animal diseases that are common in the area should be identified and ranked by the community members. The information sought should include:

- the most common diseases, the species and age groups affected. Of interest are also factors such as disease-specific incidence (number of new cases in a given period of time), morbidity (number of individuals who are exposed and who have the disease out of the total who were exposed to the disease), and mortality (number of individuals who got the disease and who died from it out of the total who had the disease) rates (when applicable)
- other patterns in disease occurrence such as seasonality, endemic or epidemic character
- livestock (size/population) numbers
- trends in livestock movements over the year

This information provides a big picture of the issues around each local/regional livestock sector and will be crucial for the design of personalized training materials to meet the needs of each community.

1.1.3.3 Animal health services

The baseline survey should collect information on:

- current methods of disease prevention or treatment and the outcome of each intervention
- types of interventions preferred by producers to cope with their animal health problems
- an overview of the local animal health service providers and the related accessibility, availability, affordability, and acceptability by the community
- Income: do the livestock owner keep their animals as an income generation activity?
- willingness to pay: do the owner understand the need to pay for service received?
- livelihood pattern: do the livestock owner sale livestock to solve other problems? To what extent livestock ownership impact communities' livelihood?
- market for livestock and their products: is there a market pattern for livestock and their products?

1.1.3.4 Gender issues

During the baseline survey, it is important to discuss gender roles in livestock production within the community. In particular, it is important to discuss the roles that women play in the society, as women look after the young stock and the milking herd, and nurse the sick animals. Do women also own their animals? Can a woman have the same animal species like a man? Can a woman freely make a decision on how to dispose of her animals? Do women accept to treat their animals? Do they need a permission for that?

1.2 Selection of Community-based Animal Health Workers

1.2.1 Community dialogue

Community dialogue is a continuous process through which the community and development agents interact, discuss, exchange ideas and form opinions to agree upon the modalities required to enhance community development. Applied to the livestock sector, it allows to focus on livestock-specific challenges and other societal issues within a community. As so, the community dialogue forms a very important prelude to training. It is a crucial stage in the development of the CAH profiling as it represents the first step in partnership building between the community and the CAH system. It is the starting point for the ownership of the process by the community.

The major objectives of a community dialogue are:

- to fully involve the community in both the analysis of animal health problems in their area and the identification of the ways to improve animal health services.
- to provide useful information to the community for the selection of ideal candidates for the position of CAHWs
- to allow the community to express their animal health problems

- to plan together with the community the solutions on how to overcome their livestock problems
- to facilitate discussions and action plans together with the community

On the basis of the above said, community dialogue seems to be the best framework for the identification and the selection of candidates to be trained as CAHWs. With that perspective in mind, some important issues to discuss and agree upon during a community dialogue are summarized below.

- Identification and ranking of the livestock-related needs of the area (livestock keeping, livestock diseases, marketing...)
- Explanation of, and agreement upon selection criteria and process.
- Clarification of the roles of each actor of the livestock sector, starting from the livestock keepers, touching the CAHWs, SP/AHA, and ending with veterinarians.
- Specification of the conditions for the acquisition of a starter kit of equipment and drugs by a CAHW.
- Promotion of a shared understanding of community's contributions in a successful CAHW system.
- Definition of the system of drug supply as well as the concept of payment for services and potential financial incentives for CAHWs,
- Investigation of approaches for effective cost-recovery, and therefore, system sustainability.
- Agreement upon a strategy for referral of cases not handled by CAHWs
- Shared understanding of the system for monitoring and evaluation of CAHW performance
- Definition of the roles and responsibilities of participating entities (State/agency, CAHWs, and the community).
- After the workshop on community dialogue is held, one month is left to allow time for selection of appropriate candidates to be trained.

Discussion on these issues may need to be repeated several times. This would help to meet the concerns of specific community groups before their enrollment in the process.

1.2.2 Selection of community-based animal health workers

The process of community selection of CAHWs requires the community to identify the candidates meeting the specific selection criteria. For the sake of transparency, this phase should be discussed during a public meeting or other popular forums involving all the community groups.

1.2.2.1 Some examples of selection criteria are as follows

- willingness to learn innovative approaches/practices
- meeting the minimal requirements for literacy level (see chap. 2)
- willingness to volunteer their time serving the community (they are not salaried)
- possession of a transport means—a bicycle at least
- community membership: be a member of the community

- livelihood should be predominantly based on agriculture and livestock production
- willingness to travel to areas where the livestock move for grazing and water
- knowledge ability of traditional livestock management practices
- be of good morality
- physically active/apt candidates

On top of suggesting a list of candidates for the position of CAHW, the community also designates representatives to participate in the selection process along with the supervising committee (State official, SP, AHA).

1.2.2.2 Some Indicators of a sound community dialogue

- The number of participants selected (size and composition of participants should be gender-sensitive, meaning that females should be strongly encouraged and considered)
- The number of community dialogues conducted before consensus is reached
- A maximum of households (at least 75% of them) should be represented on the selection day for a credible representativeness
- A list of candidates is presented as a result of the community dialogue
- One CAHW is foreseen to operate within a radius of 5km to avoid competition (depending on the livestock population)
- The dialogue is strongly supported by the local leaders and the elderly

Chapter Two

Training Community-based Animal Health Workers

2.1 Curriculum development

The training of CAHWs should follow a standard curriculum endorsed by the statutory body. The standard CAHW curriculum should comprise two components:

- a. essential knowledge and skills required by all CAHWs regardless of their location, and
- b. area-specific knowledge and skills according to priority needs in different ecological zones and livestock production systems

In addition to promoting animal health and production skills, the curriculum should also cover areas such as agri-business and communication for development, including integrated livestock production and vegetable production for food security and income diversification. Professional ethic and gender equity should be also of interest.

Below are some suggested areas of emphasis to consider during a curriculum design.

- Knowledge of local names of diseases, patterns in occurrence and their economic importance in SS

- Knowledge of the cardinal signs of each disease (for simple diagnosis competencies), as well as the control and treatment measures.
- Participation of AHAs, SP, vet assistants, and the area private veterinarian in the training process
- Promotion of agri-business/communication skills Particular emphasis on livestock marketing strategies and options, livestock fattening and outlets over the year, drugs stock management (at what level should the CAHW decide to replenish your stock?)
- Investigation of a few case about the reasons of the failure of other CAHWs in the country Meet the requirements for the minimum level of literacy
- Development of a module on conflict resolution skills, including the concepts of impartiality and integrity/equity

2.2 *Level of literacy*

It is important to upgrade the technical standards of the CAHW by setting up some acceptable minimum requirement for the level of literacy. Indeed, during their training, the CAHW will need to take notes of what is taught. There are some elementary physiologic norms, specific to each animal species—for example body temperature—that each CAHW should know. In this case, it is crucial not only to know how to write the numbers, but also how to read them and to be able to effectively assess their variations using a thermometer. After all, this is a key consideration of a simple diagnostic process.

Similarly, during their field practice, the CAHW will have to use drugs, and this supposes that these drugs will be used according to a given prescription, which, as a rule, is written. Again, the CAHW needs to know how to read and understand a simple full sentence and then translate it in their language. Moreover, the CAHW should master the elementary computation skills—counting from 0 to 100 or more, being able to perform some elementary calculus for example. Furthermore, the CAHW will need to produce written monthly activity reports to their supervisor and for their personal archives. The perspective the MARF should be to gradually conform with the international standards with regard to quality control and practices, given that the country would very soon like to access to international trade markets to place its livestock and fisheries products.

Indeed, a critical step to accessing the international livestock and fisheries markets is the compliance with the principle of “Harmonization.” According to the World Organization for Animal Health (OIE) and the World Trade Organization’s Sanitary and Phytosanitary Agreement (SPS) adopted as a result of the Doha rounds in 1994, animal disease risk management as an animal health policy tool should be implemented following consideration of wider social and economic development objectives. Harmonizing local health standards with those of red meat export markets for example, must be technically, socially, culturally, and politically acceptable, as well as economically and ecologically viable.

Members States shall ensure that their sanitary or phytosanitary measures are adapted to the sanitary or phytosanitary characteristics of the region or zone—whether all of the

country, part of a country, or all or parts of several countries—from which the product originated and to which the product is destined. In assessing sanitary or phytosanitary characteristics of a region, Members shall take into account **the capacity of the national veterinary services, the prevalence of specific diseases or pests, the existence of eradication or control programs, and criteria or guidelines which may be developed by the relevant international organizations.**

Members shall, in particular, recognize the concepts of pest- or disease-free area or low pest or disease prevalence. Determination of such areas shall be based on factors such as geography, ecosystems, **epidemiological surveillance, and the effectiveness of sanitary or phytosanitary controls, which dictates that in the absence of formally trained field veterinarians, the CAHW comply with some elementary norms as a way to gradually transitioning to more up-to-day extension agents, and therefore, internationally acceptable.**

2.3 Selection of a training location/Venue

The training venue should be built on purpose, focusing on participatory approaches to development. The centre needs to be equipped with training equipment and offer specialized trainers to assist with the training course design and implementation. The centre should also be able to organize fieldworks. On-site accommodation at the center also enables participants to concentrate on the training. Ideally, the venue should be adjacent to a large livestock population (or with relatively easy access to livestock keepers) that is available to trainees for field practices. The venue should have the basic facilities for storage of equipment and food for the trainees.

Trainees will spend a lot of time in the training room. This room needs to be large and ‘flexible’, so that desks and chairs can easily be moved around to cater for presentations and working group sessions. The room will need the usual visual aids and equipment such as blackboards or whiteboards, flipcharts and overhead projectors plus plenty of wall space to display various maps, matrix scorings and other methods and results as they emerge during the training.

The seating arrangement will also greatly affect the atmosphere and communication during the training. Most of the class work and group discussions should take place in a circular setting i.e. where the seats can be organized in a circle around a flip chart, marker boards and projector screen at the front of the room. A circular arrangement places everyone at the same distance from each other and makes communication easy between the participants. Also, there is no table or pulpit/lectern between the trainer, and therefore no barrier between the trainer and the participants.

2.4 Selecting Resource Persons

At least three to four (1 vet 2-3 AHTs etc) facilitators who are well versed with participatory approaches are required to conduct a good training especially when it comes to handle groups or field practitioners. Some of the facilitators can act as translators therefore they should be well versed technically as well as in the local language

2.5 Duration of the Training

This should be considered carefully. Long theory sessions should be avoided because there is little advantage gained by keeping trainees locked in classroom atmosphere. In South Sudan case the minimum duration should be in average two weeks.

2.6 Approach to Training

The trainers should link the traditional knowledge obtained from the assessment (baseline study) with modern practices. For example, the stockowners identify and rank diseases according to their importance and give traditional descriptions of the clinical picture.

Chapter Three

Monitoring and Evaluation of CAH Services System

3.1 Introduction

Monitoring is a continuous process through which the performance of a CAHW can be evaluated while providing an opportunity for on-the-job training by their supervisor. Experience shows that regular follow up is required for the CAHWs to perform well. As part of an effective monitoring process, supervisors visit CAHWs in their home area to see them at work for hands-on experience transfer and to identify topics for upcoming refresher training sessions.

This is an opportunity for community dialogue, to support the CAHW in explaining the policies of the programme, and to understand the attitude of the community towards the CAHW. A system of recording vaccinations, treatments, revenue and outbreaks has been developed, which includes pictorial monitoring forms and vaccination punch cards to allow recording by illiterate CAHWs. The monitoring visits allow the supervisor to take the time and go through these documents while they are still in draft and make relevant observations to the CAHW for correction before submission. A sound monitoring and evaluation process combines the following three activities: (a): processing of reports produced by CAHWs, (b): interviewing CAHWs to test their knowledge and skills, and (c): interviewing community members

3.2 Establishment of CAHWs unit in MARF S/MARF

The development of the Community animal health service delivery systems in SS has started in the 1990s with the initiation of the “Operation Lifeline Sudan Livestock Programme” by a consortium of UN agencies and NGOs. However, for some of these NGOs the activity became so lucrative that they did not bother to actively involve the State Veterinary Services. Over time, it has become obvious that the promotion and the effective functioning

of community based animal health systems requires government coordination, supervision, and guidance for a proactive and coherent veterinary service provision at community level.

The sustainability of these systems can be enhanced through both government supervision and the development of an enabling framework--policies and legislation.

This can be ensured through the setup of a community animal health services coordination unit (CAHSCU) under the MARF and SMARF. The coordination unit will be in charge of the promotion of the privatization of the veterinary profession, as well as the coordination and the regulation of the CAH systems by ensuring that:

- NGOs and other organizations planning to enroll in CAH practice in pastoral or underserved areas meet the criteria set up by the legal authority—the National Veterinary Department—before proceeding further.
- Issues of quality, sustainability, exit strategies, use of registered trainers, and collaboration with the private sector are managed according to a statutory guideline.
- Community animal health services managed by NGOs and private veterinarians are well coordinated and supervised.
- The MARF and other stakeholders are actively involved in policy change and dialogue.
- The legislative (subsidiary legislation) support of CAHWs as animal health service providers is effectively recognized and observed by all stakeholders.

The coordination of the community-based animal health services on one hand, and the quality control on the other hand is a key prerogative of the CAHSCU at national and states levels. As a result, these tasks should be detailed in terms of job description and performance assessment procedures for the officers in charge. . With that regards, the unit should:

- a) prepare and maintain a detailed inventory of any project and relevant activities occurring on the territory of SS
- b) organize and coordinate/facilitate biannual coordination meetings with relevant stakeholders

Other provisions include what is stated through the following lines:

- the unit is headed by a state veterinarian and is established at both national and state levels
- the unit should be represented up to the Boma level
- the unit should works under the directorate of animal health
- the unit should inspect and supervise all the steps leading to CAH training and registration
- the unit should be able to maintain a data base of all CAH and their performances
- the unit should have its own budget as part of the MARF budget

3.3 Post-training monitoring

Monitoring the performance of CAHWs is an essential component of any CAHW programme. After their training, these actors are more likely to encounter various problems during their transition to real world conditions. Experience shows that face to the volume of lessons received in a relatively short period of time, they become confused and are more likely to

mistake the new skills learned. As a rule, confusion prevails most importantly over the diagnosis, and drug instructions. Misunderstanding also is observed over pricing to apply for specific interventions. So, if the CAHW will not be supervised and supported, they can easily get frustrated and eventually give up from their new responsibility.

The objective of monitoring is therefore to help them build a capital of confidence and self-reliance, ensuring hence the sustainability of their practice. Post-training monitoring requires a detailed assessment of the performance of all CAHWs three months after training. This assessment should involve a review of CAHW reports, interviews with CAHWs, and community dialogue to gauge not only the technical performances of the CAHW, but also community's opinions about the service received.

Ideally, monitoring should be implemented by a team comprising designated community members, representatives of the institution sponsoring the CAHW, representatives of the legal authority (CAHSCU), and the supervisor of the CAHW. All the persons in charge of monitoring should be initially trained on participatory monitoring and evaluation approaches and well versed in concepts.

Specific issues to investigate during a monitoring process include:

- the extent to which the CAHW is integrated into the overall animal health system
- the problems encountered by CAHWs in the field
- the community's appreciation of the service received
- strengths and weaknesses of the CAHWs
- Technical competence (self-reliance) of the CAHWs
- Managerial issues (Drug supply and financial issues)

A feedback on the post-training monitoring should be presented during a workshop to the CAHW and the community. If necessary, the supervisor will need to provide closer, personalized field support to address the weaknesses observed as well as any outstanding technical issues.

3.4 Routine monitoring

Once trained, and among many other activities, the CAHWs provides two important related services. One is to treat animals and prevent diseases, and the second is to report the epidemiological facts. This second role could not be assured by CAHWs without a proper monitoring system. Monitoring also enables CAHWs to feel that they belong to a system. Therefore, routine monitoring should be carried out on a regular basis, matching the field activities of the CAHW. For this to be effective, the CAHW should keep a close contact with their supervisor for a shared agreement on the monitoring schedule.

A monitoring form should be prepared and used to record information. Although there might be various monitoring forms in use, it is critical, however, to use a format that allows to summarize information meeting the expectations of each stakeholder.

As one can see, the role of the supervisor needs to be harmonized. But if the supervisors lacked the necessary means to carry-out their duties, it becomes obvious that the CAHW will not have the support they needed so they will promptly be rejected by the livestock owners. After all, supporting the supervision and monitoring of CAHWs is clearly the first step to strengthening the system so that at least in their places the CAHWs remain active.

Notice: As part of the monitoring process, it is recommended that the supervisor holds monthly meetings with the CAHWs under his/her supervision

3.5 Information gathering / Reporting system

As part of their field activities, the CAHW is also expected to perform the following tasks:

- collect and submit treatment and vaccination data on a monthly basis in a prescribed format.
- identify and report disease outbreaks and occurrence.
- communicate effectively with his supervisor and community members.
- Etc.

3.6 Networking within the CAHW system

- Each CAHW should be a member of a CAH association (either at state level or nationwide)
- Meetings among member of the association should be on the basis of agreed frequency (bi-monthly for example) for experience sharing and to discuss issues of common interest
- Networking is also a way to promote collaboration between neighboring CAHWs; this means that they can help each other during their periods of high work load, sharing hence their skills in specific areas
- Each CAHW should commit to participating in coordination meetings at State level along with their supervisor and other stakeholders (NGOs, MARF, and community representatives)
- Each CAHW should commit to giving a written feedback to their supervisor on a monthly basis

3.7 Quality Control of service by CAHW

It is the responsibility of the veterinary services to develop objective and transparent systems for the accreditation, monitoring, and supervision of CAHWs. With that regard, the quality control of the activities of the CAHW starts with the adoption of non complacent selection criteria, and cover the following areas:

1. Training curriculum for CAHWs: should follow a standard curriculum endorsed by the the statutory body.
2. Trainers of CAHWs: the qualifications required by trainers of CAHWs should be defined by the statutory body which will moreover maintain a register of recognized CAHW trainers

3. Inspection of training: training courses should be assessed by veterinary inspectors. Statutory bodies should develop standardised methods for assessment of CAHW training courses.
4. Examination of CAHWs: the examination of CAHWs should be based on standardised tests endorsed by the statutory authority and designed to assess both the technical knowledge and practical skills of CAHWs according to the standardised training curriculum.
5. Licensing of CAHWs: the statutory body licenses and maintain a register of licensed CAHWs. A license should be location-specific and name the supervisor of the CAHW. Licenses should be renewed annually according to field performance and results of annual assessment of CAHW knowledge and skills by veterinary inspectors.
6. Supervision and responsibility for CAHWs: supervision should include measures of specific disease diagnosis and use of veterinary pharmaceuticals and practical skills.

3.8 Financial considerations of the CAH system development

According to the South Sudan's **Natural Resources Sector 2011-2013 Budget Plan**, the major challenge for effective performance of the MARF is the inadequate annual budgetary allocations by GoSS Council of Ministers, along with the MoFEP's problems to timely disburse the approved funds. As a result, the livestock and fisheries sector is affected because of a poor support to the CAH systems, and difficulties to increase production and productivity that would lead to enhanced food security and economic growth. The Lack of budgetary allocation by the States' governments to match and reinforce MARF strategies negatively influences the availability, the access, and the quality of services delivered to rural areas of the country.

For example, the chronic shortage of professional and other skilled personnel in most States, coupled with inadequate or absence of some critical physical infrastructure limits coverage and effectiveness of MARF-supported projects in those States. Similarly, due to the volatile political situation and the risky business environment in South Sudan, there is still poor participation from both national and international entrepreneurs in the promotion of livestock and fisheries development. Finally, the traditional non-market oriented livestock production of SS creates one of the biggest impediments facing efforts aiming at stimulating a truly market-centered livestock sector.

3.9 Plans to address the challenges

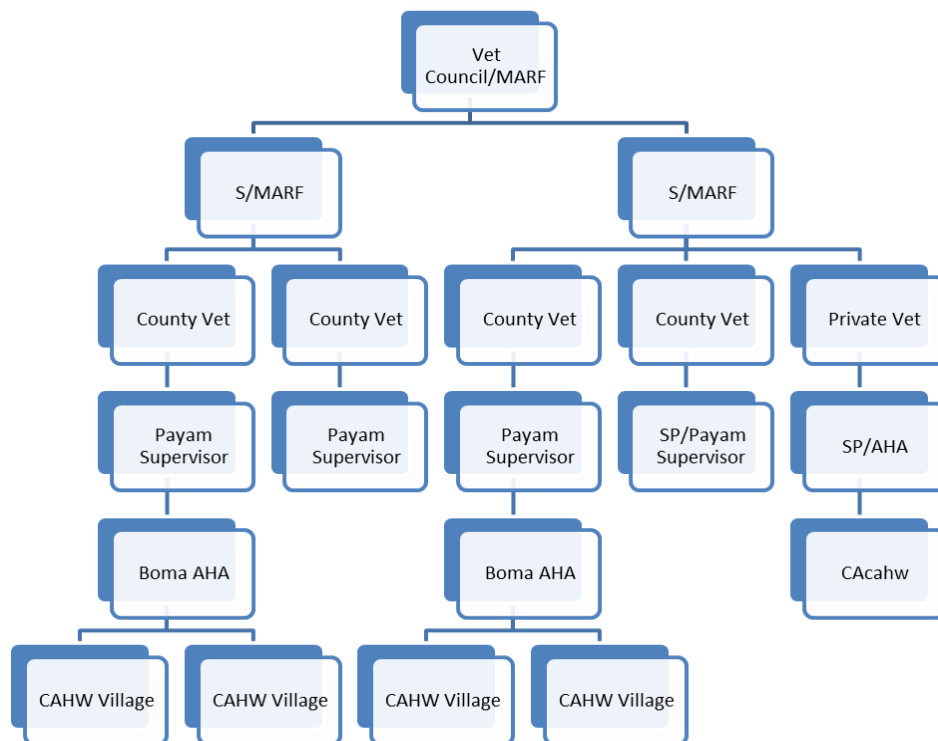
The MARF works to address the above challenges by collecting and providing factual and more appealing information to GoSS policymakers to increase the MARF's budget ceiling. From its turn, the MARF will increase support to States to enable infrastructure building and improve the institutional and technical capacity of the counterpart authorities for improved service delivery. The MARF will also encourage State governments and development partners to prioritize and increase investments in the fields of livestock and fisheries. Extension services will be intensified at the state level, using innovative methods to impart knowledge and promote innovative attitudes and practices needed to enhance the

contribution of the livestock and fisheries in fighting food insecurity and poverty in SS. Together with other government agencies, the MARF is committed to getting rid of long-established bottlenecks and make the business environment more conducive for private investments in the livestock and fisheries sector.

Currently there is an anomaly as far as cost recovery by service and input providers is concerned. Indeed, some NGOs have already embraced the principle of cost recovery while others still continue to offer free or heavily subsidized services. As a result, this creates a dependency syndrome in the spirit of the beneficiaries and kills the budding private sector.

To address this anomaly, the evolving policy and legal framework facilitates the implementation of cost recovery policy while facilitating and supporting private sector development. However, the MARF will continue to offer free or subsidized vaccinations services against economically and /or socially important animal diseases and pests through credible NGOs, CBOs, and cooperatives. The current organogram of the MARF is displayed below (Fig1.).

Fig 1. CAH Private/ Public structure National to Boma level.



Chapter Four

CAH Sustainability and Way Forward

4.1. Policy Guidelines

4.1.1. Objectives:

- to boost the performance and hence the sustainability of the CAHs by defining the roles and limits of each actor (MARF, private veterinarians, suppliers, retailers, SP, AHA, and CAHWs)
- to set up appropriate mechanisms to effectively support each category of actors in their practice
- to set up a pricing system for field interventions such as injection, vaccinations, castration per species, wound dressing..., taken apart from the cost of the drugs used.
- raise community's awareness of services fees or pricing structure through dialogues /workshop/radio
- prepare a room for CAHWs working for NGOs to later on enter the private sector; for this to be effective, this group of CAHWs should be also considered through capacity building initiatives (capital and training)
- set up a certification mechanism for, and quality control principles of drugs used on the territory of SS
- set up a certification protocol for private veterinary pharmacies
- initiate certification and registration of CAHWs practicing in the private sector
- standardize the profitability margins for each category of veterinary drugs and equipment (prices between suppliers, retailers/veterinary pharmacies and CAHWs)

Technical and Infrastructural Issues

According to FAO (2009), although the CAHWs' training curriculum is officially standardized and based on the VSF Belgium/UNICEF ones, it seems that the frequency and the practical modalities are not strictly followed in the different States of SS. And it appears that, according to the areas and the operator managing the project training, contents are slightly different. Unlike the AHA and SP who are trained in Marial Lou, there is no institutional ownership of the training modalities for CAHWs.

The Marial Lou Training Centre (MLTC) was established in Tonj North County which now falls within the boundaries of Warrap State. VSF B managed the center with the provision of technical support from (1996-2004). But it is now under the supervision of MARF and is managed by a board of directors. The establishment of this centre came as a genuine recognition of community needs assessed during the time of Rinderpest eradication and the implementation of the community-based animal health program in South Sudan. The purpose of this centre is to develop, promote and deliver responsive training and

technology to enhance sustainable development in the New Sudan. However, according to the last evaluation of the centre conducted under VSF-B, it appears clearly that the Centre is challenged by the following issues:

- the lack of financial capacity, as the withdrawal of the supporting NGOs, particularly VSF B, has left a huge gap and MARF is still grappling with institutionalization and the formulation of policies
- the buildings are in dilapidated condition and need comprehensive rehabilitation (VSF B external evaluation, 2007)
- poor roads infrastructure hinders movement of logistics activities; the only means of transport during the wet season is by air, which is expensive and not easily affordable.

According to VSF-B evaluation documents, MLLTC needs huge financial support to rebuild the physical structure. Also, given that the centre is isolated in an area that is difficult of access during the raining season, the evaluation mission has suggested reallocating the centre to another area where government can utilise existing buildings. Training of trainers, certification and validation of training material should then be the core mandate of the MLLTC while continuing training SP, AHA and refresher course for active veterinarians.

Drugs, Equipment, and Vaccines Supply

Vaccines

- The supply of vaccines and the related cold chain are the responsibility of the government and other development agencies such as FAO and NGOs. This provision makes sense as far as it allows these agencies to effectively help the government trace drugs and vaccines' movements for an enhanced quality control
- CAHWS are getting a return of 50% for vaccination cost recovery

Drugs/Equipment

- The government needs to monitor and control the sources of drugs in use in South Sudan. This control can be better performed by instituting a system of mandatory registration of the veterinary drugs. This means that only the drugs effectively registered at the Directorate of Veterinary Services can be sold and used in SS.
- The relevant Ministries will collaborate to set up a registration fee for each class of drug (these fees are annual and must be paid by the manufacturer).
- Although the government would not directly influence the price of the drugs to consumers, one should agree that the government should have a say on the reasonable beneficiary margin to be practiced by retailers.
- In absence of private veterinary pharmacies or retailers in an area, the official Veterinary Services can play this role to fill gaps by providing veterinary drugs/equipment.
- Each CAHW gets a starter kit, including antibiotics, dewormers, external anti-parasites, disinfectants, syringes, injection needles, cotton, for an approximate value of US\$ 200.
- Transport means should be considered in some cases so the CAHWs have to rigorously manage revolving funds to maintain the kits.

- For the sake of cost sharing, where NGOs are present they should cover the cost of the kits.
- In areas where no NGOs are present, the private sector (farmers/retailers/private vet) should be encouraged to support the cost of the starter kit.
- Each CAHW should commit to refunding the cost of the starter kit; agreeing on that principle will allow to secure starter kits for subsequent CAHWs.
- The MARF will not be involved in the delivery of kits free of charge, neither drugs nor equipment.

4.2. *Privatisation of the CAHW System and Role of the Different Actors*

Because of competition for limited financial and other public resources, there are strong pressures for rationalization, devolution, decentralization, and privatization of animal-health services in many countries, including South Sudan. As a rule, privatization is defined as the process of transferring ownership of a business, an enterprise, an agency or a public service from the public sector (the state or government) to the private sector (businesses that operate for a private profit). In South Sudan there is a clear evidence of a political will to support the privatization of animal health services.

According to the FAO (2009), there is a real need for countries to review the public and private components of their animal-health services. However, although this approach will vary according to circumstances, some principles are probably universal; so, it is argued that the public end of the spectrum should focus on two elements: the first is prevention, control or eradication of major epidemic livestock diseases, which have the potential to affect the national economy through high production losses, losses in export trade or food insecurity at a national level. Individual farmers, particularly poor and marginalized farmers and private animal-health providers are relatively powerless to protect themselves or the animals from these diseases, which require a national or even international approach for their control. The second element is zoonotic diseases and other public health and food security and food safety issues that could cause substantial public-health concerns to the communities.

Moreover, the government should create a conducive environment for the promotion of the private sector. Such an environment suggests a definition of roles, responsibilities, and limits for each actor of the animal health service delivery system (Private Veterinarians AHAs, SP, and CAHWS). Wherever the Service delivery to producers is already being provided by the private sector, this initiative should be strongly encouraged and even facilitated through alleviation of administrative procedures, as for example, advocating for preferential taxes on livestock and veterinary inputs. Furthermore, the government should focus only on its regulatory and monitory functions, including contracting the CAHW under sanitary mandate to implement vaccination or other disease surveillance and prevention activities in their areas. The government should not engage in any kind of competition with the private sector.

Roles of CAHWs as Extension Agents

Besides treatment and vaccination services that they provide, the CAHWs have a role to play as extension agents. They should mobilize the community for development activities, enhance awareness of animal health-related public health issues, including zoonotic disease prevention and control. They should also provide advice to the community on other livestock issues such as nutrition, breeding, care, and management of the stock, including marketing of livestock products. These topics should be briefly covered during the basic training course and in detail during subsequent refresher courses. However, their importance as part of the local network for early warning system (along with their supervisor) should be strongly emphasized from the onset or the basic course.

Roles of AHAs and Stock Persons

The suggested roles of the SP/AHA would include the following functions, but not exclusively:

- a) functioning as change agents/extension staff
- b) participating in community dialogue
- c) participating in conflict resolution
- d) assisting in training fresh CAHWs and in refreshing
- e) passing extension messages during meetings with the CAHWs, and community members
- f) assessing drug and vaccine requirements and reporting to the supervisor
- g) monitoring and reporting of the programme and disease situation (early warning system)
- h) playing increasing roles in providing treatment and immune coverage against major animal diseases
- i) planning and facilitating the vaccination campaigns
- j) facilitating cold chain management
- k) monitoring CAHWs and reporting disease outbreaks

Roles of Private Veterinarians

Their role is vital as suppliers and technical advisors providing on-the-job training to the CAHW, the AHA, and to the SP. The relationship between the private veterinarian and the entities under his/her supervision should be a win-win relationship provided these to monitoring quality and supervising when they are established and has a team under him (CAHWs/AHAs/SP); otherwise the supervision goes to the Public vets.

The private vets will advise and assist in the reporting of notifyable and zoonotic diseases. on top of that, they are supposed to participate in sourcing MARF-registered drugs, and advise farmers on appropriate use

Roles of Private Veterinary Pharmacies

South Sudan is a vast country with vegetation propitious to livestock production. However, that activity, of which depends the livelihood of the major part of the population is seriously endangered by the fact that producers are situated in remote, isolated, and therefore,

inaccessible areas. As a result, livestock producers are deprived from the basic veterinary services they need, including drugs supply and other related services. But, according to the principle of privatization of the veterinary services, the role of private veterinarians (PV) is to provide affordable and quality drugs to the local communities. And the GoSS strongly adheres to that principle, as the MARF is committed to devoting a central role to PV who will network with the local SP, AHA, and CAHWs to make the service livestock producers need available at each community level throughout the country.

For any private extension veterinarians/pharmacist, the profitability of their practice is mostly determined by the volume of the veterinary drugs sold to the community. However, a fact is that in contrast with a veterinarian in an industrialized country, who can use a vehicle to maintain contact with their clients and distribute drugs, his/her counterpart in a remote area of a developing country cannot afford such a work condition. As a result, the private extension veterinarian in a developing country such as SS, for example, mostly depends on over-the-counter sales. In this situation, any mechanism that increases drug distribution should be considered as a means to improve business viability. For this reason, privatized networks of CAHWs, supplied and supervised by private professionals, have been identified as the most reliable way to improve the veterinary services delivery in pastoral areas of Africa in general, and in South Sudan in particular.

1. Conventional small business planning methods can be useful tools for predicting the viability of private veterinary clinics or pharmacies in marginalized areas. For example, during a business planning training course in the Somali region of Ethiopia, veterinarians were asked to formulate hypothetical business plans for professionally managed pharmacies 'with' and 'without' CAHWs, and comment on the likely success of each option. This approach clearly revealed that networks of between twenty-five and thirty-five CAHWs do significantly improved the financial performance of a business--mainly due to an increased turnover of drugs. Such a model can be valid for any area of SS, with even a greater chance of success, given the reduced number of veterinary pharmacies, and therefore the spanning of the areas covered by each of them.
2. Another case study comes from Senegal, where the increasing presence of private veterinarians in the pastoral zone of Linguère led to the emergence of supportive links between these veterinarians and CAHWs. As a corollary, a survey conducted in 2000 in the same region showed that 90% of CAHWs interviewed worked with a private veterinarian and 87% reported that veterinarians were not their competitors.
3. Even closer to the South Sudan--in North-West Kenya--a private veterinarian has established a private practice that uses animal health assistants (AHAs), who in turn, supervise and supply a network of CAHWs in specific pastoralist areas. The location of the practice enables the delivery of services to both pastoralist communities and sedentary farmers in midland areas. Despite the willingness of some veterinarians to work in more remote areas, many do not originate from pastoralist or other marginalized communities and avoid therefore, working in communities of different ethnicities and cultures.

4. Further evidence of the importance of privatized, higher-level para-veterinary professionals linked to CAHWs is available from Ethiopia. In the Somali region, a joint project of the Regional Bureau of Agriculture and the NGO called Save the Children United Kingdom (UK) provided training in business planning and established a credit facility in collaboration with the Commercial Bank of Ethiopia. Similar to what has been said early with regard to the case in Kenya, although the licenses for some of the businesses had been issued to veterinarians, veterinary assistants were usually responsible for the routine management of the pharmacies and for communicating with clients.
5. Much like the AHAs in Kenya, veterinary assistants in Ethiopia are para-veterinary professionals with at least two years training. Another finding from this project was that in the absence of external support, AHAs were meeting communities to establish sub-agents at community level. In most of the cases these sub-agents were CAHWs who had been trained by the government or NGOs. In other communities, the AHAs and the community in question identified a person to act as a sub-agent, the CAHW in the case of SS.

As one can see, the AHAs recognizes the value of working with community-level operators/CAHWs and are able to arrange systems for supply and remuneration that are mutually beneficial. As a rule, through the Eastern Africa, this simple AHA-CAHW model appears to be the most financially viable privatized system for the delivery of primary animal healthcare in areas that may not support a private veterinarian.

However, an important component of the system is that the pharmacist be able to effectively provide a field support to the CAHW under his/her supervision. The importance of this field support/monitoring is so crucial that from its effectiveness depends the success and the sustainability of the CAHW's field activities, and therefore, the rhythm of the drug turnovers per CAHW—which is, the volume of the drugs sold to the community by each CAHW. After all, emphasis on practical training and close supervision of CAHW helps to ensure that they are technically competent, and therefore, accepted of the communities they are intended to serve.

Indicative list of veterinary drugs and vaccines used in South Sudan

#	Drugs Groups	A few diseases requiring vaccination in the eastern Africa
1.	Antibiotics	Foot and Mouth Disease,
	Oxytetracycline 20%	Contagious Bovine Pleuro-Pneumonia (CBPP),
	Oxytetracycline 10%	Contagious Caprine Pleuro-Pneumonia (CCPP)
	Oxytetracycline 5%	Blackquarter
	Oxytetracycline spray (200 mg)	Anthrax
	Penicilline Streptomycine (Penstrep)	Pestes des Petits Ruminants (PPR)
		Rabies
2.	Multivitamins	Hemorrhagic Septicemia
3,	Antisporozoals	Newcastle disease

	Trypamidium	Pasteurellosis
	Berenil	
	Veriben	
	Novidium	
	Ethidium	
4.	Sulfur-based drugs	
	Fuzol (120 ml)	
	S-dine (100 ml)_	
5.	Acaricides and insecticides	
	Triatix (100 ml)	
	Sevin (sachets)	
	Decatix	
	Deltamethrin 1%	
	Pour on/Spot on	
	Poultry dust	
6.	Anthelminthics	
	Anthelminthics for large animals	
	Anthelminthics for small ruminants	
	Anthelminthics for cats and dogs	

CAHWS/AHAs/SP Associations

They have a strong role to play in the privatization process. The association needs to be registered and will support the CAHWS in their role. As a rule, you are strong when united; as so, for example, the association can serve as a guarantee or support to a member who is planning to apply for a loan with a bank. The association can also stand for a member in trouble before a court for malpractice. Members of the association can raise funding to support a colleague who has been stolen. Similarly, members can help each other sharing their stock of drugs in case some have the drugs the others do not have. Furthermore, some members can run for electives positions at boma, payam, and county levels to defend the interest of the association or that of the producers they serve. Technically, the members can set up a meeting agenda to discuss specific technical issues or for experience sharing. Finally, the members can put their funding together to order their drugs as groups and benefit hence from even lower prices than they would have paid individually.