

Complementarity between Community-Based Animal Health Delivery Systems and Community-Based Wildlife Management? An analysis of experiences linking animal health to conflict management in pastoralist areas of the Horn of Africa.

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Abstract

Community-based animal health delivery systems have been developing since the early 1980s across all continents. They are now accepted as viable mechanisms for bringing services to remote, marginalised and under-served livestock keeping communities. In recent years there has been a concerted drive in the pastoralist areas of the Horn of Africa to make these systems sustainable through privatisation, supported by enabling policies and legislation. This process has forced advocates for these delivery systems to confront core non-animal health problems, such as access to markets, political marginalisation of pastoralist communities and conflict. This paper briefly describes how successful community-based animal health delivery systems function. It gives examples of the positive impact these projects have had on the livelihoods of livestock owners. They have also proven vital in gaining the confidence of pastoralists and assisting the pastoralists themselves to manage local conflicts such as livestock raiding. The authors note that whilst much progress has been made at community level in conflict management, sustainable peace and improved economic outcomes requires policy and legislative change by responsible governments, based on a fuller understanding of pastoralist problems. This understanding will have to come from pastoralist communities themselves through their attainment of a voice and ability to advocate for improvements.

During the course of animal health-linked conflict management work in pastoralist areas, the weak management of wildlife resources has emerged as a community concern. Opinion leaders in pastoralist communities are advocating increased efforts from communities and other stakeholders to address the massive wildlife depletion that has taken place in pastoralist areas of the Horn of Africa over the past 30 years, primarily through game meat off-take. Some of the local leaders' suggestions are presented. The authors note that pastoralists are more likely to address issues of wildlife and habitat destruction once their more crucial livelihoods problems (particularly animal health and conflict) are being solved.

Given the geographical closeness of wildlife with pastoralist grazing lands in the Horn of Africa, the paper examines community involvement in wildlife conservation and management around wildlife protected areas. It asks whether some of the lessons learned from community animal health programmes and their links with conflict prevention could be utilised to improve wildlife conservation and management in pastoralist communities. The authors conclude that there is an opportunity to add value to community-based wildlife management schemes by linking them with community-based animal health initiatives. Such linkages require more dialogue and collaboration between conservationists, veterinary practitioners and pastoralists.

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Introduction

Community-Based Animal Health Systems (CAHS) have been developing since the early 1980s across all continents. Their success in delivering animal health services to remote, marginalized and under-served livestock-keeping communities and the consequent improvements in livelihoods has led to a concerted drive to ensure the sustainability of such delivery systems through privatisation and the development of enabling policies and legislation. This process of underpinning the sustainability of CAHS has led practitioners and advocates of such systems to consider and respond to core non-animal health challenges to CAHS. Such constraints include poor access to markets, lack of voice of marginalised communities in policy processes, conflict and the negative consequences of disaster relief strategies. After some success in building upon gains from CAHS to address core non-animal health challenges, practitioners are now examining the possible beneficial linkages between CAHS and sustainable wildlife management in pastoralist areas.

Situation of pastoralists in the Horn of Africa

This paper primarily addresses pastoralist communities in the Horn of Africa, but many of the principles discussed are applicable elsewhere. Throughout the Horn of Africa, pastoral communities are politically marginalised and suffer from increasing food insecurity, levels of violence and worsening service provision. Pastoralists in the region are mostly dependent on livestock for their basic needs, but are unable to develop these assets due to factors such as inadequate animal health services and limited access to adequate water sources. Pastoralists particularly prioritise livestock disease as a problem for very straightforward reasons: sick animals provide less offspring, less milk and less meat, sick animals are cheap and may be impossible to sell. Therefore, disease reduces household food consumption both directly and indirectly, as fewer animals are available to sell or exchange for cereals. Although pastoralists possess extensive knowledge of their environment, livestock dominate economic and social functions in pastoral areas, and livestock keeping comprises the key livelihood strategy in areas with limited scope for other means of making a living.

While wildlife is a concern of pastoralists, it is viewed primarily from the perspective of how it can serve to improve their food security, through bushmeat consumption. The scale of bushmeat consumption in Africa has been reported by Barnett (2000). This paper argues that genuine Community-Based Wildlife Management (CMW) would address pastoralists' key concerns such as food security and service provision by tackling these concerns as they are articulated. Conservation goals will only be achieved in pastoral areas if conservation initiatives are linked to the pressing issues faced by pastoral communities and the tackling of these issues. A recent DFID study estimates that as many as 150 million poor people (one-eighth of the world's poorest people) perceive livestock to be an important livelihood asset (DFID LWAG 2002). Although aware of the loss of wild fauna and flora in their areas, pastoralists generally want improved livestock health more than they desire wildlife conservation and management. If such initiatives do not contribute to maintaining and/or enhancing their livelihoods, pastoralists are less committed to collaborate in community conservation schemes.

It is our contention that community-based animal health delivery systems could provide an opening for CWM initiatives in these areas in a similar way that they have acted as an entry point for successful conflict management initiatives (see later). CAHS have been successful because they benefit pastoralists directly and experiences with conflict resolution show that pastoralists are keen to achieve peace because of the improvements to animal health and therefore livelihoods.

Community-Based Animal Health Systems (CAHS)

The concept of Community-Based Animal Health Workers (CAHWs) probably arose from experiences in the human health sector. The terminology "barefoots vets" (Halpin, 1981) seems to derive from China's successful and on-going use of "barefoot doctors" to bring basic services to the general public, as described by Chetley et al., (1995). In the early 1970s the World Bank advocated that livestock producers' associations should include "grassroots level para-veterinarians" (de Haan and Nissen, 1985). This advice was influential and raised awareness. Since that time, various actors have developed and refined CAHW systems. For example, in Eastern Africa, NGOs and bilateral agencies have been particularly influential, whereas in SE Asia Government veterinary services have been at the fore in their development (Leidl 1996).

In a comprehensive review of available data, McCorkle (2002) estimates that CAHW initiatives have been implemented in 46 nations since the 1970s. A recent survey by the African Union's Interafrican Bureau for Animal Resources (AU/IBAR) identified over 390 CAHW projects in Horn of Africa countries alone. Growing interest in CAHW systems is largely related to the high impact on animal health and human livelihoods

resulting from improved basic veterinary care in rural communities. Some examples of livelihoods impact are shown in Box 1. Equally impressive documentation on the impacts of CAHS on livestock disease control and surveillance can be found elsewhere, Mariner et al 1994, Hanks et al 1999, Mariner 2002, Baumann 1993, Leyland and Catley 2002.

Box 1. Some examples of the impact of CAHW Systems

Impact on human livelihoods

- ✓ In Malawi the saving from increased livestock production in those areas where CAHWs were active was \$57,000 in the year 1998-99. Farmers with CAHW services were more likely to afford a tin roof, window glass, ox cart, plough and radio, than farmers without access to CAHW services (Hüttner, 2000).
- ✓ In Afghanistan CAHW programmes reduced mortality by 5% in calves, 10% in lambs and 38% in kids, compared with control areas without CAHWs. The benefits to farmers were estimated to be \$120,000 per district per annum, while the costs of the programme were \$25,000 per district (Schreuder et al., 1995).
- ✓ In a specified district, Kenya farmers without access to CAHWs reported 70% more cattle deaths than those farmers who had access to CAHWs. The decrease in mortality provided benefits worth \$48 a year to each farmer using CAHWs (Holden 1997a)
- ✓ A review of Oxfam UK/Ireland's CAHW project in north-east Kenya in 1998 compared livestock mortality in project and non project areas (Odhiambo et al., 1998). In non-project sites annual mortality in camels, cattle and sheep and goats was estimated at 31%, 32% and 25% respectively whereas in project sites annual mortality was 20%, 17% and 18%. The reduced loss of livestock was valued at Kenya Shillings 22,853 (approximately USD 350.00) for each household in the project area and this sum was sufficient to buy grain to feed 2 adults and 4 children for 250 days.
- ✓ Established in 1998, a CAHW project in Simanjiro District, Tanzania, was assessed in May 2001. The use of interviews and participatory methods showed how Maasai pastoralists associated the CAHW service with reductions in calf mortality of between 59 and 93%. This led to increased sizes of milking herds and more cows milked per household. For example, the average number of cows milked per household increased from 5.3 to 24.2 cows. Communities concluded that the increased milk availability had a huge impact on local food security (Nalitorela et al., 2001).

Although CAHWs have provided very useful primary health care to livestock keepers, many projects have failed to address important technical, social and sustainability shortcomings. Indeed, a very wide range of modes of project design and implementation are currently used and with varying levels of success. Common key weaknesses with CAHS include failure to fully involve communities in analysis of problems and solutions, and limited attention to financial sustainability (McCorkle 2002). Within Africa, many years of experience have demonstrated the importance of establishing CAHW systems as partnerships between communities, government and the private sector. The key requirements for establishing sustainable CAHW projects are summarised in Box 2.

Incorporating CAHW systems and improving the quality of veterinary service delivery at a national level is a complex task. It requires long term strategic and operational plans that are regularly reviewed, and that have the commitment and support of the national authorities. The process of establishing such services and the policy implications have recently been comprehensively described by Catley, Blakeway and Leyland (2002) and IDL (2003). It is our view that there is much that can be learned from CAHS in CWM, particularly as they can be seen to have many of the same requirements for success including a perceived problem, meaningful community participation, and policy-level support.

Box 2 - Key requirements for sustainable and effective community-based animal health delivery systems

- ❑ Livestock owners perceive they have an animal health problem
- ❑ Local communities participate in an inter-active way in all aspects of service development (this includes defining the problem, planning, contribution of time and resources, defining criteria for selection of CAHWs, agreeing a prescribed relationship with private vets [including payment of full cost for services rendered by CAHWs and the government vets who regulate and monitor], selection of CAHWs, post training reviews, monitoring, de-selecting CAHWs who perform poorly, recognising refresher training etc.).
- ❑ CAHW System is based on sound business principles in terms of capitalisation, loans, turn-over, re-investment and profit generation.
- ❑ Training is based on participatory and adult-learning methods, standardised but flexible to respond to needs within different communities.
- ❑ The roles and reporting relationships of the cadres of worker “CAHW”, “Animal Health Technician” and “veterinarians” are described and recognised by the veterinary authorities. This includes geographical definition of where CAHWs are allowed to operate.
- ❑ The opportunity for private veterinary practitioners to be awarded contracts for provision of public good services (vaccination, disease surveillance) so that the so-called “sanitary mandate” is availed.
- ❑ The policies and strategies of the veterinary authorities toward CAHS are in line with practice and enforcement of veterinary professional legislation including pharmaceutical supply laws.

Community-based animal health delivery systems and conflict management

AU/IBAR has built on the success of CAHS in order to tackle the insecurity in the Greater Horn of African that is an impediment to animal health service delivery. After real animal health benefits were seen, the pastoralists of the Karamojong cluster approached veterinary doctors and said in very simple terms “Now that we have seen some benefits from your work with us, we want you to help us to solve our problem of livestock raiding and conflict”. Whilst not being experts in conflict resolution, these veterinarians offered to bring together the traditional leaders from neighbouring communities that were in conflict with one another and where CAHS had been successful. Initial meetings were uneasy and risk prone, but at the same time succeeded in initiating the dialogue that has subsequently made a significant contribution to the resolution of several major conflicts (Minear 2002).

The key aspect of the success of these conflict management initiatives has been the high level of participation by pastoral communities, or “co-learning”. AU/IBAR developed its conflict work in direct response to the request from elders to tackle conflict in order to really tackle animal health problems. It has since then continued to base its methods and approaches on the suggestions and involvement of pastoral communities. The methodology has been continually revised as the community members themselves create new ways of transforming their conflicts. For example, AU/IBAR followed the advice of youths and sought to involve pastoral women in peace dialogues, moving the conflict transformation activities to remote contested areas in order to understand their perspective on conflict and the role of women in preventing and provoking conflict.

Over time the confidence of communities in their development partners has grown and the work has evolved into a two-pronged conflict management strategy of both rebuilding the authority of community elders over youths and of formalising natural resource management agreements. Methodologies designed to implement this strategy include community dialogues involving elders, youths and women with politicians, local administrators and cross-border counterparts (Border Harmonisation Meetings). These methods collectively fulfil the vital function of strengthening the role of elders within their own community and opening up the space for discussions about peace between communities who are traditionally in conflict. Through the deliberate involvement of local administrators, MPs and other stakeholders, trust is increased between communities and those who represent them and those who are employed as administrators on their behalf.

Similar to the approaches of AU/IBAR’s conflict management initiatives, CWM should be genuinely participative and should seek to tackle the concerns of pastoral peoples directly, based on their input. This will demonstrate tangible benefits to them and ensure that participation is meaningful and equitable. It is our view that the systematic strengthening of the role of elders could well prove useful in managing some types

of wildlife-based conflict since elders are able to persuade community members to support or undermine CWM strategies. For example, the problem of poaching within buffer zones exhibits a strong similarity to issues of conflict management in support of animal health goals. The parallel in conflict work is that a handful of youths equipped with readily available modern semi-automatic weapons are able to undermine the traditional or formal peace agreements put in place by elders regardless of the role played by outside actors.⁴ However as with all problems of collective action (most elegantly theorised in the Prisoners' Dilemma⁵) it is critical that almost all of the community adhere to the management approaches if they are to be effective. Taking for example, the issue of poaching, a handful of community members who opt to disobey agreed CWM rules or customs can seriously undermine the conservation goals e.g. by poaching (or facilitating the poaching) of rare species.

Community-based animal health and conflict management at the policy level

Community-based success requires the interactive participation and buy-in of whole communities, particularly opinion leaders. But for community-based efforts and achievements to be sustained, national and local authorities need to provide a supportive policy and legislative framework. For example, there is a compelling case that CAHS need to be made sustainable through privatisation, but in many countries of the Horn of Africa legislation prevents this. In conflict management, communities can resolve to live peacefully and share natural resources and establish local early warning and response mechanisms. However, governments still need to provide security and recognise and co-operate with such grass-roots structures. Above all, governments need to integrate their security concerns with the development priorities of pastoral areas to ensure that the root causes of conflict in pastoral areas are tackled over time.

For community initiatives to succeed under conditions of poverty and marginalisation, enabling policy and legislation are vital, but it is not always clear what the correct policies and legislation should be. This is particularly true in pastoral areas, where policymakers often have a poor understanding of and appreciation for pastoral livelihoods. It is for this reason that AU/IBAR along with many others has concluded that community empowerment is required. Providing a platform for pastoral communities to advocate their own concerns is crucial. Over time, pastoralists and other marginalised communities will be able to influence policies and laws to make them more supportive of their development priorities and consequently improve their livelihoods.

Linking community-based animal health systems and community-based wildlife management

Many wildlife rich areas in the Horn of Africa are located in arid and semi-arid areas. In these agro-ecological areas the predominant lifestyle is pastoralist or agro-pastoralist in nature (Barrow et al 2001). Transhumant nomadic pastoralist communities often move close to wildlife rich areas either on a seasonal basis or during times of hardship. These pastoralists are often neglected by policymakers and administrators. In many instances pastoralists have had access to their dry season grazing lands restricted by areas being designated as protected areas. Outside the conservation areas, large dispersal zones are required for mobile wildlife species to move in and out of. The people whose land mobile species graze on and cross are key stakeholders in conservation and must be recognized as such, even if they are remote from protected areas (Adams and Hulme 2001).

These arid and semi-arid areas are the same areas where CAHS have proven highly effective. It is also worth noting that the communities one most strongly associates with pastoralism are very often those one associates with conservation, for instance the East African Maasai communities of the Masai Mara, Serengeti, Amboseli and Ngorongoro. During discussions with pastoralists in the Horn of Africa about their problems, veterinarians have been surprised to discover that opinion leaders have consistently expressed concern about the loss of wildlife and damage to the environment through uncontrolled burning of rangeland. These communities, although plundering their wildlife stocks over the last thirty years due the easy availability of guns, social unrest and the break down of traditions, are aware that they are losing something rich and meaningful to their lives.

⁴ This phenomenon has been documented by the CAPE Unit in respect of its work with pastoral women in peace building (CAPE 2003 b.).

⁵ Where all parties need to co-operate on the basis of imperfect information if they are to achieve the best possible outcome for all participants, but usually opt for a second best solution because they are not aware whether the other parties will co-operate.

A key opportunity for linking CAHS, conflict management and CWM can arise from the fact that pastoralist communities are aware of the wildlife loss problem and the causes of wildlife destruction and uncontrolled habitat burning. The pastoralists themselves have made numerous recommendations to their veterinary partners facilitating CAHS about the need to do more to “to preserve the wildlife for the benefit of posterity”. Box 3 shows some of the typical views of pastoralists on the causes of and solutions to wildlife destruction in pastoralist areas. As the voice of pastoralist groups in the Horn of Africa is slowly growing through efforts to strengthen pastoralist civil society groups, the opportunity to engage them on wildlife issues should be taken.

Box 3 - Root causes of wildlife destruction and indiscriminate burning of pastures and forage (as given during cross conflict line elders meetings in the Karamojong Cluster (1999 – 2002)

- Wrong impression that game is the immediate food solution to severe drought;
- Livestock raiders on either side rely on wildlife for food while staging a raid through bush, which houses the game animals;
- Wars that erupted in Africa increased the number of guns in pastoral areas. These guns were used for extensive hunting;
- The notion that there is no owner of the wildlife;
- The notion that the game will always be around;
- Accidental fires by honey harvesters or children roasting hares, squirrels etc.
- Burning some portion of pastured to clear ticks – then fires become wild;
- Raiders intentionally but secretly burn the neighbours’ pasture to force them to move nearer for ease of attack.

Elders’ suggestions for addressing wildlife destruction

- Stop cattle raids by making peace;
- Create alternative means of livelihood to avoid poaching e.g. trade, crop agriculture;
- Game life is no longer an answer to famine or protein needs. This is because the pastoralists have killed game animals en mass and game numbers have drastically reduced. The elders pledged to change their attitude and pass the message to their youth in order to save their heritage;
- Stop bush fires so as to preserve the bushes that house and feed game animals;
- Governments and development agencies should promote environmental protection services at parish and location levels;
- Communities should stop using the ‘burning technique’ to promote new grass - this can be achieved through community education and self-policing;
- Game departments should intensify efforts to rid pastoral areas of poachers;
- Promote tree planting and the establishment of small tree nurseries;
- Wildlife department and veterinary personnel should co-operate to treat sick game;
- Game department should make a strong presence in the pastoral regions;
- Create awareness of importance of wildlife to development;
- If it becomes so desperate due to severe drought, introduce relief food to people to save the game life.

One consistent request that pastoralists pass on to their veterinary partners is for assistance with control of problem animals. This theme emerges time and again in conservation and CWM literature (see Barnett 2000) for instance elephants invading crops or predators killing or maiming livestock or people. In our own fieldwork, the issue of hyenas has been of particular concern to pastoralists.

It is evident that some community-based wildlife management (CWM) initiatives have improved pastoralist livelihoods (IIED 1994, Child 1996). Documented examples of CWM where tangible benefits have accrued to community members include the DFID-funded Mpomiba project with 19 villages close to the Ruaha National Park in Tanzania and the GTZ-funded project with 40 villages adjacent to the Selous Conservation area. In Namibia, the National Community Wildlife Conservancy Programme has led to the registration of significant numbers of community-owned conservancies, many of which have entered into private sector joint ventures. In Zimbabwe, the CAMPFIRE national sustainable use wildlife programme has enabled communities to sell hunting quotas and secure incomes from wildlife tourism. Even though the current political situation means that the scheme is now on hold, CAMPFIRE has proven exceptionally influential in conservation and wildlife

management thinking. Again it is notable that these projects, for understandable reasons are primarily focused on species with significant non-consumptive value.

In general pastoralist communities are likely to perceive the main CWM benefits as the managed and more sustainable cropping of bushmeat, increased revenues gained from consumptive tourism (hunting) and non-consumption tourism (wildlife viewing) or from enterprise and employment opportunities in the tourism sector. There are also indirect gains where investments in wildlife-related tourism lead to improved infrastructure such as roads, mains electricity and communications.

It is our view that pastoralists are more likely to address issues of wildlife and habitat destruction once their more crucial livelihoods problems (particularly animal health and conflict) are being solved. Thus, CWM schemes are more likely to succeed if linked to CAHS and if they are seen to help address key wildlife community concerns such as losses arising from predators like hyenas⁶.

At the ethical level it should be noted that pastoral communities bear many of the costs of global conservation initiatives. They are the already exceptionally poor communities who find themselves unable to enter land they have historically called their own, who are unable to follow traditional transhumance and grazing patterns, and who lose animals and crops to wildlife. Levels of investment in conservation are significant. The World Bank for example has built up a portfolio of conservation projects worth around \$2 billion over the last decade and the GEF has more than 400 biodiversity projects in 140 countries worth \$5.4 billion (DFID LWAG 2002). There is a powerful case that the particular concerns of pastoralists in regard to wildlife should be addressed, at the very least because they bear many of the costs of providing these global public goods. When the pastoralists open the door and admit they have a problem of wildlife loss the opportunity to assist should be taken.

7. Conclusion

In conclusion, there are good grounds to think that CAHS can be linked to CWM. CWM cannot work when pastoralists remain risk prone and food insecure. CAHS help to strengthen pastoralist livelihoods through increased productivity and access to markets. Furthermore they build trust and confidence. Both of these factors will allow CWM a higher chance of success. There is a trend of scepticism around CWM initiatives, that either they do not work or they only produce marginal benefits for local communities. In pastoralist areas, conservationists need to consider how they can link CAHS and CWM and learn lessons from the experiences of enhancing CAHS and community based conflict resolution and management. This consideration should not be limited to wildlife rich areas but also include the much wider dispersal zones and areas. It is our view that the complementarities and similarities we have outlined in this discussion warrant further exploration and consideration, preferably in discussion between practitioners of the two approaches, community-based wildlife management and community-based animal health service delivery as well as with the pastoralists themselves, who are also wildlife custodians.

⁶ After addressing a real and worrying problem, pastoralist leaders will be more open to discussing other issues. The authors do not currently have an acceptable solution to Hyenas attacking livestock and people.

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