

The use of participatory appraisal by veterinarians in Africa

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Summary

The term 'participatory appraisal' refers to a range of methods for data collection, learning and facilitation, which enable local people to play an active role in defining, analysing and solving their problems. A questionnaire survey was used to obtain information on the use of participatory appraisal (PA) from veterinarians working in Africa. A low overall response rate of 28.6% was achieved. Within Africa, response rates varied from 15.6% from government veterinarians to 47.6% from veterinarians working with non-governmental organisations. Information is presented on preferred methods, specific uses, levels of training and perceived advantages and disadvantages of PA. While PA was considered by many informants to be a valuable approach to working with communities to analyse and solve local animal health problems, respondents also identified constraints to the wider use of PA. These constraints included lack of financial resources, low availability of relevant training courses and materials, lack of time to attend training courses, and negative attitudes among colleagues. The author concludes that greater institutional awareness of the role of PA in the development of Veterinary Services is required. Such awareness might be achieved by wider dissemination of experiences related to the use of PA and the development of veterinary-orientated training courses for centrally-based personnel and workers in the field. The latter should include attention to appropriate attitudes and behaviour for veterinary professionals who are attempting to develop services according to the priorities and capacity of the community.

Keywords

Africa – Participatory appraisal – Training – Veterinarians – Veterinary profession.

Introduction

The failure of formal data-collection methods to produce cost-effective and reliable information for designing rural development projects in developing countries was first recognised in the early 1970s (8). This problem was related to the behaviour and methods of researchers which limited their capacity to understand the problems of the poorest and most marginalised people in rural communities. In response to this situation, alternative systems of inquiry have since been developed. These systems include rapid rural appraisal (RRA), participatory rural appraisal (PRA) and participatory learning and action (PLA) which, to varying degrees, enable local people to play a more active role than hitherto in defining,

analysing and solving their own problems (9, 38). This paper uses the term participatory appraisal (PA) to encompass the approaches and methods of RRA, PRA and PLA.

The use of PA requires attention to both the methods and attitudes of researchers. Methods of PA are based on interviewing and diagramming (visualisation) with different social groups in target communities. Many PA methods require researchers to use a list of prompts (a checklist), and the use of different methods combined with analysis of results in the field enables immediate cross-checking of information at the field level (29). The PA training curriculum for researchers includes managing group interviews (group dynamics, dominant talkers, non-verbal communication),

using secondary data sources, direct observation in the field, and identification of different social groups in communities. Typically, PA surveys avoid quantification or statistical analysis of data, and are characterised by informality, flexibility and low cost. In addition to the use of different data collection methods, PA researchers are required to adopt modes of behaviour which demonstrate respect for local perceptions and customs, and a willingness to learn from rural people.

The development literature describes how the use of PA has grown dramatically during the last two decades (9, 38). Organisations varying from indigenous non-governmental organisations (NGOs) to the World Bank now claim to use PA in education, human health, transport, agriculture, natural resource management, water development and other sectors. Although most experience with participatory approaches has arisen from work in developing countries, there is also increasing use of PA in industrialised countries, with examples from health workers (35, 36) and foresters (19) in the United Kingdom.

The potential applications of RRA and PRA in animal health services in developing countries were first described by Leyland (24). Specific examples of PA methods used in livestock development are summarised in Table I and included interviewing, scoring and ranking, and various

diagramming or visualisation methods. Interviewing methods used in PA were usually informal and semi-structured. This type of interview was based on a checklist of key questions and allowed scope for the interviewer to follow-up interesting topics that emerged during the interview. Therefore, semi-structured interviews were guided but also improvised conversations (39). Some PA interview methods were more structured, such as the progeny history method (18) (Fig. 1).

Scoring and ranking methods were used to understand preferences for different items or services. Ranking required informants to rank items in order of importance (first, second, third, etc.), whereas scoring methods used counters such as seeds or stones to give each item a specific score. Numerous examples of the use of ranking and scoring methods in animal health projects are available, including general surveys of priority animal health problems (6, 12, 25, 32, 45) and specific investigations on problems such as tick-associated health problems (5). An example of a scoring method is shown in Figure 2 and Table II.

Visualisation or diagramming methods have also been widely used by veterinarians. These methods include maps such as natural resource maps, service maps (41), social maps, livestock movement maps (16, 34), seasonal calendars (5, 17), time-lines, transects (12) and Venn diagrams (2). Visualisation methods were particularly useful for presenting

Table I
Examples of participatory appraisal methods used in livestock development (4)

Country	Notes
Afghanistan	Use of wealth ranking, disease ranking, fodder ranking and seasonal calendars during the design of an animal health project (25)
Ethiopia	Report which includes a method for 'interviewing cows' (20)
India	Stakeholder analysis of animal health services based on the use of PA tools, particularly proportional piling (41)
Indonesia	Use of maps, interviews, seasonal calendars and livelihood analyses during an evaluation of a dairy buffalo project (11)
Kenya	Outlines the use of progeny histories in a study of economic aspects of malignant catarrhal fever in buffaloes and cattle (37)
Kenya, Zimbabwe	Describes the progeny history method (18)
Mongolia	Use of wealth ranking and disease ranking in projects implemented by the Intermediate Technology Development Group (32, 45)
Mozambique	Use of labour calendars by gender; illustrates division of labour for livestock tasks (10); livestock mobility maps (34)
Nepal	Use of Venn diagrams to understand institutional links between communities and agencies involved in livestock (2)
Nigeria	Use of maps, progeny histories, rankings and interviews during an evaluation of a village animal health worker project (46)
Somalia	Use of RRA to study constraints and solutions facing poultry farmers; comparison of RRA with questionnaire method (43)
Somaliland	Use of PA methods to conduct preliminary investigations on rinderpest in a remote area (33)
South Africa	Seasonal calendar showing variations in disease incidence; herders' calendars showing seasonal movements of livestock (16, 17)
Southern Sudan	Use of participatory scoring tools including 'before and after' scoring for programme review and evaluation (1)
Trinidad and Tobago	Use of seasonal calendars and scoring tools to investigate tick ecology and tick-associated disease (5)
Zambia, Ethiopia, Guinea	Detailed account of a livestock disease scoring tool; discussion on reliability and validity (6)
	Outlines the use of RRA within a systems approach to animal health needs assessments (31)
	Use of rapid appraisal with stakeholders to assess community veterinary needs (30)
	Describes the use of participatory animal health surveys from 1993 in the UNICEF Operation Lifeline Sudan (Southern Sector) Livestock Programme (26)
	Use of school essay method and group interviews as part of an ethnoveterinary study (22, 23)
	Describes a methodology for rapid appraisal, including the use of livestock disease calendars and transect walks (12)

PA : participatory appraisal
RRA : rapid rural appraisal
UNICEF : United Nations Children's Fund

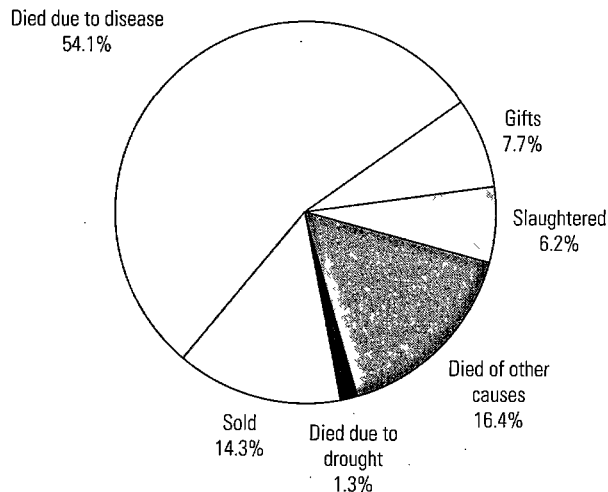


Fig. 1

Example of using the progeny history method to collect information on the fate of sheep and goats leaving flocks in Samburu District, Kenya (18)

The data in the pie chart is derived from progeny histories of 121 sheep and goats

information which could not easily be expressed verbally or in writing, and could be used with both literate and illiterate informants. Diagrams were usually constructed using locally-available materials and then copied on to paper by the researchers. An example of a livestock mobility map is shown in Figure 3. A range of PA methods have been described for use by veterinary epidemiologists (3) and these methods are summarised in Table III.

Stage 1: Identification of items to be scored. Ask the informants to name the items under investigation. For example, if investigating preferences for species of livestock reared, ask the question, 'Which types of livestock do you keep?'. If investigating animal health problems, the researcher can limit the number of items by questions such as 'What are the six most important livestock diseases in your animals throughout the year?'. Write the items named by the informants on separate pieces of card using the local language. Check that at least one informant is literate. If all informants are illiterate, use different everyday objects to represent each named item, e.g. when investigating livestock species a stone could represent a cow, a leaf could represent a goat, etc.

Stage 2: Pair-wise comparison of the named items. First, choose two items (represented as name cards or objects) and ask the question, 'Which of these two is most important and why?'. The informants will prioritise the items and provide reasons for their decision. Record the response and repeat the question until each item has been compared with every other item. At the end of the pair-wise comparison, the researchers should have recorded a list of indicators of factors used by the informants to compare the different items.

Stage 3: Scoring of items versus indicators. Place the name cards or objects in a row on the ground. Collect a pile of stones using five stones per item as a guide to the number of stones needed, e.g. if six items are being scored, thirty stones are required. Remind the informants of the first indicator mentioned during the pair-wise comparison and ask them to distribute the stones according to degree of relationship between this indicator and each of the items represented by the name cards or objects. All stones must be used. After the stones have been allocated to each item, check the scoring with the informants and allow them to alter the scoring if they wish. Record the final number of stones allocated to each item, collect the stones and then repeat the scoring for each of the indicators.

Fig. 2

Example of a scoring method from Somaliland (6)

A summary of the three main stages of the basic method

The key questions in the progeny history method:

- Ask the livestock owner to give the names of six bloodlines of animals and from these ask the owner to choose two good, two average and two bad bloodlines.
- For one good animal, write down the name and ask:
 - Where did the animal come from?
 - How many pregnancies?
 - How many abortions?
 - If still in herd, is the animal pregnant, dry or barren?
- Then for each birth ask:
 - Was it a single or a twin? (record twins separately)
 - What happened to it?
 - Why?
 - What is the age of the animal now, or age when it left the herd?
 If the offspring is female, still present in the herd and has given birth, record the name of the animal(s).
- When you have recorded all the births of the original animal, repeat questions b) and c) for each of the female offspring.
- Repeat questions b) and c) for at least one average and one poor animal, and time-permitting, for another good, average and poor animal.

An important feature of PA was the use of various methods to cross-check or 'triangulate' information. During triangulation, the results arising from one method were cross-checked against results arising from one or more other methods and secondary data. This cross-checking process took place in the field and therefore researchers were able to immediately verify results. Triangulation in PA is similar to clinical investigation in veterinary medicine, during which the clinician examines an animal while also questioning the owner. Therefore, information derived from the owner is cross-checked against the clinical examination.

In Africa, participatory systems of inquiry were first used in veterinary projects in the late 1980s when NGOs sought to develop basic services in marginalised areas (32, 45). For example, PA was used extensively by the United Nations Children's Fund (UNICEF) Operation Lifeline Sudan (Southern Sector) Livestock Programme, which in collaboration with NGOs, used ranking and interviewing methods to prioritise animal health needs among agropastoral communities in southern Sudan (26). In 1998, this programme had developed to cover approximately 70% of southern Sudan and supported a network of 560 community-based animal health workers (CAHW) (21). Furthermore, the programme achieved impressive results, particularly with respect to the control of rinderpest (7). In southern Sudan and other areas, PA generated useful information on local animal disease priorities and enabled project staff to develop good working relationships with rural communities (5, 6, 26).

As indicated in Table I, most of the literature on the use of PA by veterinarians has emerged from relatively small-scale animal health projects implemented by NGOs. To date, the use of PA by government Veterinary Services or veterinary research institutes has been limited, and published accounts of the use of PA in veterinary journals are few. Regarding experiences from Africa, published papers describing the use

Table II
Example of results obtained using the scoring method

The results below show how a group of Somali herders compared and analysed six livestock health problems. The six livestock health problems and the list of 25 indicators were identified by the informant group. Each indicator was scored against the health problems using 30 stones per indicator; the higher the score, the greater the importance of the indicator for the disease in question. Local names for each health problem are italicised. These names were verified by clinical examination of animals by a veterinarian and in some cases, post-mortem and laboratory examination.

Local indicators	Health problem					
	Nairobi sheep disease (<i>hulumbe</i>)	Coughing in camels (<i>ah</i>)	Gut worms, all species (<i>caaf</i>)	Surra (<i>dhukaan</i>)	Ulcerative balanoposthitis in sheep (<i>jabti</i>)	Pox diseases (<i>furug</i>)
Reduced local sale value	0	4	4	5	7	10
Reduced export value	0	0	0	0	11	19
Disease causes poverty	19	0	3	0	0	8
Animal dies	15	0	6	0	0	9
Animal lies down	7	0	23	0	0	0
Animal becomes thin	0	0	17	13	0	0
Animal aborts	0	24	0	0	0	6
Skin is damaged	0	0	0	0	0	30
Disease spread by ticks	30	0	0	0	0	0
Disease in different species	0	0	0	0	0	30
Milk yield falls	0	12	6	12	0	0
Meat is inedible	4	0	8	0	0	18
Disease cannot be treated	0	0	0	15	0	15
Disease occurs in hot period	10	0	0	0	0	20
Disease is contagious	0	11	0	2	4	13
Disease spread by worms	0	0	30	0	0	0
Disease affects sheep	22	0	0	0	8	0
Disease causes subcutaneous oedema	0	0	16	0	6	8
Disease causes diarrhoea	8	0	22	0	0	0
Disease causes bloody diarrhoea	9	0	21	0	0	0
Disease causes coughing	11	19	0	0	0	0
Disease affects breeding	0	0	0	0	30	0
Black lymph nodes after death	21	0	0	0	0	9
Thin watery blood after death	0	6	6	11	0	7
Congested meat after death	15	0	15	0	0	0

of participatory methods and surveys are limited (5, 6, 12, 31), although a considerable literature is available on technical aspects of tropical livestock diseases.

The Organisation for African Unity/Inter-African Bureau for Animal Resources (OAU/IBAR) has been supporting CAHW systems in Africa since 1992, most recently through the Participatory Community-based Vaccination and Animal Health Project (PARC-VAC). Specific objectives of PARC-VAC are rinderpest eradication using heat-stable vaccine delivered by CAHWs and the establishment of primary animal health services which link CAHWs to private veterinary practitioners (27). A key component of the community-based approach of PARC-VAC is the use of PA to facilitate processes that enable livestock keepers to define and analyse problems, identify solutions and take collective responsibility for important aspects of project implementation. In partnership with PARC-VAC, the Participatory Approaches to Veterinary Epidemiology (PAVE) project of the International Institute for Environment and Development (IIED) is investigating

options for validating and expanding participatory approaches and methods into public and private veterinary services in Africa. The project aims to define roles for PA in animal health services as both stand-alone methods and as methods to complement conventional systems of inquiry.

The survey described in this paper was used to collect information on the use of PA by veterinarians working in Africa, and to seek the opinions of these individuals on the strengths and weaknesses of PA methods.

Methods

Questionnaire design

A questionnaire comprising both open and closed questions was used to collect information on the training of respondents and their colleagues in PA, general and specific uses of PA by the respondent and colleagues, most useful PA methods, and advantages, disadvantages and constraints of PA usage (a copy

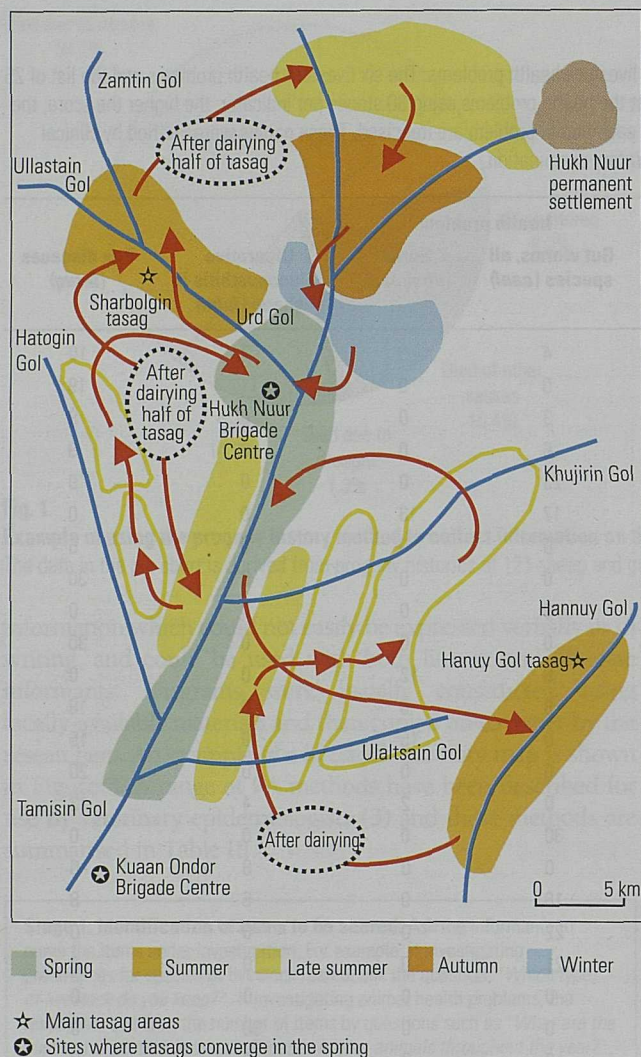


Fig. 3
Example of a livestock mobility map from Mongolia (34)

The term *tasag* refers to a dairying team or mobile herding unit which utilises grazing areas for milk production

of the questionnaire is available from the author). The questionnaire was tested on two veterinarians in Edinburgh with experience of PA in developing countries, and on two postgraduate students at the Centre for Tropical Veterinary Medicine, University of Edinburgh. The questionnaire was administered in either English, French or Portuguese, depending on the predominant language used in the countries concerned.

Questionnaire administration

Three methods were used to administer the questionnaire. One group of questionnaires (Group 1, $n = 114$) was administered by post with a covering letter from the author, a letter of support from the Director of OUA/IBAR and an addressed envelope. This group comprised all Chief Veterinary Officers and Pan African Rinderpest Campaign National Co-ordinators in Africa, and veterinarians in veterinary schools, veterinary research institutes, multilateral

and bilateral donor agencies in Africa, non-African universities with specialist tropical veterinary medicine departments, independent consultants and NGOs. Questionnaires were posted between 12 July and 27 July 1998, and reminders were sent by post on 10 September 1998.

A second group of questionnaires (Group 2, $n = 36$) was administered by electronic mail on 14 July 1998 to veterinarians in veterinary schools and veterinary research institutes in Africa, multilateral and bilateral donor agencies in Africa, non-African universities with specialist tropical veterinary medicine departments, independent consultants and NGOs. Reminders were sent by electronic mail between 8 September and 10 September 1998.

A third group of questionnaires (Group 3, $n = 25$) was administered by electronic mail on 14 July 1998 followed by local copying of the questionnaire and distribution by hand. Group 3 questionnaires were administered to veterinarians working in NGOs in Africa only. A reminder was sent on 8 September 1998 by electronic mail. All respondents replied by 30 November 1998.

Table III
Some participatory appraisal methods for use in veterinary epidemiology and economics (3)

Information required	Methods ^(a)
System boundary	Natural resource maps, social maps
Social organisation	Social mapping, Venn diagrams
Wealth groups	Wealth ranking
Relative livestock ownership	Proportional piling
Role of livestock in household economy	Livelihood analysis
Preferred types of livestock reared	Livestock species scoring
Income from livestock	Proportional piling
Marketing structure	Flow diagrams, service maps
Veterinary services	Service map, Venn diagrams, ranking and scoring
Animal husbandry	Seasonal calendars ^(b) , mobility maps ^(c) , transects
Resources available to rear livestock	Natural resource maps, transects
History of livestock diseases	Timelines
Priority livestock diseases	Livestock disease scoring
Seasonal variations in livestock disease	Seasonal calendars
Relative mortality rates	Proportional piling
Livestock productivity	Progeny history

a) semi-structured interviews can provide information on all topics

b) particularly useful for showing breeding management and feeding management

c) to show livestock movements in pastoral and agropastoral systems

Results

Response rates

Response rates in the survey are detailed in Table IV. Fifty responses were received from the 175 questionnaires administered (28.9% response rate). Responses from veterinarians located in Africa were obtained from fifteen countries, and response rates varied from 15.6% (10/64) from government veterinarians to 47.6% (20/42) from veterinarians working with NGOs. Within Africa, veterinarians from twelve anglophone countries and three francophone countries responded to the questionnaire.

Participatory appraisal: what does it mean?

The first section of the questionnaire presented an explanation of the term 'participatory appraisal' as follows:

The term 'participatory appraisal' applies to a range of data collection, learning and facilitation methods which are known by many different names and abbreviations. Perhaps most commonly, participatory appraisal is associated with 'rapid rural appraisal' (RRA) or 'participatory rural appraisal' (PRA). A full list of participatory appraisal methods and approaches is provided in Annex 2 [of the questionnaire]. An important feature of participatory appraisal methods is that researchers have at their disposal a 'toolkit' of interviewing, diagramming, ranking, scoring and other methods in order to encourage informants to describe their knowledge and understanding of the issues under investigation. Frequently, these issues are identified by the informants themselves and the researchers learn from the informants. Please give your own definition of participatory appraisal if it is markedly different from the above.

Sixteen respondents commented on the above explanation. Their views are quoted verbatim in Figure 4. Although most

'Similar to above but in epidemiology we call it a questionnaire survey'

'Plus participants stimulated to re-examine their own situation in a different way'

'To involve the beneficiaries themselves to think about the positive and negative impact of their actions'

'Community participatory dialogue, or brain storming, group discussions or participatory discussion'

'Mutual rural assessment technique where the toolkit is appropriate to the community or earlier derived from the community'

'It is a springboard for discussion both between the facilitator and the community and within the community'

'PRA emphasises the active role of the people affected in either problem analysis or planning or both, and outsiders ("experts") only act as facilitators. PRA emphasises ownership: the local people own the results'

'Plus it is a relatively economic tool to gather quite reliable information in a short time'

'Data collection and analysis to achieve the better developmental plan and welfare'

'Community talk-back appraisal'

'As above but when does a data collection method become "non-participatory"? Perhaps it would be better to think of participatory appraisal as a process that goes from data collection through to project implementation involving the target groups throughout'

'A method of talking to people which encourages them to contribute their ideas and perceptions of issues concerning them'

'I do not care too much for definitions, but you may reword the above so that a simple farmer in Europe or Africa understands'

'It's fine - I'm still learning'

'Participatory appraisal is a fast low input informal method of data collection commonly used in developing countries but could be adapted for use in developed countries - listening, looking, sensitivity to culture, environment and local beliefs helps to solve problems and design projects'

'Is an interview method which may be formal or informal. Mainly open questions which allow participants to use diagrams, drawings, stories, stones etc. to answer the questions'

Fig. 4
Comments of respondents on the meaning of participatory appraisal

respondents agreed with the definition provided, three respondents considered PA to be a data collection method *per se* which was similar to questionnaires or interviews.

Table IV
Response rate by type of organisation and method of questionnaire administration

Type of organisation	Method of questionnaire administration			Overall response rate
	Group 1 (post)	Group 2 (e-mail)	Group 3 (e-mail, local copying and hand-delivery)	
Government Veterinary Services in Africa ^(a)	10/64 (15.6%)	NA	NA	10/64 (15.6%)
Veterinary schools and research centres in Africa	10/27 (37.9%)	0/2 (0%)	NA	10/29 (34.5%)
Multilateral and bilateral agencies	1/6 (16.7%)	5/12 (41.7%)	NA	6/18 (33.3%)
Non-African universities ^(b)	1/8 (12.5%)	0/2 (0%)	NA	1/10 (10.0%)
Independent consultants	1/5 (20.0%)	2/7 (42.9%)	NA	3/12 (25.0%)
Non-governmental organisations	2/4 (50.0%)	5/13 (38.5%)	13/25 (52.0%)	20/42 (47.6%)
Total	25/114 (21.9%)	12/36 (33.3%)	13/25 (52.0%)	50/175 (28.6%)

a) includes Chief Veterinary Officers, Pan African Rinderpest Campaign National Co-ordinators and veterinary epidemiologists working in central locations

b) refers to university departments in Europe and North America with specialist interest in tropical veterinary medicine

NA: not applicable

Table V
Training versus use of participatory appraisal (PA) by veterinarians working in Africa

Type of organisation	Respondents		Colleagues	
	Trained in PA	Use PA	Trained in PA	Use PA
Government Veterinary Service ^(a)	2/10	5/10	4/10	5/10
Non governmental organisation	12/20	17/20	9/20	14/20
Veterinary or agriculture college	5/10	8/10	5/10	8/10
Non-African university ^(b)	1/1	1/1	1/1	1/1
Multilateral/bilateral agency	2/6	5/6	2/6	3/6
Independent consultant	2/3	3/3	1/3	1/3
Total	24/50	39/50	22/50	32/50

a) includes Chief Veterinary Officers, Pan African Rinderpest Campaign National Co-ordinators and veterinary epidemiologists working in central locations
b) refers to university departments in Europe and North America with specialist interest in tropical veterinary medicine

Training in participatory appraisal versus use of participatory appraisal

Table V shows that 78% (39/50) of respondents were using PA in their work. Table V also compares levels of training in PA with actual use of PA among respondents and colleagues. The results show that some veterinarians who lacked training in PA were still using the methods. Among respondents, 38% of PA-users were untrained, whilst among colleagues of the respondents, 31% of PA-users were untrained. In part, this finding was supported by the views of respondents on constraints affecting the use of PA, which included lack of suitable training courses, lack of relevant literature and lack of forums to exchange experiences. Other findings related to lack of training were limited financial resources, lack of time to attend training and negative attitudes towards PA among colleagues and superiors.

Uses of participatory appraisal

The most common uses of PA were baseline surveys and needs assessments, project monitoring and training (Table VI). The method was also used in the development of

training curricula and materials for CAHWs and animal health auxiliaries, project evaluation, project planning, project implementation, disease investigation, disease monitoring and surveillance, ethnoveterinary research and identification of research priorities. The use of PA in training was related to the identification of local animal disease priorities and the use of indigenous veterinary knowledge during training. Two of the four respondents using PA for disease monitoring and surveillance made specific mention of control programmes for rinderpest and contagious bovine pleuropneumonia. Project monitoring included both daily monitoring and discrete monitoring activities.

Commonly used participatory appraisal methods

The most commonly used PA methods were ranking and semi-structured interviews (Table VII). Other PA methods used by respondents were interview methods such as ethnoveterinary question lists and progeny histories, diagramming methods such as mapping, transects and seasonal calendars, and ranking or scoring methods such as proportional piling.

Table VI
The ten most commonly cited uses of participatory appraisal by veterinarians working in Africa

Use	Number of times cited
Baseline surveys/needs assessments	23
Project monitoring	13
Training	11
Project evaluation	7
Project planning	6
Project implementation	5
Disease investigation	5
Disease monitoring or surveillance	4
Ethnoveterinary research	3
Research priority setting	2

Table VII
The ten most commonly used participatory appraisal methods by veterinarians working in Africa

Method	Number of times cited
Ranking	15
Semi-structured, informal interviews	12
Mapping	5
Ethnoveterinary question lists	4
Transects	2
Progeny histories	2
Seasonal calendars	2
Brainstorming	2
Proportional piling	2
Active listening	2

Advantages and disadvantages of participatory appraisal

The main advantages of PA as perceived by respondents are summarised in Table VIII. Aspects most commonly cited were the value of PA in understanding local problems and solutions, the ability to enable good working relationships between veterinarians and local people and the inclusive nature of the method. Some respondents mentioned the rapidity and low resource needs of PA as advantages although other respondents felt that PA was time-consuming and required high resource inputs (Table IX).

Table VIII
The ten most commonly cited advantages of participatory appraisal as perceived by veterinarians working in Africa

Advantages	Number of times cited
Aimed at community priorities and context	23
Inclusive; includes all social groups in the community	12
Improves relationships, trust and rapport between outsiders and communities	11
Rapid	10
Results reached and decisions made by consensus	8
Inexpensive because local resources are used	7
Encourages community-level problem solving	5
Promotes indigenous technical knowledge	5
Increases local, community ownership of projects	5
Enables outsiders to learn about communities	5

Table IX
The ten most commonly cited disadvantages of participatory appraisal as perceived by veterinarians working in Africa

Disadvantages	Number of times cited
Time-consuming	17
Generates qualitative data	11
Requires high resources	9
Language/translation problems in the field	8
Requires much patience on the part of the facilitators	5
Manipulation by project to achieve its own aims	5
Seen as a panacea data collection method by donors	4
Requires very skilled facilitators	3
Unpopular with central decision-makers in government	3
Improper use of tools	3

The qualitative data arising from PA was commonly cited as a disadvantage by respondents. Specific comments related to this aspect of PA referred to the need to cross-check PA data with conventional methods, the need for repetition of PA methods, difficulty in summarising and reporting qualitative data and negative experiences when trying to publish research based on PA methods. When describing disadvantages, respondents also noted that careful and skilled facilitation was needed for PA and that some donors considered the methods

to be a 'cure-all' or 'panacea' solution to data collection needs in developing countries. One respondent described a tendency for PA facilitators to investigate subjects outside their technical background. It was suggested that such people were poorly equipped to lead discussions on animal health matters and were prone to misinterpret the views of livestock keepers.

Constraints to the use of participatory appraisal

The main constraints to the use of PA as described by respondents are summarised in Table X. Among these constraints, lack of financial resources, lack of time to attend training, poor acceptance of PA among veterinarians and lack of facilities to verify PA data were considered to be institutional constraints. External constraints included lack of suitable training courses and materials. Field workers mentioned logistical problems in physically reaching target communities and noted that such communities might be experiencing conflict or hunger.

Table X
The ten most commonly cited constraints to the use of participatory appraisal by veterinarians working in Africa

Constraints to usage	Number of times cited
Lack of financial resources	13
Lack of suitable training courses	13
Lack of time to attend training	12
Poor acceptance and negative attitudes among veterinarians	6
Lack of relevant literature and training manuals	4
Logistical problems	3
Lack of forum to share experiences	3
No facilities to cross-check data using conventional means	2
Poor public awareness of the approach	2
External constraints, e.g. conflict, food shortages	2

Discussion

This survey was intended to provide an overview of experiences of the use of PA by veterinarians working in Africa. The questionnaire was administered to both Chief Veterinary Officers and NGO veterinary staff, and therefore both senior, centrally-located personnel and field-level workers were included in the survey. The different methods of questionnaire administration were considered to be appropriate because the survey aimed to seek opinions from veterinarians working with various institutions in Africa, rather than to compare organisational perspectives. Therefore, most of the results were not analysed according to the organisational background of the respondent. The author was also aware that postal services in Africa could be unreliable

and expensive. Postal services were likely to be disrupted in the ten countries of Africa that were experiencing civil or international conflict at the time of the survey, and in the one country which lacked an internationally-recognised government.

Despite problems with questionnaire administration, the overall response rate in the survey was still considered to be low (Table IV). The author proposes that the low response rate was an indication that many of the veterinarians who received the questionnaire were not familiar with PA. Response rates were particularly low from government Veterinary Services in Africa and non-African universities. Among the fifty questionnaire respondents, only twenty-four (48%) had received some form of training in PA, and therefore over half the responses were from veterinarians with limited experience of the theory or practice of PA (Table V). According to these findings, the author did not attempt to analyse the results of the survey in detail.

Respondents appeared to consider that PA was useful for working with communities to improve animal health service delivery (Table VIII). Open questioning in the questionnaire showed that the advantages of PA included the role of the method in consensus-building, improving trust between outsiders and communities, encouraging community-level problem solving, increasing community ownership of projects and enabling outsiders to learn about communities. These findings indicate that PA has an important role in defining the perceptions and needs of livestock-owning communities.

Some important advantages and disadvantages of PA are detailed in Tables VIII and IX respectively. Whereas 'rapid' and 'inexpensive' were noted as advantages, 'time-consuming' and 'requires high resources' were disadvantages. These findings should be interpreted in relation to the time and resource requirements of conventional data-collection methods, such as questionnaires which are often considered to be difficult to design, time-consuming and costly to implement in developing countries (8). This survey did not ask respondents to compare questionnaire methods and PA. With hindsight, such questioning may have produced interesting information considering the resource constraints faced by Veterinary Services in Africa.

The survey results support some of the concerns generally expressed by PA practitioners regarding the rapid growth of participatory approaches and methods in development organisations during the last decade. These concerns include poor quality PA due to inadequate training and diverse, often incorrect, interpretations and expectations of participation leading to criticism or disillusionment with the approach and methods (13, 15). The results of the survey also indicated that lack of training was an important problem hindering the

wider and correct use of PA by veterinarians. At least five of the disadvantages listed in Table IX regarding the use of qualitative data, communication problems, patient and skilled facilitation, and improper use of PA tools, could be solved or alleviated by training. In addition, the constraints listed in Table X relating to training courses and materials might also be addressed by training initiatives. However, the author advises that, while training is a useful starting point for veterinarians wishing to use PA, training organisations and trainers should be selected very carefully. A large number of people claim to provide training in participatory methods, and it has been noted that inexperienced trainers are reducing the quality of PA training and practice (15, 42). A second important problem affecting PA training is over-emphasis on methods (14, 40, 42). Ideally, training in PA should focus on attitudinal and behavioural aspects of PA, and the principles of community participation.

The qualitative nature of the data produced by PA was the second most commonly cited disadvantage (Table IX). This finding indicates that veterinarians were not accustomed to collecting and using qualitative data, and had some reservations about the validity of such data. For example, some respondents mentioned the need to cross-check PA surveys with conventional veterinary investigation methods. The PAVE project is currently using PA in combination with standard disease investigation methods in order to define the reliability and validity of PA in varying operational contexts.

The wider use of PA by veterinarians in Africa, regardless of training inputs and willingness or ability to use qualitative data among individuals, will probably require marked changes in those institutions responsible for animal health service delivery and research. For example, a recent review of more than 800 livestock development initiatives, including animal health inputs, supported by major development agencies over the last thirty-five years (28) demonstrated very limited impact on poor livestock keepers. This result was attributed to inappropriate institutional frameworks which had failed to support client-led, participatory delivery of services or research. Although this situation should be a cause for concern for animal health professionals, experience from other sectors is available to guide the transformation of institutions towards more participatory research and development activities (44). For example, experiences of attempts to expand participatory approaches in government agencies has demonstrated that training for both senior and field-level personnel plays an important role in the reform process. However, the impact of training is limited unless institutions are committed to learning and change on a broad basis. These and other aspects of scaling-up participatory development and the use of PA will need to be reviewed by veterinarians and animal health organisations as alternative approaches to service design, planning, monitoring and evaluation begin to be tested and applied.

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Utilisation de l'évaluation participative par les vétérinaires en Afrique

A. Catley

Résumé

L'expression « évaluation participative » s'applique à toute une série de méthodes de recueil de données, d'apprentissage et de facilitation permettant aux populations locales de jouer un rôle actif dans la définition des problèmes et dans l'analyse et la recherche de solutions. Une enquête sur le recours à l'évaluation participative a été réalisée auprès des vétérinaires travaillant en Afrique. Le taux de réponse global a été faible (28,6 %). Les taux de réponse par catégories allaient de 15,6 % pour les vétérinaires du secteur public à 47,6 % pour ceux travaillant avec des organisations non gouvernementales. L'enquête portait sur les méthodes de choix de l'évaluation participative, sur ses usages spécifiques, sur les niveaux de formation requis et sur les avantages et inconvénients liés à cette méthode, tels qu'ils sont perçus par les praticiens. Nombre de déclarants estiment que l'évaluation participative est un bon moyen de travailler avec les collectivités pour analyser et régler les problèmes zoonosés locaux, mais certains d'entre eux mettent aussi l'accent sur les contraintes liées à une utilisation à large échelle de cette méthode. Parmi les contraintes ainsi identifiées figurent l'absence de moyens financiers, l'insuffisance des stages et du matériel de formation, le manque de temps pour assister à ces stages et les attitudes négatives de la part de certains confrères. L'auteur aboutit à la conclusion qu'une plus grande sensibilisation des responsables quant à l'intérêt de l'évaluation participative dans le développement des services vétérinaires en Afrique est nécessaire. Cette sensibilisation pourrait passer par une plus large diffusion des expériences liées à l'utilisation de l'évaluation participative et par la mise en place de stages de formation centrés sur la médecine vétérinaire et destinés aux responsables nationaux et au personnel de terrain. Ces stages devraient notamment insister sur la nécessité d'accueillir favorablement toute attitude ou initiative des vétérinaires visant à développer certains services en fonction des priorités et des capacités de la collectivité concernée.

Mots-clés

Afrique – Évaluation participative – Formation – Profession vétérinaire – Vétérinaires.

Uso de métodos de evaluación participativa por parte de veterinarios en África

A. Catley

Resumen

El término de "evaluación participativa" se aplica a una serie de métodos de recolección de datos, de aprendizaje y de facilitación para que las poblaciones locales puedan identificar los problemas que se plantean en ellas, analizarlos y encontrar soluciones. El autor describe los resultados de un cuestionario que se distribuyó entre veterinarios que trabajan en África para obtener información sobre el uso de métodos de evaluación participativa. La tasa total de respuesta fue baja (28,6%). Por categorías, esa tasa oscilaba entre un 15,6% (veterinarios de servicios públicos) y un 47,6% (veterinarios a sueldo de organizaciones no gubernamentales). La encuesta presenta información sobre los métodos de participación preferidos, los usos concretos a los que se aplican, el nivel de formación y las ventajas e inconvenientes de la evaluación participativa a juicio de los encuestados. Muchos de los informantes consideraron esta fórmula interesante para trabajar con las comunidades y analizar y resolver problemas zoonosarios de carácter local, aunque algunos señalaron sus límites para aplicaciones más generales. Entre dichos límites figuran la carencia de fondos, la escasez de cursos y material de formación, la falta de tiempo para seguir esos cursos y la reticencia que se percibe entre algunos de los colegas. El autor llega a la conclusión de que es necesario un mayor nivel de conciencia por parte de las autoridades sobre el papel que puede desempeñar la evaluación participativa en la prestación de servicios veterinarios. Para ello es menester dar mayor difusión a las experiencias relacionadas con el uso de métodos participativos y crear cursos de formación dirigidos tanto a los veterinarios de los servicios centrales como a los que trabajan sobre el terreno. Al impartir esos cursos convendría hacer hincapié en la necesidad de adoptar actitudes receptivas para con los veterinarios que intentan poner en marcha servicios adaptados a las prioridades y posibilidades de la comunidad local.

Palabras clave

África – Evaluación participativa – Formación – Profesión veterinaria – Veterinarios.

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