

Participatory tools for assessment and monitoring of poultry raising activities and animal disease control



Photo: M. Pizzari (FAO)

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1) Exercise: General overview of access to, control over and benefits from resources (1h)

Material

Flip-chart and felt pen

The exercise is carried out in a group of same sex people and aims to identify their main assets and who has access to, control over and benefits from these resources. It gives a general understanding of the situation. It has to be focused on livestock and chickens/poultry to allow an understanding of who takes responsibility for the different animals. It provides understanding as to the possibility of individuals to take action with regards to these animals and the impact in terms of livelihood in the case of animal disease and mortality.



Photo: M. Pizzari (FAO)

A. Resources: Access and Control

Control of a resource or an input implies decision making about its use. Access to a resource implies conditionality about using it and how it is used. These inputs include labour, land, water, cash, seed, fertilizer and implements. Sometimes, access is mixed. For instance, where fields are allocated to women by senior men, the amount and location of land are controlled by him. However, what is planted and how it is managed are probably decided by the woman. We cannot assume if males control one input, they will necessarily control the others. In particular, seed or germplasm is often controlled by females. Even if men use the technology, if women control the purse, as is the case in many parts of Asia, it will be crucial for technology adoption that the technology be evaluated in terms of the male and female criteria for determining its effectiveness.

B. Benefits

There are a number of potential uses for the outputs of production. These include: consumption; storage for later consumption, later exchange, or later sale; other domestic uses, such as fuel and building materials; exchange; sale; and reinvestment in agricultural production, such as manure, fodder or fencing.

In making sure that agricultural research provides technologies that will be adopted by the farmers, and will increase farmers' welfare, it is often useful to work out a matrix of the uses and benefits of production to provide some insight into farmers' incentives. In analyzing benefits there are three important questions to consider:

- (1) What are the products? Are there products of post-harvest processing of a 'minor' crop which are important sources of income? For instance, is there beer brewing from traditional sorghum or holiday delicacies from glutinous rice which are an important source of income?
- (2) What are the uses and desirable characteristics of these farm products including uses of all parts of the plant or animal?
- (3) Who has access to or control of the products and the income they produce? Will this pattern be an incentive or hindrance to the allocation of any additional labour or resources required by a new technology?

In later analysis, disaggregation of costs and benefits by gender helps anticipate which technologies will be accepted by whom. But it is important to understand the farmer's calculations. Whose capital is invested, and who keeps the animal produced? Factors other than yields and returns frequently affect farmers' acceptance of proposed changes. This is particularly true in limited resource peasant households. Ability to quickly identify these factors by gender can help enhance understanding the whole farming system and provide criteria against which to evaluate further research.

Table 1: Resources For Farm Production Access and Control

Resources	WHO HAS ACCESS?	WHO HAS CONTROL?	WHO BENEFITS?	WHAT ARE THE IMPLICATIONS?
LAND (list different kind of land) - dry areas - wet areas WATER CROPS (List subsistence and cash crops) TREES (List trees) LIVESTOCK (list animals) - chickens - pigeons - fighting cocks - singing birds - ducks - quail LABOUR - Own - Family - Hired INPUTS: (Purchase or Produced on farm) - Fertilizer - Pesticides CAPITAL GOODS - Implements - Fencing CASH - Credit INFORMATION MARKET/TRANSPORT EDUCATION				

KEY: MA=Male Adult, MC=Male Child, FA= Female Adult, FC= Female Child

2) Exercise: Identify activities carried out by men and women related to poultry raising (2h)

Material

Flip-chart and felt pen

1. In groups identify who performs the different activities related to poultry raising and fill up the table (adapted from Alders and Spradbrow 2001). The exercise can be done on a flip chart, the participants drawing the activities in pieces of paper that are then glued on the flip-chart.
2. Discuss the main findings

Activities	Adult men	Adult women	Boy	Girl	Older men	Older women
Large species of animal (general)						
Small species (general)						
Chicken raising						
Give feed						
Give water						
Build the poultry house						
Prepare the place for the hen to brood						
Clean the house						
Receive information on poultry raising						
Control birds						
Decide when to sell birds						
Decide when to sell eggs						
Decide to vaccinate						
Open and close the poultry house door						
Collect eggs						
Eat birds						
Eat eggs						
Take care of sick birds						
Decide if vaccination was positive						

3) Exercise: Focus Group Discussions

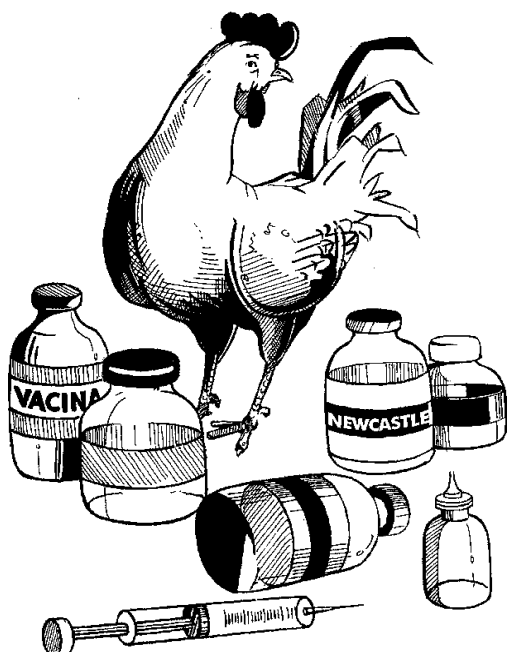
Introduction

One of the main tools used to collect data about the implementation and effectiveness of vaccination campaigns is Focus Group Discussions.

Focus Group Discussions are facilitated discussions held with small groups with homogeneous or heterogeneous views. Group size should be kept to between 8 to 12 persons. The discussions usually last one to two hours and have many potential uses.

The following possible uses are to:

- Serve as a forum for addressing a particular issue to highlight various concerns, conflicting interests and common ground among different groups
- Provide an opportunity to cross-check information collected using other techniques
- To obtain a variety of reactions to hypothetical, planned or actual interventions



The skill of the facilitator is an important element in the success or failure of focus group discussions. The person, who guides the focus group, uses group-process skills to ensure that all the participants can speak openly and to direct the discussion to the relevant topic.

Illustration: Razac Chame, Dote Grafica Lda.

The most useful outputs of these discussions are in the form of qualitative insights and direct quotations illustrating the views of the groups' members.

Focus Group Discussions (FGDs) will be used in the project to empower communities and to collect information for strategic planning and impact assessment.

The next sections outline the overall approach and tips for facilitators on how to prepare for and conduct FGDs.

Focus Group discussions can also be used to collect information about gender, poverty alleviation, the extent of community participation and many other areas.

Purpose

The purpose of conducting FGDs is to provide forums at which community members can discuss the performance, effectiveness and impact of vaccination campaigns and make recommendations for improvements. The results of the discussions should be transmitted to vaccinators, supervisors and the project, and other service delivery agencies so that planning, implementation, monitoring, and effectiveness can be improved.

Frequency and Timing

Focus Group Discussions will be held at the end of every vaccination campaign in all pilot villages where vaccination campaigns are conducted.

Participants

Focus Groups comprising between 8 to 12 people will be formed. A person trained by the project will facilitate each group. Two groups will be formed in every project village, one comprising men the other women. The groups should be representative of the three wealth categories in each village and vaccinating and non-vaccinating farmers.



Illustration: Razac Chame, Dote Grafica Lda.

Topics for discussion

The main topics of discussion will be "How effective was the last vaccination campaign, how can implementation be improved and what benefits have been created and to who, as a result of the vaccination campaigns".

Length of group discussions

Discussions should last between one and two hours.

Recording of the discussions

The facilitator should keep a record of the discussion and he/she should leave a copy with the community. If possible somebody should assist the facilitator to record the discussions.

Reporting of the FGDs

The facilitator should report on the FGDs to the District. The District should report to the Region.

Tips on how to prepare and conduct Focus Group Discussions

1. Have a clear purpose for the group discussion based on the general project checklist.
 2. Prepare a checklist of issues to be covered in the discussion based on the general checklist prepared by the project. Prepare prompts that can be used to open up required areas for discussion.
 3. Identify participants with the help of local leaders and key informants (including the vaccinator and supervisor). Ensure all required sub-groups are represented.
 4. Advise people well in advance when the discussions will be held.
 5. Ensure there is a comfortable and pleasant atmosphere. Arrange snacks and drinks.
 6. Start the discussion with enough authority to keep the discussion on track, but with enough sensitivity to include everybody in the discussions. It is a good tactic to say that you are not an expert on the issues that are being discussed and that you want the participants to help you understand the issues better.
 7. Try to identify which issues are of general concern to the group and which issues are more controversial or personal in nature.
 8. When important issues have been agreed by the group ensure that you understand precisely. A good way to make sure you understand is to paraphrase what they have agreed to and ask them if you have understood properly.
- Look for potential spokespersons from different focus groups who could be asked to meet together to summarize the concerns of their groups and discuss differences between the groups.

Example of issues to be discussed:

(see set of question in exercise below)

4) Exercise- Chicken raising calendar (2 hours)

Material

- a. Flip-chart and pens

Objectives

- get a base-line before any activity to see evolution of perception, knowledge and participation of farmers in disease control
- regular monitoring and evaluation of activities

NB: the emphasis can be changed to achieve the desired intent. If asking all the questions with some depth the discussion will take more than 2 hours. The issues can be deepened in several consecutive focus groups with different participants.

Arrange a meeting with same sex residents, around 20 people in each group. The focus group can be held one after the other or in different days.

2 facilitators: 1 to lead the discussion and 1 to record observations, writing the expressions and the exact wording of the people, and main terms in local language.

1. Facilitator introduces the team and explains the objective of the exercise: to discuss poultry raising activity.
2. When the activity discussed occur in a specific period of time they are reported on the calendar. Other information is recorded in the notebook by the observer.
3. Draw the 12 months of the year on the flip chart. To be done by a resident with the help of the facilitator.
4. The discussion should flow from one issue to the other logically. The following guidelines can help to organise the discussion:

Example A: Agriculture and Chicken-Raising in Mumemo neighbourhood, Mozambique

<i>Agriculture and Chicken-Raising in Mumemo neighbourhood, Mozambique</i>												
Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ND							X	X	X	X		
Rainy season	X	X	X							X	X	X
Hunger	X	X							X	X	X	X
Harvest			X	X								
High n° of chickens/ eggs		X	X	X	X	X						
Less chickens	X	X	X				X	X	X	X	X	X
Increased sale of chickens				X	X	X	X					
Consumption of chickens												X
Lower price for chickens	X	X	X	X	X	X	X	X	X	X		
Higher price for chickens											X	X

Chicken ownership

- Has everybody got chicken? Who does not have any and why? How many chickens does each person own or look after? What is the normal (average) number of chickens owned or looked after by a household?
- In which months do people have more chickens? Why? Is it during harvest period? When do they have less? Is it at the end of the hungry period? (Write on the calendar in the month when households have most chickens and when they have the least chickens)
- Who owns the chickens in the household? Who takes care of them?

Values ascribed to poultry

- Why do people raise chicken? (for consumption, sale, offering, ceremonial practices, to offer to visitors, enjoyment of waking up to the rooster's (i.e. cock's) song, like to see them around the house, etc.)

Values ascribed to birds as pet/ fighting cocks

- Do people have any other birds in addition to chickens, singing birds, fighting cocks, etc.? Why do they raise these animals?

Other birds

Which other bird do people raise? Ducks, pigeons, quail, etc.?

Chicken husbandry practices

- What do chickens eat?
- Where do chickens sleep at night? What is the quality of chicken house regarding security?
- What are the main problems with poultry raising? Disease(s), name of the disease(s), participants' explanation of the origin and transmission of the disease, other problems? (Write the information on the calendar in the month when it normally occurs)

Newcastle Disease

- What are the local names? What does this name means? Does it refers to something else, to what?
- When does the disease appear? In which months? Why does it appear in these months?
- What is the origin of the disease? How and why does it appear? Can ancestors and spirit cause this disease? Can witches send this disease? Other origin?
- How do you recognise ND? Characteristic of ND? What prevention and treatment methods do you use? Who gives the treatment? Can shamans and traditional doctors treat this disease? How can they treat? Other home made treatments?
- Does this disease also exist in other animals? Can it be transmitted to people?

- How does the disease is transmitted? Give all the ways of transmission to animal and to humans.

Avian Influenza

- Is there any new poultry disease? What are the local names? What does this name mean? Does it refer to something else, to what? When did it first appear? Why? How you know about this disease?
- What is the origin of the disease? How and why does it appears? Can ancestors and spirit give this disease? Can witches send this disease? In which cases? Can you give examples? Other origin?
- When does the disease usually appear? In there a specific period? In which months? Why does it appear in these months?
- How do you recognise AI? Characteristics of AI? What prevention and treatment methods do you use? Who gives the treatment? Can shamans and traditional doctors treat this disease? How can they treat? Other home made treatments?
- Does this disease also exist in other animals? Can it be transmitted to people?
- How does the disease is transmitted? Give all the ways of transmission to animal and to humans.

Prevention of transmission of AI to poultry and other animals

- What do you do if you see that chicken or other birds are sick or died? (Make a list of the different measures people know)

Prevention of transmission of AI to human

- How can you avoid the disease being transmitted to people? (Make a list of the different measures people know)

Compare Newcastle Disease and Avian Influenza

- Can you explain what are the similarities between ND and AI?
- Can you tell me the differences between ND and AI?

Other diseases

Use the format above to discuss any other poultry diseases (e.g. Fowl cholera, duck plague, etc) recognised by participants.

Agricultural calendar

- Which months are the rainy seasons? In which months are the main agricultural activities undertaken? (Write the information on the calendar in the month when it normally occurs)
- When do people have more chickens? Why? Is it during harvest period? When do they

have less? Is it at the end of the hungry period?

Consumption of chicken products

- When do people usually eat more chickens and eggs? Why? Is it during festivals or before ND outbreak? (Write the information on the calendar in the relevant month)
- Who usually eats the different parts of the chicken? Why? Who eats most of the chicken? At what age can a child start eating eggs or chicken? Why? Do pregnant women eat eggs and chicken? Why?
- Do people eat raw eggs? In which situation? Why? Who usually does so? For what reason? Who recommend this? Do people use to eat eggs that are not very well cooked (runny eggs)?
- Do people eat raw (or not well cooked) chicken or parts of it? In which situation? Why? Who usually does so? For what reason? Who recommend this?
- Do people drink raw poultry blood in any situation or in any preparation? From which type of poultry? For what reason?

Marketing of poultry

- What is the price of a chicken and of an egg in the different periods of the year? When is the price lower and when is it higher? Why? (Write the information on the calendar in the relevant months)
- Where do people usually sell chickens and eggs? Why? Is the price the same in the different locations? (If there is a seasonal variation enter on the calendar in relevant months)
- Who sells eggs and chickens (men, women, children)? What do they do with the money? Who controls the money from the sale of chickens?
- Who take the decision to eat or sell? (If there is a seasonal variation enter on the calendar in relevant months)

Vaccination

- What are the local names for vaccination? What does this name mean? Does it refer to something else, to what?
- Is there a vaccine against ND? Against AI? Did you ever vaccinate your chickens against ND and AI? What is it for?
- At what age (in days) should the chicken be vaccinated? During how long does the vaccine protect your chickens? How often should the chickens be vaccinated?
- Have you heard about ND or AI vaccination? Who stores or looks after the vaccine? Who organises the vaccination? Is it done during a campaign or via on-going vaccination? Is ND vaccine available in the village? (If a vaccination campaign is done, enter on the calendar in which months it occurs) Who selected the vaccinators? What were the criteria? Who defined the criteria?

- How effective was the vaccination? Did all the chickens that were vaccinated survive ND outbreak? Was there any difference in deaths from ND between vaccinated and non-vaccinated birds? How do you think the vaccination process can be improved? Is the way the vaccine carried out appropriate? Concentration or door to door, which is the best way?
- Numbers of chickens vaccinated? Numbers of farmers vaccinating chickens? Who did not vaccinate? Why? Reasons why some farmers vaccinated and others did not vaccinate?

5) Exercise: Ranking of activities according to their contribution to household livelihood strategies (1/2h)

Purpose

To identify the role of chicken/poultry raising activities in the different livelihood strategies and its evolution during the project life. To identify how important chicken rearing is in different household livelihood strategies in comparison to other enterprises and in different production systems. To understand the reasons for the relative importance of chicken rearing. To measure the change in importance attached to chicken rearing over the life of the project. This activity can also be utilized to do the monitoring and evaluation.

Frequency

To be undertaken in the initial PRA and annually thereafter.

Material

- a. Flip-chart and pens
- b. Paper A4
- c. Drawings
- d. Stones or beans

Sex aggregated meetings with 20 men and 20 women of different social groups (very poor, poor, middle class, etc). The meetings can be held over different days. This activity can be carried out with men and women divided according to the 3 different social groups as defined in the exercise below.

A. Simple Ranking

1. Facilitator introduces the team and explains that the objective is to identify the relative importance of chicken/poultry raising in comparison to other household activities. Facilitator explains that everybody should contribute with his or her ideas. (Register the total number of participants in the group).
2. Identify the major crops, animal enterprises and other activities in the



participant's livelihood strategies.

Photo: M. Pizzari (FAO)

3. Either use existing drawings or draw the animals, crops and activities on cards.
4. Distribute the same number of stones or beans to each of the participants. Ask each of the participants to put a number of stones on the drawing according to their importance in their household livelihood. Ask each participant to justify his/her ranking. (Verify that each participant uses all the stones distributed).
5. At the end of the exercise count the stones on each of the activities. Calculate the contribution of each activity in percent. Divide the number of stones in each drawing with the total number of stones distributed.
6. Discuss with the participants the result obtained. Verify if it corresponds to their perception of the reality. Discuss its implication for the project.

B. Preference ranking

Preference ranking is a variation of simple ranking it can be used instead of simple ranking.

Preference ranking involves the participants assessing the relative importance of the different farm enterprises using criteria they themselves identify. The ranking would be undertaken using a matrix with farm enterprises on the horizontal axis and the elicited criteria on the vertical axis.

The advantage of preference ranking over simple ranking is that as the participants explicitly select the criteria for ranking it is easier to understand the reasons for the ranking. The disadvantage is that it is more difficult to facilitate.

The following steps are involved in Farm Enterprise Preference Ranking:

1. Convoke a meeting with a selected group of representative individuals following the same criteria as the simple ranking exercise.
2. Ask participants to identify the six most common farm enterprises. Ensure that chicken rearing is included in the list ¹
3. Elicit criteria for ranking the importance of each enterprise by asking the following questions: "What is good about this enterprise?" "What else?" (Continue until no more replies). Then ask: "What is bad about this enterprise?" "What else?" (Continue until no more replies).
4. List all the criteria.

¹ If chicken rearing is not considered one of the six most important enterprises an alternative option is to restrict the analysis to livestock enterprises only. Another option would be to make an indicative list of all farm enterprises in order of importance. Select the three enterprises immediately above and the two enterprises immediately below the chicken enterprise and do the criteria selection and ranking exercise for the six selected enterprises only.

5. Turn negative attributes into positive ones (for example, prone to disease becomes disease resistant)
6. Help participants to draw up a matrix with criteria listed down the side of the matrix and enterprises along the top-where possible, use symbols for the row and column titles (either prepared before or prepared at the meeting)
7. Using a five point scoring system, where five points is the highest and best score, in a group exercise rank each of the enterprises for each of the criteria
8. When the exercise is completed, cross-check the ranking of the chicken enterprise, by asking a question to confirm the ranking of the chicken enterprise like "it seems that chicken enterprises are/are not very important for household well-being"
9. Follow-up the ranking results by a discussion to explore different viewpoints
10. This exercise will require two facilitators one to assist the participants in the exercise and the other to record the discussions

Table 1: Preference Ranking Matrix

Example B) How a Preference Ranking Matrix for the above exercise may look:							
	Chickens	Ducks	Goats	Cashew	Rice	Beans	Cassava
Profitable	1		2	4	3	4	3
Disease Free	1		1	1	3	3	4
Easy to sell	4		4	4	3	4	3
Low labour needs	5		4	3	2	2	3
Available in hungry period	4		5	2	2	2	4
Total	15		16	14	13	15	17

NB Illustrative example

6) Exercise: Ranking of problems related to chicken raising activity (1/2 h)

Purpose

To rank the relative importance of the different problems facing chicken/poultry raisers over the life of the project.

Frequency

To be undertaken in the initial PRA and annually thereafter. The exercise should coincide with mid term and terminal review surveys.

Material

- a. Flip-chart and pen
- b. Drawings
- c. Stones or beans

Same-sex meeting with 20 men and 20 women of different social groups. The meetings can be held on different days.

This activity can be carried out with men and women divided according to the 3 different social groups to identify the role of chicken raising activities in the different livelihood strategies and its evolution during the project life. This activity can also be utilized to do the monitoring and evaluation annually.

1. Facilitator presents the team and explains that the objective of the exercise is to discuss the problems related to poultry raising activity and to rank them according to their importance. Everybody is asked to contribute with his/her ideas. (Write down the total number of participants).
2. Identify and discuss the main problems with chicken raising.
3. Use existing drawings or ask the participants to draw the different activities listed on cards.
4. Distribute the same number of stones or beans to each of the participants. Ask each of the participants to put a number of stones on the drawing according to their importance. Ask each participant to justify his/her ranking. (Verify that each participant uses all the stones distributed).
5. At the end of the exercise count the stones on each of the cards/drawings. Calculate the percentage of stones placed on each card/drawing by dividing the number of stones in each drawing with the total number of stones distributed.
6. Discuss with the participants the result obtained. Verify if it corresponds to their perception of the reality. Discuss its implications for the project.

NB This exercise could also be undertaken using pair-wise ranking.

Problem Ranking by men and women - Comparison between March 2003 and February 2004 after three vaccination campaigns - Mtwara, Tanzania (Bagnol, 2004)

When the ranking exercise for problems related to the raising of chickens was performed, the first problem identified, both in the men's group as well as in the women's group, was no longer ND, but rather predators (wild dogs, wild cats and rats). In the women's group, the second-most-important problem was fleas while it was dust for the men. A shortage of supplementary feed was ranked third by men, while men identified white diarrhea as the third-most-important problem. In both groups, ND is now ranked eighth by men and ninth by women in its priority as a problem, showing how this issue has been solved by the vaccination campaigns.

	2003		2004	
	Men	Women	Men	Women
Wild cats	9	-	-	1
Wild dogs	3	-	-	1
Predators	2	2	1	8
Snakes				7
Theft	7	3	6	4
Shortage of supplementary feed	7	-	7	3
Dust	5		2	-
Lice	6	5		-
Newcastle Disease	1	1	8	9
White diarrhea			3	5
Worm			5	-
Fowl pox	9	4	-	-
Fowl cholera	4		-	-
Fleas	11		4	2
Lack of chicken coop	-	6	-	9
Infectious coriza	-	-	8	-
Swollen legs	-	-	-	6
Red eye	-	-	-	9

As a consequence of the reduction in chicken mortality, both men and women considered that they were selling and eating more chickens than in the previous year. However, they considered that they were still following the same pattern of behaviour as in the past, eating more chickens prior to the period in which they expect the ND outbreak to happen.

7) Exercise: Identifying characteristics of social groups - Well-being stratification exercise (1 hour)

Purpose

To identify three different social groups in the target population representing the relatively rich, the less rich and the poor. The information will be used to make a sample list of households from each of the social groups to be interviewed in the baseline survey. The information will also assist to better understand socio-economic dynamics in the target community.

Frequency

To be undertaken in the initial PRA and possibly annually thereafter. The exercise should coincide with mid term and terminal review surveys if undertaken annually.

Material

a. Flip-chart and felt pen

A meeting with around 30 people of the village including rich, less rich and poor as well as men and women.

1. Facilitator introduces the team, the objective and the exercise.
2. Facilitator asks participants to make a list (brainstorming) of the characteristics of the 3 social groups in the community: rich, less rich and poor. The information is listed on the flip chart.
3. The discussion should flow from one issue to the other logically. The following guideline lists the types of questions that can be asked to guide the discussion:

Availability of food

- Do all households eat the same number of meals? Are there times of year when some families do not have enough food? How often do families eat meat?

Agricultural and livestock practices and assets

- Do all households own land? Do all households cultivate their own land? Do some households rent land? Do all households own hand tools? What types of households own oxen, ox ploughs and ox carts? What types of households own tractors? How do different households cultivate land? (Hand tools, buffalo ploughing, tractor, and hired labour) What types of food crops do different households grow? What type of livestock do different households own? Do all households own livestock? Do all households have chickens/poultry? Who do not have? Do all households use veterinary

drugs and medicines? Do all households use agricultural inputs? (Fertiliser, pesticides, herbicides, fungicides etc)

Household income

- What are the major sources of income? Crop production by type, livestock production by type (selling chickens), other on-farm income by type (beer brewing), off farm income by type (e.g. school teacher). How important is on-farm and off-farm income in different households?

Household assets

- What different types of houses are there? How many households have straw roofs or tin roofs. How many households have mud and wattle houses, mud brick houses or concrete blockhouses? Do all houses have a latrine? Do all households use mosquito nets? What are the main items of furniture owned in different households? What is the main kitchen utensils used in each house?

Social characteristics

- What different types of households are there? Households primarily female, without adult male members? Households with only old people? Households with sick and physically infirm people? Households with only children? Households with young families? Extended polygamous households? Extended monogamous households? How many households pay the development levy?

4. The facilitator should either interpret the ideas coming from the participants to place the characteristics in to each of the categories or, alternatively, the characteristics should first be listed randomly and the second step would be to put the different characteristics into the categories in a second stage of discussion.

8) Case Studies of Household Chicken Production

Introduction

With the impact of AI or the successful implementation of vaccination campaigns it is expected that some key poultry production parameters will change. It is very difficult to collect accurate information about some of these changes in one-off or group interviews due to the following:

- response time errors - farmers find it difficult to recall in detail important information over a long period of time
- detailed information is required - in data collection exercises with multiple purposes it is very difficult to allocate sufficient time to obtain the level of detail needed

To avoid these problems it is recommended that a continuous case study approach should be used. Several types of data collection are proposed, namely:

- Individual household case studies based on continuous data collection by farmers, who enter data into a notebook, in standard tables. Project or vaccinators check and collect the data.
- Case studies of individual households, based on continuous data collection by school children of their household chickens. A schoolteacher would coordinate the activity and collect and store the data collected by children, in notebooks, in the same standard tables. Project staff would collect the data.
- Other options could be used collecting the same type of data but coordinated by different organizations, such as community groups e.g. a woman's group.

The data in each option would be collected and stored in the same format so that if required aggregation and comparisons of the data could be undertaken by the Project. Other community members should be informed of the results of the case studies.

Purpose

The following are the main purposes of the case studies:

- To continuously collect illustrative detailed data about the changes in key production parameters, such as numbers of chickens owned by category, sizes of clutches and age at which female chickens start to lay and to establish the relationship between these changes and vaccination against Newcastle Disease.

- The information will assist research; strategic planning and impact assessment and it will help raise community awareness of the benefits of the vaccination campaigns.

Overview

The exact approach for implementing case studies will be determined on a case-by-case basis.

In all villages it is recommended that at least two case studies be undertaken in which farmers collect and enter data in notebooks. Tips on how to select farmers are given in the next section. Selection of other types of case study options can be made based on the strengths of the individuals and institutions involved. For example, in a village where the schoolteacher is highly active in the community and interested in the project activities the school option may be selected. In another area where a women's poultry group is highly active, it may be more appropriate to use the women's group to coordinate the case study.

Similarly the project responsibility for collecting the data from the primary data collectors could vary. The following people could be responsible: vaccinators, vaccinator supervisors or District I/C of the Vaccination campaigns. The person responsible would be decided case-by-case.

In all cases a standard set of data would be collected for each household using a standard format. The project would provide notebooks and training for how to enter the data. The type of information to be collected and some preliminary ideas about a standard format are given below.

Visits would be made at least once a month to check the notebooks, to collect the information and reflect with the farmer about any changes that have happened. Tips on how to conduct this meeting are also given below.

Collection of accurate information using this type of data collection is extremely difficult and costly. Reviews need to be constantly made to assess if the exercise is cost effective.

The project participatory epidemiologist and a veterinarian will review the effectiveness of the exercise and suggest alternative ways to collect this type of information.

Selection of Farmers

At least two farmers should be selected in each village. One should be male the other female. The following are the characteristics of suitable farmers:

- Willing to participate in the case study
- Owner of chickens and plans to continue raising chickens
- Actively vaccinates his/her chickens
- Somebody in the household is numerate and literate and willing to enter the data in the notebook
- Dwelling is easily accessible

Information requirements

Initially the following types of information should be recorded by the farmers and reported every month in the notebook:

1. Flock size

- How many chickens are there in the household flock?
 1. chicks
 2. growers
 3. hens
 4. cocks

2. Reproduction

- How many hens laid eggs
- For each hen laying eggs answer the following:
 1. how old was the hen
 2. how many eggs did the hen lay
 3. how many eggs hatched
 4. how many chicks died

3. Expansion of flock

- How many chickens were bought other than for immediate consumption
 1. chicks
 2. growers
 3. hens
 4. cocks

- How many chickens were given to the household?
 1. chicks
 2. growers
 3. hens
 4. cocks

4. Mortality

- How many chickens died of disease:
 1. chicks
 2. growers
 3. hens
 4. cocks
- How many healthy chickens were slaughtered
 1. growers
 2. hens
 3. cocks
- How many chickens were disposed of because it was feared they were diseased?
 1. growers
 2. hens
 3. cocks
- How many chickens were taken by predators, were stolen or died in accidents?
 1. chicks
 2. hens
 3. cocks
- How many eggs were taken by predators, were stolen or lost in accidents?

5. Disposal of chickens and eggs

- How many chickens were sold, exchanged, given away or used in ceremonies
 1. chicks
 2. growers
 3. hens
 4. cocks
- How many eggs were sold, exchanged, or given away

6. Vaccination against Newcastle Disease

- How many chickens were vaccinated against Newcastle Disease?
 1. chicks
 2. growers
 3. hens
 4. cocks

Standard Format in Notebook

A standard format for the notebook will be developed and tested before being used in the field.

In principle the notebook should be divided into two sections:

- Rough section
- Neat section

Every day in the rough section, the farmer would keep notes about the changes in the parameters being measured. At the end of the month the rough notes would be consulted and in the neat section the information about the previous month would be recorded in the standard format. The project staff would check the notebook with the farmer every month during the supervision visit.

Monthly Visit by Project Staff to Farmer

The purpose of the monthly visit is to check the notebooks, to collect the information and reflect with the farmer about the reasons for any changes that have happened.

The following major points need to be checked in the notebook:

- to check that parameters are within tolerable limits e.g. it is unlikely that a hen could lay 40 eggs in a clutch
- to check that farmers understand the meaning of definitions e.g. that chickens given away within the extended family to another household would count as being given-away, in the disposal of chickens sub-section, even though it is to within the family
- to check that the balance of new chickens being reproduced within the flock plus chickens coming from outside the flock plus chickens at the beginning of the period is equal to the chickens at the end of the period minus mortalities and other disposals.

- to check that the data in the neat section can be located in the rough section notes.

It is important for the project staff to reflect with the farmer about the information contained in the notebook using conversational interviewing techniques. The staff should ask probing questions about the reasons for any changes in flock size, e.g. if flock size has increased is it entirely because of lower mortalities due to vaccination against Newcastle Disease or other factors. If clutch sizes have reduced what are the reasons for it. If the number of chickens being taken by predators has dropped, the reason why this happened should be discussed. Notes on these points should be made in the farmer's notebook and copies kept by the project staff.

Data Processing and Analysis

The farmer and the project staff making the monthly visit should undertake initial analysis. Analysis should also be made at district level. The results of the analysis should be made available to the community. Copies of the data should be kept by the farmer and at the District Vaccination Campaign Office.

The data collected in the case studies also needs to be stored in a computerised database. It should be analysed at the project level as part of the baseline data collection exercise, and for the mid term and terminal reviews.

The data should also be readily available for use in the participatory epidemiology program and for any other research.

9) Exercise: Planning activities with the community (1h)

Material

Transparencies

Flip-chart felt pens

Facilitator asks participants to divide into groups to identify the necessary activities to implement a vaccination campaign.

The list should include the following activities:

- How many doses of the vaccine?
- When to vaccinate?
- Where to vaccinate?
- Who will vaccinate?
- Who in the community will help with the campaign?
- How will the campaign be evaluated?

Each group presents their plans and a general plan is elaborated.

Facilitator asks the participants to form groups and discuss how these steps could be discussed with the community to involve them in planning campaign activities.

A methodology for working with the community is elaborated.



Photo: Brigitte Bagnol (Selection of vaccinators and visioning exercise with the community) (Mozambique)

10) Exercise: Establish a community representative group to be responsible for controlling Newcastle disease (1h)

Material

- a. Transparencies
- b. Flip chart and felt pens

1. Facilitator explains the importance of working with community representatives such that they will be responsible for leading the process.
2. In groups, the participants will define how the process of identifying the group that will lead the Newcastle disease program should be discussed and promoted with the community.
3. In plenary session each group presents their ideas. A methodology for implementing this activity with the community will then be defined.

11) Exercise: Criteria and methodology for selecting community vaccinators (1 hr)

Material

Transparencies

Flip-chart and felt pens

1. Facilitator presents the importance of selecting suitable vaccinators for conducting the vaccination campaigns. Should they be community representatives? Group representatives? Individuals who are interested in the business aspects of vaccinating? How to include and encourage women? How many vaccinators in each village?
2. Participants divide into groups and identify the problems that could occur with vaccinators and what are the best means of identifying the best people with the community (identify all the steps necessary)
3. The groups present their ideas in plenary session
4. A methodology for identifying vaccinators is elaborated in plenary session

The village vaccinators should be selected in collaboration with the community. It can be a man or a woman.

Associations, cooperatives, formal or informal groups (religious, youth, women, etc.) should be able to select a vaccinator

The village vaccinators should be:

- Respected by the community, dynamic and have good communication skills
- Able to work with male and female farmers and different groups in the community
- Able to travel long distance to buy the vaccine and vaccinate chickens
- Able to read, write and make basic calculations
- To be a chicken raiser himself or herself

12) Exercise: Dreams Realised or Visioning

Tools to facilitate selection of impact and effectiveness indicators 2

Purpose

To identify how participating stakeholders expect the project will benefit them and what other changes they expect from the project over a long time scale e.g. 10 years.
To identify indicators and to discuss how to measure the benefits and changes expected.

Frequency

To be undertaken in the initial PRA and community organisation, and annually thereafter.
The exercise should coincide with mid term and terminal review surveys.

The following methods could be used.

Method 1

1. In plenary session start by asking participants how they would like things to be as a result of vaccination campaigns in the future. Remind them of the vision identified in exercise (5minutes)
2. Ask the participants to reflect individually on the following question: "*What are the characteristics of the ideal situation we wish to achieve here in 10 years time as a result of vaccination campaigns*". (10 minutes)
3. Divide into sub-groups and write down on cards or create symbols for the visions. (15 minutes)
4. Meet in plenary: to discuss the visions, to identify how best the community can assess the progress being made in achieving the visions and to agree on how the community will keep track of the changes. (30 minutes)

Method 2

1. Ask participants to imagine they are giving a presentation at a conference or to their community at some point in the future (e.g. three years time), describing why their project has been successful. What should they present as the successfully achieved future?

² The material in this section is adapted from IFAD. A Guide for Project Monitoring and Evaluation. Annex D. Method 15. 2002.

2. Ask participants to list all the stakeholders who would give their views at the meeting.
3. Divide into small groups, each one representing a different stakeholder from the area where the project has been active, for instance NGO partner, District Extension, District Livestock, Male Chicken Raisers, Female Chicken Raisers and Project Financier.
4. Each group should write down on cards or identify symbols for why the project has been a success.
5. In plenary session each group should present the reasons for the success of the project.
6. The reasons for success would become the indicators to be monitored.

The development of the dreams/indicators needs to be properly recorded so that a time series of information is stored. It is important to compare the current dreams with those identified previously, to discuss why changes have occurred and to what extent changes have been caused by project activities or external factors.

The communities can use Method 1 and Method 2 can be used as a training of trainers' exercise.

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