Primary Animal Health Care in Ethiopia: The experience so far

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Background

In Ethiopia, pastoralism is extensively practiced in almost two-thirds of the national land area. The primary livelihood of pastoral communities is the management of livestock – cattle, goats, sheep and camels. Livestock are critical to the well being of pastoral households in terms of income, savings, food security and employment. The sector is also important to the national economy, contributing sixteen percent of total GDP, one-third of agricultural GDP, and eight percent of export earnings. Improvements in the sector, therefore, have the potential to contribute significantly to national income and to the welfare of many poor pastoral families.

The nomadic or transhumant way of life of pastoralists is the mode of production best suited to an unstable environment, enabling strategic exploitation of seasonally available water sources and pasture. The arid climate in the lowlands is characterized by periodic droughts that may be increasing in frequency. A substantial portion of the pastoral populations, however, are food insecure even in normal rainfall years. Environmental degradation, water scarcity, increasing human and livestock population, and expanding areas under cultivation have contributed to a reduction in the quantity and quality of productive rangeland, which, combined with poor animal and human health, place enormous stress on the traditional pastoral and land management practices. These tensions increasingly result in conflicts between groups competing over scarce resources.

Table 1: Characteristics of main pastoral areas in Ethiopia

Pastoral area	Area	Human	Livestock	Annual	Temperature	Altitude
	(km^2)	population	population	rainfall	(Celsius)	(masl*)
		(millions)	(millions TLU)	(mm)		
Borana Zone	69,373	1.66	2.60	440-700	15-35	1000-1500
Somali Region	282,300	3.69	6.99	100-700	20-45	300-1700
Afar Region	95,958	1.22	1.16	200-600	30-50	-100-1000
South Omo		0.38	0.60	200-1500	15-45	700-1900
Zone						
Total	447,631	6.95	11.34	•••	•••	•••

Source: Regional Agriculture Bureaus estimates * Metres above sea-level Note: Area shown under Borena is only for the six pastoral weredas.

The Somali occupied area of Ethiopia now called the Somali National Regional State (SNRS) in the south and east of the country which comprises nine zones and 48 *weredas* is semi arid and arid land and accounts for more than 20% of the entire country. Eighty percent of the area is desert and semi desert. Somali pastoralists have a higher proportion of camels in their herd mix, but nonetheless, herd large numbers of cattle, sheep and goats.

Afar tribal land is located in the Great Rift Valley, comprising rangeland in northeast Ethiopia. According to regional estimates the livestock population of Afar is about 1.16 million TLU. The Afar Regional State (ARS) has five administrative zones, which are further subdivided into 29 *weredas*. The population estimate of the region is estimated at 1.2 million of which 90% are pastoralists and 10% agro-pastoral.



Borana pastoralists inhabit the Borena administrative zone of the Oromiya National Regional State in southern Ethiopia, bordering Kenya. The zone consists of twelve weredas, six of which (Liben, Yabello, Dire, Arero, Teltele and Moyale) are situated in areas below 1500 masl. Land use here is dominated pastoral pastoral and agro production. Borana pastoralists prefer to keep cattle, but are increasingly participating in sheep, goat, and camel production.

Fig 1. Pastoral areas of Ethiopia

South Omo pastoral zone, one of 12 in the Southern Nations, Nationalities and Peoples Regional State (SNNPRS), has 5 *weredas*. The zone extends from Ethiopia's western highlands down to the flood plain of the Omo River and Kenya and Sudan borders. The area includes people from the Gnyangatoms, Dascenech, Hamar, Erbore, Karo, Bena, Tsemaye, Bodi, Mursi and Birayle tribes. Cattle dominate the livestock population of 0.6 million TLU, which also includes some sheep and goats, but no camels. South Omo proper also includes Surma people further to the South and living on the western bank of River Omo and whose number is about 40,000.

These people are pastoralists living entirely on livestock. The whole family moves with the livestock in search for water and grazing grounds. These remote and relatively inaccessible lowland areas contain considerable numbers of cattle herds as well as significant populations of game animals. Cattle dominate and are kept primarily to provide milk and blood for the family food.

Gambella regional state is located in the western tip of Ethiopia bordering with the Sudan in the west, south, and north. The main nationalities in the state are the Nuer, Agnuak, Mezhenger, Opoo and Komo. Moreover, other nationalities live in the State.

Pastoralism is the leading preoccupation of the people. People are also engaged in the cultivation of crops including sorghum, bean, sesame, mango, banana for their livelihood. Pastoralists in Gambella predominantly raise cattle, followed by sheep and goats.

The Development of Veterinary Services in Ethiopia

Traditional veterinary service is believed to have been in practice in Ethiopia long ago however, it is difficult to indicate the exact date of its beginning. Traditional healers (Wegeshas) used to treat both human and animal patients through drenching of herbal drugs, incising and cauterising of abscesses and wounds using sharp objects and hot metals, mending fractures and rehabilitating dislocations. Such practices still exist in some parts of the country.

Modern veterinary services started relatively recently in Ethiopia. A French Veterinary Mission began providing veterinary services in 1908.

During its occupation of Eritrea, and later other parts of the country from 1936-41, the Italian army was treating equines used in its cavalry unit. Moreover, it established a laboratory around Kechene Medhanealem, in Addis Ababa, where some vaccines were produced.

The progress of veterinary services was slowed down for a while after the Italians were forced out of the country. However it was later decided that the Ministry of Agriculture should take over the laboratory. Thus, the first Ethiopian veterinarians took the responsibility for providing animal health services. British experts were invited to the country and Ethiopians professionals were trained at home and some were sent to East Africa to get training in laboratory techniques and vaccine production. In addition 250 vaccinators were trained by the Point 4-aid organisation of the USA and were later assigned to serve in the various provinces of the country.

A considerable leap in vaccine production, research and disease investigation has been manifested after the 1950s. The reasons for these developments include the gradual return back of Ethiopians after acquiring high-level veterinary training abroad and the establishment and functioning of the National Veterinary Institute and the Animal Health Assistants School through financial and technical cooperation of the American and French governments and the FAO.

The National Veterinary Institute has been fully engaged in the production of vaccines and provided most of the diagnostic services in the country until the first regional laboratories were constructed in the 1970s and developed in the 1980s.

The Institute of Animal Health Assistants also gradually increased the number of sub-professional graduates to a maximum of 80 per year after a two years programme of studies. The Faculty of Veterinary Medicine of the University of Addis Ababa has been operating since 1979 and 25-30 students graduate each year following a 6-year training cycle.

Thus, the modern veterinary service that started in the 1900s showed slow progress in the first fifty years. Following this it has shown progressive improvement and at present fast change is observed in areas of manpower, infrastructure, material and financial build up.

Within the past decades over 500 veterinarians, over 1000 Animal Health Assistants and over 4000 Animal Health Technicians have been trained It is well known that for proper delivery of veterinary services, adequate manpower should be available. According to the FAO recommendation, a veterinarian could manage to take care of 30000 to 50000 animals as far as preventive measures are concerned and 5000 for curative services.

Manpower Development

There are three categories of animal health workers, namely, Veterinarians, Animal Health Assistants and Animal Health Technicians. Through selection and further training, veterinarians are upgraded into Research Officers; Animal Health Assistants into Meat Inspectors and Laboratory Technicians; Animal Health Technicians into Assistant Laboratory Technicians, Assistant Meat Inspectors and Artificial Insemination Technicians.

Table 2. Number of animal health staff in the public veterinary services

	Region	Professional Category			Total	
		DVM	AHAs	AHTs	Other	
1	Tigray	24	34	126	11	195
2	Afar	8	9	120	-	137
3	Amhara	138	232	773	37	1180
4	Oromiya	140	280	1163	153	1763
5	Somali	18	56	297	-	386
6	Benshangul G.	7	17	157	-	181
7	SNNP	75	275	674	16	1040
8	Gambella	5	7	81	6	99
9	Harrari	2	4	5	4	15
10	Dire-Dawa Adm.	9	16	33	19	77
11	Addis Ababa Adm.	13	22	7	24	79
12	Federal/MOA	7	_	-	7	7
	Total	446	945	3436	277	5104

Source: VPPO/PACE, MOA August 2001.

Why community-based animal health services delivery in pastoral areas of Ethiopia?

Animal health service provision has always been dominated by the public sector, and is still the case today and, even now, more than 90% of veterinary staff is working in government service. Federal and regional government's veterinary services are responsible to oversee the quality and standard of animal health service.

The Federal animal health service has retained policy-making and regulatory functions and has relinquished service delivery to the regions.

Regional services are provided through clinics and animal health posts. Ministry of Agriculture guidelines direct that clinics should be staffed by veterinarians, AHAs and AHTs and that health posts should be staffed by AHTs. These staffing levels are far from being met. MoA records show that there is almost twice the number of clinics as there are vets and there are severe shortages also in the other staff categories.

Curative and preventive services are presently not available to the vast majority livestock owners in pastoral areas of Ethiopia. The few public clinics present are located in major towns and provide services mostly to cattle owners residing around these towns. The animal health staff in theses areas are small in number and cannot cover such a vast area and adequately address the veterinary needs of livestock keepers. Besides, government staffs need adequate mobile facilities, for which currently the government does not have the capacity to provide. The problem is not only the shortage of staff but also inadequate operational budget for animal health services compared to the magnitude of the disease problems in the country. Staff mobility is very limited; only occasionally do staff venture outside their clinics to investigate outbreaks and render services.

Furthermore service delivery is extremely difficult as the community and the animals are on the move throughout the year. Therefore the poor public animal health services delivery in the pastoral areas of Ethiopia are related to lack of finance, manpower, cultural and professional biases against pastoralists.

Veterinary privatization

Currently, participation of the private sector in the delivery of veterinary services is occurring at an increasing rate. However, most of the participants are geared towards operating drugs shops and importation of veterinary pharmaceuticals, while clinical or diagnostic services are very minimal and are operative in and around Addis Ababa where there are commercial livestock farms.

Table 3. Registered and licensed private veterinary practices including importers

Region	Activities						
	Importers	Clinics + drug	Clinics alone	AH Posts	Drug Shops		
		shops					
Tigray	2		2		9		
Amhara	1		1	0	24		
Oromiya	-	13	15	13	63		
Benshangul G.		2	1	-	-		
SNNP	4	1	1	3	21		
Gambella	-	1	-	-	-		
Dire Dawa	2	_	-	-	4		
Addis Ababa	118	47		3	47		
Somali		7	3	2	1		
Afar					1		
	127	94	40	35	180		

Source: VPPO/PACE-MOA 2001, Addis Ababa

Privatisation in Ethiopia, as elsewhere, has propelled more practitioners into the lucrative pharmaceutical industry rather than into the much more risky clinical practice. As shown on Table 3, by 2001 there were 127 private veterinary pharmaceutical importers and 180 private drugs shops selling veterinary products, as against 75 clinics and animal health posts, 54 of which also sold drugs. Again, the majority of retail outlets are in high potential areas.

The private veterinary practice has been assisted and promoted by the EU-funded PARC III programme by providing training and credit to veterinarians and animal health assistants who wished to engage in private practice. Up until 2002, the beneficiaries of this credit system were mainly in and around Addis Ababa: 57 veterinarians, 58 AHAs and 102 AHTs have received loans, representing around 12 percent,

6.8 percent and 3.3 percent respectively of total numbers in these categories¹. The reports also show that between 1995 and 2001 the percentage of private clinics rose from 6 percent to 14.7 percent of the total, and the percentage of private health posts from 1 percent to 6.5 percent.

In order to introduce veterinary privatisation, SCF (UK) has worked with the Somali Regional Bureau of Agriculture to develop six private veterinary pharmacies, which reportedly are working well. As shown in Table 3, there are only 12 drug retail shops in Somali regional state. There are two drug shops in Borana (1 in Yabello town and 1 in Mega) and one in South Omo (in Dimeka town).

Constraints in Veterinary Services

The stumbling blocks that hindered the further development of veterinary services are many. The major ones are indicated below. Since these problems are interrelated, the various aspects of the problems should be studied in trying to find practical solutions.

Lack of a National Animal Health policy: Service provision has always been dominated by the public sector; however, the country's level of economy didn't allow adequate infrastructure build up, training and employment of qualified staff, allocation of the required equipment and materials as well as operating budgets.

On the other hand, government has failed to formulate a policy encouraging the participation of the private sector to participate in government controlled public animal health services. At present private participation in animal health services has began although the progress is too slow. This has contributed towards the failure in proper utilisation of qualified professionals.

Lack of cost recovery and sanitary mandate: It is to be recalled that proclamation No 104/1941 of 1949 allowed payment by livestock owners for vaccination services. This proclamation has been replaced by proclamation No 147/1948 of 1956, which allowed free vaccination again. As far as curative drugs are concerned the livestock owners are used to pay the cost price of the actual drug while government subsidizes the cost of services. In effect, this has laid down a pressure on government in allocating adequate budget for better distribution of veterinary services.

The lack of advanced legislation incorporating international policies and rules concerning animal health services is another major problem. The frequent policy changes which sometimes strengthen and then weaken the power and responsibility of the national veterinary services have contributed towards the failure of providing the necessary services as well as eradication and control of major epizootic diseases.

Shortage of qualified staff as already mentioned considering the huge number of livestock population and the distribution and variety of animal diseases there is a shortage of qualified staff. Whilst comparing the ratio of qualified staff to the TLU it is beneficial in indicating that inadequacy of staff, and the lack of proper utilization of existing ones should be given the highest consideration. On the other hand, the responsibilities of staff with various qualifications are not clearly indicated.

Historical development of primary animal health care delivery in Ethiopia

In the past years various governmental and non-governmental organizations have been actively involved in the training of "paravets", to improve a community's access to essential veterinary drugs and services. There was no standard naming for such trainees. The following names were the most commonly used in Ethiopia:

- Vet Scouts
- Paravets

➤ Community Veterinary Agents (CVAs)

- Farmers Animal Health Representatives (FAHR)
- ➤ Community Animal Health Workers (CAHWs)

¹ Total reported numbers of vets, AHAs and AHTs in the public sector differ slightly between documents, presumably reflecting different reporting periods. The differences do not affect the overall picture.

The first Para vets were trained in the 1970s in the middle Awash by the RRC (now DPPC). Third grade and above were trained but there was a lack of clear objectives as to their role and later they become involved in illegal animal drug dealing.

1975-1987

Thousands of farmers selected from peasant associations received six months training in basic animal health and animal production by the government-run Agarfa Peasant Training Centre during the Derg regime. The trainees were called "Farmers Animal Health Representatives" (FAHR). The basic concept of training Farmers Animal Health Representatives arose due to the severe shortage of qualified staff, veterinary clinics and health stations which made the follow-up of disease outbreak and control difficult. In order to partially solve this problem, basic animal health care training has been provided to selected farmer's representatives in some parts of the country. These representatives were often also given the responsibility of liasing with the nearby veterinary stations in case of disease outbreaks.

1986-1995

Fourth Livestock Development Project trained (FLDP) "Farmers Animal Health Representative", linked to co-operatives. Drug shops were opened within service co-operatives in the highland areas and FAHRs were trained to assist AHTs to sell acaricides and anthelmintics only. For various reasons this project was not successful. It was implemented by Government using conventional, top-down approaches in which "community" was synonymous with "peasant associations".

1974 - 1989

Third Livestock Development Project trained "Vet scouts", in Afar under NERDU, in Somali under JIRDU and in Borana under SORDU. These units were constituent part of TLDP. The vet scouts were trained for three months in basic animal health care. After training the vet scouts were employed by the project and paid salaries. They stopped working when the projects was phased out.

1989 - 2001

FARM Africa Dairy Goat Development Project trained mostly women as vet scouts in Eastern and Western Hararghe zones of Oromiya region and Konso, Walayita and Dalocha areas of Southern Ethiopia during its project life. This project was involved in promoting the use of small ruminants as key food security interventions. The essential feature of the process was the training of women CAHWs and encouraging training in the use of private drug supplies by CAHWs through cooperative groups.

1989 - 1995

When TLDP ended, SORDU continued as a joint project with Fourth Livestock Development Project (FLDP) and trained 164 paravets (vet scouts). Theses were operating without supervision and without refresher training.

1991 - 2000

The Southeast Rangelands Project (SERP), a hybrid Phase 2 and Phase 3 Rangeland Project, was initiated in 1991/92 with funding from the ADB. The SERP project area included the eastern Hararghe and Ogaden rangelands and trained a total of 480 paravets. SERP combined the infrastructure development and service delivery focus of the TLDP with a pilot community development program.

1994 - 1996

FAO emergency project trained 100 "Community Veterinary Agents (CVA)" in North Wollo, and Wag Hamra zone of the Amhara regional state and Tigray regional state. For varying reasons these projects were not successful. Drug supply systems based on revolving funds failed and post-training monitoring did not take place.

1994-1997

Afar Pastoralists Development Pilot Project (APDP) was European Union financed and implemented by Ministry of Economic Development and Co-operation jointly with Afar National Regional State in Zone 3 of the Afar region (Dulecha, Fentale, Argoba and Amibara weredas). Sixty CAHWs were trained from three districts. CAHWs after being given an initial kit, sell drugs at market prices plus a ten-percent mark up, which is payment for services. When they run out of drugs, they were resupplied through either private drug vendors in Methara or through wereda agriculture office.

1994 - 2000

PARC Ethiopia began to implement a community-based rinderpest vaccination programme using Thermovax in 1994 in Afar *weredas* with technical and training support from the TRVTT. The program has trained sixty CAHWs. The achievement of these CAHWs was described as a "critical" element in the apparent success of PARC-Ethiopia in eradicating rinderpest from the Afar region.

1996 - 1999

SCF (UK) / SERP in Somali Regional state based in Jijiga started in 1995 to support the activities of SERP animal health delivery system by providing veterinary drugs for the establishment of revolving fund. In 1996 a start was made to address the problem of poor animal health services delivery by training of Community-based Animal Health Workers (CAHWs). The CAHWs are also assisting in the large-scale restocking programme of the project. This activity relies heavily on community participation and understanding of local forums. Although the system for drug supply was not sustainable, 74 Community-based Animal Health Workers were providing service to their community.

As indicated, the primary involvement of NGOs in CAH service delivery has only occurred comparatively recently. Up to 1995, only few of the NGOs, such as FARM Africa and SC (UK), were involved in training of CAHWs. However, during the last 8 years, the number of NGOs involved in CAH service delivery has increased dramatically to reach the current number of more than 14. In this paper the current distribution and status of CAH projects are summarized.

1995 – to date

Lay Volunteers International Association (LVIA), an Italian NGO, has been running a veterinary service improvement programme in Liben zone, Moyale wereda since 1995. The project has trained 28 CAHWs. A vaccines cost sharing system was introduced and CBPP, PPR, Blackleg and Pasteurollosis vaccination campaigns were conducted in 2002. LVIA has organised a workshop on cross-border livestock interventions in Moyale in March 2002. The workshop was attended by NGOs funded by ECHO in Ethiopia and Kenya; other stakeholders from the region and national levels also participated.

1996 - to date

Save the Children UK trained 60 community-based animal health workers in parts of the North Wollo and Wag Hamra zones of the Amhara Regional State. Unlike those trained in pastoralists areas, the scope of work of the CAHWs trained in North Wollo were limited by the regulations of the regional government that allowed only de-worming and tick control activities and presently 57 CAHWs out of 60 are actively working in the field.

1997 - to date

Borana Lowland Pastoral Development Program/GZT (BLPDP/GTZ) is a bilateral organization that started working in Liben, Arero and Dire districts in 1997. In 1998 BLPDP, in collaboration with SORDU, gave 14 days basic and 7 days refresher training for 21, 37 and 10 community animal health workers selected from Liben, Arero and Dire districts, respectively. In 1999/2000 BLPDP/GTZ organized 12 days basic and 7 days refresher training for 17 Community-based Animal Health Workers selected from Liben district.

1998 - to date

Pastoralists Concern Association Ethiopia (PCAE) and Co-operazione Internationale (COOPI) are sister Italian NGOs, which operate in Filtu *wereda* of the SNRS. There has been a CAHW system since 1998 to form the sole service delivery agency and there were 34 CAHWs trained under COOPI-PCAE programs. The CAHWs received 30 days initial course and 7 days refresher training on an annual basis since the project was established.

1999 – to date

FARM Africa initiated a second phase of the APDP in Gewane moving north of the previous EU project in Zone 3 and 5. It is an integrated project using the mobile outreach camp approach. During the pilot phase of APDP in June 1999, 31 CAHWs were trained from Gewane, Amibara and Telalak *weredas*. An additional 29 CAHWs were trained in the main phase in September 2001.

1999 – to date

Integrated Pastoral Development Project (IPDP) financed by the Government has trained 18 CAHWs in Kuraz, and Hammer-Bena weredas in south Omo zone of the SNNPR in 1999, of which 15 are currently functional. CAHWs trained under IPDP are linked to wereda and zone agricultural development department. The animal health section of the wereda veterinary team is responsible to supply drugs and supervision.

1999 - to date

Ethiopian Pastoralists Research and Development Association (EPaRDA), a local NGO, was established in December 1999 and working as a partner to FARM-Africa has trained 10 CAHWs in 2001, in Hammer and Bena-Tsemay weredas in south Omo zone of the SNNPR.

1999 – to date Action Contre la Fiem (ACF) started animal health and early warning projects in Warder and Korahe zones of Somali National Regional State. But due to different constraining factors the implementation of animal health program was delayed. It commenced in August 2001. Animal health professionals are unavailable in the zone; the livestock diseases are rampant in the region. Taking into account the above constraints, ACF started implementing training of community based animal health workers. ACF has trained 35 community based animal health workers in four districts of Korahe zone of SNRS.

2000 - to date

Hararghe Catholic Secretariat (HCS) is a church organization promoting and established Community-based Animal Health service delivery in Shinille zone of the SNRS. CAHWs were trained from six weredas namely Erer, Shinille, Aysha, Dembel, Afdem and Meiso. 54 CAHWs were trained out of which 53 are operating.

2001 - to date

Comitato Collaborazione Medica (CCM) runs CAHW system under food security project in Kelafo, Gode, Ferfer, Imey and Mustahil weredas of the Gode zone. The CAHW programme was established in March 2001 in collaboration with Gode zone agricultural office and SERP. The first 13 CAHWs were trained in Kelafo and the second 11 CAHWs were trained in Gode for a period of 20 days in March and April 2001. Currently 24 CAHWs are working in these areas.

Both the government and NGOs are involved in the training of CAHWs. The CAHWs trained by government projects are 802 in number and are located in Somali and Benshangul regions and Borana and South Omo zones. The NGOs have so far trained 708 CAHWs from all the pastoralists regions. This makes the total number of recently trained CAHWs to 1510. Detail of the distribution of CAH projects in the country is shown in Tables 2 and 3 below.

Table 2. Community-based Animal Health Workers trained by Government

No	Region	Project	No of CAHWs	
1	Somali	BoA	90	
		SERP	480	
2	Oromia/Borena zone	SORDU	164	
3	SNNPR/South Omo	IPDP	18	
		PACE	20	
4	Benshangul	PACE	10	
5	Gambella	PACE	20	
		Total	802	

Table 3. Distribution of CAHWs trained by NGO projects in pastoral regions of Ethiopia

No	NGO	Region	District	No of
				CAHWs
1	Save the children - UK	Somali	Harshin	9
		Somali	Kabri-bayah	20
		Somali	Jijiga	13
		Somali	Aw Barre, Shinille	10
2	HCS	Somali	Shinille, Erer	18
		Somali	Afdem, Meiso	16

		Somali	Aysha, Denbel	20
3	Save the children - USA	Somali	Liben	54
		Somali	Filtu	21
		Somali	Dollo Ado, Dollo Bay	39
		Somali	Bare, Hargelle, Chereti	59
4	LVIA	Somali	Moyale	10
5	OWS	Somali	Aware	30
		Somali	Degehamedo	30
		Somali	Degehabur	30
6	PCAE/coopi	Somali	Filtu, Chereti, Hargele	34
7	CCM	Somali	Gode, Ferfer, Kelafo	24
9	FARM Africa	Afar	Gewane, Amibara	30
		Afar	Telalak, Deawe	26
10	ACF	Afar	Dubti,Golina, Awra	33
		Somali	Shekosh, Shilabo, Kebridahar, Debowoyni	35
		Somali	Warder and Danot	12
11	DHP/OSREA	Afar	Ab-ala	17
12	GTZ	Oromiya		68
13	EPaRDA	SNNPR	Hammer, Bena-Tsemay	10
14	ACORD	Gambella	Jikawo	42
			Total	710

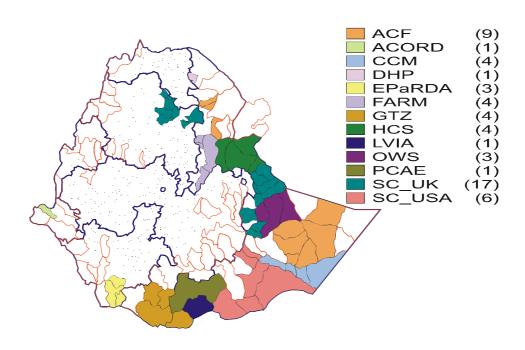


Fig 2. Distribution of Community-based Animal Health projects implemented by NGOs

From a number of reports and discussions with CAH implementers and government authorities it is evident that the CAH service delivery system provides many useful lessons for the development of primary animal health services in the pastoral areas of Ethiopia.

CAHWs have revealed their potential to significantly improve animal health in areas where professional providers are thinly spread. In 2002, a number of workshops convened by CAPE with other institutions brought stakeholders together to consider how this potential could be realised. Some of positive lessons were:

With adequate supplies of drugs it was possible for CAHWs to provide a valuable service to pastoralists on a cost recovery basis:

- Curative treatments using antibiotics and injectable drugs
- Carrying out vaccination campaigns
- Deworming for internal parasitism treatments
- Spraying (administer acaricides) for external parasitism treatments
- Minor surgical treatments
- Dehorning animals
- Castrating animals

CAHWs have dramatically shown their effectiveness in the delivery of rinderpest vaccination. Their success in the control of rinderpest in Afar region was regarded as the most striking example of their participation in disease control programme.

CAHWs have also contributed towards disease reporting systems. The government veterinary system at *wereda* level is responsible to report disease outbreaks on a monthly basis to the federal MOA. However due to absences of the services in the pastoral areas, the use of CAHWs in the disease reporting system was acknowledged by public veterinary service. CAHWs-based disease reporting model was developed and selected by MOA animal health experts and NGOs implementing CAH projects in the Jijiga workshop held in March 2002.

In addition to the CAHWs completing their routine treatment and vaccination records, they also act as effective messengers of disease outbreaks. In 1996 an epidemic of respiratory disease complex affecting camels in Afar was first reported to government veterinarians by a CAHW.

Several issues were identified as needing attention:

- Firstly, contact between CAHWs and professional providers needs to be strengthened. Supervision
 mostly works where CAHWs are under NGO auspices, but where CAHWs are independent only a
 minority are supervised by a government or private vet or AHA.
- Secondly, all agencies involved in CAHW training need to work towards standardising the selection, training, equipping and remuneration of CAHWs. In particular, there is considerable variability in how cost recovery schemes operate, and the extent to which costs are in practice subsidised by NGOs.
- Finally, more attention needs to be given to systematic monitoring to provide quantitative data on the impact that CAHWs are having on mortality and morbidity rates.

Enabling policy and regulatory frameworks for CAH services delivery system in Ethiopia In addition to financial, environmental and marketing issues, the long-term survival of community-based animal health programs depends on appropriate policies and legislation and formal recognition or certification of CAHWs. The following points describe the existing conditions that favour the development of community-based animal health services in Ethiopian situation:

 Using more positive experiences of CAHWs from NGOs, with better understanding of community participation and to a large extent influenced by PARC-Ethiopia's experience of CAHWs in the Afar region, a "Policy on Veterinary Service Delivery in Remote Areas" was formulated by the Animal and Fisheries Resources Development and Regulatory Department, MOA in 1997. A similar resolution was passed at the Ninth Conference of the Ethiopian Veterinary Association and the Pan African Rinderpest Campaign (PARC) project annual meeting. The policy states clear roles for CAHWs and makes frequent reference to the need for full cost-recovery systems to be established.

Looking at some specific details of the policy, the document acknowledges that veterinary manpower levels in Ethiopia are insufficient to meet the demand for veterinary services from livestock owners and that fixed-point, government facilities do not reach many rural areas. CAHWs are proposed as a means to extend basic services to remote areas, improve animal health extension, enable community involvement in service design and develop better disease reporting systems.

2. Agricultural Policy, Draft, Ministry of Agriculture, February 2001: This is a new draft MoA policy that specifically supports the need for the private sector participation in improving services and the need to use CAHWs.

The MoA has developed a draft Agricultural Policy in which livestock is one of the components. This component has ten policy areas including animal health and improving pastoral livestock resource production and productivity.

Specifically, the animal health component of the draft policy proposes six areas of focus: control and eradication of animal diseases; disease surveillance; improving quarantine and inspections services; producing and controlling inputs to animal health services; meat inspection and slaughter services; and animal health services.

Most, importantly the draft policy states:

"In improving the animal health services, on top of what the government is doing, emphasis has to be given to strengthen the privates sector. In areas where both the government and the private sector do not reach, local community health workers have to be trained in basic animal health services as to enable them to give primary services to their own people." The draft policy acknowledges the progress made so far in developing infrastructure but also makes it clear that it wishes to strengthen the private sector and CAHWs.

- 3. Animal Disease Control Proclamation No. 267/2002: This revision to the 1961 Act came into force at the beginning of 2002. It provides for the Veterinary Council to register animal health professionals. CAHWs are covered as "Animal Health Representatives". The proclamation requires the ministry to define public and private responsibilities in veterinary services and to create a conducive environment for private practice. The proclamation "Animal Health Representatives" which is equivalent to "CAHWs" as a person trained in basic animal health care and who represents a peasant association or co-operative or pastoralists community in animal health.
- 4. Some CAH projects implemented by NGOs are working closely with the MoA at wereda and zone level in order to encourage government to become more involved in the CAHW approach and take responsibility for both CAHW monitoring and coordination of CAHW selection and training. 5
- 5. The National minimum standards and guidelines for the training of Community-based Animal Health Workers was set up by MOA after being enriched by a stakeholders' workshop drawn from federal and regional government bodies, teaching and research institutions, private parishioners and NGOs.

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²Translation form Amahric

³ This term means someone trained in basic animal health care who represents a Peasant Association, Cooperative or pastoralist community. The Proclamation gives powers to the Ministry to issue directives on interventions that can be carried out by non-professionals.

⁴ Federal Democratic Republic of Ethiopia Proclamation No. 267/2002, 31st January 2002, Part Four. ⁵ A good example of NGOs –government partnership for the implementation of CAH work is the animal health component of the SCF (UK) Agricultural Rehabilitation Programme in North Wollo and Waghamra zones, Amhara region and the animal health component of HCS in Shinille ecosystem,

- 6. Experience and attitudes among veterinary personnel to the CAH service delivery have changed. During the last ten years CAH service delivery system has provoked a heated debate within the Ethiopian veterinary profession, as elsewhere. This debate has not ended but the profession has demonstrated that it is open to some of the changes, which will allow CAH delivery systems to be scaled up. In the mid-1990s, the EVA passed a formal recommendation supporting the use of CAHWs in pastoral areas, and CAHWs are now being trained by Regional Bureaus of Agriculture as well as by NGOs.
- 7. Established CAHW-based Disease Surveillance System: for the Ethiopian government, disease surveillance has become increasingly important in promoting international trade in livestock and livestock products. Linked to the concept of animal health early warning and the overall disease surveillance system, the Jijiga workshop in March 2002 has designed an appropriate disease information system that will properly utilize the skills and capacity of CAHWs. Thus, in addition to the CAHWs completing their routine treatment and vaccination records, they will also act as reporters of disease outbreaks. The CAHW need to be trained in active and passive disease surveillance.

Although the development of these policies and proclamations can be viewed as a very useful step forward in terms of placing CAHWs on the official agenda in Ethiopia, there is still a need for further clarification with respect to community participation and government-imposed limitations on CAHW activities. For example, the draft policy limits CAHW activities to "deworming, spraying (tick control), wound treatments, closed castration and hoof trimming". Hence, the policy risks emphasising a disparity between community priorities and government priorities. There is still a lot of work to be done.

Although the federal government has demonstrated its openness to encourage privatisation and decentralized animal health services it has not recognized the need for its role as facilitator and promoter to encourage professionals in the region to adapt and participate in the implementation of such CAHW practices. The overall effect is that CAHWs are not recognized by the regulatory bodies which hinders their effectiveness and leads to a lack of acceptance of the important disease surveillance functions that the CAHW carryout.

Conclusion

In Ethiopia a number of conditions favouring the development of community-based animal health systems are summarised as follows:

- > Basic enabling policy and legislation are in place
- > Basic privatisation regulations have been developed
- > Private suppliers are importing drug into the country
- Private drug trading started operating in some areas
- Collaborative action at federal, regional, zone and *wereda* level together with NGOs is taking place
- National minimum guideline for the training of CAHWs was developed
- ➤ CAHWs are performing good services
- ➤ There is willingness and ability to pay for the service rendered by CAHWs
- The experience of veterinary professionals to CAH management has grown and attitude among these professionals has changed
- There are some examples of linking community-based animal health workers to veterinary pharmacies.

Exploiting all this profile properly, it is now promising to see just how close Ethiopia is to have the whole system in place and operational. However the following major activities are indicated:

1 Support to policy and regulatory activities

There is a need of greater awareness of the policy and regulatory activities that may bring together different actors at all levels to discuss the merit and complications of further developing animal health privatisation and CAH process. The output from this support should be clarification and strengthening of newly emerging policy, regulations and training guidelines and methodologies.

2 Promotion of Participatory approaches

The introduction and promotion of participatory, adult-learning centered training approaches are required that encourage better communication, co-operation and collaboration in the sector especially to strengthen vertical linkages within government and horizontal linkages at national, regional and wereda level.

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