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Assessment of Veterinary Voucher Scheme Intervention Already Present in the Area and Proposed Strategy: A Case Study

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ABSTRACT

This research focuses on with the livestock technical assessment carried out in DaweQachen, Raytu and Guradamole districts under the different NGOs working in the area. Attempts to introduce sustainable animal health service delivery through the private sector have fared poorly due to provision and perceived risk of subsidized or free veterinary drugs provided by Implementer during implementation. The concept of the use of veterinary vouchers addresses a ground-breaking attempt at ensuring project responses in the animal health sector strengthen rather than undermine sustainable animal health service delivery systems in both the private and public sectors while insuring the needy target groups continue to receive affordable or essential services. The guidelines case study aims to give clear visual information about the current animal health status and way of implementing the project area to be as a benchmark for the future evaluation of the impact of the project and divided the resource according to survey in addition to Baseline survey From the result of assessment all human elements are at risk of drought in shortage of water, food and health care, Productive assets (livestock) are at high risk, Lack of training/uniformity to improve community animal health workers performance Lack of some CAHWS equipment, High need for sustainable animal health service delivery strength CAHWS with a private veterinary practitioner, It is found that in three districts has huge untapped livestock resources but its contribution to the individual pastoralist household is still insignificant. This is mainly attributed to the poor productivity of livestock. Disease is the major constraint to livestock production next to drought, which are rampant and widespread in the district. Poor animal health service is still mentioned as the major cause of production and productivity of livestock losses. Government services are constrained by inadequate drug supply and access to veterinary drugs and vaccination rates are low. On the other hand, CAHWs services were found very good and preferred due to their proximity to the livestock owner. CAHWs were mostly seen providing veterinary services in remote areas where the government services did not reach need to give refresher training and equipped them to link them with private veterinary vender.

Keywords: Voucher veterinary, Livestock scheme, Intervention, Strategy, and CAHWS.

INTRODUCTION:

Livestock are extremely important in Ethiopia for economic development and poverty reduction. Ethiopia has the largest livestock population of all African countries (59.5 million cattle, 29.5 million sheep, 30.2 million goats, 8 million equines, 1.2 million camels

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and 49 million poultry). The livestock sector in Ethiopia is considered an important source of food, nutrition and livelihood security and the production systems can be broadly categorized into mixed crop-livestock (highlands) and pastoral and agro-past-oral (lowlands), and urban and peri-urban production systems. The Ethiopian livestock industry contributes 135 billion ETB annually to the economy (94 billion from livestock production and 41 billion from contribution to crop production). This is around 18% of GDP and approximately 70% of households derive some income from livestock (World Bank, 2016; Gammada, 2020).

The current status of veterinary service in the country is unsatisfactory. Public veterinary services are underfunded and public good core functions are not given the required attention and there is undue concentration upon delivering veterinary services. Ineffective livestock marketing also constrains the economic potential of the pastoral areas. Unofficial, but traditional, cross-border livestock trade comprises a large proportion of all livestock trade; it is mostly directed at markets in the Gulf. Live animal exports have a long history and were traditionally managed by the private sector. Trade to Egypt, Saudi Arabia, United Arab Emirates (UAE) and other Gulf States consisted mainly of live animals while, in the past, canned and chilled meat was exported to Europe and Asia. The governance of Animal Health in Ethiopia is hampered by lack of enabling legislation, poor vertical integration of information on disease incidence and prevalence information, uneven competence levels across regions and disproportionately low access to services in isolated areas. The National Animal Disease Surveillance System is handicapped by a reporting performance which does not exceed 45% (Hayle *et al.*, 2020; Bekere *et al.*, 2022).

The capacity of regional labs for disease surveillance, and the coverage and capacity of vet clinics are not to the required level. The current status of veterinary service in the country is unsatisfactory. Public veterinary services are underfunded, public good core functions are not given the required attention and there is undue concentration upon delivering veterinary services. The National Animal Health strategy aims to provide animal health, public health and Food safety as well as welfare services which comply with international stan-

dards and contribute to the achievement of food security, poverty alleviation and socio-economic growth. The main targets under this strategy include:

- 1) Improve the level of advancement of the veterinary service from the current level of 2.63/5 in the OIE PVS evaluation to 3.5/5
- 2) Reduce mortalities (cattle 8-10%, sheep 12-14 % lambs up to 25%), goat 11-13%, poultry 56.9 %) and production losses (30-50 % of annual production) related to livestock disease by 15 % Contribute to the GTP targets to increase the national earning from livestock and livestock products to 1 billion USD by the year 2014/15.
- 3) Improve public health and food safety-developing protocols
- 4) Improve animal welfare awareness protect the country from introduction of exotic diseases which inflict damage to the national livestock population.

Bale zone is one of the largest zones of Oromia region found in the south east part of the country. The Zone has 20 Woredas (2 urban & 18 rural) of which 9 of them are found in the lowland area. The main economic activities are livestock rearing and crop production. The topography of the area is dominantly plains, with some hills and undulating areas. Genale River and Wabe Shebelle are the two major rivers found in the zone. All wealth groups possess cattle, sheep, goats, beehives and chickens whereas camels and mules in most cases are owned only by the better-off and middle households. The livelihood of the majority of the population, of the three Woreda indicated above, is pastoral in which livestock rearing is the key means of surviving. Cattle, camel, shoats (goats and sheep) and donkey are the major livestock used to be reared in these districts. Livestock and livestock products like milk and milk products are the principal sources of financial capital (income) for purchase of food grains and other household consumptions goods and materials as well as these are used as additional food sources. Dawe Qachen Woreda is one of the nine pastoral Woredas of Bale Zone located in eastern part of the Zone and accessible in two routes from the Zonal town, Robe, through Goro and Ginir, 120 and 220 Km respectively. The Woreda is bordered by Goroboke-kesa Woreda of Somali region in east, GoroWoreda of

Bale zone in west, Guradamole Woreda in south and Rayitu and Ginir Woreda of Bale Zone in north. There are 13 rural and 1 urban Kabeles and all Kabeles are Kola (low land). The road up to Ginir/Goro is year round accessible gravel road where as from Ginir/Goro to Myo, Woreda center, is dry whether road. Woredas has got 218,328 livestock population and is the main livelihood asset for the community. Cattle, shoat, camel and poultry are the main type of herds. In addition to drought related impediments the sector productivity is also challenged by lack of vaccine and treatment drugs coupled with poor veterinary service infrastructure which exacerbates the community effort in protecting their main livelihood assets during drought situation and recovering in better seasons. Rayitu Woreda is one of the nine pastoral Woredas of Bale Zone located in eastern part of the Zone and accessible from the Zonal town, Robe, through Ginir at a distance of 200 Km. The road up to Ginir is year round accessible gravel road where as from Ginir to DhedehaBela, Woreda center, the road is all weather gravel road which goes up to Gode of Somali Region and is currently under construction. Rayitu Woreda has got 171,357 livestock population whereby the estimated average holding per HH is around 23 heads. Cattle, shoats, camels and poultry are the main type of herds whereby shoats (44%) and cattle (25%) take the highest percentage of the herd composition.

Guradamole Woreda is located in southern part of Bale Zone surrounded by Goro Woreda in the North, Dawe Qachen and Dawe serer in the East, Berbere and Dolo Mena in West, and Meda Wolabo Woreda and Somali Region in the South. It is accessible from the Zonal town, Robe, through Goro at a distance of 122 Km. Previously the Woreda center was in Rayitu town, one of the 15 Kebeles, then moved to Jibri (5km away from neighboring Somali Region). Livestock production is one of the main livelihood activities in which 65% of the Woreda population is engaged as the only means of household income. In this Woreda there is a total of 137,599 livestock population in which cattle (54%), shoat (33), camel (3%), equine (5%) and poultry (5%) are the main type of herd composition. Veterinary service is critical need in the pastoral Woredas of Bale Zone. Thus, taking this into consideration, Implementer designed Vet Voucher program

alongside a private veterinary pharmacy. An important aspect of the provision of clinical veterinary services during disasters is to work with, rather than undermine, private sector veterinary facilities and workers wherever possible. Such service providers can comprise the main source of quality veterinary care post-disaster. Same interventions often only provide temporary relief at the same time as undermining sustainable livelihood approaches and this in itself impacts negatively on development. The relief intervention only provides short term solutions other than long term solutions that would go a long way in ensuring sustainable development. The livestock interventions that are implemented during recovery are basically the same activities that should be implemented by regular programs in normal times. As many of the interventions are basically taken over as recovery interventions, they need to be re-integrated into the normal regular development activities.

Objectives of the study

- 1) To assess the veterinary service delivery system in terms of treatment in Rayitu, Guradamole and Dawe Qachen woreda of Bale zone.
- 2) Assess private and CAHWs distribution and understand the different options for veterinary voucher scheme implementation
- 3) To assess Previous experiences on existing private - CAHWs linkage in the operational area with a possible recommendation for how to implement voucher schemes
- 4) Identifying existing capacity of private sector, which gives service to be improved
- 5) Assess ongoing government or by others initiatives through voucher treatment
- 6) To design voucher based treatment model with clear role and responsibility of involved parties.

Scope and Limitation of the study

The scope of the study is to understand the veterinary service delivery especially on livestock treatment and to design a suitable intervention methodology to improve the quality and sustainability of the service. In the meantime, the existing veterinary service area will be assessed as well as used as source of data. However, the assessment compiled is based on qualitative information generated through FGD, interviews with government staffs, CAHWs and private practitioners. A

detail household survey is not carried out due to constraint of resources which otherwise would have given more quantitative data for further analysis.

Location

Astronomically, Bale zone is located between 50 22'-80 08' N and 380 41' - 40 044'E. In its relative location, it shares common boundary with Somali National Regional State of Ethiopia in the East, East Hararge Zone

in Northeast, West Hararge Zone and Arsi zone in North, West Arsi Zone in the West and Guji Zone in the Southwest the study area is bounded from north to south by latitudes 5.87° N and 7.14° N, and from west to east by longitudes 40.27° E and 41.91° E. (Atlas of Bale zone, 2004). See **Fig. 1**.

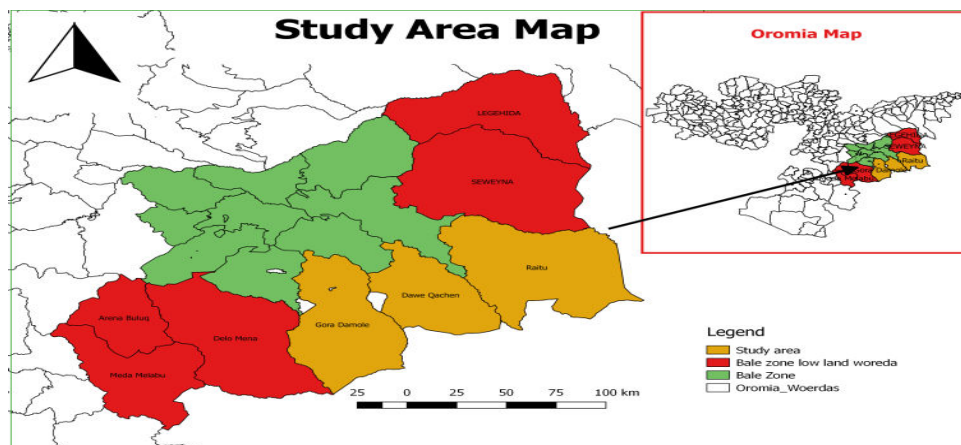


Fig. 1: Locations in Bale Zone, Bale lowlands and Study area.

Topography

Bale has a great physiographic diversity. Highlands, lowlands and rugged areas, incised river valleys, deep gorges, characterize it and flat topped plateaus. The surfaces rise from about less than 300m above sea level (Southeast Rayitu, Guradamole and Dawi-Qachen) to high ranges culminating into mountain Tulu Dimtu (4377m), the highest peak in the zone. The high land plateaus embrace the Sannate plateaus (Bale Mountain National Parks 2020) and Mount Tulu Dimtu. Land Use/Land Cover: Bale zone covers a total area of 69,661 km2, which accounts for about 19.2%

of the total area of Oromia regional state and hence, is the second largest zone in the region. Out of this land, 6.81% is under crop production, 32.19% used for grazing, 29.93% covered by natural vegetation, 3.55% covered by swampland, 8.94% is barren/degraded area, 7.68% is potentially cultivable land and 11.44% is covered by others such as river, mountains and settlements (Bale Zone Culture and Tourism Office,2011). The area covers approximately 12419 km2 (of which Rayitu 5359, Dawa Qachen 2878 and Guradamole 4182) (see **Fig. 2**).

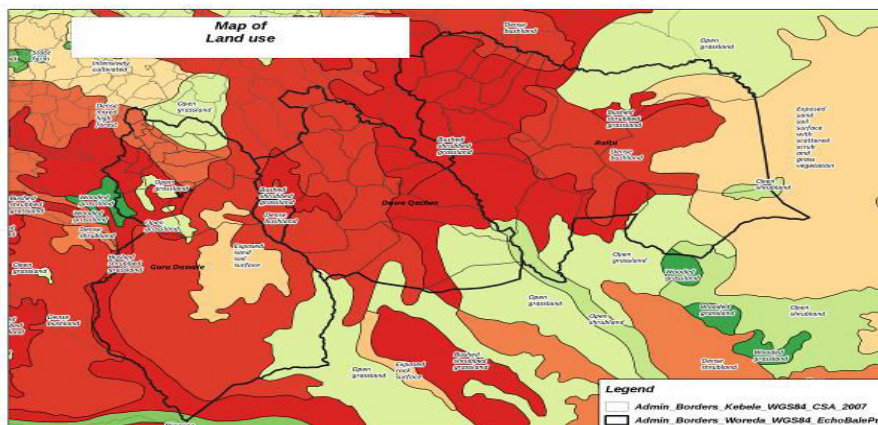


Fig. 2: Map of land use.

Justification

Attempts to introduce sustainable animal health service delivery through the private sector have fared poorly due to provision and perceived risk of subsidized or free veterinary drugs provided by Implementer during implementation. The concept of the use of veterinary voucher addresses a ground-breaking attempt at ensuring project responses in the animal health sector strengthen rather than undermine sustainable animal health service delivery systems in both the private and public sector while insuring the needy target groups continue to receive affordable or essential services.

Advantage of the Voucher based treatment -

- 1) The voucher approach will address many of the constraints faced by the PVP working in the area
- 2) Voucher is only provided to supply specific drugs that are beneficial to the specific area ensuring the quality and supply of drugs during immediate health emergency interventions
- 3) Voucher strengthens local market economies
- 4) Knowing the number of animals to be targeted, which is mandatory in voucher system, helps planning and lowers risk of oversupply
- 5) Products and services reach the intended beneficiaries
- 6) There is minimal risk of drugs going out of the intervention area
- 7) Targets the poorest of the poor in livestock pastoral communities
- 8) Empowers the pastoral community through the trained CAHWs
- 9) No diversion of drugs-direct to target beneficiary, thus improving transparency
- 10) Ensures quality drugs at community level
- 11) Encourages livestock owners to seek for services

Experience of Voucher in the area

Voucher system can be considered as new experience in all the three Woredas except one recent intervention that did not involve the private practitioners in the implementation process. FAO, in collaboration with the Bale Zonal and Woreda government, supported the implementation of veterinary interventions in three woreda: Guradamole, Dawe Qachen and Rayitu Woreda. FAO entered an agreements with the zonal government to provide the required veterinary inputs, technical backstopping and to cover the operational

cost. As clearly stipulated in the Memorandum of Understanding (MoU) between these two institutions, the role of the government was to implement, follow up & monitoring of the voucher system as well as to provide adequate documentation and reporting to FAO. Based on the zonal government agreement with FAO, FAO give drug to the Bale Zone PD office and the woreda government (pastoral development office) was responsible for the actual implementation of the voucher system using woreda veterinary professionals as well as CAHWs. Households who get the service are expected to participate on the improvement of the vet posts by crush making, road and pond rehabilitation etc (FAO, 2011; Das *et al.*, 2022).

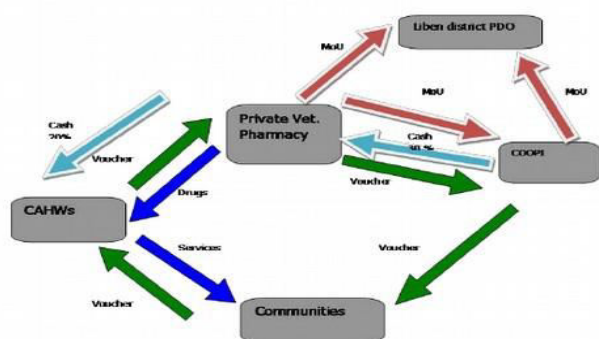
Recent experience of implementer in Voucher based intervention

Implementer has been implementing Voucher Schemes in two ways, with and without involvement of private practitioners, based on the capacities of the intervention area. A. Implementer under project livelihood project started to implement voucher based treatment in Liben Woreda in 2012. Before implementation of the treatment voucher system in Liben, Implementer facilitated Workshop, discussion meetings with woreda government offices on the voucher system to enable woreda officials and experts to become familiar with the system, endorse the project, and devise how to implement the methodology. In presence of private in (Liben Guji, Zone) Implementer implemented Voucher based treatment in order to assure that services were available to vulnerable families at appropriate times. This livestock treatment was carried out through local CAHWs with close monitoring and supervision of experts from Pastoral development office and Implementer. Furthermore, a system was established or strengthened to link CAHWs with Private. Among the preconditions fulfilled before starting implementation were:

- 1) Selection of Kebeles for treatment
- 2) MOU sign with partner
- 3) Selection of Beneficiary
- 4) Giving Refreshment Training and equipping for CAHWs
- 5) Selection and training of Drug vender in the area
- 6) Preparing and distributing veterinary vouchers
- 7) Payments
- 8) Monitoring and supporting of CAHWs

Model of Voucher scheme in Liben Woreda implemented by implementers

B. under the framework of the project Emergency Support in terms of livelihood projects in Dolo Ado,



Dhekasuftu and Filtuworeda of Liben zone in Somalia Regional State, a voucher system has been introduced through Government channel without the involvement of the private drug vendors (Liben Zone, 2017). The responsibility of drug distribution and voucher collection has been entitled to the woreda pastoral development office.

Model of Voucher scheme through government Channel in Filtu, Dhekasuftu and Dolo ado woreda of Liben Zone Somalia Regional state

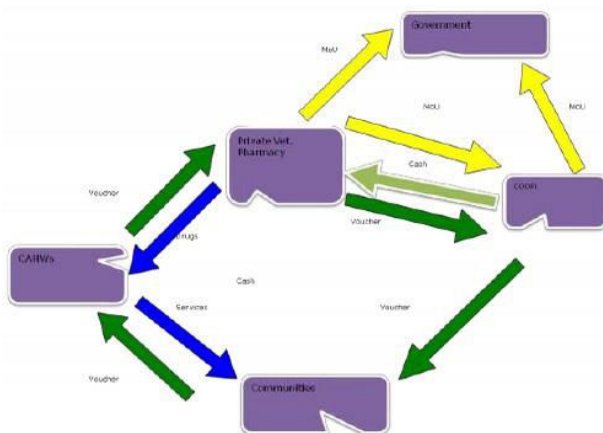
The roles of the government professionals including (AHA, AHT and DVM) included monitoring and follow up CAHWs activities as well as involvement in supporting CAHWs in the service provision. Selection of targeted beneficiary's followed similar mechanism as in the first method. The voucher was prepared from normal invoices with the printed names of the beneficiaries types and quantity and value of drugs entitled to the beneficiaries and the signature. The beneficiary get the service from CAHW using the voucher. The CAHW collect the vouchers from the community up on provision of service and later will recover the cost in terms of drug from the LCRD office.

Proposed Strategy and Methodology of implementation

Upon assessing the capacity and gaps of the involved parts in the system a voucher scheme, integrating the private vendors, CAHWs, community and government is proposed as a service delivery option. An emphasis should be given on the following key steps.

- 1) Selection of targeted Kebele

- 2) MOU with PD Office ,vender and Implementer
- 3) Community dialogue before selection of CAHWs and beneficiaries
- 4) Giving Refreshment Training and equipping for CAHWs
- 5) Selection Drug vender in the area
- 6) Preparing and distributing veterinary vouchers
- 7) Drug vender and network of CAHWs collect vouchers from beneficiaries
- 8) Monitoring and Supporting of CAHWs
- 9) Documentation



Model of Voucher scheme proposed to implement in Rayitu, DaweQachen and Guradamoleworeda

Discussion was made with the concerned offices of the woreda and Kebeles structure regarding implementation of the voucher system, the procurement of the drugs, the selection of potential private vendors, availability and quality of drugs in the area, legal document required to supply the drugs for this intervention (USAID, 2019). While implementing, Drug vender and network of CAHWs collect vouchers from beneficiaries and treat animals. Drug vender will take 50% of the drug value from Implementers as an advance whereas the remaining 50% to be replenished to the vendor upon supplying the first drugs to the CAHWs and collection of the utilized vouchers from the CAHWs. CAHWs on their side provide the service to the targeted beneficiaries and receive the voucher and deliver it to the private drug vendors and NGO.

Selection of Kebele, HH, CAHWs and Vender

Selection of Kebele

For selection of kebele and targeted vulnerable households, meeting was arranged at woreda and kebele

level and the criteria of selection were agreed. The criteria for kebele selection were: livestock and Human population, Severity of drought (lack of pasture and water due to drought), disease incidence, and remoteness location of kebele, absence of other NGOs intervention, similar kebele with Wash, Presence of CAHWs and highly ranked nutritional problems are some of criteria.

Selection of HH

Implementers discuss with communities and local authorities to select the direct beneficiaries of the emergency animal health interventions based on its pre-established and solid relationships with community elders, local authorities and key community stakeholders in the districts. Implementer liaise directly with these groups to ensure they have a firm understanding of targeting criteria, which includes indicators for poorest and poor households, vulnerable households most severely affected by recurrent droughts. Community dialogue /discussion should be conducted with community representatives at Kebeles level (Administration, elders, religious person, line departments etc) to select most appropriate HHs.

Selection of CAHW

Selection of the CAHWs from Kebeles was done by pastoral office of the respective districts. CAHWs selected must have been highly ranked by the community and also more positive and strongly linked with the community, motivated to work and serve their community at a minimum advantage to fulfill their commitment that benefits community.

Selection of vender

Pastoral development offices of the district and implementers is assessing veterinary drug vendor for price, availability of stock, quality of drugs, legal document required to supply the drugs for this intervention. Generally, the selection of drug vendor will be done in two stages. One in assessing drug vendor technical competence through evaluation of experience with voucher system, availability of stock, useful training for CAHWs, and quality of drugs previously delivered for CAHWs, legal document required to supply the drugs. This stage of evaluation takes 60 %. The second stage of selection process is based on written exam which account 40%.

Sign of MOU

A three party's agreement will be entered among Implementer, woreda pastoral development Office and PVP outlining the roles and responsibilities of each party.

Drug quality control

Cash is reimbursed to the pharmacists based on supply of the specific drug qualities annexed on the agreement of the parties. AnMoU will be signed between implementers and the pharmacists regarding the origin and quality of drugs. Implementer or PDO regularly control drugs on the shelves in the pharmacy and in the records.

Giving Refreshment Training and equipping for CAHWs

Refreshments training for CAHWs was undertaken to enable them get adequate knowledge on the voucher system and management of drugs with equipping veterinary kits.

Role and responsibility

Community Roles and Responsibilities

Mobilization and Community Organization
Identification/selection of CAHWs and beneficiaries'
Receive vouchers with different cost value
Monitor CAHWs activities to keep them active
Bring livestock for treatment and give service cost for CAHWs

Role of CAHWs

- 1) Treat animals
- 2) Advisory service to livestock owners
- 3) Witness voucher distribution
- 4) Safe storage of drugs
- 5) Distribution of drugs in exchange for voucher
- 6) Collection of voucher and handover to drug vender
- 7) Regular replenishment of drug kits
- 8) Mobilization of community, awareness raising and Collect service cost from community

Roles of Drug vender

Sign contract of implementation with implementers

- 1) Planning and implementation
- 2) Awareness creation
- 3) Sufficient drug supply for sell
- 4) Technical advice

- 5) Procurement of drugs
- 6) Collection of vouchers from CAHWs and submission to implementers
- 7) Ensures transparency and accountability

Role of Woreda Pastoral Development Office

- 1) Sign MOU with implementers
- 2) Involved in planning and overall implementation process
- 3) Supervise project/intervention & monitored voucher system implementation,
- 4) Plan and implement the voucher system
- 5) provided policy guidelines and quality control

Role of Implementer

- 1) Mobilizing the required resource
- 2) Sign Contract, MOU with Drug vender and or Pastoral development office respectively
- 3) Printing and distributing vouchers to the beneficiaries
- 4) Post distribution monitoring
- 5) Overall management of the vet voucher process
- 6) Coordinating, supervising and monitoring overall implementation
- 7) Logistic arrangements

Linking vet drug delivery with private sector

- 1) By using this system, the CAHWs are forced to procure their drugs in the local private pharmacies, because the vouchers have only a value with agreed and legal suppliers.
- 2) The voucher is used as an initiator: once frequent contact and trust is established between CAHWs and private pharmacies, CAHWs are expected to continue being customers at the private pharmacies, thus limiting the black market.
- 3) The system will also encourage pastoralist to pay for a proper service delivered from the CAHWs.

CONCLUSION:

Close supervision and monitoring will be conducted both by Implementer and the Woreda responsible experts. Data will be continuously collected from the PVs, the CAHWs as well as the beneficiaries in order to assess the quality of the service delivery and to early identify any limitation during the process. Developing monitoring format and filling accordingly in each kebele. CAHWs have to fill the number of animals treated and type of drug on each ticket. These tickets

are returned to the NGO (implementer) in exchange of incentive payment. At the end of each month, implementer Livestock activity coordinator will compile data and report on the interventions. Regular documentation according to organization and donor need of all procedures followed during animal health intervention/ vet voucher system intervention.

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CONFLICTS OF INTEREST:

There are no potential conflicts of interest to publish the present research work.

REFERENCES:

- 1) Atlas of Bale zone, (2004). Atlas of Bale zone. Bale Zone Department of Finance and Economic Development, Bale (Ethiopia).
- 2) Bale Zone Culture and Tourism Technical document Office, (2011).
- 3) Bale Mountain National Parks Document, (2020).
- 4) Bekere HY, Tamanna N, and Yusuf YO. (2022). Identification and affliction of ixodid tick species in domestic animals. *Int. J. Agric. Vet. Sci.*, 4(2), Pp. 39-45. <https://doi.org/10.34104/ijavs.022.039045>
- 5) Das DK, Zinnurine S, Sarkar ER, and Sikder S. (2022). Meloxicam is the primary choice of analgesic for dogs and cats; a cross-sectional clinical study in Bangladesh. *Int. J. Agric. Vet. Sci.*, 4(5), Pp. 86-93. <https://doi.org/10.34104/ijavs.022.086093>
- 6) FAO, (2011). The State of Food and Agriculture (SOFA) report. Retrieved in July 2011: <http://www.fao.org/docrep/013/i2050e/i2050e.pdf>
- 7) Gammada I. (2020). Assessment on economic losses due to animal health and production constraints in Jimma town intensive dairy farms, Jimma, Ethiopia. *Eur. J. Med. Health Sci.*, 2(3), Pp. 52-60. <https://doi.org/10.34104/ejmhs.020.052060>
- 8) Hayle WA, Ahmed R, and Uddin ME. (2020).

- Prevalence of subclinical mastitis among small ruminants and isolation of some bacterial pathogens in Jimma Town, Ethiopia, *Eur. J. Med. Health Sci.*, 2(6), 107-124.
<https://doi.org/10.34104/ejmhs.020.01070124>
- 9) MOA Technical document Assistance to Support the Implementation of the Project: “Health of Ethiopian Animals for Rural Development” FED /2017/040-392 Financed by the European Union December 2020, Pp. 23.
- 10) Technical document Assistance to Support the Implementation of the Projects Liben Zone Somalia Regional state 2017, Pp. 23-54.
- 11) World Bank, (2016). Agriculture and Livestock treatment Management Sourcebook. *Washington DC*.
- 12) USAID, (2019). Agriculture Knowledge, Learning, Documentation and Policy (AKLDP) project, implemented by the Feinstein *International Center, Friedman School of livestock Science and Policy, Tufts University*.

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