

MEASURING AND MONITORING POVERTY: The Uganda Experience

Sarah N. Ssewanyana
Economic Policy Research Centre
Makerere University
e-mail: ssewanyana@eprc.or.ug

James Muwonge
Uganda Bureau of Statistics
Entebbe
e-mail: unhsco-ord@infocom.co.ug

1. Background and context

The Poverty Reduction Strategy Paper (PRSP) approach to poverty reduction was introduced in 1999 as a device to ensure the proper use of debt relief under the Heavily Indebted Poor Countries (HIPC) initiative. It is currently being implemented by qualifying countries including Uganda. In Uganda the formulation of the PRSP coincided with the first revision of the Poverty Eradication Action Plan (PEAP) formulated in 1997. The PEAP, which is Uganda's PRSP is the national development framework for poverty eradication. It is a medium term planning tool that is revised every 3 years. The development and implementation of the PEAP are guided by the dynamic principles of feedback mechanism and time-consistency. Put differently, progress in achieving the goals as stipulated in the PEAP are closely monitored and regularly revised in order to update it in a manner that reflects and accommodates changing socio-economic trends, emerging issues and challenges, priorities and achievements in the fight against poverty. In this regard, the first revision was in 2000 and the second one is still on going and expected to be completed before the beginning of the financial year 2004/2005.

There are marked differences between the two revisions. First, while the first revision took a shorter period (Nov. 1999 – May 2000), the second one started in October 2002 and is still on-going. Second, the current revision process has seen the creation of a fully-fledged PEAP Secretariat with members from Ministry of Finance, Planning and Economic Development (MoFPED) departments whereas in the past it was only the planning department and a few external members.

Third, the level of participation in the revision of the PEAP has increased overtime. The level of effort and input to the PEAP is so diverse and enormous that all institutions, agencies including the Civil Society Organization (CSO) led by the Uganda Debt Network (UDN) are consulted during the PEAP review process. The participation of stakeholders has reached the extent of all sectors having to draft their papers of the PEAP. The Sector Working Groups (SWGs) within each sector are assigned the responsibility of drafting the papers to feed into the PEAP revisions. Such SWGs include education, health, HIV/AIDS, Environment to name a few. The consultation process is being undertaken at different levels:- Central and local governments; CSO; private sector; donors; academic and research institutions.

The increased level of participation in the on-going PEAP revision has had its own strength and constraints. Among the strength identified by the Poverty Monitoring and Analysis Unit (PMAU) of MoFPED include: broader consultations of the poor via participatory poverty assessments; budget officers have become participants and hence closer link between planning and budget expenditures; all sectors participate and produce their own sector papers; Districts, CSOs and Private sector are more involved than before. This has improved the quality of the PEAP that is pro poor; capacity building in policy making and better information sharing. Among the constraints include: The increased volume of participation is a significant drain on officials' time at all levels which results into fatigue; the cost of having everyone to participate; and the tendency for the minority views to be overshadowed by the majority views.

The PEAP addresses the task of strengthening the livelihoods of the rural poor especially those in the crop farming, and emphasizes the key significance of

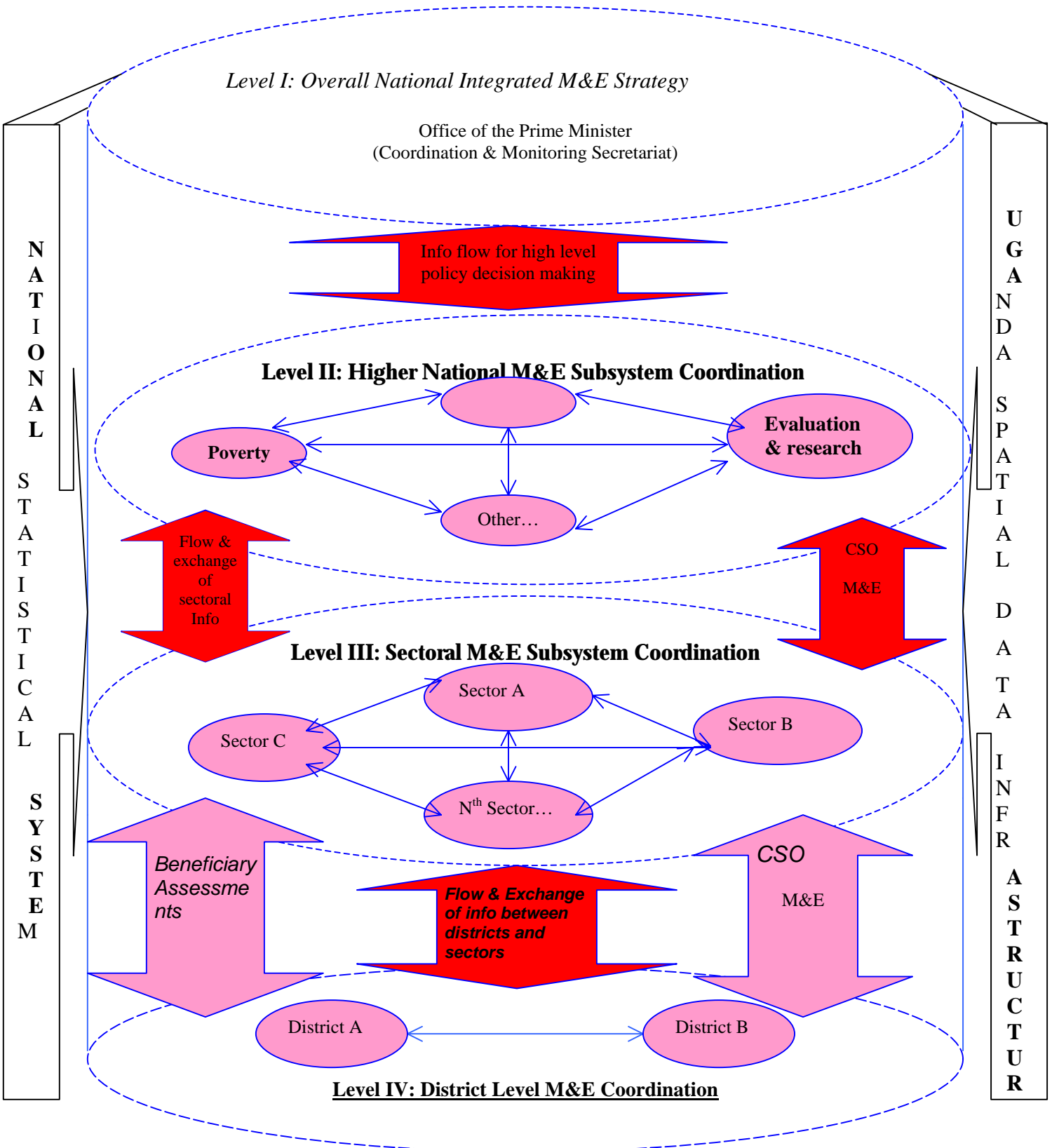
enhancing citizen's participation, strengthening governance and dealing with livelihood and human security. Poverty analysis has not only influenced policy making at the national level but also decisions of the donor agencies.

The PEAP process would not have been possible without timely, accurate and reliable data. In this regard, the Uganda Bureau of Statistics (UBoS) continues to play a key role. By extension, access to quality and timely data has greatly increased poverty analysis in the country. It is not surprising that the PEAP process is informed by very strong poverty analysis. A wide range of analysis of poverty and policy prescriptions including inequality, gender, health, water & assets informs the on-going PEAP revision. In addition, extensive analytical work has been undertaken in the form of the Poverty Status Report (PSR), discussion papers within MoFPED, analytical researches by the Economic Policy Research Centre (EPRC) to provide empirical evidence to the process. The participatory poverty assessments (PPA) findings have helped to incorporate the voices of the poor into the national planning and policy formulation by complementing quantitative with qualitative evidence of poverty. All these findings combined have led to a shift of priority areas as identified in the first PEAP revision.

The Poverty Monitoring and Evaluation Strategy (PMES) was formulated via an informal Poverty Monitoring Network, which comprised of government ministries, UBoS, Makerere University, NGOs and donors. Good progress has been made in developing the Uganda's Monitoring and Evaluation (M&E) framework, however some challenges do remain. The challenges include weak coordination arrangements, duplication of efforts, gaps in information and under utilization of the existing information and finally weak planning and management of public service delivery processes. There are proposed measures in the on-going PEAP revision to strengthen the PEAP monitoring and evaluation including setting up a coordination unit under the Office of the Prime Minister, improving the quality of data especially administrative data, timely dissemination and increased sharing of information. The proposed National Integrated Monitoring and Evaluation Strategy (NIMES) framework is presented in Figure 1. By extension, a couple of indicators (input, output, outcome and impact) are proposed and against each indicator the institution responsible for its collection is indicated. UBoS is expected to play a key role in producing the relevant data. As much as UBoS has the human capacity to collect information for most of the suggested indicators, it is not clear whether the cost of producing these indicators was taken into account. The data demand is enormous and goes beyond the routine data collected by the Bureau. There is no doubt that significant financial resources will be required in future to have all the suggested indicators generated.

The rest of the paper is organized as follows: Section 2 presents a discussion on measuring poverty in Uganda since early 1990s. Section 3 discusses monitoring poverty both within and across surveys. Section 4 presents the experience in mixing qualitative and quantitative data in poverty analysis and monitoring prior to concluding remarks.

Figure 1: The National Integrated Monitoring And Evaluation Framework



2. Measuring Poverty

The PEAP recognizes the fact that poverty is multidimensional and complex, however money-metric approach to poverty analysis is still a predominant feature. Other dimensions considered include health, education, gender, access to services, and infrastructure. Given the problems associated with the collection of income data, the consumption aggregate is constructed based on consumption expenditure data. The consumption expenditure per adult equivalent is then compared to the “official” poverty line derived by Appleton (1997, 2001) to provide insights on the percentage of the poor population.

2.1 Data sources

There is reasonable stock of both quantitative and qualitative data that can, and have been used for the purposes of poverty analysis and monitoring. The data are equally rich enough to be employed in monitoring the PEAP and the MDGs. These include a series of the Uganda Household Surveys (see Table 1) conducted by UBoS that have continued to be the major source for poverty analysis. The survey program revived in 1989 has since then conducted 8 nationally representative household surveys with 1992/93 Integrated Household Survey acting as the baseline for subsequent surveys. While these surveys have been diverse in nature and objectives, they have had a critical role to play in poverty analysis and monitoring.

Table 1: Household Survey rounds, 1988-2003

Survey Round	Dates	Duration in months	Sampled Households
Household budget survey (HBS)	Apr. 1989 – Mar. 1990	12	4,595
Integrated household survey (IHS)	Mar. 1992 – Mar. 1993	13	9,925
Monitoring survey 1 (MS-1)	Aug. 1993 – Feb. 1994	7	4,925
Monitoring survey 2 (MS-2)	Jul. 1994 – Jan. 1995	7	4,925
Monitoring survey 3 (MS-3)	Aug. 1995 – Jun. 1996	11	5,515
Monitoring survey 4 (MS-4)	Mar. 1997 – Nov. 1997	9	6,654
Uganda National Household survey 1 (UNHS-1)	Aug. 1999 – Jul. 2000	12	10,696
Uganda National Household survey 2 (UNHS-2)	May. 2002 – Apr. 2003	11	9,711

Other data of relevance collected by UBoS include: the Uganda Demographic & Health Surveys (UDHS), which are conducted every after 5 years; and Population and Housing Censuses every decade. The monthly price collection exercises are the main source of data used in the construction of the monthly Consumer Price Indices (CPI). The Bureau recently concluded a fieldwork exercise on the client satisfaction with public services surveyed through a national service delivery survey.

Statistics from administrative sources are rarely used in poverty analysis and monitoring. The quality of these data is still lacking and the data are often available after long delays. The Uganda Participatory Poverty Assessments Project (UPPAP) conducted every two years continues to be a key source on vulnerability, lack of access to service, powerlessness, corruption and governance, which are not captured in the household surveys. The findings from the UPPAP have also been useful in complementing the poverty results derived from the household surveys. The UPPA has been useful in providing information on the voices of the poor.

2.2 *The experience with household surveys since 1989*

UBoS has so far carried out eight rounds (see Table 1) of nationally representative surveys since 1989 in its endeavor to collect and update data on a wide range of economic, social and demographic indicators. As previously pointed out these surveys have had varying objectives and scope. Common to all survey round is the socio-economic module. More importantly, the surveys continue to provide useful information for monitoring welfare in Uganda.

The fact that surveys have been multi-purpose, multi-topic questionnaires including socio-economic, community, informal sector etc have been used to collect the relevant information. For instance, the socio-economic questionnaire captures many dimensions of household well being including consumption, income, employment, education, health, housing and migration. However, the level of detail varies across surveys. The consumption expenditure sub-component structure has remained more less the same since the 1995/96 survey round. Other surveys such as the UDHS capture the other dimensions of well-being, however these cannot be linked directly to the household surveys.

Since 1992, the sample has consistently been geographically stratified to ensure representation at national, rural/urban, region and rural/urban within each region. Representation at the district level remains restricted to a few districts (see Appendix 1). While the Household Budget Survey (HBS) was used at the time to update CPI weights and revise the basket of goods, it has never been used in poverty analysis. This was attributed to lack of comparability between HBS and subsequent survey (Appleton, 1996). Therefore, the discussion hereafter relates to survey rounds since 1992/93.

Unlike other Sub-Saharan African (SSA) countries, Uganda has been able to have frequent surveys with the financial support from donor agencies such as the World Bank. The duration of the surveys has not been consistent as evident in Table 1. While the Integrated Household Survey (IHS) and the last two most recent surveys were conducted over a period of 11 months, the monitoring surveys were conducted during certain months of the year and on annual basis. Worse still most of these monitoring surveys did not cover the months of April-July when food is most plentiful in the country. While seasonality may be less of a problem for annual surveys, the poverty analysis based on the monitoring surveys ignored the seasonality dimension. By extension, with the 2002/03 survey round no interviews were conducted in the month of September due the census exercise in that month. For some parts of the country, September is a harvest month and thus its omission may lead to a downward bias in the figures for consumption, particularly food consumption, in UNHS-2 (Appleton & Ssewanyana, 2003; UBoS, 2003). As much as these differences may present a source of incomparability between surveys, we have gone ahead to examine poverty trends since 1992/93. To our knowledge there is no research that has been undertaken to critically examine the effect of the timing differences in the surveys carried out so far.

Sampling frame and design: The list of the Enumeration Areas (EAs) prepared for 1991 Population and Housing Census, along with maps and data on number of households and their corresponding population served as the sampling frame for all surveys with the exception of the UNHS-2. The sampling frame for UNHS-2 was derived from the list of EAs based on the cartographic work for the 2002 Population and Housing Census. A two-stage stratified sampling design has been common to all

survey rounds with the exception of a three-stage design for the unmapped districts done for the survey rounds 1992/93 to 1999/00. The districts were treated as the stratum with some further sub-stratification including rural, urban and other urban. However, some modifications in the design were made in relation to the core objectives of each survey. Through the survey rounds the EA has consistently been the primary sampling unit and household as the final sampling unit. In general fresh EAs have been selected with the exception of those survey rounds where a panel element was included (see Appendix 1). Simple random sampling is employed to select 10 households from each of the selected EA. A household will only be replaced if after repeated visits no eligible respondent is found at home. In this regard, the Bureau has done a good job of minimizing the number of replacements, for instance for the 2002/03 survey round less than 6% of the households were replaced.

Household surveys conducted by the predecessor Department of Statistics were not disseminated on a timely basis due to many constraints. However, with the coming into force of UBoS, dissemination has since been done within six months after fieldwork.

2.3 The measure of income poverty used in the PEAP

Since 1992/93, consumption expenditure has dominated as a measure of income poverty. The socio-economic survey contains three sub-components of consumption expenditure that are relevant in the construction of the consumption aggregate with different recall period. Information is collected on item by item basis within each sub-component. The expenditures are captured at the level of a household and not at individual level. Here below we discuss each sub-component in turn:

i) Food, beverage and tobacco sub-component

The information collected here is on actual food consumed during the reference period and not actual purchases. While the 1992/93 survey round used two recall periods, a single reference period (7 day-recall period) has been adopted since the first monitoring survey of 1993/94. The 1992/93 survey round used two recall periods for purchases but not home consumption, however, all poverty analysis using this survey round uses a 30-day recall period and ignores the shorter recall period. Common to all survey rounds are data on the total amount spent on each item and quantities consumed during the specified reference period from different sources. There are marked differences in the level of detail. While surveys prior to 1999/00 collected information from only three different sources - including purchases from markets, consumed from own production and gifts/free collection, the surveys conducted latter explicitly captured food eaten away from home. In addition to collecting information on quantities and values, the most recent surveys sought information on the unit market and farm-gate prices. The number of consumption items covered has increased over time mainly by capturing some food items in their different forms, such as other meat into pork, goat's meat and other meat; cassava into dry/flour and fresh; sweet potatoes into fresh and dried; expenditures in restaurants into food, soda and beers; and groundnuts into in-shell, pounded and unshelled.

Although the surveys captured information on quantities consumed, these are often reported in household-specific units of measurements. There are conversion factors to convert these units of measurements into their metric equivalent (kilogram or litres) (see for example Kayiso, 1993; UBoS, 1999/00). However,

there are not updated in every survey and are only available at aggregate level (either regional or national). It should also be pointed out that not all the household-specific measurement units have readily available conversion factors. This is mainly due to the diverse nature of these units and their variability across geographical location. This has serious consequences, for instance, limits the number of observations used in the derivation of the regional food price indices and computation of the farm gate:market price ratio as discussed later.

Calculating the food, beverages and tobacco sub-component of the consumption aggregate involves aggregating all the expenses from different sources and then aggregating these expenditures at the level of a household. Thereafter, these expenses are converted to a 30-day monthly basis.

ii) Semi-durable and frequently purchased goods and services

The information is collected using a 30-day recall period prior to the survey from three different sources. In all its household surveys so far, UBoS has been able to collect information on imputed rent for owner occupied houses. Although there are instances where such information is missing. The practice has been to run hedonic housing regressions using information on households with non-missing rent to impute a value of housing consumption for those households with missing rent information. These regressions are estimated separately for house renters and owner occupied houses.

As with food items, the number of items has increased overtime either from further disaggregation of the same item (such traditional doctors fees/medicines) or as “new” areas of consumption such as the expenses on mobile phones and maintenance and repair expenses.

Constructing this sub-component of the consumption expenditure involves aggregating expenses from all the three different sources and then aggregating these expenditures at the level of the household. Health and medical care expenses are also included in this sub-component.

iii) Durable goods and services

The information is collected using a 365-day recall period prior to the survey from three different sources. The values are captured as the current value at the time of the survey. Education expenses are among the items included in this section. These expenses were collected on individual basis in 1992/93 and thereafter are been collected at the level of a household.

The additional items include kettle and motor car/pick up, which was originally captured under other equipments prior to the 1997 survey. There are no data collected on original values and age, which are important in the calculation of user values. This has to some extent influenced the treatment of durable goods in the construction of the consumption aggregate.

Calculating the durable sub-component of the consumption expenditure involves aggregating all the expenses from the different sources and then aggregating these expenses at the level of a household. Thereafter, these expenses are converted to a 30-day monthly basis.

Having calculated the sub-component expenses to a uniform 30-day month reference period, we aggregate all the sub-component to get the consumption aggregate, in nominal terms. However, there are price adjustments as discussed below that are

normally done to each sub-component priori to poverty analysis. It should also be noted here that while the Bureau collects information on the non-consumption expenditures such as taxes, transfers, contributions to funerals etc, these expenses are not part of the consumption aggregate.

Income data: Although consumption aggregate is based on consumption expenditure, UBoS used to collect income data until the 1999/00 survey round. These data were captured in the socio-economic module during the last 12 months prior to the survey. Apart from income earned from employment, other income data are captured at household level including income from household enterprises such as crop farming, property income and current transfers & other benefits. Employment income includes income from main activity, secondary activity and other activities. In their study on income inequality in Uganda, Ssewanyana *et al.* (2004) noted underreporting of income compared to consumption expenditure.

Price data and price adjustments: The socio-economic module remains the major source of price data used for the computations of spatial price index. While the earlier surveys did not collect price information directly, such unit prices have been derived indirectly by dividing expenditures by quantities reported by the households surveyed. However, this can only be done for a few non-food items where quantities are well defined. As much as unit prices can be derived indirectly, such prices are bound to have an error element especially if the respondent fails to recall the actual values and quantities consumed due to memory loss. Instead median unit values have been used to mitigate this problem. Other sources include price survey and community module. It was only with the 1999/00 survey round that the Bureau attempted to administer a price survey instrument as part of the community module. With the exception of UNHS-2, the community module captured price data at the community level. However, the level of detail is less than that in the socio-economic module.

There are three different price adjustments made to get the consumption aggregate as detailed above into constant prices. There include:

i) Revaluation of home food consumption into market prices

At the data collection stage all food items consumed out of own production are valued in farm gate prices. The food items and those obtained as gifts/free collection are revalued into market prices. This involves derivation of the farm gate: market price ratios, which are in turn applied to the affected food items. The procedure involves estimating prices as median unit values based on the household food consumption data. This is done separately for the four administrative regions (that is, central, eastern, northern and western) sub-stratified into rural and urban, making 8 sub-regions. The unit values for home consumption are used as estimates for farm gate prices whereas the unit values of household food purchases are used as estimates for market prices. However, as pointed out earlier this procedure is complicated by the fact that quantities are recorded in household specific-measurement units. Where possible only metric measures are used and for some items reported in non-metric terms, only reports with a single unit of measurement are used to avoid having to make different units comparable.

ii) Spatial price variations

In Uganda food prices vary markedly across regions and within regions, representing a need to control for these variations. This involves taking into

account regional food price variations for the 8 sub-regions as identified in (i) above. As with revaluation of home consumption to market prices, we estimate median unit values. The weights for the food index are based on the national expenditure shares of the major food items and associated minor items. These items exclude tobacco, alcoholic drinks and beverages such as soda. These indices are used to deflate food expenditures excluding tobacco, alcoholic drinks and beverages such as soda.

iii) Inter temporal price variations

UBoS conducts monthly price collection exercises that are used in the calculation of the CPI, although the household surveys are used in the revisions of the weights and updating the basket of goods. Since 1988, the CPI has been re-based twice, that in 1989 and 1997/98. Poverty analysis in Uganda has relied on the CPI to adjust for inflation between surveys rather than using a survey-based food price index, representing a trade-off between the wider geographic coverage of the survey-based measure and the more careful measurement of the CPI. The differences between the two indices are evident in Table 2 and need to be interpreted cautiously. For comparisons over time, the consumption aggregate is deflated using CPI with the same reference base year.

Table 2: Food price index based on survey unit values

Region	Survey round						
	IHS	MS-1	MS-2	MS-3	MS-4	UNHS	UNHS-2
Central rural	112.9	123.9	127.9	134.8	180.5	171.2	167.7
Central urban	135.8	134.3	149.6	151.3	186.7	189.3	183.0
East rural	96.0	87.5	106.6	108.1	165.0	142.7	151.4
East urban	115.0	108.0	125.5	114.9	176.8	150.8	160.0
West rural	88.6	83.3	93.0	99.6	144.7	145.8	145.3
West urban	104.7	90.5	102.1	112.7	156.2	165.3	151.5
North rural	83.6	84.7	92.2	90.6	128.7	128.7	126.4
North urban	94.7	93.4	98.8	99.3	143.4	125.6	136.9
National	100	98.8	109.8	113.2	159.9	152.1	152.6
CPI food	100	100.0	113.0	120.1	150.9	152.1	148.5

Source: Appleton & Ssewanyana (2003), UBoS (2003)

The consumption aggregate is adjusted for inflation using the average all-item CPI for the survey period and without taking into account the particular month a household was interviewed. However, this requires information on when the survey round started and ended. Consumption expenditure is deflated differently according to the recall period: 7-day and 30-day recall items are deflated using the average of CPI in the current and previous months for all the survey period and taking the average; whereas 365-day recall items are deflated using the average CPI for the survey period and the equivalent of survey period before the survey.

Adjusting for household size: The household roster in the socio-economic module collects individual information on usual and regular members and visitors. However, poverty analysis is restricted to usual members only. These are members who have lived in that household for a period of six months or more. To make poverty comparison across households with different household size and composition in terms of sex and age, the consumption aggregate is adjusted using adult equivalence scale.

Comparison of survey-based private consumption and that of national accounts:

Previous poverty analysis by Appleton *et al.* (1999, 2001, 2003) have always endeavored to compare annualized growth rates of private consumption derived from the surveys with those from the national accounts. In this regard, the national accounts have been used as one external check on the plausibility of the survey-based private consumption estimates. However, the timing of the surveys does not coincide with the national accounts. The latter is published information by UBoS for either the calendar or fiscal year running from 1st July to 30th June. It is also important to point out that the household surveys have not always been used in the computations of national accounts. For instance, while the first three monitoring surveys were never used in the computations, only very limited use was made of the fourth monitoring survey. Instead, the estimates of private consumption growth in the national accounts were derived from production estimates. On the other hand the rest of the surveys including the most recent survey have been used in the national accounts estimates. While the survey-based growth rates for UNHS-1 were consistent with the private consumption aggregated of the national accounts, the results based on the most recent survey were not. The national accounts are in part based on the findings of the household surveys, for which UNHS-2 was too recent to have been used. In other words, the national accounts provided an independent estimate of overall growth between UNHS-1 and UNHS-2. On this basis, the national accounts imply (in nominal terms) an annualized growth rate of 3.4% compared to 2% estimated from the surveys.

Poverty line: The absolute poverty line as derived by Appleton *et al.* (1999) is widely used as the “official” poverty line by the Uganda Government. It is anchored on the cost of meeting the basic needs with a focus on meeting caloric requirements. In their derivation of this absolute poverty line, Appleton *et al.* follows Ravallion & Bidani (1994). We briefly summarize Appleton’s *et al.* derivation below. The poverty line is derived on the basis of caloric requirements adjusted for age, sex, daily activities as laid out by WHO (1985). In estimating the minimum cost of attaining caloric requirements, they focused on the food basket consumed by the poorest 50% of Ugandans based on 1993/94 monitoring survey. The food basket consisted of 28 major food items including staple and non-staples. These food items were converted into their caloric equivalent using caloric equivalent and retention rates taken from West *et al.* (1988). During this survey period, the poorest 50% consumed 1,373 calories per person per day, which was scaled up by a factor of 2.19 to generate 3,000¹ calories per day, the amount WHO estimates for an 18-30 male adult subsistence farmer (moderate activity). Caloric and food items were valued according to the median unit values of food purchases in the same survey but restricted to only those food items in metric measurements². The food poverty line is national and not allowed to differ by geographical location of the households. This sounds simplistic in Uganda where staples vary across regions and some staples are more expensive than the others.

The regression-based approach of Ravallion & Bidani (1994) was followed to estimate the non-food requirements, allowing for these requirements to vary by region and rural/urban location. The minimum cost of attaining 3,000 calories per day and cost of the non-food requirements were combined to generate the absolute total poverty line.

¹ . The requirement of 3,000 calories per adult equivalent corresponds to an average requirement of 2,283 calories per capita in Uganda.

² Efforts were made (where possible) to convert those food items reported in household specific measurement units into metric terms using the conversion factors in Kayiso (1993).

As noted above, the “official” poverty line is based on 1993 food basket. The validity of 1993 food basket in say, 2003 is questionable given that the surveys have continued to collect information on “new” areas of consumption and also capture some items in their different forms. It is also important to note that the food consumption patterns have changed over the last decade. Unfortunately, 1993/94 has been the only truly national survey covering the entire country, making it difficult to change the reference period based on existing surveys. The issue of national/regional poverty line is discussed in Appleton (2003). He finds the level of poverty in Uganda as a whole to be fairly robust to the choice of poverty line and sensitivity in the spatial pattern of poverty even after using regional poverty line adjusted for income differentials between regions. He concludes that preference for national or regional poverty lines depends on how one conceives welfare. While the poverty assessments have been instrumental in changing the policy makers, politicians and researchers’ understanding of poverty from a narrow to a multidimensional focus, little is known on what it means to be poor.

3. Monitoring poverty

3.1 Periodic surveys

Monitoring poverty is essential to ascertain what benefits the people have derived from the government interventions in terms of anti-poverty strategies and public expenditure. We are aware that monitoring is not all about the technical aspects of data collection, however there is need to highlight how the changes related to data collection have influenced comparability of poverty indicators over time with a focus on income poverty. As earlier mentioned income poverty indicators are derived from the household surveys conducted by UBoS.

Among the changes worth mentioning include timing of surveys, sampling frame, design of the questionnaire, geographical coverage and panel element. As presented in Table 1, UBoS has carried out eight household surveys however periodicity between surveys has not remained constant. The time span between survey ranges from as low as 4 months to 21 months. According to the PSR, UBoS is expected to carry out regular nationally representative surveys (every after 2 years).

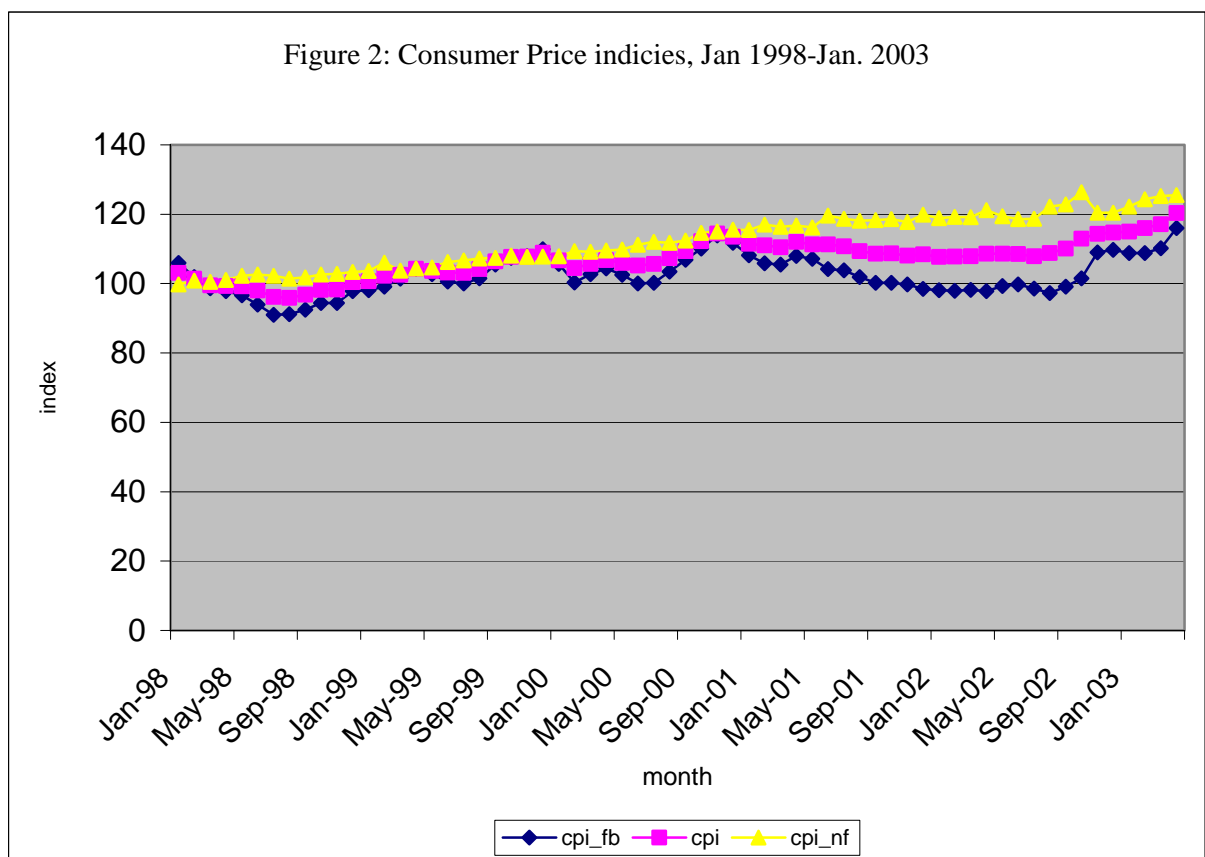
While the sample design has consistently been the same since 1992/93, the sampling frame for UNHS-2 changed to take advantage of the 2002 Population & Housing Census. Up to now it not known whether the large population shift from 69.7% to 52.2% in the crop farming sector in 1999/00 and 2002/03, respectively was due to a change in the sampling frame or not.

By extension, the consumption sub-module has been modified over time to include “new” areas of consumption such as mobile phones; and to capture the same item in its different forms. These differences are becoming minor over time, however. With these differences in the design of the consumption module, the definition of the consumption aggregate may not be identical over the years. Empirical evidence such as Appleton *et al.* (1999), Appleton & Ssewanyana (2003) point out that these changes may have had no appreciable effect on the consumption aggregate.

Yet another challenge is the national representativeness of the household surveys. Due to insecurity in some parts of the country, these surveys have not been able to cover the entire country. This has to some extent affected the national representativeness of the surveys especially in those survey rounds where the entire district(s) could not be covered (see Appendix I). This remains a challenge for understanding changes in

poverty trends and monitoring it. For comparability over time, the districts of Bundibugyo, Kasese, Gulu and Kitgum³ are left out in poverty analysis. The omission of the poorest districts in the analysis increases mean consumption per adult equivalent and lowers the proportion of the poor.

The emphasis on poverty analysis remains on changes in income poverty over time. This has implications on the methods used to construct the consumption aggregate for comparability over time. We have continued to account for inter-temporal price variations by using all-item CPI and even ignoring the month of interview a household was interviewed. We need to be flexible to use methods that are consistent with the “data generating process”. A closer examination of Figure 2, suggests that the food CPI was well below the non-food CPI. This implies that deflating using the all-item CPI would understate the welfare aggregate especially of the poor who spend a high proportion of their income on food. On the other hand, while the coverage of the price collection exercises for construction of the CPI has widened over time, it is still limited to the urban areas (namely, Entebbe, Kampala, Jinja, Mbale, Masaka, Mbarara, and Gulu). In turn, these CPIs may not reflect trends experienced by the majority of Ugandans who live in rural areas. On a positive note, plans are underway to increase the geographical coverage and the basket of goods.



The income poverty indicators for poverty monitoring are derived mainly from the repeated household surveys. However, with repeated household surveys we cannot say much about poverty dynamics. In this regard, the household surveys include a

³ These districts represented 5.8% and 6.1% of the national population in 1991 and 2002 Population and Household Census, respectively.

sizable panel of households to provide insights into poverty dynamics. There are two panel household survey data sets in Uganda. The first one comprises of four-year waves, 1992/93 to 1995/96. The first three monitoring surveys had a panel element, with half the enumeration areas being continually revisited and within those areas, half of the households visited were to be the same. There were no proper panel identifications of the households at the very start. This has to a great extent influenced the level of analysis using this panel data, although some efforts were done by the World Bank to recover some of households.

Due to high attrition of households, the panel element was abandoned in the monitoring survey round of 1997. However, in the 1999/00 survey round a panel element was re-introduced and the Bureau was in a more prepared position to handle it. This second panel data comprises of a two-year wave with 1,309 households that were both surveyed in 1992/93 and 1999/00. Unlike previous panel in the monitoring system, this panel element was built in at the design stage. The attrition rate was very low at about 6%, a figure very much below those reported for the monitoring surveys.

There were 1,309 panel households out of a sample of 10,696 households in 1999/00. We are not aware of any analytical work carried out to critically examine the extent to which inclusion of the panel element in the previous surveys may have affected the survey results. The few studies such as Okidi & McKay (2003) report no significant differences in the mean consumption expenditure between the panel and non-panel households. The panel data have provided insights into poverty dynamics, which are relevant for monitoring purposes. More important, the panel has provided policy relevant information on the determinants of chronic and transient poverty. However, analysis is yet to be done beyond poverty dynamics to understanding vulnerability.

3.2 *Between surveys*

PEAP remains a point of reference in terms of data collection and frequency of household surveys conducted by UBoS. The estimates from these surveys feed into the poverty monitoring and evaluation when UBoS conducts a household survey. Of recent the time between surveys has been around two years. A glimpse on the proposed M&E indicators calls for more frequent surveys especially for those indicators reliable to change within a year.

Currently, in support of the Government principle objective of poverty reduction, UBoS is developing a long-term household survey programme to support the poverty monitoring efforts. In so doing, the Bureau is reviewing the series of household surveys that it has conducted since 1988 to date among other things to; establish whether or not the surveys have met the demands of the times; whether or not there is a need for annual or regular household surveys and if not recommend the most appropriate frequency for such surveys; propose the most cost-effective methods/approaches to be adopted for future household survey programmes. The Bureau will thereafter share and discuss with stakeholders and development partners, the survey programme including the modules to be covered in each survey and the estimated total resource envelope necessary to carry out each survey.

Among the challenges in the current monitoring & evaluation framework hinted on earlier is the underutilization of the existing data. For instance, the community characteristics including access to services continue to be one of the modules covered in the household surveys. Notwithstanding this very rich dataset little use is made of it in the poverty monitoring process. Generally speaking, the increasing local capacity

to carry out policy relevant research in the country has not translated into increased utilization of the rich household survey datasets. While local researchers still have free access to these datasets, lack of capacity to manage and analyze large dataset remains a key constraint. The Bureau is currently revisiting its data archiving system, which we think might increase the utilization of these data.

4. *Mixing qualitative and quantitative approaches to poverty assessment*

4.1 *Past experience with participatory assessments in Uganda*

The UPPAP was an initiative of government of Uganda that sought to bring the perspectives of the poor Ugandans, through consultations, into the formulation and the implementation of policies and planning for poverty reduction both at local government and national levels. The UPPAP exercises were a unique partnership comprising Government represented by MoFPED, District Authorities, CSO, both NGOs and academic institutions and donors.

Since 1998, Uganda has conducted two Participatory Poverty Assessments (PPA) with the first-ever Uganda Participatory Poverty Assessments (PPA-1) being undertaken in 1998/99 led by Oxfam GB while the second PPA (PPA-2) was undertaken in 2000/2001 led by MoFPED. The undertaking of the PPAs was an attempt to complement and build on the quantitative poverty analysis in Uganda by bringing a multidimensional perspective. While the results of PPA-1 met a lot of resistance, the consistency observed between PPA-2 and UNHS-2 has led to a wider acceptance of the PPAs and to greater extent influenced the poverty debate.

Sample design: The PPA-1 study covered 36 sites in 9 districts purposively selected on the basis of a number of criteria namely; the most disadvantaged district in each of the agro-ecological zones, consideration for urban poverty and for low poverty. Other criteria used include the Human Development Index (HDI) of the district, natural calamities, civil strife, social and physical isolation, population density, land fragmentation, environmental degradation, poor soils and yields, participation-social nets, and access to roads and water.

Whereas the PPA-1 aimed at bringing the voices and perspectives of the poor to the planning and decision making process, the PPA-2 was designed to deepen the understanding of poverty gained in the first PPA and also to gather people's experiences with government policies that have been put in place as a result of the concerns raised by the poor people during the PPA-1. The PPA-2 was implemented in 60 sites in 12 districts, representing a wider geographical coverage. The PPA-2 was complemented by: Participatory Poverty and Environment Assessment (PPEA); a study on Child Poverty; and a Village Census covering 36 out of the 60 PPA2 research sites with a broadly similar agenda as PPA2.

The PPA-2 sampling framework was based on UNHS-1 to identify the well-off and poor communities. In addition other factors included the need to cover districts affected by insecurity and the districts benefiting from new government initiatives. The above criteria led to the selection of 12 districts for the PPA-2 research. The PPA-2 research focused on groups that were identified during the PPA-1 and considered vulnerable to poverty such as the internally displaced persons, pastoralists and those living in fishing communities.

Major findings: Both poverty assessments confirm that the poor perceive poverty as a multi-dimensional phenomenon, dynamic in nature and complex. Geographically,

there were distinct regional variations in how people perceived different characteristics to influence their poverty status. Social exclusion, gender, governance, community status or affluence and ignorance and lack of knowledge and awareness were identified during the PPA2 as new dimensions of poverty. A couple of factors were identified as causes of movement into and out of poverty. The major factors for moving into poverty included alcoholism, polygamy, and insecurity in the North and large families/dependants. Other influential factors included lack of access to markets and limited access to land, unfair taxation/high market dues, ill-health. Although movement into poverty was cited more than moving out of it, working hard in all types of jobs, gainful employment, multiple income sources, access to property and acquiring skills and accessing education and for women, access to start-up capital and petty trade were identified as important avenues for drifting out of poverty.

Contrary to poverty analysis based on survey data of 1999/00, the PPA-1 provided a negative assessment of poverty trends. As a result, discussions on how to link quantitative and qualitative data and methods started. The results of PPA-2 however, showed no obvious pattern of poverty trends. In many communities, there were improvements and worsening livelihoods. Hence some communities reported declining poverty trends while others reports increasing poverty. Improvements were identified in social services- education, health and water. These findings were in line with quantitative results based on 2002/03. Deterioration was identified in crop livestock and fish farming. People displaced by insurgency also felt they had become poorer due to loss of breadwinner, property and social support. By extension, declining environmental resources were also identified as contributing to increases in poverty (due to declining soil fertility) in PPA-2.

4.3 The relationship with the quantitative evidence

Prior to the implementation of the first PPA, poverty analyses were based on quantitative approaches. As already discussed, the household surveys conducted by UBoS were the main source of poverty analysis. The implementation of the UPPA-2 was an innovative way of analyzing poverty from a different perspective.

Consultations on how best to combine both the quantitative and qualitative approaches were initiated in the year 2000. The objectives of the consultations were to identify the strength and weaknesses of each approach and recommend how best the two approaches could complement each other.

A 3-day workshop was convened by UBOS and the UPPAP to explore the way forward for poverty monitoring and analysis in Uganda. This brought together a small team of users and producers of poverty monitoring data, and a group of national and international specialists with experience of combining survey-based and participatory research processes. Specifically, the workshop had to come up with recommendations on:

- how best, in the context of Uganda, to combine participatory and survey-based research processes for poverty monitoring and analysis; and
- institutional arrangements which will facilitate: the articulation of UPPAP's participatory research processes with survey-based research by UBOS, and the interpretation and communication of their findings.

The strengths and limitations of each method were explored and discussed. It was agreed that it is important to maintain the strength inherent in each method and focus on how to link the two methods. Thus it was agreed that maintaining the essential differences between survey-based and participatory approaches is not only the best way to exploit their very real complementarities. It also helps to persuade technocrats and politicians, who like to see a diversity of types of evidence.

As an outcome of this consultative workshop, the second PPA was designed in close collaboration with UBOS. Indeed the selection of the sites covered during the PPA2 was undertaken in close consultations with UBOS. For example, one of the criteria used to identify panel sites was developed based on the Uganda National Household survey 1999/2000 (identification of well-off as well as poorer districts).

The PPA-2 to some extent included a quantitative data collection via a Village Census conducted by UBOS. This was an attempt to further support the need for linking up the quantitative and qualitative methods. The Village Census was conducted in 36 out of the 60 PPA-2 sites. The village census was a joint operation involving not only the implementers of the PPA-2 and UBOS but also other partner institutions. It aimed to collect quantitative data in the selected sites in 12 districts of Uganda where UPPAP was operating.

The objective was to provide information that would enrich and help policy makers understand better the poverty problem in Uganda and the effect of various government policies. More specifically, the study collected quantitative data that was used as summary data/information for the third cycle of PPA-2 in the 12 districts. In addition, it strengthened the complementary role of the two approaches and shed light on: the practicality of conducting two exercises as well as to highlight the relative position of villages on the national poverty map, to check the consistency of reports by villagers and local officials, and to expand some of the findings to a broader scale.

The implementation of the village census was undertaken immediately after the participatory studies had been completed in the selected sites. A complete enumeration of all the household members in the given site was undertaken and data analyzed. This formed the third part of the PPA-2 research effort.

To further strengthen the linkage between the quantitative and qualitative methods, the UNHS conducted since the first PPA have included questions that resulted from PPA findings. Such questions include governance, security, community level project implemented and whether they met the needs of the community to mention a few. It is important to note that participatory approaches may not quantify their findings but do provide a richer understanding of the inherent issues that are not easily captured in household surveys. Given the above background, there is need to maximize and link the analysis from each approach to shed more light at a much broader level (by including for instance PPA findings into national household surveys). It ought to be recognized that PPAs in Uganda will continue to be implemented as part of the poverty monitoring strategy. But the focus should be more on strengthening the analysis and reporting mechanisms between the quantitative and qualitative approaches.

5. *Concluding remarks*

The Government of Uganda remains committed to its poverty eradication plans. The PEAP that started in 1997 is now in its second revision phase. The experience gained

from the previous PEAP processes continues to shape the on-going revision. This revision has also greatly benefited from the wide range of analyses carried out by MoFPED, SWGs, and research institutions. Much of these analyses were based on the massive household survey data conducted by UBoS.

Unlike the national statistical offices in most SSA, the Bureau has done a commendable work of producing frequent nationally representative household surveys, which continue to be a key data source for the analysis and monitoring of welfare in Uganda. However, all these efforts would not have been possible without the financial support provided by the World Bank and Government of Uganda. Similarly, the participatory poverty assessments have helped to incorporate the voices of the poor into the national planning and policy formulation. Evidence of poverty from these two approaches has played a key role in informing and shaping the on-going PEAP revision. This suggests that the complementarity dimension that exists between these two approaches should be strengthened.

UBoS has massive data for informing the PEAP that remains unanalyzed. For instance, the issues of vulnerability have not been extensively covered in the PEAP. An attempt was made to capture some element of vulnerability in the 1999/00 survey and not repeated in any other survey. Even with information in a single cross-section survey not much analysis has been carried out to inform the PEAP and other policy processes. On the other, non-Ugandans have dominated the poverty analysis work especially on poverty trends. It was only recently with the UNHS-2 that EPRC participated in this analysis. There is need to strengthen in-country capacity building in data management and poverty analysis. It is our hope that the on-going data archiving exercise at the Bureau will improve utilization of the massive household survey data by local researchers.

The PEAP process has to some extent managed to bring policy makers, UBoS, academicians and research institutions together. However, there is need to strengthen the network for the production of policy relevant research to feed into the policy process especially the PEAP process.

The M&E in the PEAP proposes a range of indicators from input to impact indicators. As much as these indicators are necessary for the M&E process, the data demand is enormous and the financial implications are yet to be ascertained. Regular surveys are required and if possible inclusion of a panel element. There are also indicators suggested at the level of the district and sub-county. There is a limit with which the household surveys can provide representative data. This seems to demand for too much. Conversely, regular production of all the proposed indicators requires strengthening the capacity of UBoS' human, financial and technical resources. UBoS has the human resource to undertake the collection of the required data and is currently developing a long-term household survey programme that will address the data needs of the country in general. As previously discussed, we are not aware of any studies that have critically assessed the methodological approach and actual implementation of all surveys conducted by UBoS. We recommend financial support for such analyses, as they will be very instrumental in informing the on-going development of the programme.

The dissemination of the household survey data by UBoS is just the first stage in data analysis. Research institutions like EPRC should undertake detailed policy relevant analyses. More capacity in data management and analysis should be developed to fully maximize the utility of the existing datasets. PADI should support the analysis

efforts and initiatives originated by the local researchers to further promote capacity in poverty analysis.

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Appendix 1: Details of the household surveys since 1989

Survey	Start	End	Duration	In-survey	Modules	Sampling frame	Sample design	Geographical coverage	Representation	Panel element	Dissemination
HBS	Apr-89	Mar-90	12			Non-existent		Kumi, Soroti, Gulu, Kitgum, Kotido, Lira & Moroto			Feb-91
IHS	Mar-92	Mar-93	13	23	Socio-economic; informal sector; and community module.	Used the list of enumeration areas prepared for 1991 Population Census, along with maps and data on the number of household & their corresponding population	Two-stage stratified sampling for mapped districts; three stage design for the unmapped districts. Stratum as district with some further sub-stratification within	Entire country, however a few parishes in the districts of Karamoja, Kabale, Kisoro & Kasese could not be covered due to insecurity at the time.	National, regional, rural/urban	No panel	Vol. 1 on 01/01/1994: Vol.2 Feb 1994: Vol 3 in Sep 1994
MS-1	Aug-93	Feb-94	7	4	Socio-economic and community module.	same as above			National, region	Yes, in half of EAs from the previous survey	Vol. 1 on 01/09/1995: Vol. 2 on Jun 1996
MS-2	Jul-94	Jan-95	7	4	Socio-economic & diagnostic crop survey. No community module	same as above	As above with some modifications to take care of the Diagnostic Crop Survey	Entire district of Kitgum and a few parishes of Kotido, Moroto, Kisoro and Kasese not covered.	National, region	Yes, in half of EAs from the previous survey	Vol.1 on Jun 1997; Vol 2 on Dec 1997

Survey	Start	End	Duration	In-survey	Modules	Sampling frame	Sample design	Geographical coverage	Representation	Panel element	Dissemination
MS-3	Sep-95	Jun-96	10	7	Socio-economic, crop farming and community	Same as above	Same as MS-2	Kitgum & some parts of Moyo districts not covered	National, region	Yes, in half of EAs from the previous survey	Vol. 1 Dec 1997
MS-4	Mar-97	Nov-97	9	8	Socio-economic, pilot labour force, community	same as above	Similar to those of the MS.	Entire districts if Kitgum, Bundibugyo, Kasese not covered and only urban areas were covered in Gulu district	National, regional, rural/urban, some districts including Mpigi, Iganga, Mbale, Kabale, Masindi, Gulu & Lira	No panel	May-00
UNHS-1	Aug-99	Jul-00	12	20	Socio-economic, crop farming and community	same as above	Same as for previous surveys	Districts of Bundibugyo, Kasese, Gulu & Kitgum not covered due to insecurity	National, regional, rural/urban, some districts including Mpigi, Iganga, Mbale, Kabale, Masindi, Gulu & Lira	Panel linked to IHS	Jan-01
UNHS-2	May-02	Apr-03	12	21	Socio-economic, labour force, informal sector and community	The list of Enumeration Areas based on the cartographic work for the 2002 Population and Housing Census		Entire district of Pader not covered and some of the EAs in the districts of Kitgum & Gulu	National, regional, rural/urban, some districts including Wakiso, Mukono, Masaka, Mbale, Mbarara & Lira	No panel	Nov-03

Appendix 2: Other surveys and Census, 1988-2003

Survey Round	Dates	Sampled Households
<i>i) Based at the household level</i>		
Uganda Demographic & Health Survey (UDHS-1)	Sep. 1988 – Feb. 1989	4,370
Uganda Demographic & Health Survey (UDHS-2)	Mar. 1995 – Aug. 1995	Women 15 - 49 7,070 Men 15 - 54 1,996
Uganda Demographic & Health Survey (UDHS-3)	Sep. 2000 – Mar. 2001	Women 15 - 49 7,246 Men 15 - 54 1,962
National Service Delivery Survey (NSDS)	Feb. 2004 – Mar. 2004	18,000
<i>ii) Censuses</i>		
Population and Housing Census	1991	All households
Population and Housing Census	2002	All households