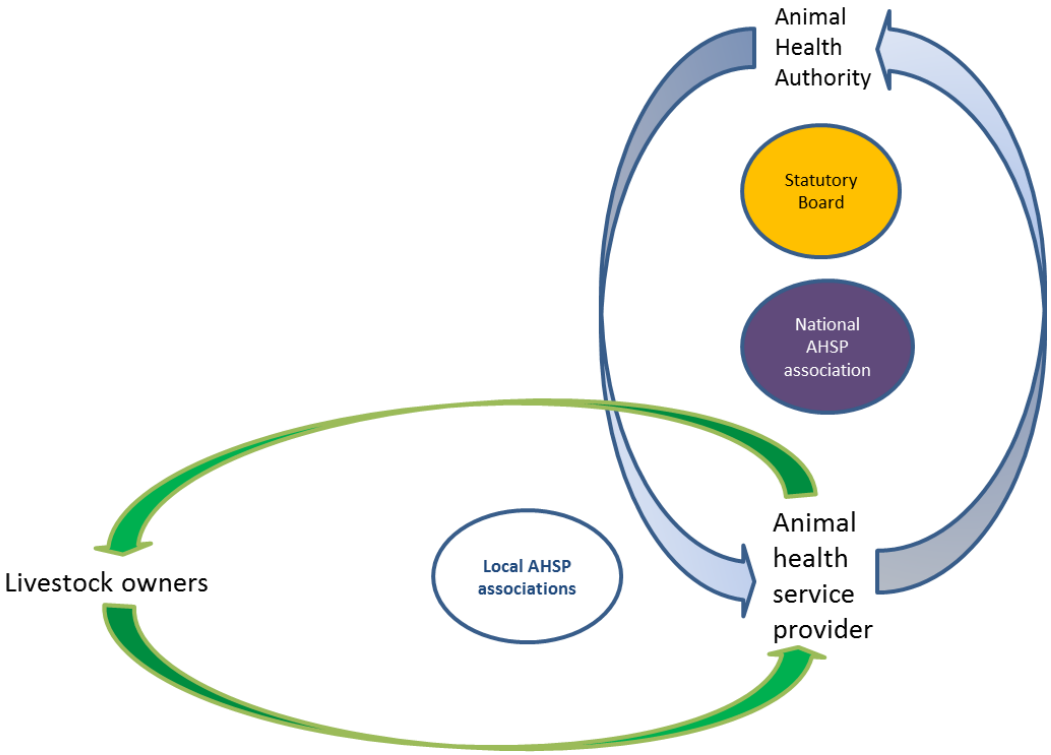
Report for RMLSP/MAIL/IFAD

Model for the Veterinary Field Unit on the provision of private animal health services and support to the national veterinary services (GDAHP)



Chris Bartels
May 2016

Acronyms

AHA	Animal Health Authority
AHDP	Animal Health Development Programme – EU funded
AH-VPH Act	Animal health and veterinary public health act
AKF	Agha Khan Foundation
AVA	Afghan Veterinary Association
BVW	Basic Veterinary Worker
CED	Central Epidemiology Department
CVDRL	Central Veterinary Diagnostic and Research Laboratory
DAH	Directorate of Animal Health
DCA	Dutch Committee for Afghanistan
DMEC	Department of Monitoring Evaluation and Control
DVM	Doctor of Veterinary Medicine
GDAHP	General Department of Animal Health and Production
ICRC	International Committee of the Red Cross
MADERA	Mission d'Aide au Développement des Economies Rurales en Afghanistan
MAIL	Ministry of Agriculture, Irrigation and Livestock
NBCP	National Brucellosis Control Programme
NGO	Non-governmental organisation
NHLP	National Horticulture and Livestock Programme – World Bank
IO	International organisation
OIE	World Health Organisation for Animal Health
OIE	World Organization for Animal Health
PVEO	Provincial Veterinary Epidemiology Officer
PVLO	Provincial Veterinary Laboratory Officer
PVMO	Provincial Veterinary Monitoring Officer
PVO	Provincial Veterinary Officer
SMCD	Sanitary Mandate Contract Department
SMCS	Sanitary Mandate Contract Scheme
VFU	Veterinary Field Unit
WB	World Bank

Descriptive one-page summary

In Afghanistan, there is an unique system of animal health service provision through well-trained paravets (and veterinary assistants and DVMs) acting as private entrepreneurs. This system has been established over the last three decades through the dedication of a small number of organisations and has currently over 1,000 such private Animal Health Service Providers (AHSPs).

One of the key elements of these by livestock owners' well-appreciated services is the continued technical backstopping and refresher trainings provided through a number of NGO projects with funds from international organisations. Livestock owners not only appreciate services such as treatment, deworming and vaccination but also the information sharing on livestock management practices such as nutrition, housing, sanitation and zoonotic diseases.

It is observed that there are considerable differences in the **skills and competencies** and hence the economic viability of AHSPs. However, rather being a concern, this variation is an opportunity to improve the performance as well as the governance of all AHSPs. The 10-15% best-performing AHSPs may be used to mentor and technically support the average-performing AHSPs. This is one route of establishing **self-reliance** and local governance of AHSPs as a critical component of the long-term sustainability of the AHSP system. This recommendation is given considering that even the long-acting NGOs have a temporary position in Afghanistan and that time is running short for the AHSP to establish their own associations to safeguard representativeness in the development of **policies and strategies** on animal health, production and welfare in Afghanistan.

Another route of establishing self-reliance is to allow good-performing AHSPs become the link between local AHSPs and the provincial public veterinary services with regard to disease surveillance (reporting, outbreak investigation, etc) and control (vaccination, awareness campaigns on biosecurity). A third route is to provide for the opportunity of **personal professional development** for those that have the capacity to grow. Obviously, this requires regular and objective assessment of AHSP performance, which should be a joint task of the new-to-establish **Veterinary Statutory Body** (VSB) and the national AHSP Association.

That brings up the current Afghan Veterinary Association. This study has made clear that there is general disapproval with the functioning of the AVA. As an association with the mandate to serve the interests of its members, AVA is not living up to its name. For that reason, this study recommends the founding of a strong **national association for AHSPs** that is working in close collaboration with the VSB and with local associations at the level of provinces. The VSB is necessary to define the standards of professional conduct and the competence of veterinarians and veterinary para-professionals. By defining such standards the position and functioning of AHSPs is **institutionalized** within the Veterinary Services and under the Competent Authority.

This study report can't provide all the answers to the issues and recommendations discussed, simply because the answers have to come from all stakeholders directly involved in this matter: AHSPs, NGOs, International Organisations, departments of GDAHP at central and provincial level.

The GDAHP is to make the first moves: acting as the **competent authority** on animal health, production and welfare by demonstrating strong leadership in the **coordination** of projects and programmes, daring to **manage necessary changes** within its organisation and earning respect by its **professional attitude** in leading by example. A start has to be made with definition of an animal health **policy and strategy** as the roadmap for future private and public animal health services.

The Afghan AHSPs are important stakeholders for the delivery of private services to livestock owners and the provision of untapped data and information on animal disease for surveillance and control under the competent authority. This requires good governance and respectful partnerships.

Executive summary

Provision of veterinary services by private animal health service providers (private AHSPs) to livestock owners in Afghanistan has been established over the last 30 years through the continuous support of International Organisations (IOs) and Non-Governmental Organisations (NGOs). As a result different approaches and models have been developed.

The objectives of this consultancy were to make an inventory of current AHSP models, identify gaps and needs and to propose a unique AHSP model for the future.

Commonly, the term Veterinary Field Unit (VFU) is used to indicate the person that has been trained to deliver animal health services to livestock owners. However, that is confusing as Unit refers to a place or location more than to a person. For that reason, this report makes use of the term AHSP. The educational background of AHSP varies widely. Most commonly, AHSP have received a 6-months Paravet training while some have a back ground as Veterinary Assistant (2-years education) or DVM with a 5-years university education.

For reasons of clarity, the term AHSP in this study is used for persons that are providing veterinary services as private business, have had a minimum of 6 months of paravet training at the one of the training centres and are under supervision of one of the NGOs or the GDAHP. It may thus refer to Veterinary Assistants and to DVM as well if these are delivering private veterinary services. For clarity, shopkeepers that are not supervised by NGOs are not included under this term.

Over a period 7 weeks between 13 February and 7 May 2016, the consultant met with many stakeholders, conducted three types of questionnaires (amongst 22 farmer focus groups, 228 AHSPs, 7 supporting organisations), conducted 4 workshops in Kabul with NGOs and GDAHP staff, visited 5 provinces to talk with individual AHSPs and farmers, and to conduct groups discussions with AHSPs, extension groups and extension workers.

Introduction

There are around 1,000 AHSPs currently practising comprehensive services. These are supported to various degrees by Agha Khan Foundation (AKF), Afghan Veterinary Association (AVA), Dutch Committee for Afghanistan (DCA), Mission d'Aide au Développement des Economies Rurales en Afghanistan (MADERA), Relief International (RI) and Food and Agriculture Organisation of the United Nations (FAO). In addition, International Committee for the Red Cross (ICRC) is currently supporting AHSPs strengthening the animal health, production and extension delivery services to livestock keeping communities where accessibility to service delivery continues to be challenging. However, after this year, this support ceases. Of the 398 districts in Afghanistan, 276 (70%) districts have one or more AHSPs.

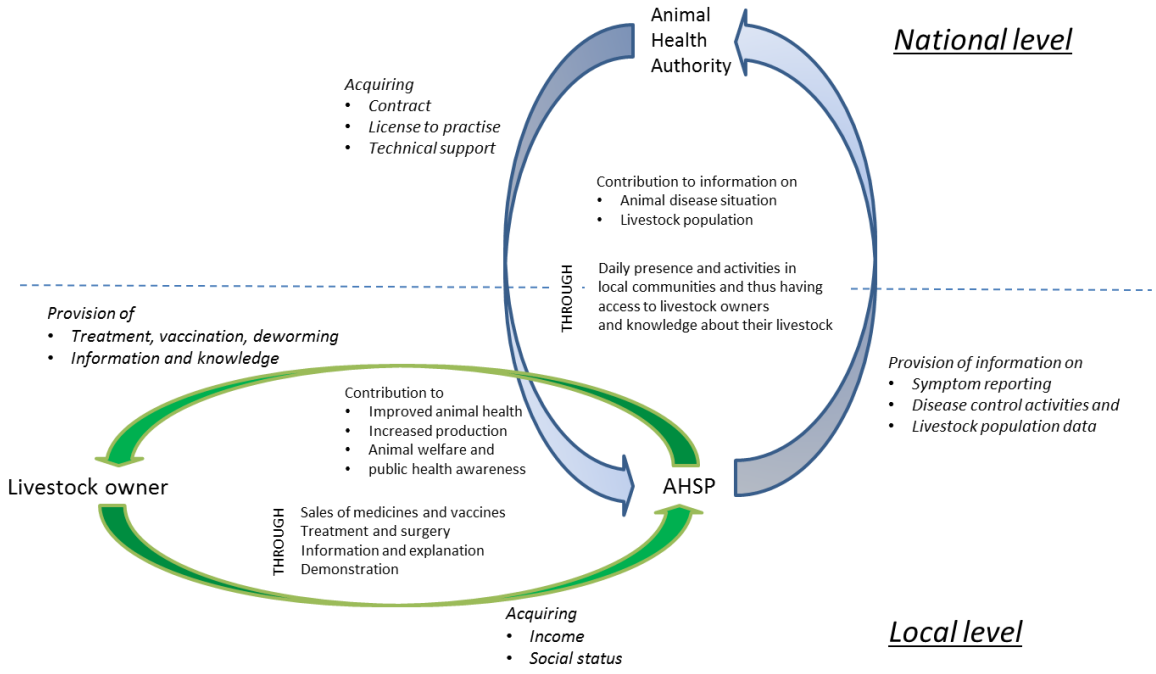
The AHSP is selected from the local community and may have livestock him/herself. S/he is thus well aware of the challenges livestock owners face. The AHSP has two roles to play. First and foremost, s/he is the local practitioner to provide treatment for diseased livestock and to motivate (and offer) livestock owners preventive measures such as vaccination and deworming. In most cases, AHSPs are well trained to explain livestock owners the importance of good animal husbandry (extension skills) because animal health is directly related to animal nutrition, housing and sanitation.

The feedback on provision of these services is straightforward and rewarding. The livestock owner pays fees for the services of the AHSP. Additionally, many AHSPs acquire a higher social status in their local community because of knowledge and experience they have gained through training and practising.

In the second role, the AHSP acts as the 'eyes and ears' for the GDAHP (further referred to as the Animal Health Authority, AHA) on disease reporting (it may be better to say 'symptom reporting' as AHSP do not have the facilities to confirm suspected diseases). For some, this may be contracted under the Sanitary Mandate Contract Scheme (SMCS). Without the information of AHSPs, it is very difficult for the AHA to make informed decisions about disease surveillance, response and control. Additionally, from the perspective of the livestock owners, AHSPs are the first-line actors on national disease control programmes such as in the National Brucellosis Control Programme (NBCP).

For the AHSPs contracted work such as under the SMCS and the NBCP is welcomed as an additional source of income. It was estimated that it represented an estimated 20% of their turn-over.

The feedback loop in this role is more complicated. The physical distance is longer and involves many more stakeholders, including NGO staff and provincial DAIL offices. Additionally, these activities may cause conflict of interest. For a private service provider to report on a disease without knowing the consequences (the response by the AHA) is uncomfortable. S/he may risk her/his position as one of the community when the AHA response may affect livestock or livelihoods through control measures or sanctions (animal market closure, movement restrictions, compulsory vaccination, and registration). For this reason, some livestock owners are confused about the position of AHSP and consider them government employees.



Inventory of findings, gaps and needs

Training

The initial training of AHSPs is a minimum of 6 months for people selected newly. Additionally, some AHSP may have had 2 years training as Veterinary Assistant or 5 years university education (DVM).

Currently, the initial 6-months training for new AHSPs is similar for all as supporting organisations have new candidates trained by DCA Training Centres that are in the process of being accredited by the Ministry of Education. This training is intense, well developed and involves a great amount of practical application.

Start-up period

After graduation, paravet AHSPs are provided with equipment and materials to get a head start with setting up their private business. This may have happened to Veterinary Assistants and DVMs in the past as part of a so-called 'privatization' campaign around 2008.

It is important that equipment provided is of good quality to serve the AHSP for a number of years and that it includes a motorbike and refrigerator to keep medicines and vaccines cool.

NGOs provide various levels of financial support to starting AHSPs for reporting of their activities, extension activities or purely for getting started. Such financial incentives for newly-established AHSPs may be considered for a maximum of 2 years. This is to overcome initial problems with establishing the AHSP practice and to allow for making mistakes with regard to financial management.

For female AHSPs for whom driving a motorbike is not accepted by the community, there needs to be an alternative to the motorbike as a means of transport to safeguard equal mobility as her male colleague. This may require a prolonged period of financial incentives for female AHSPs that may allow her to hire someone (maharam) to drive her around.

In poorer often remote districts, where livestock owners are less capable to pay, it may have implications on the economic viability and sustainability of the AHSPs. That may be reason to extend the financial support (start-up incentives) of ASHPs for an additional period of time (from 2 to 4 years).

Technical backstopping and continued training

Most critically, AHSPs are monitored intensively by most NGOs for an extended period of time. This monitoring involves technical backstopping on animal health affairs, on animal husbandry but also on running a private business. It is much appreciated by all AHSPs as it helps to sustain skills and competencies. In a similar way, support on doing business (financial administration, saving for maintenance and restocking) is needed and requires backstopping too.

Over the course of time, AHSP are offered refresher and additional training courses to expand their skills and competencies. These need to include training on extension skills, communication and herd-health packages.

An important gap in the current situation is that the technical backstopping and training is currently all provided by NGOs. This will become an issue for the AHSPs when NGOs eventually phase out.

Medicines and vaccines

There is general consensus that AHSP should use quality medicines and vaccines. However, the infrastructure and thus logistics to acquire these are in many locations absent or limited. The use of low quality or fake medicines will potentially lead to overdosing and wrong use of combinations of drugs. This will have effect on the development of antimicrobial resistance with long-term effects well known. Unfortunately, no serious efforts by the AHA are undertaken to prohibit or even reduce the import and distribution of low-quality or fake medicines and vaccines.

Farmers' appreciation

The outcome of AHSP services on animal health, production and welfare is considered very positive. Livestock owners are very appreciative of the services provided by the AHSPs and the great majority is able to pay for the fees of these services given that the quality of services is up to standards and the AHSP acts honestly and with integrity. Of particular interest with livestock owners are the extension activities conducted by AHSPs through which farmer groups, extension groups, Farmer Field School, Farmer Field Days may be established. These provide the context of livestock diseases in the framework of good management practices on nutrition, housing and sanitation. Additionally, these approaches serve the field-level implementation of One-Health Concept. Through the various extension applications, livestock owners are informed about the importance of sanitation and zoonotic diseases. For the AHSPs, these skills and competencies are highly valued as they offer a means to extend their client base.

Variation in competencies and viability

The level of activities, skills and competencies of AHSPs and consequently the degree of economic viability of their private businesses vary greatly. There are AHSP that make a very good living out of their activities, there are AHSP that have difficulties to come by and these have other income-generating activities. Key elements for the AHSP making a good living are multiple income sources, continued training and technical backstopping.

The variation that exists is natural and common with private entrepreneurs. More importantly, the existing variation is a welcome feature that can be the starting point for the future model of the AHSPs. It offers the opportunity to make use of the best-performing AHSPs as trainers, tutors, representatives, etc. This is further elaborated under 'Model for the future'.

Impact assessment

Livestock owners agree that with the presence of an AHSP in their community, livestock are healthier and production is higher. However, there have been relatively few studies to quantify this effect. This is even more true for the impact on the livelihoods of livestock owners. There are no studies known that have assessed the changes in health and income brought about by the availability of animal health services. However, the fact that the majority of livestock owners is willing to pay for the services may indicate that they see it as a beneficial expense.

Nonetheless, it will benefit the NGOs, IO and the AHA to conduct impact assessment studies and cost-benefit ratio or cost-effectiveness studies. These will serve an advocacy purpose with the MAIL

and the government of Afghanistan as well as support the claims made in project goals and objectives.

Role of provincial and central veterinary services

The role of the provincial veterinarians as local AHA is currently marginal. Although monthly activity reports and SMCS outbreak reports are submitted to the PVO office, PVOs do not regularly monitor, supervise or respond to these activities. This includes the lack of provision of test results on the samples submitted. As a consequence, AHSPs are left in limbo about their role and responsibilities with regard to contracted activities.

Additionally, the rewards for contracted work are uncertain and unclear as current programmes (SMCS and NBCP) are co-funded by GDAHP and NHLP but with ongoing (May 2016) discussions how the co-funding will be applied.

At the level of NGOs and IOs, their projects and programmes are not well supervised by AHA due to a lack of policy and strategy on animal health and production. Consequently, current coordination meetings have a haphazard element while each of the projects and programmes would benefit from central coordination. Such should be complemented with government involvement by allocating budget for safeguarding primary animal health care as part of the AHA policy and strategy on animal health in Afghanistan.

Governance

The system of private animal health services through AHSPs is nowadays under the governance of NGOs, primarily international NGOs. They have done a tremendous amount of work to build up the fundaments (training, technical backstopping, supply of vaccines and medicines, relation with provincial AHAs, etc) and expand this approach across the various regions of Afghanistan.

There are some good examples in which international NGOs have been promoting governance of the AHSP system. Former DCA Training Centre(s) are currently in the process of getting accreditation from the Ministry of Education to become independent training centre for AHSPs. Somewhat similar was the privatisation of VetServ. Originally it was set up as a branch of DCA to import good quality vaccines and medicines. Since a number of years, it now is a private business operating independently.

There is dissatisfaction with the Afghan Veterinary Association over its role and actions with stakeholders ranging from local AHSPs to staff of the GDAHP. Members of AVA do not feel represented and consider AVA more of an NGO than of a body representing their interests with public and private stakeholders. An organisation that is truly representing the interests of private AHSPs is key to the future of AHSPs in Afghanistan.

Model for the future

For the AHSP model for the future the consultant suggests modifications and adaptations at three levels. These levels are:

I. Local level: referring to the private delivery of animal health services, including extension work on animal production and management, and public health awareness.

II. Provincial level: referring to competent provincial animal health authorities and the supporting NGOs.
III. National level: referring to activities under the overall policy and strategy on animal health, defined by the competent Animal Health Authority.

Recommendations at local level

Selection

1. The selection procedure for new AHSPs can follow the current applied selection criteria including someone
    a. with 12th grade or higher, however in some situations no such persons are available and then the criteria is to have someone that is able to read and write (10th grade);
    b. that is from the community where there is a need for an AHSP and where the local authorities have requested to train and support an AHSP;
    c. that is approved by the DAIL office;
    d. that has an interest in livestock (and preferably own some livestock him/herself).
2. With regard to the location, it is important to consider
    a. sufficient livestock (cattle, sheep and goats) around. Although hard to set a target, something around 10.000 to 15.000 heads of livestock will provide sufficient base for an AHSP;
    b. facilities such as markets and roads and Kuchi trails are favourable for the economic viability of the AHSP business;
    c. a neighbouring AHSP at a distance of (minimally) 10-15 km, dependent on the livestock density;
    d. the proximity of other AHSPs is advised as a means to facilitate peer-support and peer-monitoring in later stages, see next chapter.

Continued backstopping and refresher training to acquire the license to practise

3. In the first two years after graduation from the initial 6-months training, the AHSP gets technical backstopping from an experienced AHSP facilitator and mentoring from a well-established AHSP.
    a. The facilitator provides monthly backstopping on all aspects of the services and monitors a fixed set of key parameters including running a private business. As such, the AHSP facilitator extends the initial training on location;
    b. The AHSP mentor is someone from the same area that is available for technical advice as well as personal support on all aspects of running an AHSP business. S/he can be called upon when the AHSP is in need (eg dystocia, sudden deaths, etc).

    Both positions (facilitator and mentor) will require support (incentives) from the AHA (potentially paid for by the licencing fees) and/or the AHSP association (potentially paid for by the membership fees). These mechanisms need to be further elaborated and dependent on the available resources within GDAHP and between projects and programmes.
4. In addition, continued learning is provided through refresher courses and training courses with the focus on business and marketing, extension and communication and herd health packages.

5. In these first two years, the AHSP is assessed every 6 months based upon 10 key parameter indicators. The purpose of such assessment is to provide the AHSP with direct feedback on his/her performances and identification of gaps and needs for further improvement. Secondly, it will serve as a means to benchmark AHSPs over time and between locations. And thirdly, it will be helpful for the AHSP association, the Veterinary Statutory Body (VSB) and the AHA to understand the areas where there needs to be more training or where (new) AHSPs face difficulties in managing their businesses.
6. Upon positive assessment after 2 years in practice, the AHSP receives the licence to practise and is recognized as AHSP. This position needs to be recognised and acknowledged in the AH and VPH Act as a private entrepreneur providing animal health services in local communities and being eligible for contracted work with the AHA.

Local AHSP associations

7. To sustain this position, the AHSP has to follow a fixed number of refresher courses and be assessed on a set of key performance indicators, both on an annual basis. Technical backstopping is provided through an AHSP facilitator, 6-9 times a year. The continuation of AHSP mentoring becomes optional and depends on the wishes of the AHSP.
8. However, mentoring may continue in the form of partnerships in which cooperatives or local associations of AHSPs (say from one district or province) are established
    a. to support one another (facilitation and mentoring);
    b. to purchase medicines and vaccines together;
    c. to peer-monitor one another (annual assessment).

    This is further elaborated in the paragraph on Recommendations for the provincial level.

Personal Professional Development Plan - PPDP

9. Additionally, for those AHSPs that stand out and have the ambition to improve further, there needs to be a trajectory of professional development.
10. The VSB and national AHSP association define criteria for a personal professional development plan (PPDP) that is optional and may apply to 5-10% of AHSPs.
11. Completion of such PPDP will assign additional roles and responsibilities to the successful. These can be in the area of AHSP mentoring and AHSP facilitation or in the field of AHA-related tasks on disease outbreak investigation or outbreak response.
12. It is also suggested that for an AHSP that successfully completed her/his PPDP, the former educational background (Paravet, Veterinary Assistant or DVM) is no longer relevant. S/he will acquire a different (hence higher) status.

Recommendations for provincial level

Establishing local AHSP associations

13. The local AHSP associations mentioned under point 8 relate to the provincial DAIL offices when it comes to the public tasks for the AHA, to extension activities and even to the provincial human health departments on issues related to zoonotic diseases such as Rabies, Anthrax and Brucellosis.
14. This is an area where NGOs should take an active role. NGO can explore and develop different forms of cooperation and collaboration, with the aim to strengthen self-reliance

and eventually self-governance of AHSPs. By strengthening self-reliance from the field level upwards, (self) governance of the AHSP positions may be better established compared with a top-down approach such as through the current AVA.

15. Some examples of strengthening self-reliance of AHSPs are to make credits or loans for investment more easily available, and to provide or establish health insurance for AHSPs, in particular for vaccinations against zoonotic diseases such as Rabies.

Capacity building of provincial animal health authorities

16. As private and public animal health services more or less meet at provincial level, the provincial animal health authorities need to be strengthened to be up to their task of implementing the strategies and procedures developed by the central AHA.
17. Provincial AHAs should be able to follow-up on the disease reporting and sample submission under the SMCS, to monitor the activities under the NBCP (and FMD and PPR in the future) through post-vaccination surveys (vaccine coverage, duration of immunity in vaccinated livestock) and to make a start with data collection on livestock populations.
18. The task of strengthening provincial AHAs is with the central AHA, however when presented as well-structured projects and programmes, the International Organisations may be supportive to fund the necessary activities and changes.

From paper-based to digital reporting

19. In addition, with new digital technologies widely available, a start should be made with data collection through digital devices. The advantages of digital data collection are the instant and complete availability of data at predefined locations and levels. Thus, there are no delays in information sharing between field, province and central level. And there is no loss of raw data due to aggregation.
20. Additionally, digital data allow for standardized data management and analysis, thus facilitating immediate feedback to the data collectors (see point 31). Such direct feedback loops will improve accurateness, completeness and timeliness of the data collected. Consequently, it will strengthen informed-decision making by the AHA.
21. Conversion from paper to digital is a major operation. It will require establishing a vast infrastructure of data-entry, data storage and processing and the need to train many data collectors (AHSPs, provincial staff). However, with a number of large funds under the World Bank and the EU becoming available soon, this may be the right time to make such investments.

Recommendations at central level

The recommendations at central level refer to issues such as institutionalization, coordination, governance, monitoring and evaluation and skills and competencies of the AHA. Although many of these issues are in place by word, implementation is far from functional.

Institutionalization

22. Further institutionalization of the AHSP, both in the role of private entrepreneur and the ‘eyes and ears’ of the AHA require embedment of these roles into a well-defined Animal Health Policy and Strategy (AHP+S). Such AHP+S need to be endorsed by MAIL and the government of Afghanistan and need to acknowledge the legal framework defined in the AH and VPH Act.

23. It is recommended to have two additional independent bodies to materialize the institutionalization. The first is a national AHSP association and the second is the Veterinary Statutory Body (VSB). The latter is already defined in the AH and VPH Act.
24. The former should not be confused with the Afghan Veterinary Association. Although the name of AVA refers to an association, its practical functioning is not in line with what is expected from an association. Members of AVA do not feel that AVA is representing their interests in discussions with public and private stakeholders.
25. The VSB and national AHSP association define the criteria for accreditation of the initial AHSP training in collaboration with the Ministry of Education. They also define the criteria for accreditation of refresher courses, the key performance indicators for the annual AHSP assessment, and define the conditions for AHSP facilitation and AHSP mentoring.
26. As a concerted action, VSB and the National AHSP maintain an updated list of AHSPs working in Afghanistan with detailed information about the refresher courses followed, the results of annual assessments and progress on PPDP (for those that is applies to).
27. Additionally, institutionalization requires defining roles and responsibilities of stakeholders and their mutual relations. This report provides a draft to the roles and responsibilities of primary stakeholders in Annex 5.
28. For the short-term, it is recommended to establish an interim representation AHSP group that is participating in coordination meetings (see point 30) and is involved in the further development of the Animal Health Policy and Strategy.

Coordination

29. Better coordination is needed with regard to the various projects and programmes in animal health. There is a need for strong leadership based upon a long-term vision and with appreciation of the private entrepreneurship of AHSPs. The appointment of a new DG of the AHA bears promises of understanding the need for changes in culture and attitude of the GDAHP.
30. Regular coordination meetings need to include all relevant stakeholders (AHSPs (see point 28), training centres, medicine and vaccines companies, provincial AHA), need to be planned ahead of time, have a well-established agenda, have the minutes taken including decisions taken and actions defined.

Governance

31. International NGOs need to realize that their presence, by default, is temporary. These NGOs should further define their phase-out strategies. These should include strengthening the self-reliance of AHSPs as discussed under the local-level recommendations.
32. Additionally, NGOs with the support of IOs may facilitate and support the establishing of a national AHSP association. The roles of this AHSP association are:
    - Actor on improving and developing animal health, production, welfare and public health by private service providers;
    - Promoter of independent and economic viable positions for the AHSPs;
    - Facilitator of collaboration between partners representing private, public veterinary and human health care.
33. NGOs can do more to privatize supporting services of the AHSP system. Examples are with VetServ and the former DCA Training centres. However, a similar approach may be taken

with facilitation and mentoring (see point 3), with credits and loans (see point 15) and with establishing local AHSP associations (see point 8 and 13). In the long run, the private organisations need to be able to generate their own support through membership fees, contracts with government or donor funds.

A competent Animal Health Authority

34. Current monitoring and evaluation of the AHSP activities under the AHA are almost non-existent. AHSPs submit activity reports, disease outbreak reports and samples based upon their licence or SMCS contract. However, the AHA doesn't have the organisation and competence to convert these data in an understanding of the disease situation in Afghanistan. As such, these programs are not efficient and effective and they do not contribute to informed decision making on animal health.
35. With no feedback to the AHSPs, the quality of report and sample submission is below standard and this will remain as long as AHSP are not provided with the necessary feedback. The AHSP is currently unaware of what is expected from her/him.
36. The AHA need to establish a result-based monitoring system to inform AHSP directly about the results and use of what they have submitted.
37. The skills and competencies of the AHA/GDAHP need to be monitored and evaluated in a similar fashion as the skills and competencies of the AHSPs (performance-based management). This can be done through annual assessments of staff members based upon the defined roles and responsibilities of their job descriptions. Results of such assessments allow for targeted training in the fields that one is weak at, and/or professional development trajectories for those that have ambitions to improve and change.
38. Obvious skills and competencies that need strengthening are data-collection, validation, analysis and reporting. It is already indicated (point 19) that conversion from paper to digital data collection, may facilitate these processes as the standard procedures can for a large part be automated. However, more skills are needed to expand the level of disease surveillance and to monitor the effectiveness of disease control activities.
39. The AHA develops an approach to assess and implement quality assurance of vaccines and medicines. This will be a very clear sign for AHSPs about the AHA's commitment about the quality of primary animal health services.

This study report can't provide all the answers to the issues and recommendations discussed, simply because the answers have to come from all stakeholders directly involved in this matter: the AHSPs, the NGOs, the International Organisations, departments of GDAHP at central and provincial level.

The recommendations made in this report are in line with the OIE Terrestrial Animal Health Code related to the quality of Veterinary Services (Chapter 3). These include the need of evaluation of the appropriateness of the qualified skills to the tasks undertaken by Veterinary Services by veterinarians and veterinary para-professionals (Article 3.2.5) and the evaluation of the role of the Veterinary Statutory Body (Article 3.2.12) to the licensing or registration of veterinarians and veterinary paraprofessionals, to the minimum standards of education, and to the standards of professional conduct and competence of veterinarians and veterinary para-professionals.

Contents

Organisation of report

This report is organised in 4 chapters and 13 annexes.

In chapter 1 a short introduction to this study, its objectives and the intended approach are explained. In chapter 2, six elements for private animal health services are described and applied to the Afghan situation. These are 1) human resources, 2) equity of services, 3) efficiency, 4) accessibility, 5) quality of services and 6) financial resources. In chapter 3, AHSP activities under AHA mandate as well as the elements for further up-scaling of the AHSP model are elaborated based on 7) institutionalization, 8) governance, 9) coordination and 10) a competent AHA (the numbering continues from the elements under the private animal health services as these are intertwined). Relevant recommendations are given with each of the four items. Many of the recommendations on these four issues relate to the need to change the current GDAHP into a competent Animal Health Authority. In chapter 4, further recommendations for strengthening the private animal health services are provided with a strong focus on quality assessment, continued training and professional development.

In the annexes, background information (itinerary, people met, TORs) is provided as well as summary of the analyses of 3 different questionnaires conducted (with NGOs and GDAHP, with AHSPs and with livestock owners) and the business models of the AHSP working as private entrepreneur and under contract with the competent AHA.

Chapter 1 - Introduction

Background and justification

This study is initiated by a project titled 'Veterinary Services in the Northern Region' which is a sub-component of the Rural Micro-Finance and Livestock Support Programme (RMLSP) of the Ministry of Agriculture, Irrigation and Livestock (MAIL) of Afghanistan and funded by the International Fund for Agricultural Development (IFAD). The overall objective of this sub-component is to strengthen the system of animal health service provision on a sustainable basis, in order to improve livestock production and productivity, and to help livestock owners retain greater value for their livestock products.

Provision of veterinary services by private animal health service providers (AHSPs) to livestock owners in Afghanistan has been established over the last 30 years through the continuous support of International Organisations (IOs) and Non-Governmental Organisations (NGOs). An often-used approach has been to train a person from the community for a period of 6 months on disease recognition, treatment, approaches to prevention (deworming and vaccination) and record keeping. The AHSP was then set to work from a small clinic, shop or unit which has come to be known as Veterinary Field Unit (VFU). From the VFU, the AHSP is monitored by the supporting NGO and/or IO and is offered refresher training courses that build upon the AHSP's capacity and skills. Other approaches involved the privatisation of existing government-owned veterinary field clinics through training and support of doctors of veterinary medicine (DVMs) and veterinary assistants (VAs). These again have become known under the same terms; VFUs manned by the AHSPs.

The AHSP provides private animal health services for his/her community such as treatment of diseased animals and preventive services such as deworming against internal and external parasites, and vaccination against infectious diseases such as enterotoxemia, anthrax, Foot-and-Mouth Disease (FMD) and Peste de Petits Ruminants (PPR). More and more, AHSPs are also providing extension services to livestock owners on issues as nutrition, housing, sanitation and public health. Additionally, some not all AHSP are contracted to do work for the General Directorate of Animal Health and Production (GDAHP). These public veterinary services tasks involve disease reporting and sampling which are contracted under the Sanitary Mandates Contract Scheme (SMCS) and vaccination against Brucellosis under the National Brucellosis Control Programme (NBCP).

Objectives

The objective of this study is to assess the current model by RMLSP and other MAIL partners, to identify gaps and lessons learnt in order to improve and propose (an) acceptable and sustainable VFU model(s) on provision of private animal health services and contracted support to national disease control programs. The approach to this study is to take an inventory of the various models currently in place, to identify the lessons learned, the gaps and needs of these models and lastly to develop a VFU model, or VFU models that can support the further implementation of a nationwide and uniform approach to private animal health service delivery in combination with strengthening of the public veterinary services through disease reporting and disease control.

Approach

The AHSP programmes currently implemented by various NGOs will be touched upon making use of the various sources of data, information and experiences that were shared during discussions and visits – see annex 4 for the methodological approach of this consultancy. It will describe the programmes in general while making references to more detailed information from questionnaires with the NGOs, with AHSPs and with farmers, collated in annexes 6 to 8.

The Terms of Reference for this study included the scheme below. The start was with making an inventory of current AHSP programmes with regard to Input, Output, Outcome and Impact. From this inventory, the consultancy will identify gaps and needs of the current situation. And the last step is to provide suggestions and recommendations for an improved model of primary animal health services in Afghanistan.

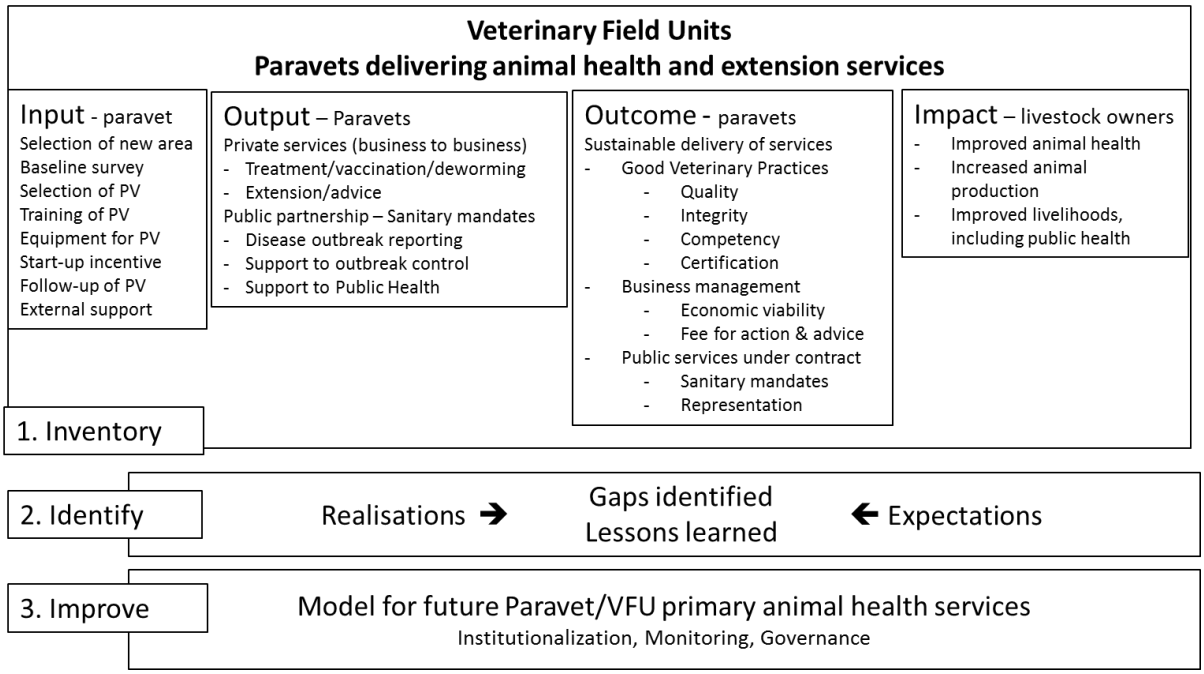


Figure 1. The three-step approach defined for this VFU study

Over the course of this consultancy, a slightly different approach has been taken with regard to the inventory. The position of the AHSP is duplex, involving the provision of primary animal health services to livestock owners of the local community and the provision of services for the AHA under contract.

The first position is a straight-forward position in which the AHSP provide services such as treatment of diseased livestock upon request and asks for fees in return. The feed-back loop of service delivery and remuneration is direct and involves just the livestock owner and the AHSP. In reality, there is more to it, as the AHSP is also trained to inform livestock owners individually or as a group as part of extension activities and remuneration may not directly be generated from these activities. However, as many of the AHSPs interviewed explained, being a source of information and expertise does provide the AHSP with respect of the community and subsequently with possible privileges. .

The second position of the AHSP is a public position and is acting as the 'eyes and ears' of the AHA. Through her/his close contact with the farmer community, the AHSP has access to diseases and disorders and information about livestock population. This information is invaluable for the role of the AH **Authority** with the responsibility and competence for ensuring or supervising the implementation of animal health, welfare and public health measures on the basis of a government-endorsed national policy and strategy on animal health, livestock production and public health.

For this position, the feed-back mechanism is much less direct compared with the position of being a private entrepreneur.

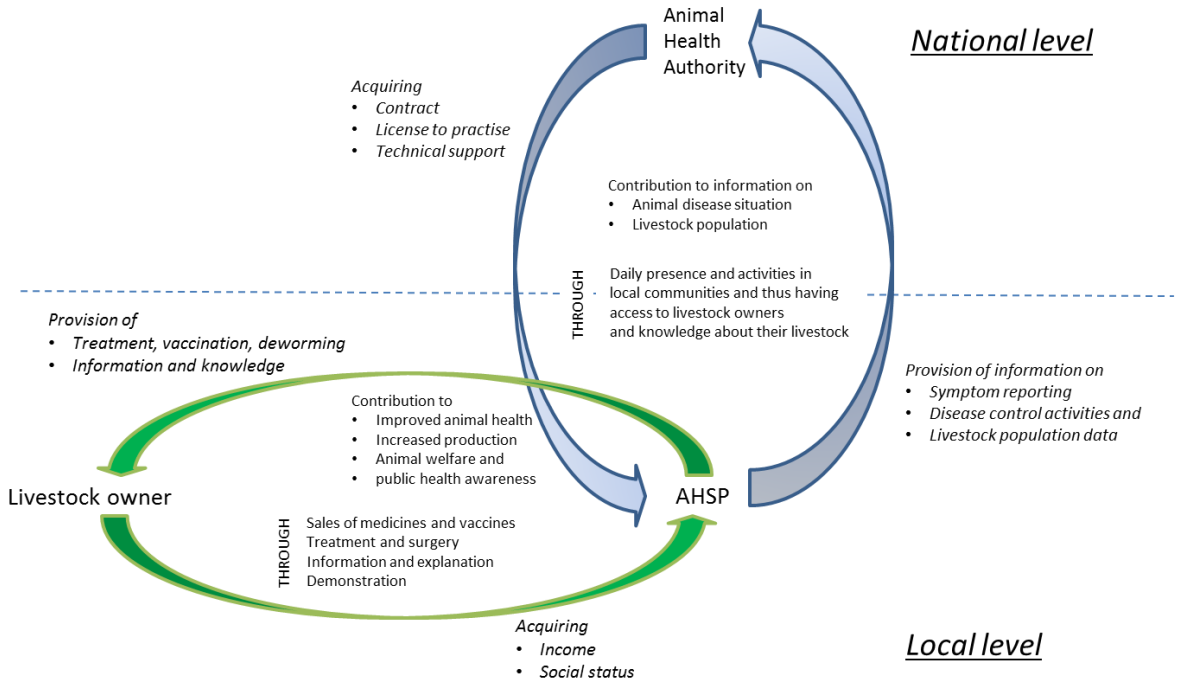


Figure 2 Positions of the AHSP in relation to local community and the national AH Authority

To guide the assessment of the current model of private animal health services (VFU models) at the community level, six main criteria were used based on work by Ana Riviere-Cinnamond (2005). In her study on 'Animal Health Policy and Practice: scaling up community-based animal health systems, lessons learned from human health' six criteria were devised: 1) Human resources 2) Equity, 3) Efficiency, 4) Accessibility, 5) Quality of services and 6) Financial resources.

To assess the current model with regard to the role of AHSPs being the eyes and ears of the AHA, additional criteria will be used: 7) institutionalization, 8) Governance, 9) Coordination and 10) a competent Animal Health Authority. These are further elaborated in Chapter 3.

Chapter 2 - Elements for private animal health services at local level

There are six elements to the private animal health services at local level.

1) Human resources

Under this heading the selection process of new-to-be-trained AHSP, the qualities of the AHSP and the supervision of AHSP are discussed. These elements refer to the ' Input' described in Figure 1.

With different organisations involved in establishing AHSPs across Afghanistan, there is variation in the approaches taken with regard to selection, training, technical backstopping and support of the AHSP. In Annex 6, a summary is given of the data collected through a questionnaire with the NGOs (AKF, DCA, MADERA, Relief International) and FAO. Unfortunately and despite numerous requests and appeals, AVA did not share similar information.

The selection of an AHSP (Paravet) candidate is critical and most NGOs have well established procedures for the selection of candidates. The candidate should be

- able to read and write (having finished Grade 10, preferably grade 12)
- from the local community and familiar with livestock keeping
- supported by the local community
- approved by local authorities including veterinary authority
- shown interest in livestock and working with livestock owners

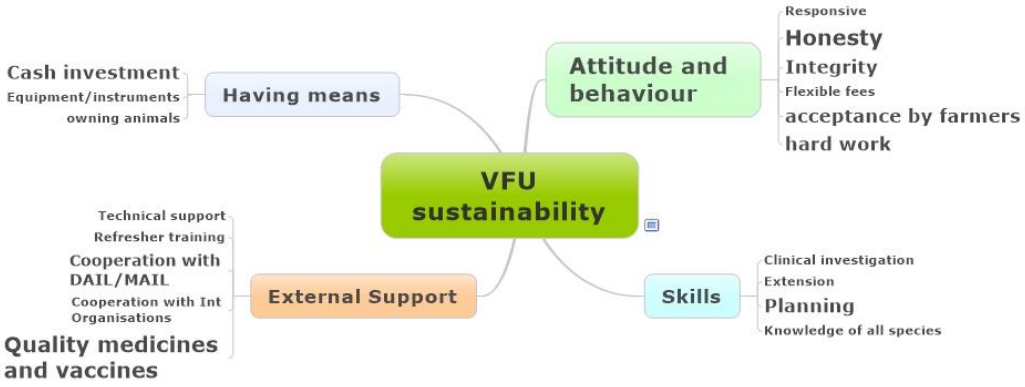
With regard to the location of the new AHSP (Paravet), it requires to consider

- Livestock density – the following number can only serve as indications as other criteria apply as well:
    - more than 10,000 heads of sheep and goats
    - more than 5,000 heads of cattle
- Accessibility, road network and facilities (market, migration routes)
- A nearby AHSP at a distance between 5 and 15 km
- Request from the local community

When discussed with AHSPs and livestock owners (Figure 3), they stressed the importance of the following personal qualities:

- Good behaviour - honesty
- Integrity
- Punctual to appointments made
- Being accepted by the community
- Willingness to work hard

Taking into account that the criteria prioritised by current AHSPs and livestock owners tend to be personal qualities instead of technical ones sought after by NGOs and policymakers, it is obvious that the process of selection requires involving the local community and the local veterinary authorities.



-

Figure 3 Result of mindmapping with AHSP and livestock owners on the question:" What makes an AHSP practice sustainable?"

The initial training is a 6-months Paravet training and NGOs now have their candidates trained by DCA Training Centres (for the curriculum see annex 13). This curriculum is the result of 30 years' experience in Paravet training. It has a strong emphasis on practical training, making sure that candidates have applied their new skills directly on livestock and with livestock owners.

After graduation, AHSPs are equipped with a starting kit. That kit is a real investment as the estimated value is $6,000 including a motorbike and solar-powered refrigerators. However, such equipment is necessary for the AHSP to start his/her business.

The use and sales of the medicines and vaccines provided allow for the AHSP to restock his stock. Unfortunately, to some of the AHSP the concept of having to save for restocking and for maintenance is hard to understand and that is reason why some of the AHSP do not manage to make a good living out of their businesses.

2) Equity

Equity relates to 'fairness' of the AHS delivery in terms of making the AHS readily available and affordable for all livestock owners in rural and remote areas. Equity may be considered in vertical and horizontal dimensions

Vertical equity relates to fairness within the practice area of an AHSP. It reflects upon the livestock owners' ability to pay. It may lead to a situation where richer farmers get more and better services compared to poorer farmers because of their ability to pay more.

Based on the focus group discussions (see Annex 8, livestock owners indicated that the AHSPs are willing to accept delayed payment for services and/or payment-in-kind. While the AHSPs indicated that they apply different fees for services based on the farmer's wealth status (and thus the ability to pay)(see Annex 7).

⇒ However in poorer districts, where livestock owners are less capable to pay, it may have implications on the economic viability and sustainability of the AHSPs. That may be reason to extend the financial support (start-up incentives) of ASHPs doing businesses in areas with a high proportion of very poor livestock owners for an additional period of time (from 2 to 4 years).

With several NGOs and organisations training and supporting AHSPs, it has led to differences in skills and competencies of AHSPs, technical backstopping and provision of equipment. This is aggravated by the absence of collaboration and coordination by the government bodies. As a result, there will be some sort of horizontal inequity. This refers to the situation that within an area, two farmers having the same animal health problem, may receive different treatment and advices from different AHSPs. This is in particular of concern in the face of the ambition to scale up a nationwide uniform 'VFU model'.

⇒ Standardised training curriculum is thus necessary and in recent years this is well accepted by most organisations. The training centres of DCA are considered the standard training of new AHSPs with an initial curriculum of 6 months (Annex 13). However, the further support of new AHSP still has differences between organisations in the way of monitoring, technical backstopping, support for activities and refresher trainings.

3) Efficiency

The general approach of the AHSP in Afghanistan is concentrated on the processes of improving health and contributing to community development (comprehensive primary animal health care).

For some of the AHSP programmes, the AHSP were supported to provide selected activities related to very specific diseases or disorders such as deworming (selective animal health care). ICRC has been supporting 90 AHSPs in war-affected regions for the last 6 years with medicine kits primarily aimed to deworm livestock. This approach is currently, in 2016, scaled down and will cease from 2017 onwards.

A similar selective approach was used with the training and support of Basic Veterinary Workers (BVWs). BVWs were trained for a few weeks and provided with specific kits to deworm and vaccinate in remote areas. Fewer and fewer are still acting as BVWs in Afghanistan as most have now been trained as AHSP.

Current AHSP training can thus be considered as comprehensive animal health care, supporting animal health development in broader terms, including working in concert with other sectors (such as livestock production, extension and raising awareness on public health issues). The majority of current AHSPs in Afghanistan may be considered as agents of change, promoting health and production.

> AHSPs in Afghanistan are agents of change, promoting livestock health and production to support livelihoods in rural and remote areas

Efficiency can also be regarded as technical efficiency of AHSP services to promote animal health and production with benefits to the livestock owners and the local communities. Livestock owners agree that with the presence of AHSPs, that animal health, animal production and even animal welfare have improved considerably (see Annex 8).

Although there may be general consensus that AHSPs contribute to better animal health, production and welfare, relatively few, well designed impact studies have been conducted to evaluate and quantify the level of impact of AHS provision on the morbidity, mortality and production of livestock. Even less studies have been conducted to evaluate the impact on livelihoods such as nutritional

status of families and increase in income. Such impact studies may even go one step further in evaluating the cost-effectiveness or cost-benefit ratio of animal health service through AHSPs.

⇒ It will benefit the NGOs, IO and the AHA to conduct impact assessment studies and cost-benefit ratio or cost-effectiveness studies. These will serve an advocacy purpose with the MAIL and the government of Afghanistan as well as support the claims made in project goals and objectives. Proven and quantified efficiency of the AHSP activities will facilitate extended support from donors for the further roll out of the AHSP model.

Bridging the information gap

Additionally, the AHSP may be considered as bridging the lack in infrastructure and information. Distance to professional animal health centers, if present, is far and beyond most livestock owners. And thus, AHSPs are a mechanism to reduce the transaction costs caused by distance as well as to reduce the information asymmetry. This applies in particular to Afghanistan where district or provincial animal health centres are hardly offering additional professional expertise. The education of DVMs is theoretical in nature, leaving graduates with little tools to practise and apply animal health care.

Figure 4 Result of mindmapping the reasons for training AHSPs extensions skills.

The information bridging works for both the private component of the AHSP's services as well as for supporting the public veterinary services.

The AHSP is trained to explain livestock owners the benefits of preventive measures through vaccinations and strategic deworming. S/he benefits commercially from this promotion as it will increase the demand for her/his services. From the discussions with farmers and AHSPs the concept of preventive animal health treatment seems to be well understood.

Do farmers know the difference between (curative) treatment and prevention through vaccination?	*All groups (22/22) understand the difference between curative treatment and vaccination*

The second information gap bridged through the work of AHSP is to inform the AHA of the presence of symptoms and tentative diseases in their locations. With the AHPS living amongst the livestock

owners, being a livestock owner him/herself, s/he has easy access and trust to information on disease occurrence in time and space. Although AHSP are currently submitting monthly activity reports to the NGOs which forward these to the DAIL and GDAHP, the current AHA is not making use of this information.

4) Accessibility

There are several aspects to accessibility. The most obvious is about the physical distance to ASH services and social distance.

Physical distance

Different from human health care, where patients can use their own or local transport, livestock do not have access to buses or taxis. So, the AHSP makes AHS available to livestock owners in rural and remote areas. This underscores that transport means such as a motorbike are key to enable him/her to provide services.

More than 90% of the AHSPs interviewed indicated to make use of a motorbike to go around. Only 4% used a car and 2% were without a motorbike. The latter category referred to female AHSP that culturally are not accepted to use motorbikes.

> A female AHSP in Bamyan province strongly argued to be provided with a motorbike. She now has to go on foot and can't do as many visited as are requested by livestock owners. She may challenge local custom that doesn't allow women to drive motorbikes, or find a male family member to drive her around.

Physical distance certainly plays a role for the migrating Kuchi populations. With migrations between countries and provinces across barren and unpopulated hill tops, the accessibility of AHS is marginal if not non-existent. DCA has started (under RMLSP and CLAP) to train Kuchi AHSPs and BVWs, organise vaccination and deworming campaigns at strategically locations and establish extension groups in remote Kuchi areas. This is an example to be monitored closely and one that deserves a thorough impact assessment on outcomes such as change in mortality, morbidity and production as well as improvement of livelihoods (nutritional status) and income.

Of the 1001 unique AHSP in a list prepared based on the data provided by the different NGOs, the range of AHSP per district is from 1 to 16 in Behsud 2 (Wardak province). It could not be assessed how many district are without an AHSP. FAO has conducted an inventory of the presence of AHSP and their training level (January 2016). This inventory has pointed 56 (out of 332) districts with no AHSPs.

Table 1 Number of AHSP by region. FAO data 2016.

Region	provinces	districts	district with no AHSP	total AHSP
Central	12	106	27	290
East	4	46	4	139
South	4	26	19	110
North	9	109	2	311
West	5	45	4	154
total	**34**	**332**	**56**	**1004**

It may be preliminary to jump to conclude that these 56 districts need to be fill in with AHSP as it will depend on the livestock population density, the accessibility and security of these districts.

Social distance

Social distance relates to differences in services due to gender, wealth (discussed under equity), ethnicity and variations between education for example between herders (Kuchi) and AHSPs. Social distance may play an inhibiting role for the accessibility of services.

For certain in the Afghan situation, the social distance because of gender is important to reflect upon. Male AHSP can't enter a premise with the male owner not at home. Thus, although the female owner may tend the livestock more intensively and are better placed to recognise animal ill-health early than the male owner, a male AHSP can't communicate with her directly.

This is reason why a number of NGOs are stressing the importance of training female AHSPs and putting an effort into training female extension workers to support female extension groups. A certain balance of male and female ASHPs will be needed as female AHSPs may not be accepted with some Afghan communities.

5) Quality of services

Quality of medicines and vaccines

This issue has been addressed in most if not all discussions with livestock owners, AHSPs, NGOs and the AHA. There is general concern of the widespread availability of low-quality or even fake medicines, vaccines and other biological in bazaars and markets. It was therefore surprising to find out that there seems to be no activities in place to counter the issue.

The veterinary authority is mandated to (referring to the Draft Animal Health and Veterinary Public Health Act, 22 November 2015, see Annex 11):

> 16. The imposition of sanitary measures to regulate the import of live animals, commodities and controlled articles;
> 17. The, pre-clearance inspections of animals, animal products and biological substances, to take place at any location other than the port of entry, and/or outside of regular business hours;
> 20. The inspection, sampling and examination animals, animal products, biological materials or controlled articles for import or export

Use of low-quality is not only potentially harmful for livestock as it will not restore health, it will also have an impact on the understanding of medicine use and its dosage. It can be easily understood that with low-quality medicine widely available, livestock owners may experiment with dosages and combinations of medicines. These approaches will aggravate the likelihood of antimicrobial resistance development and residues in animal products.

Selling drugs is an important part of the activities and income of AHSP. Given this reliance, AHSPs they may be inclined to increase income by selling more and unnecessary, potentially undermining their credibility and integrity.

In numerous discussions with farmers and AHSPs, it was stressed that for an AHSP to remain and establish an economic viable business, honesty and integrity were very important characteristics. Honesty was referred to as being punctual with time, provide clear instructions and advice. Integrity was referred to as treating livestock as to the AHSP's best knowledge and experience and to avoid over- or unnecessary use of medicines.

But as medicines and vaccines are widely available, livestock owners inquire with the AHSP and subsequently buy medicines and vaccines at the bazaars and markets. This may and will occur even if livestock owners recognise that drugs sold by the AHSP are of better quality than those available in the bazaars.

From the NGO questionnaire – see Annex 6, it was indicated that for some NGOs, the majority of drugs were purchased from local market or bazaar. An exception is with DCA and Relief International who both indicated that the bulk of vaccines and medicines are purchased through VetServ.

VetServ is a privatized company that was established as a branch of DCA to import quality vaccines and drugs from Malaysia, The Netherlands and Russia. It is now a well-recognised and valued company with 7 distribution points across Afghanistan. Through its distribution network, it safeguards the cold-chain requirements essential.

All stakeholders agreed that the availability and use of quality medicines and vaccines is of utmost importance. Use of low-quality or even fake medicines will increase inappropriate use of antibiotics and thus aggravate antimicrobial resistance.

The competent AHA is to act fast.

It is example of an NGO activity that has matured, been disconnected from the NGO to pursue an independent position in the private market. More of such examples with regard to governance are required to fully establish private AHS in Afghanistan.

Quality of services provided

At GDAHP, there is a tendency to doubt the quality of the services provided by the AHSPs. The arguments are that AHSP are not trained DVMs and thus haven't the theoretical education to perform animal health services. By contrast, NGO representatives and organisations working in the communities indicate that the AHSPs are extremely helpful in alleviating the need for animal disease control and do contribute substantially to the development of local communities.

The discussion seems to be around the contrast between theoretical knowledge and practical experience. During one of the AHSP group discussions in the provinces, there were two AHSPs working in partnership. One had a DVM degree, the other was trained as Paravet. Over the years, they had gained respect of their counterpart. The DVM was able to provide theoretical background and explanation on diseases whereas the Paravet shared practical experience on seasonal occurrence and farmers' approaches to health and disease. They agreed that their partnership was more than the sum of their individual capacities.

There is large variation in competencies, skills and practices of AHSPs. Some are doing very well, and have the competencies and skills to motivate livestock owners to apply measures to prevent clinical disease such as vaccination and deworming. They know to convince livestock owners to refurbish the housing for their livestock, to establish fodder banks for winter season and to apply better

hygiene and sanitation in dealing with their livestock. On the other side of the spectrum are AHSPs that cannot make a living out of their private services, have difficulties to convince farmers to pay for their services and lack the skills to manage their business.

The differences in skills and competencies of AHSPs seem to depend not only on differences between the individual AHSPs but also on the variation of the actual support provided by the NGOs. In the meetings with AHSPs in the districts and provinces, AVA-AHSPs seem to be the least well established and complained most about difficulties to make a living and the lack of support. This may be the result of AVA being involved in 'privatizing' former government clinics. Around 140 former government employees have been trained and equipped (2008/2009) to become private vets similar to AHSPs. However, their choice to do so was a different choice from someone in a local community that was offered the opportunity to be trained as paravet and make a living out of being an AHSP.

The variation in skills and competencies is illustrated in this image. It depicts the variation as a distribution with on the left side in red, the 5-15% of AHSPs that face difficulties to sustain. The middle blue bars are the average group of AHSPs that come by, while on the right side are the 5-15% AHSPs that very well know how to make a living out of their services.

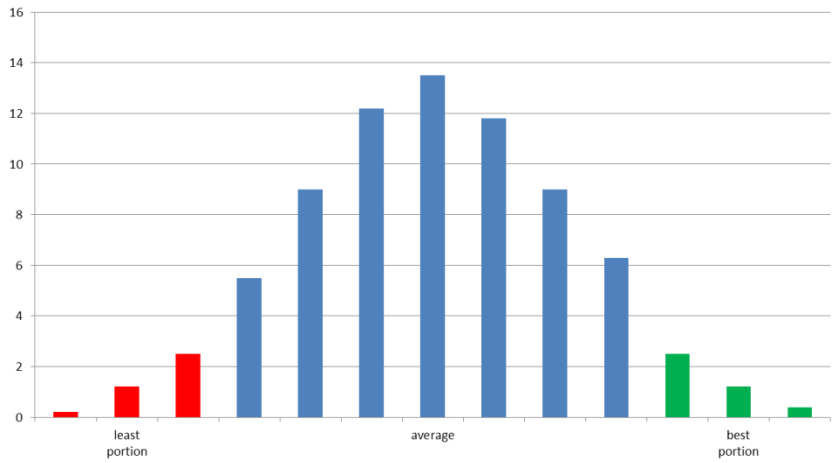


Figure 5 Imaginary distribution of skills and competencies of AHSPs

For the further discussion on the AHSP model for the future, it is important to keep this image in mind: Accepting that there is large variation in skills and competencies. For the future, this is something to make best use of.

When looking at animal health service provision from the perspective of livestock owners, it is clearly appreciated. Livestock owners value both curative and preventive services and understand the importance of preventive measures such as vaccination and strategic deworming. They indicated that extension activities through extension groups, Farmer Field Schools, Farmer Field Days are extremely useful. They acquire a better understanding on what they as individual farmers as well as a farmer community can do to improve health, production and welfare of their livestock. In addition, a lot of reference was made about the importance of zoonotic disease risks and the value of good hygiene and sanitation for their children and families.

6) Financial resources

Under this subject, two issues are important. The economic viability of the private entrepreneur refers to the capacity of the individual AHSP to make a living out of his/her activities. The financial sustainability refers to the flow of funds in the long run and considers the funding mechanisms that

help enhance the government's capacity to generate sustainable and more predictable budgets to be allocated to Animal Health.

Economic viability

Over the years, there have been a number of evaluation and assessment studies. These studies focused on the position and sustainability of the AHSP activities and their conclusions were as diverse as the skills and competencies of the AHSPs. These studies are each summarized and presented in Annex 9.

With regard to economic viability, some points of interest are given here:

FAO - 2013

- The standard formula for fees charged to clients: 15-20% markup + transport + consumables. However, this seems not enough to keep the business running economically viable (maintenance, replacement)
- AHSP accept in-kind and occasionally extend credit to clients
- Successful AHSP have multiple income streams (shop, AI, trading)
- Most clients are willing to pay
- 33% AHSPs felt successful in their job, 60% judged their quality of life 'much improved'

WorldBank – 2010

- No reliable information on income, as AHSPs being afraid of being taxed or no longer being eligible for support
- Fee-for-service seems a difficult concept for farmer as it is not tangible
- AHSPs don't see reason to keep financial records as business and private are intertwined

EuropeAid – 2010

- 87% farmers had visited clinic at least once during last 12 months. Nearly 50% had visited between 2 and 5 times, and one-third 5 times or more. Women visited AHSP three times on average
- 82% of farmers qualified skills and performance of AHSP as professional
- 75% of farmers consider quality of medicines and vaccines as (very) good
- AHSP understands very well how to assess quality of medicines and vaccines (absence of cold chain, expiry date, origin, absence of professional advise). However, still 81% buy medicines and 52% buy vaccines from local bazaar.
- Average gross monthly income for May 2010 was 241USD with a wish to increase by 43% over next 12 months.
- Provision of extension services were contributing to a large part of the increase in income seen. Other activities to increase range of services and (indirectly) boost income are AI, pregnancy testing, cashmere and wool harvesting, animal nutrition and nutritional supplements

USAID 2008

- Current monthly income 5062Afs (low months 2566, high months 8124), target is 2.8 times higher: 14.311Afs/month
- 40% income from vaccinations (36% of time)

- 57% clients pay cash, 35% pay on credit, rest in kind
- 26% of income is spend on rent
- Other sources of income: livestock, vegetables, fruits, wheat and rice growing

In the questionnaire under 228 AHSPs (Annex 7), information was asked about what the income allowed them to do or support (Figure 5) and the proportional income from different activities (Figure 6).

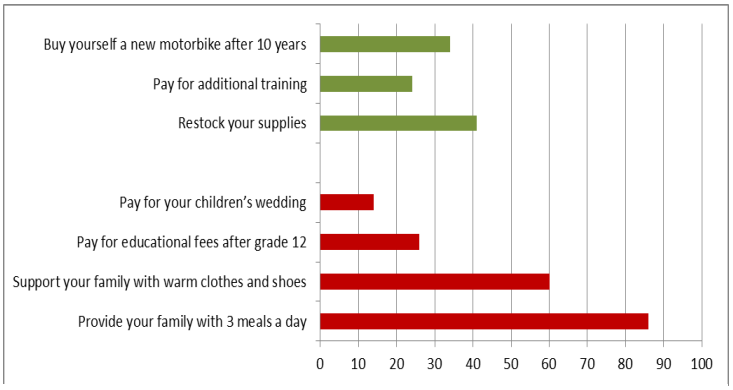


Figure 6 Proportion of AHSP indicating what their income allowed them to support.

It is not simple to draw conclusions from this study and the studies previously conducted. There are not accurate data on sales and expenses available for various reasons (there is no interest to keep private and business separate and there is mistrust in sharing data on sales and expenses).

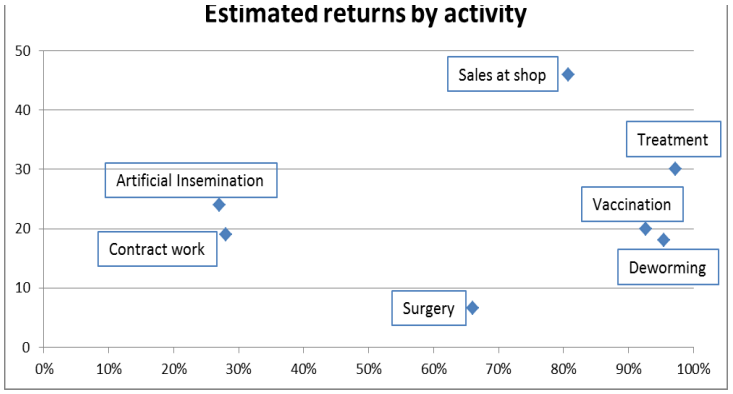


Figure 7 Scatter of percentage of AHSPs (X-axis) involved in activities generating what percentage (Y-axis) of their income.

However, it seems reasonable to conclude that there is large variation between AHSPs in the way they try to make a living out of their activities. There is a certain proportion of AHSPs that have difficulty to recover sufficient net income to replenish original drug stocks and maintain their equipment, motorbike included.

By contrast, there seems to be a good understanding with livestock owners that the AHSP needs to be paid for his/her services. This may be considered an important achievement of the long years in which supporting organisations have cut back on the financial support and have closely monitored and trained AHSP on their business skills.

At the same time, NGOs and IOs tend to continue to support some of the activities such as reporting and extension activities with monetary incentives. These incentives vary between 1000 and 4000 Afs per month for a variety of activities (monthly reporting on activities, extension groups, Farmer Field Schools, DTP)(see Annex 6). It does need to be emphasized that support on extension activities are making sense as these activities take considerable time with no direct returns.

Having said this, AHSPs very well understand the longer-term benefits of these extension activities as they all see the indirect benefits of extending their clientele and having the platform to demonstrate their knowledge and expertise.

In the numerous discussions with AHSPs and farmers, it became clear that the rewards for the AHSP go beyond monetary rewards. Through the training and increasing experience over time, the AHSP gets a status within the community in respect of health and production on livestock. In particular, for AHSPs that were trained in extension skills additionally, this applied even more. Through their extension skills they were/are more capable of explaining the context of livestock becoming diseased or production being low.

The motivation to continue work as an AHSP is therefore related to perceived rewards and to feedback. Feedback is achieved by having a system that allows the AHSP to have regular and direct contact with a local professional supervisor. That can be either someone with a DVM degree or someone that has proven to be knowledgeable about the technical aspects of veterinary services and livestock production. Additionally, for the AHSP to be evaluated regularly and to be provided with (or have access to) continued training.

This is currently applied by a number of NGOs. These NGOs put a lot of efforts in monthly monitoring (technical backstopping) with AHSPs as well as providing refresher courses numerous times a year. AHSPs very much appreciate both approaches not least because it allows them to remain in contact with the supporting NGO and with their peers.

In annex 11, the business model of the private AHSP is further detailed along the lines of Key partners, Key resources, Key activities, Value propositions, Channels and Relations, Costs and Revenue streams. The same model is filled out for an AHSP working under contract for the competent AHA. Comparing these two business models make clear that with each client type comes different models.

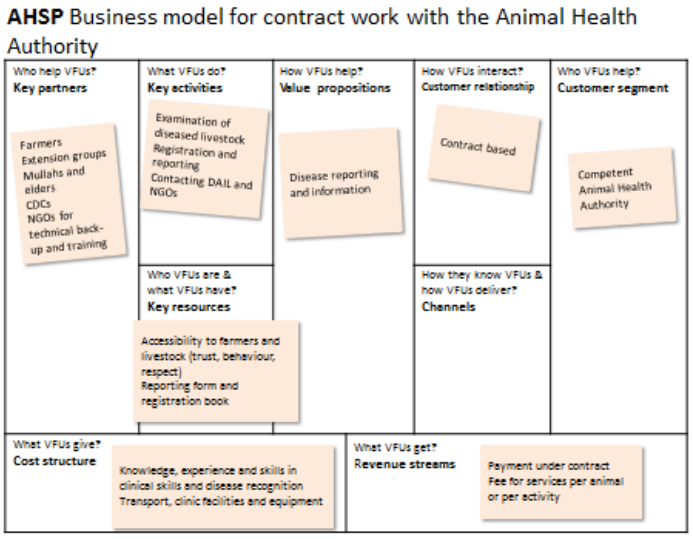


Figure 8 Business model for activities under contract with the AHA

AHSPs can even think of additional activities to supplement their income. In addition to artificial insemination, pregnancy testing, surgery and laboratory testing, they may provide livestock population data to the AHA. With their close connection with local livestock communities, they have easy access to data on number, species, age and purpose of livestock which is of great value to the AHA. In the next text box

Textbox 1 Preliminary ideas on the collection of livestock population data

Livestock population data are only available from a study by FAO in 2003, data that may well be out-dated. It is therefore recommended to make use of existing AHSP to conduct a livestock population count. This can be conducted in two levels.

1) For the AHSP to collect the livestock population data (by species, by age-category (under 12 months, 12 months and above) from the local authorities (CDC), through farmer extension groups or by going around farm by farm. Data need to be collected per village or CDC with details on species and age categories per species.
2) Or for the AHSP to collect data on the total number of livestock owners per village/community. Most of the livestock owners in rural communities have a rather constant number of livestock (of course with variations because of a offspring season and a season in which livestock are sold) and the number of livestock owners per unit of time and space is changing very little.
    a. Where appropriate, livestock owners can be categorized into
        i. Small holder
        ii. Semi-commercial (categorized into beef, dairy, sheep and/or goats)
        iii. Commercial (categorized into beef, dairy, sheep and/or goats)
    b. Next, one (at central level) can use an average number of livestock per livestock owner per category to estimate the total livestock population per community. If large variation may exist between areas or regions, this can be accounted for by using averages by areas or regions.

Financial sustainability

Where economic viability refers to the immediate availability of funds, financial sustainability focuses on the flow of funds in the long run. Funds that ascertain the continued technical backstopping and refresher training of existing AHSPs as well as the further extension of provision of AHSPs in those areas that are not yet covered.

In the current situation, GDAHP is not involved in expanding further training and backstopping of new AHSPs. This position has all the years been taken by the NGOs with support from the multi-annual donor projects. That makes financial sustainability uncertain because when these project fundings end, or when the NGO ceases to work in Afghanistan, the long-term support to the AHSP training and monitoring will come to an end if the AHA has not included such in their budget.

Concurrently, in discussions with GDAHP and RMLSP staff, it was indicated that the Minister of MAIL and the Government of Afghanistan seemingly value the improvement of livestock health and production as a low priority. Apparently, GDAHP has difficulties to advocate the importance of healthy and productive livestock to support sustainable and prospering livelihoods in rural and remote areas. Consequently, there is little budget and funds on improving livestock health and production.

And although the approach of private services delivery has been established for more than two decades in Afghanistan, there is relatively little documentation on the impact of these services on livestock health and production, and on livelihoods. DCA has conducted a number research studies including a cost-benefit calculation in the nineties (Schreuder et al., 1996, Schreuder et al., 2004) and indicated it did an impact study on mortality and off-farm sales in Herat province recently (Dr Fakhri, personal communication). Relief International indicated to be in the process of compiling

such impact study. MADERA provided the consultant with an internal report assessing the acceptance and appreciation of the private services by the livestock owners while FAO had conducted some assessment studies of their dairy improvement projects. These did not really focus on the contribution of AHSP activities on animal health, animal production and livelihoods.

So, well-designed studies, demonstrating the direct and indirect benefit of primary animal health care on animal health, production, welfare and eventually the further development of rural communities, are necessary to demonstrate the short- and long-term impact of the private AHS on livestock health and production, and on livelihoods. This may help to secure sufficient budget and funds for the GDAHP to further extend the AHSP network and system.

Additionally, for the AHSPs position to become sustainable, it will require the AHA to embed primary animal health care as part of the policy and strategy on disease surveillance, response and control. This is reason why in chapter 4, emphasis is put on the need for a policy and strategy on animal health, on institutionalization, (self) governance and on coordination between key stakeholders, including representations of the AHSPs.

Chapter 3 - The AHSP providing support to the Animal Health Authority

In addition to her/his role of providing animal health services to livestock owners, the AHSP may have a role in supporting the Animal Health Authority on disease surveillance, response and control. The role of the AHSP is thus extended as 'eyes and ears' on disease (or better to say symptom) reporting and a 'first actor in line' on disease control.

In this chapter, the public role of the AHSP is discussed based on the current situation, the ongoing support to strengthen the GDAHP functionality and the requirements to embed the AHSPs into the Public Animal Health Services.

When considering the framework of the private and public services of the AHSP (see Figure 10), the ASHP may have dual commitments to his/her own community as well as to the overarching national animal health services. The combination of these two may pose conflict of interest. In the example of disease (or better to say, symptom) reporting, the community may perceive adverse sanctions as a result of the AHSP reporting. This is clear in the case of HPAI where the common response is to kill affected and potentially nearby poultry. This is well-meant as to reduce the impact on human health although the livestock owners affected may not directly see it that way. And even within the private service delivery as a private entrepreneur, there may be conflicting interests. Think of preventative and extension services compared with the main source of the AHSP's income (treatment of diseased livestock and sales of drugs). Outbreaks of FMD are situations where the AHSP is doing business by treating affected livestock and selling supportive drugs, although timely and well-applied vaccination may have prevented the outbreak in the first place.

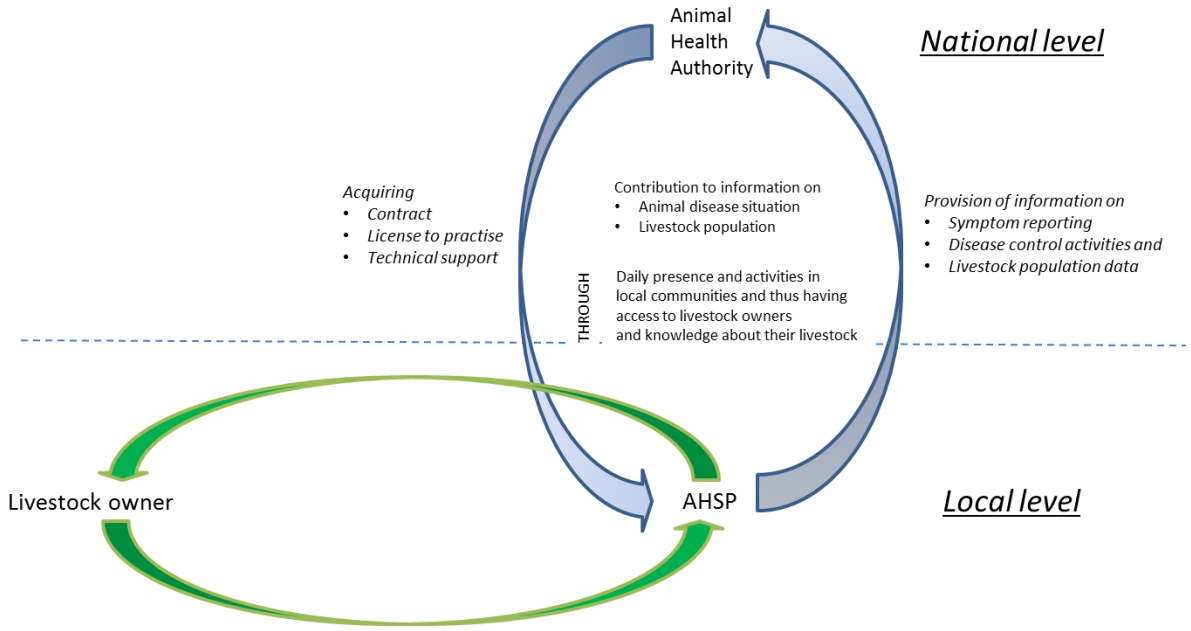


Figure 9 Image depicting the position of the AHSP in relation to the Animal Health Authority.

The two linkages that an AHSP has with its own community and the national community at large, reflects the AHSP's accountability and the AHSP's sustainability. Of these two linkages, it seems reasonable to suggest that the primary interest of the AHSP is with the local community. The feedback loop for a private service delivery (such as treatment, vaccination or surgery) is very direct both for the provider (the AHSP) and for the receiver (the livestock owner).

It thus requires of the AHA to be very clear on the role and responsibilities expected from AHSPs and vice versa to be very clear on their own role and responsibilities. This reiterates the need institutionalisation and self-governance of the AHSPs.

A number of conditions required to safeguard the functioning of a private entrepreneur as an element of public veterinary services will be discussed. These conditions will be discussed along the lines of

- Institutionalization
- Coordination
- Governance
- A competent Animal Health Authority

The background for discussing these conditions is related to the need for up-scaling the private-public mechanism of primary animal health services. These will require support and changes across the public animal health services as well as with regard to the role of the supporting NGOs and IOs.

7) Institutionalization

Institutionalization is ensuring that private animal health service provision through the AHSP is taken up in the overall structure of the private and public animal health services. This requires recognition and acknowledgement of AHSPs as integral players of implementation of animal health policy and strategy. And second, it needs to be lawfully approved and endorsed in the regulations and procedures of the AH-VPH Act.

At the time of writing, no National Animal Health Policy and Strategy (NAHP+S) is available but is very much sought after. The NAHP+S, with legal support based on the AH and VPH Act, is important to re-structure the current GDAHP into the competent Animal Health Authority. Additionally, the NAHP+S is needed to define and structure the planning and activities of the AHA and subsequently to relate donor funding and related projects and programmes with the long-term agenda of further development and improvement of animal health services and production in Afghanistan. In text box 1on the next page, a summary is given of the outcome of the conference on Livestock Sector Strategy Development (February 2016).

Additionally, the recently-closed AHDP project has done a lot to improve the functionality of the GDAHP. Some quotes from the final AHDP workshop are given in textbox 2.

Both textboxes serve to underwrite that there is a need for changing the current GDAHP into a competent Animal Health Authority and that ground work has been done and is currently underway. In line with these developments is the current process of endorsing the AH+VPH Act. This act is clear about the role and responsibilities of the MAIL, the AHA, the Veterinary (Statutory) Body. Thus with

the ratification of this Act in process, there will be a legal framework to re-structuring the GDAHP into an competent AHA and further institutionalize the AHSPs.

Textbox 2 Summary of highlights related to animal health of the conference on Livestock Sector Strategy Development, February 2016.

In February 2016, a start was made with developing a Livestock Sector Strategy based upon a three-day conference organised by DCA, FAO and MAIL. It discussed 6 main strategic issues, including low productivity of the livestock sector. Under this strategic issue, one of the strategies defined was to improve animal disease and pest control with the following activities listed:

- Animal diseases surveillance
- Vaccinations
- Animal movement control
- Vector and pest control
- Review tick control strategy
- Capacity building

In addition, this conference highlighted the need to

- Support demand driven livestock research and extension service
    - Build capacity of GDAH&P to provide e-extension services
- Conduct livestock Census
- Improve livestock Disease control
    - Develop disease- specific contingency plan and review the plan annually
    - Carry out animal disease surveillance
    - Promote domestic vaccine production
    - Promote quality vaccine importing
    - Carry out national vaccination campaign for the national disease control
    - Build the capacity of GDAH&P staff to provide quality assurance services
- Transform key livestock institutions into entities that facilitate growth
    - Upgrading GDAH&P monitoring and evaluation unit to a separate directorate
- Create new institutions to bridge service gaps
    - Establish livestock advisory Body
    - Establish animal health board
- Strengthen capacity for monitoring and evaluation
    - Assess the capacity of GDAH&P to carry out monitoring and evaluation activities
    - Develop and implement programs to build M&E capacity within GDAH&P
    - Develop a dissemination and feedback mechanism to improve decision making'
- Improvement service delivery to Kuchis (Nomads):
    - Recruit and Training of Special Extension worker to work with Kuchis
    - Training of par- veterinarians from Kuchi communities
- Emergency Preparedness
    - Enhance early warning and response systems
    - Develop emergency livestock off-take strategy
    - Establish a restocking and enterprise development fund
- Restructuring of Organization Proposed

Textbox 3 Excerpt of the final AHDP workshop - 16 February 2016.

For the last 10 years, the functionality of the GDAHP was enhanced with work on

- Legislation (with a draft submitted in November 2015. When approved, the next step is to complete legislation with regulations and procedures)
- Directorate organogram, staffing plan and job descriptions
- Support for planning, management and budget needs
- Support on information management: data collection, analysis and reporting

It was stated that

> *"A strong Animal Health Directorate provides effective regulation and disease control services: to strengthen the livestock sector, to improve the livelihoods and health, of animals and people"*

And the mission of the GDAHP is

> *"to maintain an effective system for the national network of veterinary diagnostic, disease control, vaccine production and regulatory services necessary to ensure the health of animals and safe animal products"*

Obviously a lot of work needs to be done to further this policy and to ascertain that this policy and strategy is embedded in the vision and strategy of the Ministry of Agriculture, Irrigation and Livestock (MAIL) and be endorsed by the Afghan government.

⇒ For the further institutionalization of private and public animal health services, it is proposed to consider two additional independent bodies:

- Veterinary Statutory Body
- National AHSP association

In the AH-VPH Act the Veterinary Statutory Body (VSB) is defined as the autonomous regulatory body for veterinarians and veterinary para-professionals. The VSB is autonomous from any political or commercial interests and can

- ensure the excellence of the veterinary profession through appropriately license or register veterinary professionals
- provide minimum standards for initial and continuing education and professional conduct

⇒Additionally, it is recommended to support the establishing of a national AHSP association to safeguard that AHSPs at local levels are well represented in discussions on policy making with regard to private animal health services. Currently that position is taken by NGOs. However given that the mandate of NGOs is temporary, there is a need to look beyond the presence of NGOs in Afghanistan. An important responsibility for these entities is to set the requirement for licensing and accreditation of AHSP professionals and to safeguard that licensing and accreditation are taking up in the regulations of the AH and PP Act. More about the role and responsibilities of the AHSP association will be discussed under 8) Governance and in annex 5.

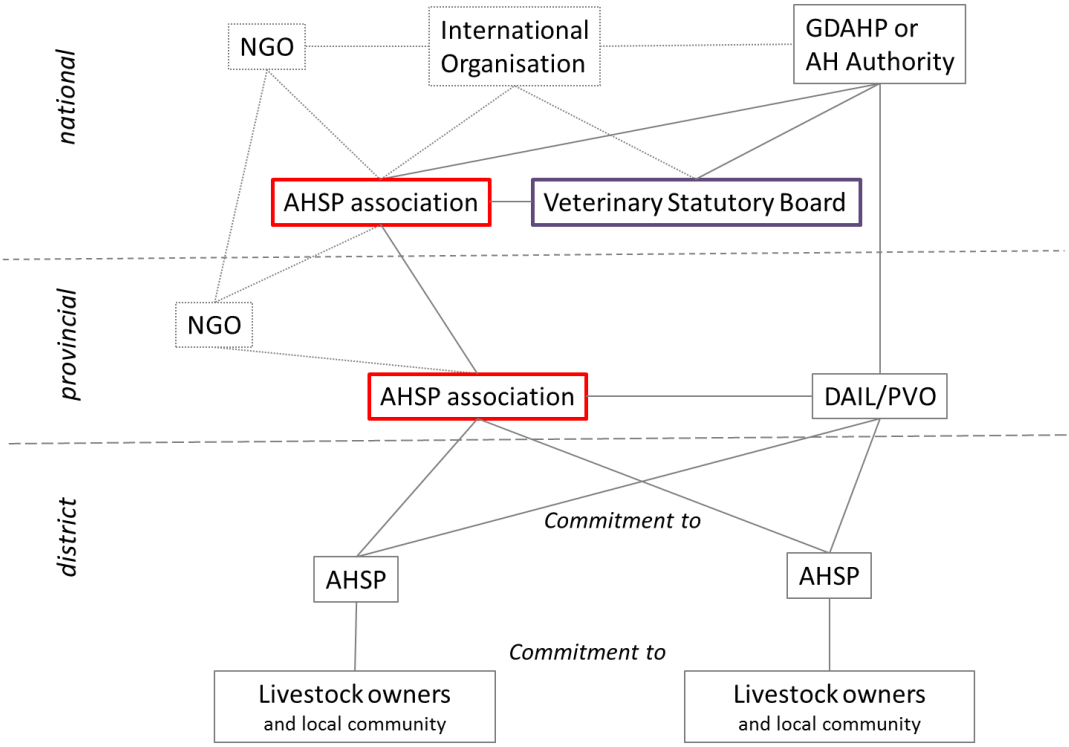


Figure 10 Scheme of the positions of the AHSP Association and the Veterinary Statutory Body.

8) Governance

Governance is to make the system of private animal health services functional as integral part of the overall animal health services (mandate of the AHA) through establishing of policies and continued monitoring of proper implementation by its members. A national AHSP association is the most obvious starting point. The association has a role to define mechanisms that balances the power of its members with associated accountability, and has the primary duty of enhancing the prosperity and viability of AHSP businesses.

Unfortunately, the current AVA is not considered to play this role of an association. This is the opinion of persons spoken to ranging from AHSPs in the districts to veterinary officials in the GDAHP. AVA seems too much involved in implementing activities (training of AHSPs, import of medicines and vaccines). There are no activities to strengthen self-reliance and governance of AHSPs at local or national level. In Figure 13, the expectations of AHSPs with regard to an AHSP association are given, based on brainstorm discussions in the provinces.

Currently, when it comes to contracted work of AHSPs (SMCS, NBCP), conditions and requirements are discussed between GDAHP, IOs and NGOs with no direct involvement of AHSPs.

⇒It is recommended to empower AHSPs from a local level upwards. Thus to support local AHSP associations (province level) with the responsibilities to be an

- Actor on improving and developing animal health, production, welfare and public health by private service providers
- Promoter of independent and economic viable positions for the AHSPs

- Facilitator of collaboration between partners representing private, public veterinary and human health care

Figure 11 Brainstorm by AHSPs on what is expected from an AHSP association.

9) Coordination

Based on numerous discussions with staff at the GDAHP, NGO and IO representatives, it became clear that there is a lack of coordination of the NGO and IO projects & programmes and the activities of the GDAHP. Although, there are regular coordinative meetings, these do not provide the backup and framework for those working in the field of training and support to private animal health services delivery that is sought after. As a result, many organisations work their own way resulting in the current situation where there are numerous and different AHSP models in place.

Strong leadership and a clear vision are required to allow for coordination. To support strong leadership, roles and responsibilities of staff members of the various departments of the GDAHP need to be defined and agreed upon.

10) A competent Animal Health Authority

The need for coordination and steering also applies to the situation within the GDAHP between the different departments. Data and information from the field are scattered amongst the various departments with no central coordination.

The importance of feedback as discussed under economic viability of private animal health services (chapter 2) also applies to the work under contract as part of the Public Animal Health Services. Examples are with the SMCS, the NBCP and soon to be the vaccination against FMD and PPR. Additionally, all AHSPs submit monthly reports on number of livestock vaccinated and treated. These reports go to the supporting NGOs who in turn forward these reports to the provincial offices of the veterinary services. At provincial level, these reports are collated and subsequently forwarded to the CED at GDAHP.

At central level however, no further validation and analysis seem to be conducted. Valuable data that potentially could support decision making is not processed. For example, based on the location of the AHSP maps can be produced to indicate the level of activity (vaccination, treatment) against certain putative disease reports (Anthrax, FMD, enterotoxemia).

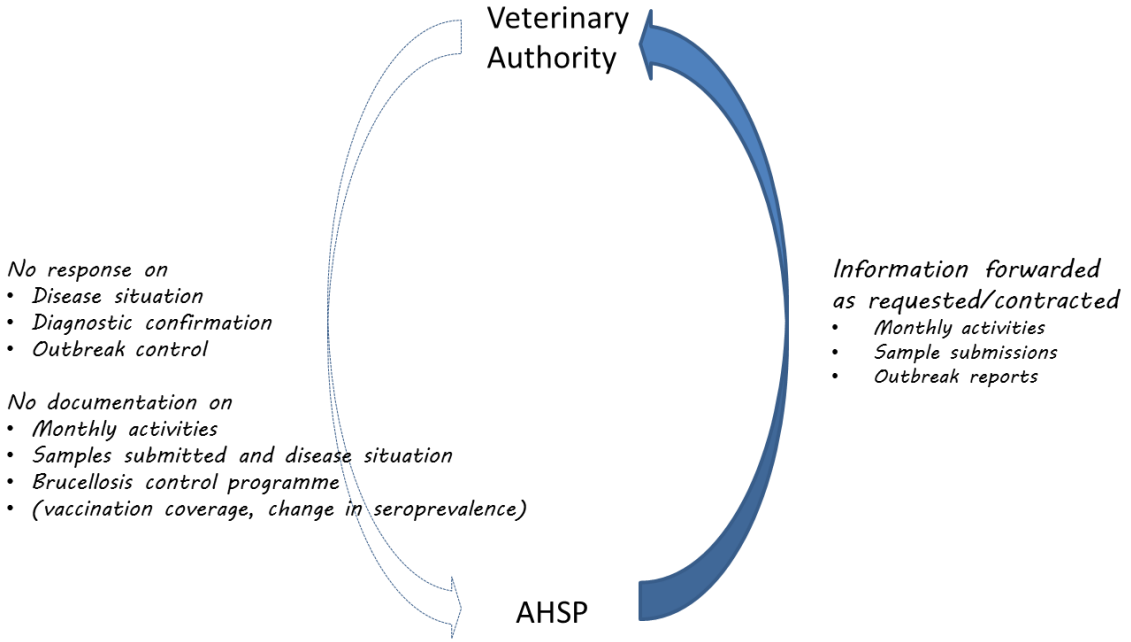


Figure 12 Interrupted feedback loop for AHSP services in support of the Animal Health Authority.

With regard to contracted work under the SMCS and NBCP, between 20 and 30% of the AHSPs are involved. Under the SMCS, some 200 AHSPs submit samples and outbreak reports every month for the last 2-3 years. In the presentation on sample submission under SMCS (final AHSP workshop 16 February 2016) it was indicated that under 50% of samples submitted were of sufficient quality and quantity to be tested and that less than 20% samples submitted provided any information on animal diseases. This was also underscored by the responses to the questionnaire amongst AHSPs in which fewer than 20% indicated to have heard back from the AHA upon submission of samples and reports. Potentially, the SMCS can be very useful for the GDAHP to have an understanding on the occurrence of animal disorders in various production systems and locations of Afghanistan.

For the NBCP there is no dissemination of information on key parameters NBCP such as vaccination coverage, vaccination effectiveness and changes in seroprevalence (in human and in livestock) are at hand. This is unfortunate because lacking such feedback, there is little to no motivation for AHSPs contracted to improve on their performances.

For example on vaccination coverage, there are simple tools developed (see WHO – EPI coverage survey - http://apps.who.int/iris/bitstream/10665/70184/7/WHO_IVB_08.07_eng.pdf) that allows to estimate vaccination coverage based upon interviews with livestock owners. As such this approach circumvents the issue of not having livestock population data.

The monitoring of AHSP's work on the SMCS and the NBCP is restricted to haphazard visits of PVOs and sometimes staff of GDAHP to the work locations of AHSPs. These visits are not documented (and thus analysed over a period of time) and are limited to direct feedback to the visited AHSP. AHSPs not being visited do not benefit from such monitoring visits.

This attitude from the side of the public animal health services leaves the AHSP unclear about what is really expected from his/her activities with regard to national disease surveillance and control programmes. While concurrently, all AHSPs spoken to made it very clear that they expect leadership and technical support from the veterinary authorities (be it from provincial or from central level).

Thus although contracted work is welcomed by AHSPs as an additional source of income, it seems not to support the GDAHP on decision making about directions to disease surveillance, response and control. And as there is no feedback to the AHSP, there is little to no motivation for the AHSP to submit accurate, complete and timely samples or reports.

The reason behind this inaptitude at central level is not clearly understood but may to be related to a combination of lack of competency and lack of interest.

This leads to the conclusion that the GDAHP capacity to monitor and evaluate its own activities (self-reflection) is weak. As a result, it seems that there is little to no informed decision making with regard to disease prioritisation, surveillance and disease control.

Chapter 4 – Recommendations for the AHSP model of the future

The selection procedure for new AHSPs (Paravets) should follow the current applied selection criteria including

1) Preferably someone with 12th grade or higher, however in some situations no such persons are available and then the criteria is to have someone that is able to read and write (10th grade).
2) Someone that is from the community where there is a need for an AHSP and where the local authorities have requested to train and support an AHSP
3) The person selected should also be approved by the DAIL office
4) And have an interest in livestock (and preferably own some livestock him/herself)

With regard to the location, it is important to consider

- Sufficient livestock (cattle, sheep and goats) around. Although hard to set a target, something around 10.000 to 15.000 heads of livestock will provide sufficient base for an AHSP
- Facilities such as markets and roads and Kuchi trails are favourable for the economic viability of the AHSP business
- A neighbouring AHSP at a distance of (minimally) 10-15 km, dependent on the livestock density.
- The proximity of other AHSPs is advised as a means to facilitate peer-support and peer-monitoring in later stages, see next chapter

The initial training has to be minimally the 6-months paravet training as currently provided by the DCA training centres with a curriculum very much adapted to the needs of new graduates and including a lot of practical exercises and applications – see Annex 13. In this curriculum, there is 144 hours practical work and 12 hours traineeship foreseen.

This is not excluding Veterinary Technical Assistants (officially 2 years education) and DVMs (officially 5 years university education) from becoming private entrepreneurs delivering animal health services.

Upon graduation the AHSP is provided with a starting kit and with materials to equip a small clinic. The supporting NGOs have slightly different materials in these kits, most important is the provision of materials (instruments, equipment, utensils and medicines and drugs) that allows the AHSP to get his/her business started. For most NGOs this includes the provision of a motorbike, a solar-run refrigerator and some office furniture and cupboards. The estimated expenses for these materials are between 4000 and 6000 USD per AHSP (based on the NGO questionnaire, issued February 2016).

Continued backstopping and refresher trainings to have the license to practise

Once the AHSP is delivering services, a close follow-up is needed in particular in the first years of being an AHSP. Although drop-out rates are rather small, the reasons for AHSPs to stop their business are that they face difficulties to replace their stock and to maintain their motorbike and other equipment that wears out (see figure 8).

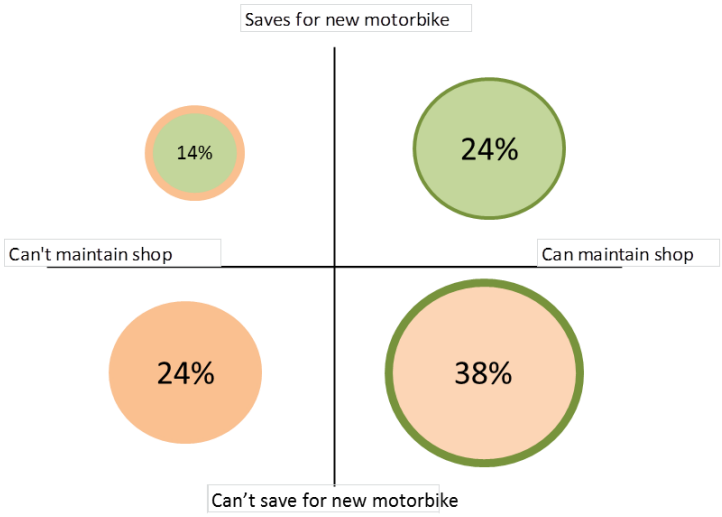


Figure 13 Percentage of AHSP indicating their ability to save for a new motorbike (Y-axis) and to maintain their shop (X-axis).

The two approaches to support are with technical backstopping visits by experienced facilitators and potentially by experienced AHSPs. This technical backstopping is primarily focused on the veterinary technical aspects of the work as AHSP. Thus on issues of history taking, analysing the situation (including the environment) and setting out a plan of action for treatment and/or prevention.

However, in addition, the second approach is continued learning through refresher courses and training courses on new subjects. For the first two years, the focus of continued learning should be with

- Business and marketing
- Extension and communication
- Herd health packages

The arguments for these subjects is to safeguard that AHSP are well supported to further establish their private business including not only how to run a business (administration, bookkeeping, saving) but also to promote their skills and competencies. Through extension skills and competencies on herd health packages, s/he is taught to be pro-active with regard to provision of services. Instead of waiting for livestock owners to call upon the AHSP when livestock are diseased, the AHSP is equipped with approaches to raise awareness with livestock owners that preventive measures (such as vaccinations, nutrition, housing, sanitation) reduce potential losses due to diseases. This helps to increase the name and fame of the AHSP and thereby the businesses.

Once, a AHSP is graduated, it is suggested that for the first 2 years, the AHSP is closely supervised and mentored by a peer-AHSP in addition to regular backstopping by the AHSP association (a facilitator). The difference between technical backstopping by the facilitator of the AHSP facilitator and the AHSP mentor is that the first is visiting the AHSP monthly according to a fixed set of procedures including inspection of stock keeping, maintenance of the clinic, recording of activities on treatment and vaccinations etc. Whereas the AHSP mentor is someone from the same area that is available for technical advice as well as personal support on all aspects of running the private AHSP business.

During the first two years, the AHSP is assessed every 6 months based upon 10 key parameter indicators. An example of a set of KPIs is given in Table 2. The purpose of such assessment is multiple, in the first place to provide the AHSP with direct feedback on his/her performances, allowing indicating gaps and needs for further improvement. Secondly, it will serve as a means to benchmark AHSPs in time and place. As such, it allows demonstrating progress made over time by

the AHSP as well as providing information about how the AHSP is doing compared with colleagues in the same district or province.

Assessing the quality of AHSPs

More needs to be done to evaluate the performance of AHSPs services with regard to diagnosis, treatment, follow-up and communication skills. A simple approach is to assess the AHSP competencies and skills based upon a defined number of key performance indicators and assess the AHSP independently on an annual basis. That will provide an overview of the skills and competencies of the AHSP practising for the Veterinary Authority based upon which actions may be taken.

However, a more important use of this annual assessment is to feedback to the individual AHSP by benchmarking his/her performance compared by his peers in the same province, and compared by his/her results in previous years. The use of this feedback is then to define mutually the gaps and needs and to coordinate the re-fresher training options that are most appropriate to this person.

Definition and implementation of such annual evaluation needs to be conducted through independent bodies, independent from the Veterinary Authority and NGOs. It is therefore recommended to have this evaluation conducted through the Veterinary Statutory Body (VSB) and the AHSP association (AHSP-A). The positions and terms of references of these entities is further elaborated in Annex 5. The actual implementation may either be done by independent evaluators and or AHSP that have been trained and have acquired a position as evaluator (see further under personal professional development plan).

Table 2 Example of key performance indicators to assess AHSPs.

	Good	Sufficient	Poor
Clinic and equipment			
Equipment: condition, maintenance, use			
Quality medicines and vaccines: availability, stock keeping			
Registration and reporting: accurateness, completeness and timeliness			
Practices			
Services provided to farmers: quality, follow-up, appropriateness			
Technical skills and knowledge: subjects, practice and follow-up			
Farmers' satisfaction from the services delivered			
Extension and communication			
Relationship with stakeholders: attitude and behavior			
Involvement in extension activities: subjects, frequency and follow-up			
Farmers' awareness about extension messages :			
Overall impression of the monitor about the VFU			

These assessments need to be conducted by accredited persons. Accreditation, as with other accreditations falls under the SVB and the national AHSP association, see under governance, chapter 3).

After two years of close backstopping and mentoring, the AHSP is eligible for being licensed as AHSP through the VSB and the national AHSP association. In these two years, the AHSP has built up a dossier with a minimum of 3 assessment reports and records (certificates) of refreshers training courses followed. With this dossier, the AHSP should be able to apply for a AHSP license simply by submitting the dossier.

Table 3 Training, technical backstopping, monitoring and evaluation of AHSP over time. The shaded cells are optional.

Years into practice	Training	Technical backstopping	Monitoring and evaluation	Outcome Institutionalization
Prior to practice	6 months paravet training minimally			
First 2 years of practice	Refresher training to include ▪ Business ▪ Extension ▪ Herd-health packages	AHSP mentor and monthly by NGO facilitator and AHSP association	Assessment on KPI* every 6 months ▪ gaps and needs ▪ benchmarking	Licence to practice
3-5 years	Refresher trainings based on (self-) assessment	2-3 months (variable) by AHSP association	(self) Assessment every 12 months ▪ gaps and needs ▪ benchmarking	Professional development plan
6-10 years	Refresher trainings based on (self-) assessment and professional development plan (AI, FFS, PTD, FFD)	2-3 months (variable) by AHSP association	(self) Assessment every 12 months ▪ gaps and needs ▪ benchmarking ▪ credits	AHSP mentor Or under SMCS do outbreak investigation
> 10 years	Refresher trainings based on (self-) assessment and professional development plan (supervising BVWs, news AHSP)	by specialists in veterinary medicine and livestock production	(self) Assessment every 12 months ▪ gaps and needs ▪ benchmarking ▪ credits	AHSP leader Or under SMCS do outbreak investigation, manage response

Once the AHSP has acquired the license to practice, backstopping visits by AHSP facilitator may become less frequent. The frequency is determined by the results of the assessments. The assessment is now conducted once a year with the same purposes as mentioned before: identification of gaps and needs and benchmarking.

It can even be considered to have the AHSP conduct a self-assessment on the KPIs with additional feedback from the AHSP facilitator. The combination of these self-assessment reports and reports of the backstopping visits by the AHSP facilitator become now part of the dossier. Additionally, the dossier will contain proven attendance to refresher training courses. These refresher training courses are meant to keep the AHSP updated on new developments in the field of animal health, production, welfare and public health. But also on new regulations with regard to the AHSP profession, new registrations of medicines and drugs and new disease control programmes or conditions to the SMCS. Bi-annual submission of this dossier is sufficient to regain the AHSP license and thus to remain in business.

After 5 years in the AHSP business, training courses for AHSP may extend to include other skills and competencies such as AI, FFS, PTC or other. Additionally, some of the AHSP may have the ambition to further develop their professional skills and they may opt to follow a trajectory to become AHSP mentor and/or AHSP leader.

Personal Professional Development Plan

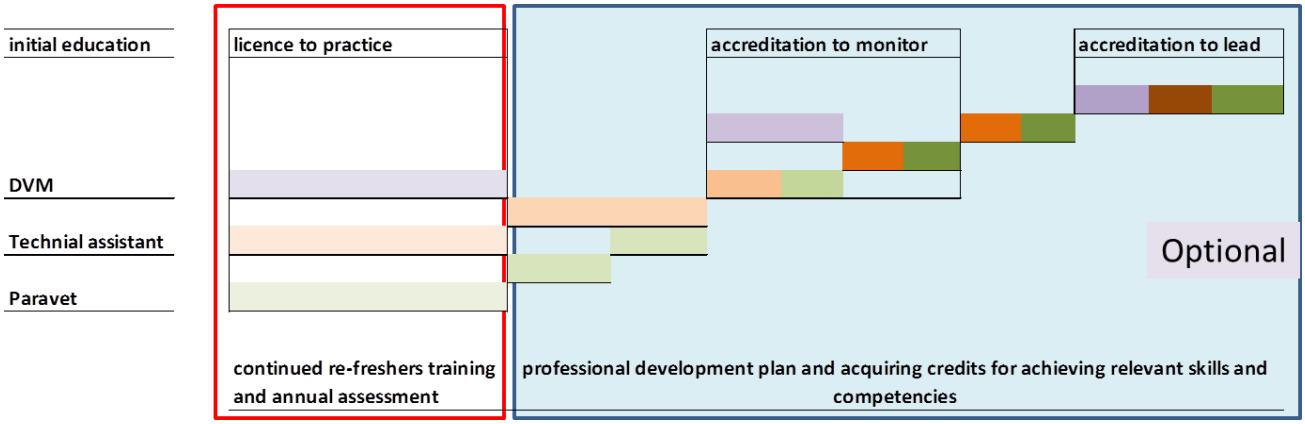


Figure 14 Illustration of professional development options

During the consultancy, a number of AHSPs requested the option for further professional development. They foresee that with their skills and competencies, there should be more options than just being a local private animal health service delivery. And sure enough, a number of current NGO staff has proven that further development is possible as these were former AHSP themselves.

It is therefore suggested that once an AHSP has been in business for a minimum of 5 years, s/he can set out a personal professional development plan (PPDP) for further training in a well-defined field. That could either be an expert level such as in surgery, reproduction, cattle medicine, or it could be to become a socalled AHSP mentor (first level) or AHSP leader (second level).

These professional development paths are available for AHSPs of any kind of educational background. Once the level 1 or level 2 are successfully completed, the AHSP will be provided with an degree that transcends the academic level at the start (such as Paravet, Veterinary Assistant or DVM), see Figure 9. Not only can professional development apply to supporting AHSPs, these levels may also comply with statuses required to conduct outbreak investigation under the SMCS or organise local vaccination campaigns under the NBCP or something similar for FMD or PPR.

These ideas need to be further elaborated by the VSB and the national AHSP association.

NGO involvement and future prospects

For a number of international NGOs, working on the concept of private animal health services has been their core focus for a number of decades. This has been of invaluable benefit to Afghan livestock owners. Training, support and backstopping of AHSPs has been directly funded through NGOs. With the strengthening of the public veterinary services in recent years, contracted work for the AHA requires further institutionalization, coordination and governance of AHSPs.

Sofar, NGOs have taken up the role to represent AHSPs interests. They have done so at local (district and province) and national level. However, particular for international NGOs, the presence and role of NGOs is temporary considering their reliance on project-based funding. For that reason, NGOs

may consider moving away from direct support and implementation of AHSP programmes and move into strengthening self-reliance and governance of AHSPs. In a same way as NGOs are supporting self-reliance of local communities through extension, self-help groups and value-chain support, NGOs should work on establishing local AHSP networks. There have been some initiatives with a number of NGOs (AKF, DCA) in a number of different ways (cooperatives, associations). The goal of such networks is to have AHSPs being capable of sustaining their activities, positions and roles (both private and AHA-contracted roles).

This may be achieved by making use of the AHSPs doing well, think of the 5-15% on the right of the curve of skills and competencies variation. NGOs can approach these AHSP for additional training and support in mentoring, in facilitation and in management of cooperatives and/or associations. Concurrently, NGOs may collaborate with the VSB and the AHA to further define the minimum standards for initial and continuing education and professional conduct of AHSP.

Strengthening of local AHSP cooperatives or associations will require a similar approach in strengthening of provincial veterinary authorities. Provincial AHAs should be able to follow-up on the disease reporting and sample submission under the SMCS, to monitor the activities under the NBCP (and FMD and PPR in the future) through post-vaccination surveys (vaccine coverage, duration of immunity in vaccinated livestock) and to make a start with data collection on livestock populations.

It is recommended to the NGOs to facilitate and promote the establishing of local AHSP associations with the aim to strengthen self-reliance with regard to:

- Technical backstopping
    - Ensuring quality services through peer-monitoring and peer-training
    - Efficiency of services:
- Running their business
    - Expanding services with AI, mineral blocks, fodder banks, extension services
    - Improving accessibility of their services
- (self)assessment of their services
- Representing their interests in alliances with other stakeholders
    - Quality vaccines and medicines – initiative of cooperatives
    - Sanitary mandate contract conditions
    - Policy development on animal health, welfare and public health
    - Health insurance (vaccination against zoonotic diseases) and facilitate loans/credits

A competent Animal Health Authority

Better coordination is needed with regard to the various projects and programmes in animal health. There is a need for strong leadership based upon a long-term vision and with appreciation of the private entrepreneurship of AHSPs. The appointment of a new DG of the AHA bears promises of understanding the need for changes in culture and attitude of the GDAHP.

Regular coordination meetings need to include all relevant stakeholders (AHSPs (see point 26), training centres, medicine and vaccines companies, provincial AHA), need to be planned ahead of

time, have a well-established agenda, have the minutes taken including decisions taken and actions defined.

GDAHP as the AHA should start to process the reports requested from AHSP on activities to acquire an overview of supposed diseases by time (monthly, quarterly, yearly) and space (district). This will be invaluable information on disease occurrence allowing to monitor for trends by time and space.

This information should be shared with the data providers to motivate their reporting through showing them the purpose of reporting and to have them benefit this information for their own veterinary business. Information thus shared (newsletters, website on disease occurrence, text messages, etc) will allow AHSP to pro-actively inform livestock owners about supposedly appearance of diseases in their surroundings and warn them to have livestock vaccinated in time.

It is therefore recommended that GDAHP re-organises its decision making mechanism based upon quantitative data analysis originating from the disease reporting and outbreak investigations (as is also indicated in the Livestock Sector Strategy). This entails developing a structured data-flow from field to central and strict procedures for data validation, data-analysis, interpretation and reporting.

With the need to strengthen the decision making process and the response mechanism at central level, there is a need to simultaneously enhance the capacities at provincial level. Where the central AHA has the responsibility to develop strategies and decide on procedures, the provincial AHAs have the responsibilities to implement strategies and procedures. It will need a major operation to change the culture of inaptitude present at provincial level into a culture of with a pro-active attitude to disease surveillance, control and response.

With new technologies available, it is even recommended to phase out of paper-based reporting and convert to digital reporting and data submission. This will allow that data and information is available for a wide range of stakeholders (and agreed beforehand) simultaneously, and that a direct feedback loops can be established to motivate those collecting and submitting the data from the field.

The use of quality medicines and vaccines has a high priority with all stakeholders involved. The AHA can regain its authority and respect if it commits itself to establishing a quality assurance mechanism for import and distribution of medicines and vaccines. No time should be wasted in this respect.

.

References

Asghar, Mohammed, Habib, Maryam, Qadir, Haji Abdul, 2013. Concurrent assessment report Badakshan, Takhar, Baghlan and Kunduz provinces, IFAD/RMLSP report.

FAO, 2015. Evaluation of private veterinary practices in five countries in the region. FAO workshop 30 November – 2 December, Dushanbe, Tajikistan.

Hartman, Lourraine, 2011. Small-scale business advising for VFUs. HLP/World Bank report.

Ibrahimkhil, Nazem, Naseri, Yama, Tondeur, Wim, 2010. A study of private animal health services in Afghanistan. AHDP/EU report.

Mehraban, Abdul Baqi, Ward, David, Khaliqyar, Sediqullah, 2013. Sustainability of veterinary service delivery – evaluation survey in Afghanistan and Tajikistan, FAO report.

OIE Terrestrial Animal Health Code, Chapter 3.2: Evaluation of Veterinary Services (http://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_eval_vet_serv.htm)

Riviere-Cinnamond, Ana, 2005. Animal Health Policy and Practice: Scaling up Community-based Animal Health Systems, Lessons from Human Health. PPLPI working paper no 22

Schreuder, B. E. C., Noorman N., Halimi M., and Wassink G., 1996. Livestock mortality in Afghanistan in districts with and without a veterinary program. Trop. Anim. Health Prod., 28, 129-136.

Schreuder B. E., Ward D. E., 2004. Afghanistan and the development of alternative systems of animal health in the absence of effective government. Rev Sci Tech. 23, 285-95 and discussion 391-401.

Tondeur, Wim, 2008. VFU business development and training. USAID report.

Annexes

Annex 1 Itinerary

Annex 2 People met

Annex 3 Glossary

Annex 4 Methodological approach

Annex 5 Factsheets on stakeholders

Annex 6 NGO questionnaire results

Annex 7 AHSP questionnaire results

Annex 8 Focus group discussion results

Annex 9 Taking stock of previous evaluation reports

Annex 10a Questionnaire with NGOs

Annex 10b Questionnaire with AHSPs

Annex 10c Focus group discussion protocol

Annex 11 Business models

Annex 12 Terms of Reference

Annex 13 Initial training course for AHSP