

International Experiences with Commercialization/Privatization of Veterinary, Artificial Insemination and Other Livestock Services

By David Ward, Joachim Otte and Yves Cheneau - FAO

Over the last 25 years, the Animal Health Service in FAO and the World Bank's technical policy group have agitated for a more balanced delivery of veterinary services in both the private and the public sectors. This article attempts to highlight some of the lessons learned from reform processes toward commercialization or privatization of these services.

Recent strategies to commercialize or privatize veterinary and livestock services delivery reflect economic philosophies in developed countries, which more often than not do not reflect the traditions or necessarily the interests of developing countries. In the case of veterinary and livestock breeding services in the 1980s, change was directly dictated by a general breakdown in service delivery in many sub-Saharan African countries. This breakdown was evident by the resurgence of acute infectious diseases like rinderpest in West Africa and to the drastic drop in the number of artificial cattle breedings especially for small-holder livestock owners. The inadequate supply of livestock services contributes to the low productivity in many developing countries. Thus, there was a need to re-establish effective delivery of essential livestock services if development and food security goals were to be met. Taking lessons from developed countries and given the deteriorating financial condition faced by many governments, a larger role for the private sector was sought. This paper attempts to highlight some of the lessons learned from reform processes toward commercialization or privatization of these services.

For the purposes of this paper, *commercialization* refers to cases where the user pays for or contributes toward the direct cost of specific private goods and services. *Privatization* is the transfer to the private sector of activities, functions, responsibilities or property that have previously rested with the public sector. The term *service* refers to a job or task (clinical examination) or to a branch of public employment (national veterinary service). Thus, the term may include goods or infrastructure (FAO, 1997).

Recent developments

Over the last 25 years, delivery of livestock services has moved away from state provision to more partnership with and delivery by the private sector. The "third sector", or membership organizations, was only recently recognized by some as a viable route for delivery of veterinary, breeding and other services (Holden et al., 1996). Membership organizations have characteristics close to the private sector and will be treated as such in this paper. The World Bank's technical policy group and the Animal Health Service in FAO, but few others, have agitated for

a more balanced delivery of veterinary services (Umali et al., 1992; FAO, 1997b; Cheneau, 1985). That is, a rational allocation of authority for delivery of services that capitalizes on strengths and obligations of both the private and the public sectors.

Coupled with commercialization or privatization in many countries has been a strategy to liberalize public sector control over the economy. The principal positive effect of liberalization on the livestock sector has been an increased access to veterinary remedies, vaccines, semen and related inputs. Increased access has acted as a stimulus for the private sector.

Some negative effects of liberalization include inadequate regulatory control and enforcement over the quality of remedies distributed, inadequate technical supervision accompanying their use and less than optimal distribution of remedies, i.e. product selection and distribution may cater for the commercial livestock sectors and not those in already marginalized pastoralist areas. Many of these problems were present before liberalization but they are receiving closer scrutiny under the new policies and the state's inability to deal with these problems is now being highlighted.

Decentralization of veterinary services was an organizational strategy adopted by some governments, presumably with the intention of giving local authorities responsibility for dealing effectively with local problems. This has been an effective strategy in human health delivery in industrialized countries and may have advantages in very large countries such as Indonesia. To the extent that line management for notification and control of infectious, epidemic animal diseases has been disrupted, the results have been disappointing. Adequate measures to facilitate a transition process were absent, including lack of consultation with stakeholders and resources for re-training or phasing in the process. One result in many countries in Asia and sub-Saharan Africa is underfunctioning, or even the absence, of public good veterinary services.

The availability of private veterinary, breeding and related livestock services has been slow in developing outside of urban centres or high potential agriculture areas (Wamukoya et al., 1995). This is despite the willingness of livestock owners to pay for effective services. The costs of providing livestock services in pastoralist areas is disproportionately high because of high transportation costs and higher income levels expected by veterinarians.

Consequently, the role of community-based animal health workers, paravets, animal health technicians and the equivalent in non-English speaking countries has received support. At the same time, these service providers are a financial threat to veterinarians, particularly in the face of downsizing government services and their certification and legal status is often a matter of some controversy.

Suffice it to say that the elaboration of reform policies and shifts in service delivery has hardly been participatory. The absence of strong livestock owners' associations representing all categories of producers, and of influential private veterinary or paraveterinary associations has left reforms to be dominated by government technicians. As a result, clinical veterinary and breeding services are frequently provided by government employed veterinarians who crowd out private sector providers through unfair competition yet do not deliver public good services because government salaries do not provide a sufficient living wage.

Functions reassessed

It is generally agreed that the state has a responsibility and often a compelling economic justification to provide veterinary services (i) where no free-market incentive justifies (or creates demand for) a service, e.g. public health; (ii) where there is a free-market incentive but there are economies of scale, externalities, or professional or biological determinants that dictate how best to deliver specific services, e.g. disease eradication by area-wide vaccination; or (iii) when services are provided based on the collective assent of the governed as to the need for specific services and how much the public is willing to pay (be taxed) for them, e.g. quality control of biologicals. Where these principles do not apply, services can be legitimately divested to the private sector (FAO, 1997b). Even when the services are recognized to be a state responsibility, they can often be delivered by the private sector with supervision under state authorities (Leonard, 1999; FAO, 1997b).

Various criteria can be applied to determine allocation of responsibilities for delivery of veterinary or other livestock production tasks and services. The World Bank has been at the forefront of this effort. World Bank technical policy publications since the mid-1980s have argued the case for allocation of tasks based primarily on economic criteria. The Bank's publications also make the proviso that delivery by the private sector should result in a socially optimal level of supply (Umali et al., 1992). The assurance of equity and access to services by the poor also featured heavily in the World Bank position papers for rational delivery of veterinary and livestock services.

In early 1997 FAO hosted an electronic conference (FAO, 1997a) and technical consultation (FAO, 1997b) on the principles for rational delivery of public and private veterinary services. The main output was what is known as the "principles

document" which advocated criteria for the apportionment of veterinary services delivery based on (i) economic theory, (ii) technical judgment by national veterinary authorities, (iii) tradition and (iv) prevailing socio-economic conditions within a country.

These four criteria obviously allow room for discussion and judgment in assigning tasks in any particular country. There is now a large body of experience, however, upon which to evaluate if decisions and judgments proved correct when veterinary and livestock production responsibilities were reassigned or service delivery reorganized.

Lessons learned

A primary concern should be whether clients are well served by resulting reshuffles of responsibilities. This, however, is a difficult question to answer with quantitative data. FAO presented a qualitative assessment of the provision of animal health, artificial insemination and government regulatory services taking recent international experiences as examples (Ward et al., 2000).

One guidepost to how well clients are served is the progress made in eradicating acute, infectious epidemic diseases. With good confidence, FAO can state that rinderpest disease is confined to just three remaining reservoirs of infection, southern Pakistan, southern Sudan and southern Somalia. In mid-2001, there is growing confidence that four other foci in which the virus persisted until recently have now been eliminated. Assuring that this is so will depend on intensified surveillance

of epidemiologically significant events, i.e. stomatitis-enteritis outbreaks in cattle and buffaloes (Roeder, 2000). Most significantly, rinderpest disease has not been found in two very large livestock populations – India (1995) and Ethiopia (1995) – for over six years.

The Southern Cone countries in South America and southern provinces of Brazil had eliminated foot-and-mouth disease (FMD) up until late 2000 when the disease reoccurred in Argentina (Type A), Uruguay and southern Brazil (Type O). Before reoccurrence of FMD, these countries and states had been exporting beef to North American and other high value markets. Individual livestock

producers were being better served and national treasuries benefited while exports were allowed.

Experiences over more than two decades have elucidated several principles which seem to generally apply and give valuable guidance about delivery of veterinary and livestock services. One principle is that livestock owners are generally willing to pay for available clinical, herd health and preventative veterinary services and for artificial insemination (AI) services. Three examples illustrate clients' willingness to pay. In five West African countries the introduction of a fee for preventative vaccinations against rinderpest did not lead to a decline in vacci-

For more information

Address of the authors

Food and Agriculture Organization
of the United Nations (FAO)

Animal Production and Health Division

Dr Yves Cheneau,
Chief of the Animal Health Service

Dr David Ward
Dr Joachim Otte

Viale delle Terme di Caracalla
00100 Rome, Italy

Tel : + 39 06 57053531

Fax : + 39 06 57055749

E-mail : yves.cheneau@fao.org

nation coverage compared to five other countries where vaccination remained free (58 vs. 60 percent) (de Haan, 1991). Experience of rinderpest control in the extensive pastoral communities of Ethiopia (Mariner, 1996) and southern Sudan (Leyland, 1996) has been similar although willingness to purchase vaccination services does reflect recent experience of the disease. The continuing use of traditional medicines and the purchase of antibiotics and anthelmintics by pastoralists in Africa shows that livestock owners are willing to pay for available remedies. On the other hand, in Tanzania during the early-1990s, only about 40 percent of livestock owners were willing to pay for contagious bovine pleuropneumonia vaccination whereas before introduction of cost recovery, vaccination coverage was about 80 percent (Paskin, 2000). All the reasons for this drop in vaccination coverage are not known but the introduction of a fee intuitively had an effect.

As in many businesses, credit may play a large part in how or if clients use services. The withdrawal of credit for AI services in Kenya may have led to the continuing decline of its use (Chema, 2000).

Recent studies in three states in India (Ahuja et al., 2001) indicate that livestock owners are willing to pay for government subsidized (nominally free) animal health and breeding services at approximately the same rates as for the same services provided by private practitioners. Clients' income level or wealth category did not correlate with the use of less expensive clinic-based services as opposed to more expensive animal health or breeding services provided at the clients' home or farm. These examples illustrate that livestock owners are willing to pay for goods and services that they perceive to be of value and are conveniently available.

A second principle is that strong leadership is essential for directing and moving national livestock service delivery toward desired goals. Leadership can come from a government official. The examples of the chief veterinary officers in Kenya in the 1960s and 1970s and in Cyprus even earlier are illustrative. Dr. Ishmael Murithi, the first Kenyan Director of Veterinary Services, had the twin visions to develop a smallholder dairy industry and to export beef to European countries. Much of his public service career was devoted to bringing these two goals about. In Cyprus, Dr. Polydorou, Chief Veterinary Officer for many years, committed his service to eliminating echinococcosis/hydatidosis from the dog and human populations. Over the years, this was accomplished through persistent deworming of dogs and public awareness for improved hygiene.

Leadership may come from livestock producer groups. Beef cattle producers in Argentina, Brazil and Uruguay took the initiative to eliminate foot-and-mouth disease from their countries. Local producer committees organized their members to undertake vaccination campaigns which achieved high coverage rates, eliminate vaccination where the disease was under control, report outbreaks and ensure slaughter of infected herds. The producers, in partnership with government authorities, took on regulatory and enforcement functions at the field level.

A third principle relates to the role of reliable local disease information to empower national veterinary authorities to reorganize delivery of public veterinary services. This experience is just emerging and evidence is subjective. Two examples are cited.

The last reported rinderpest outbreaks in Ethiopia were in the northeast (November 1995) and in the southwest (September 1995) (van't Klooster, 2000). During the late 1980s and early 1990s, veterinarians determined the epidemiological situation for rinderpest in the various agro-ecological zones in the country. A fuller understanding of the disease situation gave veterinary authorities more confidence to rely on active surveillance and focal vaccinations instead of a mass vaccination strategy. Active case finding and control practices became routine, rapid and effective. Rinderpest control based on surveillance and focal vaccination may not be less expensive than mass vaccination but it is more effective. The experience gained and infrastructures put in place can be applied to controlling other infectious diseases.

Pakistani authorities, with the assistance of FAO's Global Rinderpest Eradication Programme, reviewed the rinderpest situation in the country during 1999 - 2000. Direct line management and disease reporting were found to be weak at all levels. Nonetheless, the number of outbreaks appeared to have greatly declined since the mid-1990s. FAO believes that widespread vaccination, with a quality assured rinderpest vaccine, in the large milk shed dairies and breeding areas within the Indus river buffalo tract in Sindh province is primarily responsible for the outbreak decline. The situation requires clarification through intensive investigation and strengthening of disease diagnosis and reporting yet the Pakistani authorities feel confident in shifting their rinderpest eradication activities away from planned multi-year mass vaccinations to intensified case finding and focal vaccination where the disease is found.

A final principle is an admonition to recognize the overlap of public and private goods. It is far from easy for economists to categorize livestock goods and services into fully public or private ones (de Haan, 1991; Holden, 1999). Some services have dual public and private good features. Additionally, the actual delivery of public services can be separated from the responsibility for the outcome. The responsibility for the outcome of public goods and services resides squarely with national authorities by virtue of constitutional mandate. However, many public services can be delivered under public sector supervision and contract to the private sector or membership organizations. Licensed and accredited "private" veterinary practitioners in all highly market-oriented countries have always delivered some largely public goods and services. These services range from monopolies for issuing health certificates to disease testing (tuberculosis, brucellosis) to outright contracting for delivery of public health services (meat inspection). The principle to remember is that private veterinary practitioners have historically earned part of their income delivering public good services. Moreover this dual function should be capitalized upon in order to reduce the high transaction costs of delivering livestock services in rural areas (Leonard, 1999).

In conclusion

The private and public sectors, along with membership organizations of producers, all have a partnership role to play in the efficient, equitable and effective delivery of veterinary, artificial insemination and other livestock services. The goal of governments

should be to orchestrate a wide consultative process in order to achieve balanced roles for an affordable public and private partnership to deliver the essential livestock services.

There is no widely applicable blueprint for reform and each

country will have its own requirements. There is, however, a body of experience and literature describing results to date and lessons learned which could guide countries in the reform process. ■

References

- **Ahuja, V., Ward, D. & M.P.G. Kurup (2001)**. Delivery of Livestock Health and Breeding Services: Focus on India. Electronic Conference, December 1 – 15, 2000. Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad, World Bank, Swiss Agency for Development and Cooperation, and Food and Agriculture Organization, March 2001.
- **Chema, S. (2000)**. Personal communication.
- **Cheneau, Y. (1985)**. The organization of veterinary services in Africa – L'organisation des services vétérinaires en Afrique. *Rev. Sci. Tech. Off. Int. Epiz.*, 5 (1), 57 – 105, 107 – 154.
- **Cheneau, Y. (1999)**. The effect of structural adjustment programmes on the delivery of veterinary services in Africa. Office International des Epizooties, 15th. Conference of the Regional Commission of the OIE for Africa, Dakar, Senegal, 26-29 January 1999.
- **de Haan, C. & S. Bekure (1991)**. Animal Health Services in Sub-Saharan Africa; Initial Experiences with Alternative Approaches. World Bank Technical Paper No. 134. Washington, DC, The World Bank.
- **FAO (1997a)**. Electronic conference on principles for rational delivery of public and private veterinary services, January to April, 1997, Rome. (www.fao.org/WAICENT/FAOINFO/AGRICULT/AGA/agah/vets-l/Default.htm).
- **FAO (1997b)**. Principles for rational delivery of public and private veterinary services with reference to Africa. Report of a technical consultation, 25 – 27 March, Rome.
- **Holden, S, Ashley, S. & P. Bazeley (1996)**. Improving the Delivery of Animal Health Services in Developing Countries – A literature review. *Livestock in Development*, Somerset, UK, 95 pages.
- **Holden, S. (1999)**. The economics of the delivery of veterinary services. *Rev. Sci. Tech. Off. Int. Epiz.*, 18 (2), 425 – 439.
- **Leonard, D.K., Koma, L.M.P.K., Ly, C. & P.S.A. Woods (1999)**. The new institutional economics of privatizing veterinary services in Africa. *Rev. Sci. Tech. Off. Int. Epiz.*, 18 (2), 544 - 561.
- **Leyland, T. (1996)**. The world without rinderpest: outreach to the inaccessible areas. *FAO Animal Production and Health Paper 129*, pp 97 to 107. FAO, Rome.
- **Mariner, J.C. (1996)**. The world without rinderpest: outreach to marginalised communities. *FAO Animal Production and Health Paper 129*, pp 97 to 107. FAO, Rome.
- **Paskin, R. (2000)**. Personal communication.
- **Roeder, P. (2000)**. "Verification of rinderpest freedom": EMPRES-Livestock Programme. Technical Consultation, 29 – 30 May, FAO, Rome.
- **Umali, D.L., Feder, G. & C. de Haan (1992)**. The Balance Between Public and Private Sector Activities in the Delivery of Livestock Services. World Bank Discussion Paper No. 163. Washington, D.C., The World Bank.
- **van 't Klooster, G. (2000)**. Verification of freedom from rinderpest: Experiences of Ethiopia, FAO Technical Consultation, Global Rinderpest Eradication Programme, 29 – 30 May, FAO, Rome.
- **Wamukoya, J.P.O., Gatyhuma, J.M. & E.R. Mutiga (1995)**. Spontaneous private veterinary practices evolved in Kenya since 1988. FAO, Rome.
- **Ward, D., Wagner, H. & J. Otte (2000)**. International experiences with commercialization / privatization of veterinary, artificial insemination and other livestock services, the Food and Agriculture Organization, Rome.