

# The Role of Household Surveys in Poverty Reduction Efforts: A Case of the Uganda National Household Survey Programme

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James Muwonge<sup>1</sup>

## **Summary**

*Uganda's Poverty Eradication Action Plan (PEAP) and the Millennium Development Goals (MDGs) have put a lot of focus on the statistical systems that must produce the data to monitor the PEAP and the MDGs indicators. The focus and direction of the data requirements in Uganda has greatly evolved and prompts government and other key stakeholders in the development process to establish a sustainable monitoring system of interventions. The PEAP and the MDGs among other plans require quality and comprehensive data for regular progress monitoring and review. Nationally representative household surveys undertaken by the Uganda Bureau of Statistics (UBOS) have contributed greatly to the policy debate and development in Uganda. The paper provides the UBOS's experience in meeting the various data demands at the national and international levels through this survey programme..*

## **Keywords**

*Poverty Eradication Action Plan, Household Survey Programme, Qualitative and Quantitative approaches to poverty monitoring, the long term household survey programme.*

## **Résumé**

*Le Plan d'Action d'Eradication de la Pauvreté (PAEP) de l'Ouganda et les Objectifs du Millénaire pour le Développement (OMD) ont mis une grande priorité sur les systèmes statistiques qui doivent produire des données pour le suivi des indicateurs du PAEP et des OMD. La priorité et l'orientation de la demande des données en Ouganda ont fortement évolué et ont incité le gouvernement et d'autres principales parties prenantes dans le processus de développement à établir un système durable du suivi des interventions. Le PAEP et les OMD parmi tant d'autres plans requièrent des données exhaustives et de bonne qualité pour faire le point et un suivi régulier des progrès accomplis. Des enquêtes auprès des ménages, représentatives au plan na-*

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1: Principal Statistician, Uganda Bureau of Statistics, P.O.Box 7186, Kampala, Uganda  
james.muwonge@ubos.org

*tional, entreprises par le Bureau Ougandais de Statistique (UBOS) ont contribué largement au débat politique et au développement en Ouganda. L'article présente l'expérience de l'UBOS pour satisfaire diverses demandes de données aux niveaux national et international grâce à ce programme d'enquêtes.*

### **Mots clés**

*Plan d'Action pour l'Eradication de la Pauvreté, Programme d'Enquêtes auprès des Ménages, Approches quantitatives et qualitatives pour le suivi de la pauvreté, Le programme de long terme d'Enquêtes auprès des Ménages.*

## **1. Background**

Discussions of the need for reliable data for policy-making have reached an almost unprecedented level at both national and international levels. Uganda's Poverty Eradication Action Plan (PEAP) - the national development framework, and the Millennium Development Goals (MDGs) have focused on statistical systems that must produce data to monitor the PEAP and the MDGs indicators.

Utilization of data for planning is not new in Uganda but most of the information used in the past was mainly from administrative sources. These included financial and economic data series that were and continue to be produced as part of the routine record keeping. Since 1997, Uganda has undertaken many reforms that have widely affected the economy and the welfare of Ugandans in general. Overtime, the demand for data has also evolved in line with these changes. The demand has shifted from being simple counting exercises to complex programs designed to determine the causes of individual and household behavior and the effect of government policies on the population's choices and welfare. Indeed, the current statistical systems in the world represent the result of centuries of actions, research, and methodological improvements in the world's ability to understand the interaction of various forces, on the socio-economic welfare of individuals, households, and countries. Apparent improvements in data must take into account the existing systems, their users, and the traditional data and emerging needs therein.

The importance of household survey statistics for national development cannot be over emphasized as it is needed to indicate among other things the welfare level to guide policy makers in framing socio-economic developmental plans and initiate interventions for improving people's socio-economic conditions. The discussion

of the need for more and better data for policy making has reached an almost unprecedented level at both national and international levels. Uganda's PEAP and the MDGs have greatly focused on the statistical systems that must produce the data to monitor the PEAP, MDGs and other development indicators. The Uganda Bureau of Statistics (UBOS) has contributed to both the understanding of various phenomena through the household survey programme and specifically to the debate on the effects on welfare levels of programmes on the population.

The availability of information on a regular basis is important in evaluating the dynamics of various economic factors which occur as a result of economic development. Information from the household surveys have provided the foundation and monitoring mechanism for the poverty eradication efforts in Uganda. For instance, Uganda has been able to monitor and measure trends of poverty, and changes that occur among the different population groups using the comprehensive datasets from nationally representative household surveys. According to the information from household surveys, the percentage of the population below the poverty line decreased from 56 percent in 1992 to 44 percent in 1997 and further to 38 percent in 2003. Such information collected through household surveys has influenced the Poverty Eradication Action Plan (PEAP) revision process in Uganda.

## **2. The National Development Framework**

The Poverty Reduction Strategy Papers (PRSPs) have been used by the World Bank (WB) and International Monetary Fund (IMF) as a pre-condition for development assistance to low income countries to qualify for external financing and debt relief. The PEAP is Uganda's development framework and was first drafted in 1997 and revised in 2000 and 2003/04. The PEAP is a dynamic document which is revised every four years in accordance to the changing circumstances and emerging priorities within the national economy. Data and information from household surveys have provided substantial inputs to the revision processes. For instance, the 2002-2004 PEAP revision was influenced by four core challenges, namely: highly unequal growth leading to increased poverty (based on household survey data), less than expected improvement in human development indicators in the 1990s (with the exception of HIV/AIDS), and persistent insecurity which resulted into changes in the regional pattern of poverty. Based on these challenges, the PEAP 2004 has five pillars/components namely: a pillar focusing on Economic management; Produc-

tion, competitiveness and incomes; Security, conflict-resolution and disaster-management; Governance and Human development. In addition, information from household surveys has substantially contributed to the monitoring of MDGs.

### 3. The Status of Household Surveys Prior to the PEAP

Household surveys were only revived in 1988 after a period of almost 20 years. In 1990, poverty alleviation programmes were started under the Programme for the Alleviation of Poverty and the Social Cost of Adjustment (PAPSCA). Under the Social Dimensions of Adjustment component of PAPSCA, data on a wide range of social and economic statistics was collected with the Integrated Household Survey (IHS) providing the first baseline data on many of the issues. Thereafter, a proposal to develop a clear programme of poverty alleviation was developed and endorsed by the Ministry of Finance, Planning and Economic Development. Because of the many and varied data gaps, the surveys conducted after 1992 were attempts to fill gaps. The modules covered in these household surveys were based on discussions with some of the key users of data and these discussions culminated into the first PEAP in 1997. The uncertainty about availability of funds to undertake regular surveys was the main challenge faced during the post PAPSCA era. An overview of the situation before and after PEAP is summarized in the Table 1 below.

**Table 1: Pre and post PEAP data appreciation**

Period before PEAP	After PEAP (1997+)
Limited use and availability of household survey data	Increased demand for and use of household survey data and information
Initiated household surveys under Programme for alleviation of Poverty and the Social Cost of Adjustment (PAPSCA)	The PEAP is the building block for the household survey programme
Limited users and producer consultations	Extensive consultation with government, development partners and other stakeholders
Data generated almost exclusively for government and a few development partners	Users of data are many and varied
Virtually no collaboration with research institutions	There is extensive collaboration with research institutions and increased production of policy relevant papers based on household survey data
Very limited analysis of household survey data	Increased access to household survey Data

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Access to data limited	Data collected to monitor PEAP and other development frameworks
The main focus was on macroeconomic variables (GDP, Consumer Price Indices etc)	The focus is on both macro and micro indicators
Data generated to fill gaps due to over 20 years without household survey data	Increased level of analysis and appreciation of the quality of data

### 4. Stakeholders in the Poverty Monitoring Process in Uganda

During the 1990s, poverty reduction became a priority in many countries mainly supported by development partners. The outcome of the currently widespread notion of poverty reduction was the emergence of Poverty Reduction Strategy Papers (PRSP) or the PEAP in case of Uganda, and the need to monitor the performance of poverty related interventions. The PEAP outlines the monitoring and evaluation mechanisms through which the outcomes would be updated. Monitoring and Evaluation is important in keeping on track development programmes and provides the relevant information to decision makers for making informed decisions. It also keeps other stakeholders, namely the legislature, the public, civil society organizations and development partners, informed about the progress being made in implementing the PEAP and other development frameworks.

The monitoring system in Uganda is multi faceted having many institutions and agencies running independent monitoring and evaluation systems. This has resulted into inconsistent reporting, duplication of efforts and wastage of resources. These sometimes uncoordinated systems have undermined the overall goal of informing the poverty eradication programme. An integrated programme has been developed under the PEAP to minimize these constraints and harmonise the reporting mechanism. Poverty monitoring is a responsibility of many stakeholders ranging from UBOS to Civil Society Organizations. Table 2 presents a summary of the stakeholders and their respective roles in poverty monitoring in Uganda.

**Table 2: Institutional framework for poverty monitoring in Uganda<sup>1</sup>**

<b>Institution</b>	<b>Responsibility</b>
Office of the Prime Minister	Collate policy related information and influence national political, socio-economic decisions.
Ministry of Finance, Planning and Economic Development: <ul style="list-style-type: none"> <li>• Poverty Monitoring and Analysis Unit.</li> <li>• Budget Department</li> <li>• Macroeconomic Dept.</li> </ul>	Coordinate poverty data collection particularly the Poverty Participatory Assessments. Analyze the whole range of data. Publish poverty reports that present a holistic view of poverty in Uganda and the implementation of the PEAP. Disseminate findings to Government and civil society, and service budget working groups. Commission poverty research and evaluations. Monitor Public Expenditure Monitor and project macroeconomic indicators.
Uganda Bureau of Statistics	Conduct censuses and surveys (including National Integrated Household Surveys, National Service Delivery Surveys, and Demographic and Health Surveys) and provide basic analysis of these data. Construct National Accounts
Ministry of Public Service	Provide information on public service performance (Results Oriented Management-ROM).
Sectoral ministries, particularly the Management Information Systems in Planning Units.	Design indicators and collect administrative data on service delivery efforts and their immediate outcomes; analyze these data in conjunction with other data sources, and identify policy responses.
Uganda AIDS Commission	Coordinate data and policy response on AIDS.
Police, Judiciary, Prisons, other JLOS Institutions	Compile administrative data on crime and the activities of the police and judiciary.
Office for Co-ordination of Humanitarian Assistance	Co-ordinate and publish data on the number and living conditions of displaced people and refugees.
Inspector General of Government, Auditor-General, Dept. of Ethics and Integrity	Ensuring that inputs are converted into outputs in a transparent manner by monitoring the integrity of public expenditures

1: Adopted from Margaret Kakande: Poverty Monitoring in Uganda 2006: The Practices and Emerging Issues, April 2006  
NGO – Non-governmental Organization, CSO – Civil Society Organization

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District Authorities	Collect information on relevant outputs, inputs, and outputs at this level for their own planning purposes, and sharing with central government.
Economic Policy Research Centre	Conduct relevant economic policy research that informs the monitoring process, thereby helping in refining it further.
Academic institutions and NGOs • Uganda Human Rights Commission	Conducting research on all aspects of poverty, using official data and collecting their own, providing an independent view on poverty. Providing information on human rights issues
NGOs/CSOs	Undertake value for money evaluation activities
Development Partners	Supporting the monitoring efforts of government and CSOs; and using the findings to positively influence poverty reduction activities.

The Poverty Monitoring Strategy uses three main types of data; quantitative data collected by the Uganda Bureau of Statistics (UBOS) through censuses and surveys, those collected by sector ministries through their Management Information Systems, and those collected through the Participatory Poverty Assessment Programmes (PPAs).

### 5. The Role of National Household Survey Data in PEAP Monitoring

During the 1970s and the early 1980s, there was great dearth of data on households in general in Uganda. This was a period when data collection at all levels (household, establishments, etc) was in limbo. Since 1988, however, the need for evidence based decision-making emphasised by the country's planning and decision making authorities and the political leadership, culminated into the rebirth of dynamic statistical programmes at UBOS and in Uganda in general. Since then, Uganda has undertaken more household surveys than many Sub-Saharan African countries in the last 15 years. Table 5.1 provides a summary of the Household Surveys undertaken since 1988.

**Table 3: Household surveys conducted by UBOS from 1988 to 2004**

Survey	Uganda Demographic and Health Survey	Uganda Household Budget Survey	Uganda Integrated Household Survey	Uganda National Survey 1993-94	Uganda National Survey 1994-95	Uganda Demographic and Health Survey UDHS (+MICS)	Uganda National Household Survey 1995-96	Uganda National Household Survey 1997	Uganda National Household Survey 1999-00	Uganda Demographic and Health Survey UDHS (+MICS)	Uganda National Household Survey 2002-03	National Service Delivery Survey (NSDS)
Duration	From Sep-88 To Feb-89	Apr-89 Mar-90	Feb-92 Mar-93	Aug-93 Feb-94	Jul-94 Mar-95	Mar-95 Aug-95	Sep-95 Jun-96	Mar-97 Nov-97	Aug-99 Jul-00	Sep-00 Mar-01	May-02 Apr-03	Feb-04 Mar-04
Sample Size (usable observations)	4,370 women 15-54	4,595	9,925	5,040	4,925	7,070 women and 1,996 men 15-54	5,515	6,655	10,773	7,246 women and 1,962 men 15-54	9,711	18,000
Districts Omitted	9				1	1	1	4	4	4	3	
Questionnaires												
Socioeconomic												
Labour force												
HH Enterprise												
Crops												
Woman												
Man												
Establishment												
Community												
Date of Release of publications	Oct-89	Feb-91	Dec-93 Feb-94	Sep-95 Jun-96	Jun-97 Dec-97	Aug-96	Dec-97 Jul-98	Mar-99 May-00	Jan-01 Jan-02	Dec-01	Jan-03 Nov-03	
Months from completion to publications	8	11	9 11	19 28	27 33	12	18 25	16 30	6 18	9	-3 7	

From the standpoint of their ability to address the policy issues emerging from the PEAP and other development frameworks, the variety of surveys can be grouped into two major categories namely Consumption Surveys (developed under different names such as HBS, IHS, MS, and, more recently, UNHS,) and Demographic and Health Surveys (DHS and Sero-prevalence Surveys). Below is the summary description of the objectives of each of the consumption surveys;

### 5.1 Consumption surveys (household surveys with a consumption module)

The Household Budget Survey (HBS), conducted from April 1989 to March 1990 was the first detailed household expenditure-based survey since the 1960s. The main objective of the survey was to provide basic data needed to revise the Consumer Price Index and data for improving estimates of the household final consumption expenditure component of the Gross Domestic Product (GDP) using the expenditure approach. As outlined in Table 3, the first large scale Integrated Household Survey (IHS) conducted in 1992 was a multi-subject inquiry with the main objective of providing a complete dataset needed to understand the mechanisms and effects of the structural adjustment programs, to fill the socio-economic data gaps and to provide base-line data relating to key economic indicators used in development planning.

The IHS was a comprehensive survey covering a 12 months period and provided the first ever baseline poverty estimate for the country.

The subsequent four rounds of Monitoring Surveys (MS1-MS4) were conducted with the main objective of providing time series data to measure economic growth and social development. Although monitoring surveys covered the whole country, they were much smaller in sample size (ranging between 4900-6500 households) and covered a period of between 7-10 months. Both the IHS and the First Monitoring Survey (FMS) yielded useful data on small and household based non-agricultural enterprise activities critical in updating the National Accounts. The Second and Third Monitoring Surveys (TMS) in addition to the socio-economic module included an agricultural survey as the core-subject module while the Fourth Monitoring Survey (National Household Survey 1997) covered a labour force component as the core module as well as socio-demographic data. The subsequent national household expenditure surveys conducted in 1999/2000 and 2002/2003, covered agriculture and labour force modules respectively. The expenditure component of the socio-economic module was maintained in all surveys except the demographic surveys to support the derivation of poverty estimates.

The Bureau is currently implementing the 2005/06 Uganda National Household Survey. The survey focuses on socio-economic characteristics, agriculture and related characteristics among other modules.

## **5.2 Demographic and Health Survey**

The Demographic and Health Survey (DHS) was conducted in 1989, 1995 and 2000/2001 respectively and collected data on fertility, family planning, maternal and child health and other demographic characteristics. In all, DHS information on HIV/AIDS was limited to knowledge about awareness. Although there is widespread knowledge about ways of transmission and protection, HIV/AIDS continues to pose a serious challenge to the health delivery system and poverty eradication efforts in Uganda. As a mechanism of monitoring the incidence and prevalence of the pandemic, a national-wide HIV/AIDS Sero Survey was undertaken by the Ministry of Health in collaboration with UBOS to, among other uses, provide prevalence rates of HIV/AIDS in Uganda. The survey, unlike in many other countries in eastern and southern Africa, was undertaken independent of the DHS.

Evidence clearly shows that UBOS has overtime, evolved into an established organization with proven capability and expertise to conduct a wide variety of nation-wide

household surveys. The Bureau has succeeded in organising and conducting regular surveys and consistently reduced the time gaps between the end of field operation and the release of publications. Most importantly, the organization has developed and maintained expertise and capabilities in the design and implementation of household surveys, which is obviously an essential asset for future household survey system.

### **5.3 Survey organization and participation of stakeholders in the development of household survey instruments**

The Bureau does not have regional or district based offices which makes recruitment of field based interviewers during data collection very difficult. A mobile team approach has been employed for field organization and management of most of the household surveys. The teams constitute centrally recruited and trained field staff responsible for data collection. The field team recruitment criteria is based on the education level, local languages spoken and the clusters to be covered per region. The team comprises of five field staff headed by a supervisor and composed of four interviewers, who travel together from one survey cluster to the next throughout the data collection period.

The alternative to the field team approach is the field based interviewers in which information is collected within or near their area of residence. This model has not been applied in Uganda because the Bureau does not have fully operational district or regional offices. This makes the recruitment, supervision and monitoring of field activities equally costly. Plans are underway to operationalise this model once the regional statistical offices are equipped and become functional. Although experience shows that centrally recruited teams are expensive and unsustainable in the long run due to the limited resources allocated to data production by national governments, in the absence of operational regional offices, the costs of decentralized field activities may exceed those of the centrally recruited teams. A study is planned to establish the costs and benefits of each approach as well as the actual savings realized using the decentralized model of data collection.

## **6. The Design of the National Household Surveys**

### **6.1 Consultations with stakeholders**

Household survey data has increasingly become more of a public good than previ-

ously imagined. Today, users demand for data rather than indicators. For this reason, key stakeholders are involved at the planning stage to ensure the production of demand-driven data from these surveys. The wide involvement of different stakeholders results into:

- a) optimal utilization of household survey data for indepth research by analytical and research institutions in Uganda;
- b) generation of new ideas and information to enrich and support evidence-based policy formulation and decision-making process;
- c) promotion and enhanced multiple ownership of the household surveys data thereby increasing data utilization in the development planning processes; and
- d) greater appreciation of the constraints associated with too many demands on the questionnaire content to meet the diverse needs of stakeholders.

Wide consultations have been made involving all the key stakeholders in the production and use of data during the post PEAP period. The PEAP was used as the building block for the survey programme and indicators identified as critical in informing the PEAP were used as benchmarks.

## **6.2 Sample design**

### **Sample selection and sample size**

A similar sample design has been adopted for all household surveys starting with the Integrated Household Survey (IHS) 1992/93. It is typically a stratified two-stage sampling design except in some districts where the sample was selected in three stages due to lack of Enumeration Area (EA) frames. At the first stage, Enumeration Areas (EAs) are drawn with a Probability Proportional to Size (PPS), while at the second stage; households which constitute the Ultimate Sampling Units are drawn with Simple Random Sampling (SRS). Stratification is done in such a way that enables disaggregation of data to rural/urban and regional levels. The demand for district and sub-district level indicators has resulted in increases in sample sizes to derive some district level estimates. The sampling frames used for all the surveys were based on the Population and Housing Census of 1991 and 2002. Household surveys conducted prior to 1991 were based on available administrative information.

The sampling frame for selection of First Stage Units (FSUs) was the list of EAs with the number of households based on cartographic work of the 1991 and 2002 Population

and Housing Censuses. For selection of the second stage units, which are the households, a listing exercise was undertaken in selected EAs in all the household surveys.

In all cases except the UNHS 2005/06, each district was considered a stratum and divided into rural and urban sub-strata. The urban area was further sub-divided into district town and other urban areas. This multifaceted stratification enabled a better spread and representation of the sample, thereby increasing the efficiency of the estimates. As shown in the Table 3, the sample sizes have varied from about 5000 to 18000 households. The allocated sample was selected with probability proportional to number of households.

### **Level of disaggregation of data from household surveys**

Uganda adopted a decentralized planning policy as a way of improving governance and service delivery at local government level. The challenge remains for the national statistical system to provide data and indicators at the various levels within a limited resource envelope. Alternative options have been developed to try and fill the data gaps for example, the poverty mapping initiative of the World Bank which relates household based survey data with the population and housing census information. This option is an alternative way of addressing the demand for small area statistics which is increasingly becoming an important planning input.

### **Panel data: the quest for monitoring changes over time**

Demand for Panel data has become a common request by major household survey data users. It is argued that panel data of living standards addresses a number of critical requirements of the PEAP and MDGs including; appreciation of the functioning of labor markets, child mortality and labor, determinants of and returns on education, among other issues. Nationally representative panel data on living standards can also inform policy makers on strategies for addressing equity issues between households and across geographical areas. For these reasons, panel data in addition to being an important tool for program evaluation, because of its focus on poverty dynamics, substantially complement the ongoing poverty incidence data collection especially from UNHS series. Panel data would also be an important complement to the cross-sectional data of the household expenditure surveys as the latter is most suited to provide information on poverty incidence and other PEAP monitoring indicators. The focus on dynamics that is inherent in panel data would illuminate better the reasons for change in the various indicators (including poverty).

Despite all the enumerated benefits, panel data poses a number of problems to survey statisticians. Tracing of panel households for example, after a long time is the greatest challenge faced by data collectors in Uganda. This is particularly experienced in the urban areas with high levels of mobility. Strong collaborative linkages supported by some incentive mechanisms could be introduced to ensure continued respondents' cooperation. Incentives may take different forms ranging from gifts like t-shirts, and calendars to actual cash. The latter incentive was tried out during the 1993/94 household survey but later abandoned because of the problems associated with its administration. Cash incentives also tend to raise respondents' expectations thereby affecting the outcomes of the survey.

The Bureau collected data from panel households based on the 1992/93 household survey. This involved tracing the same respondents interviewed earlier (in 1992) in 1993/1994, 1994/1995 and 1999/2000. The 1999/2000 panel data was collected on approximately 1300 households. The Government, development partners and research institutions have used the panel data in studying the poverty dynamics between 1992 and 2000. There is a strong argument for the revival of panel data collection in Uganda to enable monitoring of various changes in the economy. Tracing of panel household members focused on household heads and their spouses. It is also difficult to establish the extent of bias introduced by inclusion of a panel. However, the Bureau is about to engage major stakeholders in a discussion to find an amicable solution to panel data question.

## **7. Data Analysis, Dissemination and Use**

### **7.1 Data analysis**

#### **Collaboration in data analysis**

Data analysis is one of the fundamental processes in statistical operations. Failure to analyse the collected data renders them useless to policy makers and undermines the real advantages of household survey data in general. Timely dissemination of the household survey results is largely dependent upon the successful finalization of the data processing activity. UBOS considers this process as one of the key steps in any household survey. Since the 1999, UBOS produces the first volume of the household survey reports within six months after field work. It is the policy of the Bureau to ensure that data is shared with all partners and policy makers before undertaking an-

other round of household surveys. To meet the increasing and dynamic demands by policy-makers and other users of household survey data, UBOS has entered into collaborative arrangements with the Economic Policy Research Centre (EPRC) of Makerere University and the Makerere University Institute for Social Research (MISR) to further provide the detailed analytical reports that policy-makers need. This arrangement maximizes the utilisation of the limited capacity at UBOS and other NSOs in Africa in micro level data analysis.

Through such collaboration, the UBOS and EPRC supported by the World Bank, Rockefeller Foundation, International Livestock Research Institute (ILRI) and the Department for International Development (DFID) embarked on a poverty mapping project. This innovation involved linking household level information from both the population and housing censuses and household surveys to provide poverty rates at the lowest levels of administration. This activity is an attempt to meet some of the data demands for small area statistics.

### **Linking qualitative and quantitative data for poverty monitoring**

Poverty is a multi-dimensional phenomenon which is understood and interpreted in various dimensions by different individuals and communities. The conventional approaches for deriving poverty estimates using household income/expenditure involves a detailed series of methodological steps and procedures. There are, however, other approaches to poverty measurements that use other determinants which cannot be quantified. The participatory approaches use a set of methods to assess the community and household welfare by involving the communities in identifying and defining the poor. Each of the approaches has its own merits and demerits. Uganda has embraced both approaches in the poverty monitoring process in order to maximize the benefits from the strengths of each approach.

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. It should be noted that each approach has its weaknesses and the poverty monitoring process in Uganda acknowledges them. The interest in Uganda is to build on the strength of each approach to ensure that they play a complementary role<sup>2</sup>. This is achieved at two levels: First, house-

hold surveys are capable of providing the research questions to the qualitative studies and the UPPAP II experience clearly shows that this is possible and achievable. Not only were research questions developed, almost half of the 60 clusters covered under UPPAP II were panel sites for the 1999/2000 household surveys. Secondly, the qualitative approaches are useful in answering questions that may not be easily answered through a household survey. It thus answers the questions on causes of the event, coping mechanisms and social capital for health, education, agriculture, orphanhood, poverty, migration, etc. in more detail than one would expect from a household survey. The quantitative approaches are useful in providing the magnitude of the event and answers to questions like, how many are poor, where are they, etc. A section was thus included in the household questionnaire to capture such issues but also to provide a national perspective of the issues emerging out of the qualitative study.

## **Data reliability**

### ***Improvements in reliability***

Improvements in data management have also evolved over time. Range and consistency checks have been included in the data-entry program. The processing team uses MS-ACCESS to carry out more intensive and thorough checks, while various software are used to compute statistical errors. Table 4 showed that while the national level Coefficients of Variations (CV's) for the major indicators are generally below 5 percent, they are below 10 percent at the regional level as per the survey objectives.

### ***Standard errors and coefficient of variations***

The household surveys undertaken by the UBOS and her predecessor Department of Statistics provide estimates that are precise at national, regional and at rural-urban levels. Estimates at district level are sometimes provided for fairly large districts. The sample estimates are subject to sampling errors. These arise because the sample of respondents selected is only one of the many samples that could have been selected from the same population using the same design and expected sample sizes. Sampling errors are measured in terms of standard errors and reflect the variability between all possible samples. The coefficient of variation and the standard errors both provide us with precision levels that guide data users in assessing for

themselves the usability of the estimates. Some of the selected key indicators based on the 2002/03 household survey are shown in the Table 4.

**Table 4: Standard errors and coefficient of variations (UNHS 2002/3)**

Variable	Estimates	Standard Error	Coefficient of Variation (C.V.)	Number of Cases
<b>Average Household Expenditure</b>				
Uganda	136,461	4,476	3.28	9,711
Urban	258,049	22,792	8.83	4,062
Rural	111,412	2,972	2.67	5,649
<b>Average Household Size</b>				
Uganda	5.1	0.046	0.90	9,711
Urban	4.1	0.07	1.94	4,062
Rural	5.3	0.05	0.95	5,649
<b>Enrolment ratio (%)</b>				
Uganda	85.60	0.65	0.76	11,353
Male	85.07	0.82	0.97	5,503
Female	86.09	0.76	0.89	3,984
<b>Literacy Rate (10 Above)%</b>				
Uganda	68.72	0.64	0.93	31,066
Male	75.83	0.64	0.85	14,767
Female	62.23	0.81	1.31	16,299
<b>Literacy Rate (18 Above)%</b>				
Uganda	67.6	0.70	1.0	20,637
Male	78.76	0.69	0.9	9,599
Female	57.98	0.92	1.6	11,038
<b>Percentage of persons Ill or Injured during last 30 days</b>				
Uganda	28.34	0.40	1.4	50,510
Male	27.11	0.47	1.8	24,500
Female	29.50	0.48	1.6	26,008
<b>Percentage of population that usually sleeps under Mosquito Net</b>				
Uganda	10.7	0.51	4.8	50,510
Male	10.1	0.50	4.9	24,500
Female	11.3	0.57	5.0	26,008
<b>Houses by Roofing Type (%)</b>				
Iron Sheets	63.3	1.1	1.8	9,711
Thatched	2.4	0.3	10.6	9,711
<b>Houses by Wall Type (%)</b>				
Bricks	50.7	1.2	2.4	9,711
Mud/Poles	45.8	1.2	2.6	9,711
<b>Houses Floor Type (%)</b>				
Cement	24.0	0.9	3.7	9,711

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Earth	73.5	0.9	1.3	9,711
Concrete/Stone	2.0	0.2	10.0	9,711
<b>Households by source of Fuel for Cooking (%)</b>				
Electricity	0.5	0.1	26.0	9,711
Paraffin	1.6	0.2	11.1	9,711
Charcoal	18.0	0.8	4.5	9,711
Wood	78.2	0.9	1.1	9,711
<b>Household Ownership of (%):</b>				
Bicycle	42.7	0.9	2.1	9,711
Television	6.9	0.5	6.8	9,711
Radio	63.3	0.9	1.4	9,711

It can be seen from the table that apart from variables like concrete/stones, electricity and television sets which are not common in all communities in the country, other variables have low C.Vs of much less than 5 %. This shows that these estimates are highly precise or reliable.

## 7.2 Data dissemination and use

### Dissemination of data and information flow to users

Household survey data have provided critical inputs to policy debate in Uganda. UBOS has a free and equal access policy to data from both household surveys and other data sources. UBOS information is released at the same time to both Government and the general public. Household survey findings have been disseminated using various channels. The main findings are disseminated at national level through workshops and the media. Of recent, the dissemination channels have widened to include Press Releases, Publications, UBOS Website, Radio and Television and CD-ROMs.

### How have the datasets been used in monitoring the PEAP?

The household surveys that UBOS conducts have been the major source of data and information on poverty trends over a period of 10 years, an experience that is rare in sub Saharan Africa. In addition, trends in mortality, fertility and other indicators have also been generated through a series of demographic surveys. The Bureau has deliberately encouraged researchers to utilise the existing data sets to further inform policy dialogues and this has gone down well with researchers in the

country. The production of the first ever poverty maps for Uganda was a joint effort between UBOS, Makerere University Faculty of Economics and Management (FEMA), International Livestock Research Institute (ILRI), World Bank and the UK Department for International Development. Moreover, collaborative research involving UBOS staff and the research institutions has increased tremendously over the last four years. The consistent increase in the demand for the data is a manifestation of the data utilization phenomenon. Below are a few highlights on the data utilization of UBOS data.

Not only has the data from household surveys enhanced trend analysis, it has also informed several policy concerns including the employment and unemployment rates, the nutritional status, immunization coverage, and literacy levels and enrolments. Explanations to some of the puzzles on the datasets have been provided. Furthermore, Uganda committed itself to monitor the MDGs and this is supported by the availability of regular and reliable data. The household surveys have so far provided information to monitor progress of some of the MDG indicators (poverty, youth employment, maternal mortality, enrolment among others).

## **8. Concerns About Sustainability and the Long-term Household Survey Programme**

### **8.1 Financing of household surveys in Uganda.**

Nation-wide household surveys are expensive undertakings that many governments including that of Uganda are unable to finance out of their own budgets. Household surveys in Uganda have mainly been funded by the World Bank since 1988. Both the 1988 Household Budget Survey (HBS) and the 1992/93 Integrated Household Survey (IHS) cost about US dollars 900,000 and 2 million respectively. A major proportion of the resources for household surveys were initially spent on building capacity and infrastructure development in form of procurement of field vehicles and hiring of consultants. The two surveys (HBS and IHS) were managed with technical assistance from UNDP. Thereafter, the more lighter monitoring surveys covering about 5000 households were undertaken between 1993 through 1997 at a cost of approximately US dollars 500,000. All these surveys were undertaken on a regular basis but without a well documented program of surveys.

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2: Weaknesses of the quantitative approach include: (i) sampling and non-sampling errors, (ii) misses what is not easily quantifiable, (iii) fails to capture intra-household issues. For qualitative methods, the weaknesses comprise of (i) difficulty to generalize and, difficulties in verifying information

However in 1998, a program of household surveys and censuses covering the period 1999 through 2006 was developed and funded by both the government of Uganda and development partners especially the World Bank. Since then, government contribution towards household surveys has been substantial. Government contribution towards the UNHS 2005/06 for example was approximately US \$ 600,000. This is a substantial contribution and demonstrates government commitment towards monitoring the PEAP and MDGs. This contribution was in form of project support to the Bureau, and did not greatly affect other statistical programmes. Another programme of household surveys and censuses has been developed and once endorsed by the major producers and users of data, government would be requested to commit funding for the programme.

## **8.2 Concerns about sustainability**

The PEAP monitoring and evaluation strategy identifies indicators that are generated from household survey data. The progress made in monitoring poverty and the effects of other interventions has been mainly based on the information from household surveys. However, Uganda, like many developing countries does not have enough resources to finance, on a sustainable basis, regular household surveys and yet, these are invaluable sources of data. The challenge is how to continue generating data amidst the constrained resource envelope. The household surveys undertaken by the Bureau so far have been funded mainly by donors. Government has also stepped up its financing of household surveys but because of the resources involved, it is unlikely that it would fully fund the proposed household survey programme. A detailed costing plan is being prepared to cover the survey programme and once finalized further discussions will be held to enlist support from all the stakeholders including development partners. Government has indicated willingness to support the programme in line with the PEAP objectives.

In addition to trying to convince government and development partners about the need for making more resources available to continue the survey programme, the Bureau is carrying out a number of innovations to ensure sustainability of the survey programme including production of more innovative statistical products like poverty maps, production of thematic and targeted reports, speeding up data processing and analysis to achieve timelines and is now looking into possibilities of establishing a permanent field organization in form of regional statistical offices.

### 8.3 Future monitoring of PEAP for policy:—the long term household survey programme

UBOS has developed a ten-year household survey programme that will ensure continuous monitoring of poverty indicators as well as filling existing data gaps. The programme will continue to provide nationally representative information for monitoring the PEAP and other development needs of Uganda. This is mainly driven by the need for information at all levels of decision making. Figure 1 below outlines the proposed programme and the proposed periodicity. The periodicity of the various household surveys has been determined by the pace of the decision-making process. In Uganda, this is given by the PEAP revisions every four years and by the bi-annual Poverty Status Reports (PSRs).

Another factor considered was the dynamism of the indicators. Some indicators – such as the rates of unemployment or immunization coverage—reflect economic conjunctures or short-term government actions that can be expected to change rapidly and may deserve to be observed frequently. In contrast, other indicators, such as access to electricity and housing condition among others, will change slowly and may be measured adequately by the decennial census or household surveys undertaken during the inter-censal period. In between these two extremes, certain aspects of household welfare – such as the amount and composition of household budgets, and derived indicators such as poverty measures – may or may not change quickly.

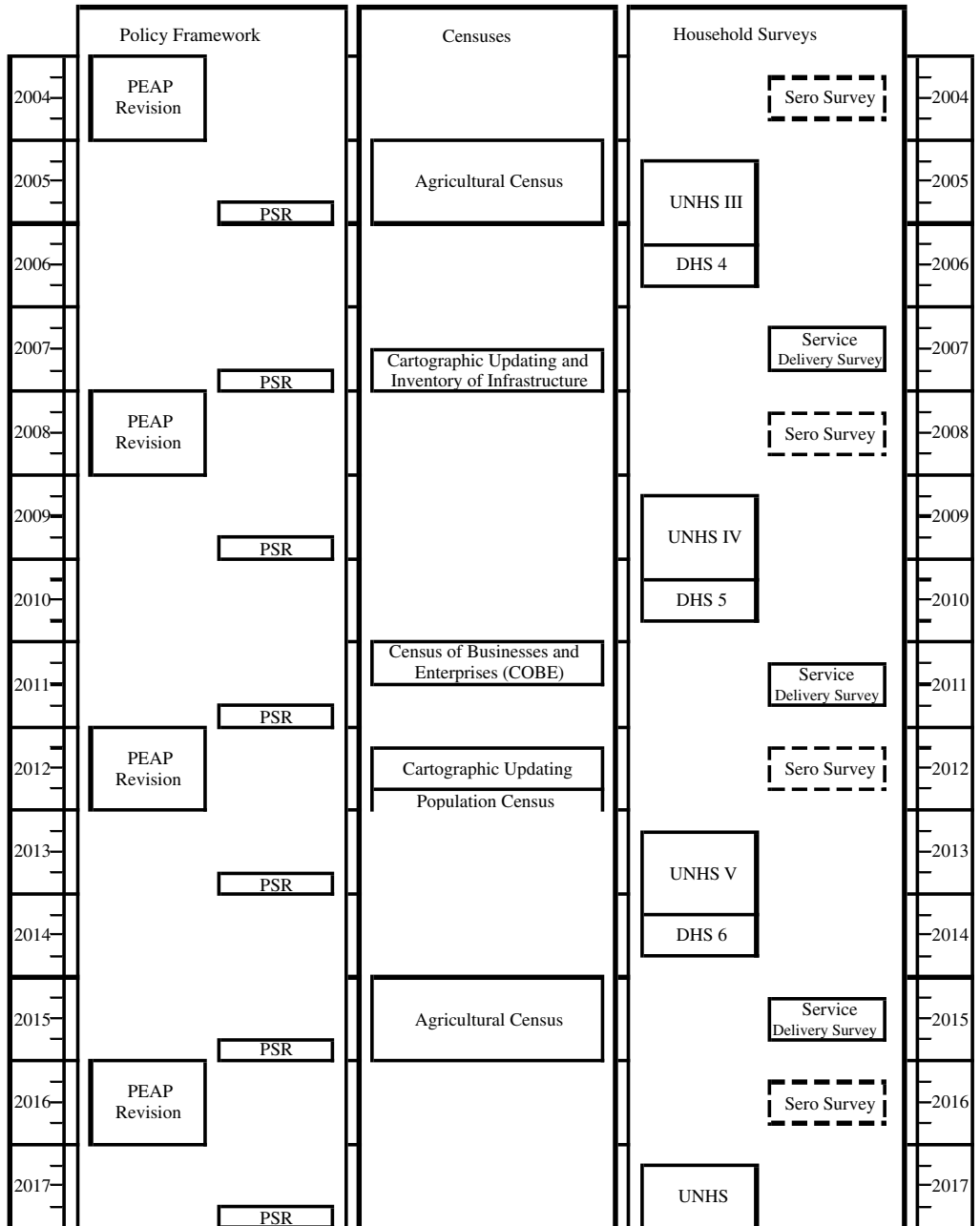
The level of geographic disaggregation was another aspect of the household survey system that requires careful consideration, since it is related to policy needs; it also has serious managerial and budgetary implications.

According to the proposed household survey programme, surveys with limited objectives use simpler questionnaires and pose fewer exigencies in terms of the selection, training and supervision of the field staff. Their simplicity gives them the potential of using the large samples of households needed to provide sub-national estimates, as well as national figures. On the other hand, Consumption and Demographic surveys are much more delicate operations. They use complex questionnaires that require careful selection, training and supervision of field staff. As a result, they are difficult to implement on very large samples and are unable to provide results for numerous sub-national units.

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3: The districts have now increased to 80

Figure 1: Suggested program of UBOS household surveys for the period 2005-2017<sup>1</sup>



4: Adopted from Munoz J: Household Survey Programme for Uganda Bureau of Statistics 2004

Uganda presents a very particular challenge in this sense, because the first level of geographic disaggregation below the country is the district, and the country has 69 of them, some very small. Data users have traditionally complained about UBOS' difficulties in providing district-level figures, pointing out to the increasingly relevant role of districts in the decentralization process.

Important as this policy factor might be with regard to the demand for small area estimates, the constraint imposed by sampling theory are even harder. The fact is that the number of households needed to make a good sample for a district is almost independent of the size of the district, and it needs to be fairly large. However, very large samples, even in the unlikely case they could be financially afforded, are vulnerable to big non-sampling errors, as a result of the difficulties of selecting, training and supervising a tremendous group of interviewers.

In the figure the first column shows the time lines proposed for each programme. The second column shows the national censuses and other nation-wide data collection activities that UBOS needs to conduct in addition to household surveys. Some of these activities are essential inputs into the household survey system, but even those that may not be directly linked to household surveys still need to be taken into account because they are big efforts that may compete with household surveys for UBOS technical resources and infrastructure (vehicles, etc.) These include; Agricultural Censuses and the Population and Housing Censuses, updating the cartographic maps during the inter-censal periods and the Census of Business Establishments (Uganda Business Inquiry).

The last column shows the proposed sequence of household surveys. It consists of the cyclic replication of four elements every four years: one Consumption Survey, one Service Delivery Survey and two kinds of demographic and health surveys – a “standard DHS” (with anthropometrics and no blood testing,) and a “Sero Survey” (with blood testing and no anthropometrics.) As said before, combining the last two elements into a single, integrated instrument seems to be a technically feasible alternative that deserves further exploration.

Consumption surveys need to be fielded over a 12-month period, to take into account the seasonality of the underlying phenomena. The fact that all other surveys have traditionally been fielded by UBOS over shorter periods is reflected in table 3. The proposal is to spread the DHS surveys over the 12 months period as well to capture seasonality.

Besides seasonality, another reason for spreading the data collection period over several months or a year is to capitalize on the heavy investment in human resources usually engaged in surveys. It is cheaper and easier to select and train a small number of good interviewers and supervisors, engage them for many months, than to train a larger number and use them for a shorter period. Longer periods of data collection also permit the implementation of more reliable quality control measures. When the period is too short, problems are often detected after the survey is finished and no corrective actions are possible.

The implementation of the household survey programme, once adopted will further ensure continued provision of policy relevant information over a fairly long period of time

## **9. Conclusion**

The poverty scourge in Uganda represents one of the greatest challenges confronting all stakeholders in the development process. The need for reliable, timely and regular information from household surveys as well as other sources becomes even increasingly more important than ever before. Policy makers need to be informed of the progress (or lack of progress) in the targeted sectors in order to address the identified constraints. It is through the provision of reliable data that appropriate decisions and interventions can be made. This is only possible if there are regular mechanisms of data production and dissemination. The long-term household survey programmes is aimed at sustaining the data production process and hence keeping the development debate and analysis alive.

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