

# ANNEX 1 - SURVEY METHODOLOGY

## The Questionnaire

Two questionnaires were used for the FHANIS survey, a rural household questionnaire and an urban household questionnaire. The rural household questionnaire was based on the urban questionnaire but was modified to include additional questions on agricultural production and live-stock, poultry and crop production.

Both questionnaires were used to collect information on:

- Household structure and composition
- Education
- Water and sanitation
- Health status and diarrhoea management
- Child immunisation and Vitamin A supplementation
- Nutrition, child feeding practices, and salt iodisation
- Food Security, consumption and expenditure
- Income sources

## The Sample

The Food Security, Health and Nutrition Information System (FHANIS) Survey covered both rural and urban areas of Zambia, sampling a total of 6,810 households.

In urban areas, a three stage sampling procedure was used when selecting the sample. First, urban districts were selected using probability proportional to size. Secondly, standard enumeration areas (SEA) were defined from low, medium, high density and peri-urban areas which had been stratified using population density as a measure. Probability proportional to size was used to define these SEAs. All households were listed within the selected SEA and finally, 20 households were selected from each using a linear systematic sampling procedure. Altogether 131 SEAs were covered and 2,620 urban households were interviewed in twenty-one districts of Zambia.<sup>1</sup>

The sample for the rural component of the survey was based on the Crop Forecasting Survey (CFS) conducted during the 1994/95 agricultural season. This was to allow FHANIS to use agricultural related data collected by the CFS. The CFS drew from a sample of 407 rural SEAs (of a total of 13,000 SEAs) using probability proportional to size. The number of agricultural households was the measure of selection. After listing, households in each standard enumeration area were stratified into three categories: small, medium and largescale farmers. Twenty households from the small and medium scale farmers were selected in each SEA. No large scale farmers were selected.

The FHANIS survey randomly selected 215 of the 407 SEAs covered during the Crop Forecasting Survey and interviewed all 20 households in each sample SEA. If households had moved, they were replaced by households listed previously during the CFS. Altogether 214 SEAs were covered and 4,190 households were interviewed during the rural household survey. The rural survey was conducted in all districts of Zambia. Because the sampling procedure for the rural and urban areas was slightly different and the rural area was over sampled, weighting factors have been calculated to present the national figures.

## Fieldwork

Before the field work began, a five day training of Master Trainers was conducted at the Central Statistical Office for each of the questionnaires, both urban and rural. Following this, training of the field enumerators and provincial based staff was conducted by the Master Trainers in the provinces. The field work was conducted by 132 field enumerators in the urban areas and 216 enumerators in the rural areas. Each province was supervised by one Master Trainer and the Provincial Statistical Officer. District Statistical Officers were responsible for supervision at the district level.

For the urban component, listing of households in the selected SEA was conducted between 17

<sup>1</sup> The twenty-one districts covered were: Lusaka, Ndola, Kitwe, Chingola, Luanshya, Chililabombwe, Kabwe, Mumbwa, Chipata, Petauke, Mansa, Nchelenge, Kasama, Luwingu, Mporokoso, Solwezi, Mongu, Sesheke, Choma, Namwala and Livingstone.

## **A N N E X 1**

June and 21 June 1995. Interviews began on 23 June and were completed on 7 July 1995. Field work for the rural household survey was delayed due to logistical constraints and was conducted between 13 August and 2 September 1995 (listing was not necessary as the sample was based on the Crop Forecasting Survey). Enumerators were given a list of households from the Crop Forecasting Survey to replace those households which may have moved.

### **Data Entry and Processing**

Questionnaires from the rural household survey were keyed in at the provincial centers by provincial data entry clerks who attended the training for field enumerators. Four programmers from the Central Statistical Office visited the nine provincial capitals to install the data entry screen and the CONCOR programme that was used for cleaning and checking the data. Data entry clerks were also trained on how to use the software at this time. Except for Central

Province and a few districts from Southern province, all the rural data was keyed in by provincial based data clerks.

IMPS (Integrated Microcomputer Processing System) was used for data entry. IMPS has three parts, CENTRY which is used for data entry and verification, CONCOR for range skip and consistency checks in the data and CENTS for tabulation. The CONCOR programme was run at the provincial level before sending the diskettes and the questionnaires to Headquarters in Lusaka. This was repeated in Lusaka before merging the provincial data.

The urban data was entered in Lusaka by the data entry clerks based at the Central Statistical Office Headquarters. Procedures which were applied during data entry for the rural household survey were also followed during entry of the urban household data. The Statistical Package for Social Sciences (SPSS) was used for tabulation and analysis.

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