



Government of The Gambia

**METHODOLOGY OF THE ANALYSIS
OF THE
THE GAMBIA
INTEGRATED HOUSEHOLD SURVEY 2003 / 2004**

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FOREWORD

The 2003/04 Integrated Household Survey (IHS) is the first of its kind ever conducted in The Gambia. The survey lasted for a period of more than one year to take into account the seasonal variations. It covers approximately 4,600 households randomly selected based on probability proportional to size across the 8 Local Government Areas (LGA) of the country.

The primary objectives of the study were to monitor the determinants of poverty and its dynamics, provide the Gambia Government and other policy makers and planners with the necessary socio-economic data for poverty monitoring and policy formulation, to rebase as well as provide weights for the Consumer Price Index (CPI) and to provide the necessary data to update the System of National Accounts (SNA) that will eventually lead to the move from SNA 1968 to SNA 1993.

As such the outputs of the IHS include five reports namely: the poverty analysis, consumption of Gambian households, living standard analysis, the 2004 National Consumption Price Index of The Gambia and the methodology of the analysis.

I hope the different reports of the IHS will meet the data requirements of all stakeholders, especially the Strategy for Poverty Alleviation Coordination Office and the Department of State for finance and Economic Affairs.

ALIEU S.M. NDOW

STATISTICIAN GENERAL

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Lastly, and by no mean the least, I thank all respondents for sharing their time to furnish us with the requisite information.

ALIEU S.M. NDOW

STATISTICIAN GENERAL

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Executive Summary

This volume presents the methodology of the analysis of the integrated household survey of the Gambia. It can be used as a reference for the volumes of results of this survey.

1. Introduction

After years of efforts, the data of the integrated household survey of The Gambia (IHS) are now entered and partly cleaned, organized and analyzed. The Capacity Building and Economic Management Project (CBEMP) has been assisting the IHS analysis.

The primary aims of the survey were: ‘(a) to provide identification of policy target groups; (b) to provide a mechanism whereby key poverty indicators can easily and regularly be produced in order to describe and monitor the well-being of different categories of households; (c) to provide some key data on how the economic policies affect the availability and quality of social and economic services to households, both as

producers and consumers of products; (d) to collect data relating to such topics as health, education, employment, nutrition, agriculture, non-farm enterprises, governance, etc; (e) to derive consumption patterns of households; (f) to identify individual items which should be included in the consumption basket; (g) to determine the income groups for whom the index will be computed. Once the data is collected, CPI could be compiled for different income brackets from the same survey results; (h) to derive nationwide CPI as opposed to the current Banjul and environs CPI’.

In our past report¹, we proposed the following interpretation of these aims into a few priorities among which:

1. Analysis of household consumption at aggregate level and for sub-populations.
2. Poverty analysis including a poverty profile.

In this report, we present the main methodological tasks undertaken for the first published analyses that include the above priorities.

2. The Data Treatment

a. The survey and the data files

¹ Muller 2004a.

The collection started in January 2003 and ended in May 2004. Many households have been surveyed with delays and during fewer days than initially scheduled.

The initially scheduled sample size was 4 800 households. About one third of the surveyed population was in urban areas. Each enumerator surveyed 40 households in two EAs at each quarter.

Three questionnaires (Part I: Household questionnaire; Part II: Household consumption and expenditure questionnaire; Part III: Settlement information form) and one long form (daily record form) were administered. As a short-hand, I mention this set of survey supports as ‘the questionnaire’.

The daily diary questionnaire used to record current expenditure was administered to half of the sample. For this sub-sample, i.e. 2400 households: the daily diary questionnaire should have been administered during one full month. However, in practice for more than half of this sub-sample the diaries were administered during a varying shorter period due to many problems met in the collection.

Own-produced consumption and consumption received as a transfer were recorded by interviews. They were directly valued by the enumerator.

The basic organisation of the database of the entered data is as a set of SPSS Section files at EA level that can be allocated to Part I, Part II, Part II and Daily Diaries. Then, the

elementary data have been aggregated at person level, household level or cluster level to provide characteristics that can be used for microeconomic and aggregate analyses.

37 basic section files are now available:

24 for Part I, 20 for Part II, 2 for Part II and 3 for the Daily record form.

The list of the section files is the following:

Part I:

Section 0: Household particulars;

Section 1: Household rosters;

Section 2: Health for all household members;

Section 2a: Health expenditure;

Section 2b: Physical handicap;

Section 2c: Fertility;

Section 3: Education and literacy;

Section 3a: Education expenditure;

Section 3b: Non-formal training and literacy;

Section 4: Employment;

Section 5a: Crop production;

Section 5b: Livestock;

Section 6: Non-farm enterprise;

Section 6a: Assets of non-farm enterprise 1;

Section 6b: Income and expenditure of non-farm enterprise 1;

Section 6c: Assets of non-farm enterprise 2;

Section 6d: Income and expenditure of non-farm enterprise 2;

Section 6e: Assets of non-farm enterprise 3;

Section 6f: Income and expenditure of non-farm enterprise 3;

Section 7: Housing;

Section 8: Environment;

Section 9: Perception about poverty;

Section 10: Governance;

Section 11: Anthropometry;

Section 12: Respondent to the second round.

Part II:

Section A: Baseline data;

Section B: Household characteristics;

Section C: Household durables;

Section D: Average monthly household income;

Section E: Expenditure on clothing and footwear during last 3 months;

Section F: Expenditure on housing, fuel and power during last 3 months, expenditure on furniture and furnishing during last 12 months;

Section G: Expenditure on household equipment;

Section H: Expenditure on health during last 3 or 12 months;

Section I: Expenditure on transport during last 3 or 12 months;

Section J: Expenditure on leisure, entertainment and cultural services last 12 months and last month;

Section K: Expenditure on education during last 3 or 12 months;

Section L: Expenditure on hotels, cafes and restaurants during last month;

Section M: Expenditure on miscellaneous goods and services during last 3 or 12 months;

Section N: Non-consumption expenditure during last 12 months;

Section P: Receipt from sale of used items;

Section Q: Miscellaneous income and expenditure;

Section R: Transfer payments made by household;

Section S: Transfer payments received by household;

Section T: Household expenditure summary.

Part III:

Section i: Village demographic information;

Section ii: Socio-economic institutions/facilities.

Daily Record Form:

Section D1: Purchases;

Section D2: Consumption of own produce;

Section D3: Consumption of other acquisition.

From these elementary files many analytical SPSS and Stata files have been constructed.

b. The data situation

The collection and the data entry had been completed when the mission began. However, the data cleaning, preparation and organisation had not been finished and the data were not ready for the analysis.

A technical assistant was contracted during the summer 2005 to undertake data preparation with the ultimate objective of producing data analysis files, using the survey data, following the recommendations in the past reports related to the data treatment of the IHS. The list of tasks was the following and overlaps CSD work program in the past year.

“

- a. To create ancillary databases which will be used in the calculation of household indicators.
- b. Updating the nomenclature of products, correct possible remaining mistakes and to regroup the categories to obtain comparable consumption shares in each aggregated category. This implies in particular to disaggregate the big “Food Category”
- c. Designing and implementing the checks and controls of data file that are the outputs of data entry. The following types of checks are expected:

- a. Valid codes and range for each variable
 - b. Completion of records entered for each section files
 - c. Intra-record consistency of variables
 - d. Consistency of records in the same section files
 - e. Consistency of records across different section files
- d. Recording the number of households in each surveyed EA by sample size and in each pseudo-stratum of households. These numbers can be obtained from the listings of households in each surveyed EA. They will be used for the calculus of the sampling weights for the post-stratified estimators.
- e. Organisation of section files from data entry into themes and study the possibilities of combining them.
- f. Constructing the ancillary data files: price data file, household characteristics, sampling weights.
- g. Standardisation of the measurement unit of the daily diaries and the construction of minimum and maximum range of estimated value for each product.
- h. Valuation of the non-valued records of consumption in the daily diaries and of the transaction records in the other section files.
- i. Aggregation of section files into the household consumption file with consumption indicators at the household level.”

Unfortunately, only item 3) was partially done in conditions usable at the beginning of our mission. The rest of the tasks either had not been carried out or the output was in a state totally unsatisfactory. Reluctantly, we had therefore to redo this work from the start, which occupied much of the first weeks of the mission in Alicante. Note however, that

item 8) was judged unnecessary by considering that the valuations already present in the questionnaire files were acceptable. Items 1) to 7) and 9) were executed in close collaboration with the CSD team visiting Alicante. Despite the accelerated speed of these treatments as compared to usual conditions in The Gambia, the large volume of data preparation delayed the proper data analysis by several weeks. Since these tasks have been described in part reports we do not present full details about them. However, the crucial and innovative aspects are commented in this report.

2.3. Installation and training of CSD staff

The mission was delayed several months by difficulties in obtaining Spanish visas by the visiting CSD staff. However, now that the correct procedure has been identified, possible future missions should start on time.

The mission started with the installation of the CSD staff in their workplace. They benefited from excellent working conditions, with their own office, computer and the support of the staff of the Departamento del Análisis Económico of the University of Alicante.

Training sessions on the use the software Stata have contributed to the capacity building to the CSD staff. However, it is clear that the main human capital accumulation took place through CSD staff being directly involved in a modern data analysis. We think that

the capacity of the CSD staff to execute data treatment for survey data has hugely improved. However, more practice is needed before this could reach autonomy for data analysis.

2.4. Basic checks

A final check of household identifiers and day identifiers has been carried out. These crucial variables are now in proper state in all the used files.

The issue of the extrapolation of the data from daily dairies for days of collection has finally been resolved satisfactorily. The main difficulty came from invalid collection dates in the daily diary files. For example in the past we had found that a quarter of the households seemed to have been surveyed over 32 days a month. This situation was revealed to have been damageable for the preliminary results. Now, 66 percent of the records correspond to households surveyed more than 26 days with the daily dairies (and never beyond 31 days), and less than 4 percent to households surveyed less than 9 days with the daily dairies.

The new information about collection dates has been used to construct new variables from the sampling database. This allowed the identification of the sub-samples of households available for estimation at the different quarters. We obtained a well-balanced distribution of collection days across the four quarters of 2003, and a denser presence of collection days in the first quarter of 2004. Also, the distribution of the surveyed

households across strata in each quarter now looks satisfactory and should enable the re-weighting of the sample into a representative sample for each quarter. Thus, estimation results could potentially be obtained for five quarters in the future.

We have investigated the seriousness of a 'fatigue effect' said to have occurred during the collection because of the daily diaries being implemented during almost 30 days for most households. It was believed that this long presence of enumerators along to households could have caused the surveyed households to under-report at the end of the survey period. Such presumed fatigue effect could be attributed to the tiredness of the household, the enumerator and even the supervisor. We have information on the identifier of these three persons to distinguish the possible source of the fatigue effect. If the fatigue effect is important, as it is often deemed to be with daily diaries, it may be useful for future surveys to reduce the duration of the implementation of the daily diaries and increase in parallel the sample size. For the present survey a redressing method using an exponential functional form as a function of the date of the survey starting from the first day of collection for the considered household could be used.

However, after correction of the data, we found that the fatigue effect in the IHS is in fact noticeably small when considered in terms of density of records. Most of this effect, if any, may take place through the abandon of households and in smaller number of collection days, an issue that is simply treated in the extrapolation coefficient to the year. This new picture of the collection situation arose from the correction of the collection dates that allowed us to measure the volume of transactions recorded for each sequential

day of the collection in any given household. We obtained the following table characterising the purchases recorded in the daily diaries over the six sequential periods of 5 days for each households.

5 days periods	Number of observed collection days	Mean recorded value by day
Days 1-5	12714	103.82
Days 6-10	10111	95.86
Days 11-15	8883	93.28
Days 16-20	7548	92.09
Days 21-25	7252	91.72
Days 26-30	6406	89.30
Total	52914	95.44

Similar features are obtained for the own-consumption data, and results by groups of products. Clearly there is a slight reduction in the mean value recorded per day across collection days. However, this effect mostly corresponds to a well-known ‘first-day effect’ with apparent over-reporting on the first day of the survey. When the first-day effect is discarded, the comparison of the five remaining periods does not elicit any significant reduction of the level of transactions across days.

The issue of survey fatigue is therefore far from the seriousness anticipated before the correction of the collection days and also far from what has been routinely found in the statistical literature about daily diaries (Glaude, 1983, Biemers et al, 1991). If anything, the use of daily diaries in The Gambia, in this respect, performed better than in other contexts.

In these conditions we believe that it is not worthwhile to introduce an extrapolation model to correct for the residual fatigue effect. Indeed, that would imply to create fictitious transactions for correcting an issue that does not seem to be really significant.

Note also that the smaller number of collection days across time is not necessarily the result of an abandon by the households since first some households have migrated during the survey and have not been surveyed after their migration, and second CSD decided to reduce the duration of the collection from one month to approximately two weeks at the end of the survey in some enumeration areas. Finally, households who have stocks may not purchase every day and may appear in the records as having been surveyed less than a month.

The ranges for prices checks have not been implemented. Because of problems with measurement units and lack of time, we chose not to carry on with these checks.

Outliers in Part II were still there at the beginning of the mission. We have carried out a complete check of these outliers. This problem has completely been solved.

2.5. The ancillary files

There are several ancillary files:

- a. The sampling database
- b. The price data base
- c. The household characteristics database
- d. The environment variables database
- e. Many intermediate consumption files

Some of these files should be completed along to the extension of the data analysis.

2.5.1. The sampling database

The sampling procedure was designed by CSD, which contributed to substantially lower the cost of the survey design. 4800 households have been drawn in the whole country. As a matter of fact, the whole country has been covered at every quarter of the survey. The sample scheme has two levels: enumeration areas (EAs) and households. The enumeration areas were drawn from the 2003 updated Census EA list. The listing of households in each EA has been updated by an enumerator for subsequent household selection. The drawing of EAs was stratified by rural-urban areas (12 strata + Banjul and

Kaninfig). 240 EAs have been obtained, consisting of 4 sub-samples of 60 EAs surveyed at each quarter. Households in protected areas were not surveyed (mostly military populations). No clustering has been done beyond the EA level.

Six teams made of 6 supervisors and 30 enumerators each were assigned to the different geographical locations. Each enumerator covered 40 households in two EAs by quarter. Among these 40 households, 20 households were selected (10 per EA) for whom the daily diaries were administered. In total the enumerators stayed 6 weeks in each EA.

Issues pertaining to the sampling scheme, its model, the estimators of totals and means, the estimators of the sampling standard errors are presented in Muller (2004b).

Half of the sample has been subject to the daily diary questionnaire used to record food expenditure. For this sub-sample, i.e. 2400 households: (1) the daily diary questionnaire also includes the records of all other expenses and (2) it has been administered during one full month. So, we dispose of a daily picture of the complete expenditure, including all the details needed for consumption analysis, for one month and each households of a large enough sub-sample.

2238 households have been used in the estimates because of missing questionnaires or missing values for the main variables of the analyses.

Two types of estimators for the means, totals and ratios, and their standard errors, have finally been considered:

1. The Horwitz-Thompson estimators weighted by the inclusion probabilities of selected and retained households for the poverty estimation. The inclusion probabilities are the product of the inclusion probabilities of the surveyed enumeration area in each stratum, by the conditional inclusion probabilities of the households in each enumeration area. The inclusion probabilities are corrected for missing enumeration areas and households.

The sampling errors are calculated using the classical estimators for a two-stage sampling scheme, modified to account for drawing without replacement not only for the drawing of enumeration areas, but also the drawing of households. The later corrections significantly reduce the estimates of the standard errors.

In many cases (mean per capita living standard, poverty rates), the Horwitz-Thompson estimators for the mean are combined in the form of 'ratio estimators' that have good properties for the estimation of aggregate statistics. However, the direct use of mean estimators would have provided close estimates in many cases.

2. A two-stage estimator incorporating some conditional post-stratification in the drawing of the households. This estimator is different from the typical post-stratified estimator where the post-stratification is applied at the first sampling stage. In contrast, we take advantage of new information collected for all drawn

enumeration areas: the household size of each household in the drawn enumeration area. The post-strata are defined as the population of small and large households, a small household being defined as having less than six members. This type of post-strata should perform well for consumption and poverty analysis, as typically consumption and living standard levels are correlated with household size. The corresponding sampling error estimator is more complex than the previous one as it accounts for the randomness of the post-strata used at the second stage.

After thorough comparisons and tests, we decided to retain only the first estimators for this set of results. This decision is supported by several reasons. First, in a few cases, no households or only one household had been drawn in one of the post-strata, which implied to slightly revise the definition of the post-strata for the corresponding enumeration areas. Second, in some cases the observed number of households in a drawn enumeration area has been found greater than the total number of households in this enumeration area from the survey census list. Also, many cases of small sample rates for households in post-strata would imply systematic account for small sample correction, a worrying feature if asymptotic statistics are used. Third, we are still in doubt about the statistics that we have been given about the number of households in each post-stratum of the drawn enumeration areas. After seeing many errors, we would like an additional check to be carried out before to use this method. Third, in the tests that we implemented, the two-stage post-stratification method only allow to gain about 10 percent in accuracy, a somewhat disappointing performance. Finally, we think we have detected an error in

the Stata command for implementing this approach. Since the Stata code for this command is not made available by the software seller, to correct it may require extensive programming, impossible in the short time of the mission.

However, we still believe that there is a potential for the post-stratified estimators for future analyses, notably in cases where small populations are studied and non-responses are important.

The selection of collection dates for each household could also be modelled as part of a more general sampling scheme to better account for the dispersion of collection durations within the studied sample of households. However, this aspect has not been pursued during this mission.

The sampling database has been constituted by aggregating information from the household roster in Section 1, information from the initial design of the sampling scheme, and some additional information from a special analysis of the census forms used for the implementation of the survey in each EA. This allowed the calculation of the sampling weights used for the estimations.

Meanwhile, extensive checks and corrections of the sampling database have been carried out during the mission.

The whole set of variables necessary for the calculation of the mean, total and ratio estimators, as well as the calculation of their standard errors, is now available in the sampling data base. These parameters are calculated for the different versions of the tables and statistics to produce, that is: by set of used questionnaires and by quarter or annual level, by type of sampling estimator. CSD is to document and provide description and labels for the variables of the database.

We validated these data by comparison with the known population statistics, at the strata and quarter levels.

In the tables, the standard errors can be used to derive asymptotic confidence intervals in the following ways. Let s be the estimated standard error of an estimated statistic m , for example a mean consumption estimate. Then, the asymptotic confidence interval is: $[m - q.s, m + q.s]$, where q is the chosen quantile of the standard Student distribution, asymptotically equivalent to the standard Normal distribution. Typically, at 5 % level (a measure of risk of making a specific error, said of 'Type I'), the confidence interval is about $[m - 1.96s, m + 1.96s]$, often approximated with $[m - 2s, m + 2s]$. Thus, the reader can easily deduced confidence interval for the published standard errors, if wished.

2.5.2. The price database

A price data base at EA level has been created in order to provide a source of information on prices faced by the households. The price data base is mostly filled with unit-value

information calculated from records of consumption purchases extracted from the daily diaries. A unit-value is a ratio of value over quantity for a given good, calculated from recorded transactions of this good in a household survey.

A major issue is that many measurement units are not well defined and may vary a lot across transaction records. Only a few products have been identified with known measurement units. In some cases, e.g. rice, some sociological specificity of the Gambia in 2003 could be used to derive the volume of traditional recipients (cups in the case of rice).

We first identified the products with records of consumption purchases such that: (1) there exist substantial information on values and quantities accompanied by a well-defined measurement unit; and (2) the product definition is precise, homogeneous and non-ambiguous. Products with a priori too much heterogeneity are eliminated.

For each of these products, we calculate the unit value of each purchase record as:

$$UV = \text{value} / \text{quantity, for a given normalised quantity.}$$

To allow for this calculation, each identifiable measurement unit (and the corresponding quantity) has been previously converted into a normalised measurement unit.

For each selected product, this sample of UVs is used to calculate for each enumeration area and quarter: the median, the mean, the standard deviation, the minimum, the maximum and the number of observations N.

The median is kept as a price indicator at the EA x quarter level if the number of observations N is greater than 10. Otherwise a missing value is entered.

This rule could be replaced by a more sophisticated statistical test (e.g. based on Kruskal-Wallis tests). Such development is in progress and may lead to a methodological note by CSD. In particular, nonparametric tests to distinguish mean or median at different aggregation levels can be used. In the case of these Gambia data it seems that all these tests should give similar results to the adopted rule as the samples of observations for each selected product is large and the dispersion of UVs is rather small.

The missing values of UVs are then replaced, for each selected product, by the median of the non-missing records of 'EA-quarter UVs' in the same quarter-LGA-Area, where Area denotes the dichotomy Urban/Rural.

The very few remaining missing values after this stage are finally replaced by the median of the non-missing records of 'EA-quarter UVs' at the national level for the same quarter.

At the end of this process, the price database contains means and medians of unit-values by EA, quarter and selected product. CSD is to document and provide description and labels for the variables of the database.

The price database has been used for the calculus of household-level price indices in order to control for spatial and intertemporal price variability. To this effect Laspeyres and Paasche price indices at the household level have been calculated. The weights of these indices correspond to the estimated total consumption structure of the surveyed households.

To account for the small number of products available in the price database, we have grouped the products in broad consumption categories. We use the available prices as 'representative prices' for each consumption category. The available prices are for the following products:

- (a) Bread (mainly two kinds of bread but the unit price determines the unit of measurement to be used).
- (b) Rice (the measurement unit of rice is either bag which is 50 kilos or cup which is standard across the country).
- (c) Sugar (idem as rice).
- (d) Maggi cube (unit of measurement is standard across the country).
- (e) Palm oil (has two or three measurement units, small and big cup, 20 litres container but again the unit price determines the unit of measurement).
- (f) Tea bags (measurement unit is standard).

- (g) Candles (measurement unit is standard).
- (h) Washing soap (measurement unit is standard based on the locally produced soap).
- (i) Salt (is sold in bags and cups, while the observed unit price assisted in providing an approximate unit of measurement).
- (j) Sardines (measurement unit is a standard tin).

These products approximately account for 28 % of the total budget.

The available prices are allocated as follows to the consumption categories in the definition of the Laspeyres index.

<i>Level 2 Classification</i>	<i>Available prices</i>
1 Bread	Bread
2 Clothing and footwear	Candles
3 Education	Candles
4 Household equipment	Candles
5 Housing, water and energy	Candles
6 Recreation	Candles
7 Transport and communication	Candles
8 Meat	Maggi Cube
9 Oils and fats	Palm oil
10 Cereals	Rice
11 Fruits	Rice
12 Green vegetables	Rice
13 Pulses	Rice
14 Tubers	Rice
15 Fish and Sea food	Sardines
16 Milk, Cheese and eggs	Sardines
17 Sugar and sweets	Sugar
18 Beverages	Tea bags
19 Hotels, Cafes and Restaurants	Tea bags
20 Tobacco and narcotics	Tea bags
21 Health	Washing soap
22 Personal care	Washing soap
23 Salt	Salt

Admittedly, the obtained price index is far from perfect. However, we still believe that it is better to use it than to omit price level corrections in the definition of living standard indicators. Indeed, for example variations of 400 per cent have been observed for the price of rice, the staple food, across some locations and quarters. It seems hard to advocate to neglect these variations altogether.

The living standard indicators at the household level are deflated by the household Paasche price indices. The Paasche index is a household price index where price ratios are weighed by the household consumption shares for the chosen categories. The price basis used to calculate the price ratios is the national mean price weighed by the sampling scheme. We choose to use the Paasche price indices rather than the Laspeyres price indices for two reasons. First, the mean (weighted by the sampling scheme) of the estimated Paasche price indices is closer to one than the corresponding mean for the estimated Laspeyres price indices. Then, using the Paasche index for estimating macroeconomic means with ratio estimators is likely to yield smaller aggregate bias. Second, as opposed to the Laspeyres index, the Paasche price index fully accounts for differences in consumption baskets across households, a point sometimes stressed by analysts for poverty measurement. We nonetheless note that the latter argument is exaggerated since both price indices can be shown to be interpretable as ‘true price indices’ representing the household preferences in two different price reference situations.

The new price indicators stored in the price database have also been used to improve the Engel curve estimation that is at the basis of the extrapolation of the poverty line.

Moreover, we used these new price indicators as explanatory variables in living standard equations.

Finally, the preliminary analysis of these Laspeyres and Paasche price indices by CSD can be seen as an exploration of the future CPI for The Gambia.

2.5.3. The household characteristics database

The household characteristics database includes, among other variables, variables describing the number of members in a variety of age and gender classes. Many other household characteristics such as demographic and education characteristics of the household head, and a few socio-economic characteristic have been incorporated in the database. To make the data treatment more manageable for CSD some of these variables have been left in secondary files and do not explicitly appear in the main file of the household characteristics database. CSD is to document and provide description and labels for the variables of the database

Progressively, other household characteristics will be included in the household characteristics database when the corresponding files and variables get cleaned. This process is to continue until the end of the analysis.

2.5.4. The environment database

A few environment variables have been constructed, notably: the distance of the household to the main highway and a dummy variable for the presence of a market in the sector where the household was surveyed. Much remains to be done to complete this file. CSD is to document and provide description and labels for the variables of the database.

2.6. Aggregation of files incorporating consumption information

2.6.1. The aggregation of the daily diaries

The consumption data from the daily diaries is based on the section files D1, D2 and D3.

To be able to exploit this information, we first converted the coding nomenclature of products into a nomenclature of products for the analysis (See the Appendix).

The database is rectangular with the following typical record:

Household identifier (incorporating location information) x quarter x product x quantity x value, completed by other variables that we omit.

Each record of the database aggregating the daily diaries is calculated by adding the values and quantities (converted into the same measurement unit) of all records in Sections D1, D2 and D3 for the same households and products.

In a second stage, these elementary transaction records are aggregated for all the levels of the nomenclature of products for the analysis.

To ensure that transactions not related to consumption were not used in the calculation of the consumption indicators, we systematically checked all transaction records of value above 500 Dalasis and eliminated the ones that did not correspond to consumption (e.g. construction expenditure).

2.6.2. A new nomenclature of products for the analysis

No nomenclature of products was used during the survey collection. The names of the consumed items were simply recorded by hand in the questionnaire without any coding being done. One simple way to proceed from there was to ask an enumerator to fill in the usual nomenclature of consumption functions at two-digit level with the products occurring in a sub-sample of questionnaires and to progressively allocate new codes to these products when necessary. This yielded a temporary nomenclature that was used for the coding. A preliminary nomenclature for the analysis was then derived from this list of codes.

We have revised the nomenclature for the analysis to better account for the differences in the relative importance in the Gambia of the diverse production categories and to account for what has been learned from the preliminary results.

The main problem encountered in designing this nomenclature is that a substantial proportion of the consumption records corresponds to vague statements about the nature of the consumed goods. In these conditions the definition of appropriate product nomenclatures is difficult and time consuming. After many trials we have ended up with three levels of product nomenclature that correspond to the presentation of the estimated tables. The corresponding categories are described in the appendix. The first level of the nomenclature is consistent with the SCN nomenclature of the consumption functions, which have been regrouped to account for insignificant categories. The second level of the nomenclature mostly provides a disaggregation of the food category, the bulk of consumption in The Gambia. The third level of the nomenclature is an attempt at isolating homogeneous products in the records of the survey. Only 26 homogeneous products (representing about 30 % of consumption) can be isolated in these data. More variants of product categories could be tried to exhaust the possibilities of consumption analysis from these data.

2.6.3. The extrapolation to the year

We inflated the sums of consumption records inversely proportionally to the observation period which is specific to each household. This allows us to produce household indicators for the year or for the quarter. For example for the calculation of consumption indicators based on the complete daily diaries administered 30 days, the consumption

value obtained for a given household by adding the values of the corresponding records is multiplied by 365/30 to produce a yearly consumption indicator for this household.

At this stage an additional issue arised. Because of collection problems, the number of days of collection for the daily diaries varies a lot across households. More than half of the relevant sample has been surveyed for less than 25 days, sometimes during only very few days. This situation could ultimately require more treatment than merely proportional scaling. Indeed, a rescaled estimate of consumption based on two days incorporates much more measurement uncertainty than a rescaled estimated based on 29 days, say. However, such a sophisticated treatment does not seem justified for the moment given the other issues encountered with these data.

For the data corresponding to the questionnaire 'Part II', the appropriate coefficients have been used to extrapolate the records of expenditure to the year for each type of expenditure. These coefficients can be easily recovered from the retrospective periods written in the questionnaire (See also below in Sub-section 2.6.5).

2.6.4. The issue of missing own-consumption and gifts

The records of own-produced consumption may be less accurate than the records for purchases, a usual situation. Moreover, they were directly valued by the enumerator who

may not have known well the local prices. This suggests paying special attention to this information in these data files.

We studied the records of own-consumption and consumed gifts from Sections D2 and D3. After the intensive data cleaning tasks of the last few months, these records appear as much more complete than initially. So, although they are certainly some omissions of records, the situation seems much more favourable to the direct use of these records and their aggregation to the records of purchases from Sections D1.

The omission of own-consumption and consumed gifts may have an important impact on consumption statistics, notably for rural areas. This is also important for CPI weights because of expected differences in the patterns of monetary consumption and own-consumption. Finally, this issue is especially worrying when assessing poverty because many poor in rural areas are believed to get some substantial part of their consumption directly from their own production or from gifts. Consequently, although we believe that the omission problem is much less serious than before the data cleaning, further study of these omissions may be useful to improve the data analysis.

Note that omitted remittances affect consumption analysis only when they are composed of products directly consumed by the receiving households, as opposed to monetary remittances that are not included in consumption indicators.

2.6.5. Matching the daily diaries with the retrospective questionnaire

The Part II (retrospective) questionnaire includes:

14. 3-month retrospective records for expenditure on clothing and footwear (39 items),
15. 3-month retrospective records for expenditure on housing, fuel and power (14 items),
16. 12-month retrospective records for expenditure on furniture and furnishing (11 items),
17. 12-month retrospective records for expenditure on household equipment (40 items),
18. 12-month or 3-month retrospective records for expenditure on health (23 items),
19. 12-month or 3-month retrospective records for expenditure on transport (15 items),
20. 12-month and 1-month retrospective records for expenditure on leisure and culture (16 items),
21. 12-month or 3-month retrospective records for expenditure on education (12 items),
22. 1-month retrospective records for expenditure on furniture and furnishing (2 items),
23. 12-month or 3-month retrospective records for miscellaneous expenditure (11 items).

The issue to be tackled was how to integrate the information collected using Part II with the daily records from the daily diaries. To resolve this question we have systematically compared the transactions recorded in the daily diaries and in Part II, for the different categories of consumption and the different quarters.

The main information used in the comparison is, for *a given product category, a given area (rural or urban) and a given quarter*: the mean consumption value per household,

the number of recorded transactions, the standard deviation of the recorded value per household.

We had in project to carry out statistical tests of comparisons of means, medians and distribution across questionnaires, but the available time did not permit it. This task could be carried out later on and lead to a CSD methodological note. However, direct comparisons of means provide a clear picture of the situation.

For food and a few categories of frequently purchased products (as the expenses for personal care), the daily diaries provide higher consumption means per household. For the other categories of non-food expenditure the Part II questionnaire unambiguously corresponds to the higher means. This comparison is qualified by checking that the questionnaire with the highest recorded mean also corresponds to a large number of households with positive consumption (at least 500 households) and a large number of recorded transactions for the considered product category, area and quarter. Thus, accuracy and representativity are not sacrificed to reduction of measurement errors. The gap between the two types of means in each case is so large that if one believes, as it is usual, that the main problem in the survey process is the omission of transactions, then the rule to integrate the questionnaires is straightforward as follows.

The information for food consumption and a few non-food frequent expenses (personal care, small health expenses, transport services, recreation and sporting services) is taken from the daily diaries, adjusting for the collection duration to extrapolate to 365 days.

The information for the other non-food categories is taken from the Part II questionnaire, extrapolating to 365 days by using the correct coefficient for the considered category in Part II.

We believe that the integration of Part II and daily diaries substantially improves the quality of the household consumption indicators in part because there are always been some doubts about the capacity of daily diaries in this survey to capture correctly the non-food expenditure. Indeed, the non-food expenditure had been previously recorded in Part II before the use of daily diaries and the later had been especially discussed with enumerators as an instrument mostly useful for collecting information on food consumption. This meant that enumerators and controllers seemed to have often been led to think that only frequent expenses and food consumption were important when using the daily diaries. Our interviews with enumerators and controllers have reinforced this impression.

However, another possibility that we should mention is that some ‘telescopic effect’ may have dominated the omissions in the use of the retrospective questionnaires and generated overestimation of consumption from Part II². We surveyed the statistical literature on this topic and found that in the huge majority of cases, retrospective questionnaires are characterised by a more serious problem of omissions than a problem of telescopic effect. Then, our procedure is supported by the general findings in the literature. Moreover, as an additional check, we tried to rely only on daily diaries to estimate the proportion of the

² That is: some recorded transactions may belong to a period preceding the reference period of the questionnaire.

poor in the country. This yielded poverty rates well over ninety percent, an unrealistic figure.

A final argument for the integration of Part II and daily diaries is that even if the mean recorded consumption had been higher with the diaries, the frequency of observation for most non-food consumption is low in these diaries covering only a period of one month. Then, when extrapolating to one year one would lead to surveyed households that would look artificially too poor (when they happen not to have done some infrequent transactions at the time of the survey) or artificially too rich (when they happen to have done such transactions). This would generate outliers in the sample of household consumption indicators that would severely affect most poverty and inequality measures, which are known not to be robust to outliers.

2.6.6. The final household consumption indicators

Once the data had been checked and regrouped using SPSS, we converted the data files into Stata format. The analysis was done using the software Stata. The description of the analysis files is to be provided by CSD.

2.6.7. The estimators of consumption means and totals

We use various total and mean Horwitz-Thompson estimators corrected for small sample bias at the two levels of sampling. These estimators have been presented in past reports (Muller, 2004b).

A two-stage post-stratified estimator has also been developed that could bring slightly better accuracy. It may be of use for subsequent analyses.

3. Methods for Poverty Analysis

3.1. The Poverty Measures

Our estimates are much based on the Foster-Greer-Thorbecke poverty measures (Foster, Greer and Thorbecke, 1984). We especially focus on P_0 , the *head-count index*, which corresponds to the percentage of the poor, and on P_2 , the poverty severity index that accounts for the inequality among the poor.

$P_0 = \int_0^z dF(y)$, where F is the cumulative density function (cdf) of the personal living standard (y) distribution and z is the poverty line.

$P_2 = \int_0^z (1 - y/z)^2 dF(y)$. The Watts index satisfies the monotonicity, transfer and transfer sensitivity axioms, and is decomposable.

P_1 is the poverty gap index and shows the share in total value of the living standards that should be theoretically reallocated to eliminate poverty: $P_1 = \int_0^z (1 - y/z) dF(y)$. This index satisfies the monotonicity axiom, the transfer axiom, and the sub-group monotonicity axiom and is decomposable.

The Watts poverty index, introduced by Watts (1968), is $W = \int_0^z -\ln(y/z) dF(y)$. P_2 and W provide less intuitive statistics than P_0 , but they account for the severity of poverty among the poor, which is not the case for P_0 and P_1 .

Thus, poverty is estimated using classical indicators that can be seen as means of individual poverty functions. Indeed, our poverty measures can all be written as

$P = \int k(y, z) dF(y)$, where k is the kernel function describing the poverty severity for living standard y with poverty line z , and F is the cdf of living standards. The individual poverty functions, $k(y, z)$, are therefore the following ones:

- (1) For P_0 : $I(y < z)$, which is the dummy variable identifying the poor. As mentioned above, variable y is the individual living standard and z is the poverty line.
- (2) For P_1 : $I(y < z) \cdot ((z-y)/z)$.
- (3) For P_2 : $I(y < z) \cdot ((z-y)/z)^2$.
- (4) For W : $-I(y < z) \cdot \ln(y/z)$.

In these conditions, the estimator of the poverty measure is the following, based on ratios of the classical Horwitz-Thompson sampling estimator of the mean:

$$\hat{P} = \frac{\sum_{s=1}^n POND_s HHS_s k(y_s, z)}{\sum_{s=1}^n HHS_s POND_s} ,$$

where $POND_{st}$ is the sampling weight of surveyed household s ($s = 1, \dots, n$) and HHS_s is its household size.

Using the cdf of personal living standards while only household are observed implies to weigh the function in the integral by the household size (or by the adult-equivalent scale when used in the definition of the living standard variable³). The introduction of household size weighing justifies the use of ratio estimators. Simpler Horwitz-Thompson sampling mean estimators provide qualitatively similar results. We also estimate sampling errors for poverty indicators. The sampling estimators are discussed in Muller (2004b, 2006). The estimators have been validated by checking subpopulations for each stratum.

3.2. The Poverty Lines

³ See Ebert and Moyes (2003).

3.2.1. The past poverty lines and the inflated poverty lines

A few poverty analyses have already been carried out in The Gambia, notably based on the two previous consumption surveys of 1993 and 1998. The poverty lines estimated in The Gambia (from surveys in 1989, 1993 and 1998) have already been criticized (The Republic of The Gambia, 2002). However, they bring a natural comparison benchmark.

An ILO study (“Poverty in The Gambia”, 1992) established the first poverty line in the Gambia. It was based on a minimum food basket to reach energy requirements per age-gender adult equivalent. In the report of the 1993 survey, it is stated that “The ILO study selected households with a food consumption per adult-equivalent unit corresponding roughly to the food poverty line... Rural households spending 75 to 125 Dalasi per month per adult-equivalent unit were selected and the food poverty line for rural households was 100 Dalasi per month per adult-equivalent unit. These households spend 25 Dalasi per month per adult-equivalent unit on non-food items.” Therefore, the poverty line for rural household was established at 125 Dalasi. The same procedure for urban households led to a poverty line of 186.50 Dalasi. Unfortunately, the ILO study has been lost and is no longer available in the Gambia or on ILO web site.

Then, in the report of the 1998 survey, there is an updating of the 1992/93 poverty line using the price index for the food basket used (some cost is calculated for this food basket which has seven categories). Therefore, it seems that the 1993 (and 1998) poverty lines

have been obtained by merely updating an ad hoc price index for the poor, which unfortunately is excessively determined by the price of the fish item (represented by barracuda, an expensive food item). Moreover, the vegetable used in the ILO study price index cannot be identified.

Several shortcomings appear in the way past poverty lines have been calculated. First, the definition of the population on which the poverty line is anchored, by using consumption baskets, seems too broad to accurately characterise the households with living standards around the expected poverty line. This may have produced bias in that the consumption structure for rich or excessively poor households may have unduly influenced the calculus of the poverty line. Second, the non-food part of the poverty line was calculated by using a proportional rule which may have distorted the important roles of household income, other household characteristics and prices in determining non-food expenses. In particular, income effects were ignored for extrapolating the non-food poverty line. Using more flexible food demand estimates helps us for correcting for an insufficient account of the heterogeneity of expenditure allocation across households. Third, the price correction was inaccurate and based on non-representative products. For example, the price of barracuda in Banjul, a luxury fish, was used as representative of the whole fish category. Fourth, insufficient stratification prevented to account for regional and temporal variations in consumer baskets. Consequently, we have designed and carried out a new methodology for the calculus of the poverty line. This is important because most of the results of the poverty analysis crucially depend on the level of the poverty threshold.

We found additional deficiencies in the calculation of the poverty line in 1998. First, this poverty line was calculated using the 1993 consumption structure. It would have been more consistent to use the 1998 consumption basis. Moreover, the price data used to calculate the 1998 poverty line only covers about one month in 1998 instead of one year for the price data used in 1993. Finally, the inflation correction with the inflated 1993 poverty line was far from perfect. Indeed, the used price index weight have been criticized and the price index only covers the Banjul area.

It seems that the excessively low level of the 1993 and 1998 inflated poverty lines comes from the fact that they are themselves inflated from a 1989 poverty line of which accurate definition has been lost, but is based on the cost of a fixed basket of consumed items. This is particularly worrying for several reasons. First, the information that we could gather about the 1989 poverty line (from a document by ILO in 1992) suggests that its empirical basis is weak. Indeed, only a very local survey was implemented (by UNICEF) to produce this 1989 poverty line and the stated consumption basket is based on too few products to be credible. Second, it seems that the measurement units for consumption records were not properly measured both in 1993 and 1998 surveys. So, it is difficult to believe that proper adjustment for inflation anchored on the cost of a typical basket has been done if the quantity information is in fact missing in these surveys. We met the same difficulty with the IHS data, which we solve by anchoring the poverty line on the calorie price of a few well observed basic food products.

Because the complete IHS consumption data was not ready to allow us to estimate a specific poverty line for 2003, we chose in the past to consider the inflated 1993 and 1998 poverty lines by sector for preliminary results (Muller, 2004a). That is: the national price index of the Gambia (in practice a Banjul price index) was used to convert the poverty lines used in the past surveys in the different domains (Banjul and Kanifing, Other Urban, Rural).

Our inflation of the 1993 and 1998 poverty lines based on adult-equivalent scales was implemented as follows. The 1992 poverty lines (per adult-equivalent) were D 2443 for Greater Banjul, D 2404 for Other Urban areas, D 1777 for Rural areas. The 1993 poverty lines (per adult-equivalent) were D 3789 for Greater Banjul, D 3108 for Other Urban areas, D 2756 for Rural areas. Finally, the 1998 poverty lines (per adult-equivalent) were D 5538.78 for Greater Banjul, D 3898.15 for Other Urban areas, D 3087.55 for Rural areas. Therefore, the conversion using the Banjul price index yields the corresponding poverty lines in 2003 Dalasi:

- Inflated 1993 poverty lines (per adult-equivalent): D 3789 for Greater Banjul, D 3108 for Other Urban areas, D 2756 for Rural areas.
- Inflated 1998 poverty lines (per adult-equivalent): D 7455 for Greater Banjul, D 5246 for Other Urban areas, D 4155 for Rural areas.

Note that we prefer poverty lines per capita that need to be calculated from the poverty lines per adult-equivalent. We now indicate explicitly the detail of the calculus of the inflated monthly poverty lines obtained by inflating the 1993 and 1998 poverty lines,

using the Banjul CPI. The inflation correction is based on June. We first calculate poverty lines correspond to living standards calculated in terms of adult-equivalents.

We obtain for Greater Banjul 1993: $z_1 = D (2443/12) * (1 + ((2006.21 - 1293.44) / 1293.44))$
= D 315.77 per month = D 3789 per year.

For Other Urban 1993: $z_2 = D (2004/12) * (1 + ((2006.21 - 1293.44) / 1293.44)) = D 259.02$
per month = D 3108 per year.

For Rural 1993: $z_3 = D (1777/12) * (1 + ((2006.21 - 1293.44) / 1293.44)) = D 229.68.$

For Greater Banjul 1998: $D z_4 = D (5538.78/12) * (1 + ((2006.21 - 1490.3) / 1490.3)) = D$
621.34 per month = D 7455 per year.

For Other Urban 1998: $z_5 = D (3898.15/12) * (1 + ((2006.21 - 1490.3) / 1490.3)) = D 437.30$
per month = D 5246 per year.

For Rural 1998: $z_6 = D (3087.55/12) * (1 + ((2006.21 - 1490.3) / 1490.3)) = D 346.36$ per
month = D 4155 per year.

Then, the corresponding poverty lines for indicators per capita are obtained by multiplying these lines by the ratio (6.56/8.61) of the mean household equivalent-scale over the mean household size. We obtain:

For Greater Banjul 1993: D 24058.

For Other Urban 1993: D 19734.

For Rural 1993: D 47340.

For Greater Banjul 1998: D 47340.

For Other Urban 1998: D 33318.

For Rural 1998: D 26389.

If wished, exchange rate data can be used to convert those poverty lines into other currencies: (for 3 February 2003) 24.29 Dalasi for 1 US\$ and 24.73 Dalasi for 1 Euro.

Although, a lot of energy has clearly been put in past analyses, more progress is clearly needed for the methodology to define the poverty lines in the Gambia.

3.2.2. The new poverty lines

3.2.2.1. The general method

A large literature deals with the construction of poverty lines in Less Developed Countries⁴. However, the technique for updating the poverty line is a question that has not yet reached a consensus among researchers. In this report, we adapt the method promoted by Ravallion (1998) to a situation of missing data for food quantities and using robust extrapolation methods. The poverty line is calculated to correspond to the situation of 2003. We first describe the estimation of the food component for the new 2003 food poverty lines. Then, we explain the extrapolation step taken to produce the final poverty lines.

⁴ Greer and Thorbecke (1986), Calan and Nolan (1991), Ravallion and Bidani (1994), Ravallion and Sen (1996), Barrington (1997), Ravallion (1998).

The poverty lines are based on the a priori choice of a reference group (RG) selected in such a way that the living standards of the households in this group are close to the expected poverty line. Although some arbitrariness is unavoidable in the choice of the RG, one is constrained in this choice by the requirement that very poor households and rich households be excluded from this group.

We calculate specific poverty lines for the three following domains: Banjul and Kanifing; Other Urban areas; Rural areas. We choose to isolate Banjul and Kanifing together because they share higher population densities and similar catering sources. Dividing the country in this way allows us to better account for varying tastes, prices and catering situations across these domains. For each domain, we estimate lower and higher poverty lines for 2003. Z^L denotes the lower poverty line. Z^U denotes the upper poverty line.

The method we wanted to apply for the estimation of the *new poverty lines* was in nine steps, all based on sampling estimators.

3. We choose a reference group whose living standard is close to the expected poverty line, for each domain j ($j = 1, \dots, 3$).
4. We define calorie requirements for households in this reference group in each domain j : CR_j . For this, we estimate the average household size, S_j , the average adult-equivalence scale (and other average household characteristics) for the reference group. The calorie requirement for a young adult male is chosen at 2700 kcal per day, to account for activity levels consistent with work. It is divided by the mean household size and multiplied by the mean equivalence scale. The latter adjustments

allow us to account for nutritional requirements increasing by age and gender of household members.

5. We estimate the mean composition structure of consumption for the reference group and the mean composition structure of food consumption, in value.
6. We estimate the value of the mean food consumption for the reference group in each domain j , V_j .
7. Converting the data on consumption quantities, we calculate the calorie level of the mean food consumption for the reference group in each domain j , C_j .

Then, we estimate the calorie unit-value, or ‘calorie price’, for the reference group in each domain j , $CUV_j = V_j/C_j$. *In practice, as we shall explain later, the steps (4) and (5) will need to be adapted because of missing data for food quantities.*

8. We calculate the food poverty line, z_j^F in each domain j as the estimated value of the calorie requirement for each domain j .

$$z_j^F = CUV_j CR_j = (V_j CR_j)/C_j.$$

9. We estimate the demand function for food for the group of reference in each domain j . The model is the following.

$$s_{ij} = \alpha_j + \beta_j \ln(x_{ij}/z_j^F) + \gamma_j [\ln(x_{ij}/z_j^F)]^2 + (N_{ij} - N_j^r)' \delta_j + (\logPrice_{ij} - \logPrice_j^r) \varphi_j + \varepsilon_{ij},$$

where α_j , β_j , γ_j , δ_j , φ_j are parameter vectors to estimate, s_{ij} is the food share (in percentage) of household i in its total consumption in domain j , x_{ij} is the per capita consumption of household i in domain j , N_{ij} is a vector of household and environment characteristics in domain j and N_j^r is the corresponding vector of mean characteristics for the reference group in domain j , \logPrice_{ij} is a vector of logarithms of prices facing household i in domain j , \logPrice_j^r is the corresponding vector for the reference group.

Finally, ε_{ij} is an error term. These demand equations are consistent with the Quadratic Almost Ideal Demand System proposed by Banks et al. (1997), where unobserved environment and household characteristics are ignored.

10. From these estimates, we extrapolate the lower poverty line for each domain j : $z_j^L = z_j^F (2 - \alpha_j)$.

A few comments are useful to clarify this calculus. The lower poverty line (Z^L) corresponds to households who can just afford to meet their nutritional requirement. The calculus of the lower poverty line is based on two subjacent assumptions: (1) basic non-food needs are satisfied before basic food needs; (2) both food and non-food are normal goods once survival needs are satisfied. Under these conditions, let us denote $f_j(y)$ the food spending for an income level y in domain j and let z_j^{NF} be the non-food poverty line in domain j (i.e. the complement of the food part in the budget of a 'just poor person'). The lower poverty line in domain j is $z_j^L = z_j^F + z_j^{NF}$. Consider a person such that $y = z_j^F$. Under the chosen assumptions, anything that this person spends on non-food is considered to be a minimum allowance for basic non-food needs since the person gave up basic food needs. Then, a minimum allowance for non-food basic needs is $y - f_j(y) = z_j^F - f_j(z_j^F)$. Thus, the total poverty line is $z_j^L = z_j^F + z_j^F - f_j(z_j^F) = 2z_j^F - f_j(z_j^F)$. If the food demand equation is as above, one obtains for domain j : $z_j^L = z_j^F (2 - \alpha_j)$.

(9) The upper poverty line is the solution of the food demand equation where the food share is made equal to the food poverty line and the unknown variable takes the place of

x_{ij} . To be explicit: the upper poverty line, z_j^U is obtained by solving in z the following equation, separately for each domain j : $z_j^F/z = \alpha_j + \beta_j \ln(z/z_j^F) + \gamma_j [\ln(z/z_j^F)]^2$.

In practice, the solution is numerically obtained by iterating the method of Newton. The upper poverty line (Z^U) corresponds to households that actually meet their nutritional requirements.

3.2.2.2. The new poverty line: practical estimation

We now discuss the practical estimation of the food poverty lines for each domain. The reference group (RG) chosen to anchor the 1998 poverty lines is the set of households belonging to quintiles 2, 3 and 4 of the per capita real consumption. The RG is broadly representative of the population of households around the calculated poverty lines. It corresponds to substitutions between food and non-food consumption that are consistent with observations of actually satisfied food minima. Restricting the estimation of the food share equation to the RG mostly excludes extremely poor households and rich households, as well as outlier households whose observations are affected by measurement errors. The choice of a broad RG is justified by the necessity of getting sufficient sample sizes for each domain to ensure an accurate estimation of the food equation share.

The recommended calorie needs are 2700 calories per day per person and correspond to what is typically used to account for moderate household members activities (FAO/WHO/UNU, 1985, ICMR, 1981). We extrapolate this figure using the ideal weights of the household members, which are calculated from their age and gender. The equivalence scales used for the 1998 survey have been used to carry out this calculus. The mean recommended needs are estimated for each domain and each reference group because they correspond to different household populations.

The practical stages in the calculus of the poverty lines for the Gambia are as follows.

- The data for households with missing household size or missing consumption value are eliminated, as well as when the per capita consumption is below 100 Dalasi per year.
- The living standard variable is defined as the consumption value for one year, divided by the product of the household size (or the adult-equivalent scale) and the household Paasche price index.
- The reference group is defined as the set of households such that their per capita living standard is between 3894 Dalasi and 9353 Dalasi (second and fourth quintiles of per capital living standards).
- Three domains are defined to account for some geographical differences in consumption habits and catering: Banjul and Kanifing, Other Urban, Rural Areas.
- The calorie reference level is chosen equal to 2700 Calories a day per capita, denoted Znut. It is multiplied in each domain by the mean household equivalence scale and divided by the mean household size, both for the reference group.

We dispose of an adult-equivalent scale calculated by age in the report of the 1993 survey. With this scale the nutrient requirement for an adult-male of age 23-50 corresponds to 2700 calories per day, and it can be converted in smaller amount for other categories of members.

For the whole country the mean household size is 8.35 and the mean adult-equivalent scale is 6.76. For the reference group in Banjul and Kanifing we obtain respectively: 6.41 and 5.26; respectively for Other Urban: 7.44 and 6.07; respectively for Rural Areas: 9.68 and 7.77.

- We intended to define the food poverty line in each domain as $ZF = Znut*(x/y)$, where x is the mean value of food consumption in the domain, and y is the mean calorie quantity of food consumption in the domain.

However, because we do not observe the consumed quantities for most food products, we must adapt the method. Ten products are the only ones for which we can observe quantities in good conditions: rice, sugar, bread, groundnut oil, vegetable oil, palm oil, sardine, maggi, teabags, salt. We exclude products corresponding to too high calorie prices, not likely to constitute a substantial share of the diet of the poor. Then, instead of mean values over all products, we rather use the mean value and the mean quantity of calories for four food items: rice, bread, sugar and maggi cube.

The general 'calorie price' variable is defined as $pxcal = ZF/Znut$ for the whole food consumption. Similarly calorie prices can be calculated for any of the ten selected products for which we observe consumption. We denote them $pxcal_i$, $i = 1, \dots, 10$.

Weighing the four selected products according to their budget shares allows us to give a new definition of the food poverty line for each domain:

$ZF_d_j = 2700 \times [(\sum_{i=1}^4 w_i \text{pxcal}_{ij}) / ((\sum_{i=1}^6 w_i))] \times [(\text{mean household equivalence scale in domain } j \text{ for the RG}) / (\text{mean household size in domain } j \text{ for the RG})]$, where pxcal_{ij} is the calorie price of product i in domain j , and w_i is the consumption share of food i in the value of consumption, $j = 1, \dots, 3$; $i = 1, \dots, 4$. This is a novel method based on a few products with well-defined measurement units. In practice in this formula we choose to allocate each product calorie price to the category that it represents in the Paasche index. Then, the weights w_i are the budget shares of these categories rather than the budget shares of the elementary products. A better weighing system would have been to use the calorie share of food i in the total calorie amount in food consumption, but this information is not available. ZF_d_j is the food poverty line used for our main poverty estimates.

We first tried to calculate calorie prices by products by using the quantities and values recorded in the file 'Ref_prods.dat', which concentrated this information from the budget files. Despite the creation of new variables for quantity and calorie content, correcting for many errors in the treatment of measurement units, the obtained results were not satisfactory. In particular, the obtained calorie prices, notably for the rice, are much too high, which lead to estimated poverty incidence close to 100 percent. Moreover, the obtained calorie prices at household level are too variable to be a credible base of estimation. We attribute this problem to the bad quality of the file data.

Accordingly, we moved to a definition of the calorie prices directly from the price data base, which contains better information on value and quantity for a small set of consumed products. These product prices are multiplied by standard calorie contents obtained from the most recent nutritional publications. The resulting calorie prices and their variation across households and domains is much more reasonable than before. The calorie prices of rice, sugar and maggi cube are lower in Banjul and Kanifing, closer to catering sources. In contrast, the calorie price of bread is lower in rural areas.

As a control, we also attempted to base our calorie price on the main staple food in the Gambia, rice. This yields a food poverty line that we denote Z^{Frice} .

The standard calorie contents are as follows for the used product: rice 1297 Kcal per Kg, sugar 3870 Kcal per Kg, bread 2600 Kcal per Kg, palm oil 8839 Kcal per Kg, maggi cube 2333 Kcal per Kg, sardine = 2082 Kcal per Kg, tea bag 8.43 Kcal per Kg.

As we mentioned above, the extrapolation from the estimated food poverty line Z^F to the upper poverty line Z^U is based on an estimation of a linearized Quadratic Almost Ideal Demand System limited to the equation for food. This equation, which incorporates prices, is estimated by a robust regression method. Other estimation methods have been used but we found that the estimates based on Huber estimators perform better. We attempted to instrument the total consumption, where the main instruments were

information about the type of material of the household home, and other domestic capital characteristics. Unfortunately, this did not lead to satisfactory estimates.

We run the estimation simultaneously for the three domains with coefficients specific to each domain. Thus, the extrapolation of the non-food component of the poverty line can be specific to each domain so as to account for regional situations.

The estimation results provide significant intercept terms, a requisite for the success of the extrapolation method. The number of adult members strongly affects the food share. Other important significant regressors are the total expenditure and some prices.

After thoroughly examining the estimation results, we decided to use the results of the Huber robust regression estimation. Beyond the robustness properties of the Huber robust regression (eliminating outliers caused by excessive data contamination), we decided to select this estimation method because it correspond to the largest set of significant coefficients among all tried estimation methods. Note however, that OLS estimates would provide relatively close poverty line results (as opposed to 2SLS or quantile regression estimates). In all cases, the estimators are corrected to account for the sampling scheme.

Estimates of the food equation

	Banjul and Kanifing	Other Urban	Rural
Number of obs.	759	385	1094
Logarithm of the per capita value of food expenditure	-.1192499 (0.000)	-.0340594 (0.027)	-.0159821 (0.061)
Square of the logarithm of the per capita value of food	.003355 (0.561)	.0051958 (0.541)	-.0202008 (0.000)

expenditure			
Number of children members (centered by domain)	-.0030174 (0.406)	-.0024565 (0.529)	.0004564 (0.814)
Number of adult members (centered by domain)	-.0111036 (0.000)	-.0125955 (0.000)	-.0085673 (0.000)
Number of elderly members (centered by domain)	-.020153 (0.179)	-.004335 (0.765)	-.0170574 (0.023)
Education of the household head (centered by domain)	-.0003303 (0.792)	-.0023263 (0.169)	-.0029469 (0.013)
Logarithm of the price of rice (centered by domain)	-.0414939 (0.493)	.1451394 (0.011)	.0710594 (0.001)
Logarithm of the price of sugar (centered by domain)	-.3209716 (0.002)	-.1589436 (0.394)	.0343045 (0.685)
Logarithm of the price of bread (centered by domain)	.1328267 (0.187)	.2098645 (0.000)	.0167178 (0.601)
Logarithm of the price of palm oil (centered by domain)	-.1573004 (0.016)	-.2073791 (0.010)	.0252668 (0.534)
Logarithm of the price of salt (centered by domain)	-.0735113 (0.013)	.0443938 (0.165)	-.0120483 (0.606)
Logarithm of the price of magi cube (centered by domain)	-.1419116 (0.034)	.1409468 (0.015)	-.0187251 (0.614)
Logarithm of the price of sardine (centered by domain)	-.0385215 (0.684)	-.030046 (0.811)	.1802039 (0.000)
Logarithm of the price of tea bag (centered by domain)	.1908773 (0.225)	dropped	-.3166419 (0.005)
Logarithm of the price of washing soap (centered by domain)	.2052365 (0.026)	-.1974742 (0.023)	-.0690301 (0.171)
Logarithm of the price of candle (centered by domain)	-.0082443 (0.827)	-.0251637 (0.626)	-.055271 (0.119)
Intercept	.744267 (0.000)	.6547548 (0.000)	.6687323 (0.000)

Dependent variable = food budget share. P-value in parentheses.

3.2.2.3. A few delicate issues

One very serious issue for the implementation of the method for calculating the poverty line is that consumed food quantities have been very badly observed in the IHS survey.

Most of the recorded quantities are in terms of ‘heaps’, ‘cups’, ‘bags’ or other undetermined containers or shapes. Only for a few products can the actual measured quantity be inferred. This makes the general conversion of food consumption into calorie levels impossible.

In these conditions we extrapolate the calorie unit-value V_j/C_j by affecting the few food products with observed quantities to broad food consumption categories. The weight of these categories in the Paasche price index was used to aggregate the obtained calorie unit-values. The obtained index number for the calorie unit-value was used to derive the food poverty line.

Several shortcomings may affect this approach. First, the obtained calorie price may be sensitive to the subset of products with observed quantities. Second, some quantity and calorie data may be doubtful for some of these products. We decided to base the calculation of the calorie price *exclusively* on: rice, the staple food in the Gambia, bread, sugar and maggi cubes. Admittedly, this is an imperfect basis for the calculation of the food poverty line, although much more satisfactory than arbitrary conventions or use of inflated poverty lines. It has also the advantage of allowing the use of the 2003 budget data to extrapolate the non-food poverty line rather than relying on external sources describing different time or location situations than the Gambia in 2003. Then, one reason to prefer the new poverty lines is that it is necessary to account for the present situation of the Gambia (prices, qualities of consumed goods, environment, household characteristics and perceptions) to estimate the poverty lines.

A difficulty with the inflated lines used in the past is that they were heavily based on the CPI. Unfortunately, this price index is not the one that one would like to dispose of. Indeed, without mentioning the well-known weaknesses of the present CPI, the price level and the price structure for the reference group are not necessarily the ones for the whole population. A specific price index representing better the consumption structure of the poor would be desirable since some items used in the definition of the weights of the national price index are typically not consumed by the poor. Also, regional price indices for urban and rural areas would be important since the distribution of poverty across domain is not only of interest, but also a basic component of the method on which the lines are based. Naturally, such concerns are also partly valid for the new poverty lines. However, one expects that our new method captures part of the price differences across time and households.

Other few words of precaution about price differences are useful. In other countries, it has been observed that much of the cost-of-living differences between city and countryside come from the non-food component that is little present in our Paasche price index. Since we do not observe quantities for most homogeneous non-food products, there is little that can be done to correct this in these data. Another issue is that rents may be the central ingredient of the non-food component for some households. However, rent transactions are rare in the Gambia and badly observed in these data. Moreover, they normally do not concern the poorest households who are the focus of the poverty study.

3.3. The estimates of the poverty lines

We finally obtain the following values for the poverty lines:

ZF = D 4488 in domain Banjul and Kaninfinfing;

ZF = D 4337 in domain Other Urban;

ZF = D 4615 in domain Rural.

ZL = D 5636 in domain Banjul and Kaninfinfing;

ZL = D 5835 in domain Other Urban;

ZL = D 6145 in domain Rural.

ZU = D 6388 in domain Banjul and Kaninfinfing;

ZU = D 6771 in domain Other Urban;

ZU = D 7009 in domain Rural.

4. Recommendations for Future Work

Since the first set of final analyses of the IHS data is now available, we can now indicate here a few possibilities of further analyses.

4.1. Publication strategy

Considering the huge amount of results from the analysis and the length of the description of the analysis techniques, it is advisable to separate the published output in a series of small volumes, easier to digest than a big survey report. This would allow the dissemination of partial information about the survey as soon as this information is ready.

In this respect, a short technical volume describing the organisation of the collection, the questionnaire and the main points of the collection manual could also be published. This volume can be written by the agents of the CSD who conducted the collection.

4.2. CPI

An updated CPI series should be constructed using the IHS data. However, because of the major issues that occurred in the definition of the product codes, substantial preparation

of specific product nomenclatures is necessary. This should involve a co-ordination of the CSD agents affected to the survey analysis and to the price statistics.

4.3. Extension of the analyses with new variables

The present results are based on the available data and variables. However, richer results would be obtained if more effort were devoted to revising or constructing a few additional variables for the analysis. In particular, the industry, occupation, type of production and other economic household characteristics should be mobilised as cross-variables in the consumption and poverty tables. This is notably important to be able to extend the results of the poverty profile.

Moreover, new definitions of urban and rural area from the recent cartographic information should be constructed for each enumeration area of the survey.

The exploitation of these variables would directly provide additional information on multidimensional welfare situations for the Gambian households. For example, data on health, education, nutrition and household equipment could be mobilised for these analyses. There are many possibilities to complement the poverty statistics based on consumption value with a range of social indicators extracted from the survey data. In particular, unmet basic needs should receive special attention. Some of this work could be carried out during the studies for the Poverty Assessment Exercise.

In this perspective, poverty can be estimated across regions and over time, using monetary and non-monetary indicators that reflect the multidimensional nature of poverty. In particular, the poor could be studied in terms of their patterns of consumption, sectors of employment, participation in key markets (labour, product, financial, land markets), income sources, access to health and education services and infrastructural services, gender differences.

Also, the post-stratified estimators could be implemented to gain some accuracy for results related to small populations.

4.4. Other central tendencies or other categories of products

Considering the large impact of a small proportion of household observations with high consumption level, it would be useful to produce some consumption and living standard analyses excluding last vingtile of the living standard distribution (or even ‘Winsorized means’). Indeed, such central tendency indicators would be characterised by much smaller sampling error than central tendencies calculated over the whole population.

Moreover, more analyses of the consumption structure would be useful. This would imply to construct new consumption categories, a task also useful for the CPI analysis.

4.5. Quarterly analyses, 2003 indicators and correlations of living standards and prices

It is possible to take advantage of the year-round design of the IHS. There are two seasons in The Gambia, the dry and the wet season, but the survey structure allows the analysis of the data using quarters and then to obtain a better description of the living standard issues. It has been established that seasonal poverty should be one of the main features of poverty in agricultural developing countries (Muller, 2004c). Besides, the seasonality concern was one of the aspects guiding the collection design of the IHS. As a matter of fact, it is expected that the worst period for the poor to be the wet season in rural areas, particularly from July to September. New quarterly poverty analyses should provide very useful information about these dimensions of poverty in the Gambia. Moreover, specific and timely government policies could be designed based on these results. This may be an area especially interesting for the Poverty Assessment Exercise. At this occasion, the study of the correlation of local seasonal prices with living standards would be essential to understand some of the factors explaining poverty (Muller, 2002b).

In parallel, indicators of consumption and living standards strictly limited to 2003 could be produced and analysed.

4.6. Comparison with other countries

Strong interest arose at the CSD for comparisons with Senegal, a very similar context. Three sets of insights are expected from this comparison. First, methodological lessons can be learned by comparing the methods used in The Gambia and Senegal for household surveys and their analyses. For example, the Senegalese meal nomenclature could be used to design the product nomenclature of the next Gambian consumption survey and avoid the present problems coming from the absence of a collection nomenclature. Second, considering the fragility of the results of past surveys in The Gambia, we need additional comparison points that could be used as a benchmark to control the validity of statistics produced from the IHS. Using Senegal published reports should contribute to assess what is the range of credible results for The Gambia. We have already accumulated Senegalese household survey reports, CPI documents and poverty analyses (République du Sénégal, 1997a). However, more effort is needed for collecting the documents of the 2001 Senegalese survey that have just been published. The availability of this information should allow interesting comparisons of the statistical results of the two countries and yield lessons for poverty analysis.

Also, comparisons of the poverty situation of The Gambia with other countries using available data, would be useful, particularly for Millennium Development Goal indicators.

4.7. Omissions of own-consumption and gifts

Omissions of records on own-consumption and gifts have been observed in the new data files. We have established a diagnostic of these issues and have gathered expert information on how they arose. We have investigated a correction model based on the correlates of two econometrics thresholds: (1) the actual absence of own-consumption (or consumed gifts); and (2) the non-response problem. A complex econometric strategy to deal with these issues is now possible since the complete data including the necessary information are ready. In particular, the information on markets, production and the names of enumerators and other agents would be usable as correlated in a double-hurdle econometric model of Tobit type. This should be the subject of a specific study aiming at assessing how consumption, welfare and poverty statistics are sensitive to the under-estimation issues, and at correcting them.

4.8. Comparison with the past: What can be done?

As we mentioned above, two previous household consumption surveys had been conducted and analysed by the CSD in 1993 and 1998 (Central Statistics Department, 1994, Government of the Gambia, June 2000). These past surveys constitute benchmark information that could be used for the analysis of contemporary poverty. More ancient surveys had been conducted on restricted areas, but the data and the reports have been lost.

The data of the 1998 survey, and perhaps the data of the 1993 survey, are still available on disk. There is therefore an opportunity to carry out a systematic comparison between

the IHS results and the 1998 results. This could be possible although important differences between the surveys are: (1) the IHS survey is organized over one full year, while the 1998 survey was implemented only over a few weeks; (2) the questionnaire settings of the two surveys are different, suggesting much bigger omission errors with the 1998 survey; (3) it seems that the 1998 data had never been cleaned and corrected, even for the elimination of outliers.

It is indicated on page 13 of the 1993 survey report that ‘most of the data cleaning process was involved with ensuring that each household was represented in the 17 data sets’. The authors of the report claim a high reliability and integrity of the data. Note however that the data entry was ‘on cards’ which denote a rather obsolescent technology, even at that time. On page 25: ‘consumption data was thoroughly checked. Outliers and inconsistent data were identified. Missing and non-valid data were checked.’ So, at least some of the data preparation has been done for the 1993 data. From what I heard, the situation is much less favourable for the 1998 data.

Despite the difficulties, the comparison of the results of the two surveys, notably in the field of poverty analysis may bring to the fore important insights on the situation of the poor and on the efficiency of anti-poverty policies. There may therefore be some interest in investing some effort in survey comparisons. This justifies starting with the data cleaning tasks for the two past survey data.

The comparison of the IHS with previous surveys will imply to substantially revise the findings of these past surveys, by correcting for unbalanced sample distribution across space and especially seasons, by addressing data contamination problems and by improving analytical methods, notably the calculation of the poverty line. Another problem with past analyses is the absence of correction for spatial and seasonal price differences across observed households.

Papers dealing with these methodological issues are Sahn and Stifel (2000), Stifel et al. (1999). These references and other ones could be used to develop the methodology of comparison.

4.9. Poverty map

Recent statistical methods have been developed to estimate poverty maps that provide poverty estimates at very disaggregated spatial level (Ebers et al., 2003). The basic principle is to combine household surveys and census data for distribution analysis. Poverty maps highly improve the utility of poverty statistics as guides for policy and geographical selection of development projects.

The 2003 Census data has been collected and used for the sampling of enumeration areas of the IHS. The data entry of this census has now been completed. The 2003 census data is therefore available to proceed with the poverty mapping.

All that is needed is a living standard regression model, partly explored in the volume on living standard analyses, and an estimator of poverty statistics applied to census data, which is easy to derive from usual sample prediction formula. The estimation can then be carried out by using simulation methods.

In these conditions, a preliminary step is the construction of additional household characteristics data to include in the living standard regressions in order to reduce this prediction error.

4.10. Other modules

Other modules remain to analyse. For example, education, health, nutrition and anthropometric data are some important ones. Many useful and interesting studies could be carried out with these data when they will be ready.

4.11. Robustness of poverty results to the poverty line, to equivalence scale and multivariate welfare attributes

Considering the difficulty of analysts to agree on a definitive methodology for the calculus of the poverty lines, and the public debate in the Gambia about likely levels of

poverty, it is desirable to produce poverty results that would not depend on a given method to define the poverty lines. It is possible to produce qualitative results of poverty comparisons by using stochastic dominance techniques based on the comparison of 'poverty curves' based on indicators FGT(0) and FGT(1) that are easy to estimate.

Stochastic dominance techniques not only provide qualitative results for broad ranges of poverty lines, but also for very general class of poverty indicators. See Atkinson (1970) and Shorrocks (1983) for seminal papers on these methods.

It would be necessary to return to the question of equivalence scales to assess how poverty results may be sensitive to the characteristics of a given equivalence scale. Studies of the robustness of poverty results to the choice of the equivalence scale are then desirable. This is possible by using recent theorems of stochastic dominance (Fleurbaey et al., 2002).

New techniques of multi-dimensional stochastic dominance could be used to obtain qualitative results on multi-dimensional poverty and inequality issues grouping income, health and nutrition concerns (Atkinson and Bourguignon, 1982, Muller and Trannoy, 2003). These estimates would provide an important alternative to poverty estimates once poverty dominance analyses based on income poverty indicators.

4.12. Determinants of poverty and vulnerability

The activity and production variables need to be prepared so that some more sophisticated analyses of the determinant of poverty and vulnerability is possible. Regression and quantile regression techniques should allow the identification of the main sources of vulnerability for the Gambian households. This would be particularly useful to link the poverty analyses with actual poverty policies, such as direct transfers to the poor.

Appendix 1: Persons met during the mission

Mr. Alieu Bittaye, Deputy Project Director, CBEMP.

Mr. Niel Boyer, Economic Adviser, UNDP.

Mr. Martin Brownbridge, Macroeconomic Adviser, DOSFEA.

Mr. Abu Camara, Senior Statistician, CSD.

Mr. Ali Ceesay, Deputy Director of the CSD.

Mr. Idrissa Ceesay, Head of the Section Transport at the CSD.

Mrs. Juldeh Ceesay, Programme Officer, Monitoring and Evaluation, SPACO.

Mr. Modou Ceesay, Economic Management and Programming Unit, DOSFEA.

Mr. Abdou Colley, National Economist, UNDP.

Mrs. Fatou Darboe, Survey Supervisor of the CSD.

Mrs. Fatou Leigh, Project Director, CBEMP.

Mr. Graham Eele, Expert Statistician, TheWorld Bank.

Mr. Lamin Fatty, Head of the Survey Section of the CSD.

Mr. Yusupha Dibbam, Programme Officer, SPACO.

Mr. Alieu S.M. Ndow, Director of the CSD.

Mr. Falu Njie, Coordinator, SPACO.

Mr. Momodou Secka, Director, Economic Management and Programming Unit,
DOSFEA.

Mr. Madan Singh, Economic Statistics Adviser, Central Statistic Department..

Mr. Hoon Soh, Country Economist for The Gambia, The World Bank.

Mr. Abdou Touray, Permanent Secretary, DOSFEA.

Mr. Mustapha Yarbo, Economic Management and Programming Unit, DOSFEA.

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Appendix 3: Abbreviations

CBEMP: Capacity Building and Economic Management Project.

CSD: Central Statistical Department.

DOSFEA: Department of State for Finance and Economic Affairs.

IHS: Integrated Household Survey.

NANA: National Nutrition Agency.

PROPAG: Pro.Poor Advocacy Group.

SPACO: Strategy for Poverty Alleviation Coordination Office.

Appendix 4: The Nomenclature of Products for the Analysis

At the time of the survey, except for the Part II questionnaire, there was no list of codes for the consumption items captured in the survey. As the objective of the survey includes, among other things, the revising of the current CPI basket and weights for that matter, the instrument, such as the daily diary, used in the survey was deliberately left open to allow for new items to enter the consumption basket.

At the end of the survey, a coding team was assigned to list all featured items captured by the daily recording of households' consumption items. Items that appeared on this list were then assigned a code which then became the survey code. These codes were then used in the data entry programme to represent each consumption item at each household's transaction level.

The codes were linked to major groups and sub-groups to follow the current CPI grouping approach. However, new items emerged, and were also assigned codes. The list of items and their codes didn't follow specific standard classification. There were about 340 items each with its distinct code. These item codes were utilized during the processing of the data.

However, in the interest of updating the CPI and National Accounts benchmark data, a decision was made to align these consumption items to the SNA 93 COICOP classification. This process involved classifying items and linking them to COICOP consumption sub-groups and groups, and recoding them to conform to COICOP classification proposed codes.

Moving from data processing to analysis, three nomenclature levels corresponding to COICOP levels 1, 2 & 3 to represent major groups, sub-groups and details respectively were adopted. The name given to these levels are "CODPROD3" representing "COICOP detail level 3", "CODPROD1" representing "COICOP level 1" and "CODPROD2" representing "COICOP level 2".

In order to give a typical picture of the consumption pattern of the Gambia, and taking into account the presentation of the results of the survey, a further classification was done which gave rise to three corresponding levels called "CP1", "CP2" and "CP3" representing COICOP Grouping Levels 1, 2 and 3 respectively, description of which will be found below.

CP1 is the corresponding COICOP Level 1 grouping with the combination of “Transport” and “Communication” groups. Eleven groupings were then established under this level.

The CP2 grouping represents prominent consumption sub-groups of food and non-food items and services under which related specific consumption items are grouped. Hotels, cafes and restaurants sub-group represent mostly food bought and/or eaten outside in hotels, cafes, canteens and restaurants, and all prepared food sold in the streets, vendors, kiosks, vehicles, etc.

Housing, water and energy includes all expenditures relating to dwelling, including water, electricity and other fuels. Included also is actual rent paid by households, imputed rent not included.

Health incorporates all health related expenditures, including expenditures relating to traditional healer/herbalist services.

Some consumption expenditures relating to education are classified under other groups. School lunch which represent expenditure on meal taken at school is taken under “Hotels, cafes and restaurants” whilst school transport expenditure and school uniform are under “Transport” and “Clothing and footwear” respectively.

Personal care is found under “Miscellaneous expenditure”.

The CP3 level of product categories elicits specific consumption food items, and firewood to better reflect prominent and homogeneous Gambian consumption items. Only a few homogeneous products can be identified in the data of the survey. The other products represent all other items (including non-food and services) consumed by Gambian households.

Codes	codprod3
1112	Maize
1113	Millet
1114	Sorghum
1115	Findi
1116	Maize flour
1117	Millet flour
1118	Sorghum flour
1119	Biscuit
1121	Beef
1122	Sheep - Goat/Mutton
1123	Chicken
1124	Pork
1125	Canned meat
1131	Fresh Bonga
1132	Smoked Bonga
1133	Cat Fish

1134 Fresh Groper/Lady Fish
1135 Fresh Baracuda
1136 Dry Couta - Tenny
1137 Dried Fish
1138 Shrimps
1141 Eggs
1142 Fresh Milk
1143 Sour Milk
1144 Evaporated milk
1145 Powdered Mik
1146 Cream
1147 Cheese
1148 Yoghurt
1149 Vita lait
1151 Groundnut Oil
1152 Palm Oil
1153 Magarine
1154 Butter
1155 Vegetable Oil
1156 Mayonnaise
1157 Other Oils and Fats
1158 Peanut butter
1159 Groundnut butter/paste
1161 Groundnut Unshelled
1162 Groundnut Shelled
1163 Colanuts
1164 Cocoa Nuts
1165 Banana
1166 Orange
1167 Mangoes
1168 Lime
1169 Apple
1171 Irish Potatoes
1172 Sweet Potatoes
1173 Cassava
1174 Dry Beans
1175 Small Pepper Fresh
1176 Fresh Tomatoes
1177 Bitter Tomatoes
1178 Garden Eggs
1179 Okra
1181 Sugar
1182 Black Mint
1183 Chewing Ngum
1184 Honey
1185 Jam
1186 Chocolate
1187 Ice cream
1188 Mint Stick
1191 Salt

1192 Garlic
1193 Maggi Cube
1194 Small Dry pepper
1195 Locust beans - Neteetu
1196 Chilli Powder - Black pepper
1197 Vinegar
1198 Powder pepper
1199 Other processed foods
1210 Mborr Mborr Tea
1211 Tea bags
1212 Other tea - local
1213 Coffee - Nescaffe
1214 Powder Tea - Ovaltine
1215 Juice - Wonjo
1216 Chinese green tea - Attaya
1217 Soft drinks
1218 Mineral water
1219 Cold Water in Plastic Bag
2112 Red Wine
2113 Stout
2114 Palm Wine
2115 Bear Lager & Porter
2201 Piccadilly
2202 Lucky strike-cigar
2203 Bond-cigar
2204 Rizla-cigarpaper
2205 Marlboro-cigar
2206 Prince-cigar
2207 Benson-cigar
2208 St. Morris-cigar
2209 Maniz tobacco-wrapped in paper
3111 Trousers Cloth
3112 Brocade
3113 Plain Cotten
3114 Women's Local Clothing
3115 Printed cotton
3116 Gray Baft
3117 Clothing material (drill)
3118 Clothing material (poplin)
3121 Men's Underwear
3122 Men's Shocks
3123 Singlets
3124 Men's Shirt
3125 Men's Trousers
3126 T-Shirt
3127 Long trousers
3128 Lady's Underwear
3129 Brassiers
3131 Thread
3141 Tailor -Men's Trouser

3142 Women's Dress Kaba
3143 Men's Outfit Kaftan
3144 Men's Suite
3145 Laundry Long trouser
3146 Other Laundry
3197 Other clothing material
3198 Ladies headtie
3199 Men's suit/safari
3211 Slippers adults
3212 Boys shoes- Strap shoes
3213 Mens' full shoes
3214 Women's full shoes
3299 Other footwear
4111 House Rent
4112 Imputed rentals for Housing
4115 Other water, disposal & energy
4119 Municipal rates
4121 Other rentings, repairs, etc
4311 Cement
4312 Oil Paint
4313 Water Paint
4314 Window Panes
4315 Wall Paper Paste
4316 Plastering Walls
4317 Ceramic tiles
4319 Pipes
4321 Plumbers
4322 Electricians
4323 Carpenters
4324 Maisoners
4329 Maintenance & repair of dwelling
4411 Water charges
4421 Disposal Of Solid Waste-Refuse
4431 Disposal Of waste Water
4511 Electricity Domestic
4512 Butane gas
4521 Gas refill
4531 Kerosine
4541 Firewood
4542 Charcoal
5112 Wooden Bed
5113 Cupboards, wardrobes & closet
5114 Carpet - mat -Floor Covering
5116 Fitted Carpets
5119 Other household furniture
5131 Furniture repairs
5201 Bed Linen
5202 Blanket
5203 Mosquito Nets
5204 Pillow & Cusines

5205 Table Clothes & Serviettes
5206 Curtains & Material for Curtains
5207 Bed Sheet
5208 Other clothing materials
5209 Household textiles & furnishings repairs
5311 Negro Pot
5312 Bucket - Galow Vanish
5313 Plastic Bucket
5314 Batteries Films
5315 Refrigerator
5316 Frying Pan
5318 Iron
5319 Equipment for House
5321 Gaz Stove - Complete set
5401 Drinking cup
5402 Flower boxes & pots
5403 Waste paper baskets & garbages boxes
5404 Mirror
5405 Cutlery
5406 Thermo flasks
5407 tablespoons
5408 Dinner & tea utensils
5497 Repair of household equipment & utensils
5499 Other glassware, tableware & utensils
5521 Lanteen Kerosine Lamp
5522 Bulbs, plugs & wire
5529 House & garden tools
5611 Moon-tiger (for mosquito smoke)
5612 Candle
5613 Matches
5614 Washing Soap
5615 Starch-Dakandeh
5616 Washing Blue
5617 Maid Services
5618 Needle-Threads
5619 Brooms
5621 Household services of maids, cooks, cleaners, etc.
5629 Basin
5630 Other glass ware
5631 Garden Tools
5632 Washing Powder - Omo
5633 Washing Powder - Set Settal
5634 Soda Soap
5635 Touch light
5636 Lighter
5638 Basin
5639 Umbrella
6111 Aspro
6112 Paracetamol
6113 Phensic

6114 Choloroquine
6115 Cough Medicine - babies lintus
6116 Cough Medicine - adults lintus
6117 Teething powder
6118 Worm medicine
6119 Laxative
6131 Spectacles & contact lens
6132 Wheel chairs
6133 Crutches
6139 Other therapeutic appliances & equip.
6211 Doctors fees - at health facility
6212 Doctors fees(Hospital)
6215 Other doctors fees
6218 Traditional/herbal practitioners
6219 Out patient fees
6231 Ambulance & related fees
6301 Hospital fees per week
7111 Purchase of Vehicle
7112 Purchase of Motor Cars
7121 Purchase of Motror Cycles
7122 Bicycle
7123 Bicycle Tyre
7131 Purchase of Bicycles
7141 Purchase of Animal drawing Vehicles
7199 Other personal transport
7211 Motor Tyres
7212 Motor Engine
7213 Other motor Parts
7214 Other bicycle Parts
7221 Petrol
7222 Diesel Oil
7231 Peronal transport maintenance & repairs
7298 Other transport fuels, oils, etc.
7299 Other personal transport accessories
7321 Taxi fares
7322 Bus Fares
7341 Ferry fares
7369 Other transport
8101 Post - Air Mail
8109 Telephone & related
8301 Telephone call - Local
8302 Telephone call-international
8303 Scratch Card
8304 Mobile Phone
8305 Internet Payment
8306 Katcha card
8309 Other communication services
9135 Type writer
9211 Other recreation & entertainment
9421 Wrestling Ticket

9422 Weekend Dance charges
9424 Football
9431 Other recreational & Entertainment
9511 English Text bk Grade 1
9512 Maths Text BK Grd1
9514 Maths Text BK grd7
9516 Excercise Book
9517 Pen
9518 Pencil
9519 Eraser
9521 News Paper
9601 Package tour transport fares & accommodation
9602 Package tour food & other elements
10098 School fees
10099 Boarding & lodging in school
10501 School Fees Govt. Middle Sch
10502 Sch fees Priv. Middle School
10503 Sch. Bag
10507 Other expenses on additional educational
10508 Out-of-school private lectures
10509 Other expenses on educational services
11110 Bread
11111 Long Grained Rice(imported)
11112 Paddy Rice Long grain(local
11113 Medium Grained Rice(imported)
11114 Small Grained Rice(Imported)
11115 Basmati Rice (Imported)
11116 Uncle ben's Rice (imported)
11119 Other cereal products
11127 Raw groundnut powder
11299 Other meat
11310 Snail Fish
11311 Saul Fish
11312 Tilapia
11313 Crab
11316 Oyster
11340 Sardine
11499 Other milk product
11611 Palm nut Fruit Kennel
11612 Dahar
11613 cashew
11614 Paw paw
11615 Water melon
11617 Ananas
11618 Grapes
11619 Kabaa
11620 Bitter Colanuts(Imported)
11622 Raw Groundnuts Powder
11623 Dates
11624 Avocado

11625 Other pulses, nuts & seeds
11627 Bitter Cola nut
11670 Baobab fruit
11699 Other fruits
11710 Onion
11711 Pumpkin
11712 Big red Pepper
11713 Kren kren
11714 Bisap-Sorrel
11715 Cabbage
11716 Lettuce - Salad
11717 Tomatoe Puree Paste
11718 Carrot
11719 Cacumba
11720 Onion leave
11721 Green Peas
11722 Okra Powder
11723 Garry - Cassava Flour
11724 Cassava leave
11725 Potatoe leaves
11799 Other vegetables
11899 Other sweets & sugar
11999 Other spice
12111 Barber Hair Cut
12112 Beauty saloon hair dressing
12131 Toilet Soap
12132 Nail Polish
12133 Razor Blade
12134 Tooth Paste
12135 Face Powder
12136 Skin Lightening
12137 Tooth brush
12138 Toilet Paper
12139 Shampoo
12311 Watches
12321 Travelling bag
12531 Sickness insurance premia
12532 Accident insurance premia
12539 Other health insurance premia
22010 Snuff
22011 Cocaine
22099 Other tobacco
31210 Ladies Docket
31211 Boy's Dress
31212 Girl's Dress
31213 School Uniform
31214 Babies' Clothes
31219 Boys' dress
31299 School uniform & wearing apparel
31399 Other household textiles

31499 Other tailoring charges
32199 Repair of footwear
43110 Taps
43111 Joints
45399 Other fuel and light
53110 Washing Machines
53111 Plastic Pan
53112 Electricity Bulb
53199 Repairs of major household equipment
56120 Detergent
56121 Insecticides & pesticides
56122 Needles, nuts, bolts, screw & nails
56123 Toilet paper
56124 Cloth hanger
56125 Ropes & strings
56199 Other household maintenance non-durable goods
61120 Tetracycline & antibiotics
61121 Injections
61199 Other medicine
61299 Other health care
91198 TV, video, radio, tape recorder, ect.
91199 Other entertainment accessories
91201 Binoculars & sports equipment
91202 Other non-durable photo accessories
91299 Camera, video camera & durable photo. equip.
92299 Musical instruments
92399 Maintenance of recreational equipment
93199 Other non-durable recreational items
94231 Video Club - Membership charges
94232 Cinema
94233 Television
94234 Radio Cassette Tape Recorder
95110 Text book standard
95196 School books & stationery
95199 Other expenses on educational materials
95299 News papers
95498 Stationery supplies (writing pad, pens,etc.)
95499 Drawing equipment & accessories
105098 Other educational expenses
105099 Other schools
111101 Omelette
111102 Porridge
111103 Pan cake
111104 Cherreh
111105 Prepared tea
111106 Mbuda Kay
111107 Akara with source
111108 Fish pie
111110 Ebbeh
111111 Olele

11112	Cooked beans
11114	Fried fish
11115	Groundnut cake
11118	Roasted groundnut
11199	Meal bought/eaten outside
11209	School lunch
112099	Accommodation services
121399	Other personal care
123101	Necklaces, bangles & rings
123102	Watches, clocks
123199	Other jewellery
123201	Umbrellas, hats & raincoats
123202	Walking sticks, travelling bags
123209	Financial services
123299	Other personal goods
124001	Social services
127001	Services not-elsewhere-classified
Codes	codprod2
1	Non-alcoholic beverages
2	Tobacco, narcotics including chemical drugs
3	Clothing and Footwear
4	Housing, water, electricity, gas and other fuels
5	Furnishings, household equip. & routine hhold. maintenance
6	Health
7	Transport and Communications
9	Recreation and Sporting services
10	Education
11	Alcoholic beverage
12	Personal Care
111	Bread and Cereals
112	Meat
113	Fish and Seafood
114	Milk, chesse and eggs
115	Oils and Fats
116	Fruits
118	Sweets and Sugar
119	Food products n.e.c
1111	Hotels, Cafes and Restaurants
1171	Green vegetables
1172	Tubers
1173	Pulses
Codes	codprod1
1	Food and non-alcoholic beverages
2	Alcoholic beverages, tobacco and narcotics
3	Clothing and footwear
4	Housing, water, electricity, gas and other fuels
5	Furnishings, hhold. equip.& routine hhold maintenance
6	Health
7	Transport and Communications
9	Recreation and Culture

10	Education
11	Restaurant and Hotels
12	Miscellaneous goods and services
Codes	cp3
1	Rice
2	Bread
3	Cassava
4	Smoked bonga
5	Fresh bonga
6	Eggs
7	Palm oil
8	Groundnut oil
9	Vegetable oil
10	Butter
11	Tomatoes
12	Tomato puree (paste)
13	Bitter tomato (local product)
14	Imported onion
15	Maggi cube
16	Garlic
17	Salt
18	Black pepper
19	Small pepper
20	Big red pepper (local product)
21	Sugar
22	Tea bags
23	Chinese green tea
24	Firewood
99	Other products
Codes	cp2
101	Bread & cereals
102	Meat
103	Fish & seafood
104	Milk, cheese & eggs
105	Oils & fats
106	Fruits
107	Sugar & sweets
108	Hotels, cafes & restaurants
109	Green vegetables
110	Tubers
111	Pulses
112	Other food products
113	Non-alcoholic beverage
201	Alcoholic beverage
202	Tobacco & narcotics
300	Clothing and footwear
400	Housing, water & energy
500	Household equipment
600	Health
700	Transport & communication

800	Recreation & culture
900	Educational fees
1100	Miscellaneous (inc personal care)
Codes	cp1
1	Food and non alcoholic beverages
2	Alcoholic beverages, tobacco & narcotics
3	Clothing and Footwear
4	Housing, water & energy
5	Furnishings & household maintenance
6	Health
7	Transport & communications
8	Recreation and culture
9	Education
10	Restaurants & hotels
11	Miscellaneous (inc personal care)

THE GOVERNMENT OF THE GAMBIA
CENTRAL STATISTICS DEPARTMENT / CBEMP

INTEGRATED HOUSEHOLD SURVEY ON CONSUMPTION EXPENDITURE
AND POVERTY LEVEL ASSESSMENT - 2002/03

PART ONE: HOUSEHOLD QUESTIONNAIRE

A. DATA COLLECTION

Interviewer Date

Supervisor Checking date

B. DATA ENTRY

Operator Entry date

Supervisor Editing date

Operator Re-entry date

L.G.A.	Banjul	1	[]
	KMC	2	
	Brikama	3	
	Mansakonko	4	
	Kerewan	5	
	Kuntaur	6	
	Janjangbureh	7	
	Basse	8	

District name []

Area 1 - Urban 2 - Rural []

Quarter []

E.A. Number []

Sub-sample []

Selected household []

Name of Household Head

Time interview commenced [] Address:

Tel:

Survey form number for this household [] of []

Section 0: HOUSEHOLD PARTICULARS

No.	Questions	Categories & code	Code
1	Has the above household been identified and accepted to be interviewed?	Yes Y >> Q3 No, different household D } Refer to No, dwelling not found N } supervisor No, illness, death I } for repla- No, refusal R } cement and >> Q2 No, dwelling empty E No, Other O specify:	[]
2	HOUSEHOLD TO BE INTERVIEWED Name of head Address Telephone	Supervisor will code this question after assigning a new household for interview	[]

HEAD OF HOUSEHOLD (Person responsible for main decisions)

No.	Questions	Categories & code	Code
3	Sex of the household head?	Male M Female F	[]
4	Is the head of household present?	Yes Y >> Q7 No N	[]
5	How long has he/she been absent?	Less than one week 1 Between 1 week and 1 mont 2 Between 1 and 3 months 3 More than 3 months 4	[]
6	In this person's absence, who is responsible for the main decisions?	Insert ID number after completing Q9	[]

INTERVIEW DETAILS

No.	Questions	Categories & code	Code
7	Language used by respondent at inte	Mandinka M Wollof W Fula F Other O specify:	[]
8	Interpreter?	Yes Y No N	[]

Write down the name of the head of the household and all persons who normally live and eat together in this household (6 out of last 12 months)

9	Name	ID Number
	Head	1
		2
		3
		4
		5
		6
		7
		8
		9
		10
		11
		12
		13
		14
		15
		16
		17
		18
		19
		20
		21
		22
		23
		24
		25

10a Are there any other members of the household not now present who normally live and eat here such as persons temporarily away for marriage, seasonal work, illness, giving birth or school? **(if 'yes', add these names to the list)** Yes Y No N []

10b Are there any other persons who are part of the household because they acknowledge the Head's authority and who live in the household? **(if 'yes', add these names to the list)** Yes Y No N []

10c Are there any strange farmers or boarders/lodgers who have lived with this household for more than 6 months of the last year? **(If 'yes', use a separate form for this/these person(s)).** Yes Y No N []

10d Number of usual members of this household

SECTION 5a: CROP PRODUCTION

Crop	Does the household grow any crops? (>> Section 5b)											
	1. Code	2. Has the household grown any ...in the last 12 months?	3. On how many plots did you grow ...in the last season?	4. On what basis does the household occupy the plots?	5. On how many plots did you grow... in the previous season?	6. How was the size of your harvested plot in the last season compared to previous season?	7. Why did you grow... on fewer plots in last season?	8. Was this crop grown mainly by men or by women?	9. Was the crop grown for sale or subsistence?	10. What was the value of these sales	11. Did the household use any of the following during the last farming season?	12. If 'No' in Q11, give reason
	Yes Y	No N	Yes Y	No N	Yes Y	No N	Yes Y	No N	Yes Y	No N	Yes Y	No N
Groundnuts	01											
Swamp rice	02											
Upland rice	03											
Miller (Sano/Sanyo)	04											
Sorghum-Kinto	05											
Maize	06											
Find	07											
Cotton	08											
Cassava	09											
Vegetables	10											
Fruits	11											
Sesame	12											
Tree crops	13											
Other crops not mentioned above	14											

Mark each cell with appropriate code:
 Too expensive T
 Not available N
 Not useful U
 Not applicable A

Mark each cell with Y(es) or N(o)
 Fertilizer 11a
 Improved seeds 11b
 Pesticide 11c
 Animal plough 11e
 Tractor 11f
 Extension service 11g
 Other, specify 11h

Mark each cell with appropriate code:
 Fertilizer 12a
 Improved seeds 12b
 Pesticide 12c
 Animal plough 12e
 Tractor 12f
 Extension service 12g
 Other, specify 12h

Section 6: NON-FARM ENTERPRISE

Does this household conduct any non-farm enterprise(s) (including fishing)?

Yes Y
No N (>->Section 7)

For the three economically most important enterprises owned by the household

No.	Question	Categories and Codes	Skip to	Enterprise No. 1	Enterprise No.2
1	What is the main activity of this enterprise(s)?	Describe			
		INDUSTRY CODE			
2	Who is responsible for the enterprise?	ID number			
3	ID of person interviewed	ID number			
4	Has this person received any training in entrepreneurship?	Yes Y No N	Q6a		
5	Which organisation provided the training	IBAS I GAWFA G Other specify O			
6a	How long has this enterprise been operating? (If more than one year indicate years only. If less than one year indicate months only)	Years			
6b		Months			
7	For how many months has the enterprise been operating for the past 12 months?	Months			
8	Does the income of this enterprise belong entirely to you and this household?	Entirely E Partially P	Q10		
9	What percentage of the income of this enterprise goes to you and this household?	Indicate percentage			
10	Has the enterprise got a bank account?	Yes Y No N			
11	Has the enterprise got a loan from any source?	Yes Y No N	Q13		
12	Name the name of the institution or source	Bank B IBAS I Ousu S GAWFA G NDFA N VTSACA V Other specify: O			

Section 6: NON-FARM ENTERPRISE continued

13	During the past 12 months how many persons have usually worked in this enterprise? (Include household members, apprentices and hired labour, but exclude person responsible).	Number				
14	Are formal contracts issued to any of the employees?	Yes No	Y N			
15	Do any of the employees receive paid leave?	Yes No	Y N			
16	Do any of the employee receive sick leave	Yes No	Y N			
17	How does the gross income of this enterprise over the last 12 months compare with the income of the year before?	This Year is: Higher Same Lower Not applicable	H S L N			
18	Does this enterprise have in place safety/fire protection equipment/measures?	Yes No	Y N			
19	What main type of waste did this enterprise generate?	Other Solid waste Liquid waste Chemical waste Clinical waste Other, specify	S L C H O			
20	How was this waste stored?	Dustbin Barrel Bucket Carton Sack/bag Other, specify	D B K C S O			
21	How was this waste finally disposed of?	Burning Buried Tipped Recycled Municipal council Private collector Other, specify	B U T R M P O			

Section 6a: ASSETS OF NON-FARM ENTERPRISE 1

ITEM	22. Code	23. Does this enterprise own...? Yes Y No N >>Next Item	24. For how much would you be able to selltoday Amount	25. Did the enterprise obtain any...during the past 12 months?	26. How much did the enterprise pay for the...that was obtained during the last 12 months	27. Did the enterprise sell any... during the past 12 months?	28. How much did the enterprise receive from the sale of ...during the past 12 months?
				Yes Y No N >>Next Item	If Gift write 0 Amount	Yes Y No N >>Next Item	
	22	23	24	25	26	27	28
Building	1						
Land	2						
Equipment/ tools/machinery	3						
Stocks of goods and raw materials	4						
Bicycles	5						
Carts	6						
Cars, Vans, Buses	7						
Boats	8						
Other vehicles	9						
Other Specify	0						

Section 6b: INCOME AND EXPENDITURES OF NON-FARM ENTERPRISE 1

Income and Expenditure items	29. Code	30. During the past 12 months has the enterprise received for /spent on? Yes Y No N (-> Next item)	31. How much did you receive for / spend on..... during the last 12 months? Amount	32. During the past 12 months was this item ever unavailable to you when you wished to purchase or use it?		33. Calculated monthly income and expenditures		
				Time Unit Day D Week W Month M Year Y	If Yes probe: OFTEN or just ONCE OR TWICE Yes often 1 Yes once or twice 2 No 3	Factors: Day x 30 Week x 4.33 Month x 1 Year / 12	Amount per month Item 31a x factor of time-unit	
Income	29	30	31a	31b	32	33a	33b	34
Income from cash sales	1							
Income from barter / exchange	2							
Household use of goods	3							
Rental income	4							
Other income	5							
						Total income per month (sum of items 1 to 5 above)		
Expenditures								
Hired labour	6							
Raw materials & articles for resale	7							
Rental of land / buildings	8							
Rent of machinery and vehicles	9							
Maintenance, repairs & parts	10							
Electricity and water	11							
Taxes, licences, etc.	12							
Interest/other charges on loans	13							
Other expenses	14							
						Total expenditure per month (sum of items 6 to 14 above)		
Q35: If gross profits are negative, please give reason:						Gross profits per month (Income minus expenditure)		

Section 6c: ASSETS OF NON-FARM ENTERPRISE 2

ITEM	22. Code	23. Does this enterprise own...? Yes Y No N >>Next Item	24. For how much would you be able to selltoday Amount	25. Did the enterprise obtain any...during the past 12 months?	26. How much did the enterprise pay for the...that was obtained during the last 12 months If Gift write 0 Amount	27. Did the enterprise sell any... during the past 12 months?	28. How much did the enterprise receive from the sale of ...during the past 12 months?
				Yes Y No N >>Next Item	Amount	Yes Y No N >>Next Item	
	22	23	24	25	26	27	28
Building	1						
Land	2						
Equipment/ tools/machinery	3						
Stocks of goods and raw materials	4						
Bicycles	5						
Carts	6						
Cars, Vans, Buses	7						
Boats	8						
Other vehicles	9						
Other Specify	0						

Section 6d: INCOME AND EXPENDITURES OF NON-FARM ENTERPRISE 2

Income and Expenditure items	29. Code	30. During the past 12 months has the enterprise received for /spent on? Yes Y No N (-> Next item)	31. How much did you receive for / spend on..... during the last 12 months? Amount	32. During the past 12 months was this item ever unavailable to you when you wished to purchase or use it?		33. Calculated monthly income and expenditures		
				Time Unit Day D Week W Month M Year Y	If Yes probe: OFTEN or just ONCE OR TWICE Yes often 1 Yes once or twice 2 No 3	Factors: Day x 30 Week x 4.33 Month x 1 Year / 12	Amount per month Item 31a x factor of time-unit	
Income	29	30	31a	31b	32	33a	33b	34
Income from cash sales	1							
Income from barter / exchange	2							
Household use of goods	3							
Rental income	4							
Other income	5							
						Total income per month (sum of items 1 to 5 above)		
Expenditures								
Hired labour	6							
Raw materials & articles for resale	7							
Rental of land / buildings	8							
Rent of machinery and vehicles	9							
Maintenance, repairs & parts	10							
Electricity and water	11							
Taxes, licences, etc.	12							
Interest/other charges on loans	13							
Other expenses	14							
						Total expenditure per month (sum of items 6 to 14 above)		
Q35: If gross profits are negative, please give reason:						Gross profits per month (Income minus expenditure)		

Section 6e: ASSETS OF NON-FARM ENTERPRISE 3

ITEM	22. Code	23. Does this enterprise own...?	24. For how much would you be able to selltoday	25. Did the enterprise obtain any....during the past 12 months?	26. How much did the enterprise pay for the....that was obtained during the last 12 months	27. Did the enterprise sell any... during the past 12 months?	28. How much did the enterprise receive from the sale ofduring the past 12 months?
		Yes Y No N >>Next Item	Amount	Yes Y No N >>Next Item	Amount	Yes Y No N >>Next Item	
	22	23	24	25	26	27	28
Building	1						
Land	2						
Equipment/ tools/machinery	3						
Stocks of goods and raw materials	4						
Bicycles	5						
Carts	6						
Cars, Vans, Buses	7						
Boats	8						
Other vehicles	9						
Other Specify	0						

Section 6f: INCOME AND EXPENDITURES OF NON-FARM ENTERPRISE 3

Income and Expenditure items	29. Code	30. During the past 12 months has the enterprise received for /spent on? Yes Y No N (-> Next item)	31. How much did you receive for / spend on..... during the last 12 months? Amount	32. During the past 12 months was this item ever unavailable to you when you wished to purchase or use it?		33. Calculated monthly income and expenditures Amount per month Item 31a x factor of time-unit	34
				Time Unit	If Yes probe: OFTEN or just ONCE OR TWICE		
				Day D Week W Month M Year Y	Yes often 1 Yes once or twice 2 No 3	Day x 30 Week x 4.33 Month x 1 Year / 12	
Income	29	30	31a	31b	32	33a	33b
Income from cash sales	1						
Income from barter / exchange	2						
Household use of goods	3						
Rental income	4						
Other income	5						
						Total income per month <i>(sum of items 1 to 5 above)</i>	
Expenditures							
Hired labour	6						
Raw materials & articles for resale	7						
Rental of land / buildings	8						
Rent of machinery and vehicles	9						
Maintenance, repairs & parts	10						
Electricity and water	11						
Taxes, licences, etc.	12						
Interest\other charges on loans	13						
Other expenses	14						
						Total expenditure per month <i>(sum of items 6 to 14 above)</i>	
Q35: If gross profits are negative, please give reason:						Gross profits per month <i>(Income minus expenditure)</i>	

SECTION 7: HOUSING

1. How many rooms does this household occupy?	2. On what basis does the household occupy the dwelling?	3. What is the main source of drinking water?	4. What is the main source of light?	5. What type of toilet has the dwelling got?	6. Main construction materials of outside walls?	7. Main roofing material	8. Main flooring material	9. How is this household's solid waste disposed of?
(Do not include bath-rooms, toilets & Kitchens)	Owning O Renting R Provided Rent Free F	Piped indoors/ compound PR Public stand pipe PU Well in compound WR Well with pump (public) WP Well without pump (public) WO Stream/River SR Other,specify... OS	Electricity E Kerosene K Candles C Solar S Other (Specify) O	Own flush toilet OF Shared flush toilet SF Own bucket/pan OB Shared bucket/pan SB Own pit latrine SP Public pit PP No Toilet NT Other,specify OR	Mud M Wood W Brick B Cement/ concrete C Thatched\ grass T Other,spec O	Thatch T Corrugated iron I Asbestos A Cement/ concrete C Other O	Mud/ earth M Wood W Tiles T Cement/ concrete C Other O	Burning B Buried U Tipped T Recycled R Municipal M Private firm P Municipal M Other,spec O
1	2	3	4	5	6	7	8	

SECTION 8: ENVIRONMENT

No.	Question	Categories and Codes	Code
1	What is your main environmental concern?	Coastal erosion CE Bush fires BF Deforestation DF Disposal of solid waste SW Dust DS Global warming GW Depletion of the ozone layer OL Other, specify OH	
2	Do you think the authorities are doing enough to arrest this environmental concern?	Yes Y No N	
3	What can you do to help arrest the problem? environmental management activity?		
4	Has any member of this household taken part in any	Yes Y No N	>>Q6
5	Which activity was it?	Tree planting TP Cleaning/set-setal CS Soil conservation SC Dyke construction DC Creating buffer to prevent bush fire CB Other, specify OH	
6	What is this household's main cooking fuel?	Firewood F Charcoal C Gas G Electricity E Solar S Other, specify O Don't Cook N	>>Q10
7	What is the main type of cooking stove used?	Three stones T Mud Stove U Kumba Gaye K Sinkirikuto S Cooker (gas, electric) C Gas Bottle G Other, specify O Not applicable N	
8	What other type of cooking fuel does this household use?	Firewood F Charcoal C Gas G Electricity E Solar S Other, specify O	
9	Where does this household obtain its main cooking fuel?	Bush B Unprotected forest U Protected forest P Retailer/supplier R NAWEC N Other, specify O	

SECTION 8: ENVIRONMENT Continued

10	How can we stop the destruction of our forests?		YES	NO	Don't Know	A= B= C= D= E= F=
		A. Promote alternative sources of household energy	Y	N	D	
		B. Stop the cutting down of the remaining forests	Y	N	D	
		C. Reforestation	Y	N	D	
		D. Community forest	Y	N	D	
		E. Check the rate of growth of the human population	Y	N	D	
		F. Other, specify	Y	N	D	
11	How do you find the quality of the air within your residential area?	Clean	C			Q13, if "C"
		Polluted	P			
12	What is polluting the air?	Bush fires	B			
		Dust	D			
		Pesticide	P			
		Smoke from factories	F			
		Household smoke	H			
		Cigarette smoke	C			
		Vehicles	V			
		Waste dump site	W			
13	How do you find the quality of your drinking water?	Clean	C			Q15, if "C"
		Polluted	P			
14	What is polluting the water?	Pesticides and fertilizers	P			
		Factories	F			
		Waste dump sites	W			
		Septic tanks and pit latrines	T			
		Salt water	S			
		Other, specify	O			
15 Now I would like you to tell me to what extent you agree or disagree about the following statements made by some people:						
		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
15.1	Sand is an abundant natural resource and there should be no restriction on its mining	1	2	3	4	5
15.2	Over exploitation of natural resources e.g. sand, water, forest, etc. leads to deterioration of the environment	1	2	3	4	5
15.3	Communities have greater role in protecting the environment	1	2	3	4	5
15.4	Communities should contribute towards the maintenance of social amenities	1	2	3	4	5

SECTION 9: PERCEPTION ABOUT POVERTY (To be answered by household heads or persons to represent them only)

1	What is poverty in your opinion?
2	What is the poverty status of your own household according to your own rating?	Extremely poor E Poor P Non-poor N
3	Give main reason for your response to Q2.

SECTION 12: RESPONDENTS TO THE SECOND ROUND

1. Which household members are mainly responsible for preparing food in the household	ID Number

2. Which household members are mainly responsible for making the household purchase?	ID Number

Time interview concluded

Thank the respondent and apologize for the time taken to respond to your question; and then remind him/her that you would like to meet appropriate persons for certain modules such as Non-farm enterprise, those with children under-5 for anthropometry as well as those for whom he/she could not give information about. Also let him/her know that you will be going back to the household for part two administration and the regular filling of the daily record form for a period of thirty (30) days.

THE GOVERNMENT OF THE GAMBIA
CENTRAL STATISTICS DEPARTMENT / CBEMP

**INTEGRATED HOUSEHOLD SURVEY ON CONSUMPTION EXPENDITURE
AND POVERTY LEVEL ASSESSMENT - 2002/03**

PART TWO: HOUSEHOLD CONSUMPTION & EXPENDITURE QUESTIONNAIRE

A. DATA COLLECTION

Interviewer Date
Supervisor Checking date

B. DATA ENTRY

Operator Entry date
Supervisor Editing date
Operator Re-entry date

L.G.A.	Banjul	1	[]
	KMC	2	
	Brikama	3	
	Mansakonko	4	
	Kerewan	5	
	Kuntaur	6	
	Janjangbureh	7	
	Basse	8	

District name []

Area 1 - Urban 2 - Rural []

Quarter []

E.A. Number []

Sub-sample []

Selected household []

Name of Household Head

Time interview commenced [] Address:

Tel:

Survey form number for this household [] of []

FORM A. BASELINE DATA

Sr. No	All persons													Persons age 3 and over						Persons age 7 and over					
	DEMOGRAPHIC PARTICULARS													EDUCATION						USUAL ACTIVITIES DURING LAST 12 MONTHS					
	Names of usual members of household and visitors who spent last night here.	Usual members and visitors	Relation-ship to head of household	Sex	Age on last birthday	Nationality	Marital status	School at- tence	High Class	NO. OF DAYS DURING LAST 12 MONTHS	Occupation	Industry	Employ- ment status	MONTHLY SALARY OF PAID EMPLOYEES	IF NOT AVAILABLE FOR WORK MOST OF THE TIME WERE YOU:										
A1	A2	A3	A4	A5	A6	A7	A8	A10	A11	A12	A13	A14	A15	A16	A17	A18									
1																									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									

(Circle only one dominant item in each column)

B. HOUSEHOLD CHARACTERISTICS

Date..... Starting Time.....

MATERIALS OF CONSTRUCTION OF DWELLING UNITS		TOILET FACILITY	PRINCIPAL SOURCE OF WATER SUPPLY	PRINCIPAL SUPPLY OF FUEL FOR		NO. OF ROOMS INCLUDING SHARED ROOMS	YEAR OF CONSTRUCTION	TENANCY OF DWELLING UNIT	RENT OR INPUTED RENT
ROOF	WALLS			COOKING	LIGHTING				
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
1. Corrugated iron 2. Asbestos 3. Concrete 4. Tile 5. Thatch (Grass /palm leaves) 6. Other, specify:.....	1. Cement block/burnt brick 2. Mud 3. Kiringting plastered with mud 4. Corrugate 5. Stalk/stick/ grass/leaves 6. Other, specify:.....	1. W. C./Flushed 2. Private Pan 3. Public Latrine 4. Private Pit 5. Public Pit 6. Ventilated improved pit (VIP) 7. Bush/River 8. Other, specify:.....	1. Piped indoors/ compound 2. Public stand pipe 3. Well in compound 4. Well with pump (public) 5. Well without pump (public) 6. Stream or river 7. Other, specify:.....	1. Firewood 2. Kerosene 3. Briquette 4. Charcoal 5. Gas 6. Electricity 7. Own solar or generator 8. Other, specify:.....	1. Firewood 2. Kerosene 3. Briquette 4. Charcoal 5. Gas 6. Electricity 7. Own solar or generator 8. Other, specify:.....	Exclude toilets, bathrooms, pantry kitchen, hall and storerooms. (WRITE DOWN NUMBER)	YEAR	1. Owned out right 2. Owned with mortgage or loan 3. Rent free 4. Renting (furnished) 5. Renting (unfurnished) 6. Other, specify:.....	1. If renting, what is rent per month? D - - - - - 2. If not renting, how much would have paid, if you have to rent it? D - - - - - 3. Subsidy per month D - - - - -

C. HOUSEHOLD DURABLES

Do you or any usual household members own or operate the following items by renting from the others?

ASK EACH ITEM AND WRITE:

1 - Own, 2 - Rent, 3 - Operate, 4 - No

NAME OF ITEMS	1 or 2 or 3 or 4	NAME OF ITEMS	1 or 2 or 3 or 4
54. Motor Car		61. Iron / Sewing Machine	
55. Motor Cycle / Scooter		62. Air Conditioner / Fan	
56. Other motorised vehicle		63. Refrigerator / Freezer	
57. Cycle		64. Electric/Gas Cooker / Oven	
58. Telephone		65. Washing Machine / Dryer	
59. T.V / Video / Radio / Cassette		66. Generator	
60. Musical instrument		67. Any other electrical appliance (specify:)	

(Circle the item numbers of durables owned or rented by household and WRITE 1 or 2 or 3 or 4)

D. AVERAGE MONTHLY HOUSEHOLD INCOME

Please record the total income of all members of household corresponding to the source in the appropriate column (i.e. total wages, salaries and profit in cash or in kind and income from other sources* during last year). If the household is engaged in farming, record the total income accrued during last last year under the yearly column).

*Income from other sources - (1) Property income (rent interest, dividends, etc.); (2) Current Transfers and Benefits (remittance received, pension, life insurance annuities, social security benefit, etc.

Code	Sources of Income (2)	Amount		(For Field Use) Monthly Average (5)	(For Office Use) (6)
		Monthly (3)	Yearly (4)		
(1)					
01	Sale of Export Crop [see Q10 of Sect. 5a, Part I]				
02	Sale of Food Crop [see Q10 of Sect. 5a, Part I]				
03	Livestock & Livestock Products [see Sect. 5b, Part I]				
04	Fishing				
05	Other Farming Income				
06	Non-Farm Enterprise 1 [see Q34 of Sect. 6b, Part I]				
07	Non-Farm Enterprise 2 [see Q34 of Sect. 6b, Part I]				
08	Non-Farm Enterprise 3 [see Q34 of Sect. 6b, Part I]				
09	Other Non-Farm Enterprise(s) [see Sect. 6 continuation(s)]				
10	Public and Parastatal Sector Salary [see A16 of Form A, Part 2]				
11	Private Sector Salary [see A16 of Form A, Part 2]				
12	Rent Received				
13	Remittances Received				
14	Transfer Payments Received (pensions, scholarships, insurances, etc.)				
15	Other Sources, specify.....				
16	Other Sources, specify.....				
17	Other Sources, specify.....				
18	Total				

DATE.....

Starting Time.....

E. EXPENDITURE ON CLOTHING AND FOOTWEAR DURING LAST 3 MONTHS

Group/Sub-group/Item		Purchases (Dalasis)	Receipts in kind (Dalasis)	Sub-totals Purchases	Average (OFFICE USE)	
Description	Code				Purchases (Dalasis)	In kind (Dalasis)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Last 3 months				
CLOTHING 21		purchases	>>>>>>		>> expenditure summary	
Clothing Material (Drill)	2101					
Clothing Material (Poplin)	2102					
Tailoring Charges	2103					
Men's Suit (Ready Made)	2111					
Men's Safari (Ready Made)	2112					
Men's Trousers	2113					
Men's Shirts	2114					
Men's Underwear	2115					
Men's Socks	2116					
Men's Other Clothing	2117					
Ladies Docket	2121					
Ladies Headtie	2122					
Ladies Shirt/Lappa	2123					
Ladies Underwear	2124					
Ladies Underwear - brassiere	2125					
Ladies Socks	2126					
Ladies Other Clothing	2127					
Boy's Dress (Excluding School Uniform)	2131					
Boy's Other Clothing	2132					
Girl's Dress (Excluding School Uniform)	2141					
Girl's Other Clothing	2142					
Babies Clothing	2151					
Repair Of Clothing	2161					
Other Clothing	2171					
FOOTWEAR 22		purchases	>>>>>>		>> expenditure summary	
Men's Shoes	2211					
Men's Slippers, Leather	2212					
Men's Slippers, Plastic	2213					
Ladies Shoes	2221					
Ladies Slippers, Leather	2222					
Ladies Slippers, Plastic	2223					
Boy's Shoes	2231					
Boy's Slippers, Leather	2232					
Boy's Slippers, Plastic	2233					
Girl's Shoes	2241					
Girl's Slippers, Leather	2242					
Girl's Slippers, Plastic	2243					
Repair Of Footwear	2251					
Other Footwear	2261					

DATE.....
Starting Time.....

F. EXPENDITURE ON HOUSING, FUEL AND POWER DURING LAST 3 MONTHS
EXPENDITURE ON FURNITURE AND FURNISHINGS DURING LAST 12 MONTHS

Group/Sub-group/Item		Purchases (Dalasis)	Receipts in kind (Dalasis)	Sub-totals Purchases	Average (OFFICE USE)	
Description	Code				Purchases (Dalasis)	In kind (Dalasis)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Last 3 months						
HOUSING 31		purchases	>>>>>>		>> expenditure summary	
House rent	3111					
<i>Check the rent here with the rent in B10</i>						
<i>Check whether city rate is part of the rent paid out. If it is so, DO NOT WRITE PAYMENT OF CITY RATE.</i>						
Rental value of rent-free housing	3121					
Rental value of owner-occupied house	3131					
City rate/compound or area council rate	3141					
Water charges	3151					
Garbage disposal	3163					
REGULAR MAINTENANCE & REPAIR OF DWELLING	32					
OTHER SERVICES RELATING TO THE DWELLING	33					
ELECTRICITY, GAS AND OTHER FUELS 34						
Electricity	3411					
Gas	3421					
kerosene	3431					
Wood	3441					
Coal	3442					
Charcoal	3443					
Candle	3451					
Other	3461					
Last 12 months						
FURNITURE, FIXTURES, FLOOR COVER 41		purchases	>>>>>>		>> expenditure summary	
Beds/Tables/Chairs/Desks	4111					
Cupboards/Wardrobe/Closet	4121					
Other furniture	4131					
Carpets/Mats/Linoleum/Mattresses	4141					
Repairs	4151					
HOUSEHOLD TEXTILES; FURNISHINGS 42						
Curtains/Bedsheet/Towels/Table cloth/Mosqui	4211					
Mirror	4221					
Flower boxes & pots	4222					
Waste paper baskets, Garbage boxes	4223					
Other household textiles and furnishings	4231					
Repairs	4241					

DATE.....
Starting Time.....

G. EXPENDITURE ON HOUSEHOLD EQUIPMENT

Group/Sub-group/Item		Purchases (Dalasis)	Receipts in kind (Dalasis)	Sub-totals Purchases	Average (OFFICE USE)		
Description	Code				Purchases (Dalasis)	In kind (Dalasis)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Last 12 months							
COOLING, HEATING, COOKING AND OTHER APPLIANCES		43	purchases	>>>>>>	>> expenditure summary		
Refrigerator, Freezer	4311						
Air conditioner, Fan	4312						
Generator	4321						
Lantern	4322						
Washing machine	4323						
Heater	4324						
Other cooling and cooking appliances	4331						
Repairs	4341						
GLASSWARE, TABLEWARE, UTENSILS		44					
Drinking glasses	4411						
Dinner & Tea utensils	4442						
Cutlery	4413						
Thermo Flasks	4421						
Pans, pots & Kitchen utensils	4422						
Other glassware	4431						
Tablespoons and utensils	4433						
Repairs	4441						
TOOLS FOR THE HOUSE AND GARDEN		45					
Last 3 months							
GOODS, SERVICE FOR HOUSEHOLD MAINTENANCE		46	purchases	>>>>>>	>> expenditure summary		
NON-DURABLE GOODS							
Laundrysoap, Toiletsoap	4611						
Detergent	4612						
Insecticide, Pesticide	4613						
Bulbs, Plugs, Wire	4621						
Paint, putty	4622						
Toilet paper	4623						
Cloth hanger	4631						
Broom, Brushes	4632						
Ropes, strings	4633						
Needles, nuts, bolts, screw, nails	4634						
Other non-durable goods	4641						
HOUSEHOLD SERVICE							
Maids, Cooks, Cleaners, Gardeners, Secu	4651						
Plumbing and repairs and other services	4661						
Hire of furniture and furnishings	4671						
Other services	4681						

DATE.....
Starting Time.....

H. EXPENDITURE ON HEALTH DURING LAST 3 MONTHS/12 MONTHS

Group/Sub-group/Item		Purchases (Dalasis)	Receipts in kind (Dalasis)	Sub-totals Purchases	Average (OFFICE USE)	
Description	Code				Purchases (Dalasis)	In kind (Dalasis)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Last 3 months						
MEDICAL AND PHARMACEUTICAL PRODUCTS 51a		purchases	>>>>>>		>> expenditure summary	
Headache/Pain killer medicine	5111					
Cough medicine	5112					
Mentholatum	5113					
Worm medicine	5114					
Laxative	5115					
Tetracycline/antibiotics	5116					
Malaria pill	5117					
Injections	5118					
Other medicine	5119					
Last 12 months						
THERAPEUTIC APPLIANCES AND EQUIPMENT 51b		purchases	>>>>>>		>> expenditure summary	
Spetacles and contact lens	5120					
Wheelchairs	5121					
Crutches	5122					
Other appliances and equipment	5123					
Last 3 months						
NON-HOSPITAL MEDICAL, PARAMEDICAL, DENTAL SERVICES 52		purchases	>>>>>>		>> expenditure summary	
Doctor fees/Druggist fees	5221					
Dental fees	5222					
Traditional/herbal practitioners	5223					
Others	5224					
HOSPITAL SERVICES 53						
Hospital surgery/accommodation	5331					
Out Patient fees	5332					
Ambulance fees and others	5333					
SICKNESS AND ACCIDENT INSURANCE SERVICES 54						
Sickness insurance premia	5411					
Accident insurance premia	5412					
Other health related insurance premia	5413					

DATE.....
Starting Time.....

I. EXPENDITURE ON TRANSPORT DURING LAST 3 MONTHS/12 MONTHS

Group/Sub-group/Item		Purchases (Dalis)	Receipts in kind (Dalis)	Sub-totals Purchases	Average (OFFICE USE)	
Description	Code				Purchases (Dalis)	In kind (Dalis)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Last 12 months						
PURCHASE OF VEHICLES 61		purchases	>>>>>>		>> expenditure summary	
Car	6111					
Motorcycle	6112					
Bicycle	6113					
Boat	6114					
Other personal transport equipment	6115					
Last 3 months						
OPERATION OF PERSONAL TRANSPORT EQUIPMENT 62		purchases	>>>>>>		>> expenditure summary	
Tyres, tubes, parts	6221					
Other accessories	6222					
Petrol, diesel, oils and greases	6223					
Chauffeur and driver service	6224					
Other expenditure including repair and servicing	6225					
TRANSPORT SERVICES 63						
Road transport	6331					
Inland water transport	6332					
Air transport	6333					
Ocean transport	6334					
Other transport	6335					

DATE.....
Starting Time.....

J. EXPENDITURE ON LEISURE, ENTERTAINMENT & CULTURAL SERVICES LAST 12 MONTHS & LAST MONTH

Group/Sub-group/Item		Purchases (Dalasis)	Receipts in kind (Dalasis)	Sub-totals Purchases	Average (OFFICE USE)		
Description	Code				Purchases (Dalasis)	In kind (Dalasis)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Last 12 months							
EQUIPMENT & ACCESSORIES INCLUDING REPAIRS		71	purchases	>>>>>>	>> expenditure summary		
TV, Video, Radio, Cassette Player, Tape recorder, Record Player	7111						
Musical instruments	7112						
Camera, Video camera & other durable photographic equip	7113						
Typewriter	7114						
Binoculars, sports equipment	7115						
Other accessories and repairs	7116						
Last month							
NON-DURABLE GOODS			purchases	>>>>>>	>> expenditure summary		
Transistor batteries/films & other non-durable photo items	7121						
Other non-durable items	7122						
RECREATIONAL, ENTERTAINMENT AND CULTURAL SERVICES		72					
Football, cinema, video tickets & charges	7211						
Membership of sports/video societies & other clubs	7112						
NEWSPAPERS, BOOKS & STATIONERY (OTHER THAN		73					
Books and magazines	7331						
Newspapers	7332						
WRITING AND DRAWING EQUIPMENT AND SUPPLIES							
Stationery supplies - writing pad, pens, ball pens, pencils, ink, etc	7333						
Drawing equipment and accessories	7334						
Other items and repairs	7335						

DATE.....
Starting Time.....

K. EXPENDITURE ON EDUCATION DURING LAST 3 MONTHS/12 MONTHS

Group/Sub-group/Item		Purchases (Dalasis)	Receipts in kind (Dalasis)	Sub-totals Purchases	Average (OFFICE USE)		
Description	Code				Purchases (Dalasis)	In kind (Dalasis)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Last 12 months							
EDUCATIONAL SERVICES 81		purchases	>>>>>>		>> expenditure summary		
School fees	8111						
School transport	8112						
Boarding, lodging at school	8113						
Other expenses on educational services	8114						
EDUCATIONAL MATERIALS 82							
School books and stationery	8211						
School furniture	8212						
School uniform and wearing apparel	8213						
School bags	8214						
Other expenses on educational materials	8215						
ANCILLARY EDUCATIONAL SERVICES 83							
Out of school private lectures	8311						
Lunch expenses	8312						
Other expenses on additional educational services	8313						

L.. EXPENDITURE ON HOTELS, CAFES AND RESTAURANTS DURING LAST MONTH

Group/Sub-group/Item		Purchases (Dalasis)	Receipts in kind (Dalasis)	Sub-totals Purchases	Average (OFFICE USE)	
Description	Code				Purchases (Dalasis)	In kind (Dalasis)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Last 1 month						
EXPENDITURE ON HOTELS, CAFES AND RESTAURANTS 91		purchases	>>>>>>		>> expenditure summary	
Catering	9111					
Accommodation	9112					

DATE.....
Starting Time.....

M. EXPENDITURE ON MISCELLANEOUS GOODS AND SERVICES DURING LAST 3 MONTHS/12 MONTHS

Group/Sub-group/Item		Purchases (Dalasis)	Receipts in kind (Dalasis)	Sub-totals Purchases	Average (OFFICE USE)	
Description	Code				Purchases (Dalasis)	In kind (Dalasis)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Last 3 months						
PERSONAL SERVICES 101		purchases	>>>>>>		>> expenditure summary	
Barber, beauty saloon	10111					
Other personal care services	10112					
PERSONAL EFFECTS n.e.c. 102						
Toothbrush, toothpaste/cosmetics	10221					
Shaving equipment/permanent wave set	10222					
Other personal effects	10223					
Last 12 months						
JEWELLERY AND WATCHES		purchases	>>>>>>		>> expenditure summary	
Necklaces, bangles, rings	10224					
Other jewellery	10225					
Watches/clocks	10226					
OTHER PERSONAL GOODS						
Umbrella/hats/raincoats	10227					
Walking sticks/travelling bags	10228					
Iron/Sewing machine/hair dryer	10229					
Other personal goods	10230					
Last 1 month						
COMMUNICATIONS 103		purchases	>>>>>>		>> expenditure summary	
Post and telegraph, telex, fax, etc.	10331					
Telephone	10332					
Telecentre services	10333					
Internet services	10334					
Mobile communication	10335					
Other communication services	10336					
Last 12 months						
MISCELLANEOUS SERVICES		purchases	>>>>>>		>> expenditure summary	
SOCIAL SERVICES 104						
FINANCIAL SERVICES n.e.c. 105						
SERVICES NOT ELSEWHERE CLASSIFIED 106						
EXPENDITURE ON PACKAGE TOURS 107						
Transport fares, accommodation	8661					
Food and other elements	8662					

DATE.....
Starting Time.....

N. NON-CONSUMPTION EXPENDITURE DURING LAST 12 MONTHS

Item	Last 12 Months (2)	Item Code (3)	Average (4)	Item (1)	Last 12 Months (2)	Item Code (3)	Average (4)
11151 Direct taxes				111534 Life insurance premia			
11151 Income tax				111535 Health insurance premia			
11152 Other direct taxes				111536 Property insurance premia			
11152 Taxes, duties, fees & other compulsory charges				111537 Other insurance premia			
11153 Pension & social security contributions & insurance premia				111541 Remittances, gifts and similar transfers			
111531 Pension contributions				111551 Subscriptions,			
111532 Provident fund Contributions				111561 Interest on consumer debt			
111533 Social security Contributions				111571 Total			

Subscriptions and contributions mean membership fees & contributions to religious & relief funds.

O. DISBURSEMENTS OTHER THAN EXPENDITURE

Item	Last 12 months (2)	Item Code (3)	Average (4)	Item (1)	Last 12 months (2)	Item Code (3)	Average (4)
111611 Additions to bank deposits And savings				111651 Amounts invested in real Estate			
111621 Amounts disbursed in repayment Of loans taken				111661 Amounts invested in co-Operative or household Enterprise			
111631 Amounts given out as loans				111671 Other disbursements including donations			
111641 Amounts invested in stocks, Shares, debentures, etc.				111681 Total			

Other Disbursements & Donations cover giving out money or gifts on special occasions like marriage, birth, death and others or to needy people.

DATE.....
Starting Time.....

P. RECEIPT FROM SALE OF USED ITEMS

Group/Sub-group/Item		Last month	Last 3 months	Last 12 months	Average sales
Description	Code	(Dalasis)	(Dalasis)	(Dalasis)	(Dalasis)
(1)	(2)	(3)	(4)	(5)	(7)
Books, magazines, newspapers	111111				
Drawing equipment	111112				
Clothing & footwear	111211				
Car/motor cycle/bicycle/boat etc.	111221				
Old tyres/tubes/parts	111231				
School books	111241				
Furniture/fixtures/floor coverings	111311				
Household textiles and other furnishings	111321				
Cooling, cooking & other appliances	111331				
Glassware, tableware & utensils	111341				
Spectacles & other Medical	111351				
School uniform	111361				
TV/Video/Casste/Radio	111371				
Musical instruments	111381				
Cameras/typrwriter/bi-noculars /sports Equipment	111391				
Jewellery,watches & clock	111401				
Umbrella/hats/raincoats/bags	111411				
Iron/sewing machines/hair dryer	111421				
Other personal goods	111431				

DATE.....

Starting Time.....

Q. MISCELLANEOUS INCOME AND EXPENDITURE

1. During the past 12 months, what income in cash and kind, did the household receive from the following sources?

FROM CENTRAL AND LOCAL GOVERNMENT			FROM OTHER SOURCES				
1. Social security	2. State Pension	3. OTHER (Specify)	4. Private pension/ insurance	5. Osusu	6. Dowry	7. Sale of Land	8. Other Specify
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	VALUE	AMOUNT	AMOUNT
1	2	3	4	5	6	7	8

2. During the past 12 months, how much did the household spend (in cash and kind) on:

9. Contributions to self-help projects	10. Weddings, dowry, naming ceremonies	11. Religious and other ceremonies (Tobaski, Koriteh, etc.)	12. Contributions to osusu	13. Other miscellaneous expenditure (specify)	14. How much money do you think will be enough to cover this household's basic needs in a month?
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
9	10	11	12	13	14

DATE.....
Starting Time.....

R. TRANSFER PAYMENTS MADE BY HOUSEHOLD

1. During the past 12 months, has the household sent any money or goods (as gifts or support) to an absent household member or any other person?

Yes Y

No N >>Next section

2. LIST THE NAME OF EACH PERSON TO WHOM MONEY OR GOODS WAS SENT	3. ID CODE CODE 99 IF NON-HOUSEHOLD MEMBER	4. RELATIONSHIP		5. SEX Male M Female F	6. Where does this recipient live? This village/town T Capital city C Other urban U Rural R Abroad A	7. Were these monies or goods sent regularly? YES: Monthly M Quarterly Q Annually A Other O NO N	8. Will they be repaid at some future time? Yes Y No N	9. What was the total value of cash sent or given to this person during the past 12 months?		10. What was the total value of food sent or given to this person during the past 12 months?		11. What was the value of other goods sent or given to this person during the past 12 months?		
		IF NOT A HOUSEHOLD MEMBER	IF NOT A HOUSEHOLD MEMBER					AMOUNT	IF NONE WRITE O	AMOUNT	IF NONE WRITE O	AMOUNT	IF NONE WRITE O	VALUE
	3		4		6	7	8	9	10	11				
Total Transfers sent												=	+	+

To summary sheet

DATE.....
Starting Time.....

S. TRANSFER PAYMENTS RECEIVED BY HOUSEHOLD

1. During the past 12 months, has the household received money or goods (as gifts or support) from an absent household member or any other person? Yes Y No N

2. LIST THE NAME OF EACH PERSON FROM WHOM MONEY OR GOODS WAS RECEIVED	3. ID CODE CODE 99 IF NON-HOUSEHOLD MEMBER	IF NOT A HOUSEHOLD MEMBER		6. Where does this person live? This village/town T Capital city C Other urban U Rural R Abroad A	7. Were these monies or goods received regularly? YES: Monthly M Quarterly Q Annually A Other O NO N	8. Will they be repaid at some future time? Yes Y No N	9. What was the total value of cash received from this person during the past 12 months? IF NONE WRITE O		10. What was the total value of food received from this person during the past 12 months? IF NONE WRITE O		11. What was the value of other goods received from this person during the past 12 months? IF NONE WRITE O
		4. RELATIONSHIP Parent P Spouse S Child C Brother/sister B Other relative R Non-relative N	5. SEX Male M Female F				AMOUNT		AMOUNT		
2	3	4	5	6	7	8	9	10	11		
							=	+	+		
							Total Transfers received				
							To summary sheet				

Check Q9 against item (14) of Form D

Time interview concluded:

Thank the respondent and apologize for the time taken to respond to your questions; and then remind him/her that you would like to meet appropriate persons for whom he/she could not give information about. Also let him/her know that you will be going back to the household regular for recording of expenditure and consumption in cash and kind on the daily record form for a period of thirty (30) days.

DATE.....

Starting Time.....

T. HOUSEHOLD EXPENDITURE SUMMARY

(Copy summary data from individual sheets to this form)

Sheet	Group	Description	Period	1 month	3 months	12 months
E	21	Expenditure on clothing	3 months			
E	22	Expenditure on footwear	3 months			
F	31	Expenditure on housing, fuel and power	3 months			
F	41/42	Expenditure on furniture and furnishings	12 months			
G	43-45	Expenditure on household equipment	12 months			
G	46	Expenditure on routine household maintenance	3 months			
H	51a	Expenditure on health -medicines	3 months			
H	51b	Therapeutical appliances and equipment	12 months			
H	52-54	Medical, paramedical and dental services, insurance	3 months			
I	61	Expenditure on transport - purchase of vehicles	12 months			
I	62-63	Operation of transport equipment, transport services	3 months			
J	71	Expenditure on leisure, entertainment and cultural services - equipment	12 months			
J	72-73	Recreational, entertainment and cultural services	1 month			
K	81-83	Expenditure on education	12 months			
L	91	Expenditure on hotels, cafes and restaurants	1 month			
M	101 -	Expenditure on miscellaneous goods and services -	3 months			
M	10223	personal services and other personal effects				
M	10227-	Jewelry and watches, other personal goods	12 months			
M	10230					
M	103	Communications	1 month			
M	104 -	Social services; Financial services n.e.s.; Services not	12 months			
M	107	elsewhere classified; Expenditure on package tours				
N		Non-consumption expenditure	12 months			
O		Disbursements other than expenditure	12 months			
Q		Miscellaneous income and expenditure	12 months			
R		Transfer payments made by the household (in cash)	12 months			
		Diary of daily household expenditures on FOOD	1 month			
		Total expenditures by period				
			<i>Multiplier</i>	1	1/3	1/12
		TOTAL Monthly expenditures			+	+
P		Receipt of sale of used items - books, newspapers, etc	1 month			
		clothing and footwear, , drawing equipment	3 months			
		all other used goods	12 months			
S		Transfer payments received by the household (in cash)	12 months			

**THE GOVERNMENT OF THE GAMBIA
CENTRAL STATISTICS DEPARTMENT/CBEMP**

**INTEGRATED HOUSEHOLD SURVEYS ON CONSUMPTION & EXPENDITURE
AND POVERTY LEVEL ASSESSMENT – 2002/03**

DAILY RECORD FORM

A DATA COLLECTION

Interviewer..... Date.....

Supervisor..... Checking Date.....

B DATA ENTRY

Operator..... Entry Date.....

Supervisor..... Editing Date.....

Operator..... Re-entry Date.....

L.G.A.	Banjul	1	[]
	KMC	2	
	Brikama	3	
	Mansakonko	4	
	Kerewan	5	
	Kuntaur	6	
	Janjangbureh	7	
	Basse	8	

District Name:.....[]

Area 1 – Urban 2 – Rural []

Quarter []

E.A. Number []

Sub-Sample []

Selected Household []

Name of Household Head.....

Time interview commenced [] Address.....

Tel.:.....

Survey form number for this household [] of []

CENTRAL STATISTICS DEPARTMENT, BANJUL
INTEGRATED HOUSEHOLD SURVEYS – CONSUMPTION & EXPENDITURE AND POVERTY LEVEL ASSESSMENT – 2002/03

DAILY RECORD BOOK FOR EXPENDITURE ON FOOD, DRINKS, CIGARETTES AND NON-FOOD ITEMS

Kindly record the Daily Expenditure which is divided into three parts as follows:

I. **PURCHASE OF ALL ITEMS** – Food, drinks and cigarettes for consumption at home or outside home and all non-food items purchased for use on cash payment or credit by usual members of household.

- Date - date of purchase
- Place of purchase - Place where purchase is made like market or name of shop or place or on taxi or bus.
- Description of item - Name of item such as rice, cassava, vegetables, fish, coke, beer, cigarettes, clothing, furniture, bus and taxi fare and so on.
- Quantity or weight - Quantity is in number or dozens and weight can be in local unit with equivalent standard unit (such as pound or kilogramme if possible).
- Total Price - The price paid in cash or on credit to purchase the item.
- Office use - Do not write in it.

II. **CONSUMPTION OF OWN PRODUCE** – Covers items which you produce and consume yourselves such as rice, cassava, potato leaves, vegetables, fruits, palm oil and wine and so on produced on your own farm or trees; chicken and goats you kept in your house; fish and game you caught by yourselves; chairs, tables, cloth and so on made by yourselves and firewood, fruits and roots collected by yourselves.

Please write

- Date -date of consumption or use of items.
- Description - name if item.
- Quantity or weight - as before, in number or local weight with approximate standard weight (pounds or kilogramme).

Estimated value - value which you would have paid if purchased.

Office use - Leave blank.

III. **CONSUMPTION OF OTHER ACQUISITION** – Covers items which the household members received free of charge as gifts or payment in kind or as barter or drawn from your business stock.

Date - date of consumption or use of items.

Description of item, Quantity or weight and Estimated value will be the same as above.

The head and members of household are requested to cooperate with the Central Statistics Department by filling in the Daily Record Book. Please try to provide complete information which will be used for the welfare of the people. We assure you that information will be treated as “confidential”.

If the household member who is entering expenditure in the Daily Record Book has any problem seek help from the Enumerator.

