

The Livestock and Poverty Assessment Methodology: A toolkit for practitioners



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**The Livestock and Poverty
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for practitioners**

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INTRODUCTION

In recent years, with the advent of Participatory Poverty Assessments (PPAs) our comprehension of the reality faced by the global poor has increased substantially. No longer is poverty viewed simply as a deprivation of income but the wider implication of being poor has become much better known and understood. For example, a recent World Bank report described poverty as follows (World Bank, 2002):

Poor people live without fundamental freedoms of action and choice...They often lack adequate food and shelter, education and health...And they are often exposed to ill treatment by institutions of the state and society and are powerless to influence key decisions affecting their lives...Poor people's description of what living in poverty means bears eloquent testimony to their pain.

Thus, with the introduction of PPAs the voices and experiences of the poor were able to inform decision makers more directly. And as such have redefined and shaped our notions of what it means to be poor.

Nevertheless, although poverty is now viewed as multi-dimensional, our approach to poverty alleviation tends to be more one-sided. Projects and programmes often don't distinguish between the different groups of the poor and their varying needs.

Poor livestock keeping households are one such sub-group of the poor. However, the majority of poverty analysts still treat livestock as an asset to be counted rather than as a holistic tool to enable poor households to escape cycles of poverty and deprivation. Although it has been estimated that there are

approximately 1 billion poor livestock keeping households, research is only now underway to map their geographic location (Thornton, 2002).

Therefore, the following booklet describes the Livestock and Poverty Assessment Methodology. The methodology is a collection of participatory tools to assess poverty and well being among poor livestock keepers. For those readers familiar with participation, many of the tools are not new, but rather have been adapted for use within the livestock sector. As such, the overall intention is to provide a holistic toolbox to enhance the understanding of both the needs and the strengths of the poor within the livestock sector and as such better frame the debate on livestock and poverty.

Overview of the Livestock Poverty Assessment Methodology:

At the community-level, the LPA methodology was devised to assist practitioners in answering the following broad questions:

- ◆ How important are livestock to livelihoods and well being, past and present?
- ◆ How many, and who are, the poor livestock keepers?
- ◆ What are the major issues in animal health and production?
- ◆ Are livestock interventions the most appropriate form of aid?

Like PPAs, the LPA methodology is comprised of a range of traditional participatory tools such as Semi-structured interviews (SSIs), focus groups (FGs) and participatory exercises. The exercises however, have been specifically adapted to gain information regarding the past and present

functioning of livestock-based livelihoods. As such, the LPA methodology is offered as both a means of identifying poor livestock keepers and for diagnosing the issues of relevance.

To answer the above questions, the manual is offered in five sections. In each section, a group of complementary participatory exercises is described. However, the grouping of the methods is not intended to offer a blueprint to practitioners, but rather the aim is to provide an array of tools, which can be utilised individually or in tandem to obtain as much information as is required. Further, although a wide range of tools are described, in the final section, different sets of methods are offered to best examine specific issues e.g. evaluating the numbers of poor livestock keepers or gathering detailed and nuanced information regarding livestock-based livelihoods. Box 1 offers an overview of the participatory exercises included in the manual.

BOX 1: THE COLLECTION OF METHODS

I. Setting the Scene:

The Simplified SL Approach
Historical Trend Analysis
Community Resource Mapping
Livestock Production and Management Calendar Livelihood
Changes Diagramming
Livelihood Opportunities and Constraints Diagramming

II. Profiling the Livestock Keepers:

Livestock and Poverty Ranking
Compound Mapping
Household Resource Maps
Community Rangeland Mapping

III. Assessing Issues in Animal Health and Production

Livestock Health-Care Provider Maps
Consumer Preferences Regarding Animal Healthcare
Livestock Disease Prioritisation
Livestock Problem Ranking
Participatory Herd Assessment

IV. Determining the Feasibility of Livestock Aid

Assessing Motivation
Community Values Diagramming

However, prior to detailing the tools, the following section offers suggestions for implementing participatory methods and avoiding common pitfalls.

Guidelines for Participation

Introducing the Practitioners, Topics and Methods

True participation is built upon trust and openness. Vital to facilitating an open environment is an effective introduction of the participants to the facilitator of the exercise, the topics to be discussed, and the methods to be performed. Obviously, if the facilitator or practitioner is new to the community then even greater time should be spent in developing a familiarity with both the geographic location and resident households. For participation to be a means and mechanism of empowerment, the communities themselves must agree to collaborate in the process without prompting, coercion or the expectation of future aid. Once the community has agreed to collaborate, participants may then be selected to perform the different exercises.

Identifying the Participants

Commonly, at the scoping stage of projects and programmes, participatory tools are utilised to initially interact with key informants, focus groups and the community, as a whole. As the process evolves, however, it is important to remember that the requirement for a multiplicity of viewpoints remains. Indeed, during the project cycle, there is a tendency for participatory processes to become more, rather than less exclusive i.e. dominated by community leaders and other gatekeepers. As such, practitioners must be aware that the poor often do not participate in large meetings and further, being

seen interacting with persons of perceived higher status may be viewed as socially inappropriate.

Indeed, research has demonstrated that in large groups, the person, with the most influence, normally decides the tone and tenor of the responses (LDG, 2003). Hence, general opinions may be hidden, in favour of the viewpoints of the more elite and powerful. Thus, smaller groups are recommended to ensure greater levels of participation. In this manner, the danger of a single person dominating the discussion is minimised. It is also possible for the practitioner to elicit more personal responses. Therefore, after community-level introductions, participants should be split in smaller groups (7-8 people maximum), to facilitate the discussion and exchange of opinions.

To avoid selection bias, practitioners should consult as many stakeholder groups as possible. Gender, age and socio-economic standing are factors that can influence viewpoints. Therefore, it is advisable that the same exercises are held with both, men and women, the young and the aged, to gain as wide a perspective as possible. Livelihood criteria may also be utilised to filter participants i.e. cattle owners vs. smallstock owners. In this manner, the viewpoints of the different socio-economic strata may be represented.

However, communities can also introduce biases. For some exercises, such as those utilised for targeting, practitioners must be sensitive to how expectations of future aid may either influence responses or even change community dynamics. Therefore, targeting exercises should be packaged together with other, more neutral tools, to ensure that both clients and practitioners have a wider perspective.

Explaining the Exercise

A full understanding of the exercise is important for both obtaining relevant information and meeting capacity building aims. Nevertheless, the explanations of participatory exercises are often prone to misconceptions. Visual and cultural cues introduced by the facilitator may be completely misunderstood by participants. For example, the form and function of Venn diagramming techniques are often difficult to understand, particularly for the illiterate. Equally, the ability to rank and prioritise is often culturally specific and/or may require exposure to formal education. Hence, attempts should be made to redress potential issues of comprehension prior to beginning the exercise.

Documenting Information

While participants are actively engaged in the exercise, project staff should carefully depict/record the narrative as it is unfolding. Videos and tape recordings can also aid in the documentation process. However, all forms of documentation require community consent and understanding. Equally, the outcome of exercises should be verified and discussed with the communities themselves. For example, charts and graphs made from the exercises should be corroborated with key informants and discussed in stakeholder meetings in order to ensure the accuracy of the representation. By carefully documenting both the process and outcome of participatory exercises, comparisons can be made across a project cycle or study area.

Tips for Successful Focus Groups

Focus groups (FGs), in addition to generating detailed information regarding specific issues (e.g. access to veterinary services), are also useful for illuminating the attitudes of the participants (i.e. notions regarding poverty etc.). However, practitioners should view themselves as facilitators, and should be careful not to unintentionally influence the ensuing discussion by offering personal opinions. In addition, it is important to remember when analysing the subsequent discussion that the exercises are subject to social and group dynamics.

For example, in many communities, gender and economic standing highly influence one's ability to express an opinion in a social forum. Therefore, when interpreting the results of a focus group, practitioners need to assess not only the responses of the participants, but also *who* intervened in the debate, *how* often and the level of agreement generated by their input. In this manner, it is possible to assess whether the responses have been dominated by only a few individuals or if a wider consensus was reached.

The topic to be investigated also may impact the flow and reliability of focus group discussions. Indeed, some subjects are not easily addressed, particularly in a group. If the topic is not socially acceptable, or if the participants find the questions too intrusive, the group may at best, offer misleading information and at worst, become suspicious or uneasy. Therefore, prior to commencing focus groups, the facilitator needs to be aware of topics which may cause offence. During the discussion, practitioners must also be sensitive to the reluctance of group members to divulge personal and/or sensitive information.

Hints for Semi-Structured Interviews

Semi-structured interviews (SSIs) are generally utilised to generate in-depth information and as a means of obtaining comparable data across a sample group. Hence, SSIs may be performed to obtain background information regarding household income and expenditure, livestock herd size etc. Normally, a practitioner will develop a list of questions or topics that he/she would like to investigate as a guideline for the interview. Interviews are generally informal and depending upon the flow of the conversation, new issues may be raised or conversely, less fruitful areas dropped.

Prior to initiating an LPA, however, it is very important that all individuals involved in SSIs are given comprehensive training regarding the aim and objectives of the exercise. The meaning and relevance of each topic has to be explained and clarified, in order to ensure that each issue is approached in the most appropriate manner.

As will be discussed further below, to ensure the comparability of responses in large-scale exercises, it is advisable to provide practitioners, with a question guide, rather than simply a list of topics to be investigated. In this manner, the interviewer will be able to become familiar with the information required in a relatively short time period, and will be able to develop his/her own interviewing style. Questions should be open-ended to enable clients to respond in the manner in which they feel comfortable. By creating a list of core questions, interviewers and clients have scope to freely explore in an unstructured way, the different issues and topics that arise.

Finally, when conducting SSIs, developing an effective rapport between the practitioner and the client is vital. As such, a properly administered SSI should resemble a

conversation, rather than the question-answer schematic that characterises more formal surveys. Equally, information should flow between both parties. Local people are generally very interested in learning about the ‘outsiders’ that visit their community. As such, practitioners should share their experiences regarding the issues in question. For example, participants are often very curious to know personal details of the practitioner, such as whether or not he/she is married, has children and so forth. Equally, the practical issues regarding the management of livestock or livelihood activities conducted in far away places is often a topic of interest. As such, a successful SSI is a lively discussion around specific issues in which both parties share and exchange information.

Problems and Issues in Visual Exercises

Visual tools such as mapping and ranking are among some of the most frequently utilised methods in the PRA toolkit. Indeed, the exercises can be employed to gather information on a wide variety of topics such as access to services; land-use patterns, social structures, livelihood activities and so on.

Nevertheless, visual exercises are not exempt from problems. As with focus groups, literate participants may take the lead and exclude others from the illustration process. Similarly, participants who enjoy a higher status within the community may exercise greater influence than those perceived to be of a lower standing. Indeed, many individuals (particularly those who are less educated) do not feel at ease performing the task, and may delegate the job to someone they perceive as more capable, such as a community leader.

Therefore, practitioners must be aware that many mapping and diagramming exercises, rather than being more inclusive of the poor, may actually make participants feel uncomfortable.

Consequently, due diligence must be taken to ensure that more marginalised community members are able to express themselves in a neutral and supportive forum.

Guidelines for Scaling-Up

In order to scale-up the results of any enquiry, a systematic approach and a rigorous application of methods is required. For many, the inherent flexibility and adaptability of participatory tools, is anathema to the aforementioned requirements. Nevertheless, participatory approaches may be utilised to form robust conclusions at the national and even international level, without too much compromise, if the following issues are addressed:

1. Comparability
2. Quality Control
3. Data Management

Comparability

To ensure comparability for large-scale studies, practitioners must ensure that across the study site, the same key topics are discussed in focus groups and a likewise consistency is present in the semi-structured interviews. Equally, the same participatory exercises should be performed in each of the communities visited.¹

¹ Obviously, depending upon the aim and objective of the study, the level required for comparison, will change. For example, a national study may wish to compare the findings between districts and/or other geographic areas. A district wide study, may wish to compare different communities across the area in question. Nevertheless, for most large-scale participatory studies, the smallest unit of interest is the community.

Issues regarding the sample population must also be addressed. Random sampling can take place within the context of participatory data collection and does have benefits in reducing potential community-level biases. However, in order to retain the depth and breadth of information required, purposeful sampling of the intended target population i.e. poor livestock keepers may be required first. Within this population, a random sample of individuals may then be targeted for involvement in exercises etc. Therefore, the target population should be stratified, with the different subsets identified, prior to initiating the exercises.

Quality Control

Quality is a major issue impacting the practice of participation. Participatory exercises are time consuming, and for the households involved, have an opportunity cost. Therefore, it is imperative that the information collected is neither surplus to the requirements nor improperly focused so as to be of little use.

As such, for both large and small-scale initiatives, prior to going to the field, all practitioners should obtain training with regard to ‘best practice’ in utilising the tools in question. Equally important, is a clear knowledge of what the information will ultimately be utilised for.

An additional issue in quality control is the experience of team members. In any practitioner group, the experience and skill-levels of individuals may vary widely, and as such, should be accounted for in project design. For example, those practitioners with more experience should be partnered with those with less, etc. The provision of training to all practitioners prior to beginning the study should also ensure that exercises have a more uniform outcome.

Further, as mentioned above, all practitioners should be given guidelines regarding specific items for discussion during focus groups and semi-structured interviews. Indeed, in some cases, detailing the specific wording and sequence of questions may be necessary. While seemingly decreasing the spontaneity of the interaction, the benefits outweigh the constraints, if greater comparability of results is required. This is not to suggest, however, that participants should be limited or constrained in their responses or equally, that practitioners must only ask the outlined questions. Rather, the guidelines simply offer a framework in which the discussion may take place.

Finally, a quality assurance mechanism should be developed in the field to assess the consistency and the relevance of the material being produced. As such, a project leader should be designated, who is responsible for reviewing the results of the exercises on a daily basis. In this manner, any difficulties encountered by individual practitioners may be addressed at an early stage. Important issues may also be flagged for further exploration at this time.

Managing Data

In addition to deciding the sample frame, the methods to be employed and the training needs of practitioners, another key issue is how the information generated will be managed. Participatory approaches produce large volumes of data, often in awkward forms. As such, without careful planning, there is a risk that much of the information generated will be under-utilised.

There are a variety of standard software packages that may be used to store and analyse qualitative data. However, the majority of computer-based programmes require that the information be coded. In order that information is not lost,

qualitative coding can often be an extremely complex affair. Nevertheless, by keeping the ultimate aim of the specific analysis in mind, coding processes can be streamlined and simplified. With appropriate coding, the results of both semi-structured interviews and focus groups may be entered into a database and subsequently, analysed.

Handling data derived from visual participatory techniques, however, is more problematic. Given the specificity of mapping and diagramming, data generated from these sources are often underutilised, particularly in large-scale studies. Nevertheless, quantitative information such as distances, amounts, and estimations of resource flows etc. may be derived from maps and subsequently utilised for comparison. Again, careful quality monitoring is required in order to maintain a consistency between exercises.

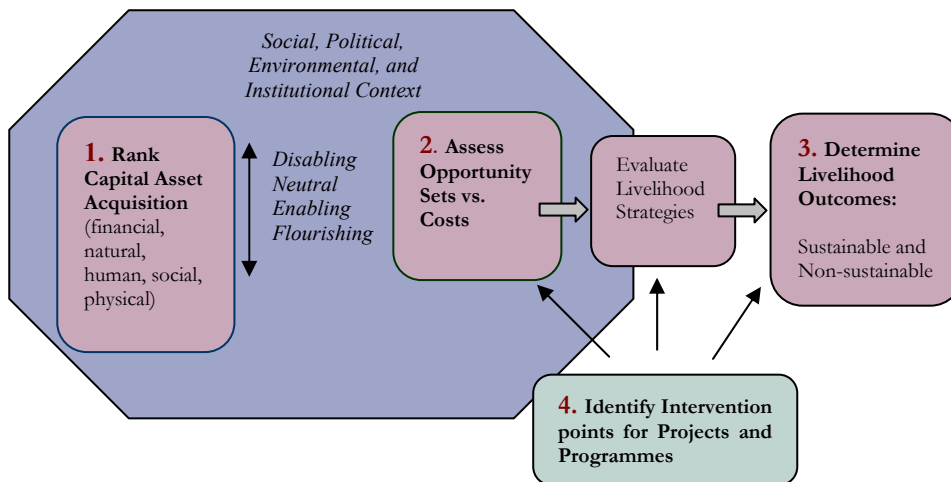
Mapping exercises may also be assessed utilising visual semiotic techniques. By looking at the number and placement of different objects in an illustration, a deeper layer of meaning may be derived from the illustrations (see LDG, 2003).

SECTION I: Participatory Exercises –Setting the Scene

The Simplified Livelihood Framework

At present, the language of the Sustainable Livelihoods Approach has been widely adopted to describe the reality faced by poor households in trying to make a living. The framework focuses on the acquisition of the following five broad categories of capital assets: human, physical, social, natural, financial. And a variety of organisations and agencies have offered frameworks to measure household or community access to the aforementioned assets. However, many of the models are too complex or time consuming to be of use in the often dynamic and fluctuating conditions in which animal healthcare projects are being considered. Consequently, the following simplified SL approach attempts to reduce the complexities involved by creating a more logical and relational livelihood framework. The intention is to enable project planners to quickly and easily assess the appropriateness of implementing a livestock project in four steps. The following figure illustrates the approach.

FIGURE 1: THE SIMPLIFIED SL APPROACH



As the diagram illustrates, the first step in the livelihood analysis is to take into account the socio-political, environmental and institutional context and rank capital asset acquisition for the communities involved. Hence, access to financial, natural, human, social and physical capital can be categorised as disabling, neutral, enabling or flourishing. The following box offers possible criteria for the ranking of capital assets.

BOX 2: CRITERIA FOR LIVELIHOOD RANKING

A *disabling* environment, in this context, does not allow individual households to meet subsistence requirements. Whereas, in a *neutral* environment, households may meet basic needs but not much else. Conversely, in an *enabling* environment households are able to exceed subsistence requirements and achieve sustainability in at least one aspect of their livelihood strategies. Finally a *flourishing* environment is one in which individuals and households may achieve a higher level of well being and are no longer vulnerable to poverty.

For example, in a subsistence farming community, households may have sufficient land to grow their own fodder, and therefore natural capital for livestock keeping would be classified as *enabling*. However, due to out migration of male labour and the need for women to pursue off-farm income, insufficient labour is available for livestock keeping. As such, for many families, human capital is *disabling*. Further, access to financial capital (livestock and/or credit) and social capital (networks based upon livestock) are poor, making it difficult for farmers to purchase or borrow livestock (*disabling*). Physical capital (access to livestock markets) is also a problem (*disabling*). Under such conditions, a livestock micro-credit project would improve access to livestock assets and could potentially support local livestock markets. Hence financial and physical capital would thus become *neutral* or *enabling*.

Although seemingly evaluative, by utilising participatory processes to rank capital asset acquisition, project planners may gain a better idea of the type of intervention that would be best suited to the overall political, social, ecological and economic context.

Furthermore, the framework enables distinctions to be made between environments where only one capital asset may be adequate for livelihood security and those that require a variety of assets. For example, in some contexts, the availability of sufficient financial capital will allow herders and farmers to either diversify income sources or purchase sufficient inputs to ensure livelihood sustainability. Whereas in other environments, increased access to financial capital alone will not guarantee livelihood security. For example, under specific conditions, projects offering credit for livestock and veterinary drugs may enable households to obtain food and economic security. While in other contexts, due to lack of marketing outlets and/or insecure land tenure regimes, credit alone will not be sufficient to ensure positive livelihood outcomes.

The next stage of the analysis is to evaluate the opportunity sets and cost for the households involved. In every environment, there will be a variety of livelihood activities that may be pursued i.e. the opportunity set. However, all livelihood activities also have an opportunity cost, which may or may not be acceptable to the individuals concerned.

Therefore, prior to instituting a project or programme, opportunity sets and costs must be determined. For example, for some destitute pastoralist communities, livestock keeping may no longer be a viable option. Although, livestock are one livelihood choice, for most households, sufficient labour is unavailable. To return to fulltime livestock keeping would require that households stop their involvement in other income generating activities and/or remove children from school. Hence, for many, the opportunity cost would be perceived to be too high. From the evaluation of opportunity sets and costs, an assessment of livelihood choices may be made. Use of the above framework will also enable projects to easily identify

initial intervention points from the assessment of livelihood outcomes.

Thus, to perform a livelihood analysis a four-step process is required. First, the overall environmental context should be determined, next the capital acquisition ranked, followed by an evaluation of opportunity costs and sets.

Finally, the livelihood strategies and outcomes, which arise from these opportunity sets, may be assessed. By viewing the capital assets as a basket of goods whose availability and access is directly related to the environment in which they occur, a simpler and more relational framework emerges.

A. Historical Trend Analysis

The overall aim of an historical trend analysis is to explore how communities have reacted to, or recovered from, major change such as that relating to institutional, policy or environmental events. The analysis enables project planners and researchers to gauge the ability of households to cope with these stresses and therefore, the robustness of current livelihood strategies. Further, the technique is also useful for exploring different interventions that have taken place and their subsequent success or failure.

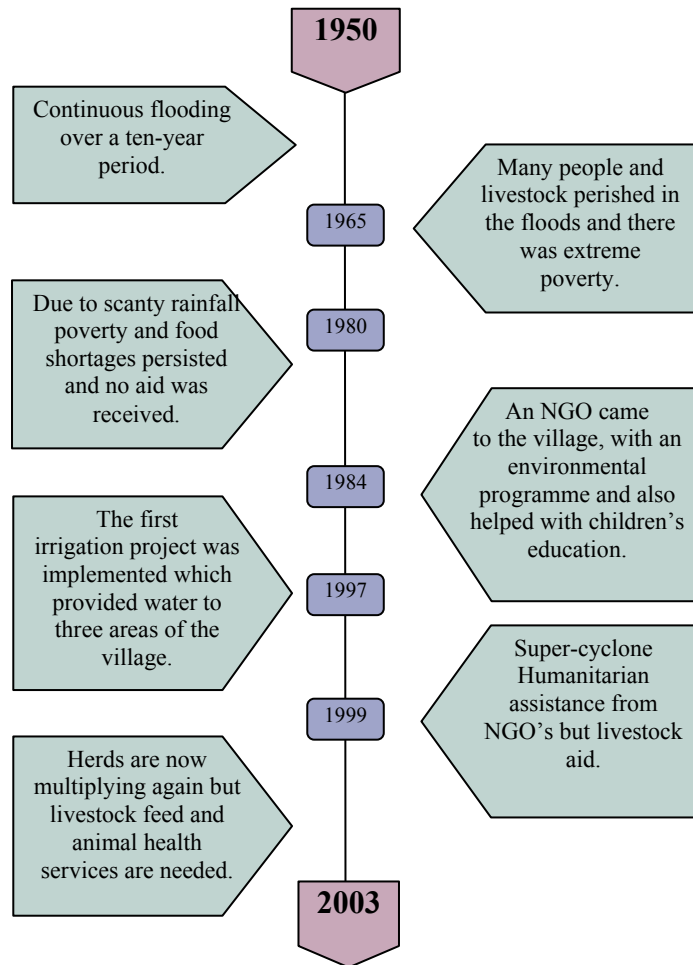
To perform a historical trend analysis, a group of elderly participants is generally required, although the technique may also be performed with an appropriate key informant. In general, exploring major events within the last twenty years is sufficient, although a greater time-span may be possible depending upon the age and interest of participants.

To initiate a Historical Trend Analysis, practitioners may begin with the following questions:

- What are the major events that have impacted your community in the last 20 years?
- What happened to your livestock herds as a result of these events?

Once the major events have been detailed, how these events have impacted household well being in general and livestock keeping, more specifically, may be determined. Indeed, issues such as changes in the price of livestock or access to markets etc. may be explored using the same historical reference points. The following figure offers an example a Historical Trend Diagram performed among farmers in Orissa, India.

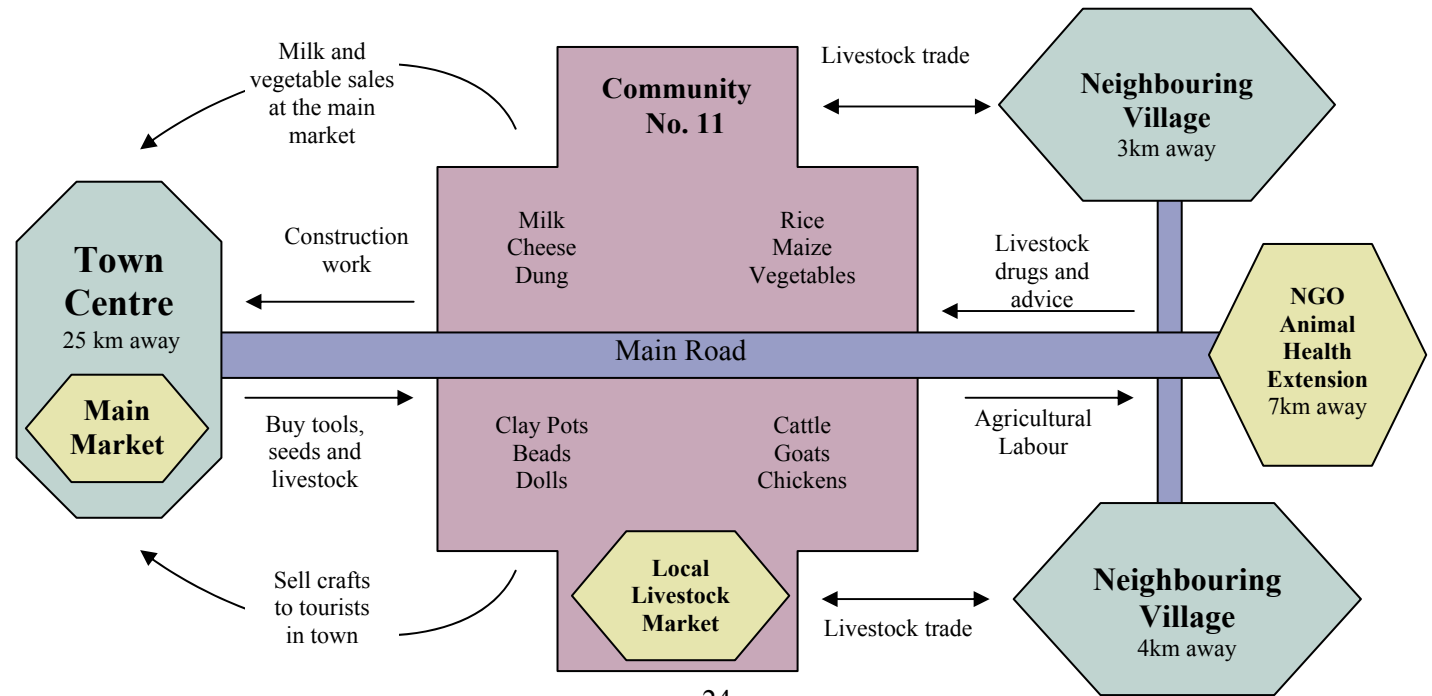
FIGURE 2: THE HISTORICAL TREND ANALYSIS (ORISSA, INDIA)



B. Community Resource Mapping

Community Resource Mapping is a well-known participatory technique that yields information regarding access to natural, physical and financial capital at the community level. To evaluate community resources, key informants and/or focus groups are first asked to map the community. Next, resource flows in and out of the community are discussed and diagrammed. For example, among pastoralist communities, which are close to settlements, there is generally an outflow of milk to the nearby towns. Other outflows include livestock sales, petty trade activities and the out migration of labour to urban centres. Inflows include livestock drugs and, under some conditions, fodder. Community resource maps are also helpful in identifying the large number of livelihood activities that households are involved in. Figure 3 offers an example of a community resource map.

FIGURE 3: COMMUNITY RESOURCE MAP



C. Livestock Production and Management Calendars

The objective of a Livestock Production and Management Calendar is to identify the seasonality of livestock-related events and to detail inputs regarding the livestock production cycle.

However, when performing LP&M Calendars, it is useful to separate out the different groups of poor livestock keepers that may be present in the specific community involved. For example, smallstock keepers will depict a very different livestock production cycle than those households owning cattle, camels etc. Equally, among many livestock-keeping communities, there are significant gender differences with regard to the livestock production cycle. Hence, further separating the groups by gender can lead to a more nuanced understanding of the different gender roles.

When performing a calendar, the first step is to discover how local people categorise seasons and time periods. Next, for the different periods of the year, major events in livestock production may be noted and discussed. Thus the seasonality of disease outbreaks and the reproductive cycle i.e. calving, lambing, and kidding seasons, are catalogued. Differences across the year in milk production and income from livestock may also be recorded at this time. Equally, access to labour and herding patterns may also be discussed and diagrammed. In addition, livestock markets and fluctuations in the price of livestock may also be documented. The following

figure offers an example of a livestock production and management calendar.

Month	J	F	M	A	M	J	J	A	S	O	N	D
Local season												
LIVESTOCK BIRTHS (seasonality of calving, lambing and kidding)												
SALE OF LIVESTOCK PRODUCTS (milk, cheese, meat and wool production and price changes)												
LIVESTOCK DISEASE PREVENTION (vaccination, de-worming or tick control)												
LIVESTOCK DISEASE OCCURENCE (seasonality of major livestock diseases)												
INPUTS (seasonality of any feed, water and animal health inputs)												
LIVESTOCK MANAGEMENT (who performs what activities regarding livestock over the course of the year: herding, milking, etc.)												

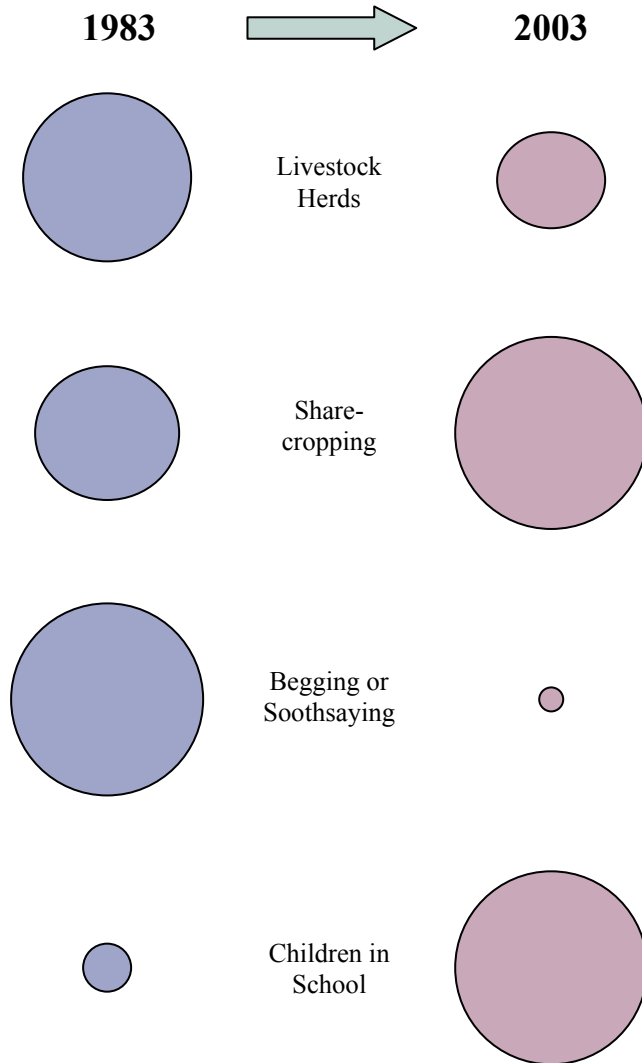
D. Livelihood Changes Diagramming

The Livelihood Changes Diagramme utilises a Venn diagramme format to document major changes in livelihood activities and gain a comparative notion of how communities believe the changes have impacted households. The technique can also be used to assess trends in community-level values regarding livestock keeping and other livelihood strategies (which will be further described in the following section).

To perform a Livelihood Changes Diagramme, group discussions are first held to determine any shifts in livelihood strategies and/or living standards over a time period of at least 10-20 years. It is generally easiest to begin by first, discussing the specific livelihood issues of interest and second, exploring changes that have taken place over the time-period in question.

To keep the length of the exercise within a reasonable time, it is best to limit the discussions to five or six parameters. For example, the technique may be utilised to analyse changes in the number of households keeping cattle and smallstock or those involved in alternate income generating activities, the overall size of livestock herds, or changes in the socio-economic status of community members and the number of children attending school etc. Each issue may be represented by a circle, and the level of change is depicted by altering the size. Figure 4 offers an example of a Livelihood Changes Diagram.

**FIGURE 4: LIVELIHOOD CHANGES
DIAGRAM**



After identifying perceptions regarding the level or amount of change for each of the issues, the subsequent discussion should focus upon causality and how the shifts have influenced attitudes. For example, by asking community members to chart differences in school attendance over a 20-year period, the discussion should then focus on why those changes have occurred. Thus, perceptions regarding the benefits and drawbacks to educating children may be illuminated. The following tool can be utilised to further explore areas of social change discovered by the livelihood changes diagram.

E. Livelihood Opportunities and Constraints Diagramming

The majority of poor livestock-keeping households are acutely aware of the prospects and limitations for economic gain in their community. As such, LO&C Diagramming exercises tend to generate lively discussions.

To begin the exercise, the first step is to discuss the different livelihood activities that households are involved in. This is generally straightforward and a large number of exercises may be quickly listed. Potential examples include livestock-keeping, petty trade, water selling, firewood and charcoal burning, agricultural activities to name a few. To make the activity more inclusive, lists may be written with common activities represented by symbols.

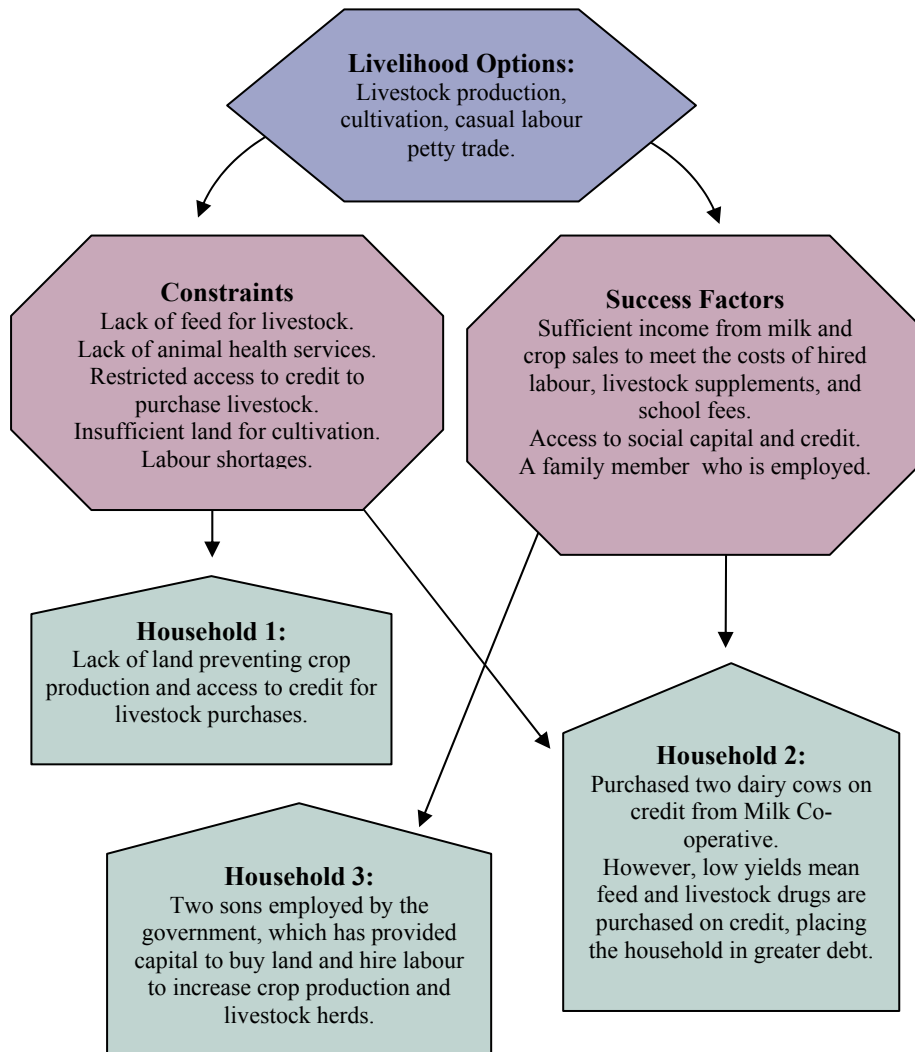
Next, for each of the activities, the problems faced and the factors important to success should be discussed. Obviously, in some communities,

livelihood constraints may be generalised to all activities. For example, the presence of drought or civil war may inhibit all households in their chosen livelihood activities. Nevertheless, in any given situation, some households will be able to cope better than others and the exercise should explore the reasons why.

Finally, communities should be mapped outlining households, which have specific advantages and/or difficulties in performing the livelihoods listed. Exploring the reasons why particular households have chosen specific activities also yields significant insights into household decision-making. Further, additional problems not mentioned in the original discussion may arise at this time.

Thus, by performing the exercise, practitioners can become aware of the factors which either support or constrain specific activities. And in this manner, the suitability of different forms of livestock aid may be determined. The following figure offers an example of a LO&C Diagram.

FIGURE 5: LIVELIHOOD OPPORTUNITIES AND CONSTRAINTS DIAGRAM



SECTION II: PROFILING LIVESTOCK KEEPERS

Obviously in order to better target aid, correctly identifying the population of interest is imperative. Therefore, the following section offers methods that may be utilised to both identify poor livestock keeping households and further refine the different subsets of this population.

F. Livestock and Poverty Ranking

The following livelihood indicators may be utilised to better explicate the levels of socio-economic inequality and hence, subsets of poor livestock keepers within a community. As such, the results may be utilised to aid targeting exercises or may be scaled-up in order to inform the implementation of livestock development projects and programmes at the community-level.

BOX 3: LIVELIHOOD INDICATORS

Financial Capital Indicators

- Number of Children in School.
- Number of Livelihood Activities Engaged in.
- Dependency on Purchased Foodstuffs.
- Level of indebtedness.

Social Capital Indicators

- Ability to give or loan livestock.
- Ability to participate in Social Events/Ceremonies.

Human Capital Indicators

- Level of illness in family.
- Perceptions regarding food availability and hunger.
- Perceptions regarding the availability of labour.
- Perceptions regarding household well being.

Obviously, the above indicators do not offer a comprehensive list of all the factors that influence the sustainability of livestock-based livelihoods. However, an evaluation of the above criteria will enable practitioners to gain a comparative understanding of poverty at both the household and community level.

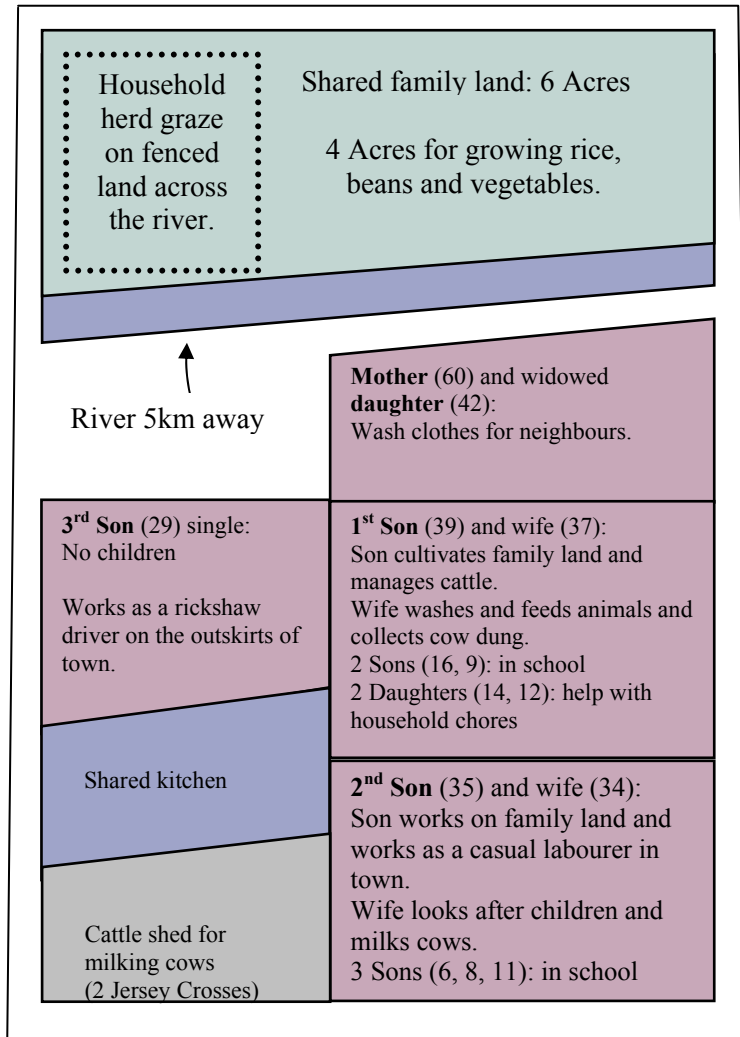
The exercise may be performed in either in groups or individually. However, given the sensitivity of many of the questions and the high probability that responses in groups may be biased, it is recommended that the exercise be performed at the individual level.

G. Compound Mapping

Across the globe, poor households generally do not live in isolation. However, in different countries and continents the configurations of living spaces differ dramatically. For example, poor households in India tend to live in extended families whereas; poor pastoralists in Kenya live in multi-household compounds comprised of family members, friends and neighbours. Within this milieu, livestock keeping is often a shared activity. As such, compound-mapping exercises are useful tools to illuminate both the individuals responsible for livestock care-taking and the level of resource sharing between the households involved.

To perform a compound map, clients are asked to draw how and where their families live. Potential items of interest include the number of compound/household members, such as brothers, sisters, in-laws, friends etc. The age and sex of children and school attendance may also be noted at this time. Livestock herds can also be mapped at this time. By mapping the collective herd, discussions can ensue about an individual household's access to livestock products and the responsibility for specific livestock-related activities such as milking, herding etc. In this manner, the exercise explores the social and financial connections both within and between households. The following figure offers an example of a compound map.

FIGURE 6: COMPOUND MAPPING



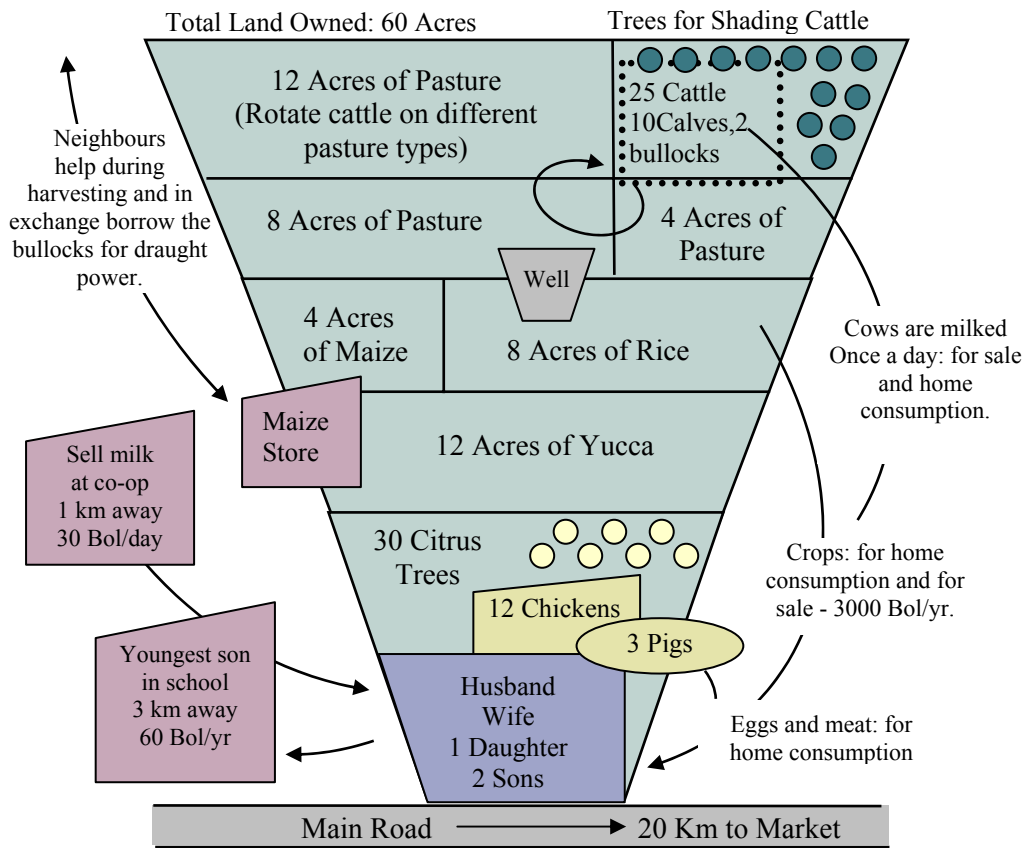
Issues of representation may also be examined in compound mapping exercises. How individuals depict their houses, neighbours, and livestock herds can often further illuminate perceptions regarding poverty and ill-being (see LDG, 2003).

G. Household Resource Maps

Household resource mapping is a frequently utilised participatory technique, which yields information regarding the inputs and outputs of farm-level enterprises such as crop and livestock production. With regard to poor livestock-keepers, household resource maps may be utilised to delineate access to livestock markets (including where and how information regarding prices are obtained) and the availability of livestock related services i.e. the purchase of livestock drugs (km and time), nearest tick dip (if relevant) etc. Equally, the distance that livestock must travel daily for grazing and water can also be delineated. The inputs and outputs for other livelihood activities such as petty trade i.e. firewood and charcoal selling are also outlined. Equally, it is important to note the income earned from the different tasks and major household expenses.

The maps may also be utilised to explore the relationships *between* the different enterprises and any labour conflicts. Indeed, by mapping inputs and outputs, practitioners may obtain an idea of how households prioritise activities. The following figure offers an example of the type of information that may be derived from a household resource map.

FIGURE 7: A HOUSEHOLD RESOURCE MAP (BOLIVIA)



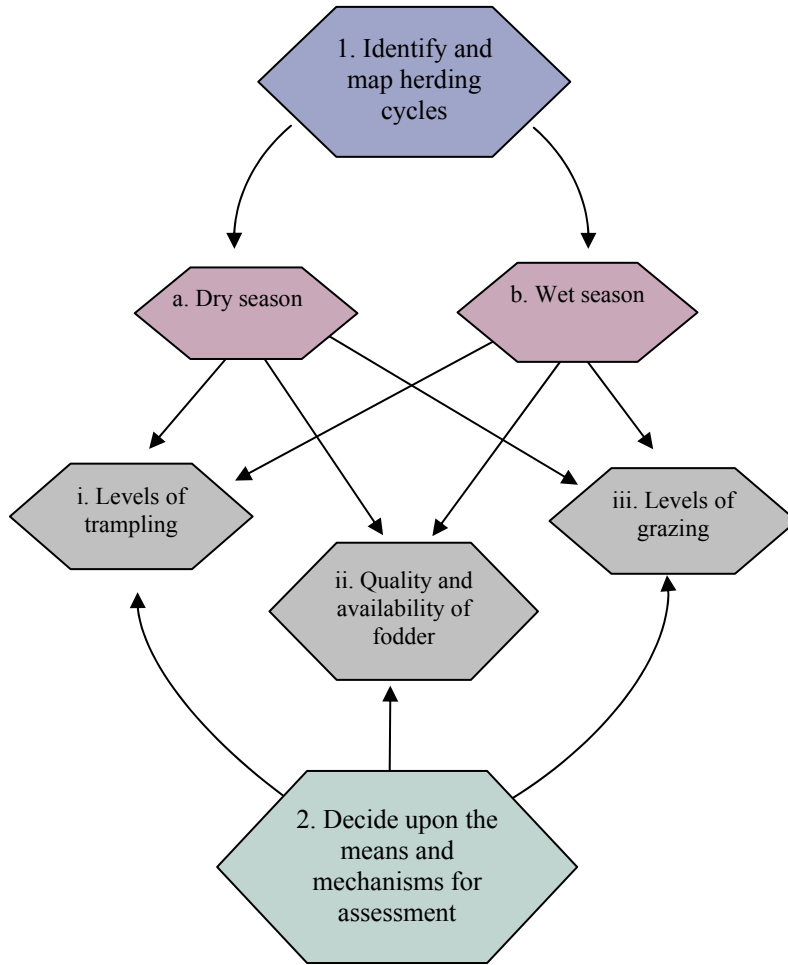
G. Community Rangeland Mapping

The purpose of rangeland mapping is to outline both historical and present grazing strategies and patterns. The seasonality of livestock movements and access to dry and rainy season forage may also be delineated. As such, the tool may also be utilised to devise baseline criteria for future environmental monitoring.

The method should be performed ideally in two stages. First, focus groups should be held to discuss and consequently map both the public and privately-held grazing areas for the community in question. Any specific geographic features should be mapped at this time, in addition to identifying dry and rainy season grazing areas. Full and detailed maps are necessary at this stage, if the illustrations will be part of a long-term monitoring process.

Secondly, criteria for the assessment of the health of the rangeland should be discussed and the means and mechanisms for measurement decided. Potential community-derived indicators include the level of trampling, quality and availability of fodder and levels of grazing. The following figure illustrates the basic components of a community rangelands mapping exercise.

FIGURE 8: COMMUNITY RANGELAND MAPPING



SECTION III: Issues in Livestock Production and Health

To accurately determine the impacts of animal health interventions, long-term monitoring programmes based upon live-weights, morbidity and mortality rates and milk production are required. This level of monitoring, however, is generally too expensive and beyond the scope of most projects and programmes. Therefore, measuring production impacts is contentious and generally not possible within the limited time-period of many interventions.

Consequently, with regard to animal health, estimations of impacts are in reality, often only projections, which have been derived from the activity-levels of Community Animal Healthcare workers or the amount of medicines purchased at livestock drugstores. However, the information generated by the assessments is frequently unreliable. First, many CAHWs are loath to accurately describe their activity levels as this may jeopardise their chances for further training and/or other project benefits. Second, among many livestock-keeping cultures the treatment of animals by someone other than the actual owner is socially frowned upon. Therefore, many trained CAHWs are not heavily involved in providing curative treatments. The monitoring of drug sales is equally problematic as record keeping is often poor and in many cultures there is pressure to treat the animals of friends and relatives for free.

As such, a second means of measuring the impact of animal health projects and programmes is to evaluate

consumer satisfaction. Therefore, the frequency of use of the services and client perceptions regarding quality may be explored. To assess client satisfaction and consumer preferences, measurement of the following key parameters is recommended: access, affordability and acceptability.

I. Access

Similar to environmental assessments, access to animal healthcare should be measured prior to, and post-project implementation. The following tool may be utilised to assess the parameters.

H. Livestock Healthcare Provider Maps

To evaluate access to animal healthcare, focus groups and key-informant interviews may be held to detail Livestock Healthcare Provider maps. Particular areas of interest include the distance to, and availability of, government, NGO and private animal healthcare and livestock drug providers. In this manner, specific information regarding the distance, time required and frequency of use of both animal healthcare providers and livestock drug stores may be documented. By periodically updating the maps, both project staff and community members can evaluate the influence of the any project-related inputs. For example, the uptake of a Community Animal Healthcare Worker project may be evaluated by analysing changes in the maps pre and post-project implementation.

Therefore, the maps create base-line information regarding service delivery in addition to providing a means of assessing change. Furthermore, by

collecting information on the aforementioned parameters from both project and non-project households, the overall influence of the inputs on access may be derived.

II. Affordability

The affordability parameter assesses the ability of poor households to pay for animal health-related goods and services. As such, the parameter explores how close households are to meeting the minimum necessary level of preventative and curative animal healthcare in their particular geographic area. The first step in determining the affordability of animal healthcare is to determine the ‘ideal’ treatment costs for a variety of livestock diseases (the term ‘ideal’ refers to fulfilling the optimal recommendations for preventative and curative disease treatment).

The ‘ideal’ treatment regime and costs can be obtained from key informants i.e. government and private veterinarians and animal healthcare assistants (for example, the recommended dosing regime for internal parasites or tick control). Next, the actual expenditure on animal healthcare can be evaluated. At the community level, a Livestock Production and Management Calendar may be utilised to obtain information regarding the seasonality of livestock expenditures in the communities involved. Further information regarding animal health expenditure may also be derived from Semi-structured interviews.

III. Acceptability

The following three issues may be further explored to determine the acceptability of an animal healthcare intervention.

a. Consumer Preferences regarding Animal Healthcare

Pair-wise ranking exercises are useful tools in understanding client preferences regarding the choice of livestock drugs, the nearness of provider, the quality of advice offered, access to credit or any other feature deemed important by herders and farmers. Prior to initiating the ranking, focus groups should be held to detail the desired traits of either animal health practitioners or drug providers.

After the initial consultation, the ranking may begin. To perform a pair-wise ranking exercises herders and farmers are asked to choose between the features of two hypothetical livestock drug stores or animal healthcare providers (i.e. the government vs. private practitioners). For example, the following pair-wise ranking compares consumer preferences regarding four different parameters of two different animal healthcare providers.

FIGURE 9: PAIRWISE RANKING FOR ANIMAL HEALTH PROVIDER PREFERENCES

	Offers Advice	Offers Credit	Close to home	Lower cost of treatment
Lower cost of treatment	Advice	Credit	Lower cost	
Close to home	Advice	Credit		
Offers Credit	Credit			
Offers Advice				

In the above example, livestock keepers were first asked to choose between an animal health practitioner that offered lower cost treatment and one that provided advice. Next, less expensive treatment was compared to access to credit and so on across the table. In the above example, credit was deemed the most desirable feature, followed by advice.

b. How livestock healthcare fits into the overall needs of the community

To evaluate the importance of livestock health, ranking exercises may be performed among focus groups and individuals to assess the relationship between livestock disease and household well being. The exercise may proceed in two stages. First, clients

should be asked to state major household expenditures. By utilising an open-ended format and not offering specific parameters to rank or score, practitioners may obtain a detailed understanding of the particular problems faced by individual households. By next asking households to rank then rank these expenses, knowledge of the relative outgoings and perceptions regarding livestock-related expenses can be obtained. In this manner, the ranking can form the basis of further discussions. Particular areas of interest include the seasonality of both livestock and non-livestock related expenses (such as school fees etc.).

c. Perceptions of Quality

To assess notions of quality regarding animal healthcare, focus groups and semi-structured interviews may be held to discuss the differences between human and animal healthcare delivery. By assessing perceptions regarding waiting times, treatment by staff, the need to pay bribes etc., community-derived notions of quality with regard to healthcare delivery may be derived.

I. Participatory Herd Assessment Methodology

Among communities of livestock keepers, questions regarding animal numbers are sensitive and prone to misleading or inaccurate answers. Furthermore, visual verification of herd size is also fraught with difficulty. Livestock are often herded collectively and distinguishing between different households' animals is often impossible for outsiders. More importantly, livestock are often inaccessible during field visits.

Consequently, it is frequently acknowledged that much of the data on pastoralist livestock production is less than accurate.

In response to the problem, the following method offers a device for more accurately estimating livestock numbers and herd structures. Referred to as the Participatory Herd Assessment or PHA, the technique relies on a basic knowledge of herd structure and the seasonality of lambing and kidding in a local area. Therefore, prior to instituting PHA, project staff/monitors must have an understanding of local livestock reproduction parameters. Using this information, an in-depth life history of the herd as a whole can be obtained. Furthermore, as the verification of livestock numbers is built into the methodology, triangulation with other sources is less integral to the process than with other participatory techniques.

Although the method may be used for any livestock species, the following example concentrates on small ruminants.

a. Determining Livestock Production Parameters

The first step in performing a PHA is to identify key informants with knowledge of livestock. Through open-ended and semi-structured interviews, a Livestock Reproduction Profile for the community or project area may be created. The following box details the key parameters in a Livestock Reproduction Profile. Although the previously described Livestock Production and Management calendar can be utilised to obtain the following information, the PHA

concentrates more specifically on livestock production.

BOX 4: LIVESTOCK PRODUCTION PROFILE

1. The seasonality of calving, lambing or kidding: The time of year and the environmental considerations e.g. during the long rains etc.
2. Average litter size: For example, in sub-Saharan Africa, twinning is rare among smallstock.
3. Neonatal mortality: _____ high or _____ low
4. Major disease of young stock.
5. Recent history of epidemics or abortion storms.
6. Recent or current history of drought or other event that may influence livestock reproduction.

The next stage of a Participatory Herd Assessment is individual interviews. Utilising semi-structured and open-ended interviewing techniques, quantifiable data on livestock herds may be obtained. For example, the initial question begins with the number of adult female animals of the species in question. Next, the number of offspring from those animals during the past year is obtained. The number of deaths of those offspring is also recorded at this time. The number of immature female animals is then tabulated, along with the number of males, both immature and mature.

Finally, the herder is asked the total number of animals owned. Among many pastoralist cultures, it is considered rude and importunate to ask the number of animals owned initially. As such, the feasibility of the question will have to be determined prior to the fieldwork.

The final stage of the participatory livestock assessment involves exploring any discrepancies in the total number of animals as stated and the herd structure as described above. In this manner, livestock sales and home consumption of animals can be discussed. Equally, inaccuracies may be evaluated and false information discounted at this time. Exploring the differences in actual numbers also allows for insight into livestock mortalities in the different age cohorts of animals in addition to the marketing strategies of herders i.e. the average age at off-take. Furthermore, households are given time to detail any problems encountered over the course of the previous year with the herd. The following box details the herd parameters required to perform a PHA.

BOX 5: SPECIFIC HERD PARAMETERS

1. Number of Adult Females:
 - a. Number of female offspring (during the past year):
 - b. Number of male offspring (during the past year):
(number died, sold, consumed)
2. Number of Immature Females (below age of first reproduction):
(number died, sold, consumed)
3. Number of Mature Males:
(number died, sold, consumed)
4. Number of Immature Males:
(number died, sold, consumed)
5. TOTAL HERD SIZE:

b. Assessing Changes in Herd Size

The first step in determining overall herd size is estimating the mean number of animals owned prior to project implementation. Although apparently straightforward, obtaining accurate figures is often difficult. Corroborating the numbers of previously owned livestock is possible by analysing the existing herd structure and discussing the life history of the herd as described above. For example, a herder who reported receiving 2 cattle as a gift, 5 years ago,

would then have to account for the offspring and the morbidity and mortality rates of those animals. As such, any discrepancies in herd size are soon corrected.

J. Disease Prioritisation

How and why poor people prioritise livestock disease is vital to creating an appropriate and sustainable animal healthcare delivery system. However, expert opinion has been shown to differ widely from those of the poor themselves (Heffernan and Pilling, 2002) Indeed, large differences have been noted across stakeholder groups. Hence, any disease prioritisation exercise, must account for differing stakeholder perceptions.

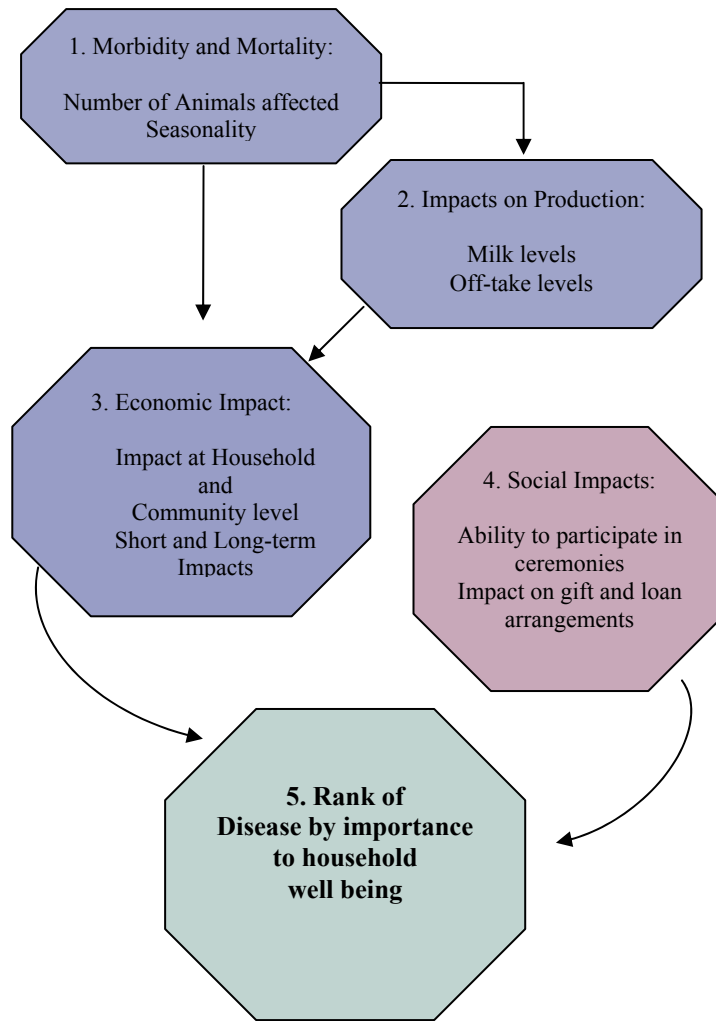
Therefore, the authors recommend that disease prioritisation is undertaken in two steps. During the first stage of the exercise, perceptions regarding the economic and social impacts of a variety of diseases may be explored. In the second phase, the diseases are ranked in accordance to household well being.

To begin the exercise, it is necessary to map or discuss in focus groups, all of the potential ways that livestock diseases can affect households. Utilising the discussion as a backdrop, the responses can then be categorised and mapped. In general, the effects of any given disease can be broken down into at least four impacts: morbidity vs. mortality; productivity; social; and economic. Obviously, these impacts do not exist in isolation. Therefore, the relations and linkages should subsequently be explored in a mapping exercise. Indeed, issues of further importance include

perceptions regarding the short and long-term impacts, seasonality and factors, which inhibit the ability of the household to participate in social occasions or ceremonies.

The following figure offers issues for further discussion regarding the four potential impacts, as listed above.

FIGURE 10: MAPPING PRIORITY DISEASES



As the figure demonstrates, the final stage of the exercise is to rank and compare perceptions of the different diseases with regard to household well being.

As such, prior to beginning the ranking, a discussion should be held to detail the factors that are deemed important to well being such as sending children to school, having adequate food supplies and sufficient disposable income etc. Utilising the criteria, each of the diseases may then be prioritised.

However, research has demonstrated that gender, age and indeed, herd composition has an impact on how and why individuals prioritise specific livestock diseases (Heffernan and Pilling, 2002). Further differences are noted between better-off and poorer households. Therefore, it is important when performing the exercise that these differing perceptions are accounted for. As such, it is recommended that the exercise is undertaken with a variety of different stakeholder groups such as smallstock owners, poultry owners, older community members, women and men etc.

SECTION IV: IS LIVESTOCK DEVELOPMENT APPROPRIATE?

In order to truly understand the role and potential impact of livestock on the livelihoods of the poor, an assessment of the motivations, aspirations, values and attitudes toward livestock keeping is needed. The following section offers two potential techniques to aid practitioners in better understanding the communities and individual's involved.

K. Measuring Motivation for Livestock Keeping

Successful livestock-keeping requires great motivation. As such, understanding client motivation is a key factor in the design and implementation of appropriate and sustainable livestock projects and programmes.

Indeed, various factors have been found to be associated with a motivation for owning and keeping animals, such as age, gender, livelihood diversification, livelihood preferences as community location (i.e. rural, peri-urban etc.) (Heffernan *et al.*, 2001). Although indicators of motivation may be assessed at the community level, the following offers a description of the motivational factors important at the individual level. Box 6 details potential areas of investigation.

BOX 6: INDICATORS OF MOTIVATION FOR LIVESTOCK KEEPING

• **Livelihood Diversification:** The extent to which an individual has diversified his/her livelihood activities: livestock vs. non-livestock related activities.

• **Present Livelihood Preferences:** The identification of an individual's preferred livelihood activity both in terms of satisfaction (intrinsic motivation) and external rewards (extrinsic motivation).

The Role of Livestock: The identification of future aspirations for livestock production activities indicating values and expectations associated with livestock vs. other livelihood activities.

• **Self-Identity:** The manner in which an individual identifies him or herself, indicating identification with a livestock-based livelihood, pastoralism or non-livestock parameters.

• **Role Model:** The characteristics of an individual's role model or most admired person, indicating those traits, which are most valued.

Although specifically geared toward livestock keeping, the above indicators may be useful in enabling field staff and project planners to obtain a notion of an individual's preferred livelihood. Hence, the technique may be utilised to identify overall preferences and potentially, the success of a livelihood intervention prior to implementation.

The following table outlines potential questions that may be raised with both individuals and groups to assess motivation for livestock-keeping.

TABLE 1: QUESTIONS TO ASSESS MOTIVATION

Potential Questions	LESS motivated	MORE motivated
<i>1. What livelihood activities are you involved in?</i>	Livelihood activities are diversified with the main activities not related to livestock.	Livestock keeping is the only or main activity for the household
<i>2. Out of all your daily activities which one do you prefer?</i>	A tendency to prefer non livestock-related activities.	A tendency to prefer livestock keeping and other livestock-related activities.
<i>3. What role does livestock play in your present activities?</i>	A tendency to want to live in urban or peri-urban areas and pursue non-livestock related activities	A tendency to want livestock as the main livelihood activity of the household (e.g., to be a pastoralist)
<i>4. How would you best describe yourself?</i>	A tendency to describe characteristics not associated with livestock.	A tendency to describe livestock related livelihood characteristics.
<i>5. What person do you admire, and what do they do?</i>	A tendency to admire a person because of non-livestock related characteristics i.e. success in business etc.	A tendency to admire a person for their livestock or livestock-related achievements.

Rating the Responses

Obviously, the above questions offer an approximation of attitudes and motivations toward livestock-related livelihoods. Nevertheless, research has demonstrated that the responses are good

indicators of motivation for livestock-keeping (Heffernan *et al.*, 2001). To compare individual households, a ranking and scoring framework may be devised.

Of the above five questions, livestock related answers to 2, 3 and 5 have the highest rating regarding motivation. Conversely, a bias towards livestock in the responses to questions 1 and 4 alone, are not sufficient to claim a motivation towards livestock keeping. For example, many poor pastoralists, in order to make a living, have relocated to towns and settlements and therefore, by necessity have a heavy reliance on non-livestock related activities. Once settled, many households no longer desire to pursue a livestock-based lifestyle. Nevertheless, some households will be suitably motivated to return to a pastoral way of life. Equally, responses to question 4 must be assessed with an understanding of how the poor are perceived within the culture in question. In some communities, the poor may exaggerate claims of a pastoral past in order to enhance their social standing.

The following table offers a simple scoring system to rank and compare individual responses.

TABLE 2: A SCORING SYSTEM

Questions	LESS motivated	MORE motivated
<i>1. What livelihood activities are you involved in?</i>	Main activities are not livestock related. Score: 1	Livestock keeping is the principal livelihood activity. Score: 2
<i>2. Out of all your daily activities which one do you prefer?</i>	Preference for non-livestock related activities. Score: 1	Preference for livestock management, Score: 3
<i>3. Relative to your other livelihood activities what role would you like livestock to play in your future?</i>	Tendency to want to continue in alternate or non-livestock income generating activities. Score: 1	Tendency to return to pastoralism or extensive livestock keeping. Score: 3
<i>4. How would you best describe yourself?</i>	Description of characteristics not associated with livestock, Score: 1	Description of livestock-related characteristics. Score: 2
<i>5. What person do you admire, and what do they do? Is this activity what you admire or is it another feature of the person?</i>	Admiration of non-livestock related characteristics i.e. success in business etc. Score: 1	Admiration of livestock-related achievements. Score: 3

Use of the questions and scoring system will allow field staff to both assess the potential motivation of clients for livestock-keeping and further understand

the prevalent attitudes or views of the population of interest.

Possible Problems and Limitations

The above questions are offered as a guide only, as adaptations are likely to be required in order to meet the demands of specific situations. For example, the question regarding role models may require reworking as in certain societies, asking an individual to describe a person whom they admire may be akin to admitting feelings of envy or jealousy.

In addition, it is likely that in many instances responses will be offered, which include the wider issues faced by households, while the scoring system only relates to livestock-keeping. Although practitioners may probe for more relevant answers, it is important that the participant is not pushed to talk about livestock per se, as this may bias the responses. Indeed, responses outside livestock may be just as revealing.

L. Assessing Community Values: A tool for analysis

Obviously, projects should be tailored to meet, rather than clash with community held aims and objectives. Indeed, an awareness of these parameters can mean the difference between project success and failure. However, in general, participatory techniques have been under-utilised (Kaul Shah, 1998; Rocheleau *et al.*, 1998) as a means to understand community-held values and attitudes.

Therefore, the following section describes a tool that may be utilised to better explicate commonly held values. Although the technique described below may be used to gain a better understanding of a wide variety of beliefs, the following description is geared toward gauging values and attitudes toward a livestock-based lifestyle.

Areas of Investigation

Research has demonstrated that community-level values can be derived from notions regarding expectations of the future (Heffernan *et al.*, 2001). As such, there are three areas of exploration that may be collated to gain an overall notion of values and attitudes:

- Self-Regarding Expectations
- Other-Regarding Expectations (particularly in relation to children)
- Community-Regarding Expectations (with a particular stress on livestock-based lifestyles)

Questions regarding expectations for the self are asked in order to outline personal goals. The ensuing discussion may also indicate prospects for a person to achieve their goals based upon their present situation. Collectively, the self-regarding expectations can give a clear indication of what individuals think is possible.

Conversely, questions regarding a person or community's expectations for their children offer broader insights of a *preferred* lifestyle (which is

perceived as achievable). Therefore, the responses will yield whether livestock keeping is considered a sustainable livelihood or conversely, if there are other activities that are believed to offer greater financial or social opportunities.

Finally, at the community-level, questions regarding the perceptions of the future offer a background against which, the individual responses may be compared. As such, the responses will illustrate if livestock are broadly viewed as a way of life or simply as a means of achieving other things.

The following table offers potential questions for both individuals and groups to evaluate perceptions and values regarding livestock.

TABLE 3: INITIAL DISCUSSION POINTS

Questions for Individuals	Questions for Groups
<ul style="list-style-type: none"> • What kind of life would you like for yourself? • What good things do you expect to happen to you in the future? • What do you want for yourself? 	<ul style="list-style-type: none"> • What lifestyle do people here want to have? • What good events/ occurrences have taken place in the village/ community in the past 10 years? • What do people dream or aspire to in this village?
<ul style="list-style-type: none"> • What kind of life would you like for your children? • What do you see as the future of pastoralism/ livestock keeping? 	<ul style="list-style-type: none"> • What kind of life do people here want for their children? • What's the future of pastoralism/livestock keeping (in this village)?

Obviously, the form and content of the above questions will most likely require adaptation to meet the social and cultural construct of the participant audience. As such, the questions are offered as departure points only, and can be changed as the discussion develops.

Next, responses to the questions can be categorised into themes. By grouping responses into themes, the practitioner will be able to determine if the majority of individual's aspire to a livestock-related livelihood or if other livelihood options are more desirable. Furthermore, expectations for children are a clear indicator of what activities a community believes offers a more sustainable future. Finally, by classifying perceptions regarding the future of pastoralism as negative, positive or mixed, basic attitudes toward a livestock-based lifestyle are obtained.

The Method: Community Values Diagramming

Community Value Diagramming is an adaptation of Venn diagrams. However, Community Value Diagramming (CVD) is not concerned with the *size* of circle, but rather the stress is on deriving the *relationships* between the information offered. By exploring the relations between the topics, the themes of the discussion may be derived and consequently the underlying values determined.

Therefore, in Phase I of the CVD the different responses to a specific question regarding the self, children and/or community expectations are documented. As each participant responds, the

number of people expressing similar points of view or answers is recorded.

In Stage II, different themes are collated. The following box offers a list of potential themes derived from an exercise performed in Kenya.

**BOX 7: THEMES DERIVED FROM
COMMUNITY VALUES DIAGRAMMING**

Expectations for self:

Livestock related (owning more livestock, increasing herd number, owning cattle, starting a livestock business);
Self-improvement (which may include lists of desires and expectations); children education; town life; business related.

Expectations for others (children):

Education and employment
Livestock-based lifestyle (i.e. pastoralism)
Higher quality of life, independence, livestock ownership.

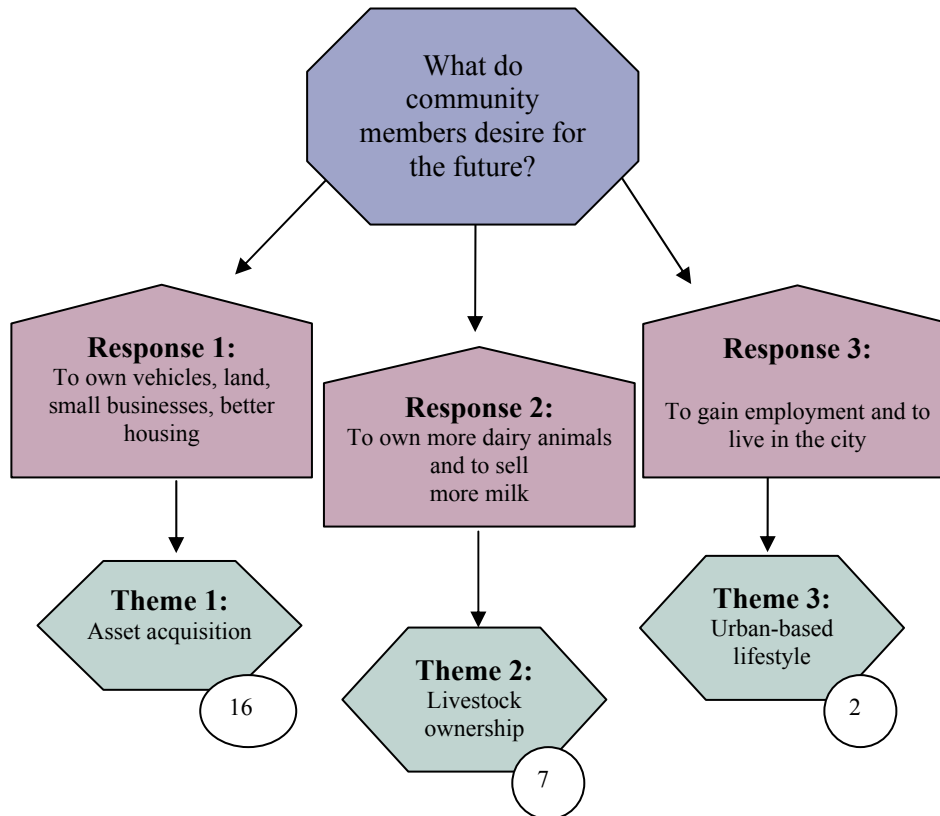
The Future of Livestock Keeping:

Negative Perceptions (drought, drought and raids, education of children);
Positive Perceptions (good management skills, enduring traditional occupation)
Mixed perceptions (drought vs. personal commitment to livestock, changes in traditional view of pastoralism, education can aid people can treat livestock better).

After performing the exercise for each of the questions, the diagram may be used as a reference point to discuss notions regarding the future of pastoralism and the appropriateness of specific

development interventions. The following figure offers an example of a Community Values Diagram.

FIGURE 9: AN EXAMPLE OF A COMMUNITY VALUES DIAGRAM (RAJASTHAN, INDIA)



As the figure demonstrates, the first response is related to the acquisition of assets. Hence, the theme was easily identified as wealth or asset acquisition. Conversely, the second response was related to livestock as a means of livelihood security. Thus, greater livestock ownership and involvement in the livestock economy was desired. Finally, a minority of participants stated that a return to a traditional pastoralist lifestyle was preferred. By collating the relative numbers of individuals who expressed particular views, an overall notion of the strength of the values and attitudes may be obtained. The scoring also enables the responses of different groups or communities to be compared as demonstrated in the table below.

TABLE 4: SCORING OF THEMES RELATED TO INDIVIDUAL VIEWS OF THE FUTURE

Response/Theme	Community 1	Community 2
Livestock-related	xx	xxxxxx
Self improvement	xxxx	xxxx
Education for children	xxxxx	xxx
Settled Lifestyle	xxxx	xx
Business-related	xxxx	xx

From the table, Community 2 appears to have more traditional values regarding livestock-keeping. Nevertheless, members of both communities aspired to self-improvement and education was viewed as a means of achieving future success. However, while education influenced notions of well being in Community 1, owning livestock had a greater relation to self-improvement in Community 2. Finally, more participants in Community 1 aspired to a settled

lifestyle and business ownership than in Community 2. Hence, with regard to restocking, Community 2 would be deemed the more appropriate choice.

The following segment further details the specific steps involved in CVD. However, the instructions are only suggestions, as the context, participants, and the time available will all determine the overall implementation strategy.

The Process

- Given the detailed discussions that ensue, small groups (5-6 people) are preferred.
- It is necessary to make sure that everyone expresses his or her own view.
- The opinions offered should be written down as statements in the local language or as symbols.
- One sheet is needed for each question. It is vital that all of the group members understand the questions.
- The participants should be provided with seeds, stones, chalk or other familiar objects that may be used for scoring prior to beginning the exercise.
- Participants should then be asked individually to respond to the specific question.

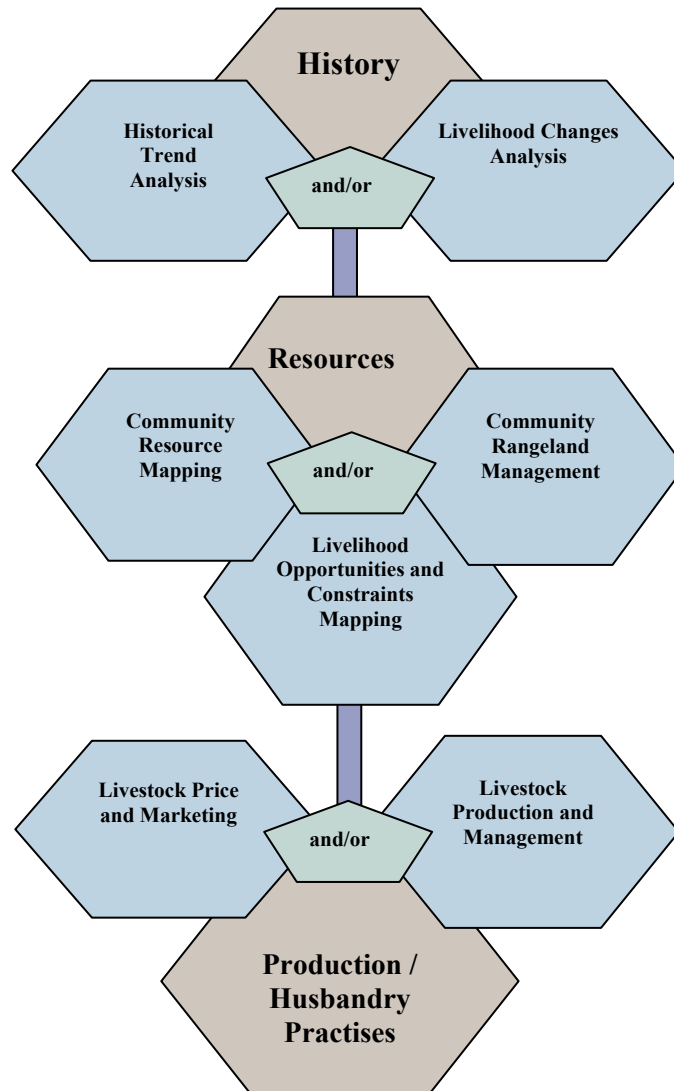
- The facilitator should note the number of individuals offering each response.
- To derive the theme, the participants may then discuss each of the responses listed and make amendments if necessary.
- Finally, the group may score each comment by placing seeds next to them. A scale should be decided, e.g. maximum 10 minimum 1, prior to beginning.
- Scoring activities often entail long discussions among group members. Hence, additional points may be included in the diagram, at this time.

SECTION V: UTILISING THE TOOL KIT

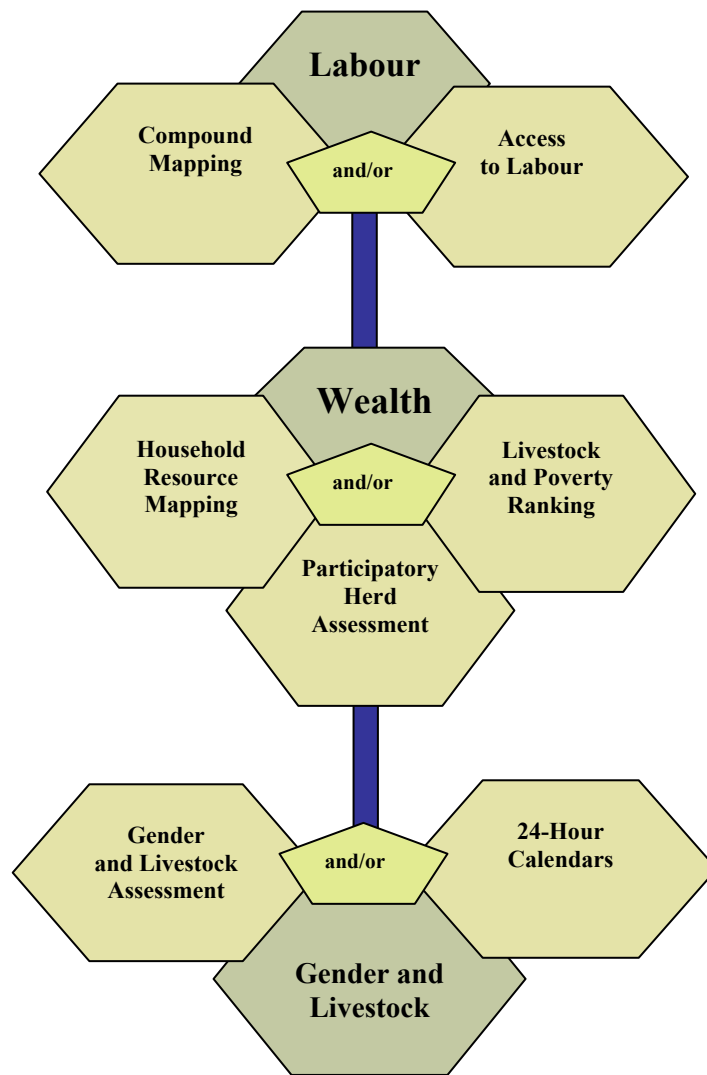
The majority of livestock projects face time and often financial constraints with regard to both implementation and monitoring activities. Although beneficial to project outcomes, it is recognised that it may be difficult for project planners and field staff to perform all of the exercises outlined above. Nevertheless, participation is, by definition, a long and time-consuming process. Indeed, fostering empowerment and trust through the use of participatory tools takes considerable time and effort.

Consequently, the tools in each section have been broadly grouped according to subject matter. Obviously, the selection of tools will depend upon the needs of individual projects. As such, project staff may wish to perform all the exercises in a particular grouping if the information is especially relevant. Therefore, the following figures illustrate the potential groupings and outcomes of the participatory exercises that comprise the LPA.

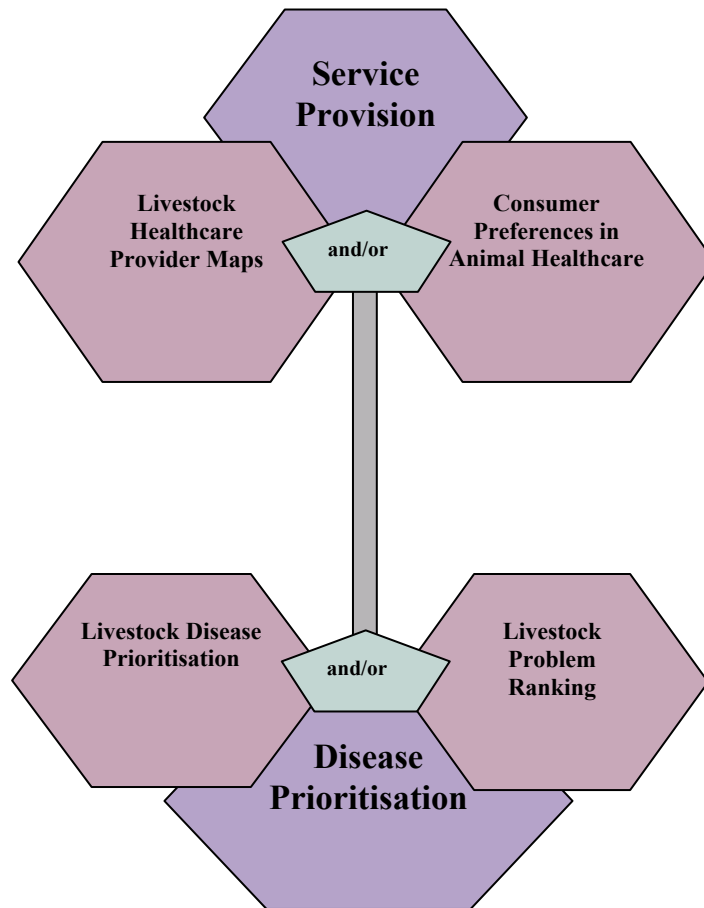
**SELECTING THE APPROPRIATE TOOLS FOR
'SETTING THE SCENE'**



**SELECTING THE APPROPRIATE TOOLS FOR
PROFILING LIVESTOCK KEEPERS**



**SELECTING THE APPROPRIATE TOOLS FOR
ASSESSING ISSUES IN
ANIMAL HEALTH AND PRODUCTION**



References

Heffernan, C., Misturelli, F. & Nielsen, L. (2001). *Restocking and Poverty Alleviation: Perceptions and Realities of Livestock Keeping Among Poor Pastoralists in Kenya*. Report for DFID's Livestock Production Programme, NRI, Kent.

Heffernan, C. and Pilling, D. (2002). *Livestock Disease Prioritisation: Listening to the voices of the poor*. Paper presented at the British Society of Animal Science conference: *Responding to the Increasing Global Demand for Animal Products*, Universidad Autonoma de Yucatan, Merida Mexico, 12-15 November.

Kaul Shah, M. (1998). Gendered perceptions of well being and social change in Darko, Ghana. In *The Myth of Community, Gender Issues in Participatory Development*. (Eds. I. Gujit & M.K. Shah) Intermediate Technology Publications, London. pp. 141-151.

Livestock Development Group (2003). *Poverty and Participation: An analysis of bias in participatory methods*. Livestock Development Group, University of Reading, Reading, UK.

Rocheleau, D., Ross, L., Morrobel, J. & Hernandez, R. (1998). Gendered landscapes, gendered lives in Zambrana-Chacuey, Dominican Republic. In *The Myth of Community, Gender Issues in Participatory Development*. (Eds. I. Gujit & M.K. Shah) Intermediate Technology Publications, London. pp. 178-187.

Thornton, P.K., Kruska, N., Henninger, P.M., Kristjanson, P.M., Reid, R.S., Atieno, F., Odero, A.N. &

Ndegwa, T. (2002). *Mapping Poverty and Livestock in the Developing World*. International Livestock Research Institute, Nairobi.

Weiner, B. (1992). *Human Motivation: Metaphors, Theories and Research*. Sage Publications, California, USA.

World Bank. (2000). *World Development Report 2000/2001. Attacking Poverty*. World Bank, Washington.