

Vanuatu - Household Income and Expenditure Survey 2010

Vanuatu National Statistics Office - Ministry of Finance and Economic Management

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Overview

Identification

ID NUMBER

VUT-VNSO-HIES-2010-v1

Version

VERSION DESCRIPTION

Version 1

PRODUCTION DATE

2012-05-30

Overview

ABSTRACT

The main objectives of the survey are:

- (a) To obtain expenditure weights and other useful data for the up-dating of the basket and weight of the CPI;
- (b) To supplement the data available for use in compiling official estimates of household accounts in the systems of national accounts;
- (c) To supply benchmark data needed for assessment for MCA infrastructure projects;
- (d) To provide data for assessing the impact on household living conditions of existing or proposed economic and social measures, particularly changes in the structure of household expenditures and in household consumption;
- (e) To supply basic data needed for policy making in connection with social and economic planning; and
- (f) To gather information on poverty lines and incidence of poverty for determining nutritional level of people.

KIND OF DATA

Sample survey data [ssd]

UNITS OF ANALYSIS

Private Household, individuals, income and expenditure items

Scope

NOTES

In this survey, we intent to determine the number of person in an household, the overall detail income and expenditure of the household. Tho scope also covers the detail information of the persons living in the household. There is a diary which is used to record the daily income and expenditure of the household.

TOPICS

Topic	Vocabulary	URI
Income		
Expenditure		
consumption/consumer behaviour [1.1]		
income, property and investment/saving [1.5]		

Topic	Vocabulary	URI
economic conditions and indicators [1.2]		
employment [3.1]		
unemployment [3.5]		
health care and medical treatment [8.5]		
specific diseases and medical conditions [8.9]		
general health [8.4]		

Coverage

GEOGRAPHIC COVERAGE

There are eight main populations of interest for which estimates are required for the 2010 HIES: the provincial rural areas of Torba, Sanma, Penama, Malampa, Shefa, Tafea and the urban areas of Luganville and Port Vila. For this reason, the detailed analysis focuses on households from each of the eight sub-populations. Based on the 2006 Agricultural Census, 78 percent of the households are located in rural areas and 22 percent in urban areas.

Owing to cost and time constraints, some remote areas were not considered eligible for selection for the survey. Therefore the scope of the survey was reduced to 82.5 percent of all households in the population. Substantial reductions in scope occurred in Torba (62% in scope) and Malampa (68%) provinces. No enumeration areas were excluded in urban areas. While this may introduce some systematic bias, especially for the areas affected, the reduction of scope is not expected to affect the overall representativeness of the sample

UNIVERSE

The survey coverage included only persons living in private households during the survey period (September to November 2006). Persons living in institutions, such as school dormitories, hospital wards, hostels, prisons, as well as those households which had temporarily vacated their dwellings were excluded from the survey. Also excluded from the survey were ex-patriot temporary residents and permanent residents who were not residing (and intending to reside) in Vanuatu for at least 12.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Vanuatu National Statistics Office	Ministry of Finance and Economic Management

OTHER PRODUCER(S)

Name	Affiliation	Role
Secretariat of the Pacific Community	Regional Organization	Technical Assistance
Kim Robertson	AUSAID	Technical Assistance (Data Processing)

FUNDING

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	Funding
Vanuatu Government	VUT	Funding

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Department of Education	Vanuatu government	Questionnaire Input
Department of Agriculture	Vanuatu government	Questionnaire Input

Name	Affiliation	Role
Department of Health	Vanuatu government	Questionnaire Input
Department of labour	Vanuatu government	Questionnaire Input
Reserve Bank of Vanuatu	Vanuatu government	Questionnaire Input
Department of Treasury	Vanuatu government	Questionnaire Input

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Harry Nalau Ilo	HNI	VNSO	Documentation of Survey

DATE OF METADATA PRODUCTION

2012-07-09

DDI DOCUMENT VERSION

version 1 (July 2012) - First documentation of the survey using IHSN Toolkit

DDI DOCUMENT ID

DDI-VUT-VNSO-HIES-2010-v1

Sampling

Sampling Procedure

The sampling method adopted for the survey was a two-stage approach. The first stage involved the selection of Enumeration Areas (EA) using probability proportional to size (PPS) sampling. The size measure was the number of expected households in the EA, based on 2010 population census estimates. Although it would be desirable to cover all of Vanuatu for this survey, due to cost and time constraints some EAs were excluded from the frame before the selections were made. The impact on sub-population estimates will differ, as some areas have had larger scope reductions.

The second stage of sampling adopted systematic sampling from a list of all households contained in the EA. These lists were produced in the field by enumerators during the first visit to the EA. Once the sample had been selected, a review of where the selections were made was conducted to see how well they covered the projects of interest to the MCA. A total of nine additional EAs were selected to better cover some of the project areas which were not suitably represented by the original sample. A sample size of 4,532 households was adopted for the survey representing around 10 percent of the total households in Vanuatu.

Eight target areas were identified as sub-populations for which estimates would be desirable. These eight areas included the six provinces with separate target areas for the urban centres of Port Vila and Luganville. In order to achieve the required level of accuracy, different sample allocations were produced to determine which allocation would produce estimates of similar level accuracy for each target area. The sample allocation resulted in approximately 600 households selected for each province, except for Luganville and Torba where less than 500 households were selected.

Within each target area, further stratification was adopted in order to enhance suitable representation within each of the different area types. Strata were determined by allocating Area Councils to area types based on the Area Council's accessibility. As a result, 21 strata were created for the final sample. Sample allocation to each stratum was performed by allocating proportionally to the population within each "target area". The sample weights were calculated for each stratum separately and were adjusted for non-response and benchmarked against household counts from the 2010 agricultural census.

Response Rate

Please refer to (Name of Document))

Weighting

The sample weights were calculated for each stratum separately, adjusted for non-response, and benchmarked against household counts from the 2009 Population and Housing Census

Questionnaires

Overview

- Household Control Form (HCF)- was designed to list all the members of households, their date of birth, sex, marital status relationship to the head and typ of activity the person is involved in
- Household Questionnaire Form - Part 1: Dwelling Characteristics, Access to Transport, Communication, Health, Sanitation and Market Centres, Part II: Household Expenditure, Part III: Income and Production
- Person Questionnaire Form - captures information regarding Demograpjhc,health, education and economic activity for individual perosn
- Household two weeks diaries to collect daily consumption and expenditure

Data Collection

Data Collection Dates

Start	End	Cycle
2010-10-11	2010-10-17	Listing of household for the first week of the month

Data Collection Mode

Face-to-face [f2f]

DATA COLLECTION NOTES

The National Statistics Office recruited and trained six provincial coordinators, 73 supervisors and 169 interviewers to conduct the survey in the six provincial areas and two urban centres. Over the survey period each interviewer completed three workloads of about 45 households in total.

Four questionnaire forms were designed to collect information on household size and composition, personal and household income, major household expenditure, and regular food and household supply expenditures in the diaries. The household control form and the household questionnaire were administered by interview during the survey period, and the diaries were completed by the households over a two-week period. The personal questionnaire was administered to collect detailed information on health facility utilization and access, educational attendance and attainment, and labour force status.

The completed survey forms were checked by provincial coordinators and processed by staff of the National Statistics Office who recorded their receipt from the supervisors and checked the questionnaires for completeness. Incomplete questionnaires were referred back to the field supervisors to collect the necessary information. The status of incomplete questionnaires was recorded as either out of scope, vacant dwelling, unable to be contacted, and refused to respond.

Households that had completed the household questionnaire and at least one week of the diaries were accepted for further data processing. The data coding and manual editing of the questionnaires began in January 2007 and the data entry and micro editing was completed by the mid-July 2007. The completed questionnaires were entered into a data entry system (CSPPro) by nine data entry operators and three data editors. The questionnaires were entered twice into the system to ensure the accuracy of the data entry. After macro-editing and imputation, the data was transformed into a dataset that could

Data Collectors

Name	Abbreviation	Affiliation
Vanuatu National Statistics Office staff	VNSI-staff	VNSO

SUPERVISION

The National Statistics Office recruited and trained six provincial coordinators, 30 supervisors and 118 interviewers to conduct the survey in the six provincial areas and two urban centres. Over the survey period each interviewer completed three workloads of about 45 households in total.

Enumerators were asked to report to their supervisors if finding difficulties. If the one workload is completed then the supervisor should check. If the forms are not completed well then should give back to the enumerators to check again. Once the forms are completed the supervisor make the final check and sign it off and send to Provincial Cordinators check again. If there is still problems then the coordinator has to return the form back to the supevisor. Once this is done then the cordintaor will sign off the form then send to the head office. The office will then check if there are problems then will ask for clarification from coordinator and supervisor. The cordinators and supervisors were asked to visit their enumerators once a week .

The enumerators and supervisors were given impress, maps, list of all the villages in the EA and the selected households. Also they were given separate manual for enumerators and separate for the supervisor. The supervsiros were alsom given GPS to record the actual location of the basic services such as hospitals, health centres, clinics, whafts, market centresn, schools and shops. The were allso instructed to locate the actual villages locations.

Data Processing

Data Editing

Some initial editing was carried when the forms were coded and prepared for data entry.

There were then several strands of editing carried out after the data entry was completed.

A set of tables designed to identify missing, illegal or potentially incompatible values in the classificatory data was specified.

The development of the "Generate new records" program, described above, required extensive examination of the data. First, it was sometimes necessary to examine original questionnaires to obtain a better understanding of how households responded to certain questions, especially when the recorded responses were unexpected. Second, the development of some of the imputation functions implemented in the program required analysis of detailed data. Third, testing of the program required examination of data before and after transformation to ensure that the program was carrying out its intended functions. These and other more minor reasons for examining the data collectively also played an important editing function, even though it was unstructured from an editing point of view. Most of the editing actions flowing from this work are recorded in Queries.xls.

Outlier analysis is an important part of the editing process for household surveys. For the HIES, formal outlier analysis has largely been confined to examining households with very high income or expenditure. However, outliers were also detected during the processes described in the previous paragraphs.

Imputations

Some obvious errors were fixed and missing data supplied manually at the time of the initial coding and checking of the questionnaires prior to the data entry stage. Similarly changes were made as a result of editing queries described in the previous section.

A more automated form of imputation was implemented for certain instances of missing data.

For those transactions recorded in diaries where a quantity was supplied without a value, a value was imputed on the basis of transactions in the same commodity in the same province/urban area. Consideration was given to imputing separately for each transaction type (purchases, own account production, gifts given, gifts received) but there is not sufficient data to use a cross classification of province/urban and transaction type. Examination of differences in unit values between provinces/urban areas and between transaction types showed greater differences between provinces/urban areas than between transaction types. Where there was no required data for a commodity in a particular province/urban area, the unit value from a similar province/urban area was used. Calculations are included in value and quantity by prov city 2.xls. Transaction values imputed in this way are flagged on the file by means of the "data source" variable.

For employees who did not report their gross wages and salaries, a value was imputed on the basis of the average wage/salary of other employees with the same industry and occupation codes and who reported their value. Where there were no other employees in the same category reporting wages/salary, the value for a similar industry and occupation code was used. Calculations are included in supporting file W&S 5.xls. Any imputed values were included in the transaction record for wage and salaries for the household concerned (there is only one aggregate record per household, which combines the wages and salaries of all members of the household). If any component is imputed, the whole transaction is flagged as imputed. However, the imputed value is not included in the PERSON record.

For households that own their own dwelling (including those with a loan or mortgage) but who did not estimate the potential rental value of their dwelling in the household questionnaire, a value was imputed on the basis of the average for other dwellings in the same enumeration area. Potential rental values are not included in aggregate income or expenditure and therefore there are no transaction records for these values. Rather they are stored in the dwelling characteristic and tenure records. The imputed values are NOT flagged as imputed (because these values are not recorded as transactions, and no other record

Other Processing

The data entry system was developed in CSPro, which requires the captured data to be stored in a complex record structure. In essence, the data from each page of each questionnaire is stored in a separate record, and each of those records has to have all its variables unique to itself.

13 Pc's were used for data entry with 13 data entry operators three males and 10 females. A program was developed to accommodate first and second entry (Double entry).

Data Appraisal

Estimates of Sampling Error

did not compute