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Indigenous knowledge, participatory appraisal and animal health information systems*

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Partners Community-based Vaccination and Animal Health Project, Organisation of African Unity/Inter-African Bureau for Animal Resources.

*Indigenous knowledge, participatory appraisal and animal health information systems: Options for complementary methods in public and private veterinary services in Africa.

Executive Message



Participatory appraisal of animal health problems can help planners to find better strategies.

- Results from fieldwork demonstrated that standardised participatory appraisal methods are reliable and valid for understanding the perceptions of livestock keepers. Results compare favourably with formal and more costly and time-consuming veterinary investigation methods.
- This gives professionals involved in the planning and delivery of livestock disease-control strategies valuable tools in developing sustainable and cost-effective approaches that reflect the needs of resource poor farmers. This is essential for the long-term successful dissemination of appropriate technology.
- This work should lead to veterinary services in Africa being better able to operate conventional livestock and wildlife health information or planning systems and improved integration of formal animal disease investigation methods with participatory appraisal and indigenous technical knowledge systems.
- It will also encourage more participation of livestock owners, particularly the poor, in the design, implementation or evaluation of veterinary privatisation programmes in Africa.
- Unfortunately time and budget limitations prevented the production of a participatory appraisal (PA) and ethnoveterinary knowledge (EVK) manual for veterinary and wildlife professionals.

Background

Those involved in the planning and delivery of strategies for livestock disease control are still trying to find sustainable and more cost-effective approaches. This is essential for the long-term successful dissemination of appropriate technology to resource poor farmers. One specific area that this project addressed is the problem of limited use of participatory appraisal (PA) and ethnoveterinary knowledge (EVK) in veterinary epidemiology. Participatory appraisal aims to overcome development biases faced by the poor and by women. The design of both public and private sector veterinary services in Africa continues to be dominated by top-down planning with limited attention to the views and knowledge of livestock owners.

Objectives

The project addressed three development problems:

- Limited capacity of public or private veterinary services in Africa to operate conventional livestock and wildlife health information or planning systems.
- Poor integration of formal animal disease investigation methods with participatory appraisal and indigenous technical knowledge systems, within public and private sector veterinary services.
- Limited participation of livestock owners, particularly those who are poor, in the design, implementation or evaluation of veterinary privatisation programmes in Africa.

The aims of this project were:

1. To improve the understanding of attitudes and current use of PA and EVK systems in public and private veterinary services, wildlife services and veterinary research and training institutes in Africa.
2. To test and validate PA/EVK methodologies with associated statistical methods for use in veterinary epidemiology, needs assessments, planning, monitoring and evaluation.
3. To analyse stakeholder views of research finding and then produce a PA/EVK manual targeted at veterinary and wildlife professionals and covering applications of PA/EVK in both public and private sector veterinary activities.

The overall objective was to define the reliability and validity of participatory appraisal for use in veterinary epidemiology. Using a survey of attitudes, understanding and uptake of PA and EVK followed by scientific validation of PA/EVK methods, the research aimed to work with stakeholders to identify specific roles for PA/EVK as stand-alone approaches and methods, and as complementary methods to conventional veterinary epidemiology and planning tools.

Highlights

1. Better understanding of PA and EVK

During the early part of the project the researchers conducted a postal survey of uses and attitudes towards PA among 175 veterinarians working in or with strong links with Africa. The veterinarians targeted were Chief Veterinary Officers, staff from the Pan African Rinderpest Campaign and veterinarians in veterinary schools, non governmental organisations (NGOs), research institutes, donors, consultancy groups and self-employed individuals. The survey response rate was 28.9%. A workshop for 19 veterinarians from the Kenya Agriculture Research Institute, NGOs, PARC-VAC and the Kenya Wildlife Service was also conducted in Nairobi to review current use of PA in Kenya and southern Sudan and discuss methodological options for field- testing and validation of PA methods. The data from the surveys was analysed and the findings collated.

2. Testing and validating PA/EVK methodologies

Relationships with the main project partner, PARC-VAC/OAU/IBAR were consolidated and a

literature review was completed for publication by IIED. Following an agreement with the UNICEF-Operation Lifeline Sudan (Southern Sector) Livestock Programme (OLS), refresher training in PA was provided for 8 veterinary staff from two NGOs as part of a participatory impact assessment of community-based animal health projects. Together with field staff, participatory tools were designed and field-tested to assess local perceptions of changes in livestock disease presence.

Further fieldwork was then undertaken to investigate a wasting syndrome in cattle in southern Sudan where the results of PA surveys was compared with conventional disease investigation methods.

Discussions with the Ugandan Veterinary Services led to an agreement for a combined participatory-formal survey on tick borne diseases in cattle in Karamoja, North-East Uganda. Field testing of PA tools in Kenya including work with PARC-Kenya to investigate rinderpest in the Orma region and a baseline animal health survey in Tana River in partnership with local government veterinary services and the NGO Catholic Relief Services. Unfortunately not all the work planned could be completed within the project time-frame and budget.

Results from the fieldwork completed did show that standardised participatory appraisal methods are reliable and a valid means of understanding the perceptions of livestock keepers. Results compare favourably with formal and more costly and time-consuming veterinary investigation methods. This bodes well for the wider use of PA methods in veterinary epidemiology.

3. Participatory appraisal manual

Despite work on validation of PA/EVK methodologies the staff on this project were unable to complete the work on producing the PA/EVK participatory appraisal manual for veterinary and wildlife professionals as planned in the original project outputs. Unfortunately funds were not available to fund a one year extension to this project which would have enabled this to happen.

Impact

This research focused on semi-arid and arid areas of eastern Africa where the agricultural systems involve many resource poor farmers who follow fragile livelihoods that are subject to very severe

constraints. They are thus very conservative in adopting new ideas that may involve high risks to their current farming systems. Involving such people as full participants in the development and early planning of new animals health initiatives and giving professionals the tools to understand how any changes might affect the livelihoods of farmers is thus vitally important. This research project succeeded in validating the use of current methods of participatory appraisal (PA) and assessing farmer's ethnoveterinary knowledge (EVK) in veterinary epidemiology work as appropriate and accurate. This goes some way to improving the effect that the poor and in particular women have in influencing current 'top-down' planning which tends to ignore the views and knowledge of livestock owners. This should lead to more sustainable and successful projects in both the public and private sectors of veterinary services in Africa.

Training of veterinary workers was an integral part of this project and had a positive influence on their attitude to poor livestock keepers. This project will also leave a cadre of experts who can undertake future work on developing disease control strategies with epidemiologists and vets.

Dissemination

Presentations/Meetings

Kenya: UNICEF Operation Lifeline Sudan Livestock Coordination Meeting in Lokichokio, 1998.

Kenya: Trypanosomiasis Research and Control (ISCTRC) in Mombasa, 1998.

UK: 'The Provision of Livestock Services to the Rural Poor', Reading, June 1998.

Tanzania: Farming in Tsetse Control Areas of Eastern Africa meeting, Arusha, December 1998.

Tanzania: 'Community Delivery of Animal Health Services in Eastern Africa'. A workshop by VetAid and the Technical Centre for Agricultural and Rural Cooperation (CTA), 1998, Arusha.

Paper on: 'Towards A Common Understanding in Animal Health Services'.

Kenya: Participatory approaches to veterinary investigation: Initial experiences from the PAVE Project in Southern Sudan. Kenya Veterinary Association Annual Scientific Conference, April 2000, Mombasa.

Kenya: The Development of Participatory Impact Assessment Methods by Veterinarians in Pastoral Areas of Africa. Animal Health Workshop (ITDG/Government of Kenya/OAU-IBAR), Transmara, , June 2000.

Germany: Workshop in participatory epidemiology Free University of Berlin.

USA: 'Globalisation of Veterinary Medicine: Challenges facing basic service provision in less-developed countries' American Veterinary Medicine Association Convention, Salt Lake City.



More consultation with livestock owners should lead to better veterinary services.

Selected Publications

Copies of the OIE paper '*Methods on the Move*' were distributed to more than 100 veterinarians in government, research centres and veterinary schools in 15 African countries, Europe and the USA. Recipients included staff at the OIE, FAO, World Bank, DFID and EU.

A literature review was completed for publication by IIED.

Catley, A. and Leyland, T. (2001). Community participation and the delivery of veterinary services in Africa. *Preventive Veterinary Medicine*, **49**, 95-113.

Catley, A. (2000). The use of participatory appraisal by veterinarians in Africa. *Office International des Epizooties Scientific and Technical Review*, **19** (3), 702-714.

Catley, A. (2000). The use of participatory appraisal to assess the impact of community-based animal health services: experiences from southern Sudan. IXth Symposium of the International Society for Veterinary Epidemiology and Economics, Breckenridge, Colorado, August, 2000.

Leyland, T. and Catley, A. (2000). Animal health services in pastoralist areas of the Horn of Africa: issues affecting the wider application of community-based delivery systems. IXth Symposium of the International Society for Veterinary Epidemiology and Economics, Breckenridge, Colorado, August, 2000.