



Protecting Livestock – Improving Human Lives

ESTABLISHMENT OF AN ANIMAL HEALTH INDUSTRY ASSOCIATION (AHIA)

UGANDA



A SCOPING STUDY REPORT

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Undertaken by:



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TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
LIST OF TABLES.....	ii
LIST OF FIGURES.....	ii
ACRONYMS	ii
EXECUTIVE SUMMARY	v
1. History and Evolution of the Animal Health Industry.....	1
2. Current content and context of the industry.....	2
2.1 The size of the animal health inputs and services industry	2
2.2 Actors and services offered	2
2.3 Organization of the animal health inputs and services industry	3
2.4 Current policies and legislation.....	6
2.5 Challenges and opportunities	7
3. The Case for Animal Health Industry Association.....	10
3.1 Relevance	10
3.2 Collaboration and Partnerships	10
3.3 Governance and Management	11
3.4 Sustainability.....	13
4. Summary and Conclusions.....	14
5. REFERENCES	15
6. ANNEXES	17
Annex 1: Evolution of the animal health inputs and services industry in Uganda	17
Annex 2: Public Sector Animal Health Governance Structure in Uganda 2020.....	19
Annex 3: Involvement of the different actors in the animal health input and services sector in Uganda	20
Annex 4: Evolution of policies/regulations in the animal health inputs & services sector in Uganda ...	23
Annex 5: Detailed account of evolution of policies that are of great relevance to animal health inputs and services.....	27
Annex 6: Respondents for the key informant interviews	29
Annex 7: Useful contacts – other people that have more information that they can share via a questionnaire	32
Annex 8: Notes from the validation workshop.....	33

Annex 9: Levels of agreement with the possibility of having a sustainable AHI based on different funding approaches	34
Annex 10: Effectiveness of regulatory institutions as perceived by respondents on various dimensions of the animal health industry.....	35

LIST OF TABLES

Table 1:List of associations/institutions that can serve as umbrella AHIs or need to be strengthened to do so.....	12
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LIST OF FIGURES

Figure 1:Interaction of actors during clinical treatment of endemic diseases at district level in Uganda ...	3
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ACRONYMS

AAHO	Assistant Animal Husbandry Officer
AFRISA	Africa Institute for Strategic Animal Resource Services and Development
AHI	Animal Health Industry
AHIA	Animal Health Industry Association
AHO	Animal Husbandry Officer
AHPIA	Animal Health and Production Industry Association
AHT	Animal Health Technologist
AI	Artificial Insemination
AR	Antimicrobial Resistance
ASSP	Agriculture Sector Strategic Plan
APSU	Animal Production Society of Uganda
AVO	Assistant Veterinary Officers
CAHW	Community Animal Health Worker
CBO	Community-Based Organization
CBPP	Contagious Bovine Pleuropneumonia
COCTU	Coordinating Office for the Control of Trypanosomiasis in Uganda
COVID-19	Coronavirus Disease
CRS	Catholic Relief Services
CSO	Civil Society Organization

DDA	Dairy Development Authority
DLG	District Local Government
DRC	Democratic Republic of Congo
DVO	District Veterinary Officer
ECF	East Coast Fever
FAO	Food and Agriculture Organization of the United Nations
FMD	Foot and Mouth Disease
FY	Fiscal Year
GALVmed	Global Alliance for Livestock Veterinary Medicines
GDP	Gross Domestic Product
HSIO	Hides and Skins Improvement Officer
IMF	International Monetary Fund
ICT	Information and Communication Technology
IT	Information Technology
KII	Key Informant Interview
LDF	Livestock Development Forum
LG	Local Government
LT	Leather Technologist
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MI	Meat Inspector
MOBIP	Market Oriented & Environmentally Sustainable Meat Industry, Uganda
MoFPED	Ministry of Finance, Planning and Economic Development
MoH	Ministry of Health
MoLG	Ministry of Local Government
NAADS	National Agricultural Advisory Services
NAEP	Uganda National Agricultural Extension Policy
NAGRC&DB	National Animal Genetic Resource Centre and Data Bank
NARO	National Agricultural Research Organization
NDA	National Drugs Authority
NDP	National Development Plan

NGO	Non-Governmental Organization
NRM	National Resistance Movement
OIE	World Organization for Animal Health
OPM	Office of the Prime Minister
PARC	Pan-African Rinderpest Campaign
PPR	Peste des petits ruminants
SACCO	Savings and Credit Cooperative
SAP	Structural Adjustment Program
SVO	Senior Veterinary Officer
TBD	Transboundary Animal Disease
UBOS	Uganda Bureau of Statistics
UCCCU	Uganda Crane Creameries Cooperative Union Ltd
UGX	Ugandan Shilling
UNAITA	Uganda National Artificial Insemination Technicians Association
UNICEF	United Nations Children's Fund
UPS	Uganda Prisons Service
USD	United States Dollar
UVA	Uganda Veterinary Association
UVB	Uganda Veterinary Board
UVPPA	United Veterinary Paraprofessional Association of Uganda
VA	Veterinary Assistant
VEDAS Net	Veterinary Drug and Agrochemical Safety Network
VLA	Veterinary Laboratory Assistants
VLТ	Veterinary Laboratory Technologists
VO	Veterinary Officer
WHO	World Health Organization
WTO	World Trade Organization
WWS	World Wide Sires

EXECUTIVE SUMMARY

This scoping study presents an analysis of the animal health inputs and services industry in Uganda to help determine the prospects and modalities for the establishment of an Animal Health Industry Association (AHIA). The report is based on results of analysis of data collected through key informant interviews, structured questionnaires, and desk reviews.

The scope of animal health inputs/services coverage in Uganda is wide and includes prevention, control and treatment of both domestic and wild animals, zoonotic diseases, veterinary public health and environment, safety of foods of animal origin and animal production (animal nutrition and breeding). It also encompasses pharmaceutical products such as acaricides, extension services (training, treatment, and breeding), machinery and feeds. The actual size of the veterinary pharmaceutical industry has not been documented.

The input supply chain for the industry is mainly run by the private sector, supported by public sector structures. The Uganda Veterinary Association (UVA), alongside other associations (e.g., Association of Fisheries Professionals, The United Veterinary Paraprofessional Association of Uganda -UVPPA) acting at various levels, bring animal health input practitioners together and champion for their rights. Although coordination is generally lacking, some aspects of coordination at inter-district level such as animal movement are getting better, particularly with regard to vaccinations for poultry and small animals. The industry has also seen an increase in value addition for animal products leading to expansion of businesses and increased profitability for farmers and traders. The pharmaceutical and feed sectors are also steadily growing. These are some of the strengths of the industry.

Some of the challenges it faces include: lack of quality interaction and coordination between public sector regulating bodies and private sector supply chain actors, lack of effective coordination and regulation of service and inputs provision, lack of forums and other mechanisms for escalating smallholder voices to the right levels (including regulators, private sector and NGO/CBO), inaccessibility of inputs due to high costs, lack of infrastructure such as storage facilities for drugs, inadequate technical staff and lack of enforcement of policies. Together, these represent major bottlenecks to the efficient functioning of the industry.

There is an urgent need for regulatory reforms, improving staffing gaps at public level and empowering lower-level public sector veterinary services to participate in regulation and improving animal health sector coordination mechanisms at the ministry level. There is also a need to streamline the way private sector entrepreneurs act in order to avoid monopoly and price wars in the industry and to strengthen the law enforcement arm to manage illegal practices such as importation of cheap, substandard products and repackaging of expired products.

The changes required in the animal health industry in Uganda can be achieved through the establishment of an AHIA in Uganda, as platform that brings together players in the industry to communicate, flag challenges, co-create solutions, including how stakeholders can work collectively towards solutions that deliver benefits to all industry actors. Such a platform will act as a unifying voice of members in addressing current and emerging challenges and gaps in the industry. Indeed, stakeholders consider that the association would contribute to vibrancy and sustainability of the animal health industry by strengthening collaboration between the public and private sector players, and in this way has potential to address the current challenge of unaffordability of inputs for farmers while still increasing profitability for critical

supply chain actors – e.g., traders. The AHIA should be established as an apex body with strong membership, clout, voice, and recognition so that it can have influence at the highest possible level of government.

1. History and Evolution of the Animal Health Industry

Prior to the 1980s, veterinary services and inputs were provided by the public sector. Following macroeconomic and political reforms in the 1980s, veterinary drug supply was liberalized and the private sector began to provide clinical services, breeding and spraying. Private sector involvement in the animal health industry has since expanded. This is elucidated in Annexes 1 and 2.

Today, the animal health sector in Uganda is mainly governed by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), whose functions include formulation, review, implementation and enforcement of national policies, plans, strategies, regulations and standards and the control and management of epidemics, disasters, sporadic endemic diseases, pests, and vectors. MAAIF has a Directorate of Animal Resources headed by a director with three departments: Animal Health, Animal Production and Entomology, which are all headed by commissioners. The Commissioner of Animal Health serves as the Chief Veterinary Officer. MAAIF also has a Directorate of Extension which is in charge of veterinary extension. In addition to the aforementioned directorates, MAAIF also has five agencies which are responsible for various animal health-related functions. The National Agricultural Advisory Services (NAADS) delivers inputs to priority areas identified in the Agriculture Sector Strategic Plans (ASSP) while the National Animal Genetic Resources and Data Bank (NAGRC&DB) is responsible for animal genetic development and provision of semen for artificial insemination. The Dairy Development Authority (DDA) promotes and regulates the dairy sector while the National Agricultural Research Organization (NARO) generates and disseminates researched technologies. The final agency is the Coordinating Office for the Control of Trypanosomiasis in Uganda (COCTU).

Functions relating to public health, drugs and vaccines fall under the Ministry of (human) Health. The Ministry of Local Government also plays a role through the autonomous local governments at district level that are responsible for employment of the public animal health service providers, vector, and disease control, as well as enacting by-laws and other local regulations.¹ Local NGOs, international aid organizations and private sector-based animal health professionals also provide decentralized district-level services.

¹ The Local Governments Act, 1997 and The Local Governments (Amendment) Act, 1997

2. Current content and context of the industry

2.1 The size of the animal health inputs and services industry

Agriculture contributes to 31.4% of Uganda's national GDP and livestock contributes 9% of the agricultural GDP, which translates to 2.8% of the national GDP. The livestock sector contributes between 1 and 1.5% to Uganda's export trade value dominated by dairy products and eggs (USD 80 million), with meat and meat products (USD 6.2 million) playing a minor role. Up to 53% (3.9M out of 7.3M) households in Uganda are involved in livestock rearing with increasing diversification within the industry. Uganda has 14.2 million cattle, 16 million goats, 4.5 million sheep, 47.6 million poultry and 4.1 million pigs (MAAIF and UBOS, 2018). Cattle and poultry production are valued at USD 8.7 and USD 0.9 million per year, respectively (UBOS, 2017). Of all the poultry feed produced in Uganda, 60% is by backyard mixers who control the market for the bigger producers (FAO, 2019).

The scope of animal health inputs/services coverage is wide and includes prevention, control and treatment of both domestic and wild animals, zoonotic diseases, veterinary public health and environment, safety of foods of animal origin and animal production (animal nutrition and breeding). It also encompasses pharmaceutical products such as acaricides, extension services (training, treatment, and breeding), machinery and feeds.

The actual size of the veterinary pharmaceutical industry has not been documented but is estimated to be huge. For example, veterinary drugs & pharmaceutical inputs are estimated at about \$15M, vaccines, biologicals & hormones at \$8M, and feed at \$20M. According to a key informant in the pharmaceutical industry, a single pharmaceutical dealer can sell drugs worth 10-15B UGX (USD 2.7-4 B) per month.

The animal health industry in Uganda has several sources of inputs and services provided by the government, NGOs, and the private sector, but this is still inadequate. Veterinary pharmaceuticals and biologicals (vaccines and semen) are most of the time unavailable during critical times. At the district levels, the labs are either ill-equipped and or are run by unqualified personnel. Extension services and reputable feed suppliers have inadequate coverage, especially for the districts located far away from Kampala.

2.2 Actors and services offered

Actors in the animal health inputs and services sector in Uganda include those from the public sector (including the regulatory agencies and professionals employed by the government at different levels), NGOs, private sector entrepreneurs and farmers. These many actors have different capacities, goals, interests, resources, and relevance, and are not effectively regulated (Mbowe et al. 2012). The roles of these actors are explained in detail in Annex 3. Because of overlapping and interrelated roles and areas of interest, actors face conflicting interests and power relations. This is exemplified by what takes place during clinical treatment of endemic diseases at district level (*Figure 1*).

Community Animal Health Workers (CAHWs) were introduced in Uganda in the Karamoja Region during the Pan-African Rinderpest Campaign (PARC) in 1994 to provide primary animal health-care services at community level in hard-to-reach areas. CAHWs complement the government veterinary extension system that is severely constrained and overstretched for disease surveillance.

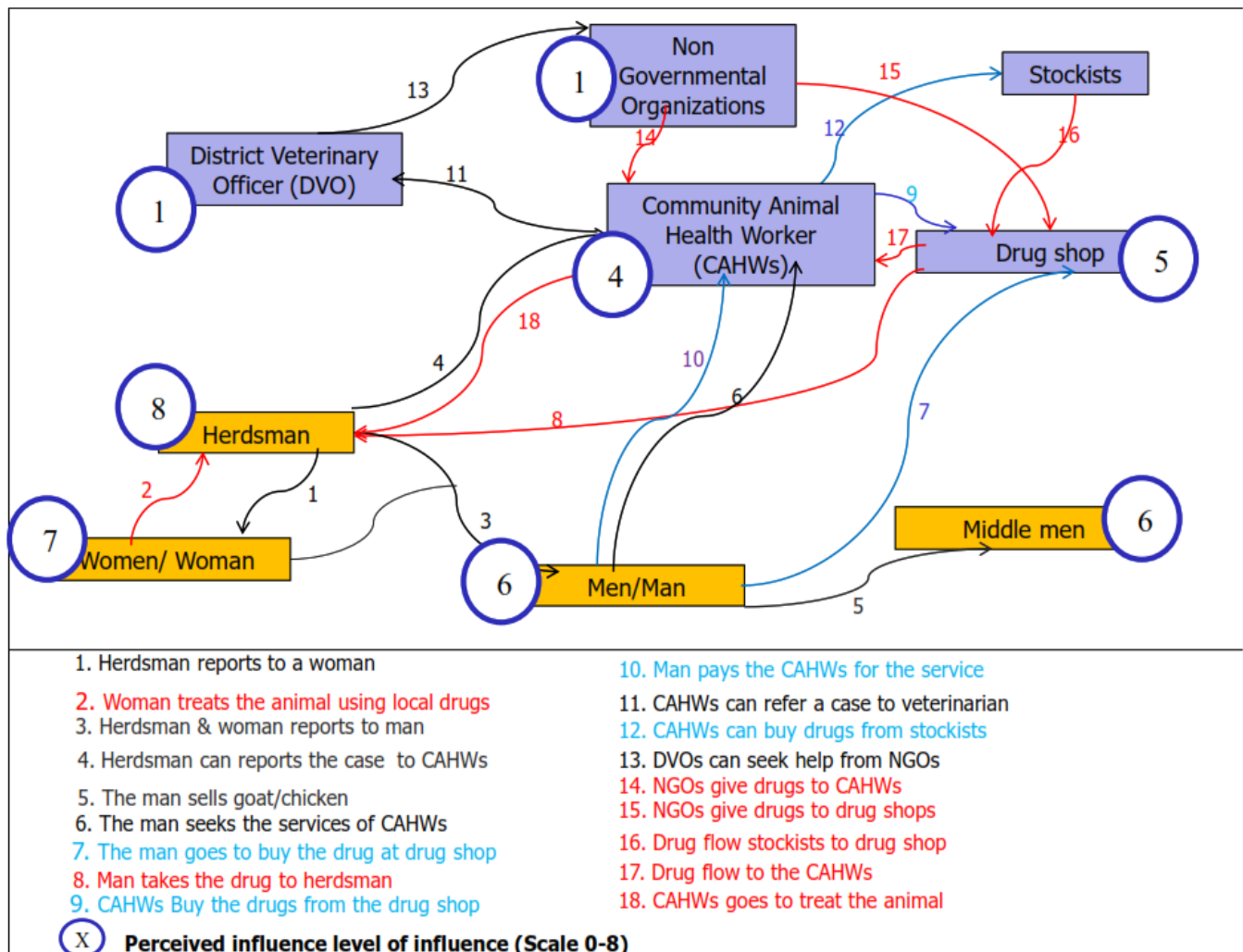


Figure 1: Interaction of actors during clinical treatment of endemic diseases at district level in Uganda

2.3 Organization of the animal health inputs and services industry

Following the liberalization & privatization of clinical veterinary services, importation and distribution of veterinary medicines was assigned to the private sector. Veterinary service delivery with setting up of fully-fledged veterinary clinics has been slow.

The value chain for the animal health industry in Uganda begins with local and international manufacturers then goes to local trade representatives, wholesale pharmacies, retail pharmacies, drug shops and finally to the farm/client. Drug importers have an association - The Uganda Veterinary Traders Association – and they mostly sell to small drug or agro-input shops. The inputs value chain is linked and supported by the services structures at public and private level. MAAIF (the DVS) & MoH regulate the pharmaceutical sector through NDA (See Annex 2). Local governments have little or no control.

There seems to be some frustration among stakeholders, especially within private sector with regards to public sector service provision. However, the study found some things that are going well, especially

related to value addition. For example, there is a sudden awakening amongst professionals on animal products' value addition leading to production of yoghurt, ice-cream, sausages, honey etc. There are now 12 private milk processing plants that supplement the existing government one. Uganda has moved to professional processing and slaughter of chicken in Nakaseke District, while the nascent pharmaceutical and feed industry is steadily growing.

The Uganda Veterinary Association (UVA) brings veterinarians together and fights for their rights as well as those of animal owners. Some aspects of coordination at inter-district level such as animal movement are getting better particularly with regard to vaccinations for poultry and small animals. Bringing all actors in an umbrella organisation could fast-track these good achievements.

Despite these positive developments, there are some weaknesses in the animal health inputs/services value chain which include:

- i. *Weakly organized horizontal and vertical integration* – Vertical integration is weak as players are mainly interested in maximising their profits at the expense of others in the chain. Horizontal integration, which supports systems to function at a broader level and spreads beyond the geographical borders of a single geographical unit, is also lacking as cattle traders are not cooperating with their counterparts in other districts for easy licensing. Minimal coordination between the public and private sectors as well as between departments is to blame.
- ii. *Inadequate monitoring of processes* - The flow of inputs supply chain processes is seemingly clear, beginning from importers through dealers to market. However, this chain gets disjointed further down and one can access products from anywhere without traceability. Similarly, the services' delivery processes as laid out are not practiced. In the case of semen for breeding, the performance of the bulls used in the country are not tracked.
- iii. *Inadequate functional public structures and capacity at the districts* - The disease control system is there and well laid out at the centre but coordination with grassroots local governments is weak, posing a risk to the industry in case of disease outbreaks.
- iv. *Unfair restructuring of the public animal health service system* - While veterinarians can be promoted, animal husbandry officers (AHO), who are most active in the field cannot be promoted even after many years of service. The veterinarians are sometimes overwhelmed by the workload and crosscutting responsibilities.
- v. *Unclear public-private service delivery* – There is no clear system on how the private and public sectors work together. For instance, delivery of veterinary services is supposed to be done by the private sector, but veterinarians employed at district level carry out disease surveillance and regulation on behalf of the government. The same vets, however, act as private practitioners as they carry out extension services.
- vi. *Predominantly subsistence industry* - At farmer level, production is mainly subsistence and predominant only in the drylands (cattle corridor). It is not organised on a commercial level.
- vii. *Non-compliance with the law*: The animal drugs use policy stipulates that farmers should not purchase Class I and II drugs without a prescription, but farmers walk into pharmacies and purchase these classified drugs. If a clinician identifies a notifiable disease like brucellosis or rabies, they are supposed to take samples and inform the centre for immediate action, but this does not happen. There is need for sensitisation for people to know that they are breaking the law but more importantly that the disease is transmissible with 100% fatality rate.

- viii. *Switching of medicines:* Because specialised drugs are unavailable, some are not registered and some have been removed from the register without enough consultation, practitioners are switching. For instance, one cannot get enough *Ketamine* for putting down horses or *Diazepam* for co-managing seizures in cats or dogs
- ix. *Some of the required drugs are not available for sale in Uganda:* This forces practitioners to seek products from the black market, which are usually sub-standard. Diagnostic facilities such as pet ultrasound and x-ray equipment are also inadequate, resulting in the use of human diagnostic facilities. The animal feed production sector is rife with malpractices due to lack of regulation, quality control and policy enforcement. The impact is that farmers lose trust in the quality and consequently opt to make animal feed themselves on farm. Veterinarians alone cannot solve the issues at hand and need other professionals and actors in animal production, human medicine, traders and regulatory enforcement to come together and work as one to address these challenges that are beyond animal health alone.
- x. *Blame game:* Actors at different nodes of the product and service value chain blame each other for the mess in the animal health industry. For instance, private pharmaceutical suppliers blame the practitioners for misusing the products. Most actors blame MAAIF for the weak regulation and monitoring structures, e.g. suppliers are not contacted at point of importation, as is done in Egypt and Asia. It is not uncommon to find counterfeits from China having European labels as there is no traceability mechanism in place.

Possible ways of addressing these weaknesses include:

- a. Deploy more veterinary rather than human medical personnel in NDA to monitor the drugs under one health arrangement from central to village level.
- b. Operationalize the policy on formulation and management of animal feeds, enforce standards and extend advisory services to actors in feed formulation.
- c. Form stronger speciality-based associations. Through the associations, small animal practitioners will lobby for affirmative action for their unique needs such as specialised drugs and products for pets. Entrepreneurs will lobby for favourable credit terms, and public and private practitioners can be better facilitated by government and drugs can be removed from the hands of the farmers.
- d. Register all farmers for better monitoring and assurance for wholesome animal-based foods.
- e. Use Information Technology(IT) to track all (even the smallest unit of) products from point of entry to consumption/usage.
- f. Transparency on part of the government: Government needs to clarify to the farmers that with the exception of named vaccines, all other veterinary services are private and hence not free. This include fees for artificial insemination.

2.4 Current policies and legislation

There are several policies and regulations that govern the animal health inputs which can be broadly categorised as being internal or external. While internal policies guide the effective and efficient delivery of inputs and services in the animal health industry, external policies are broader, covering other industries and focus on guiding strategic processes that also embrace regional and internal interests. The evolution of policies and regulations in the animal health inputs and services sector in Uganda is summarized in **Annex 4**.

2.4.1 Strengths of the policies and regulations

- i. *Regulation guidance:* The policies are written and approved to provide a base for regulating the industry and offer guidance for the rules that need to be in place.
- ii. *Availability and variety of products and services:* The privatization policy led to the enhanced availability and variety of specialized inputs and services based on demand, e.g., new specialities of veterinary services for ostriches, apiculture, and game have emerged. CAHWS are also permitted to operate and get inputs to hard-to-reach areas like remote Karamoja while NGOs have been able to certify their own curricula for veterinary extension.
- iii. *Liquid animal inputs/service sector:* The liberalisation policy has created a free-market economy that has enabled the livestock sector to enjoy a liquid economy (income on daily basis) that contributes to food security as opposed to the crop sector that tends to be seasonal.
- iv. *Institutional memory established:* The NDA policy as a body has built up institutional history and memory, something that does not occur overnight and there are vets there who have gone to the WHO and are the human resource to build on.
- v. *Collaboration amongst key players:* There is collaboration between MAAIF and NAGRC regarding information on who the players are in the industry. Similarly, for vaccines and other products, there is collaboration between NDA and MAAIF.
- vi. *Knowledge based decision making:* Products/drugs are being registered by NDA following guidance from MAAIF. MAAIF has established a system of recording importers of inputs. Process of approval of importation of inputs that require approval through MAAIF has been streamlined. Thus, MAAIF determines products that are relevant and demands for data that proves and justifies importation of new products. This knowledge-based decision making contributes to quality assurance regarding applications to import/register products on the market.

2.4.2 Weaknesses of the policies and regulations

- i. *Insufficient capacity:* The many policies have created a shortfall in the number of staff needed to cover all aspects of the policies. Moreover, staff who leave their posts are not easily replaced, creating an overwhelming workload and weak implementation of the policies. For example, the NDA does not have the sufficient capacity to handle product inspections.
- ii. *Conflicting clauses, non-clarity and gaps in the acts:* For instance, the Public Health Act empowers practitioners to conduct meat inspection and this creates conflict between Health Assistants & Veterinarians. The DDA Act and regulations keep veterinarians out, creating a gap. Outdated policies and regulations such as the Animal Diseases Act give leeway for people to contravene the law. Over time, policies have been developed for the sole purpose of obtaining funding, hence

they are quite fragmented. Government-led policy review mechanism is also weak and this has led to non-enforcement and abandonment of policies in place. Case in point is the National Rangelands Policy that has been on the table for 16 years.

- iii. *Liberalization* has contributed to drug resistance especially in ticks and FMD. Nobody knows the strains of FMD in order to develop strain specific vaccines. Previously, only one drug would be used until resistance set in.
- iv. *Fragmented industry*: The presence of disjointed multiple players has resulted in lack of knowledge, contentment and non-cooperation with no platform for lobbying support.
- v. *Lack of data*: Data on various sectors of the industry is not systematically collected. For example, importers have no idea of the national requirements in terms of volumes and demand. The last animal census was in 2014, and it gave a blanket figure of 14 million cattle, and this has not been updated since. The NDA does not have records of the practitioners and their areas of operation. This makes it difficult to plan appropriately and regulate the industry. Essential data on losses incurred during Covid-19 lockdown has not yet been collected by MAAIF.
- vi. *Non-enforcement of policies*: Many good policies are in place, but they are not enforced. Personnel that have tried to enforce have on occasions not been protected. Corruption has led to individuals defending personal interests, and creation of “powerful cells” acting above the law and making various ‘administrative decisions. The space created by the privatization policy has been abused and people do what they like regardless of the law. The NDA does not effectively regulate drugs resulting in a veterinary market flooded with untested inputs, especially antimicrobial agents (Mbowe et al. 2012). This has negatively affected the efficacy of animal drugs and has contributed to high prevalence of antimicrobial resistance (AR) in both animals and humans (Byarugaba et al. 2011) and by extension, humans.

2.5 Challenges and opportunities

2.5.1 Challenges

Some of the challenges faced by the private sector, public sector, civil society, and farmers in the animal health industry in Uganda include:

- i. *Ineffective inputs*. Many affordable drugs are not effective. An example is *Parvaquone*, that comes in many forms, but the good ones are expensive. Poor drug handling and storage also reduces their effectiveness. Counterfeit products in the market are also ineffective.
- ii. *Inaccessibility, unavailability, and high cost of some critical inputs* such as vaccines, which makes it difficult to acquire them. Farmers sometimes have to travel long distances to obtain inputs. High veterinary costs drive farmers to opt for services from unqualified personnel or purchase their own drugs and administer wrongly.
- iii. *Insecurity* due to crop farmer-herder conflicts as well as violent elective politics which causes delays in release of funds and usually prevent affective vaccination campaigns resulting in death of animals due to preventable diseases and the people are exposed to zoonotic diseases such as rabies.
- iv. *Inefficient/unreliable policy environment* characterised by weak regulations and their enforcement efforts. Disruptive regulations increase the distance and transaction cost of accessing quality products and services.

- v. *Decentralization* coupled with underfunding, which has broken the competent authorities' chain of command. Disease reporting should be made to the MAAIF at the centre by veterinarians who report to the Chief Administrative Officer
- vi. *Inadequate capacity*: Lack of vaccines because the government has inadequate capacity to supply them; extension personnel are not well facilitated to carry out field work; farmers breed animals without guidance, or at the mercy of self interest groups. Traders and service providers are few, especially in the remote areas. NGOs sometimes lack adequate technical capacity. There is also poor infrastructure for safe storage of inputs in the remote areas.
- vii. *Poor coordination, non-integration, and duplication of efforts*: NGOs/CBOs do not work with government, preferring to deal directly with farmers. This leads to duplication of efforts. Sometimes they come up with interventions that are not well thought, or which contradict the central direction. This makes their initiative short-lived and unsustainable (Mugisha et al 2019). Government-employed staff also face stiff resistance from private sector actors whose single interest is profit. Weak private-public partnerships result in duplication of efforts. Policymakers are not on the ground and end up misrepresenting facts of the sector.
- viii. *Home grown investors are not protected against the importers*. For example, importation of day-old chicks from all over the world undermines competitive development of a Ugandan home industry.
- ix. *Dependency syndrome* has been created by some NGOs/CBOs, which is a disservice to privatization.
- x. *The subsistence nature of most of the livestock farming* has resulted in an un-sustainable market. This makes it difficult to pay the worth of investment by the private sector. Farmers do not have marketing skills, and some cannot afford the recommended inputs such as milk cans.
- xi. *Double role of farmers as consumers of inputs and suppliers of farm products*. When farmers fail to observe standard procedures for safe use of drugs and production of wholesome food, they expose the public to diseases.
- xii. Smallholder farmers suffer serious losses when faced with diseases that are referred to as "private goods". They include the tick-borne diseases ECF & Anaplasmosis. During the COVID-19 lockdown, there has been an upsurge of TBDs.

In order to address these challenges, it is suggested that a healthy window of opportunity for quality assurance be created by testing all products against one standard which is deemed best. This will ensure conformation to set standards as well as allow for healthy competition. This requires support from the quality assurance lab at the NDA. Companies should be made to specialize in one product as this will reduce chances of product quality being compromised. The NDA and Agrovet dealer association enforcers need to strengthen product monitoring and control even at farm level.

It is also suggested that a platform be created that ensures strengthening of public-private-partnerships, similar to One-Health where there is collaboration and coordination for a vibrant animal health industry with affordable input costs and increased profitability for traders and farmers. The platform will help improve infrastructure especially in remote districts, contribute to data generation that permits knowledge-based decision-making and manage conflict between actors in the public and private sector. It can also help to protect local investors from importers who bring in products at lower costs and the members can work with the relevant agencies to develop and /or revise curricula at tertiary training

institutions that empower learners of all levels (AFRISA model) to acquire skills, for instance on safe storage and handling of food products by traders, entrepreneurship and commercial farming by farmers.

2.5.2 Opportunities

Outlined below are the opportunities that exist for organizational/ institutional reforms at the various levels of the animal health industry.

At MAAIF level:

- a. Improve coordination by organizing animal health sector coordination meetings annually, with the objective of bringing all actors together for balanced development.
- b. Have a separate Ministry of Livestock to handle regulation of animal health inputs under one public sector and strengthen competent authority to have proper control over animal health.
- c. Improve staffing gaps at public level and empower lower-level government public veterinary services to participate in regulation.
- d. Set up a National Animal Health Store, (equivalent of the National Medical Stores) to distribute inputs to particular areas.
- e. Implement the regulatory reforms addressing the challenges highlighted in this report.

At Partner Ministerial level:

- a. At MoH and NDA level – define what is required for the country and streamline the way private sector entrepreneurs should act to avoid monopoly and price wars in the industry and strengthen the law enforcement arm to manage all illegal practices such as importation of cheap substandard products, repackaging of expired products and all others mentioned above
- b. Establish an IT traceability system and use the Belgian model where access of inputs is through a system with an insurance scheme.
- c. Support the private sector to enlarge and formulate policies or regulations that make inputs at affordable for users
- d. Revise existing policies to incorporate issues related to taxation and land.

Along the supply chain:

- a. Since Veterinarians alone cannot solve the issues at hand and need other professionals and actors in animal production, human medicine, traders, and regulatory enforcement to come together and work as one to address these challenges that are beyond animal health alone, there needs to be created an Animal Health Industry Association similar to the One-Health strategy.

3. The Case for Animal Health Industry Association

3.1 Relevance

Majority of the stakeholders see the need for an AHIA to help address the challenges faced by the animal health industry in Uganda, a position that was affirmed during the validation webinar. Some of the key reasons given as a justification for the formation of an AHIA include:

- i. An AHIA will support coordination of registration of actors in the industry for monitoring, management, promotion, and protection purposes.
- ii. It will serve as a national livestock platform that bring players together for information sharing, articulating challenges, enhancing understanding, and facilitating working collectively towards solutions amongst all industry actors including capacity building in livestock business entrepreneurship.
- iii. It will support clarification of actors' roles hence the streamlining of organisational structures involved for harmony and complementarity. For example, pharmaceutical dealers such as Eram Uganda based in Kampala would supply the rural areas and with a strong umbrella, the branches will take off slowly but surely as actors appreciate the benefits of coming together.
- iv. Individual members will benefit from economies of scale and scope.
- v. The AHIA will allow for information collection, dissemination and accountability. Because members would represent all nodes of the value chain, it would be easier to collect, collate and disseminate useful data. Members will be accountable to each other (e.g. South Africa) and will engage each other and address a perceived wrong issue e.g., importation of counterfeit products. Organized data would help track who is bringing in what, how clients are being served, and whether supplies are adequate to meet the demand.
- vi. The AHIA will serve as a lobbying and advocacy platform. It will act as a uniting voice for the association members in addressing the policy and regulations challenges and gaps in the industry dealing with common challenges - for instance, reviewing of outdated and unfavourable policies.
- vii. The AHIA will serve as a voice of the industry. Overall, the players envision that an association with strong membership, good leadership and clear value proposition will act as the voice of the industry representing the member organizations (including livestock farmers) on various trade and policy issues.

3.2 Collaboration and Partnerships

Stakeholders call for the establishment of an AHIA that is inclusive and anchored on “working together to address common industry challenges”. Reference was made to how a recently instituted *One-Health Platform* has attempted to bring together various players including players in the livestock, human health and environment sectors. Indeed, The One-Health concept and the ultimate institutionalization of the platform exemplifies how different players with common interests can be unified to strengthen the overall objective of a vibrant public health industry (see One Health Platform Strategic Plan 2018-2022).

The key industry players interviewed see the need to incorporate a diversity of players to strengthen the agenda and impact of the proposed association. The envisioned association would benefit from the

diversity of expertise and rich experience of the national and multi-national organs including the National One-Health-Platform, WTO, OIE, FAO, GALVMed and NGOs actively involved in livestock input and trade support.

Regarding membership, there is a stronger preference for corporate membership, where each organization gets one vote regardless of its size. The corporate membership, according to the stakeholders interviewed, will avoid situations where large organizations dominate the running of the AHIA and will also ensure a balanced and more stable leadership and steering of the association.

During the validation workshop, members cited organizations in the region that could potentially inspire the new association. For instance, the National Flower Council and National Farmers' Association in Kenya as well as Uganda's Manufacturing Association (see **Box 1**) have been powerful entities that have positively impacted their respective industries due to their strong membership and success in engaging different industry players.

Box 1. The Uganda Manufacturers' Association – An inspiration for AHIA in Uganda

The Uganda Manufacturers' Association (UMA) is an industry-association in Uganda, that brings together Ugandan industrialists and manufacturers in an attempt to guide industrial actors in the country towards global competitiveness, on a sustainable basis. The association advises the government of Uganda on the formulation of national and regional industrial policies. UMA also serves as a collective lobby and mouthpiece for its members. UMA was established in the 1960's and revived in 1988. Today, Uganda Manufacturers Association is a premium association nationally and regionally, enjoying recognition and respect internationally. It is also a self-sustaining business association with a voice that is respected by all major stakeholders in the region. Uganda Manufacturers Association is the largest organization representing the broad industrial and commercial sectors of Uganda's economy with a membership comprising of corporate, large medium and small firms from the private sectors. It has a membership of over 1,300 companies from a wide range of sectors. UMA's vision is *to be the most valued and respected business association worldwide, serving the interests of its members, shaping national and regional policies and leading the industrial sector towards sustainable global competitiveness.*

3.3 Governance and Management

In order to ensure effective management of the proposed association, the study identified five key actions and steps that should be undertaken:

- i. Define compelling and objectives that speak to industry challenges - the objectives must be crafted in such a way that all the constituent members find value in associating with it, i.e. *"what is in it for me"* at individual and at organisational levels. A well-defined value proposition for the contribution and benefits of individual member organizations is key.
- ii. Centralised vs de-centralised coordination. The proposed association needs to take into consideration the current distribution of animal health services in Uganda. It is proposed that a central organisation with regional representation could easily address the aforementioned challenges of coordination, harmony and balanced representation.
- iii. Set up strong systems for democratic governance and leadership. A well-defined management system and rotational leadership is critical to ensuring dynamism and inflow of new ideas in an ongoing manner, and building internal cohesion, while at the same time promoting healthy competition as an impetus to quality service delivery and growth of the industry. The systems include structures for financial and member management and leadership roles, among others.

- iv. Elaborate stakeholder mapping and needs assessment. At the formative stages of the association, the stakeholders agree that there is need for extensive stakeholder mapping and analysis to serve the dual purpose of determining the level of involvement and also getting the buy-in of potential members.
- v. Provide mentorship to the new association. In order to initiate the process of building an umbrella industry association, industry stakeholders present at the validation workshop suggested that they could undertake the pioneer role of initiating the conversations.

The stakeholders also agree that it is possible to anchor the association to an existing organization to help jump-start the operations. During the validation (virtual) meeting, UVA was nominated as a candidate body to host the association at early stages – by providing an office (plus logistics and physical address). It was, however, emphasized that this interim hosting role should not be interpreted to mean that UVA is being asked to transform itself to be the AHIA. Indeed, some members were not comfortable even with this interim arrangement, opining that a veterinary body should not be the midwife for an animal health association as it represents only a small portion of animal health industry.

Table 1 below shows the list of proposed organizations that can possibly serve as an anchor for the AHIA.

Table 1: List of associations/institutions that can serve as umbrella AHIA or need to be strengthened to do so

Association/Institution	Can to serve as an AHIA	Need strengthening for to serve as AHIA
Uganda Veterinary Association (UVA)	4	9
National Drug Authority (NDA)	1	5
Uganda Veterinary Board (UVB)	1	4
MAAIF	0	2
Veterinary Drug and Agrochemical Safety Network (VEDAS Net)	1	0
DDA	1	1
NAGRIC	0	1
Uganda Beef Producers Association	0	1
Entomological Association of Uganda	0	1
Uganda Veterinary Paraprofessionals	0	1
Uganda National Agro Input Dealers Association	0	1
Uganda Agriculture Advisory	0	1
Uganda National Farmers Federation	0	1
Uganda Beef Association	0	1
Total mentions	8	29

Regarding the form that the proposed association should take, stakeholders suggest that the proposed association should be a legal entity. They prefer that the association be a legally registered association in line with the laws governing registration of association in Uganda. The argument is that a legally registered body (as opposed to a ‘Forum’ or ‘Platform’) is more credible and consistent in creating positive impact in the Uganda animal health industry. There was also strong emphasis that the AHIA would need to be an apex body that has country-wide recognition and respect and can legitimately speak and be heard by the highest office of government.

3.4 Sustainability

a. Values and/or principles to uphold in order to promote trust, accountability, and prominence:

- i. Unity amidst diversity - to allay fears of smaller players being swallowed up by the larger ones. Ensure equal and effective representation.
- ii. Accountability - deal with the negative experiences of non-performing small associations at grassroots levels and follow through for sustainability.
- iii. give livestock the profile and significance it needs and avoid the amalgamation (in government structures) that have pushed the animal sector into oblivion, because it is a source of livelihood for many.
- iv. On-going change management - Change management skills are needed to deal with the dynamic business environment occasioned by political instability, continuous changes in governance and interference in the industry itself.

b. Best practices alongside internal innovation:

- i. Mandatory membership contributions. These would ensure sustained resourcing of the association, empower members, and make them value the association.
- ii. A members' investment "SACCO" that has been successful with the Uganda Veterinary Association.
- iii. A research and development arm to write grant proposals to MAAIF & MoH. With regards to this, a suggestion was made that the different departments of MAAIF together with NDA could spearhead the registration process of the association and become the initial convener, provide it with a home and ensure it has the initial financing during its formative stages.

b. Potential risks:

The following were identified as the potential risks associated with formation of the AHIA:

- i. Too big and amorphous: A former commissioner of animal health felt that a large umbrella association of the proposed magnitude would be amorphous, and have operational challenges if not well organized, and this would lead to some confusion and redundancy of the existing stakeholder specific associations such as Association of Importers, UVA, UVPP & farmer cooperatives such as UCCC.
An example was given of the UCCCU which was working well but when the Uganda Meat Producers Cooperative Society was formed with financing, the UCCCU lost allegiance. When the financial support to Meat Cooperative stopped, farmers were left in limbo. It is suggested that MAAIF should instead coordinate the different associations and other actors including the government agencies. This would increase chances of funding from government and circumvent the challenge of unaffordable membership subscription. A private practice veterinarian thought that the umbrella association would be riddled with internal fights arising from the attitude by farmers who have always been used to free and/or subsidised services that veterinarians charge exorbitant fees for.
- ii. Funding challenges – source, availability, and reliability.
- iii. Opposition and competition from existing associations due to challenges with winning the trust of all stakeholders on the mission of the umbrella association. The association has to carefully navigate the self-interest groups and cartels, so it does not appear as a threat.
- iv. Political interferences from government.

- v. On-boarding the stakeholders (especially the private players) given the current disorganized state of affairs in the sector and getting its grip in the market.
- vi. Ensuring large and positive visibility of the association – this includes enhancing farmers’ (and other actors’) knowledge of the association, its relevance, and how they can make active use of the platform.
- vii. Lack of supporting/enabling laws to deal with non-compliance.
- viii. Issues around ethics and credibility of practitioners.
- ix. Decentralization - District Local Government revenues from trading in animals and animal products overrides the CVO's priorities and recommendations for disease control.

Respondents largely agreed to the potential of having a sustainable umbrella AHIA if funded by donor organizations, contributions from member organizations, or individual member organizations. Very few seem to be comfortable with anchoring the association on existing organizations or depending on kick-starter funds from the government.

There is a mix of issues around government funding. Some stakeholders fear the risk of political interference and loss of intentional focus on the original mandate of the association. On the flip side, others say organizations only succeed with support from the government. Nonetheless, many are for the idea of having the government as a partner and not a funder to make the association a success because government funding is unpredictable.

Other suggested ways of mitigating some of the above-mentioned risks were cited as: Having awareness campaigns to highlight the importance of animal health to the wider public, having a separate ministry to govern the animal health industry, engaging the youth for the long haul, starting with a small number of powerful and committed members, such as UVA or Uganda Farmers Federation and addressing a pertinent issue or two that can pique the interest of other stakeholders. Holding in-depth discussions and justifying the uniqueness, synergies and trade-offs with already existing associations will help allay fears and encourage stakeholders to join.

4. Summary and Conclusions

This study documented the evolution of the animal health industry development in Uganda, its current content and context as well as the case or potential for the formation of an umbrella industry association in the country.

The upward trend of urbanisation and population growth in Uganda is associated with exponential growth in demand for beef, milk and poultry products. Animal services will provide major business opportunities for livestock value chain actors from input and service suppliers to traders, processors, wholesalers, retailers and livestock owners. The livestock sector has the potential to support the increased demand for food and provide business opportunities for the value chain actors due to the availability of a wide variety of products and services, value addition and the liberal market economy. This means increased business in the animal health industry in Uganda hence the need for coordination and association amongst the various nodes of the animal health industry.

However, there exist some challenges which, if not properly addressed, risk jeopardizing the development of the livestock sector itself, with broader negative impacts on public health, environment and livelihoods. These challenges include low capacity by the government to supply animal vaccines, high cost of inputs,

lack of infrastructure for storing inputs, weak linkages between value chain actors, poor coordination between NGOs, CBOs and government agencies and shortage of veterinary technical staff. Additionally, the existence of fragmented policies with conflicting clauses that require harmonization as well as lack of enforcement of the policies is a major setback for the animal health industry in Uganda.

In order to alleviate these problems, a well organised public-private partnership is needed. This is where AHIA comes in. It is expected to contribute to the vibrancy and sustainability of the animal health industry by strengthening public-private-partnership linkages for reliable, quality and affordable inputs and increased profitability for traders and farmers. This would be through bringing players together on a national livestock platform to communicate, articulate challenges, understand and work collectively towards solutions for all industry actors. This platform will act as a uniting voice of the association members in addressing the policy and regulations challenges and gaps in the industry. This association could take the form of a central organization with regional representatives, while others suggest it be a trade union, a health (and production) industry authority with a mandate and government-supported budget or an Animal Health Production Industry Association (AHPIA). There should be caution in terms of the constituent members of the national (umbrella) body to ensure that it builds on, and is ultimately composed of these entities and does not replace memberships of these existing bodies. Otherwise, there is a risk that it becomes unmanageable and erodes the required focus on specific sector issues.

5. REFERENCES

Byarugaba, D., Kisame, R. & Olet, S., (2011). Multi-drug resistance in commensal bacteria of food of animal origin in Uganda. *Afr. J. Microbiol. Res*, 5(12), pp.1539–1548.

FAO Report 2019. Africa Sustainable Livestock 2050 - The future of livestock in Uganda; Opportunities and challenges in the face of uncertainty. Food and Agriculture Organization of the United Nations, Rome, 2019

IGAD Center for Pastoral Areas & Livestock Development (2013). The Contribution of Livestock to the Ugandan Economy. Policy Brief (ICPALD 7/CLE/8/2013)

Illukor j, Birner R, Rwamigisa PB, & Nantima N (2012). Analysis of veterinary service delivery in Uganda: An application of the process net-map tool. Conference Paper,

James Bugeza, Clovice Kankya, James Muleme, Ann Akandinda, Joseph Sserugga, Noelina Nantima, Edward Okori, Terence Odoch: Participatory evaluation of delivery of animal health care services by community animal health workers in Karamoja Region of Uganda

Kasirye, J. B. (1998). Uganda. Proceedings of a Workshop on Delivery of Veterinary Services in Eastern Africa. Held in Arusha, Tanzania.

Lister, S, (2006). Evaluation of General Budget Support: Synthesis Report. The Organisation for Economic Co-operation and Development (OECD), (May).

Livestock Sector Policy Brief: Uganda July 2004

Mbowa, S., Shinyekwa, I. & Mayanja, M.L., (2012). The challenges of the Private Sector Driven Veterinary Extension Services Delivery in the Dairy Sector in Uganda. , (22), pp.1–4.

Mosha R. D., Kessy, B. M. and Semuguruka W. D. (1997). Development of Veterinary Education in Tanzania and Challenges of the 21st Century. Proceedings of the Workshop to Mark 20 Years of the Bachelor of Veterinary Medicine Degree Program (1976-1996) held in Morogoro, Tanzania, May 13-14, 1997

Mugisha Michael, Kiranda Yusuf and Mbate Michael (2019). Civil Society in Uganda: Broadening Understanding of Uganda's Civil Society Ecosystem and Identifying Pathways for Effective Engagement with Civil Society in the Development Process. Konrad Adenauer Stiftung Centre for Development Alternatives

The Pharmaceutical Society of Uganda

Uganda National Population and Housing Census 2014

Uganda One Health Strategic Plan 2018 - 2022

UNICEF Uganda: Political Economy analysis March 2018,

USAID/Uganda Karamoja Resilience Support Unit (2016)

Veterinary Services in Karamoja, Uganda: A Review

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6. ANNEXES

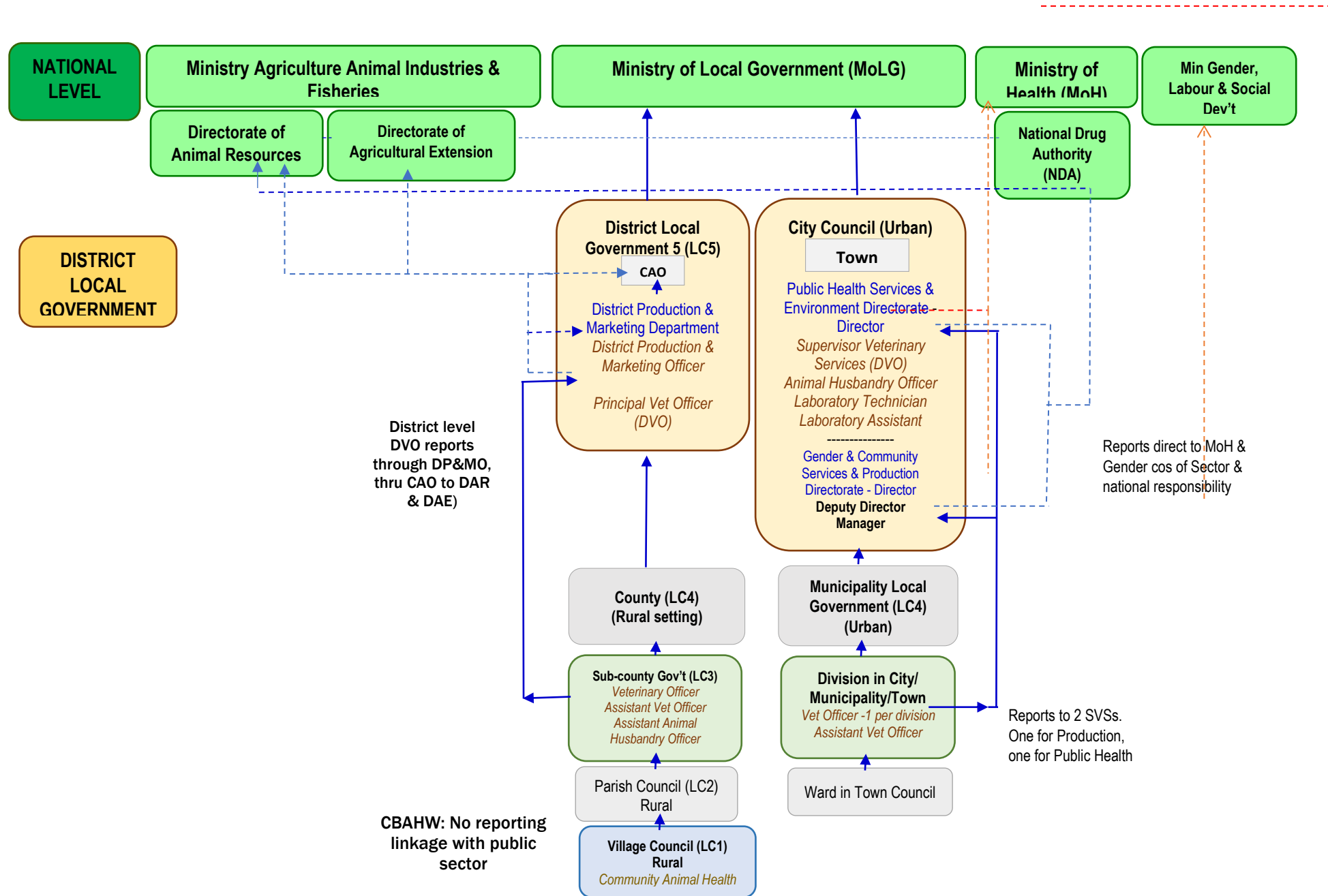
Annex 1: Evolution of the animal health inputs and services industry in Uganda

Period and nature of Veterinary services	What worked well	Challenges
<p>Colonial rule times</p> <ul style="list-style-type: none"> Chief Veterinary Officer in Kenya provided service, later expanded to 2 Vets & 2 Vet Assistants¹ Veterinary Department incorporated into Agriculture Department and responsible for animal industry Mandate of Department of Veterinary Services in 5-year development plan Veterinary Surgeons Act enacted 1958 	<ul style="list-style-type: none"> Rinderpest & CBPP epidemics were controlled Professional training of veterinary staff who concentrated on animal health Animal husbandry officers trained to work alongside vets Regulation of the vet inputs & services with clear processes 	<ul style="list-style-type: none"> Delayed addressing of disease issues because of distance & few numbers of professionals All veterinary service providers were foreign Act not guided by policy
<p>1960s: Ugandan independence; civil war, change in constitution</p> <ul style="list-style-type: none"> Veterinary school incorporated into University of Nairobi awarding BVSc OAU supported rinderpest campaign Veterinary services & inputs provided by public sector 	<ul style="list-style-type: none"> Veterinary surgeons at county level Public sector provided all services & most inputs Sector regulation with clear processes 	<ul style="list-style-type: none"> Disease outbreak due to political instability
<p>1970s: Military overthrow of democratic government. Idi Amin declares "Economic War"; Political turmoil and civil strife</p> <ul style="list-style-type: none"> Intermittent supplies of all classes of veterinary drugs by the public sector created a black market (Kasirye, 1998) Veterinary drug supply liberalized through Ministerial directive 	<ul style="list-style-type: none"> Veterinary staff numbers expanded 	<ul style="list-style-type: none"> Animal health and disease control programs broke down Farmers gained access to classified drugs Veterinary services deteriorated. Scarce inputs & high prices
<p>1980s: National Resistance Movement (NRM) takes power after long guerrilla war; World Bank supported Structural Adjustments Programs (SAP) begin</p> <ul style="list-style-type: none"> Macro-economic & political reforms - economic liberalization, privatization, civil service reform, decentralization and democratization Ministry of Animal Industry and Fisheries merged with Ministry of Agriculture to form MAAIF 	<ul style="list-style-type: none"> Public sector vet provides services Clinical services, breeding and spraying for tick control were privatized vaccination of animals against epidemic diseases, quarantines and tsetse control were retained Good policies formed – <ul style="list-style-type: none"> Dairy Industry Act in 1998 National Drug Policy & Authority Act MAAIF retains regulatory and policy-making functions, control of disease of 	<ul style="list-style-type: none"> Government divested itself of private good services including clinical veterinary services Merger pushed the animal sector side into oblivion Low uptake of privatization clinical vet services Decentralization and privatization of clinical veterinary services and downscaling of civil service Private sector input supply grows not regulated, undisciplined
<p>1990s: Decentralization statute; New constitution; Local Gov't Act in 1997</p>		<ul style="list-style-type: none"> Policies poorly and sometimes not implemented

¹ Silkin T. & Kasirye F. (2002) Veterinary Services in the Horn of Africa Where Are We Now? A Review of Animal Health Policies and Institutions Focussing in Pastoral Areas

<ul style="list-style-type: none"> ● Livestock Services Project facilitates the privatization of vet clinical & input supply ● MAAIF restructured twice ● Animal husbandry & vet extension, entomological services; vector & vermin control, slaughter houses, animal clinics, dip tanks & lairages devolved to local governments & private sector ● Local governments lay off diploma & certificate holder vet staff 	<p>public good nature, surveillance and monitoring</p> <ul style="list-style-type: none"> ● 1st community-based animal health workers (CAHWS) trained in Karamoja 	<ul style="list-style-type: none"> ● Laid off staff join private sector without preparation or financial support to establish sustainable business, yet farmers used to subsidize services & input supply ● Remaining public sector staff can't fulfil both responsibilities of extension & disease control ● Animal diseases escalate, input supply in disarray
<p>2000s to date: NAADS Act, MAAIF restructured more than twice</p> <ul style="list-style-type: none"> ● Agricultural extension services reform gives birth to the National Agricultural Advisory Services (NAADS), which takes over delivery of Vet services ● NAADS goes through series of changes - been suspended twice, drastically re-moulded, and finally reverted to public delivery of quality inputs ● Directorate of Agricultural Extension created under MAAIF 	<ul style="list-style-type: none"> ● Human and institutional capacity for delivery of extension services in local governments and the private sector is strengthened 	<ul style="list-style-type: none"> ● Vet staff accountable to DLG and to MAAIF ● Field vets demoralized ● District authorities not accountable to central government and can ignore advice from MAAIF ● Districts have no power to regulate private vets no the input supply chain

Annex 2: Public Sector Animal Health Governance Structure in Uganda 2020



Annex 3: Involvement of the different actors in the animal health input and services sector in Uganda

Category of player	Roles and/or responsibilities	Issues
Central Government (Public animal health input and service providers at MAAIF)	<ul style="list-style-type: none"> Responsible for formulation and review of national policy guidelines, regulatory frameworks as well as disease surveillance and control of epidemics. 	<ul style="list-style-type: none"> Insufficient capacity to carry out all expected roles Outdated disease control strategies hence no systematic disease surveillance system to support disease control – <i>solution: continue recently introduced real-time disease reporting system</i> Control activities are reactionary and haphazard as outbreaks happen and/or resources become available
The National Drug Authority (NDA)	<ul style="list-style-type: none"> Development and regulation of pharmacies and drugs in the country Control importation, exportation and sale of pharmaceutical; quality of drugs and promote and control local production of essential drugs (Veterinary Drug Policy Papers) 	<ul style="list-style-type: none"> Skewed to human medicine at the Board, its committees, secretariat as well as drug schedules with low capacity to regulate veterinary pharmaceutical side.
Public Veterinary service providers under Local Governments	<ul style="list-style-type: none"> Detection or control of threat and occurrence of pests and animal diseases in the district. Regulating veterinary and animal husbandry activities for farmer 	<ul style="list-style-type: none"> Insufficient capacity to cover responsibilities Lack basic ICT equipment for animal disease data management and reporting Also offer animal health service on private sector basis (moonlighting); some own input supply outlets like drug shops in areas where they should be providing regulatory services hence conflict of interest
Private practice Veterinary service providers & CAHWs	<ul style="list-style-type: none"> Detection or control of threat and occurrence of pests and animal diseases in their area of work Veterinary and animal husbandry services to farmers 	<ul style="list-style-type: none"> Majority are certificate and diploma holders; degree holders prefer policy related work & urban work Face unfair competition from all cadres of veterinary professionals including those from training institutions who provide animal health services on part time (moonlighting) basis Poorly regulated by UVB that operates from the centre with no fully functional secretariat.
The Uganda Veterinary Board	<ul style="list-style-type: none"> Statutory regulatory body under MAAIF is responsible for regulating and setting standards for veterinary training, the profession and practice amongst others 	<ul style="list-style-type: none"> Currently operates from the centre, no fully functional secretariat, assisted by the UVA whose members it is supposed to regulate posing a conflict of interest = strengthen UVB with a fully functional secretariat and regular financial resource to undertake its responsibility
Uganda Veterinary Association (UVA)	<ul style="list-style-type: none"> Promotes and protects the interests of veterinarians in Uganda Fosters socio-economic development and improved livelihoods through optimisation of animal resources 	<ul style="list-style-type: none"> Has regional branches in Central, Eastern, Southern and Northern Uganda and some are more active than others

The United Veterinary Paraprofessional Association of Uganda (UVPPA) ²	<ul style="list-style-type: none"> • Unites all Ugandan citizen veterinary paraprofessionals in Uganda • Potential to develop into a strong association because of large numbers of veterinary paraprofessionals • Governed by the General Meeting, a three-man Board of Trustees and a thirteen-man executive committee headed by a president and a patron 	<ul style="list-style-type: none"> • Relatively young association
Uganda National Artificial Insemination Technicians Association (UNAITA)	<ul style="list-style-type: none"> • Promotion and delivery of artificial insemination services in the field. Members are involved in breed promotion • Closely related to NAGRC&DB 	<ul style="list-style-type: none"> • Not active
International development agencies e.g. FAO, private NGOs such as Farm Africa, Catholic Relief services (CRS) and Charity organisations	<ul style="list-style-type: none"> • Bridge the gap in supplying animal health inputs in remote areas and vulnerable communities that are poorly served by the public sector and not readily attractive for private practice by veterinary professionals. • Larger and well established NGOs such as Send a Cow, Heifer International employ veterinarians who are well motivated to do extension work, and have a checklist of performance indicators • Fund vaccination campaigns; occasionally support laboratory diagnostic services and training CAHWs • They have interest in rights issue and offer civic awareness 	<ul style="list-style-type: none"> • Poor coordination, non-integration with and duplication of effort of government, preferring to work straight with farmers • Bigger funding in some NGOs makes them feel independent and this makes them arrogant and non-cooperative with other players in similar field • Some lack technical capacity, leading to substandard work • Have created a dependency syndrome for communities, which is a disservice for privatization • Unsustainability of systems set up by NGOs • Lack of inter-agency coordination action between NGOs doing similar work as well as with the rest of the private and public sector within the regions of operation.
Pharmaceutical and other input dealers, local & International	<ul style="list-style-type: none"> • Supply veterinary drugs and other inputs. Some large companies provide extension services to farming communities. 	<ul style="list-style-type: none"> • No association linking the veterinary pharmaceutical providers to advocate and share experiences. Companies operate in silos. • Cut throat competition particularly on fast moving items. No guidance on the volume of national requirements for the different inputs.
Animal feeds dealers (Feed formulators and marketeers)	<ul style="list-style-type: none"> • Formulate animal feeds and sell to farmers • Recent growth including international firms mainly importing ingredients for formulation of 	<ul style="list-style-type: none"> • Management is mostly done by the informal sector and farmers • Products on market are being run by less trained personnel • Poor coordination contributes to poor quality including high levels of aflatoxins.

² Comprises of Assistant Animal Husbandry Officers (AAHO), Animal Health Technologists (AHT), Veterinary Assistants (VA), Assistant Veterinary Officers (AVO), Hides and Skins Improvement Officers (HSIO), Leather Technologists (LT), Meat Inspectors (MI), Veterinary Laboratory Technologists (VLT), Veterinary Laboratory Assistants (VLA), Veterinary Nurses, Entomologists and any other officers serving in animal health private and public sector.

	feed concentrates	Nutrient content of formulations on the market are unverified. Raw material supply constraint. Low demand because of high cost, availability & accessibility.
Veterinary training institutions (public and private)	<ul style="list-style-type: none"> • Train veterinary surgeons and paraprofessionals. Only one provides service to the surrounding community. 	<ul style="list-style-type: none"> • Many private training institutions have not been recognized by UVB hence graduates from these colleges are not registrable. Level of trainees' engagement in services delivery during training unverified.
Research organisations public and private	<ul style="list-style-type: none"> • Generate data on products use, and practices along the animal health inputs/services value chain. Pre-test acaricides and selected drugs prior to registration. 	
Farmers, and opinion leaders at grass root level	<ul style="list-style-type: none"> • Own the animals. 	<ul style="list-style-type: none"> • High cost of inputs and services. Unavailability and inaccessibility of inputs and services. Low productivity of animals. Low genetic potential of indigenous breeds, inadequate feed resources especially season variation in quality and quantity. Lack of water for production. Improper use of inputs.
Feed formulators and marketers	<ul style="list-style-type: none"> • Have boosted the livestock production particularly in poultry and pig. • Include imported and locally produced 	<ul style="list-style-type: none"> • Biggest proportion of animal feed production is done in downtown "Kisenyi" and is run by school dropouts and hence susceptible to reduced quality and malpractices

Annex 4: Evolution of policies/regulations in the animal health inputs & services sector in Uganda

Policy	What has worked well for animal health inputs & services	What has not worked well for animal health inputs and services
Liberalization of veterinary drugs supply 1976	<ul style="list-style-type: none"> ● Veterinary drugs available and to commercial farmers ● Central government retained supply of Trypanocides and vaccines against major epidemic diseases such as FMD, CBPP, Rabies 	<ul style="list-style-type: none"> ● Availability, quality, and distribution of inputs to rural based smallholder and pastoral farmers inadequate ● Many actors involved with no guiding policy or legislative framework to guide the liberalized input supply at this time. ● Inadequate supply of vaccines against major epidemic diseases - FMD, Rabies, PPR by the public sector
Privatization of clinical veterinary services and inputs in 1990s	<ul style="list-style-type: none"> ● Increased private sector participation in provision of clinical services & input supply ● Creation of jobs through self-employment of veterinary professionals 	<ul style="list-style-type: none"> ● No policy or legislative framework to guide the privatized input supply ● Inadequate regulation and supervision³ ● Quality & sustainability of service providers in remote areas ● Poor interaction between actors. ● Limited coordination of actors ● Resurgence of infectious animal diseases⁴ ● Inadequate regulation of private veterinary practice by UVB ● Cooperation between private vets & public vets. ● Cooperation between NGOs, public vets & CAHWs
Decentralization policy reforms of the 1990s	<ul style="list-style-type: none"> ● Legal framework to guide decentralised services - The Local Governments Act 1997. ● Many actors involved increased ● Establishment of National Animal Genetic Resource Center & Data Bank (NAGRC&DB) 	<ul style="list-style-type: none"> ● Cooperation between private vets & public vets. ● Cooperation between NGOs, public vets & CAHWs ● Staff absenteeism. ● Insufficient and unpredictable budgets ● Exclusion of technical staff in decision making process ● Inadequate facilitative services such as laboratories & others⁵
The National Animal Breeding Policy 1997	<ul style="list-style-type: none"> ● Backed by legal framework the Animal Breeding Act 2001 - enforce regulation & control of genetic materials⁶ ● Establishment of National Animal Genetic Resource Center & Data Bank (NAGRC&DB) 	<ul style="list-style-type: none"> ● Genetic materials and breeding control not enforced. People do what they like ● Low access of AI inputs & high-quality genetics for all domestic animal species. ● Inadequate supply of liquid nitrogen ● High cost of artificial insemination equipment & service ● Public sector competition with private sector

³ Nantima N. (2012) Analysis of Veterinary Services Delivery in Uganda: An Application of the Process Net-Map Tool

⁴ Ilukor J., Birner R., Rwamigisa P. & Nantima N. (2015). The Provision of Veterinary services: Who are the influential actors and what are the governance challenges? A Case study of Uganda

⁵ Abebe D. 2016, Veterinary Services in Karamoja, Uganda: A Review

⁶ Nakimbugwe H. N., Semambo D. K. N. & Ndumu D. B (2002). The Animal Breeding Act as a Strategy and Instrument in Streamlining Animal Breeding Activities in Uganda

	<ul style="list-style-type: none"> ● Availability of relatively low-cost exotic breeds to provide semen for crossbreeding cattle by the public sector. ● Presence of private sector-based importers of high-quality semen ● Training of AI technicians ● Hosting the Eastern Africa Region Gene Bank 	
<p>National Drug Policy and Authority Statute 1993.</p> <p>The National Drug Policy and Authority (NDP/A) Act 2000.</p>	<ul style="list-style-type: none"> ● Presence of large-scale private sector-based importers of veterinary drugs ● Increased involvement of private sector in veterinary drug supply 	<ul style="list-style-type: none"> ● NDP/A Act embedded policy and law in one document makes it difficult to revise policy with changes ● Availability & accessibility of farmers to a wide range of drugs is a major challenge. ● Low financial capacity of drug shops in distant areas from the capital to order bulk stocks. ● Poor networks amongst private actors ● Poor quality & counterfeit drugs on the market ● Legal requirement to employ a pharmacist for larger veterinary drug shops ● Veterinary devices not regulated
<p>The National Veterinary Drug Policy 2002. - <i>currently under review in view of transferring veterinary drugs & biologicals under the Ministry in charge of animals.</i></p>	<ul style="list-style-type: none"> ● Licensing of persons handling veterinary drug ● No monitoring of drug residues in foods of animal origin 	<ul style="list-style-type: none"> ● No assessment of national veterinary drug requirements ● No monitoring of drug residues in foods of animal origin ● Inadequate availability, quality and distribution of inputs to rural based smallholder and pastoral farmers ● Policy not fully implemented by the NDA & MAAIF
<p>The National Policy for The Delivery of Veterinary Services 2001</p> <p><i>The Veterinary Surgeons Act 1958</i></p>	<ul style="list-style-type: none"> ● Existence of legal framework - Veterinary Surgeons Act 1958 ● Licensing of veterinary practitioners ● Existence of a national referral laboratory ● Identification of qualified personal to man the veterinary drug shops 	<ul style="list-style-type: none"> ● Current available legal framework is out of date. ● Statutory regulatory body - Uganda Veterinary Board - has no functional secretariat to execute the day to day activities of the Board. ● Questionable quality & sustainability of service providers particularly in remote areas⁷ ● High transaction costs of drugs and services⁸ ● CAHWs not regulated by UVB ● Inadequate diagnostic inputs & facilities

⁷ Abebe D., 2016 Veterinary Services in Karamoja, Uganda: A Review

⁸ Dione M., Ouma E., Lule P. & Pezo D. (2014) Animal Health Services Delivery Systems and Disease Surveillance in the Smallholder Pig Value Chains in Uganda

<p><i>has been reviewed and is due to be presented to Cabinet for approval & onward sending to parliament for enactment.</i></p>		<ul style="list-style-type: none"> ● Presence of non-qualified personnel providing animal health services ● Veterinary devices not easily available and not regulated. ● Unfair competition from public sector animal health service providers undertaking private sector roles (moonlighting)
<p>The Meat Policy 2003</p>	<ul style="list-style-type: none"> ● Existing policy, legal, regulatory & institutional framework affecting meat is currently being updated and consequently enforced under the Market Oriented & Environmentally Sustainable Meat Industry in Uganda (MOBIP) Project. ● Guidelines for transportation of animals are being drafted 	
<p>The Animal Feeds Policy 2005</p> <p><i>The regulatory framework to support this policy is being drafted by MAAIF</i></p>	<ul style="list-style-type: none"> ● Private sector participation in feeds production ● Private sector has been encouraged to produce fodder & conservation as hay or silage as business. ● Several animal feeds standards drafted⁹ 	<ul style="list-style-type: none"> ● Currently no legal framework to enforce animal feeds standards ● High cost of ingredients for formulation of animal feeds ● Inconsistency in quality and quantity of feeds between & within firms. ● Current competition from cheaper and higher quality imported feed products
<p>The National Agricultural Research Policy 2005</p>	<ul style="list-style-type: none"> ● Low cost technologies, equipment & protocols for pasture restoration etc developed¹⁰ 	<ul style="list-style-type: none"> ● Low uptake of researched technologies
<p>The National Agricultural Policy 2013</p>	<ul style="list-style-type: none"> ● Provides the framework for formulation of agricultural policies. ● Policies related to animal health inputs and services have been formulated & documented 	<ul style="list-style-type: none"> ● Inadequate financing for implementation of the policies related to animal health inputs and services

⁹ UNBS 2017 Draft Dairy Cattle Feed Premix - Specifications DUS 1678:2017

¹⁰ NaLIRRI Addressing Animal Nutritional Constraints in Uganda: The Contribution of the Livestock Nutrition Research Programme

The National Fisheries and Aquaculture Policy 2004 and Draft 2017	<ul style="list-style-type: none"> ● 2017 draft policy to replace the 2004 outdated policy. ● Revised policy to provide for formation of Uganda Association of Fisheries Professionals ● Provide for quality control of fish feeds, fish seed and aquaculture inputs 	<ul style="list-style-type: none"> ● The 1964 Fish Act is obsolete & cannot cater for current realities. Punitive clauses are not deterrent enough. ● Absence of regulations for changes in technological landscape ● Poor quality seed & other inputs
The National Land Use Policy 2006	<ul style="list-style-type: none"> ● Use of low input and output production technologies. ● Mixed crop and livestock farming useful in maintaining soil productivity 	<ul style="list-style-type: none"> ● Intensification of agriculture resulting in improper use of fertilizers & pesticides leading to land pollution & soils degradation. ● Use of low input production technologies in absence of appropriate soil & water management practices. ● Non testing soils before use or application of fertilizers
The National Environment Management Policy	<ul style="list-style-type: none"> ● Oversee environmental issues 	<ul style="list-style-type: none"> ● Indiscriminate disposal of expired chemical inputs ● Lack of coordination & collaboration among extension service providers
Uganda National Agriculture Extension Policy 2016	<ul style="list-style-type: none"> ● Extension guidelines and standards have been developed ● MAAIF has recruited more than 1,750 extension officers¹¹ 	<ul style="list-style-type: none"> ● Ineffective public extension service delivery ● Lack of coordination & collaboration among extension service providers ● Limited number of extension providers ● Limited funding & facilitation for extension services
Regulatory Framework		
The Dairy Industry Act 1998	<ul style="list-style-type: none"> ● Regulations for importers of starter culture ● Standards for the dairy products in place 	<ul style="list-style-type: none"> ● No regulations for most of the dairy processing equipment ● Inadequate enforcement of country standards for inputs & services

¹¹ Chemonics International 2018. Fast Tracking Policy Development for a Food Secure Future: Uganda's National Extension Policy

Annex 5: Detailed account of evolution of policies that are of great relevance to animal health inputs and services

The Animal Breeding Policy 1997; The National Policy on Delivery of Veterinary Services 2001; National Veterinary Drug Policy 2002; The Meat Policy 2003; The Animal Feeds Policy 2005; The National Agricultural Research Policy 2005; The National Agricultural Policy 2013; The National Fisheries Policy; The Food and Nutrition Policy; The National Land Use Policy; and The National Environment Management Policy. There is no specific policy to guide animal health input supply, rather various inputs are mentioned in the different policies and legal frameworks. Table 2 below describes the policy and regulatory environment and the effects these have had on the animal health inputs and services in Uganda.

The National Drug Authority (NDA) under the Ministry of Health was established in 1993 by the National Drug Policy and Authority Statute which in 2000 became the National Drug Policy and Authority (NDP/A) Act, Cap. 206 of the Laws of Uganda (2000 Edition) placing policy and the regulatory framework controlling drugs in one document. This was done to ensure the availability, at all times, of essential, efficacious and cost-effective drugs to the entire animal and human population of Uganda as a means of providing satisfactory healthcare and safeguarding the appropriate use of drugs. This policy and regulation not only came long after liberalization of veterinary drug supply but during this policy formulation, supply of veterinary drugs was not well articulated neither was it adequately catered for in the legislation and is therefore not very favourable in the eyes of users. Despite MAAIF's formulation of the National Policy for Delivery of Veterinary Services (2001) and the National Veterinary Drug Policy in 2002 that spell out how animal health inputs should be handled, veterinary drugs, vaccines and devices are still managed under a policy and legislation designed for human drug management that does not necessarily suit the veterinary sector. Furthermore, although NDA is supposed to be a multi-sectoral agency, its Board is human drug oriented and answerable to the Ministry of Health and there is no structural linkage for policy guidance from the Ministry responsible for animal health. This created misunderstandings between policy makers and other veterinary sector stakeholders and the human culminating in the Cabinet directive to separate the two. Efforts under MAAIF to review the Veterinary Drug Policy are in advanced stages anticipated to be followed by a revision of the NDP/A Act to legally separate the two sectors.

Government devolved provision of veterinary extension services to local governments and the private sector. In 2001, the National Agricultural Advisory Service (NAADS) organization was established by an Act of parliament to promote market-oriented agriculture. Two of the objects of establishing NAADS were to empower all farmers to access and utilise contracted private agricultural advisory services; and gradually shift from public delivery to private delivery of agricultural advice. Subsequently, in 2014, the Government took a decision to restructure the entire national agricultural extension system, to address past weaknesses in extension services. The reforms include transfer of the extension function from the National Agricultural Advisory Services to MAAIF and the creation of a Directorate of Agricultural Extension Services (DAES). In the same year, NAADS was restructured and its mandate changed to provide support for the management of distribution of critical and quality agricultural inputs to smallholder farmers for sustainable household food security and incomes. Under its new mandate NAADS contributes to the achievement of the priority areas identified under successive Agricultural Sector Strategic Plans (ASSP). This was a reversal policy change that saw the government going back to providing subsidized inputs and thus competing with the private sector. Apart from political pressure, one of the major reasons for reversal was the unforeseen loss of power of government officers, specifically MAAIF and to a lesser extent local government. In 2016, MAAIF formulated the Uganda National Agricultural Extension Policy

(NAEP) to guide, harmonize and regulate the provision of agricultural extension services throughout the country.

The Local Governments (Amendment) Act was amended in 1997 to consolidate and streamline the existing law on local government in line with the Constitution and to give effect to decentralization and devolution of functions, powers and services from central government to all levels of local governments. It also provided the administrative set up of the lower-level governments. Based on this law, animal husbandry, veterinary extension and entomological services; vector and vermin control, lairages, slaughter houses, cold storage facilities, premises for processing milk, meat or hides and skins, animal clinics and dip tanks were devolved to local governments and the private sector. Despite taking on these responsibilities local governments laid off a big number of diploma and certificate holder veterinary staff that were providing these services and had no resources to supply the needed inputs thus creating a vacuum. The private veterinary sector that was expected to absorb the laid off staff did not develop as fast. In remote areas like Karamoja, Non-Governmental Organizations embarked on training Community Based Animal Health Workers (CAHWS) and provided drug starter kits to enable them to assist the livestock farmers. Despite the existence of the Uganda Veterinary Board (UVB), regulation of private veterinary practice had not been streamlined and the Board was and has still not been empowered to implement this role.

The 1998 Dairy Industry Act provided for the promotion and control of production, processing and marketing of milk and dairy products for the development of the industry. It gave powers to the established Dairy Development Authority (DDA) to control and regulate dairy and dairy related import and export activities that included dairy inputs. However, to date DDA has only put in place regulations to register importers of starter culture but not all the other inputs required for the sector to enable enforcement of quality of inputs utilized. Furthermore, the regulatory framework does not specifically empower central and local government veterinary employees to regulate the industry in their respective jurisdictions although the Local Government Act provides for this for urban councils.

Annex 6: Respondents for the key informant interviews

Category	Sub-Categories	Specific description	Contact
Public sector	Policy formulation	MAAIF Department of Animal Health	Ben Senkeera, Office of the Commissioner Animal Health 0779221497
		Former Directors Animal Resources, MAAIF	Bamusonighe Thomas; retired Director Animal Resources bamutc@yahoo.com 0772510866-
			Kauta Nicholas, Former Director, Animal Resources nicholaskauta@yahoo.co.uk 0772693257, 0702693257
	Veterinary services	Veterinary Paraprofessional	Eva Ohide; Animal Husbandry Officer and Acting DVO Napak 0772278221
		Distant Veterinary Office	Ndyanabaisi Samson; DVO Bundibugyo nabangijoshua@gmail.com ; 0774681995
	Regulation	NDA	Aineplan Noel; NDA mutual recognition EAC amnoel@nda.or.ug , 0772609790;
Private Sector	Veterinary services	Small animal practice	Julie Nayiga, Country side Vet Clinic juliepetvet@gmail.com ; 0772 477569
		Large animal practice	Semazzi Paul; Vet-Pharm (U) Ltd paulosem2002@yahoo.com ; 0772406173
		Importers & Distributors	Alice Banga -Eram Uganda LTD

	Pharmaceutical & Biological inputs		alicebanga@eram.co.ug ; 0772489585
		Manufacturers/ Formulation	Birungi Steven; Alfasan Uganda skmbirungi@yahoo.com ; 0772417633
		Drug formulation/Re- packaging	David Kibiike; EagleVet Uganda, dkibiike@hotmail.com ; 0772601025
		Agrovet dealers	Isabirye Richard; Plough Uganda ploughug.co@gmail.com , 0772484994
		Biologicals- Semen importers	Godfrey Collins Lugwire; Bimeda Uganda LTD 0752700202;
	Consultant	Animal health industry professional	Jimmy Samanya samanyajp@yahoo.co.uk ; 0772586405
		Private Pharmacist Consultant Vet & Human Pharmaceuticals	Willy Musoke; Zee Pharmaceuticals LTD Uganda wbmusoke@gmail.com ; 0772336667
Civil Society	Community Based Worker	Community Based Animal Health Worker Karamoja	Constantine Ogwang; Livestock Officer, Kotodi District Local government, Karamoja region; constantineogwang@yahoo.com ; 0782405109
	International CSO	VSF Germany - Technical Project Manager/Country Representative	Joshua Waiswa Email: joshua.waiswa@vsfg.org ; 0779342175
Stakeholder Associations	Farmers' Association	Uganda Meat Producers Coop Union	Joshua Waiswa - Former CEO Uganda Meat Prod Coop Union Email: joshua.waiswa@vsfg.org ; 0779342175

		Livestock development Forum Uganda	Ben Twine; Chairperson Livestock Development Forum Uganda 0783390238
	Service Providers' Association	Animal Production Society of Uganda, APSU	Willam Ssendagire; Secretary General APSU; 0772523848, 0750096288; w.ssendagire@yahoo.com; apsu.ug@yahoo.com
		Uganda Para Veterinary Professionals Association	Henry Busulwa; hbusuulwa5@gmail.com ; 0772624755 m
	Traders' Association	Vet pharmaceutical traders' Association	Alice Banga -Eram Uganda LTD alicebanga@eram.co.ug ; 0772489585
Consumer	Livestock Farmer	Commercial Farmer	Agaba Morris; Nyangoma Estates, Mirya Subcounty, Masindi District morris.agaba@gmail.com ; 0706704444

Annex 7: Useful contacts – other people that have more information that they can share via a questionnaire

Emma - 0392903734 Soroti
DVO Moroto Dr Okino 0773129994
Adey - FAO - 0782027815;
Dr Francis Inagolet - DPO 0772582 104
Timothy Korang 0772845080
AHO Arita Moses 0774357255
ohideva@gmail.com
Dr Muchunguzi
Dr Byamugisha
Dr Kibiike
Hon Victoria Sekitoleko
Mr Ezekiel Kisambira UMPCS CEO 0775898768
Dr. Joseph Ruhinda -Project Manager 0772366951 & 0702000500
Dr. Julie Nayiga; 0772 477569; juliepetvet@gmail.com
Muhumuza Godfrey 0772369862
DVO Rutoma; godmuhumuza@gmail.com;
People who are all encompassing at the ministry - Commissioner animal Health, Director Animal resources,
Export Promotion Board secretary
NDA
DDA
NBS
Police dept that in charge of counterfeit products- narcotics, adulteration they have statistics and what forms are there related with food, et embassies –
Dutch embassy and Danida,
USAID with the livelihood at US embassy
Dr. Kitaka
Dr. Banga
Dr. Sibwomu in DNA
Dr. Kiconco MAAIF
Dr. Mucunguzi of Global Vet
Dr. Kudamba
Dr. Olaho-Muhani former director of LIRI,
Dr. CP-Otim
Dr. Noeline Nantima
Dr. Samanya
Dr. Wesonga on regulatory affairs,
Dr. Kyokuijuka on public health issues having prepared a project with DANIDA.
Dr. Bigirwa Enoch
Dr Isabirye Richard

Annex 8: Notes from the validation workshop

Generally, the proposal to establish an animal health industry association was welcomed and cited as a long needed intervention but the following issues arose as points of discussion.

- i. **Coordination between the actors:** A recurring challenge was a lack of coordination between the public and the private sector. Suggestions to separate the ministry were not welcomed as the issues seem to stem more from within the various departments, particularly leadership. Strong leadership within the sector is crucial in enhancing coordination.
- ii. **The role of regulators:** There was concern in regards to the engagement of the regulators as members of the association. Concerns on how the public sector players could contribute individually. Will the association be an umbrella for the private sector? Should the government be the coordinator?
- iii. **The animal health sector could be categorized into two broad actors:** 1. the Supply chain for both services and goods. 2. At Participatory level categorized into Private and Public entities or organizations. As stated, that MAAIF should organize coordination stakeholder engagement; this means once this is done, service providers under public service must not contradict any government position in terms of opinion or suggestions.
- iv. **Membership:** There were concerns on the membership structure of the association; will it be individual membership or association/ corporate membership? There was stronger preference for corporate membership, such that each organization gets one vote regardless of its size.
- v. **The legal structure and power of the association:** There was an in-depth conversation on the voice and the legal arrangement of the association. The association will be ***a legally registered association. An association once registered will be a legal body but it is very important to be credible and consistent in creating positive change.***
- vi. **Strengthening of an existing organization to be the association:** UVA was nominated as a candidate body to host the association or as an interim body to provide an office for the association, however, there were concerns that UVA is a veterinary association which focuses more on medicine.

The association can begin with the people who attended the webinar as well as those who participated in the KIIs and surveys.

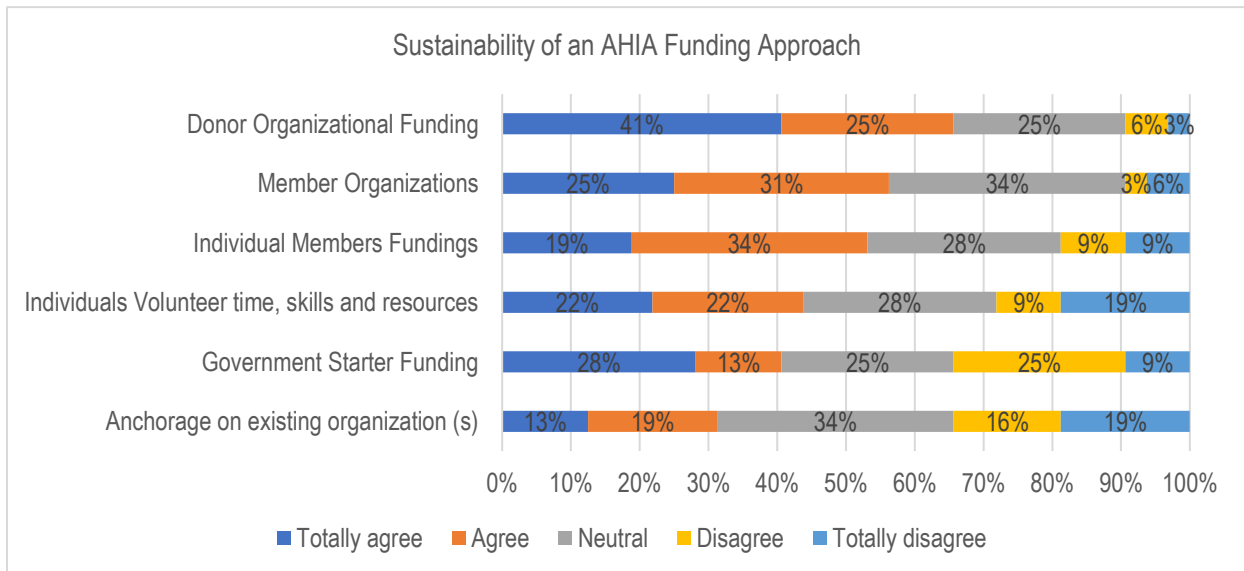
It was suggested that the AHIA should address the following issues:

- i. Standards of products and services
- ii. Strong governance
- iii. Improving access to high quality animal health inputs by the end users, e.g. farmers
- iv. Clear and honest communication
- v. Promote coordination, stakeholder engagement, collaborations, participations and transparency

The next steps in this process were identified as:

- i. Input from the webinar to be incorporated in the report. The report will be shared with GALVmed who will determine when the final report will be shared with the stakeholder and if the recommendations will be implemented.
- ii. The people who attended the meeting will be engaged to help move the association forward if that's the recommendation GALVmed decides to implement.

Annex 9: Levels of agreement with the possibility of having a sustainable AHIA based on different funding approaches



Annex 10: Effectiveness of regulatory institutions as perceived by respondents on various dimensions of the animal health industry

