



Tuvalu Government
Central Statistics Division

Household Income and Expenditure Survey
2010
Report



Foreword

I have great pleasure in presenting the “Tuvalu Household Income and Expenditure Survey 2010 Report”.

Tuvalu, like any other country needs to have this kind of information on income and expenditures of our households. This information is extremely useful for policy makers, planners and administrators to formulate evidence based policies and programmes for the improvement of the lives of our people.

I would like to thank the United Nations Development Programme and Republic Of China for providing funds to carry out the survey and to the Secretariat of the Pacific Community for the technical assistance on the various stages of the survey. Without your support, this event would never have happened.

May I also extend my special thanks to the staff of the Central Statistics Division for their hard work in coordinating the various activities of the survey and putting together this report.

Tuvalu mo te Atua

Hon. Lotoala Metia
Minister of Finance and Economic Development

Acknowledgements

The Tuvalu Household Income and Expenditure Survey (HIES) is the largest national survey carried out by the Central Statistics Division (CSD) under the Ministry of Finance and Economic Development (MFED) in accordance with the international standards. The first survey of this kind was conducted in 1994, the second in 2004/05, with this being the third. The survey provides information on income and expenditure patterns of households in Tuvalu for 2010.

I would like to express my sincere gratitude to my fellow statisticians in the CSD for their tireless efforts and enthusiasm in seeing that the survey is completed in a timely manner. I would also like to thank the temporary staff who assisted with the data entry and editing of the survey information.

To Bertrand Buffiere and Chris Ryan from SPC, thank you for the advice and many hours spent in making sure the data is in the most usable shape possible. I would also like to thank the SPC Statistics and Demography Programme for availing the busy schedules of its staff to assist us. Without your assistance, we would not have completed the survey.

I would also like to thank all the field workers who carried out the interviews on all the islands of Tuvalu. To the households who took part in the survey, thank you for availing your times in providing the necessary information for the survey. I am sure that the information you have provided will allow our policy makers make more informed decisions in improving the living standards of people in Tuvalu.

Last but not least, my appreciation and gratitude to the HIES Steering Committee for providing valuable contributions in the survey questionnaire, overview of survey activities and finally with their knowledge in reviewing of this report.

Semu Malona
Government Statistician

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Executive Summary

The Household Income and Expenditure Survey 2010 was carried out by the Tuvalu Central Statistics Division over a period of 3 ½ months throughout the first half of 2010, covering eight islands of Tuvalu. The survey collected information from 541 households from these islands, with the only island excluded from scope of the survey being Niulakita.

There were three main survey forms used to collect data for the survey:

- Household Schedule – focusing on dwelling information and large irregular expenditures
- Individual Schedule – focusing on health, education, labour force and income
- Two 1-week Diaries – focusing on small regular expenditures and subsistence activity

Feedback from staff involved suggests the survey went well, despite the usual problems one encounters (some under-reporting and misunderstanding of questions) when undertaking a complex survey of this nature. As such there were no overly surprising results to come out of the survey, with the income and expenditure patterns of households across Funafuti and the Outer Islands falling in line with expectations.

Expenditure Summary

In summary, households across Tuvalu had a total consumption expenditure of \$ 20,152,000 for the year. “Food” expenditure contributed just over half of this amount with 52 per cent of the total, whilst other key expenditure categories were “water, electricity and other fuels” (18%) and “transportation” (6%).

There was a significant difference between Funafuti and the Outer Islands on how consumption expenditure was distributed. On the Outer Islands, “food” expenditure accounted for 68 per cent of total consumption expenditure, whilst on Funafuti, the equivalent figure was only 43 per cent. This is partly to be expected as the Outer Islands have less access to many non-food expenditure items which are readily available on Funafuti.

The average monthly household consumption expenditure was \$ 919; 1,331 for Funafuti and \$ 604 for the Outer Islands.

Nearly all households recorded that they purchased food throughout the course of the survey. It was also found that whilst 74 per cent of Funafuti households recorded they consumed home produce; this figure was much higher for the Outer Islands at 99 percent.

Non-consumption expenditure also had a significant impact on a typical household in Tuvalu's finances, with \$ 5,258,000 being recorded for this category (around 26% the amount reported for consumption expenditure). The main components of this expenditure were gifts to other households, gifts to the church, gifts to the community, home produce given away and taxes.

Income Summary

Households across Tuvalu received \$ 19,768,000 as household income for the year. Wages and Salary Income accounted for 50 per cent of the total household income, whilst income from subsistence activities (subsistence income + home produce consumed) accounted for 32 per cent.

The importance of each income source differed significantly between Funafuti and the Outer Islands, with Funafuti households being more reliant on wage and salary income, whereas the Outer Islands were more reliant on subsistence activities.

The average monthly household income was \$ 902; 1,364 for Funafuti households and \$ 549 for Outer Island households.

Approximately 90 per cent of Funafuti households reported earning wage and salary income, whereas 99 per cent of Outer Island households reported consuming home produce. The equivalent figure for home produce on Funafuti was still quite high with 74 per cent reporting they consumed home produce during the survey.

Section 1 – Introduction

1.1 Survey objectives

This report presents the results of the Tuvalu Household Income and Expenditure Survey 2010 (HIES), undertaken by the Central Statistics Division (CSD) during the period from 3 January 2009 to 12 June 2009. This is the third survey of its kind in Tuvalu and the last one was carried out in 2004/05. A report from that survey was produced in September 2006, and where possible, results from this report will be made to be comparable to the previous report.

This present report contains a summary of the major findings of the 2010 HIES, which it is hoped will be useful to planners, policy makers, donors, the general public and other interested users to make informed decisions based on findings provided in this report. The report is divided into four parts: background, summary of survey results, statistical tables, and appendices.

The survey had these main objectives:

- To obtain weights for the revision of the Consumer Price Index (CPI) for Funafuti;
- To provide information on the nature and distribution of household income, expenditure and food consumption patterns;
- To provide data on the household sector's contribution to the National Accounts
- To provide information on economic activity of men and women to study gender issues
- To undertake some poverty analysis

1.2 Sample design and implementation

It was decided that 33% (one third) sample was sufficient to achieve suitable levels of accuracy for key estimates in the survey. So the sample selection was spread proportionally across all the island except Niulakita as it was considered too small. The resulting sample can be seen in Table 1.1 on the following page.

Table 1.1: Population and sample counts of dwellings by islands for 2010 HIES

Island	Population	Sample
Nanumea	123	41
Nanumaga	117	39
Niutao	138	46
Nui	141	47
Vaitupu	298	100
Nukufetau	141	47
Nukulaelae	78	26
Funafuti	791	254
Totals	1,827	600

For selection purposes, each island was treated as a separate stratum and independent samples were selected from each. The strategy used was to list each dwelling on the island by their geographical position and run a systematic skip through the list to achieve the 33% sample. This approach assured that the sample would be spread out across each island as much as possible and thus more representative.

Although “Dwellings” were selected in the sample, information was collected from “Households”. A dwelling was considered to have more than one household if there more than one group of people living in the dwelling that pooled their money and shared their food together. In this survey, there were four cases on Funafuti only. Three of these dwellings had two households reside in them, whereas one dwelling had three households.

1.3 Response Rates

As shown in Table 1.2 below, the final response rates for the survey was very pleasing with an average rate of 97 per cent across all islands selected. The response rates were derived by dividing the number of fully responding households by the number of selected households in scope of the survey which weren’t vacant. As can be seen in the table, four of the islands managed a 100 per cent response, whereas only Nukufetau had a response rate of less than 90 per cent.

Table 1.2: Response rates by households for 2010 HIES

Island	Selected households	Fully responding	Vacant	Non response	Response rate
Nanumea	41	38	3	0	100%
Nanumaga	39	38	1	0	100%
Niutao	46	45	0	1	98%
Nui	47	44	3	0	100%
Vaitupu	100	93	6	1	99%
Nukufetau	47	40	2	5	89%
Nukulaelae	26	26	0	0	100%
Funafuti *	259	217	32	10	96%
Totals	605	541	47	17	97%

* 4 dwellings on Funafuti had more than one household

1.4 Survey Schedules

There were 3 main survey schedules used to collect the information for the survey:

- 1) Household Schedule
- 2) Individual Schedule
- 3) Household Diary

Household Schedule

This questionnaire is primarily used to collect information on large expenditure items. Having said this, the form is also used to collect information about the household composition and information about the dwelling characteristics. In total there are 14 sections to this questionnaire which cover:

- | | |
|-------------------------|----------------------------------|
| 1 Household Composition | 8 Household Furnishings |
| 2 Dwelling Information | 9 Home Appliances |
| 3 Dwelling Expenditure | 10 Cultural and Social Payments |
| 4 Transport Expenditure | 11 Holiday/Travel Costs |
| 5 Education Expenses | 12 Personal Loans and Saving |
| 6 Health Expenses | 13 Clothing |
| 7 Land & Property | 14 Other Major Expenditure Items |

For the Household Composition section, all people currently residing in the household are listed, as well as people who have moved out in the last 12 months.

People who are currently residing in the household include:

- People who are usual residents and residing at the household at time of interview
- People who are usual residents but are currently away from the household (e.g. on a work trip)
- People who aren't usual residents but are currently residing with the household (e.g. a visitor)

People who have moved out in the last 12 months include people who were a usual resident in the last 12 months, but have since left the household on a permanent basis.

The basic demographic information collected about each individual who meets any of the criteria above includes:

- Relationship to household head
- Sex
- Age
- Ethnicity
- Marital Status

For the Dwelling Information section, information about the dwelling structure, cooking facilities, lighting, water and toilet facilities is all collected.

The last 12 sections, 3-14 then have the main focus on collecting information about large expenditures the household may incur.

Individual Schedule

The individual schedule is dividing into three main sections which cover:

- Health and Education Information
- Labour Force Status
- Employment Activity

The first part of the Questionnaire collects information about health problems each individual may have encountered in the last 3 months, followed by education information. For the education section, if a

person is currently attending an education institution, then current level is asked, whereas if the person attended an education institution but no longer attends, then the highest level completed is collected.

The second part section of this Questionnaire collects information about labour force and is only asked of individuals aged 15 years and above. These questions aim to classify each person in scope for this section as either:

- In the Labour Force - Employed
- In the Labour Force - Unemployed
- Not in the Labour Force

The third part of this Questionnaire (only for 15 years and above) is focused on collecting information from individuals regarding their income, as well as a few other topics. The sections included in this part are:

- | | |
|------------------------------|-------------------------------|
| 1) Wages and Salary | 8) Jobs in the last 12 months |
| 2) Working in Own Business | 9) Other Income |
| 3) Agriculture and Livestock | 10) Children Income |
| 4) Fishing | 11) Tobacco and Alcohol Use |
| 5) Income from Handicrafts | 12) Other Activities |
| 6) Income from Gambling | 13) Seafarers |
| 7) Small scale activities | |

Diary

The last form used for the survey was the Diary which each household was required to fill in for two weeks (two one-week diaries).

Each diary had 5 sections covering the following:

- 1) Goods and Services Purchased: This section had a separate page for each day and was for recording all items bought in a store, street vendors, market or any other place (including credit).
- 2) Home Production – Food and Drinks: This section was for recording home grown/produced items consisting of items such as food grown at home or at the family plantation, self caught or gathered fish and home-made handicrafts and other goods grown and produced at home. Information is

recorded for these items consumed by the household which they produced themselves, these items they gave away as a gift, and these items they sold.

- 3) Goods Taken Away From Your Own Business: This section is used for recording goods taken from a business owned by the household either for household consumption or given away to other households.
- 4) Monetary Gifts Given and Received: This section of the diary is for recording gifts given and received in cash. If any member of the household receives a gift that meets this criteria during the diary keeping period from someone who is not a member of their household it is recorded here. Also included in this section are the cash winnings from gambling.
- 5) Non Monetary Gift Given and Received: This section of the diary is for recording all other gifts received or given to other households apart from cash and home produced food. Also included in this section are the non-cash winnings from gambling.

1.5 Key Concepts and Definitions

Household

For the purpose of this survey, a household was defined as *“those persons who usually eat together and share the work of preparing the food and/or the cost of work of providing it”*. Normally household members also live and sleep in the same building, but experience has shown that this is not always so. Examples of this might be the father who works as a night watchman, or the man who goes out fishing at night-time and stays in a temporary shelter offshore. This is why the definition is based on *eating together* rather than on living or sleeping in the same building.

Subsistence/Subsistence activity

Subsistence activity or home production-subsistence is an economic activity where the produce is mainly for home consumption, not for commercial purposes. It includes gardening, animal raising, fishing, and others such as growing crops, etc. Occasionally, sales are made when the harvest/produce is more than enough for home consumption. Subsistence activity-market oriented or home production-market oriented is an economic activity of those who farmed or fished and sold some of their produce.

Household Income and Expenditure

For the Tuvalu 2010 HIES, Resolution 1 from the Seventeenth International Conference of Labour Statisticians was used as the basis for defining household income and expenditure. A brief explanation of these definitions will be provided in this section, whereas more detail will be provided in the Analysis section of this report

An abbreviated explanation for these two concepts is as follows:

Household Income

Household income consists of all receipts whether monetary or in kind (goods and services) that are received by the household or by individual members of the household at annual or more frequent intervals, but excludes windfall gains and other such irregular and typically onetime receipts. Household income receipts are available for current consumption and do not reduce the net worth of the household through a reduction of its cash, the disposal of its other financial or non-financial assets or an increase in its liabilities.

Household income may be defined to cover: (i) income from employment (both paid and self-employment); (ii) property income; (iii) income from the production of household services for own

Household Income

1. Income from Employment
 - a. Employee Income
 - i. Wage & Salary Income (current jobs)
 - ii. Wage & Salary Income (previous jobs)
 - iii. Wage & Salary Income (casual jobs)
 - b. Income from Self-employment
 - i. Business Income
 - ii. Subsistence Activity Income
 - iii. Consumption of Home Produce
 - iv. Gifts given which are Home Produce
2. Property Income
 - a. Interest receipts
 - b. Dividends
 - c. Rental payments
 - d. Royalties
3. Income from household production of services for own consumption
4. Transfer Income
 - a. Welfare benefits
 - b. Regular NPF receipts
 - c. Child support
 - d. Remittances – Cash

Irregular Gifts Received

1. Cash
2. In kind - home produced and non-home produced

Other Receipts

1. Workers compensation
2. Welfare/pensions
3. Sale of Assets
4. Inheritance
5. Matrimony Property Settlement
6. Winnings from Gambling

Household Expenditure

Consumer goods and services are those used by a household to directly satisfy the personal needs and wants of its members. **Household consumption expenditure** is the value of consumer goods and services acquired, used or paid for by a household through direct monetary purchases, own-account production, barter or as income in-kind for the satisfaction of the needs and wants of its members.

The actual final consumption of a household is the sum of its household consumption expenditure and the value of consumer goods and services acquired or used by the household through transfers from government, non-profit institutions or other households. This is the most appropriate concept for welfare analysis as it takes into account all consumer goods and services available to a household for the satisfaction of the needs and wants of its members.

Household expenditure is defined as the sum of household consumption expenditure and the **non-consumption expenditures** of the household. The latter are those expenditures incurred by a household as transfers made to government, non-profit institutions and other households, without acquiring any goods or services in return for the satisfaction of the needs of its members. Household expenditure represents the total outlay that a household has to make to satisfy its needs and meet its “legal” commitments.

Household Expenditure

1. Household Consumption Expenditure (HCE)
 - a. Food and Non-Alcoholic Beverages
 - i. Purchases
 - ii. Home-Production
 - b. Alcohol & Tobacco
 - i. Purchases
 - ii. Home-Production
 - c. Clothing & Footwear
 - d. Housing and Utilities
 - i. Rental Payments Actual
 - ii. Household Maintenance & Repair
 - iii. Household Utilities
 - e. Household Furnishing, Equipment and Routine Maintenance
 - i. Furnishing and Equipment
 - ii. Routine Maintenance
 - f. Medical & Health
 - g. Transport
 - i. Purchase of vehicles
 - ii. Transport operation costs
 - iii. Transport services
 - h. Communication
 - i. Recreation
 - j. Education
 - k. Restaurants and Hotels
 - l. Miscellaneous Goods & Services
 - i. Interest payments
 - ii. Insurance – House, Vehicle and Medical
 - iii. Other
2. Other Consumption Expenditure (OCE)
 - a. Gifts
 - i. Home Produce - Received
 - ii. Non-Home Produce – Received
3. Household Non-Consumption Expenditure (HNCE)
 - a. Money given away to:
 - i. Other households
 - ii. Church
 - iii. Community
 - b. Gifts given away (including home produce)
 - c. Taxes
 - d. Money Lent and Lost on Gambling

1.6 Fieldwork

The fieldwork was carried out by 42 specially selected interviewers and 13 supervisors, supported by 2 trainers and 4 staff of the Central Statistics Division who acted as supervisors. The interviewers were selected via a recruitment process, with preference given to those applicants who had previous survey experience with the Central Statistics Division. Interviews were conducted to select the final list of interviewers. The supervisors did the training of fieldworkers on the Outer Islands and also assisted in the supervision of the fieldwork.

There was a one-week training course for supervisors, followed by a one-week training course for interviewers (also attended by the supervisors). All field staff had to swear and sign an oath of confidentiality.

The survey was publicized by means of radio – that is an interview was broadcasted by Radio Tuvalu to inform the public about the survey. Fieldwork for each island lasted about 3-4 weeks. This involved an initial few days for becoming familiar with the work area each enumerator was responsible for, and making an initial contact with the selected households to drop off the diaries. The households then had two weeks for completion of the diaries, and during this period the interviewers would call in from time to time to check that the recording of daily expenditures was proceeding satisfactorily. They would also use the occasion of their visits to collect some of the information required for the household and individual schedules. They would then make a final visit to the households to collect the diaries, and after checking the questionnaires, they passed them to their supervisors.

Rough timing of fieldwork for each of the islands was as follows:

<u>Island</u>	<u>Start</u>	<u>Finish</u>
Funafuti	3 rd March	23 rd March
Vaitupu	20 th March	10 th April
Nanumaga	29 th March	17 th April
Niutao	29 th March	23 rd April
Nukufetau	26 th April	15 th May
Nui	3 rd May	22 nd May
Nanumea	17 th May	5 th June
Nukulaelae	24 th May	12 th June

1.7 Data processing

All data entry, including editing, edit checks and queries, was done using CSPro (Census Survey Processing System) with additional data editing and cleaning taking place in Excel.

The staff from the CSD was responsible for undertaking the coding and data entry, with assistance from an additional four temporary staff to help produce results in a more timely manner.

Although enumeration didn't get completed until mid June, the coding and data entry commenced as soon as forms were available from Funafuti, which was towards the end of March. The coding and data entry was then completed around the middle of July.

A visit from an SPC consultant then took place to undertake initial cleaning of the data, primarily addressing missing data items and missing schedules. Once the initial data cleaning was undertaken in CSPro, data was transferred to Excel where it was closely scrutinized to check that all responses were sensible. In the cases where unusual values were identified, original forms were consulted for these households and modifications made to the data if required.

Despite the best efforts being made to clean the data file in preparation for the analysis, no doubt errors will still exist in the data, due to its size and complexity. Having said this, they are not expected to have significant impacts on the survey results.

The tabulations for this initial report were produced using Excel, although a copy of this data is also stored in CSPro so additional analysis can also be undertaken using this software is required.

Section 2 – Expenditure Analysis

2.1 Expenditure Analysis Approach

As discussed in section 1.5 of this report, it was decided to base the format of the expenditure tables on Resolution 1 from the Seventeenth International Conference of Labour Statisticians. As such, there were four key expenditure groups identified for inclusion in the tabulations addressing household expenditure. These included:

- **Consumption Expenditure**
 - Household Consumption Expenditure: The value of consumer goods and services acquired, used or paid for by a household through direct monetary purchases, own-account production, barter or as income in-kind for the satisfaction of the needs and wants of its members.
 - Other Consumption Expenditure: The value of consumer goods and services acquired or used by the household through transfers from government, non-profit institutions or other households.
- **Non-Consumption Expenditure**: Those expenditures incurred by a household as transfers made to government, non-profit institutions and other households, without acquiring any goods or services in return for the satisfaction of the needs of its members.
- **Other Expenditures**: Covers expense items incurred by household members for financial security or accumulation of significant assets, such as a house
- **Imputed Rent**: The estimated value of rent for households which either live in their own house (regardless of whether or not a mortgage is still outstanding) or are occupying the dwelling they inhabit, free of any rent charge

Consumption Expenditure is the most appropriate concept for welfare analysis as it takes into account all consumer goods and services available to a household for the satisfaction of the needs and wants of its members. This group has been divided into the twelve key expenditure groups comprised in COICOP (see Appendix 1 for a detailed description of each).

If one wishes to separate out the information contained in Household Consumption Expenditure from Other Consumption Expenditure this can be done by simply adding the results from the columns “purchases” and “home produce”. As such, the column covering “gifts” addresses Other Consumption Expenditure.

The group “Other Expenditures” is not considered complete and should be treated as incomplete. This group only covers those items which fall under this category which were covered in the HIES.

2.2 Analysis

For the expenditure analysis, the strategy was to primarily analyse the result of the survey at the national and urban/rural level. For the case of Tuvalu, Funafuti was considered to make up the urban population whereas the Outer Islands were considered to make up the rural population.

For each table, expenditure has been split by whether it was a cash purchase, gift, or a result of home production. The row categories follow the descriptions outlined above.

The analysis focuses on the following key tables:

- 1) Average Monthly Household Expenditure
- 2) Average Annual Household Expenditure
- 3) Average Annual Per Capita Expenditure
- 4) Total Annual Household Expenditure
- 5) Distribution of Expenditure
- 6) Proportion of Households with Respective Expenditures
- 7) Total Annual Food Expenditure
- 8) Distribution of Food Expenditure
- 9) Total Annual Education Expenditure

Each of the sections is now discussed in more detail.

2.2.1 Average Monthly Household Expenditure

As can be seen in Table 2.1, the average household in Tuvalu go through \$ 919 on commodities for own consumption per month. Of this, \$ 744 is from cash purchases, \$ 37 from in-kind gifts received, and \$ 138 from items which were home produced.

The corresponding figures for the Funafuti population are significantly higher, with \$ 1,331 being consumed by a typical Funafuti household per month, compared to only \$ 604 for a typical Outer Island household per month. For cash purchases, the amount of consumption by a Funafuti household is also significantly higher than in the Outer Island community; \$ 1,218 per month for Funafuti compared with \$ 383 per month for the Outer Islands. A similar trend is also noticed for gifts in-kind; \$ 53 per month for Funafuti compared to \$ 24 per month for the Outer Islands. However, the amount consumed from home produce in the Outer Islands population is significantly higher than the Funafuti population; \$ 198 per month for the Outer Islands, compared with \$ 60 per month for Funafuti.

Table 2.1: Average Monthly Household Expenditure

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
Consumption expenditure												
01-Food and Non-Alcoholic Beverages	481	30	60	571	197	14	198	409	320	21	138	479
02-Alcohol and Tobacco	28	0	0	28	13	0	0	13	19	0	0	20
03-Clothing and Footwear	57	1	0	59	4	2	0	7	27	2	0	29
04-Water, Electricity and Other Fuels	282	1	0	282	81	0	0	81	168	0	0	168
05-Furnishings, Equipment and Maintenance	70	10	0	80	12	2	0	14	37	5	0	42
06-Health	15	0	0	15	1	1	0	2	7	1	0	8
07-Transport	85	0	0	85	38	2	0	39	58	1	0	59
08-Communication	33	0	0	33	3	0	0	3	16	0	0	16
09-Recreation and Culture	57	10	0	68	16	0	0	17	34	5	0	39
10-Education	45	0	0	45	5	0	0	5	22	0	0	22
11-Restaurants and Hotels	20	1	0	21	1	2	0	2	9	1	0	10
12-Miscellaneous Goods and Services	44	1	0	45	11	0	0	12	26	1	0	26
Total consumption expenditure	1,218	53	60	1,331	383	24	198	604	744	37	138	919
Non consumption expenditure												
21-Money Gifts to Another Household	136	0	0	136	77	0	0	77	103	0	0	103
22-Money Gifts to the Community	34	0	0	34	12	0	0	12	22	0	0	22
23-Money Gifts to the Church	65	0	0	65	18	0	0	18	38	0	0	38
24-Other Money Gifts	2	0	0	2	0	0	0	0	1	0	0	1
25-Gifts given from Business	0	1	0	1	0	1	0	1	0	1	0	1
26-Home Produce Given Away	0	0	13	13	0	0	24	24	0	0	19	19
27-Lend and Lose Money	5	0	0	5	1	0	0	1	3	0	0	3
28-Taxes	95	0	0	95	21	0	0	21	53	0	0	53
Total non consumption expenditure	338	1	13	351	129	1	24	155	220	1	19	240
Investment and saving												
31-Investment	183	0	0	183	50	0	0	50	108	0	0	108
32-Savings	165	0	0	165	46	0	0	46	97	0	0	97
Total investment and saving	348	0	0	348	96	0	0	96	205	0	0	205
Imputed rents												
41-Imputed Rent	0	193	0	193	0	83	0	83	0	130	0	130
TOTAL	1,903	247	73	2,224	608	107	222	938	1,169	168	158	1,494

2.2.2 Average Annual Household Expenditure

As can be seen in Table 2.2, when converted to an annual figure, the average household in Tuvalu goes through \$ 11,030 on commodities for own consumption per year. Of this, \$ 8,932 is from cash purchases, \$ 440 from gifts in-kind received, and \$ 1,658 from items which were home produced.

Table 2.2: Average Annual Household Expenditure

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
Consumption expenditure												
01-Food and Non-Alcoholic Beverages	5,778	355	722	6,854	2,370	171	2,370	4,910	3,845	250	1,657	5,752
02-Alcohol and Tobacco	336	0	2	337	153	3	1	158	232	2	2	235
03-Clothing and Footwear	688	17	0	706	53	25	0	78	328	22	0	350
04-Water, Electricity and Other Fuels	3,381	7	0	3,388	974	1	0	975	2,016	4	0	2,020
05-Furnishings, Equipment and Maintenance	844	119	0	963	142	22	0	164	446	64	0	510
06-Health	183	0	0	183	14	13	0	27	87	8	0	95
07-Transport	1,015	2	0	1,017	452	22	0	474	695	14	0	709
08-Communication	392	0	0	392	32	0	0	32	188	0	0	188
09-Recreation and Culture	690	123	0	813	196	2	0	198	410	55	0	464
10-Education	534	0	0	534	66	0	0	66	269	0	0	269
11-Restaurants and Hotels	240	7	0	247	7	21	0	29	108	15	0	123
12-Miscellaneous Goods and Services	531	11	0	542	137	5	0	142	308	7	0	315
Total consumption expenditure	14,612	641	724	15,976	4,596	286	2,372	7,254	8,932	440	1,658	11,030
Non consumption expenditure												
21-Money Gifts to Another Household	1,635	0	0	1,635	922	0	0	922	1,230	0	0	1,230
22-Money Gifts to the Community	412	0	0	412	141	0	0	141	259	0	0	259
23-Money Gifts to the Church	778	0	0	778	220	0	0	220	461	0	0	461
24-Other Money Gifts	26	0	0	26	4	0	0	4	13	0	0	13
25-Gifts given from Business	0	10	0	10	0	8	0	8	0	9	0	9
26-Home Produce Given Away	0	0	155	155	0	0	294	294	0	0	234	234
27-Lend and Lose Money	66	0	0	66	9	0	0	9	34	0	0	34
28-Taxes	1,137	0	0	1,137	258	0	0	258	638	0	0	638
Total non consumption expenditure	4,053	10	155	4,218	1,553	8	294	1,855	2,635	9	234	2,878
Investment and saving												
31-Investment	2,197	0	0	2,197	600	0	0	600	1,291	0	0	1,291
32-Savings	1,979	0	0	1,979	549	0	0	549	1,168	0	0	1,168
Total investment and saving	4,176	0	0	4,176	1,149	0	0	1,149	2,459	0	0	2,459
Imputed rents												
41-Imputed Rent	0	2,314	0	2,314	0	993	0	993	0	1,565	0	1,565
TOTAL	22,841	2,964	878	26,683	7,297	1,288	2,665	11,251	14,027	2,014	1,892	17,932

2.2.3 Average Annual Per Capita Expenditure

The following analysis shows the average annual expenditure per person for a typical year. A little care should be taken in interpreting these results as HIESs tend to underestimate people counts due to the less vigorous nature in which they aim to list all household members. The results in table 2.3 can still be used as a good guide for per capita expenditure.

As can be seen from this table, a typical person in Tuvalu consumes products and services in a given year valued at an average of \$ 2,017. Of this amount, \$ 1,634 is on cash purchases, \$ 80 is on in-kind gifts, and \$ 303 on home produce. (Clearer terminology – consumption/expenditure)

For Funafuti, a typical person consumes an average of \$ 2,363 on products and services, whereas the corresponding figure for the Outer Islands is found to be \$ 1,619.

As expected, “food” is the group which contains the greatest per capita consumption, with \$1,052 per year per person. This equates to \$ 88 per person a month on food, or alternatively, \$ 20 per person a week.

Table 2.3: Average Annual Per Capita Expenditure

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
Consumption expenditure												
01-Food and Non-Alcoholic Beverages	855	52	107	1,014	529	38	529	1,096	703	46	303	1,052
02-Alcohol and Tobacco	50	0	0	50	34	1	0	35	42	0	0	43
03-Clothing and Footwear	102	3	0	104	12	6	0	17	60	4	0	64
04-Water, Electricity and Other Fuels	500	1	0	501	217	0	0	218	369	1	0	369
05-Furnishings, Equipment and Maintenance	125	18	0	142	32	5	0	37	82	12	0	93
06-Health	27	0	0	27	3	3	0	6	16	1	0	17
07-Transport	150	0	0	150	101	5	0	106	127	2	0	130
08-Communication	58	0	0	58	7	0	0	7	34	0	0	34
09-Recreation and Culture	102	18	0	120	44	1	0	44	75	10	0	85
10-Education	79	0	0	79	15	0	0	15	49	0	0	49
11-Restaurants and Hotels	36	1	0	37	2	5	0	6	20	3	0	23
12-Miscellaneous Goods and Services	79	2	0	80	31	1	0	32	56	1	0	58
Total consumption expenditure	2,162	95	107	2,363	1,026	64	529	1,619	1,634	80	303	2,017
Non consumption expenditure												
21-Money Gifts to Another Household	242	0	0	242	206	0	0	206	225	0	0	225
22-Money Gifts to the Community	61	0	0	61	32	0	0	32	47	0	0	47
23-Money Gifts to the Church	115	0	0	115	49	0	0	49	84	0	0	84
24-Other Money Gifts	4	0	0	4	1	0	0	1	2	0	0	2
25-Gifts given from Business	0	1	0	1	0	2	0	2	0	2	0	2
26-Home Produce Given Away	0	0	23	23	0	0	66	66	0	0	43	43
27-Lend and Lose Money	10	0	0	10	2	0	0	2	6	0	0	6
28-Taxes	168	0	0	168	58	0	0	58	117	0	0	117
Total non consumption expenditure	600	1	23	624	347	2	66	414	482	2	43	526
Investment and saving												
31-Investment	325	0	0	325	134	0	0	134	236	0	0	236
32-Savings	293	0	0	293	122	0	0	122	214	0	0	214
Total investment and saving	618	0	0	618	256	0	0	256	450	0	0	450
Imputed rents												
41-Imputed Rent	0	342	0	342	0	222	0	222	0	286	0	286
TOTAL	3,379	438	130	3,947	1,629	288	595	2,511	2,566	368	346	3,280

2.2.4 Total Annual Household Expenditure

The following analysis estimates the total annual expenditure on respective groups by Tuvaluans in a given year across the whole nation based on the survey results. In total, Tuvaluans consume \$ 20,152,000 on products and services for the country as a whole. Of this total, the Funafuti accounts for just on 63 per cent (12,637,000 / 20,152,000) of the total consumption expenditure, which is a little more than their share as they make up an estimated 53 per cent of the population.

The total food consumption expenditure is shown as \$ 10,509,000 per year, which is split evenly between Funafuti and the Outer Islands as \$ 5,422,000 for Funafuti, and \$ 5,087,000 for the Outer Islands.

This table also shows that Tuvaluans have a total non-consumption expenditure of \$ 5,258,000 per year. Of this total, \$ 2,248,000 (43%) is monetary gifts to other households, much of which is remittances both to other families inside Tuvalu and overseas. The community and church receive \$ 1,316,000 each year from households, with 64 per cent of this money going to the church.

Table 2.4: Total Annual Household Expenditure ('000s)

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
Consumption expenditure												
01-Food and Non-Alcoholic Beverages	4,570	281	571	5,422	2,455	177	2,456	5,087	7,025	457	3,027	10,509
02-Alcohol and Tobacco	265	0	1	267	158	3	1	163	424	3	3	430
03-Clothing and Footwear	545	14	0	558	55	26	0	81	599	40	0	639
04-Water, Electricity and Other Fuels	2,674	5	0	2,680	1,009	1	0	1,010	3,683	7	0	3,690
05-Furnishings, Equipment and Maintenance	668	94	0	762	147	23	0	170	815	117	0	931
06-Health	145	0	0	145	14	14	0	28	159	14	0	173
07-Transport	803	2	0	805	468	23	0	491	1,271	25	0	1,295
08-Communication	310	0	0	310	34	0	0	34	344	0	0	344
09-Recreation and Culture	546	97	0	643	203	2	0	205	749	100	0	848
10-Education	423	0	0	423	68	0	0	68	491	0	0	491
11-Restaurants and Hotels	190	5	0	195	8	22	0	30	198	27	0	225
12-Miscellaneous Goods and Services	420	8	0	429	142	5	0	147	562	14	0	576
Total consumption expenditure	11,558	507	572	12,637	4,761	297	2,457	7,515	16,319	804	3,029	20,152
Non consumption expenditure												
21-Money Gifts to Another Household	1,293	0	0	1,293	955	0	0	955	2,248	0	0	2,248
22-Money Gifts to the Community	326	0	0	326	146	0	0	146	473	0	0	473
23-Money Gifts to the Church	615	0	0	615	228	0	0	228	843	0	0	843
24-Other Money Gifts	20	0	0	20	4	0	0	4	24	0	0	24
25-Gifts given from Business	0	8	0	8	0	9	0	9	0	16	0	16
26-Home Produce Given Away	0	0	122	122	0	0	304	304	0	0	427	427
27-Lend and Lose Money	52	0	0	52	9	0	0	9	62	0	0	62
28-Taxes	899	0	0	899	267	0	0	267	1,166	0	0	1,166
Total non consumption expenditure	3,206	8	122	3,336	1,609	9	304	1,922	4,815	16	427	5,258
Investment and saving												
31-Investment	1,738	0	0	1,738	622	0	0	622	2,360	0	0	2,360
32-Savings	1,565	0	0	1,565	569	0	0	569	2,134	0	0	2,134
Total investment and saving	3,303	0	0	3,303	1,190	0	0	1,190	4,493	0	0	4,493
Imputed rents												
41-Imputed Rent	0	1,830	0	1,830	0	1,029	0	1,029	0	2,859	0	2,859
TOTAL	18,067	2,344	695	21,106	7,560	1,335	2,761	11,656	25,627	3,679	3,456	32,762

2.2.5 Distribution of Expenditure across groups

This section illustrates how expenditure is distributed across each sub-group for the four different expenditure groups. To make the analysis more meaningful, the expenditure distribution is done separately within each group. As can be seen from Table 2.5, within the consumption expenditure group, “food” accounts for just over half the expenditure (52%). The equivalent figures for Funafuti and the Outer Islands were 43 per cent for Funafuti and 68 per cent for Outer Islands.

Within each consumption type, “food” accounts for 43 per cent of cash purchases, 57 per cent of in-kind gifts, and virtually all of home produce (99.9%). This last figure is not surprising as it would be expected that a very high proportion of home produce would be food items.

For non-consumption expenditure, “monetary gifts to other households” account for 43 per cent of the total, whereas “money gifts to church” (16%) and “money gifts to the community” (9%) are also significant. It can also be seen that households in the Outer Islands are more likely to give money to “another household” before donating to the “community” or “church”.

Table 2.5: Distribution of Expenditure across groups (%)

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
Consumption expenditure												
01-Food and Non-Alcoholic Beverages	39.5	55.4	99.8	42.9	51.6	59.6	99.9	67.7	43.0	56.9	99.9	52.1
02-Alcohol and Tobacco	2.3	0.0	0.2	2.1	3.3	1.1	0.1	2.2	2.6	0.4	0.1	2.1
03-Clothing and Footwear	4.7	2.7	0.0	4.4	1.2	8.8	0.0	1.1	3.7	5.0	0.0	3.2
04-Water, Electricity and Other Fuels	23.1	1.1	0.0	21.2	21.2	0.4	0.0	13.4	22.6	0.8	0.0	18.3
05-Furnishings, Equipment and Maintenance	5.8	18.6	0.0	6.0	3.1	7.7	0.0	2.3	5.0	14.6	0.0	4.6
06-Health	1.3	0.0	0.0	1.1	0.3	4.7	0.0	0.4	1.0	1.7	0.0	0.9
07-Transport	6.9	0.4	0.0	6.4	9.8	7.7	0.0	6.5	7.8	3.1	0.0	6.4
08-Communication	2.7	0.0	0.0	2.5	0.7	0.0	0.0	0.4	2.1	0.0	0.0	1.7
09-Recreation and Culture	4.7	19.2	0.0	5.1	4.3	0.8	0.0	2.7	4.6	12.4	0.0	4.2
10-Education	3.7	0.0	0.0	3.3	1.4	0.0	0.0	0.9	3.0	0.0	0.0	2.4
11-Restaurants and Hotels	1.6	1.0	0.0	1.5	0.2	7.4	0.0	0.4	1.2	3.4	0.0	1.1
12-Miscellaneous Goods and Services	3.6	1.7	0.0	3.4	3.0	1.8	0.0	2.0	3.4	1.7	0.0	2.9
Total consumption expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Non consumption expenditure												
21-Money Gifts to Another Household	40.3	0.0	0.0	38.8	59.4	0.0	0.0	49.7	46.7	0.0	0.0	42.8
22-Money Gifts to the Community	10.2	0.0	0.0	9.8	9.1	0.0	0.0	7.6	9.8	0.0	0.0	9.0
23-Money Gifts to the Church	19.2	0.0	0.0	18.4	14.1	0.0	0.0	11.8	17.5	0.0	0.0	16.0
24-Other Money Gifts	0.6	0.0	0.0	0.6	0.2	0.0	0.0	0.2	0.5	0.0	0.0	0.5
25-Gifts given from Business	0.0	100.0	0.0	0.2	0.0	100.0	0.0	0.5	0.0	100.0	0.0	0.3
26-Home Produce Given Away	0.0	0.0	100.0	3.7	0.0	0.0	100.0	15.8	0.0	0.0	100.0	8.1
27-Lend and Lose Money	1.6	0.0	0.0	1.6	0.6	0.0	0.0	0.5	1.3	0.0	0.0	1.2
28-Taxes	28.0	0.0	0.0	27.0	16.6	0.0	0.0	13.9	24.2	0.0	0.0	22.2
Total non consumption expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Investment and saving												
31-Investment	52.6	0.0	0.0	52.6	52.2	0.0	0.0	52.2	52.5	0.0	0.0	52.5
32-Savings	47.4	0.0	0.0	47.4	47.8	0.0	0.0	47.8	47.5	0.0	0.0	47.5
Total investment and saving	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0
Imputed rents												
41-Imputed Rent	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0

2.2.6 Proportion of households with respective expenditures

The following analysis shows the proportion of households who recorded an expenditure against each expenditure category during the course of the survey. Not surprising, nearly every household recorded a “food” cash purchase in the survey, regardless of whether they lived in Funafuti (100%) or the Outer Islands (97%). For all other consumption expenditure groups, households living in Funafuti were a lot more likely having an expense against these categories, largely due to their access to these expenditure items.

For home produce however, there was a very significant difference in the proportion of households who consumed food as a result of home produce in Funafuti (74%), compared to the proportion of households who consumed food as a result of home produce in the Outer Islands (99%). This is to be expected due to the high dependence on home production in the Outer Islands.

Table 2.6: Proportion of Households with Respective Expenditures (%)

CATEGORY	FUNAFUTI				OTHER ISLAND				TUVALU			
	Cash	In-kind	Home Pr	TOTAL	Cash	In-kind	Home Pr	TOTAL	Cash	In-kind	Home Pr	TOTAL
Consumption expenditure												
01-Food and Non-Alcoholic Beverages	100.0	25.3	73.7	100.0	97.0	29.1	99.0	100.0	98.3	27.5	88.1	100.0
02-Alcohol and Tobacco	43.8	0.0	2.3	45.6	26.5	1.9	1.3	28.8	34.0	1.1	1.7	36.1
03-Clothing and Footwear	57.1	2.3	0.0	59.0	20.5	1.8	0.0	21.1	36.4	2.0	0.0	37.5
04-Water, Electricity and Other Fuels	98.6	0.9	0.0	98.6	97.8	0.6	0.0	97.8	98.2	0.7	0.0	98.2
05-Furnishings, Equipment and Maintenance	69.1	3.2	0.0	69.6	52.7	1.8	0.0	53.3	59.8	2.4	0.0	60.4
06-Health	30.0	0.0	0.0	30.0	9.9	6.3	0.0	12.4	18.6	3.5	0.0	20.0
07-Transport	81.6	0.5	0.0	82.0	60.4	0.9	0.0	60.8	69.6	0.7	0.0	70.0
08-Communication	71.0	0.0	0.0	71.0	16.0	0.0	0.0	16.0	39.8	0.0	0.0	39.8
09-Recreation and Culture	67.7	1.4	0.0	67.7	52.4	0.3	0.0	52.7	59.0	0.8	0.0	59.2
10-Education	56.2	0.0	0.0	56.2	27.8	0.0	0.0	27.8	40.1	0.0	0.0	40.1
11-Restaurants and Hotels	24.9	0.9	0.0	24.9	3.2	2.5	0.6	6.3	12.6	1.8	0.3	14.4
12-Miscellaneous Goods and Services	97.7	3.2	0.0	97.7	86.4	0.9	0.0	87.0	91.3	1.9	0.0	91.6
Non consumption expenditure												
21-Money Gifts to Another Household	30.0	0.0	0.0	30.0	22.5	0.0	0.0	22.5	25.7	0.0	0.0	25.7
22-Money Gifts to the Community	57.6	0.0	0.0	57.6	46.4	0.0	0.0	46.4	51.2	0.0	0.0	51.2
23-Money Gifts to the Church	79.3	0.0	0.0	79.3	88.6	0.0	0.0	88.6	84.5	0.0	0.0	84.5
24-Other Money Gifts	1.4	0.0	0.0	1.4	0.9	0.0	0.0	0.9	1.1	0.0	0.0	1.1
25-Gifts given from Business	0.0	3.2	0.0	3.2	0.0	2.6	0.0	2.6	0.0	2.9	0.0	2.9
26-Home Produce Given Away	0.0	0.0	25.3	25.3	0.0	0.0	45.8	45.8	0.0	0.0	36.9	36.9
27-Lend and Lose Money	4.6	0.0	0.0	4.6	1.3	0.0	0.0	1.3	2.7	0.0	0.0	2.7
28-Taxes	94.5	0.0	0.0	94.5	94.2	0.0	0.0	94.2	94.3	0.0	0.0	94.3
Investment and saving												
31-Investment	28.6	0.0	0.0	28.6	11.5	0.0	0.0	11.5	18.9	0.0	0.0	18.9
32-Savings	73.3	0.0	0.0	73.3	39.8	0.0	0.0	39.8	54.3	0.0	0.0	54.3
Imputed rents												
41-Imputed Rent	0.0	67.3	0.0	67.3	0.0	95.4	0.0	95.4	0.0	83.2	0.0	83.2

2.2.7 Food expenditure analysis

This section further examines the breakdown of Food expenditure across Tuvalu. As can be seen from Table 2.7, expenditure on “Bread & Cereals” is the food group Tuvaluans spend the most on, which is largely due to purchases of rice and flour. In total, \$ 2,681,000 is spent by Tuvaluans on “Bread & Cereals”, which as can be seen in Table 2.8, accounts for more than one quarter of the food expenditure (25.5%).

The next largest food group is fish and seafood (\$ 2,241,000) accounting for 21.3 per cent of total food expenditure. This is largely due to the large volume of fish expenditure in the Outer Islands which makes up more than half of the total for Tuvalu, 55 per cent (1,238,000/2,241,000).

The only other significant food group which contributes more than 10 per cent to total food expenditure is the “meat” group. For the meat group, \$ 1,790,000 is spent, with the vast majority coming from Funafuti, 72 per cent (1,296,000/1,790,000).

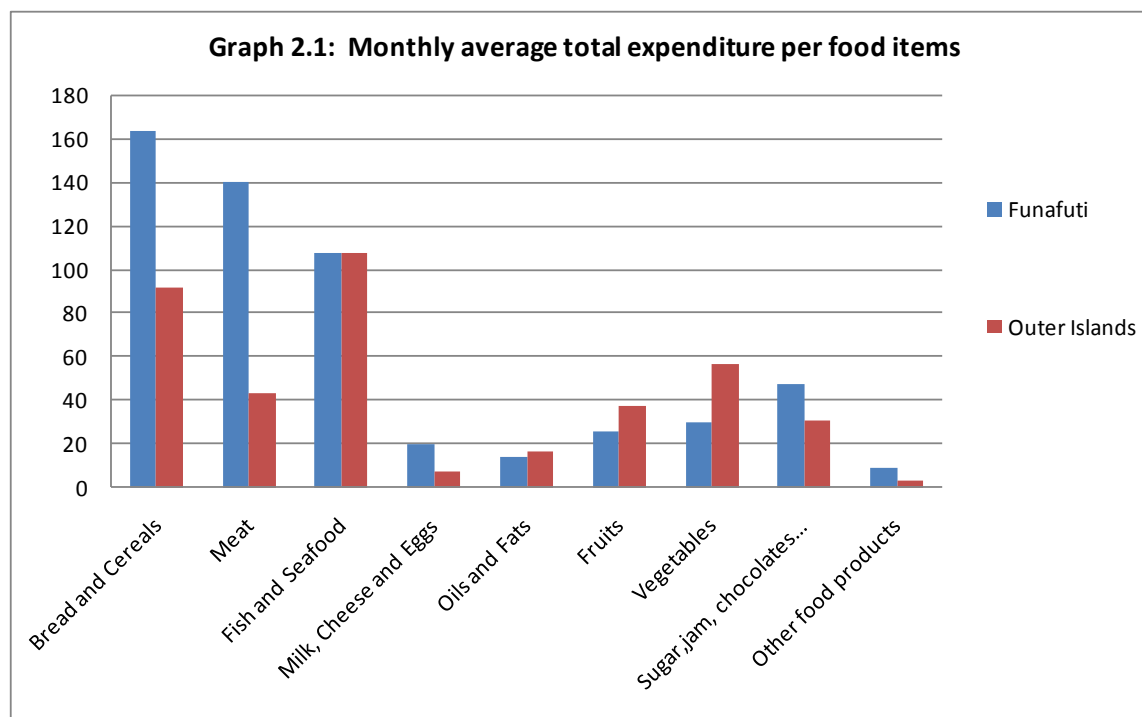
Table 2.7: Total Annual Food Expenditure ('000) by Food Group

	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr	TOTAL	Cash	In-kind	Home Pr	TOTAL	Cash	In-kind	Home Pr	TOTAL
<i>Consumption Food Expenditure</i>												
01-Food and Non-Alcoholic Beverages												
0111 Bread and Cereals	1,515	37	0	1,552	1,079	50	0	1,130	2,594	87	0	2,681
0112 Meat	1,209	75	12	1,296	374	11	110	494	1,583	85	122	1,790
0113 Fish and Seafood	620	48	315	983	171	45	1,043	1,258	790	92	1,358	2,241
0114 Milk, Cheese and Eggs	183	3	2	188	89	2	1	92	272	5	3	280
0115 Oils and Fats	129	2	0	131	208	3	0	211	337	4	0	341
0116 Fruits	14	48	148	210	12	13	391	416	26	61	539	626
0117 Vegetables	175	29	69	274	31	22	596	649	206	52	665	923
0118 Sugar, jam, honey, chocolates and confectionery	442	10	0	452	368	18	0	385	810	27	0	837
0119 Food products n.e.c.	82	2	3	87	31	3	2	36	113	5	5	123
0121 Coffee, tea and cocoa	94	3	0	97	59	2	0	61	153	5	0	158
0122 Mineral water, soft drinks, fruit and vegetable juice	107	25	20	153	32	9	313	355	140	34	334	508
Total Consumption Food Expenditure	4,570	281	571	5,422	2,455	177	2,456	5,087	7,025	457	3,027	10,509

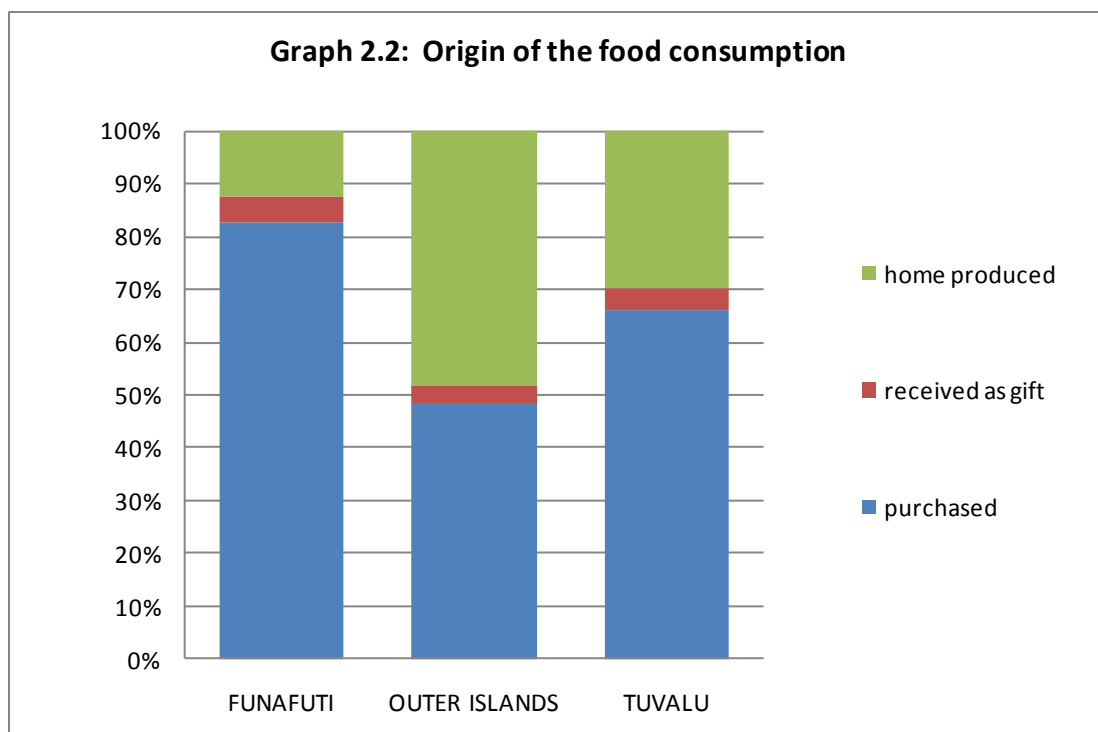
Table 2.8: Distribution of Food Expenditure across Food Groups (%)

	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr	TOTAL	Cash	In-kind	Home Pr	TOTAL	Cash	In-kind	Home Pr	TOTAL
<i>Consumption Food Expenditure</i>												
01-Food and Non-Alcoholic Beverages												
0111 Bread and Cereals	33.2	13.0	0.0	28.6	44.0	28.5	0.0	22.2	36.9	19.0	0.0	25.5
0112 Meat	26.5	26.7	2.1	23.9	15.2	5.9	4.5	9.7	22.5	18.7	4.0	17.0
0113 Fish and Seafood	13.6	16.9	55.2	18.1	7.0	25.3	42.5	24.7	11.3	20.2	44.9	21.3
0114 Milk, Cheese and Eggs	4.0	1.2	0.3	3.5	3.6	0.9	0.0	1.8	3.9	1.1	0.1	2.7
0115 Oils and Fats	2.8	0.6	0.0	2.4	8.5	1.5	0.0	4.1	4.8	1.0	0.0	3.2
0116 Fruits	0.3	17.0	26.0	3.9	0.5	7.4	15.9	8.2	0.4	13.3	17.8	6.0
0117 Vegetables	3.8	10.4	12.2	5.1	1.2	12.7	24.3	12.8	2.9	11.3	22.0	8.8
0118 Sugar, jam, honey, chocolates and confectionery	9.7	3.5	0.0	8.3	15.0	9.9	0.0	7.6	11.5	6.0	0.0	8.0
0119 Food products n.e.c.	1.8	0.6	0.6	1.6	1.3	1.7	0.1	0.7	1.6	1.0	0.2	1.2
0121 Coffee, tea and cocoa	2.1	1.1	0.0	1.8	2.4	1.0	0.0	1.2	2.2	1.1	0.0	1.5
0122 Mineral water, soft drinks, fruit and vegetable juice	2.4	8.9	3.6	2.8	1.3	5.1	12.8	7.0	2.0	7.5	11.0	4.8
Total Consumption Food Expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

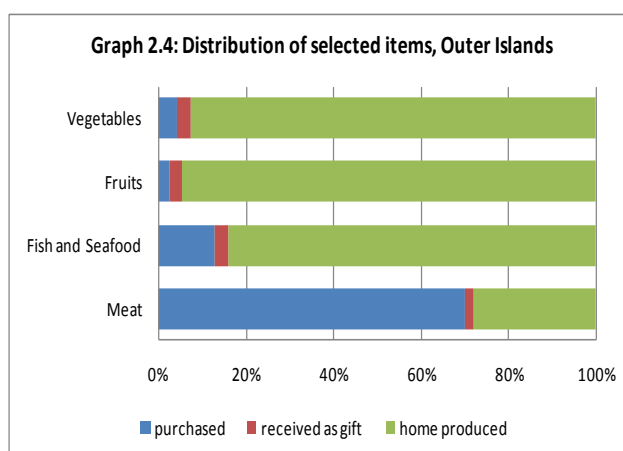
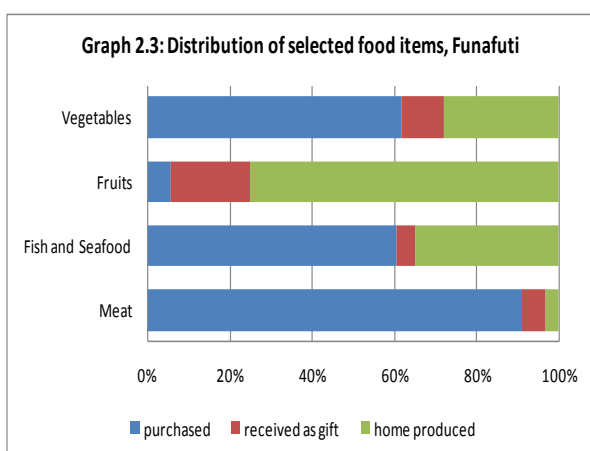
Focusing on just the food items (ie, removing the two non-alcoholic drink groups), Graph 2.1 shows the monthly average expenditure for each, comparing the difference for both Funafuti and the Outer Islands. As can be clearly seen from this graph, Funafuti has a lot more food expenditure in the groups “Bread and Cereals”, “Meat”, “Milk, Cheese and Eggs”, and “Sugar, Jams and Chocolates”. On the other hand, the Outer Islands have a lot more food expenditure on average for the food groups “Fruits” and “Vegetables”.



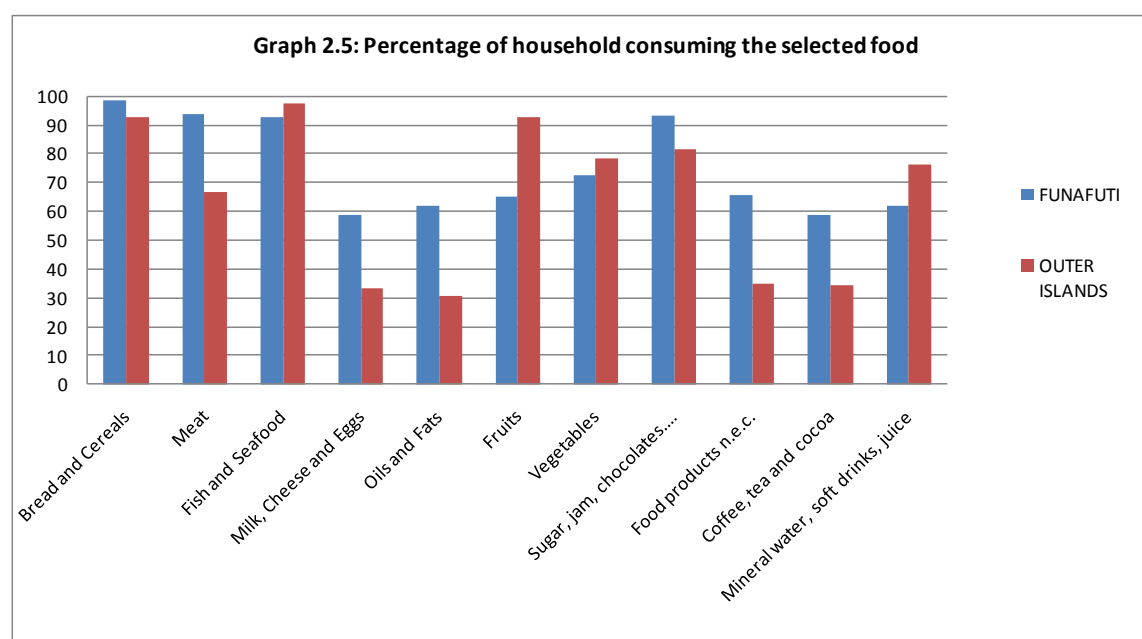
The distribution for the type of food expenditure is quite different for Funafuti and the Outer Islands, as can be seen in graph 2.2. In this graph it can be seen that in Funafuti, purchases make up nearly 85 per cent of total food expenditure, whereas for the Outer Islands, this figure is less than 50 per cent. In the Outer Islands, the remaining 50 per cent is made up largely of home produce.



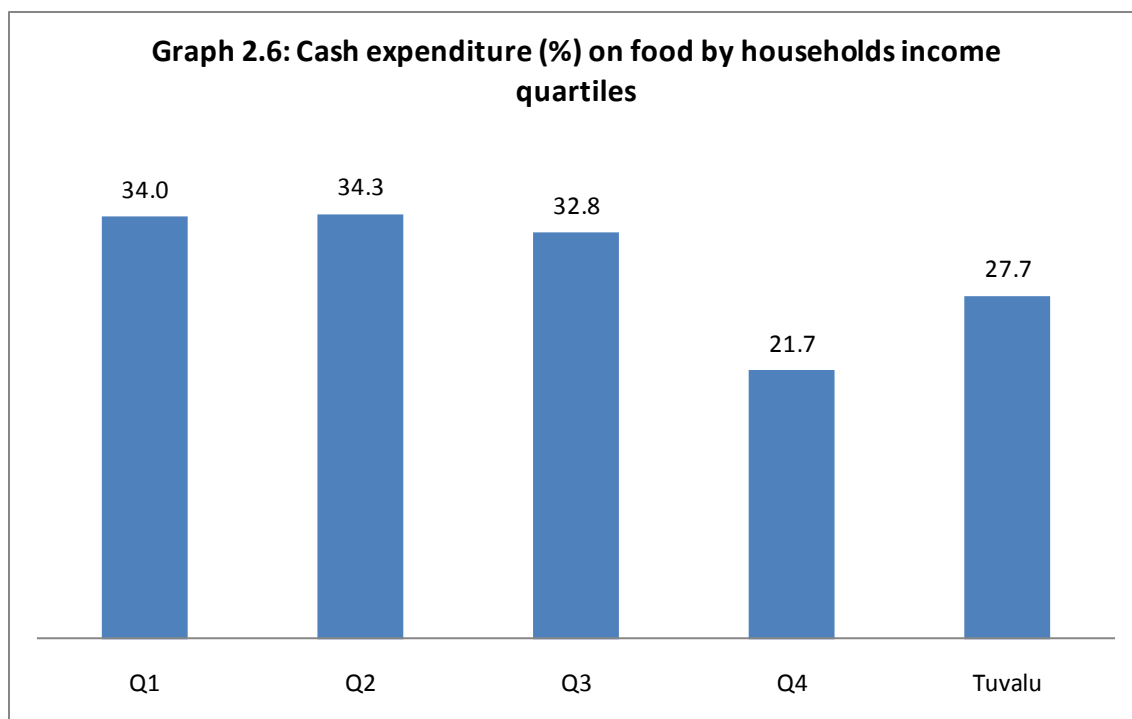
Taking the above analysis a step further we can further investigate the same distribution patterns for selected food groups on both Funafuti (Graph 2.3) and the Outer Islands (Graph 2.4). This analysis shows that for Funafuti, nearly all “meat” (90%+) is made up of purchases, whereas this equivalent figure is a little over 60 per cent for “fish and seafood” and “vegetables”. For “fruits” a little over 5 per cent comes from purchases in Funafuti, with the majority (75%) coming from home production. On the Outer Islands the vast majority of “vegetables”, “fruits” and “fish and seafood” comes from home produced, whereas only “meat” has the main contribution coming from purchases (70%).



The following analysis shows the proportion of households that reported consumption on each of the different categories within the Food group, for Funafuti and the Outer Islands. The analysis shows that a higher proportion of households in Funafuti consume each of the categories with the exception of “seafood”, “fruit”, “vegetables” and “mineral water, soft drinks, juice”. This is not surprising for these groups as there is a natural abundance of these items in the Outer Islands so you would expect the households living in these areas would be likely to report consuming from these categories during the HIES. For “mineral water, soft drinks, juice”, the reason that the proportion of households consuming from this category is higher in the Outer Islands is due to the high prevalence of sweet toddy being drunk on these islands.



The final analysis for this section shows the amount of cash expenditure households spend on food cash expenditure. Graph 2.6 below shows that for all households in Tuvalu, 28 per cent of their cash expenditure is spent on food. The analysis also shows the same distribution for each cash income quartile. This additional analysis shows that for the three lowest quartiles, around 33-34 per cent of cash expenditure is on food, whereas for the richest quartile, this figure drops to around 22 per cent. This suggests that the richer people are more likely to spend a higher proportion of their cash on non-food items.



2.2.8 Education expenditure analysis

This section looks at how expenditure on Education is distributed for households across Tuvalu. And as presented in Table 2.2 above, the household's expenses on education is amongst the lowest of the consumption expenditures. This is expected as the Government subsidized the costs of education at primary levels up to secondary education. There is free education at primary level (no school fees). The parents only meet the cost of school supplies, and varieties of school expenditure obligation. And they are only paying the annual school fees of \$150 per student at secondary education.

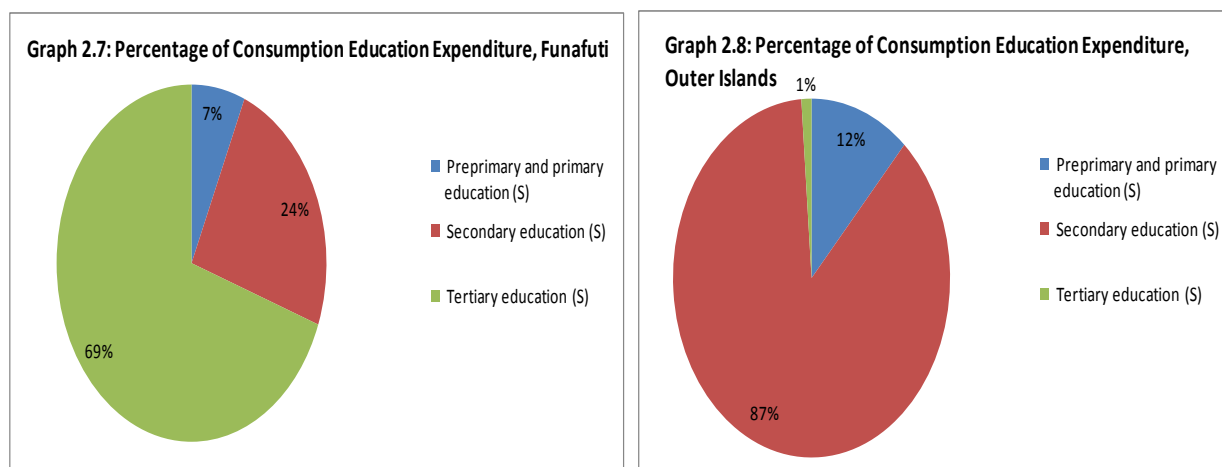
As can be seen in Table 2.9, tertiary education has the highest with \$294,109. This is because of more expensive school fees and course materials at this level as compares to secondary and primary level. Secondary education accounted for \$161,683 and primary and pre primary education at \$35,077.

The distribution of the total amount of education expenditure is quite different for Funafuti and the Outer Islands. The Funafuti purchases make up over 85 per cent (422,536 / 490,869) of total education expenditure, whereas the Outer Islands accounted for less than 15 per cent (68,334 / 490,869). The significant difference is due to the only tertiary institution in Tuvalu (USP Tuvalu Campus) is situated on Funafuti which most of the young adults attended

Table 2:9: Total annual Education expenditure

Consumption Education Expenditure	FUNAFUTI	OUTER ISLAND	TUVALU
Preprimary and primary education (S)	27,119	7,958	35,077
Secondary education (S)	102,108	59,575	161,683
Tertiary education (S)	293,308	801	294,109
Total Consumption Education Expenditure	422,536	68,334	490,869

Graphs 2.7 – 2.8 show a significant difference in household's expenditure on education for Funafuti and the Outer Islands. For Funafuti 69 per cent were spent on tertiary education, followed by the secondary education with 24 per cent and primary education had the lowest of 7 per cent. For the Outer Islands, expenditures on secondary education had the highest with 87 per cent followed by pre primary and primary education with 12 per cent and only 1 per cent accounted for tertiary education. This simply indicates that households at the Outer Islands spent mostly on their children attending secondary schools either in Funafuti or Vaitupu while majority of those in Funafuti expenditures accounted for their students at tertiary education.

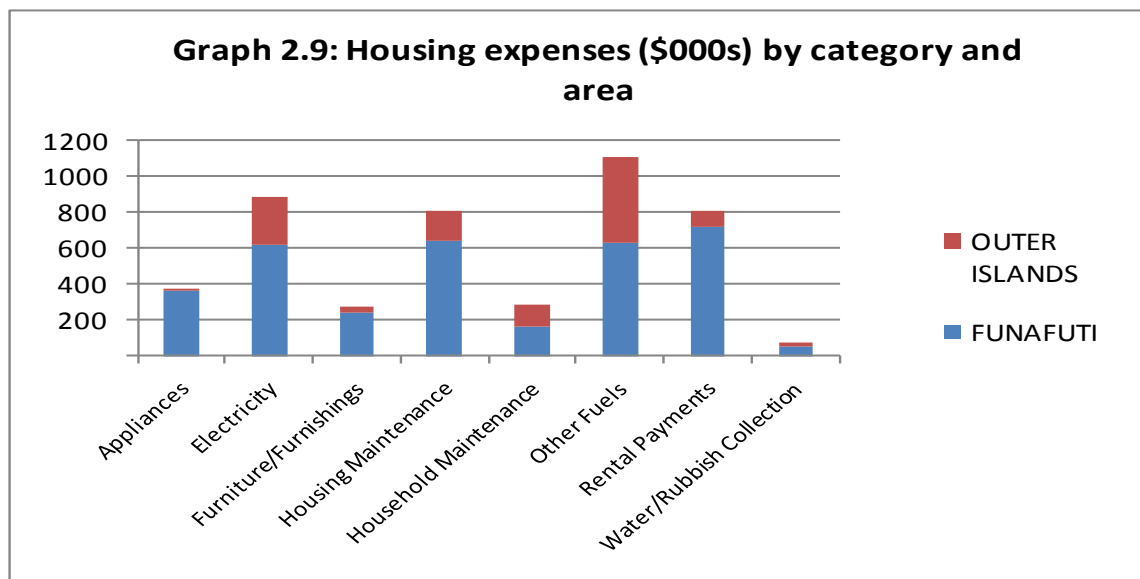


2.2.9 Housing expenditure analysis

As can be seen from the graph 2.9 below, “other fuels” form the largest housing expense for Tuvalu as a whole, the second largest expense being “electricity”, which is closely followed by “housing maintenance” and “rental payments”. “Other fuels” is made up of things such as gas, kerosene, and diesel for generators. It should also be pointed out that the difference between “housing maintenance” and “household maintenance” is:

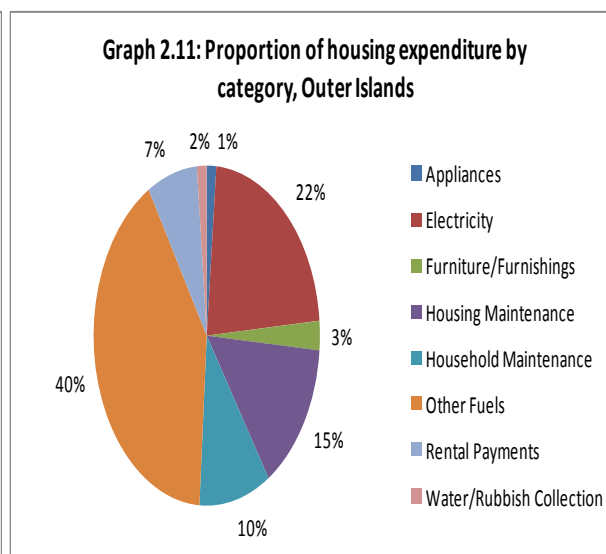
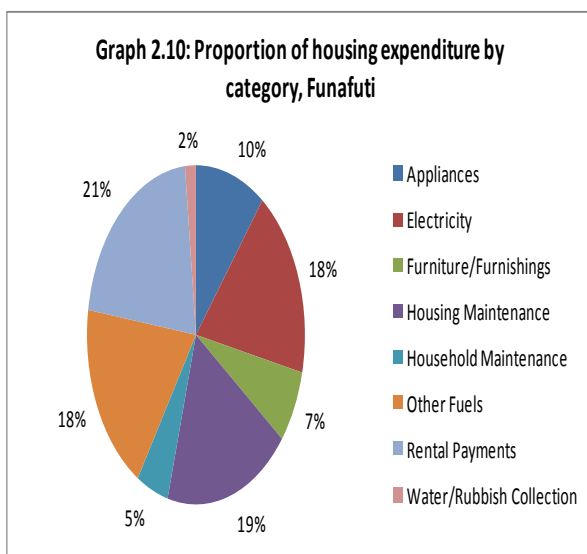
- “housing maintenance” generally covers items purchased to maintain the physical structure of the dwelling (e.g. paint, cement, cupboards, taps, etc)

- “household maintenance” generally covers items purchased to keep the dwelling clean (eg, washing powder, broom, cleaning person)



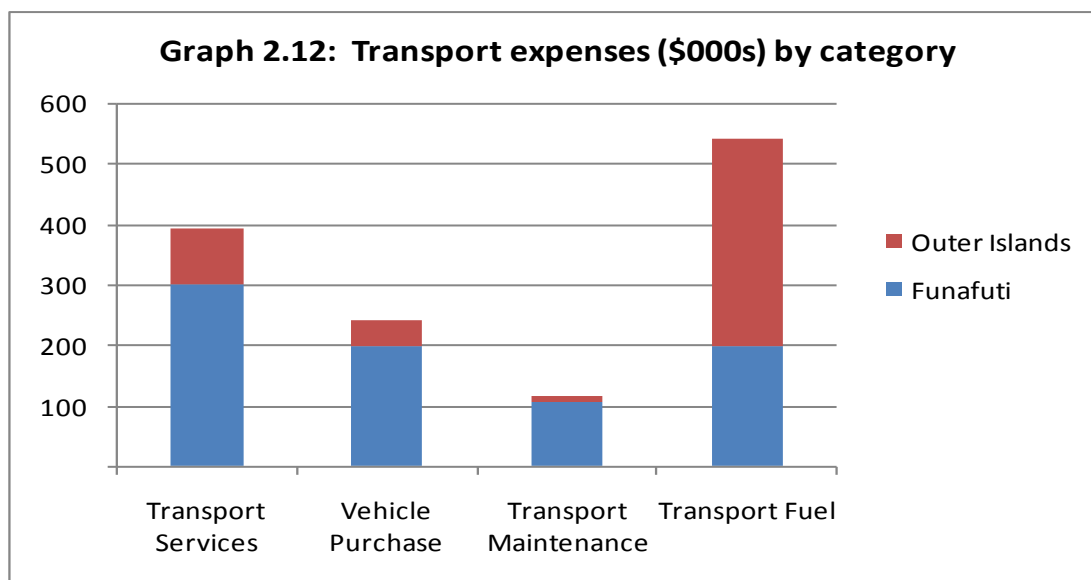
Graphs 2.10 – 2.11 shows a significant difference in the breakdown of expenditure on housing for Funafuti and the Outer Islands. Of key note are the following:

- “Rental Payments” are significantly more prominent in Funafuti
- Purchases of “appliances” are more prominent in Funafuti
- Purchase of “other fuels” are very significant in the Outer Islands
- “Household maintenance” is also more prominent in the Outer Islands



2.2.10 Transport expenditure analysis

As can be seen from the graph 2.12 below, “transport fuel” forms the largest transport expense for Tuvalu as a whole, with the second largest being “transport services” which covers vehicle rentals and overseas travel.



Surprisingly is that for “transport fuel”, a significantly larger contribution comes from the Outer Islands when compared to Funafuti (\$ 350,000 for the Outer Islands, compared to \$ 200,000 for Funafuti). To

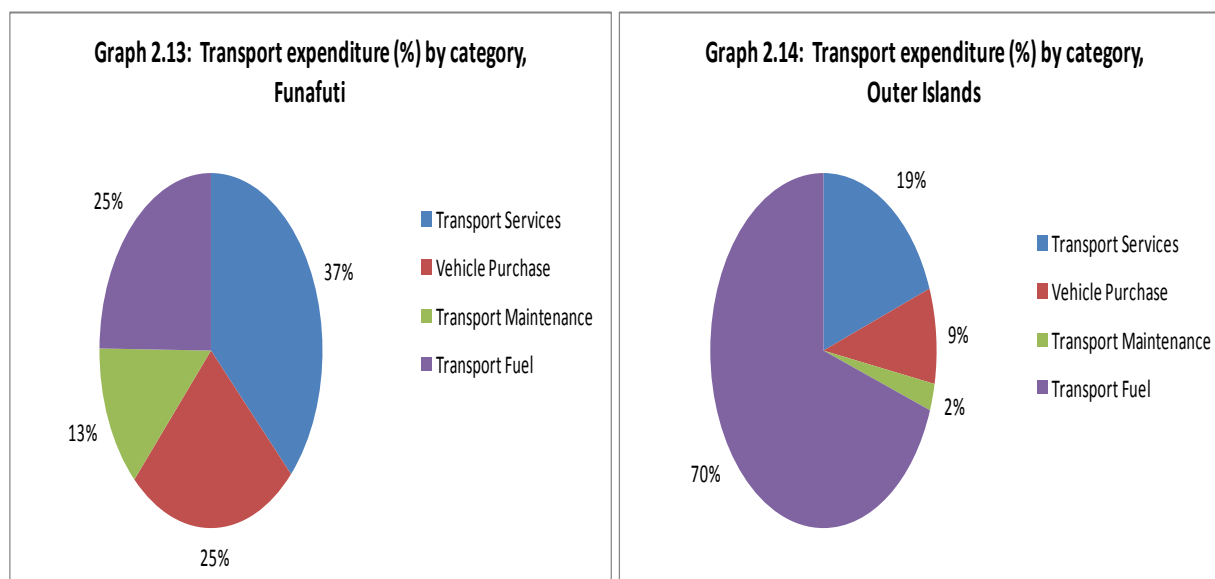
examine this further a table of the number of vehicles was produced which required fuel, with the following numbers being produced:

	<u>Motor Bike</u>	<u>Car</u>	<u>Truck</u>	<u>Outboard</u>	<u>TOTAL</u>
Funafuti	757	123	52	175	1,107
Outer Islands	744	26	3	259	1,032

Despite Funafuti having more cars and trucks than the Outer Islands, there were a lot more outboards on the Outer Islands which could possibly consume more fuel if used frequently. Having said this, it is still surprising to see such a significantly higher figure for “transport fuel” in the Outer Islands. Another possible explanation may be that “transport fuel” on the Outer Islands was overstated a little due to generator fuel being coded to this commodity.

Graphs 2.13 – 2.14 shows the breakdown of expenditure on transportation for Funafuti and the Outer Islands. Of key note here are the following:

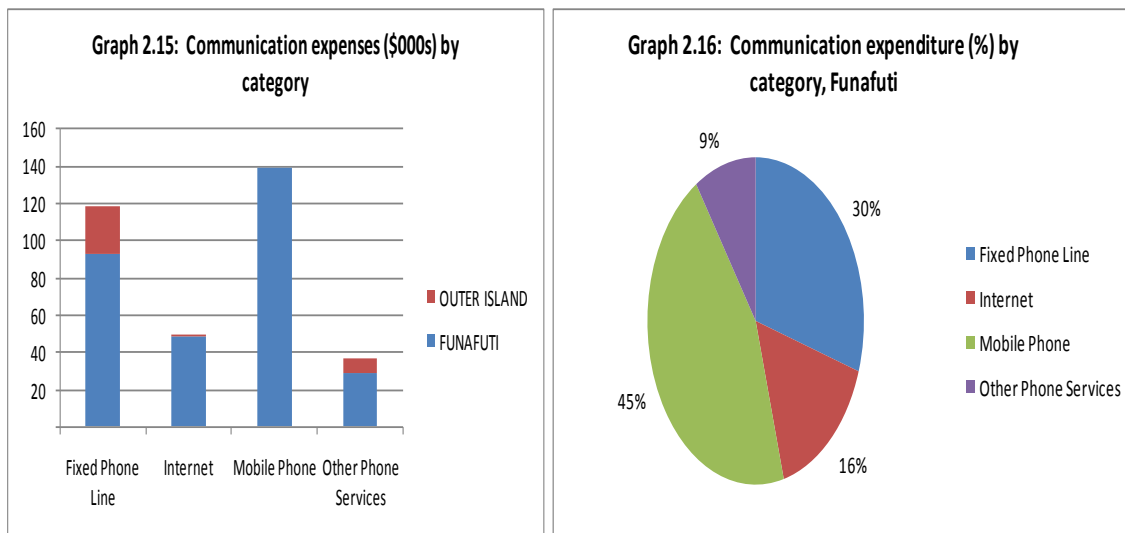
- As discussed above, “transport fuel” was very prominent in the Outer Islands
- “Transport services” and “vehicle purchases” were more prominent in Funafuti
- Whilst “transport maintenance” was low in Funafuti, very little was spent on this commodity in the Outer Islands



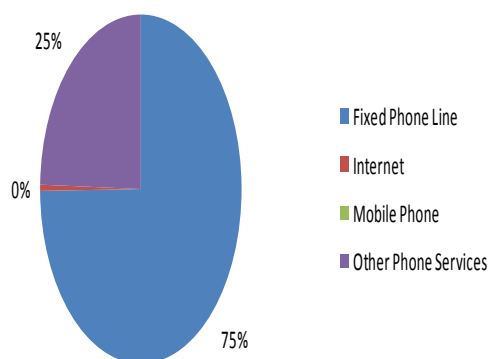
2.2.11 Communication expenditure analysis

The final section in the expenditure analysis section looks further at the communication expenditure on Funafuti and the Outer Islands. As expected, the vast majority of communication expenditure takes place on Funafuti with only a small proportion occurring in the Outer Islands. For the Outer Islands, there is a bit of expenditure on phone calls from land lines and other pre-paid phone avenues, but no expenditure on mobile phones due to this network not being available as yet. There is only a very small amount of expenditure on the internet.

For Funafuti, as can be seen from Graph 2.15 and 2.16, the major phone expenditure is from mobile phone usage. This accounts for just under \$ 140,000 annually, or 45 per cent of overall communication expenditure in Funafuti. Fixed Phone Line expenditures also counts for a significant amount at just over \$ 90,000 (30%), with Internet usage at just under \$ 50,000 (16%).



Graph 2.17: Communication expenditure (%) by category, Outer Islands



Section 3 – Income Analysis

3.1 Income Analysis Approach

As with the case for the expenditure tables, the income tables were based on Resolution 1 from the Seventeenth International Conference of Labour Statisticians. Each Income Source was therefore defined as follows:

Household Income

Household income was split into three main components:

- Income from employment
 - Employee Income: This income comprises direct wages and salaries for time worked and work done, cash bonuses and gratuities, commissions and tips, directors' fees, profit-sharing bonuses and other forms of profit-related pay, remuneration for time not worked as well as free or subsidized goods and services from an employer. It may include severance and termination pay as well as employers' social insurance contributions.
 - Income from self-employment: This is income received by individuals, over a given reference period, as a result of their involvement in self-employment jobs. In particular, income from self-employment concerns primarily owners of unincorporated enterprises who work in these enterprises. It also includes the estimated value of goods and services produced for barter as well as goods produced for own consumption, less expenses.
- Property Income: Property income is defined as receipts that arise from the ownership of assets (return for use of assets) that are provided to others for their use. These are returns, usually monetary, from financial assets (interests, dividends), from non-financial assets (rents) and from royalties (returns for services of patented or copyright material).
- Transfer Income: These are receipts for which the recipient does not give anything to the donor in direct return for the receipts. Transfers can consist of cash (in the monetary sense), of goods or of services. Current transfers are those that usually recur regularly (relative to the reference used for income), tend to be small and are also mostly available for use during the reference period.

A fourth category, “income from household production of services for own consumption” was also included in the Resolution, but was not considered relevant for this analysis.

For Wage and Salary Income, the values in the table relate to net income, after taxes and provident fund contributions have been removed.

For income from self-employment, income from subsistence activities has been expanded out to further show the main forms of subsistence income across Tuvalu. Five main subsistence activity categories were formed:

- Agriculture
- Livestock
- Fishing
- Handicraft
- Other Small Activities

Property Income and Transfer Income then make up the remainder of the Household Income.

Ideally, Remittances (regular money receipts) should be included in the Transfer income, but as these regular receipts could not be distinguished from irregular one-off monetary receipts, all monetary gifts have been included in the next section of the income tables which covers gifts in general. This is discussed more below.

Gifts

This section is split into three sections:

- Monetary gifts received overseas
- Monetary gifts received from Tuvalu
- In-kind gifts received

As stated, the definition of household income covers those receipts for a household which take place on a regular basis, which the household can rely on as a source of financial assistance. As such remittances received by a household are best covered in household income if they are received on a regular basis. Unfortunately, due to questionnaire design deficiencies, it was not possible to distinguish between those monetary gifts received on a regular basis and those which were one-off payments. As such, it was decided to place all monetary gifts into this section regardless of the regularity of their receipt.

Other Receipts

Other receipts cover any other receipts received by the household, usually as a irregular one-off payment. Some examples covered in the survey materials include; accident compensation, scholarships and gambling wins.

Imputed Rent

As with expenditure, imputed rent can also be classified as an income and is the estimated value of rent for households which either live in their own house (regardless of whether or not a mortgage is still outstanding) or are occupying the dwelling they inhabit, free of any rent charge.

3.2 Analysis

The strategy for the income analysis was to primarily analyse the result of the survey at the national and urban/rural level.

For each table, income has been split by whether it was a cash receipt, or in-kind. The row categories follow the descriptions outlined above.

The analysis focuses on the following key tables:

- 1) Average Monthly Household Income
- 2) Average Annual Household Income
- 3) Average Annual Per Capita Income
- 4) Total Annual Household Income
- 5) Distribution of Income
- 6) Proportion of Households with Respective Income

Each of the sections is now discussed in more detail.

3.2.1 Average Monthly Household Income

As can be seen in Table 3.1, the average household in Tuvalu receives \$ 902 from household income per month. Of this, \$ 730 is from cash receipts, \$ 14 from income in-kind and \$ 158 from home production.

The corresponding figures for Funafuti are significantly higher, with \$ 1,364 being received by a typical household in Funafuti per month, compared to only \$ 549 for a typical Outer Island household per month. For cash income, the value of receipts for a typical Funafuti household is also significantly higher than a typical Outer Island household (\$ 1,262 for Funafuti, compared to \$ 324 for Outer Islands). On the other hand, a typical Outer Island household receives more home production income per month than a typical Funafuti household (\$ 222 for Outer Island, compared to \$ 73 for Funafuti). Better employment opportunities and business opportunities in Funafuti relative to the Outer Islands imply that cash incomes are respectively higher.

The main contributor to the average monthly income is “Wage & Salary”, which generates \$ 451 per month across Tuvalu. “Home Production” and “Business Income” were the next biggest contributors with \$ 158 and \$ 106 a month on average respectively, being recorded.

For the section on Gifts, it can be seen that a typical Tuvaluan household receives \$ 201 from this source. Of this amount, \$ 169 is from cash receipts, whilst \$ 32 is from in-kind. Once again a typical household in Funafuti receives a higher amount from this section, \$ 256, compared to \$ 158 for an Outer Island household.

Other receipts also made a slightly significant contribution for Funafuti households, contributing \$ 221 per household per month; however, the corresponding figure for the Outer Islands was only \$ 63.

Table 3.1 Average Monthly Household Income

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
01 Household income	1,262	28	73	1,364	324	3	222	549	730	14	158	902
011 Employment	1,169	28	73	1,271	308	3	222	533	681	14	158	852
0111 Wage and salaries	800	19	0	819	169	0	0	169	442	9	0	451
0112 Income from own business	173	9	0	181	45	3	0	48	100	5	0	106
0113 Subsistence income - Agriculture	18	0	0	18	37	0	0	37	29	0	0	29
0114 Subsistence income - Livestock	60	0	0	60	17	0	0	17	35	0	0	35
0115 Subsistence income - Fishing	51	0	0	51	16	0	0	16	31	0	0	31
0116 Subsistence income - Handicraft	24	0	0	24	16	0	0	16	20	0	0	20
0117 Subsistence income - Small activities	44	0	0	44	7	0	0	7	23	0	0	23
0118 Home production	0	0	73	73	0	0	222	222	0	0	158	158
012 Property	75	0	0	75	5	0	0	5	35	0	0	35
0121 Income from capital	75	0	0	75	5	0	0	5	35	0	0	35
013 Transfer income	18	0	0	18	12	0	0	12	15	0	0	15
0133 Transfer income	18	0	0	18	12	0	0	12	15	0	0	15
02 Gift	211	45	0	256	137	21	0	158	169	32	0	201
0211 Gift in cash received from overseas	157	0	0	157	56	0	0	56	100	0	0	100
0221 Gift in cash received from Tuvalu	54	0	0	54	81	0	0	81	69	0	0	69
0231 Gift in kind received	0	45	0	45	0	21	0	21	0	32	0	32
03 Other												
0351 Other	215	5	0	221	57	6	0	63	126	6	0	131
04 Imputed rent												
0411 Imputed rents	0	193	0	193	0	83	0	83	0	130	0	130
TOTAL	1,689	272	73	2,033	518	113	222	853	1,025	181	158	1,364

3.2.2 Average Annual Household Income

As can be seen in Table 3.2, when converted to an annual figure, the average household in Tuvalu receives \$ 10,820 from cash, in-kind and home production income, per year. Of this, \$ 8,763 is from cash receipts, \$ 166 from in-kind and \$ 1,892 is from home production.

As expected, all other trends identified in table 3.1 can also be seen in the annual analysis.

Table 3.2: Average Annual Household Income

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
01 Household income	15,147	338	878	16,364	3,888	34	2,665	6,587	8,763	166	1,892	10,820
011 Employment	14,030	338	878	15,247	3,694	34	2,665	6,393	8,169	166	1,892	10,226
0111 Wage and salaries	9,597	233	0	9,831	2,029	4	0	2,033	5,306	103	0	5,409
0112 Income from own business	2,071	105	0	2,176	542	30	0	572	1,204	62	0	1,266
0113 Subsistence income - Agriculture	212	0	0	212	441	0	0	441	342	0	0	342
0114 Subsistence income - Livestock	718	0	0	718	202	0	0	202	425	0	0	425
0115 Subsistence income - Fishing	612	0	0	612	196	0	0	196	376	0	0	376
0116 Subsistence income - Handicraft	287	0	0	287	195	0	0	195	235	0	0	235
0117 Subsistence income - Small activities	533	0	0	533	90	0	0	90	282	0	0	282
0118 Home production	0	0	878	878	0	0	2,665	2,665	0	0	1,892	1,892
012 Property	898	0	0	898	54	0	0	54	420	0	0	420
0121 Income from capital	898	0	0	898	54	0	0	54	420	0	0	420
013 Transfer income	219	0	0	219	140	0	0	140	174	0	0	174
0133 Transfer income	219	0	0	219	140	0	0	140	174	0	0	174
02 Gift	2,532	546	0	3,077	1,648	251	0	1,899	2,030	379	0	2,409
0211 Gift in cash received from overseas	1,883	0	0	1,883	675	0	0	675	1,198	0	0	1,198
0221 Gift in cash received from Tuvalu	649	0	0	649	973	0	0	973	833	0	0	833
0231 Gift in kind received	0	546	0	546	0	251	0	251	0	379	0	379
03 Other												
0351 Other	2,584	64	0	2,647	684	72	0	756	1,506	69	0	1,575
04 Imputed rent												
0411 Imputed rents	0	2,314	0	2,314	0	993	0	993	0	1,565	0	1,565
TOTAL	20,263	3,261	878	24,402	6,219	1,351	2,665	10,236	12,299	2,178	1,892	16,369

3.2.3 Average Annual Per Capita Income

As can be seen from Table 3.3 below, the average person in Tuvalu receives \$ 1,979 per year from household income, \$ 441 per year from gifts received and \$ 288 a year from other receipts. The wage and salary component of this is the largest contributor with \$ 989 per year coming from this source.

As expected, the figures per capita for the Funafuti population are much higher overall compared to the Outer Islands, however this trend is reversed for the income categories “home production” (\$ 595 for Outer Islands, versus \$ 130 for Funafuti), and “subsistence income - agriculture” (\$ 98 for the Outer Islands, versus \$ 31 for Funafuti). This is expected due to the large reliance on subsistence activities in the Outer Islands.

Table 3.3 Average Annual Per Capita Income

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
01 Household income	2,241	50	130	2,421	868	8	595	1,470	1,603	30	346	1,979
011 Employment	2,076	50	130	2,255	824	8	595	1,427	1,494	30	346	1,870
0111 Wage and salaries	1,420	34	0	1,454	453	1	0	454	970	19	0	989
0112 Income from own business	306	15	0	322	121	7	0	128	220	11	0	232
0113 Subsistence income - Agriculture	31	0	0	31	98	0	0	98	63	0	0	63
0114 Subsistence income - Livestock	106	0	0	106	45	0	0	45	78	0	0	78
0115 Subsistence income - Fishing	90	0	0	90	44	0	0	44	69	0	0	69
0116 Subsistence income - Handicraft	42	0	0	42	44	0	0	44	43	0	0	43
0117 Subsistence income - Small activities	79	0	0	79	20	0	0	20	52	0	0	52
0118 Home production	0	0	130	130	0	0	595	595	0	0	346	346
012 Property	133	0	0	133	12	0	0	12	77	0	0	77
0121 Income from capital	133	0	0	133	12	0	0	12	77	0	0	77
013 Transfer income	32	0	0	32	31	0	0	31	32	0	0	32
0133 Transfer income	32	0	0	32	31	0	0	31	32	0	0	32
02 Gift	375	81	0	455	368	56	0	424	371	69	0	441
0211 Gift in cash received from overseas	279	0	0	279	151	0	0	151	219	0	0	219
0221 Gift in cash received from Tuvalu	96	0	0	96	217	0	0	217	152	0	0	152
0231 Gift in kind received	0	81	0	81	0	56	0	56	0	69	0	69
03 Other												
0351 Other	382	9	0	392	153	16	0	169	275	13	0	288
04 Imputed rent												
0411 Imputed rents	0	342	0	342	0	222	0	222	0	286	0	286
TOTAL	2,998	482	130	3,610	1,388	301	595	2,284	2,250	398	346	2,994

3.2.4 Total Annual Household Income

Table 3.4 shows the total annual income for respective groups for Tuvaluans in a given year. In total, Tuvaluans receive \$ 19,768,000 of household income for the country as a whole. Of this total, Funafuti account for roughly 65 per cent (\$ 12,944,000 / \$ 19,768,000) of the total household income.

Table 3.4 also shows that income equivalent for Tuvaluans from Home Production activities is \$ 3,456,000, whereas Subsistence Income activities are \$ 3,032,000. This results in \$ 6,488,000 per year in subsistence activity income for Tuvalu, whether the produce be sold or consumed by the household.

This table also shows that Tuvaluans receive \$ 4,401,000 per year in gifts, approximately half of which is cash gifts received from overseas, \$ 2,188,000

Table 3.4 Total Annual Household Income ('000s)

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
01 Household income	11,982	267	695	12,944	4,028	35	2,761	6,825	16,010	302	3,456	19,768
011 Employment	11,098	267	695	12,060	3,827	35	2,761	6,623	14,925	302	3,456	18,683
0111 Wage and salaries	7,592	184	0	7,776	2,102	4	0	2,106	9,694	188	0	9,882
0112 Income from own business	1,638	83	0	1,721	561	31	0	592	2,199	114	0	2,313
0113 Subsistence income - Agriculture	168	0	0	168	457	0	0	457	625	0	0	625
0114 Subsistence income - Livestock	568	0	0	568	209	0	0	209	777	0	0	777
0115 Subsistence income - Fishing	484	0	0	484	203	0	0	203	687	0	0	687
0116 Subsistence income - Handicraft	227	0	0	227	202	0	0	202	429	0	0	429
0117 Subsistence income - Small activities	422	0	0	422	93	0	0	93	515	0	0	515
0118 Home production	0	0	695	695	0	0	2,761	2,761	0	0	3,456	3,456
012 Property	710	0	0	710	56	0	0	56	766	0	0	766
0121 Income from capital	710	0	0	710	56	0	0	56	766	0	0	766
013 Transfer income	173	0	0	173	145	0	0	145	318	0	0	318
0133 Transfer income	173	0	0	173	145	0	0	145	318	0	0	318
02 Gift	2,003	432	0	2,434	1,707	260	0	1,967	3,709	692	0	4,401
0211 Gift in cash received from overseas	1,490	0	0	1,490	699	0	0	699	2,188	0	0	2,188
0221 Gift in cash received from Tuvalu	513	0	0	513	1,008	0	0	1,008	1,521	0	0	1,521
0231 Gift in kind received	0	432	0	432	0	260	0	260	0	692	0	692
03 Other												
0351 Other	2,044	50	0	2,094	708	75	0	783	2,752	125	0	2,877
04 Imputed rent												
0411 Imputed rents	0	1,830	0	1,830	0	1,029	0	1,029	0	2,859	0	2,859
TOTAL	16,028	2,579	695	19,302	6,443	1,399	2,761	10,604	22,471	3,979	3,456	29,906

3.2.5 Distribution of Income across groups

This section illustrates how income is distributed across each sub-group, in particular for the household income group and the gifts received group. To make the analysis more meaningful, the income distribution is done separately within each group. As can be seen from Table 3.5, within the household income group, wages and salary accounts for 50 per cent of the total. The equivalent figures for Funafuti and the Outer Islands were 60 per cent for Funafuti and 31 per cent for the Outer Islands.

For household income received as cash, wages and salary accounts for 61 per cent. For the Funafuti community, the prevalence of wage and salary household income from cash is even more significant at 63 per cent, compared with only 52 per cent for the Outer Islands.

Table 3.5 Distribution of Income across groups (%)

CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
01 Household income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
011 Employment	92.6	100.0	100.0	93.2	95.0	100.0	100.0	97.1	93.2	100.0	100.0	94.5
0111 Wage and salaries	63.4	69.0	0.0	60.1	52.2	11.3	0.0	30.9	60.5	62.3	0.0	50.0
0112 Income from own business	13.7	31.0	0.0	13.3	13.9	88.7	0.0	8.7	13.7	37.7	0.0	11.7
0113 Subsistence income - Agriculture	1.4	0.0	0.0	1.3	11.3	0.0	0.0	6.7	3.9	0.0	0.0	3.2
0114 Subsistence income - Livestock	4.7	0.0	0.0	4.4	5.2	0.0	0.0	3.1	4.9	0.0	0.0	3.9
0115 Subsistence income - Fishing	4.0	0.0	0.0	3.7	5.0	0.0	0.0	3.0	4.3	0.0	0.0	3.5
0116 Subsistence income - Handicraft	1.9	0.0	0.0	1.8	5.0	0.0	0.0	3.0	2.7	0.0	0.0	2.2
0117 Subsistence income - Small activities	3.5	0.0	0.0	3.3	2.3	0.0	0.0	1.4	3.2	0.0	0.0	2.6
0118 Home production	0.0	0.0	100.0	5.4	0.0	0.0	100.0	40.5	0.0	0.0	100.0	17.5
012 Property	5.9	0.0	0.0	5.5	1.4	0.0	0.0	0.8	4.8	0.0	0.0	3.9
0121 Income from capital	5.9	0.0	0.0	5.5	1.4	0.0	0.0	0.8	4.8	0.0	0.0	3.9
013 Transfer income	1.4	0.0	0.0	1.3	3.6	0.0	0.0	2.1	2.0	0.0	0.0	1.6
0133 Transfer income	1.4	0.0	0.0	1.3	3.6	0.0	0.0	2.1	2.0	0.0	0.0	1.6
02 Gift	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
0211 Gift in cash received from overseas	74.4	0.0	0.0	61.2	40.9	0.0	0.0	35.5	59.0	0.0	0.0	49.7
0221 Gift in cash received from Tuvalu	25.6	0.0	0.0	21.1	59.1	0.0	0.0	51.2	41.0	0.0	0.0	34.6
0231 Gift in kind received	0.0	100.0	0.0	17.7	0.0	100.0	0.0	13.2	0.0	100.0	0.0	15.7
03 Other												
0351 Other	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
04 Imputed rent												
0411 Imputed rents	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0

3.2.6 Proportion of households with respective income

Table 3.6 shows the proportion of households who recorded an income against each of the income categories during the course of the survey. By comparison the proportion of households earning income from wages and salaries (cash) is 89.9% and 51.9% for Funafuti and the Outer Islands respectively. As expected a high proportion of households stated income from “home produced consumed” in the Outer Islands (99%).

Table 3.6 Proportion of households with respective income (%)

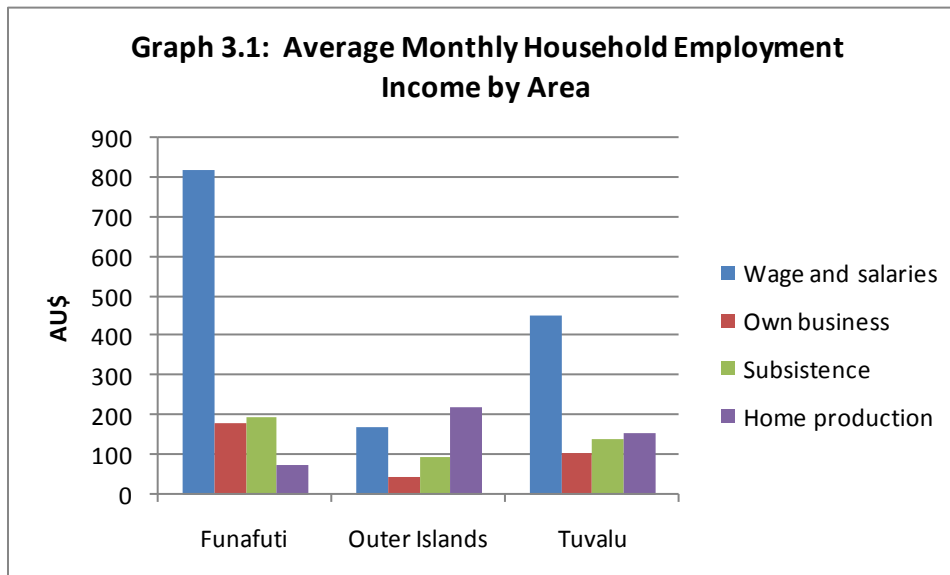
CATEGORY	FUNAFUTI				OUTER ISLANDS				TUVALU			
	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL	Cash	In-kind	Home Pr.	TOTAL
01 Household income	96.8	19.4	73.7	99.5	80.8	7.1	99.0	99.7	87.7	12.4	88.1	99.6
011 Employment	95.9	19.4	73.7	99.5	76.3	7.1	99.0	99.7	84.7	12.4	88.1	99.6
0111 11.Wage and salaries	89.9	13.4	0.0	89.9	51.9	0.9	0.0	51.9	68.3	6.3	0.0	68.3
0112 12.Income from own business	31.3	7.4	0.0	33.2	15.0	6.1	0.0	17.8	22.1	6.7	0.0	24.4
0113 13.Subsistence income - Agriculture	12.9	0.0	0.0	12.9	18.9	0.0	0.0	18.9	16.3	0.0	0.0	16.3
0114 14.Subsistence income - Livestock	24.9	0.0	0.0	24.9	21.7	0.0	0.0	21.7	23.1	0.0	0.0	23.1
0115 15.Subsistence income - Fishing	8.3	0.0	0.0	8.3	6.1	0.0	0.0	6.1	7.0	0.0	0.0	7.0
0116 16.Subsistence income - Handicraft	15.2	0.0	0.0	15.2	16.8	0.0	0.0	16.8	16.1	0.0	0.0	16.1
0117 17.Subsistence income - Small activities	23.0	0.0	0.0	23.0	10.1	0.0	0.0	10.1	15.7	0.0	0.0	15.7
0118 18.Home production	0.0	0.0	73.7	73.7	0.0	0.0	99.0	99.0	0.0	0.0	88.1	88.1
012 Property	26.3	0.0	0.0	26.3	6.4	0.0	0.0	6.4	15.0	0.0	0.0	15.0
0121 19.Income from capital	26.3	0.0	0.0	26.3	6.4	0.0	0.0	6.4	15.0	0.0	0.0	15.0
013 Transfer income	14.7	0.0	0.0	14.7	15.8	0.0	0.0	15.8	15.3	0.0	0.0	15.3
0133 Transfer income	14.7	0.0	0.0	14.7	15.8	0.0	0.0	15.8	15.3	0.0	0.0	15.3
02 Gift	21.7	23.5	0.0	32.7	29.7	29.1	0.0	43.0	26.2	26.7	0.0	38.5
0211 Gift in cash received from overseas	14.3	0.0	0.0	14.3	5.9	0.0	0.0	5.9	9.5	0.0	0.0	9.5
0221 Gift in cash received from Tuvalu	12.0	0.0	0.0	12.0	27.2	0.0	0.0	27.2	20.6	0.0	0.0	20.6
0231 Gift in kind received	0.0	23.5	0.0	23.5	0.0	29.1	0.0	29.1	0.0	26.7	0.0	26.7
03 Other												
0351 Other	59.9	7.4	0.0	60.8	56.1	10.1	0.0	59.1	57.7	8.9	0.0	59.8
04 Imputed rent												
0411 Imputed rents	0.0	67.3	0.0	67.3	0.0	95.4	0.0	95.4	0.0	83.2	0.0	83.2

3.2.7 Additional analysis of Employment Income

For this analysis, the four categories investigated were:

- Wage and Salary Income
- Own Business
- Subsistence Income - Sales
- Home Production - Consumed

Graph 3.1 below shows the average monthly household employment income for both Funafuti and the Outer Islands, by categories.

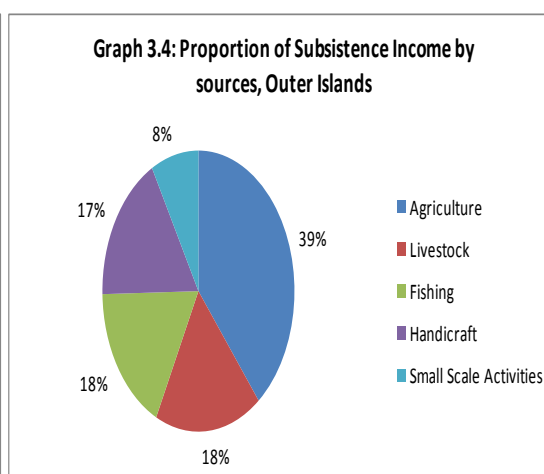
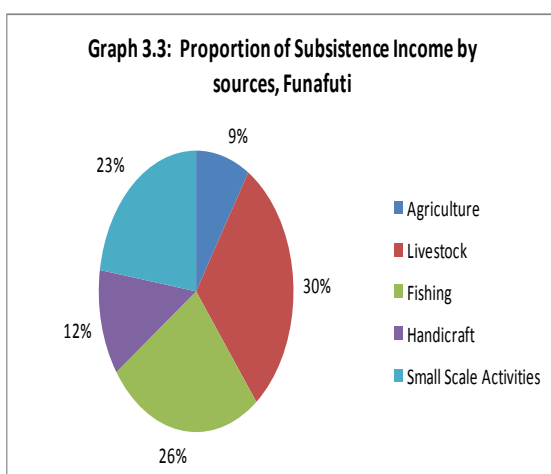
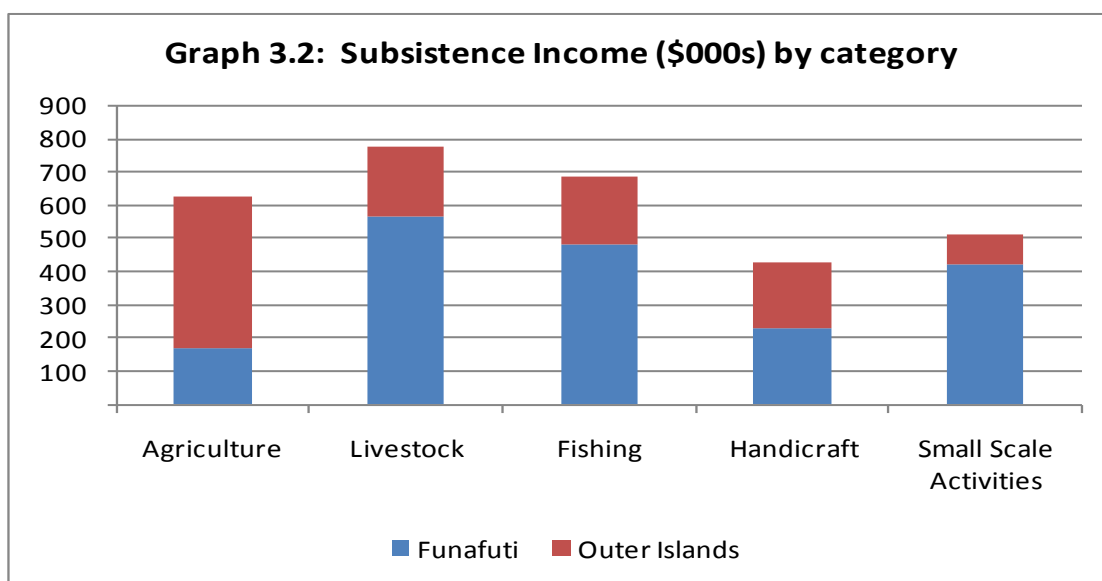


As can be seen from this analysis, Wage and Salaries is by far the most significant source of employment income for Funafuti, with over \$ 800 a month being generated from this source. The next highest is “subsistence income” which contributes on average around \$ 200 a month per household.

For the Outer Islands, “home production” is the most significant source of employment with a little over \$ 200 being generated from this activity per month for a typical household. “Wage and salary” then comes in next with a little under \$ 200 a month.

3.2.8 Additional analysis of Subsistence Income

Taking a closer look at the subsistence income, it can be seen in Graph 3.2 that Livestock (mostly pigs) was the largest source of subsistence income for Tuvalu. This was followed by Fishing, Agriculture, Small Scale Activities and then finally Handicrafts. Funafuti generally has the highest contribution for each group, with the exception of “agriculture”, where a far greater amount of income is generated in the Outer Islands. This is further evident in Graph 3.4, where it can be seen that Agriculture subsistence income generates 39 per cent of all subsistence income in the Outer Islands. The figure for Agriculture in Funafuti is only 9 per cent.



Section 4 – Quality of Results

4.1 Introduction

This section provides background information about sampling and non-sampling errors. Sampling errors refer to those errors that are implicit in any sample survey, where only a portion of the population is covered. Non-sampling errors refer to all other types of error. These can arise at any stage of the survey process. Examples of activities that are likely to increase the level of non-sampling error are: failing to select a proper sample, poor questionnaire design, weak field supervision, inaccurate data entry, insufficient data editing, or failure to analyze or report on the data correctly. If a census of all the households in Tuvalu were carried out, there would be no sampling error (but probably increased non-sampling error).

4.2 Sampling Errors

As discussed in section 1.2 of this report, systematic sampling was adopted for each island in the survey. This was achieved by sorting all households on the island by geographical position and then running a skip of 3 through the list to achieve a 33 per cent sample. Ideally, the approach for calculating sampling errors should be to adopt the formula which best reflects the sample design, but for this report, it was decided to adopt the formula assuming “simple random sampling” was adopted. This made things a lot simpler and this approach is a more than suitable approximation.

It was not possible to calculate sampling errors for all estimates in this report, so just some sample errors for key estimates of expenditure and income were produced for selected geographical areas. This in itself should give users a guide as to what can be expected from results with respect to sampling errors.

The procedure for addressing this was to firstly calculate the variance associate with key estimates, convert these to standard errors, and then represent these standard errors as a percentage of the estimate. Such a figure is referred to as a relative standard error (RSE) and is useful for comparing the quality of different size estimates from a survey.

To assist with the interpretation of the RSEs, the following table can be used as a guide:

<u>Magnitude of the RSE</u>	<u>Interpretation</u>
Less than 5%	Estimate is very good quality
Between 5% and 10%	Estimate is of good quality
Between 10% and 25%	Estimate is ok, but should be used with caution
Greater than 25%	Estimate cannot be considered reliable

4.2.1 Expenditure

Table 4.1 shows the relative standard errors for key expenditure estimates by Funafuti and the Outer Islands. As can be seen from this table, the RSEs for Total Consumption Expenditure for Tuvalu was 2.9 per cent, suggesting it is a very reliable figure from a sample error perspective. The corresponding RSE for Funafuti and the Outer Islands for Total Consumption Expenditure is also quite low at 4.1 per cent and 3.5 per cent respectively. The table also shows that the RSEs for some individual expenditure groups within Consumption Expenditure are a little higher, and as such should be used with care.

For the estimates of Non-Consumption Expenditure, the RSEs are also a little higher so should also be used with caution, especially those exceeding 25%.

Table 4.1: RSEs for key expenditure categories by selected geographical regions

Expenditure Category		Relative Standard Errors		
		Funafuti	Outer Islands	Total
Consumption expenditure				
01	Food and Non-Alcoholic Beverages	3.6%	3.5%	2.5%
02	Alcohol and tobacco	14.5%	26.7%	13.5%
03	Clothing and footwear	12.4%	23.4%	11.3%
04	Water, electricity and other fuels	6.5%	6.2%	5.0%
05	Furnishings, equipment and maintenance	17.1%	20.2%	14.5%
06	Health	25.4%	19.0%	21.5%
07	Transport	10.4%	25.3%	11.5%
08	Communication	9.0%	14.3%	8.2%
09	Recreation and culture	13.9%	9.1%	10.8%
10	Education	47.9%	18.0%	41.3%
11	Restaurants and hotels	22.3%	25.0%	19.7%
12	Miscellaneous goods and services	8.1%	7.0%	6.3%
<i>Total consumption expenditure</i>		<i>4.1%</i>	<i>3.5%</i>	<i>2.9%</i>
Non consumption expenditure				
21	Monetary gifts to another household	15.9%	24.7%	13.9%
22	Monetary gifts to the community	13.3%	12.6%	10.0%
23	Monetary gifts to the church	36.5%	5.2%	26.7%
24	Other monetary gift	69.0%	56.1%	59.1%
25	Gifts Given from Business	45.9%	35.5%	28.6%
26	Home Produce - Given Away	24.5%	12.6%	11.4%
27	Lend and lose money	50.3%	55.5%	43.4%
28	Taxes	8.7%	20.9%	8.2%
<i>Total non consumption expenditure</i>		<i>10.3%</i>	<i>13.2%</i>	<i>8.1%</i>
Investment and saving				
31	Investment	17.3%	22.1%	14.0%
32	Saving	10.3%	14.1%	8.4%
<i>Total investment and saving</i>		<i>11.0%</i>	<i>13.3%</i>	<i>8.8%</i>
Imputed rents				
41	Imputed rents	5.9%	4.0%	4.1%
TOTAL		4.3%	4.0%	3.1%

4.2.2 Income

Table 4.2 shows the relative standard errors for key income estimates by selected geographical areas. As can be seen from this table, the RSEs for Total Household Income for Tuvalu was 4.7 per cent, suggesting once again it is a very reliable figure from a sample error perspective. The corresponding RSE for Funafuti and the Outer Islands of Total Household Income went up a little higher for Funafuti, but decreased slightly for the Outer Islands. Their corresponding RSEs were at 6.8 per cent and 4.5 per cent respectively. The table also shows that the RSEs for Home Production were the most reliable if we go to fine level income sources, especially for the Outer Islands where the RSE was 3.2%. This is not surprising as you would expect many households in the Outer Islands to be involved in home production so there would not be a great deal of different reporting from one household to the next.

The RSEs for the section on Gifts was also a little high, so these figures should be used with caution.

Table 4.2: RSEs for key income categories by selected geographical regions

Income Category	Relative Standard Errors		
	Funafuti	Outer Islands	Total
Household income	6.8%	4.5%	4.7%
<i>Employment</i>			
11.Wage and salaries	9.2%	8.6%	7.5%
12.Income from own business	25.1%	31.9%	20.4%
13.Subsistence income - Agriculture	26.1%	19.9%	16.2%
14.Subsistence income - Livestock	13.6%	13.8%	10.6%
15.Subsistence income - Fishing	26.4%	26.6%	20.2%
16.Subsistence income - Handicraft	22.1%	16.1%	13.9%
17.Subsistence income - Small activities	17.7%	27.0%	15.3%
18.Home production	9.0%	3.2%	3.1%
<i>Property</i>			
19.Income from capital	18.4%	49.7%	17.4%
<i>Transfer income</i>			
20.Transfer income	19.5%	13.8%	12.4%
Gifts - Monetary and In-kind	16.9%	17.3%	12.1%
21.Gift in cash received from overseas	21.6%	39.1%	19.3%
22.Gift in cash received from Tuvalu	28.3%	14.2%	13.4%
23.Gift in kind received	25.9%	18.3%	17.6%
Other Receipts			
31.Other Receipts	14.9%	11.0%	11.3%
Imputed rent			
41.Imputed rents	5.9%	4.0%	4.1%
TOTAL	5.5%	4.4%	3.9%

4.3 Non-Sampling Errors

As discussed above, non-sampling errors refer to all other errors which can take place during the course of the survey, which impact on the accuracy of survey results.

Unlike the sampling error, it is very difficult to measure the magnitude of the non-sampling error, and as such, users are often left with information on the types of errors which can go wrong and the likelihood of such errors occurring within the survey, and to what extent. A brief explanation below provides this information for each of the key types of non-sampling error identified in the Tuvalu 2010 HIES.

Non-response Bias

Non-response Bias is the bias generated in estimates as a result of selected households not responding to the survey for a variety of reasons. Without knowing information about the non-responding households, it is difficult to determine the extent of the bias generated by non-response. What can be said however is that the higher the response rates, the lower the non-response bias.

As already mentioned in the introduction of this report, the response rates for this survey were very high for all selected islands. Overall the response rate for this survey was 97% which is very high, suggesting very little non-response bias.

Table 4.3: Response rates for Tuvalu 2010 HIES

Island	Selected households	Fully responding	Vacant	Non response	Response rate
Nanumea	41	38	3	0	100%
Nanumaga	39	38	1	0	100%
Niutao	46	45	0	1	98%
Nui	47	44	3	0	100%
Vaitupu	100	93	6	1	99%
Nukufetau	47	40	2	5	89%
Nukulaelae	26	26	0	0	100%
Funafuti *	259	217	32	10	96%
Totals	605	541	47	17	97%

Questionnaire Design Flaws

Questionnaire design flaws address any problems with the way questions were worded which will result in an incorrect answer provided by the respondent. Despite every effort to minimize this problem during the design of the respective survey questionnaires and the diaries, problems were still identified during the analysis of the data. Some examples are provided below:

Gifts, Remittances & Donations

Collecting information on the following:

- the receipt and provision of gifts
- the receipt and provision of remittances
- the provision of donations to the church, other communities and family occasions

is a very difficult task in a HIES. The extent of these activities in Tuvalu is very high, so every effort should be made to address these activities as best as possible. A key problem lies in identifying the best form (questionnaire or diary) for covering such activities. A general rule of thumb for a HIES is that if the activity occurs on a regular basis, and involves the exchange of small monetary amounts or in-kind gifts, the diary is more appropriate. On the other hand, if the activity is less infrequent, and involves larger sums of money, the questionnaire with a recall approach is preferred. It is not always easy to distinguish between the two for the different activities, and as such, both the diary and questionnaire were used to collect this information. Unfortunately it probably wasn't made clear enough as to what types of transactions were being collected from the different sources, and as such some transactions might have been missed, and others counted twice. The effects of these problems are hopefully minimal overall.

Defining Remittances

Because people have different interpretations of what constitutes remittances, the questionnaire needs to be very clear as to how this concept is defined in the survey. Unfortunately this wasn't explained clearly enough so it was difficult to distinguish between a remittance, which should be of a more regular nature, and a one-off monetary gift which was transferred between two households.

Business Expenses Still Recorded

The aim of the survey is to measure "household" expenditure, and as such, any expenditure made by a household for an item or service which was primarily used for a business activity should be excluded. It was not always clear in the questionnaire that this was the case, and as such some business expenses were included. Efforts were made during data cleaning to remove any such business expenses which would impact significantly on survey results.

Purchased goods given away as a gift

When a household makes a gift donation of an item it has purchased, this is recorded in section 5 of the diary. Unfortunately it was difficult to know how to treat these items as it was not clear as to whether this item had been recorded already in section 1 of the diary which covers purchases. The decision was made to exclude all information of gifts given which were considered to be purchases, as these items were assumed to have already been recorded already in section 1. Ideally these items should be treated as a purchased gift given away, which in turn is not household consumption expenditure, but this was not possible.

Some key items missed in the Questionnaire

Although not a big issue, some key expenditure items were omitted from the questionnaire when it would have been best to collect them via this schedule. A key example being electric fans which many households in Tuvalu own.

Respondent Error

Whether intentional or not, respondents in the household will at times provide incorrect information to questions, despite how well the question is worded and asked by the interviewer. This may sometimes be because the respondent may not wish the interviewer to know the true amount and intentionally provide an incorrect answer, which happens at times for income, or they simply misunderstood the question. A common misunderstanding for questions in a HIES is the reference period being referred. Interviewers are trained to reduce the likelihood of this error as much as possible.

Under-Reporting and Incorrect Reporting as a result of Poor Field Work Procedures

The most crucial stage of any survey activity, whether it be a population census or a survey such as a HIES is the fieldwork. It is crucial for intense checking to take place in the field before survey forms are returned to the office for data processing. Unfortunately, it became evident during the cleaning of the data that fieldwork wasn't checked as thoroughly as required, and as such some unexpected values appeared in the questionnaires, as well as unusual results appearing in the diaries. Efforts were made to identify the main issues which would have the greatest impact on final results, and this information was modified using local knowledge, to a more reasonable answer, when required.

Data Entry Errors

Data entry errors are always expected, but can be kept to a minimum with double entry taking place. Unfortunately time did not permit for double entry to take place for the Tuvalu 2010 HIES

which will increase the likelihood of such errors. A large number of checks were performed on the final dataset and suspicious results checked against the questionnaires. When errors in data entry were detected during this process the values were rectified, but this could only be possible for suspicious data.

Appendix 1: COICOP Classification - Detailed Structure and Explanatory Notes

1) FOOD AND NON-ALCOHOLIC BEVERAGES

- Food
 - Bread and cereals (ND)
 - Meat (ND)
 - Fish and seafood (ND)
 - Milk, cheese and eggs (ND)
 - Oils and fats (ND)
 - Fruit (ND)
 - Vegetables (ND)
 - Sugar, jam, honey, chocolate and confectionery (ND)
 - Food products n.e.c. (ND)
- Non-alcoholic beverages
 - Coffee, tea and cocoa (ND)
 - Mineral waters, soft drinks, fruit and vegetable juices (ND)

2) ALCOHOLIC BEVERAGES, TOBACCO AND NARCOTICS

- Alcoholic beverages
 - Spirits (ND)
 - Wine (ND)
 - Beer (ND)
- Tobacco
 - Tobacco (ND)
- Narcotics
 - Narcotics (ND)

3) CLOTHING AND FOOTWEAR

- Clothing
 - Clothing materials (SD)
 - Garments (SD)
 - Other articles of clothing and clothing accessories (SD)
 - Cleaning, repair and hire of clothing (S)
- Footwear
 - Shoes and other footwear (SD)
 - Repair and hire of footwear (S)

4) HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS

- Actual rentals for housing
 - Actual rentals paid by tenants (S)
 - Other actual rentals (S)
- Imputed rentals for housing
 - Imputed rentals of owner-occupiers (S)
 - Other imputed rentals (S)

- Maintenance and repair of the dwelling
 - Materials for the maintenance and repair of the dwelling (ND)
 - Services for the maintenance and repair of the dwelling (S)
- Water supply and miscellaneous services relating to the dwelling
 - Water supply (ND)
 - Refuse collection (S)
 - Sewage collection (S)
 - Other services relating to the dwelling n.e.c. (S)
- Electricity, gas and other fuels
 - Electricity (ND)
 - Gas (ND)
 - Liquid fuels (ND)
 - Solid fuels (ND)
 - Heat energy (ND)

5) FURNISHINGS, HOUSEHOLD EQUIPMENT AND ROUTINE HOUSEHOLD MAINTENANCE

- Furniture and furnishings, carpets and other floor coverings
 - Furniture and furnishings (D)
 - Carpets and other floor coverings (D)
 - Repair of furniture, furnishings and floor coverings (S)
- Household textiles
 - Household textiles (SD)
- Household appliances
 - Major household appliances whether electric or not (D)
 - Small electric household appliances (SD)
 - Repair of household appliances (S)
- Glassware, tableware and household utensils
 - Glassware, tableware and household utensils (SD)
- Tools and equipment for house and garden
 - Major tools and equipment (D)
 - Small tools and miscellaneous accessories (SD)
- Goods and services for routine household maintenance
 - Non-durable household goods (ND)
 - Domestic services and household services (S)

6) HEALTH

- Medical products, appliances and equipment
 - Pharmaceutical products (ND)
 - Other medical products (ND)
 - Therapeutic appliances and equipment (D)
- Outpatient services
 - Medical services (S)
 - Dental services (S)
 - Paramedical services (S)
- Hospital services
 - Hospital services (S)

7) TRANSPORT

- Purchase of vehicles
 - Motor cars (D)
 - Motor cycles (D)
 - Bicycles (D)
 - Animal drawn vehicles (D)
- Operation of personal transport equipment
 - Spare parts and accessories for personal transport equipment (SD)
 - Fuels and lubricants for personal transport equipment (ND)
 - Maintenance and repair of personal transport equipment (S)
 - Other services in respect of personal transport equipment (S)
- Transport services
 - Passenger transport by railway (S)
 - Passenger transport by road (S)
 - Passenger transport by air (S)
 - Passenger transport by sea and inland waterway (S)
 - Combined passenger transport (S)
 - Other purchased transport services (S)

8) COMMUNICATION

- Postal services
 - Postal services (S)
- Telephone and telefax equipment
 - Telephone and telefax equipment (D)
- Telephone and telefax services
 - Telephone and telefax services (S)

9) RECREATION AND CULTURE

- Audio-visual, photographic and information processing equipment
 - Equipment for the reception, recording and reproduction of sound and pictures (D)
 - Photographic and cinematographic equipment and optical instruments (D)
 - Information processing equipment (D)
 - Recording media (SD)
 - Repair of audio-visual, photographic and information processing equipment (S)
- Other major durables for recreation and culture
 - Major durables for outdoor recreation (D)
 - Musical instruments and major durables for indoor recreation (D)
 - Maintenance and repair of other major durables for recreation and culture (S)
- Other recreational items and equipment, gardens and pets
 - Games, toys and hobbies (SD)
 - Equipment for sport, camping and open-air recreation (SD)
 - Gardens, plants and flowers (ND)
 - Pets and related products (ND)
 - Veterinary and other services for pets (S)

- Recreational and cultural services
 - Recreational and sporting services (S)
 - Cultural services (S)
 - Games of chance (S)
- Newspapers, books and stationery
 - Books (SD)
 - Newspapers and periodicals (ND)
 - Miscellaneous printed matter (ND)
 - Stationery and drawing materials (ND)
- Package holidays
 - Package holidays (S)

10) EDUCATION

- Pre-primary and primary education
 - Pre-primary and primary education (S)
- Secondary education
 - Secondary education (S)
- Post-secondary non-tertiary education
 - Post-secondary non-tertiary education (S)
- Tertiary education
 - Tertiary education (S)
- Education not definable by level
 - Education not definable by level (S)

11) RESTAURANTS AND HOTELS

- Catering services
 - Restaurants, cafés and the like (S)
 - Canteens (S)
- Accommodation services
 - Accommodation services (S)

12) MISCELLANEOUS GOODS AND SERVICES

- Personal care
 - Hairdressing salons and personal grooming establishments (S)
 - Electric appliances for personal care (SD)
 - Other appliances, articles and products for personal care (ND)
- Prostitution
 - Prostitution (S)
- Personal effects n.e.c.
 - Jewellery, clocks and watches (D)
 - Other personal effects (SD)
- Social protection
 - Social protection (S)

- Insurance
 - Life insurance (S)
 - Insurance connected with the dwelling (S)
 - Insurance connected with health (S)
 - Insurance connected with transport (S)
 - Other insurance (S)
- Financial services n.e.c.
 - FISIM (S)
 - Other financial services n.e.c. (S)
- Other services n.e.c.
 - Other services n.e.c. (S)

Appendix 2: Tuvalu Map

