

# Integrating Qualitative Dimensions of Poverty into the third Uganda National Household Survey (UNHS III)<sup>1</sup>

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## **Summary**

*Most countries conduct qualitative research on poverty separately from national household surveys which produce 'poverty lines'. This paper presents the Ugandan experience of integrating the two processes in the UNHS III Qualitative Module by combining participatory approaches with statistical principles. UBOS and the UPPAP worked together on the Qualitative Module, developing innovative research methods and poverty monitoring tools. With some further work on weighting and scaling up, key quantitative results of the Qualitative Module will be representative of the rural population of Uganda. They will constitute a baseline for measuring multi-dimensional poverty which will be of great value to national poverty monitoring efforts. They will also be comparable with the poverty line information produced by the Socio-Economic Module of the UNHS III, serving as a cross-check on the survey results.*

**Key Words:** *Qualitative, Quantitative, Poverty monitoring, Participation, national statistics, Research methods*

## **Résumé**

*La plupart des pays ont mené une recherche qualitative sur la pauvreté en dehors des enquêtes nationales auprès des ménages qui déterminent des lignes*

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*de pauvreté. Cet article présente l'expérience Ougandaise dans l'intégration des deux processus dans le module qualitatif de l'UNHS III en combinant des approches participatives avec des principes statistiques. L'UBOS et l'UPPAP ont travaillé ensemble sur le module qualitatif, en développant des méthodes de recherche innovatrices et des outils de suivi de la pauvreté. Avec un travail additionnel sur la pondération et l'augmentation de l'échelle, les résultats quantitatifs principaux du module qualitatif seront représentatifs de la population Ougandaise rurale. Ils constitueront une base de référence pour mesurer la pauvreté multidimensionnelle qui sera de grande valeur pour les efforts du suivi de la pauvreté nationale. Ils seront également comparables aux informations basées sur le seuil de pauvreté produite à partir du module socio-économique de l'UNHS III, servant de contre-vérification sur les résultats d'enquête.*

**Mots clés :** *Qualitatif, Quantitatif, Suivi de la pauvreté, Participation, Statistiques nationales, Méthodes de recherches*

## 1. INTRODUCTION

Most countries conduct qualitative research processes separately from their national household surveys. Quantitative and qualitative data are seen as complementary, but it is assumed that they must be the result of different, separate data collection processes.

From 1997 to 2005, Uganda followed this model, collecting quantitative and qualitative data separately to monitor progress under the country's Poverty Eradication Action Plan (PEAP)<sup>6</sup>. Quantitative poverty monitoring data was gathered by the first and second Uganda National Household Surveys (UNHS I and UNHS II), conducted by the Uganda Bureau of Statistics (UBOS). They collected expenditure data and used them to construct a poverty line and to study poverty reduction trends over time<sup>7</sup>. Qualitative information on poverty was provided by the Participatory Poverty Assessments (PPAs), conducted by the Uganda Participatory Poverty Assessment Process (UPAPP), a partnership of governmental and non-

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<sup>6</sup> The PEAP is revised every three years. The 2000 revision was presented as the country's Poverty Reduction Strategy Paper under the Highly Indebted Poor Countries initiative (MOFPED, 2002).

<sup>7</sup> Analysts establish the 'poverty line': the amount of expenditure required for households to meet their basic needs. Indicators of poverty include the percentage of households surveyed that is below the poverty line and the 'poverty gap' (UBOS 2006b). Such indicators are used to study trends in poverty over time, in order to determine whether progress has been made towards the goal of reducing poverty.

governmental organizations based at the Ministry of Finance Planning and Economic Development (MOFPED).

In an analysis of Uganda's national household survey programme up to 2004, Muwonge (2006) sums up the prevailing way of thinking on quantitative and qualitative approaches:

“It is generally agreed in Uganda that quantitative approaches make aggregation possible, provide results whose reliability is measurable and allow simulation of different policy options. On the other hand, qualitative methods comprehensively define poverty, provide more insight into causal processes and produce more accuracy and depth of information on certain questions”.

Muwonge values both quantitative and qualitative approaches, but sees them as separate research process which provide different types of information. Qualitative approaches are not seen as capable of providing measurable results based on aggregation of numerical data from different sites.

Nevertheless, some integration between quantitative and qualitative approaches took place in Uganda before 2005. For instance, the 2001/02 PPA included a mini-survey in 36 communities where participatory work had been done to collect quantitative data on some of the issues raised during the field consultations. Meanwhile, in June 2001, UBOS and the UPPAP organized an international workshop on combining participatory and survey-based approaches to poverty monitoring and analysis. However, the UNHS II, implemented by UBOS in 2002/03, remained a purely quantitative data collection exercise.

The model adopted for the UNHS III, carried out in 2005/06, constituted a breakthrough in thinking on integration of methodologies in national household surveys. For the first time in Uganda and, as far as we know, in Africa, the national statistical authorities decided to include a fully integrated Qualitative Module based on participatory research methods within the national household survey. To achieve this, they agreed a partnership with the UPPAP, which has considerable experience with participatory approaches.

Achieving integration of a module based on participatory research methods into a national household survey is by no means a straightforward exercise. UBOS and the UPPAP intended that the Qualitative Module should be more than just a qualitative add-on to the household survey: its design

would incorporate statistical principles and would measure key variables in a manner that would allow their aggregation for statistical analysis at national level. According to UBOS (2006a):

“The Qualitative Module of the UNHS III is so-called because it focuses on the reasons behind the statistics, it attempts a deeper understanding of the issues and it uses an approach that is more common among social researchers than official statistics organizations. However, this does not mean that all the data collected was ‘qualitative’ in nature. Some of the tools used were designed to generate numerical data which could be analysed using statistical methods....”

The basis for believing that this could be done was an approach which was developed for the evaluation of Malawi’s Starter Pack programme<sup>8</sup> by researchers from various Malawian institutions, with the support of consultants from the University of Reading in the UK (Barahona and Levy, 2003; Barahona, 2005). A recent paper for the journal *World Development* (Barahona and Levy, 2007) explains how this ‘research using participatory methods’ was distinct from its predecessors:

“At first sight, the methodology that we developed in Malawi might appear to be merely a collection of approaches which have been developed elsewhere as part of the World Bank’s Participatory Poverty Assessments (Norton, Bird, Brock, Kakande, & Turk, 2001; Robb, 2002), the “Consultations with the poor” studies (World Bank, 1999), the work on participatory census mapping in the 1990s in India, the Philippines, Uganda, and the Gambia (Chambers, 1997) and other studies incorporating participatory counting methods. However, there is a crucial difference: the numerical data (statistics) that we produced in Malawi using participatory methods were designed to be capable of analysis not only in the community where they were produced, but also at the national level... As far as we are aware, no previous study based on participatory methods has been capable of producing reliable national statistics”.

This approach was adapted and developed by the UBOS and UPPAP teams, with technical support from Carlos Barahona of the University of Reading, to meet the goals of the UNHS III Qualitative Module, in particular for multi-dimensional poverty measurement. The innovations in methodology undertaken by the Qualitative Module teams are described

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<sup>8</sup> Starter Pack was a large-scale agricultural and food security programme; the methods described here were developed in 1999-2002 as part of the Starter Pack evaluation.

in Section 2 of this paper. Section 3 analyses the potential for further development of the approach. Section 4 looks at some of the key findings on poverty of the Qualitative Module presented in the module report, and considers how they relate to the results of the Socio-Economic Module of UNHS III. The paper concludes, in Section 5, that the Qualitative Module has made fundamental contributions to the UNHS III process and outcome and has the potential to contribute still more.

## 2. METHODOLOGY

Many a times a list of steps to follow to achieve effective integration of quantitative and qualitative methodologies for the generation of statistics has been requested. In the opinion of the authors, if it were possible to construct such a list, there would be no reason for writing this paper and the integration of the two approaches would be widespread. Instead of attempting to build such list, we discuss the set of conditions that made possible the integration of quantitative and qualitative methods in this study.

We aim at providing a description of the process that took the team through the conception and design of the study. The stages described include the contextual background to the study, adaptations made to commonly used methodologies, issues about institutional collaboration, sampling considerations in the integration of qualitative and quantitative approaches, standardisation of participatory methodologies and the development of the specific tools for the study.

### 2.1 Starting point: the Malawi case

In order to understand the design of the Qualitative Module of UNHS III, it is important to be aware of its immediate methodological precursor. Between 1999 and 2002, teams of Malawian researchers with technical support from the University of Reading developed an approach which was able to produce national statistics using participatory methods. It did so by introducing a number of new elements into participatory studies:

1. The study designs incorporated statistical principles, in particular probability-based sampling for site selection and standardization of data collection tools and research methods.
2. Within sites, key information was collected for *all* households, i.e. there was a full census which meant that sampling error was avoided.

3. When measuring poverty within study sites, relative measurements using traditional Participatory Rural Appraisal (PRA) tools such as poverty piling were replaced by *absolute* measurements which enable comparisons between sites and aggregation of data (Levy, 2003).

Why did the teams carrying out the studies decide to do this? The main reason was that the demand for the Starter Pack evaluation came from policy makers and donors who needed answers that were reliable at national level. Some of the questions of interest were capable of being answered using household surveys, so the evaluation ran a number of surveys. However, other issues were too complex to be addressed using questionnaires; here, participatory group discussions and activities were thought more likely to produce reliable results. Nevertheless, the key stakeholders needed to be able to 'quantify' key findings, in order to assess their policy relevance. This was the main reason why methods had to be developed to produce reliable numerical data from participatory studies. A secondary motivation was that for certain issues, the participatory studies with quantifiable results could provide a crosscheck on the results of the household surveys.

## 2.2 Adaptation and innovation in Uganda

In Uganda, similar conditions motivated the development of the Qualitative Module. Participatory approaches were seen useful – particularly in relation to poverty monitoring – because they allow in-depth exploration of complex issues. As in Malawi, the main target audience for the research was policy makers, so the findings needed to be valid beyond the communities where the data were collected. But while in Malawi the participatory research studies were conceived only partly as a check on survey results, in the Uganda case, this aspect was seen as crucial. The Qualitative Module was integrated within, and closely linked to, the national household survey process, placing it firmly within the framework of official national statistics. This reinforced the need to generate quantitative measurements of poverty within the qualitative research framework, because without such measurements, the Qualitative Module would be unable to act as a cross-check on the survey results.

The Qualitative Module was conducted during the second phase of the UNHS III in early 2006. According to UBOS (2006a), it would:

- i. Improve the analysis and interpretation of the UNHS III findings.
- ii. Collect information that could be used to explain the changes in poverty levels as measured by UNHS II and UNHS III.

- iii. Link the measurement of poverty by the UNHS III with qualitative assessments of poverty.
- iv. Improve the measurement of impact of policy interventions.
- v. Validate, complement and explain the findings of the quantitative survey.

Thus, the Qualitative Module was seen as an integral part of the UNHS III. It would explain, interpret, complement and crosscheck the quantitative results of the Socio-Economic Module.

How were the objectives of the Qualitative module to be achieved? The team that designed the study spent much time and effort developing and testing a methodology that would produce *measurable results* as well as *in-depth qualitative answers*. UBOS (2006a) contains a full discussion of how the module approached each of the specific research questions. Here, we focus on the principal features of the methodology, in particular how the module achieved strong integration of qualitative and quantitative approaches for monitoring poverty within the context of a national household survey.

### **2.2.1 Institutional collaboration**

The Qualitative Module brought together staff from UBOS and the UPPAP, who worked as a team throughout the research process. They met regularly, to plan the study, to design the research tools and methods, to review the methodology after it had been pilot tested, for training of field teams, to discuss the strategy for analysis after the fieldwork had been completed, to discuss and improve the draft report, and to check and approve the final version of the report. These regular meetings between UBOS and UPPAP staff, working as a team, promoted a positive exchange of views and better relations between government staff from quantitative backgrounds (UBOS) and from the more qualitative PPA tradition (UPPAP). Such institutional collaboration was essential for the success of a project which represented a radical departure within the national household survey process.

### **2.2.2 Sampling**

Most participatory research studies use purposive sampling to select sites. Within sites, volunteers are invited to participate in group discussions. This approach does not give the researcher a 'representative sample': there is no way of demonstrating whether those included in the study represent the population of interest, e.g. the national population. Some studies attempt to include a more 'objective' element by including a questionnaire

survey in addition to the qualitative research. For instance, the LADDER project in 37 villages in Uganda, Kenya, Tanzania and Malawi<sup>9</sup> included a “sample survey comprising 35 households in each village” (LADDER, 2007). According to Ellis and Freeman (2004), households were selected using probability-based approaches: “Within each village, a PRA wealth-ranking exercise was conducted, resulting in the identification of three wealth groups that acted as the sampling frame for a stratified random sample”. However, the villages were selected purposively. The aim was to describe a range of livelihood patterns in different socio-economic groups; the research did not “claim to represent national patterns” (Ellis and Freeman, 2004).

By contrast the sample of the Qualitative Module of the UNHS III was firmly based on statistical principles. The 36 research sites (of which 25 were rural, and 11 urban) were selected from the Enumeration Areas (EAs) sampled for the national household survey by a two-stage process. According to UBOS (2006a):

“The first stage involved stratification of districts by region. In each of the four regions, three districts were randomly selected. At the second stage, three EAs (one urban and two rural) were randomly selected within the selected districts using the UNHS III list. In rural areas, if more than one village formed an EA, one of the villages was randomly selected for the Qualitative Module sample<sup>10</sup>”.

UBOS (2006a) also notes that “by investigating a sub-group of sampling units of UNHS III, the Qualitative Module was able to link its results directly to those of the survey: it used different research methods, but could explore the same topics as UNHS III with the same households and communities”. For instance, there would be poverty line data from the Socio-Economic Module for all sites visited by the Qualitative Module, which could be compared with the Qualitative Module’s own findings on poverty.

The problem faced by many researchers using participatory methods is that even if they select sites using probability-based sampling, in the study

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<sup>9</sup> Livelihoods and Diversification Directions Explored by Research (LADDER) was a project implemented between 2000 and 2004 by the Overseas Development Group (ODG), at the University of East Anglia, UK, and partners in Uganda, Kenya, Tanzania and Malawi, with funding from the UK Department for International Development.

<sup>10</sup> The Qualitative Module had planned to visit 12 urban sites (one per district), but no urban EA had been selected by the UNHS III for Kiboga district.

communities it is not possible to select a random sample. This is because a key principle of participation is that people volunteer to join the discussions (they should not be coerced or pressured into doing so), and volunteers are unlikely to be a representative sample of the community. In the Qualitative Module of the UNHS III, this problem was overcome by asking the volunteers to provide information about every household in the community, not just about their own households. This was achieved by using a technique known as ‘community mapping with cards’ developed in Malawi (Barahona, 2005). UBOS (2006a) observes that:

“Community mapping with cards is an extension of the participatory technique of social mapping; it involves marking every household in the community on a map and creating a ‘household card’ for it. Key information about the household... can be recorded and analysed in the same way as other numerical data (such as survey data)”.

This had the advantage of removing any possibility of within-site sampling error. Some problems were encountered in urban sites (see Section 2.3), but in the rural sites there was a full, participatory enumeration of households.

It should be noted that the Qualitative Module sample was not self-weighting. It was not possible to design a self-weighting sample because the sample was a sub-sample of the UNHS III sample, which in turn was not self-weighting. However, if the Qualitative Module team weighted and scaled up the sample for rural areas (see Section 3), the findings of the module would be representative of the rural population.

### **2.2.3 Standardization**

While the absence of probability-based sampling methods is perhaps the most obvious reason why data from traditional participatory research cannot be aggregated to produce national statistics, another key reason is the lack of standardization in participatory approaches. This is deliberate. Proponents of participation believe in allowing freedom of discussion and encouraging groups to come up with their own definitions and choose which direction to go in. When successful, this generates a rich debate and useful outcomes at local level. However, the lack of standard research methods, and in particular, standard ways of collecting key data, means that results cannot be aggregated between sites and reported at a higher (e.g. national) level.

In the Qualitative Module of the UNHS III, a minimum level of standardization was required for this purpose, but care was preserve flexibility of discussions in the participatory tradition. The minimum level of standardization involved ensuring that the same procedures were followed in each site, and that key data was collected and recorded in the same way. This was achieved by:

- Careful design and testing of all PRA tools, which were described in detail in a 'Field Manual' setting out how each activity should be done.
- Thorough training "to ensure that all participants were capable of applying the research methodology and using each research tool consistently regardless of the team they belonged to or the research site they were working in" (UBOS, 2006a).
- Use of a Debriefing Document<sup>11</sup> (in addition to researchers' notebooks, community maps and household cards) to ensure that key information was recorded in all sites, and that it was recorded consistently.
- A strong system of quality control including: field team leaders who were responsible for ensuring that the work was conducted as planned in the Field Manual, that the Debriefing Document was completed after each activity and that all information was checked before leaving the study sites; two coordinators, one from UBOS and one from the UPPAP, who were in charge of overall supervision; and a technical adviser who provided methodological support and assessed the progress and quality of the fieldwork and carried out a full audit of the data when the fieldwork had been completed.

#### 2.2.4 Poverty monitoring tools

The final challenge in relation to the objective of producing quantitative poverty data using participatory methods was to design PRA tools to generate numbers that could be aggregated across sites. Traditionally, practitioners of participation ask the community in each site visited to define poverty and to divide members in the community into locally-defined poverty categories. This approach to measuring poverty is known as *relative* poverty measurement because it defines poverty in relation to local points of reference which vary from place to place, making comparison between sites impossible. Levy (2003) notes that most participatory studies of poverty use this form of wealth ranking. However, for studies presenting national results: "these relative measurements of poverty within each community are not enough. They need a more *absolute* yardstick: something

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<sup>11</sup> Copies of the Field Manual and Debriefing Document can be obtained from UBOS or the UPPAP.

that will be able to distinguish consistently the ‘poor’ and the ‘very, very poor’ in all communities...”

The Qualitative Module of the UNHS III recognized the need for absolute poverty measurements. It modified an activity called the ‘Ladder of Life’ which had been used before by the UPPAP and combined it with ‘community mapping with cards’ to produce an exercise which it called the ‘Poverty Rope’. Focus group participants in rural sites<sup>12</sup> were invited to discuss *seven dimensions of poverty*<sup>13</sup>: assets for production, food security, sending children to school, access to medical services, having enough money, many dependants with few resources, and powerlessness.

For each dimension, participants were first invited to discuss the concept and give their views. Then, for each dimension, they were asked to place all the household cards for the village – which had been produced during an earlier community mapping session – along a rope which symbolized ‘climbing out of poverty’. They were asked to work with standardized definitions for the top and bottom of the scale represented by the rope (see Table 1)<sup>14</sup>.

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<sup>12</sup> This section describes the Poverty Rope exercise as it took place in rural areas; some problems were encountered in urban areas (see Section 2.3).

<sup>13</sup> These seven dimensions were selected on the basis of the findings of the PPAs carried out by the UPPAP (MOFPEP 2000, 2002), in which communities had been consulted about the nature of poverty. An eighth dimension – un/under-employment was included for urban areas.

<sup>14</sup> There has been some discussion among the co-authors about whether this is a form of ‘relative’ poverty measurement because comparisons between households were being made as cards were placed along the rope. For instance, it was common for group participants to compare the card of household B with that of household A which had been placed previously. While the term ‘relative’ can certainly be used to describe *the process* of placing the cards, this *does not mean* that the resulting *measure of poverty* was a relative one. However, it did mean that it was important to get the first few placements of cards right in relation to the (absolute) top and bottom ends of the scale, as the process of placing the remaining cards might be done in relation to the positions of the first few cards.

**Table 1 Scale-end definitions for the Poverty Rope exercise**

	Bottom of rope – worst position (1)	Top of rope – best position (10)
Assets for production	Do not have any productive assets at all	Have all the assets they need to produce, the capacity to replace them when needed, and the quality of the assets is the best possible
Food security	Struggles to find food all the year around and even has to beg for food for the members of the household	Always has enough food, either from their own production or from buying it. Even in times of scarcity they are able to feed everybody in the household
Sending children to school	They cannot afford to send any of the children in the household to school	All the children in the household go to school and they can give them all the materials, books and uniforms required; they can even choose the school their children go to
Access to medical services	The household cannot access medical attention of any kind for any of its members	Whenever there is an ill person in the household, they get the best medical help available
Having enough money	The household is always short of money and cannot afford the most basic necessities; they simply “do not have any money”	The household has enough money to satisfy basic needs, to invest in business, to save, and to spend on luxuries
Many dependents with few resources	The household has too many dependants in relation to its resources to be able to satisfy its needs	The household can sustain all its dependants without problems
Powerlessness	The household cannot make itself heard in the community and does not participate; they cannot meet their aspirations even when they work very hard; they are discriminated against and in general do not have any power to change their desperate situation	The household has the power to achieve what their members want; they are heard and respected in the community, and they can even help others

Source: UBOS (2006a).

Once all the household cards had been placed along the rope, the distance between the top and bottom of the rope was divided up into 10 equally spaced intervals by the researchers. Each household card was marked, in the box provided for the relevant poverty dimension (see Figure 1), with a score from 1 to 10, recording the interval where it had been placed on the rope. The 'rope scores' for each poverty dimension could be integrated across sites.

**Figure 1: Household card**

UNHS III household ID:				
Interviewed by survey?	Yes	( )	No	( )
Name of head of household				
Gender of head of household	M	( )	F	( )
Type of house				
Enterprise code				
Poverty dimensions				
			Rope score	
Does not have assets for production				
Not enough food				
Cannot send children to school				
No children at school	( )			
Cannot access medical services				
Does not have enough income				
Large number of dependants				
Powerlessness				
Lacks jobs (urban only)				
Child-headed household			( )	
Widow/er head of household			( )	
Disabled people in household			( )	
For Urban Areas				
Invited to FGD No.				
Attended FGD	Yes	( )	No	( )

Source: UBOS (2006a).

### 2.2.5 Producing reliable national statistics

The methodological features discussed here provide the basis not only for qualitative poverty assessment, but also for *measuring* the multiple dimensions of poverty. Although the research is based firmly on participatory methods, key data collected in each site can be aggregated to produce numerical results. After weighting and scaling up, the quantitative data from the participatory activities conducted by the Qualitative Module in rural sites will be able to claim to be representative of the rural population as a whole and therefore to be of national policy relevance. As in the Malawi case, the main features of the methodology which make this possible are:

- selection of the sample using probability-based sampling and a full census of households within sites;
- standardization of research methods and data collection tools; and
- use of absolute rather than relative approaches to measuring poverty within sites.

Quantitative data from the rural sites of the Qualitative Module can also claim to be comparable with the findings of the survey-based modules of the UNHS III, in particular the Socio-Economic Module (see Section 3), and can therefore be used as a means of crosschecking the survey findings.

## 2.3 The challenges

In general, the Qualitative Module teams were successful in implementing their innovative methodology. However, there were some challenges. It will be important to bear these in mind when planning future studies, such as Qualitative Modules which UBOS is planning to run within future national household surveys, or similar studies at region or district level.

The main challenge in relation to rural areas was that although the Qualitative Module sample was of a reasonable size in terms of number of households (we have 3,320 household cards for rural sites), it was a relatively small one in terms of the number of sites (25 rural sites). This means that when producing national level figures, we should be aware that within-cluster correlation may play an important effect in the precision of the estimates. A slightly larger sample of sites would be desirable for future studies.

In relation to urban areas, there is an even more important challenge. The ability to record key information on all households in a site is the basis for

the 'community mapping with cards' and the 'Poverty Rope' exercises. In villages, people know each other, and it is possible to convene a group of participants who can act as 'key informants', providing reliable information about all the households in the village<sup>15</sup>. This information is checked and corrected during the mapping process (Chambers, 1997). Even in large villages, the village can be divided into areas where people know each other, and area focus groups can provide reliable information about the households in these areas.

However, the Qualitative Module encountered problems in urban sites. During the pilot testing, the research teams found that because of the nature of urban areas, with many households living in close proximity but not knowing much about each other, it was not possible to convene focus groups whose participants could provide reliable information about their fellow residents. For the main phase of the study, it was decided to carry out the activities in relation to the households that were participating in the discussions. However, this proved to be a serious limitation because the results only 'represent' those who took part. Without a full census of each site (or a probability-based sample, which is incompatible with the principles of participation) we cannot produce national results which are representative of urban areas.

The problem of urban sites is the main methodological challenge for future studies of this kind. An appropriate methodology needs to be designed for urban areas – one which incorporates the richness of qualitative methods, but also allows reliable measurement of multiple poverty dimensions.

### **3. THE POTENTIAL FOR FURTHER DEVELOPMENT**

Some analysis of the numerical data from the rural sites of the Qualitative Module is presented in the module report, together with the qualitative research findings. The results of the Poverty Rope exercise are presented as percentages of households with different scores for each poverty dimension; there is also a multivariate statistical analysis generating a combined poverty indicator (see Section 4.1). However, there is considerable potential for further analysis of the data. This section explores four areas of analysis which represent important opportunities for UBOS and the UPPAP to improve on the results of the Qualitative Module and to further exploit its data:

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<sup>15</sup> This works for information of a 'public' nature, not for sensitive, private issues – but the Qualitative Module was not researching sensitive, private issues.

1. **Including measures of accuracy.** The results presented in UBOS (2006a) do not include measures of accuracy such as standard errors and confidence intervals. These should be included to allow readers to judge the precision of the estimates provided<sup>16</sup>.
2. **Weighting and scaling up.** For rural sites, a process of weighting and scaling up would allow the Qualitative Module to present results which are representative of the rural population, not just descriptive of the sample. This would not be difficult. The only issue is that in order to generate national estimates, a set of weights needs to be derived. Weighting and scaling up is important in order to complete the process of creating a baseline for the measurement of multi-dimensional poverty.
3. **Direct comparison with survey results.** The Qualitative Module set out to measure the multiple dimensions of poverty as seen by participants in local communities. The Socio-Economic Module survey measured poverty using the traditional approach which asks questions about household consumption and expenditure to permit the estimation of an economic poverty line<sup>17</sup>, with each household in the survey classified as 'non-poor' or 'poor' (above or below the poverty line).

The Socio-Economic Module set out to interview 10 households per site. The sites visited by the Qualitative Module were deliberately chosen to be a sub-set of those visited by the Socio-Economic Module, so that in all Qualitative Module sites there would be consumption and expenditure data as well as data on multi-dimensional poverty from the household cards<sup>18</sup>. A careful numbering system was used, so

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<sup>16</sup> It should be noted that the report of the Socio-Economic Module (2006b) is also deficient in this sense, providing measures of accuracy for only a few of the results (Appendix III).

<sup>17</sup> Consumption and expenditure were measured for food, beverages and tobacco with a 7-day reference period; non-durable goods and frequently purchased services with a 30-day reference period; and semi-durable goods and durable goods and infrequent services with a 365-day reference period.

<sup>18</sup> To increase the size of the sample for which consumption and expenditure data was available in the sites visited by the Qualitative Module, the relevant sections of the Socio-Economic Module questionnaire were administered to a random sample of 10 households in these sites. This means that in the sites visited by the Qualitative Module, there should be consumption and expenditure (and therefore poverty line) data for 20 households per site (10 questionnaires from each module).

that – at least for the rural sites, where there are household cards for all members of the community – we can match these data.

This should allow a direct comparison between the Socio-Economic Module's poverty line and the Qualitative Module's measure of the multiple dimensions of poverty as seen by local participants. Some exploratory analysis has already been carried out, but more needs to be done, as the results seem likely to raise important questions for the future measurement of poverty in Uganda – and probably elsewhere in Africa (see Section 4.2).

4. **Exploring the issues behind the numbers.** The qualitative and quantitative information collected by the Qualitative Module may help to explain some of the questions raised by the Socio-Economic Module report (UBOS 2006b), as we have in-depth information for the sites visited by the Qualitative Module including notes of discussions, Debriefing Documents, community maps and household cards. The task of 'interrogating' the Qualitative Module information sources to help interpret the Socio-Economic Module findings remains to be done.

## 4. FINDINGS ON POVERTY

### 4.1 Key results of the Qualitative Module

This section highlights a few of the most interesting findings of the Qualitative Module. It focuses on poverty in rural areas<sup>19</sup>. The results presented here are merely descriptive of the study sample and they do not include measures of accuracy (see Section 3). Nevertheless, they are a good starting point.

The Qualitative Module looked at seven *dimensions of poverty* in rural areas. Table 2 summarizes the qualitative and quantitative information provided by the focus group participants. UBOS (2006a) observes that:

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<sup>19</sup> The Qualitative Module covered many other topics in addition to poverty: housing conditions, household assets, household enterprises, health, education, water and sanitation in rural areas, food consumption, vulnerable groups and external shocks. Readers interested in the findings on these topics should consult the module report (UBOS, 2006a). The report also presents findings for the urban sites.

**Table 2 Main findings on dimensions of poverty, rural sites**

	Qualitative (key points made by participants)	Quantitative (Poverty Rope scores, 1-10)
Assets for production	Land size and quality of soil were most important, followed by agricultural tools.	<ul style="list-style-type: none"> <li>• 68% of the sample scored 3 or less</li> <li>• 37% scored 1</li> </ul>
Food security	Communities valued the capacity to grow one's own food, giving those who depend on buying food lower scores.	<ul style="list-style-type: none"> <li>• 59% of the sample scored 3 or less</li> <li>• 26% scored 1</li> </ul>
Sending children to school	Many children still fail to attend primary school: although there are no tuition fees, parents have to buy materials and uniform and often pay disguised fees.	<ul style="list-style-type: none"> <li>• 60% of the sample scored 3 or less</li> <li>• 26% scored 1</li> </ul>
Access to medical services	Patients face serious obstacles including unprofessional staff behaviour and irregular attendance; understaffing; and shortage of medicines and equipment. Communications and social networks helped access.	<ul style="list-style-type: none"> <li>• 60% of the sample scored 3 or less</li> <li>• 25% scored 1</li> </ul>
Having enough money	Having enough money is associated with ownership of land and salaried employment. The elderly and young people tend to face cash constraints.	<ul style="list-style-type: none"> <li>• 61% of the sample scored 3 or less</li> <li>• 30% scored 1</li> </ul>
Many dependents with few resources	Households with strong asset bases scored well. The eastern region has the biggest problem of dependants in relation to resources.	<ul style="list-style-type: none"> <li>• 61% of the sample scored 3 or less</li> <li>• 31% scored 1</li> </ul>
Powerlessness	Being disabled, elderly or widowed was associated with powerlessness and exclusion, as was poverty; but some poor people were active in the community owing to their education or personal character.	<ul style="list-style-type: none"> <li>• 56% of the sample scored 3 or less</li> <li>• 32% scored 1</li> </ul>

Source: UBOS (2006a).

“One of the potential uses of the data on multiple dimensions of poverty produced using the Poverty Rope is that, at least for rural areas, there is a baseline for future studies. This baseline is richer than standard quantitative poverty measures because it originates from in-depth discussions characteristic of participatory approaches”.

UBOS (2006a) also presents a combined poverty indicator produced with Principal Components Analysis (PCA)<sup>20</sup> from the Poverty Rope data. The results enable the researchers to map the distribution of poverty/wealth in the sample in the form of ‘poverty distribution charts’. In Figure 2, the cumulative percentage of the Qualitative Module sample for rural areas is shown on the horizontal axis, while the cumulative combined poverty indicator (0-10) for the households in the sample is shown on the vertical axis.

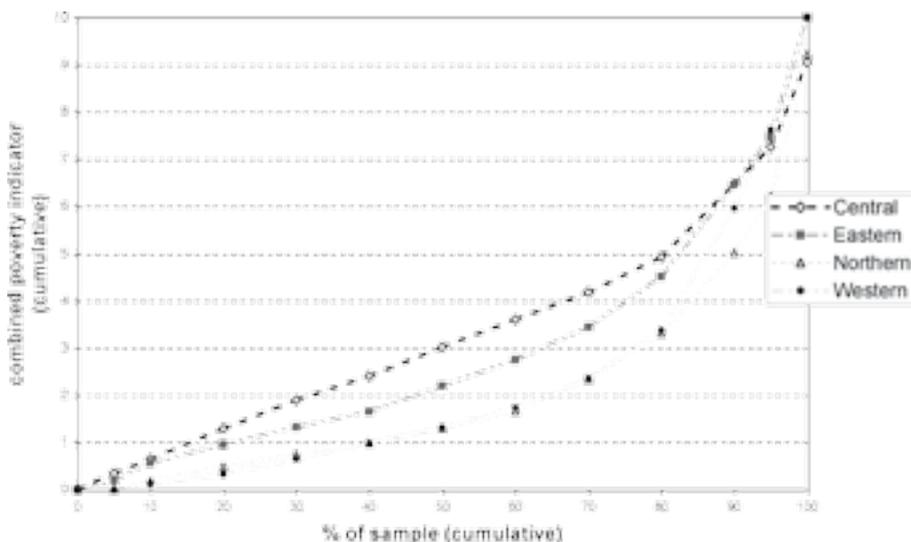
UBOS (2006a) points out that the curves show the relationship between households in the sample and the combined poverty indicator: “If the curve lies close to the bottom and right-hand sides of the chart, this indicates that a large percentage of the sample is living in poverty and a relatively small percentage is wealthy. Curves which are higher and further to the left indicate a more even distribution of poverty/wealth”. Thus, Figure 2 shows that in the Qualitative Module sample for rural areas, the northern region has the worst poverty distribution, closely followed by the western region. The central region is in the best position, with fewer of its inhabitants living in poverty.

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<sup>20</sup> PCA is a form of multivariate statistical analysis. Details of the PCA used for the Qualitative Module can be found in UBOS (2006a), Chapter 2 and Appendix 6.

**Figure 2: Poverty distribution chart for rural areas by region**

Source: Adapted from UBOS (2006a).



## 4.2 Comparing results within UNHS III

The measure of poverty developed by the Qualitative Module is not only of value in its own right, as a baseline for monitoring progress towards poverty reduction. In addition, because of its integration into the household survey process and its capacity to produce quantitative information, it has enormous value as a crosscheck on the findings of the survey-based modules. In particular, we would hope to find that its results support the findings of the Socio-Economic Module's poverty line analysis. If the results of the two modules paint a consistent picture of poverty in Uganda, policy makers can be confident that the information they are receiving about poverty is reliable. If not, the reasons for the discrepancies need to be investigated. Either outcome is valuable to the researcher, even if it is not the desired one (consistency).

**Table 3 Rural poverty statistics in the UNHS III**

Region	Population share (%)	Mean CPAE (USh)	P0 (%)	P1
Central	20.6	45,300	20.9	4.7
Eastern	23.2	30,000	37.5	9.5
Northern	16.9	20,500	64.2	22.3
Western	23.9	37,400	21.4	5.4

Notes: CPAE = consumption per adult equivalent. P0 = headcount (percentage of individuals estimated to be living in households with real private CPAE below the poverty line). P1 = poverty gap (sum over all individuals of the shortfall of their real private CPAE from the poverty line, divided by the poverty line).

Source: Extract from Table 6:9, UBOS (2006b).

The early indications show some major discrepancies between the findings of the two modules. Two issues have been identified so far:

1. **Regional differences (rural areas).** Both modules agree that of the four regions of Uganda (central, eastern, northern and western), poverty is worst in the northern region. However, the Qualitative Module found that poverty in the western region was almost as bad as in the north, while the Socio-Economic Module found that the western region was comparable with the central region and better off than the east (see Table 3). Moreover, there was a marked decline in poverty in western rural areas between the UNHS II (2002/03) and the UNHS III, according to the Socio-Economic Module (UBOS, 2006b).
2. **Matching poverty line and poverty dimensions data.** There appears to be very little relationship between the poverty line data of the Socio-Economic Module and the poverty dimensions data of the Qualitative Module. At the time of writing this paper, we have been unable to do a full analysis comparing the Qualitative Module's poverty measure with the poverty line analysis of the Socio-Economic Module (see Section 3). However, an exploratory analysis has been done on the basis of a data set received by the Qualitative Module team from the Socio-Economic Module. This data set provides poverty line information for 181 households<sup>21</sup> interviewed by the Socio-Economic Module in 21 rural sites which were visited by the Qualitative Module. The

<sup>21</sup> The number of households per site in this data set is highly variable, ranging from as low as 3 in one site in the northern region to as high as 16 in one site in the central region. There are only four sites and 31 households in the western region.

households are divided into ‘poor’ and ‘non-poor’. We matched this information with the Qualitative Module poverty dimensions data for the same households. We expected to find all ‘poor’ households scoring 1 or 2 on the Poverty Rope, but in fact little relationship was found (see Table 4), even for the ‘having enough money’ dimension, which should – theoretically – be similar to the consumption and expenditure approach to measuring poverty.

**Table 4 Having enough money vs. poverty line data, rural sites**

Poverty Rope score for ‘having enough money’ dimension	Poverty line classification	
	Count of ‘non-poor’ households	Count of ‘poor’ households
1	27	26
2	17	14
3	18	6
4	5	7
5	12	4
6	7	0
7	12	5
8	5	3
9	6	2
10	2	3
<b>Total</b>	<b>111</b>	<b>70</b>

Source: UBOS.

What might be the implications of these two issues? Although it is hard to say until a full analysis is carried out, at this stage we can suggest some hypothetical reasons for these mismatches:

- One possible reason is simply that the two approaches measure different aspects of poverty. While poverty lines provide a useful summary of economic poverty, they are not the only way to assess the level of satisfaction of basic needs of the population. The multi-dimensional poverty measure developed by the Qualitative Module is a different way of understanding the reality of poor people.
- A related aspect is perceptions. Even though the Poverty Rope used an ‘absolute’ approach to measuring poverty, the outcome may have been affected by people’s perceptions. For instance, people in rural areas of

the western region may perceive themselves to be poorer than those in rural areas in other parts of the country.

- However, the ‘different ways of measuring poverty’ and ‘perceptions’ explanations are not entirely satisfactory. Surely there should be a relationship between the results of the two measures of poverty? If not, this would imply that the way local people see their own poverty situation is not reflected in official (poverty line) statistics. So if Uganda makes progress towards eliminating poverty on the basis of the poverty line indicator, this may not be felt as progress by ordinary people. Such an interpretation would certainly be of concern to policy makers.
- A less worrying possibility is that either the Qualitative Module or the Socio-Economic Module is flawed in terms of methodology, implementation or analysis, and that finding the source of such errors and correcting them would solve the mismatch problem. We have tried to ensure that the Qualitative Module methodology is robust, that the field work was carried out to high standards and that the analysis was reliable. We feared that there might be some bias from clustering affecting the results for the western region (see Section 2.3), but we have checked the data for the western region sites and found no suspicious patterns. Similar checks would be advisable for the Socio-Economic Module. With regard to the Qualitative Module, a degree of humility is also prudent: it the first study of its kind, and further studies should be carried out to perfect the approach.

## 5. CONCLUSION

The Qualitative Module of the UNHS III represents an innovative approach to integrating qualitative and quantitative research methods. It builds on earlier work in Malawi to create new ways of measuring the multiple dimensions of poverty as seen from the perspective of ordinary people, as well as providing qualitative assessments of poverty. After weighting and scaling up, the results from the rural sites of the Qualitative Module will be representative of the rural population of Uganda, creating a baseline for measuring multi-dimensional poverty which will be of great value to national poverty monitoring efforts.

The Qualitative Module has also made fundamental contributions to the UNHS III. Its integration into the national household survey process means that comparisons can be made between the Qualitative Module’s indicators of poverty and poverty line data from the Socio-Economic Mod-

ule. The Qualitative Module results have enormous value as a crosscheck on the findings of the survey-based modules. Initial analysis has identified some discrepancies between the poverty findings of the Qualitative and Socio-Economic Modules, and a full exploration of the reasons for these will help to improve the design of future UNHSs.

The UNHS III Qualitative Module represents a milestone in the integration of qualitative and quantitative methods for monitoring poverty. UBOS and the UPPAP are committed to continuing and building on this experience in the future. Its success should encourage other countries in Africa to integrate qualitative studies into their national household surveys.

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