



**Vanuatu Analysis
of the
2006 Household Income and Expenditure Survey**

Report

On the

**Estimation of Basic Needs Poverty Lines, and the
Incidence and
Characteristics of Poverty**

**in
VANUATU**

Vanuatu National Statistics Office

Asian Development Bank, UNDP



REPUBLIC OF VANUATU



Preface

This report on the estimation of **Basic Needs Poverty Lines and the Incidence and Characteristics of Poverty in Vanuatu** is the first of its kind. This detail and technical analysis from the 2006 Household Income and Expenditure Survey (HIES), is the second output from a series of analysis and outputs from the 2006 HIES.

The report provides the estimates of national poverty lines. This paper also analyses the expenditure data to estimate the incidence of poverty through the use of food and basic needs poverty lines and comparing these with recorded levels of expenditure. It also provides an analysis of the broad characteristics of low-expenditure households in terms of their socio-economic status, demographics and level of household access to basic services. Together with the poverty indicators these provide a good indication of which households are the most disadvantaged in Vanuatu, what common characteristics they might share and why they might be in this situation. Such information will be useful for government to define targeted policies and interventions to assist in alleviating poverty and hardship in Vanuatu.

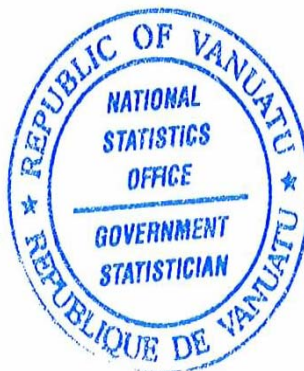
I would like to sincerely thank the Asian Development Bank (ADB) for financing the technical support for this analysis. I would also like to thank the following organisations for co-financing the 2006 HIES survey which data was made available for this analysis: the Australian High Commission (AusAID), the Millennium Challenge Accounts (MCA), and the Millennium Challenge Corporation (MCC).

Many people contributed to this analysis in so many ways. I would like to sincerely express my gratitude to Mss Kim Robertson the ADB short-term consultant, her counterpart Mr Pita Toa and the NSO staff for this achievement.

Summary information on this technical report can be obtain from “**SUMMARY of Report on the Estimation on the Basic Need Poverty Line, and the Incidence and Characteristics of Poverty in Vanuatu**”, however detail information on the demographic and socio-economic aspects of Vanuatu households can be found in “**2006 Household Income and Expenditure Final Report**”.



Simil Johnson
Acting Government Statistician



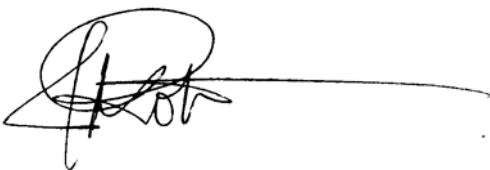
Acknowledgements

This analysis of the Household Income and Expenditure Survey (HIES) has been undertaken with the support of technical assistance provided by the Government of Vanuatu, the Asian Development Bank and UNDP. The work benefited from support and technical inputs from the Acting Government Statistician, Mr Simil Johnson, who guided the analysis as well as providing technical information about the survey operations. In the Vanuatu National Statistics Office (VNSO) itself the primary collaborator was Mr Pita Toa, who was responsible for the output and analysis of the HIES survey data and Pita produced the food poverty lines. A number of other VNSO staff provided input based on their involvement with the HIES including Mr Harry Nalau. It was a pleasure to work with these staff of the VNSO and the analysis has benefited from their insights, technical support and dedication.

Valuable inputs and comments have been provided on working drafts of the paper by colleagues, in particular Mr David Abbott, the Pacific Regional Macro Economic and Poverty Reduction Advisor, at the UNDP Pacific Centre and Mr Antony Gill from the Asian Development Bank. Mr Abbott provided the framework for this report, one of a series being produced for a number of Pacific countries (FSM, Solomon Islands, Fiji and Tuvalu with planned reports for Palau, Kiribati and the Cook Islands). He provided invaluable advice based on his considerable experience in poverty analysis in the region. Technical support was provided for the HIES by a number of agencies and technical experts, notably the staff of the Statistics and Demography Programme at the Secretariat of the Pacific Community (SPC), Mr Chris Ryan and Mr Greg Keeble; consultant Mr Leon Pietsch; and the Fiji Islands Bureau of Statistics, Mr Serevi Baledrokadroka.

However none of those who have contributed their advice and insights are responsible for any errors in the analysis presented here.

The further and more detailed analysis of the broader socio-economic aspects and geographical dimensions of poverty which can be done on the survey data will add policy substance to the key poverty indicators here and will develop further the various conclusions and hypotheses relating to poverty in Vanuatu which are covered in this report.

A handwritten signature in black ink, appearing to read 'Kim Robertson', with a long horizontal line extending to the right. To the right of the signature is a vertical red line.

Kim Robertson

ADB Consultant, Vanuatu National Statistics Office

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ADB	Asian Development Bank
a.e.	adult equivalent
BNPL	Basic Needs Poverty Line
CGER	Combined Gross Enrolment Rate
CPI	Consumer Price Index
CRP	Comprehensive Reform Programme
CSO	Civil Society Organisation
CVI	Composite Vulnerability Index
EEZ	Exclusive Economic Zone
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FPL	Food Poverty Line
GDP	Gross Domestic Product
GNP	Gross National Product
HCI	Head Count Index
HDI	Human Development Index
HDR	Human Development Report
HH	Household
HIES	Household Income and Expenditure Survey
HPI	Human Poverty Index
IMF	International Monetary Fund
IP	Incidence of Poverty
LFPR	Labour Force Participation Rate
MCA	Millennium Challenge Account Vanuatu
MDG	Millennium Development Goals
NCD	Non-communicable Disease
NDS	National Development Strategies
NGO	Non Government Organisation
PAA	Prioritised Action Agenda
PACER	Pacific Agreement on Closer Economic Relations
PAH	Participatory Assessment of Hardship
p.c.a.e	Per capita adult equivalent
PGI	Poverty Gap Index
PHDR	Pacific Human Development Report
PIC	Pacific Island Country
PICTA	Pacific Islands Trade Agreement
PPA	Poverty Partnership Agreement
PPP	Purchasing Power Parity
PPS	Probability Proportional to Size
PRS	Poverty Reduction Strategies
SDP	Strategic Development Plan
SOE	State Owned Enterprise

SPC	Secretariat of the Pacific Community
SPGI	Squared Poverty Gap Index
STI	Sexually Transmitted Infections
STR	Student Teacher Ratio
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
VNSO	Vanuatu National Statistics Office
VT (VUV)	Vanuatu Vatu (100 Vatu is approx US\$1)
WHO	World Health Organization
WTO	World Trade Organisation

Executive Summary

1. Purpose of paper

1. This paper provides estimates of national poverty lines and the incidence of poverty for Vanuatu and the three main geographic areas based on an analysis of the data from the 2006 Household Income and Expenditure Survey (HIES).
2. The HIES contains a wealth of information. This paper analyses the expenditure data to estimate the incidence of poverty, the Head Count Index (HCI)¹ through the use of food and basic needs poverty lines and comparing these with recorded levels of expenditure.
3. It also provides an analysis of the broad characteristics of low-expenditure households in terms of their socio-economic status, demographics and level of household access to basic services. Together with the poverty indicators these provide a good indication of which households are the most disadvantaged in Vanuatu, what common characteristics they might share and why they might be in this situation. Such information will be useful for government to define targeted policies and interventions to assist in alleviating poverty and hardship.

2. Introduction

4. Traditional Vanuatu, and Pacific societies generally, embrace caring for and sharing with family and clan resulting in the continuing belief that poverty cannot and should not be a part of normal life. The suggestion that there might be poverty in some form is not, therefore, something that many people have been prepared to accept. Indeed, the usual images of poverty, i.e. starving children, landless peasants, refugee camps, do not immediately spring to mind in relation to the Pacific or Vanuatu.
5. While Ni-Vanuatu might not be well off in financial or material terms, their strong family and community ties have traditionally provided social safety nets for the most disadvantaged and vulnerable. However the increasing monetisation of Pacific economies, the impact of television, internet and increasing urbanisation have begun to undermine these traditional structures.
6. As a consequence poverty and hardship, as now defined and understood in the Pacific, are being increasingly accepted as concerns which need greater attention from the development community. Some countries, including Fiji Islands, Papua New Guinea (PNG), and Timor-Leste, have fully embraced the need to deal with increasing levels of hardship and poverty and the implications that they have for society. Other countries, though perhaps not yet acknowledging hardship and poverty as serious issues, are nevertheless accepting that there are growing numbers of disadvantaged people who are being left behind as economic and social structures change in response to both external and internal developments. However, poverty and hardship must be seen as issues that are best addressed before they become serious.
7. Poverty analysis is primarily concerned with identifying within a society who the poor are and who are the most disadvantaged, where they live and what characteristics distinguish them from their 'better off' neighbours. In order to be able to develop targeted pro-poor poverty reduction or poverty alleviation strategies it is necessary to try to understand why some households are poor and not others. There is a considerable body of research which shows direct links between lack

¹ The Head Count Ratio is not the same as the Poverty Indicator in Millennium Development Goal 1. The MDG 1 indicator, based on US\$1 per day, is not officially available for Vanuatu, or any other Pacific Islands Countries, as estimates of the Purchasing Power Parity exchange rates required to calculate the MDG indicator have not yet been finalised by SPC. The MDG 1 indicator, when available, will enable direct comparisons of 'absolute' poverty levels to be made between countries. National poverty lines, which are used in this analysis, enable assessments of *relative* poverty within countries.

of education and poverty, and this seems to be a distinguishing factor for poor households in Vanuatu. Other important factors might be gender or the work status of the household head. Through the analysis of the HIES household survey data, which also has information about household members and the facilities the household has access to, it is possible to begin to understand common factors which poor households seem to share and how these might be addressed.

8. Poverty as measured by national poverty lines is a relative measure of hardship. It assesses the basic costs of a minimum standard of living in a particular society and measures the numbers of households, and proportion of the population, that are deemed to not be able to meet these needs. Every country experiences some incidence of poverty, but the levels of incidence measured by national poverty lines are not directly comparable across countries. Thus two countries may have similar levels of relative poverty measured by national poverty lines but very different levels of absolute poverty. The measurement of absolute poverty, enabling cross-country comparisons of the extent of poverty, is usually done through the estimating of the US\$1 per day PPP value used in Goal 1 of the Millennium Development Goals (MDGs). Presently this measure of poverty can only be estimated unofficially since PPP exchange rate indices are not yet available for Pacific island countries; however estimates should be available by mid 2008.

9. For the analysis of hardship and poverty in Vanuatu the household expenditure data from the 2006 HIES has been used to estimate Food and Basic Needs Poverty Lines. These provide the basis for estimating the relative poverty and hardship being experienced by the poorest households in the country and the main geographic areas: rural, Port Vila and Luganville. From these the poverty incidence levels, the depth and severity of poverty have also been measured. Estimates have also been made of Gini coefficients on levels of inequality in expenditure by households. An analysis of the key characteristics of the poorest 30% of households has been completed.

10. Luganville is treated as an urban area separate from Port Vila as its characteristics are considerably different than Port Vila. It has a mix of both rural and urban characteristics and if included with Port Vila these unique characteristics are lost and most of the urban poor are in fact in Luganville where overall expenditure is considerably lower than in Port Vila.

11. What does poverty mean then in the Vanuatu context? In so far as an internationally recognised “official” definition exists it is widely accepted as the US\$1 per capita per day of Millennium Development Goal 1. But, as yet, this figure is not officially available for Vanuatu (Pacific countries generally) because the “purchasing power parity” exchange rates on which this definition is based are still being developed for the Pacific situation. Instead for an income- or expenditure based poverty indicator we need to look at national basic-needs poverty lines.

12. National Basic Needs Poverty Lines are estimated from the cost of a minimally-nutritious, low-cost diet which delivers approximately 2,100 kilo calories per day plus adequate additional nutrition to provide a sound, but basic, diet. To this is added an amount for essential non-food food expenditure (e.g. housing, transport, education, clothing, utilities) which is required to provide an overall basic-needs standard of living. Households which have per capita incomes or expenditure below the basic needs poverty line are then deemed to be living in poverty.

13. Data for estimating national basic needs poverty lines are becoming available as more surveys and analysis are undertaken to quantify the extent of hardship and poverty in Pacific societies. From the work which has been done to date it is estimated that, on average across the Pacific region, approximately one-in-four households have per capita incomes below what would be considered as the basic needs poverty line in their respective countries. On this measure poverty is estimated to be highest in PNG (37.5%, 1996), Fiji (28.8% in 2002/03),

Tuvalu (29.2% 2005) compared with the lowest in Tonga (22.3%, 2002), Samoa (20.3%, 2002) and the Solomon Islands (18.8%, 2005).

14. But poverty and hardship need to be defined in ways which are more easily understood in Pacific societies. Poverty means different things to different people at different times and in different places. This has given rise to much misunderstanding and confusion. Poverty can be either absolute, in the US\$1 per day situation, or it can be relative, where people are disadvantaged compared to their neighbours. It may be temporary and widespread because of a natural disaster or conflict situations, as is the case in Vanuatu with damage caused by cyclones or flooding (or as in the case of the Solomon Islands with people displaced during the tensions or as a result of the recent tsunami in Western province and in Fiji as leases on the sugar farms are not renewed); or it may be long-term, personal and chronic due to unemployment or to sickness or disability.

15. Most discussions of poverty centre on its most extreme manifestations: absolute poverty and destitution. There are, however, many other ways in which people can be poor or can suffer hardship. Indeed people can be reasonably well fed and moderately healthy but still live in relative poverty and suffer varying degrees of hardship. Their incomes might be insufficient to meet their food and other basic needs, or they might lack access to basic services, such as water and sanitation, or health and education facilities, to freedom of choice, or to socioeconomic opportunities. This "poverty of opportunity"² is just as important in defining the extent of poverty and hardship in a society as the lack of income. In fact, often the conditions and circumstances that give rise to poverty of opportunity (poor access to, or standards of, service delivery, poor governance, limited employment opportunities, and social exclusion) are the underlying causes of income poverty.

16. However defining poverty by level of income might not be appropriate in the Pacific where most economies include high levels of subsistence production. In many cases, calculating the value of such production in the national income (gross domestic product) is not complete; in some countries it may be inadequate or occasionally missing entirely. The available data from censuses and household income and expenditure surveys (HIES) have often not previously been collected with poverty and hardship in mind, or have not been fully analysed for the poverty indicators. The HIES results for Vanuatu show that subsistence production is particularly important for rural households even though analysis of the results indicates that many households did not fully report all items that they produced and consumed in the home. This is a generalised problem across all Pacific countries where respondents simply do not think to record all the items consumed from their gardens or their catch or their other agricultural activities.

17. A common criticism of this kind of quantitative analysis of HIES results is that there has not been any community participation in assessing poverty and hardship, and the socio-cultural aspects may have been ignored. In 2002 the Asian Development Bank (ADB) and the Government of Vanuatu conducted such research; with the main finding being:

*"hardship ... is widely perceived to exist, primarily through lack of, or limited access to, basic services such as education, health, good roads and safe drinking water"*³

18. The Government of Vanuatu conducts regular consultations with stakeholders on the implementation of the Comprehensive Reform Programme (CRP) with the Prioritized Action Agenda (PAA) forming the basis of Government policies in sustainable development. It is in

² First used in the Pacific context in the UNDP 1999 Pacific Human Development Report, and defined as "the inability of people to lead the kind of lives they aspire to."

³ ADB, 2003, Priorities of the People, Hardship in Vanuatu, page 3 as cited in UNDP, Vanuatu Millennium Development Goals Report, 2005, page 9.

meetings such as these that poverty alleviation should be mainstreamed into ongoing development programmes and projects. The Millennium Challenge Account, Vanuatu (MCA) has a number of projects with the primary objective for poverty reduction, targeting rural areas to improve infrastructure and market access to facilitate income generation and poverty alleviation.

3. Food and Basic Needs Poverty Lines

19. The Food Poverty Lines (FPL) for Vanuatu and households in the three areas (rural, Port Vila, Luganville) have been estimated from the actual food expenditure patterns recorded in survey diaries for households in the lowest three-deciles of expenditure, measured in per-capita adult-equivalent terms. A FPL measures the cost of a minimally nutritious diet, based on an average adult daily food-energy intake of 2,100 kilo calories. (This is the minimum food-energy intake recommended by the Food and Agricultural Organisation of the UN, and the World Health Organisation).

20. To estimate the cost of the FPL in Vanuatu the CPI prices were used to measure the costs of purchased items, and the actual values recorded in the diaries were used to estimate the notional costs of items that were produced for home consumption (subsistence production). This is important because in the rural areas particularly, subsistence production accounts for 69% of food consumed by the poorest households. Even Luganville, which is classified as an urban centre, has over one quarter (28%) of food consumption from home production in the lowest three expenditure deciles. In comparison, in Port Vila subsistence production accounts for just over one-tenth (12%) of food consumed by those in the bottom thirty-percent of households.

21. The weighted average household FPL in 2006 for the country as a whole is estimated to be VT14,097 (VT3,064 per capita adult equivalent (p.c.a.e.)) per month. For Port Vila which had the highest food costs the monthly average household food poverty line was estimated to be VT24,163, (VT5,034 per p.c.a.e. per month). In the two other regions the corresponding figures were VT15,814 in Luganville (VT3,594 per p.c.a.e. per month) and VT11,392 in rural areas (VT2,589 per p.c.a.e. per month).

22. The Basic Needs Poverty Line (BNPL), which includes an allowance for essential non-food expenditure has been estimated as a national average expenditure of VT21,692 per household per month (VT4,716 p.c.a.e. per month). Port Vila is again the region with the highest basic needs poverty line at VT11,075 followed by Luganville at VT6,110 p.c.a.e. per month. For rural areas the BNPL is VT14,809 for the average household or VT3,366 p.c.a.e.

23. The amounts reported by households as being spent on non-food essentials varies between the regions; with rural areas typically having small differences between food and non-food expenditure with urban areas having higher proportions of non-food expenditure. In rural areas poor households (bottom forty-percent) reported spending approximately one third more on non-food items than food; with a slightly higher ratio in Luganville (0.7) than in rural areas (0.3). In Port Vila non-food expenditure was just over twice as much as food expenditure (non-food expenditure was 1.2 times higher than food expenditure for the bottom four deciles in Port Vila). These proportions of non-food to food expenditure were taken as the basis for the BNPL non-food factor; applying these actual expenditure amounts to the FPL give the non-food basic-needs factors as illustrated in Table (i). This table also summarises the weekly per capita adult equivalent poverty lines.

Table (i) Monthly adult equivalent per capita poverty lines

VUV per capita adult equivalent per month	Food Poverty Line A	Non-food basic needs factor (% of food) B	Estimated non-food expenditure C=A*B	Basic Needs Poverty Line D=A+C	Monthly cost per hhold lowest three deciles a.e.
Vanuatu average	3,064	0.5	1,651	4,716	21,692
Rural	2,589	0.3	777	3,366	14,809
Luganville	3,594	0.7	2,516	6,110	26,883
Port Vila	5,034	1.2	6,041	11,075	53,159

4. Incidence of poverty

24. The incidence of poverty has been estimated by calculating: a) the proportion of households, and b) the proportion of population, which reported weekly adult equivalent per capita expenditure less than the relevant food or basic needs poverty lines, see Section 5 and Table (ii).

25. The average incidence of basic needs poverty, as measured by the Head Count Index (HCI) over all households, is estimated at 12.9%, accounting for 15.9% of the population. These results show that for Vanuatu the levels of food poverty, that those households that are unable to acquire a basic diet, is low. Nationally 6% of households or 7.4% of the population did not have sufficient food expenditure per adult equivalent to meet the monthly costs of a nutritious basic diet. The proportion of 7.4% in poverty might seem low, but it must be noted that this represents about 15,000 people, many of whom will be children, who do not have enough total per capita adult equivalent expenditure to meet basic food requirements. What this suggests is that poor households are managing their meagre resources with food security (purchasing or harvesting food) as a high priority; perhaps at the sacrifice of other non-food purchases such as housing improvements. In rural areas the production of food for own consumption (so called 'own account production') is extremely important given very limited access to economic opportunities and employment.

Table (ii) Incidence of poverty

	Proportion of hholds and pop with monthly adult equivalent per capita expenditure less than the food and basic needs poverty lines			
	Households		Population	
	Food	Basic needs	Food	Basic needs
Vanuatu average	6.0	12.9	7.4	15.9
Rural	5.1	8.5	6.6	10.8
Luganville	2.2	9.2	2.2	10.9
Port Vila	4.7	27.2	5.4	32.8

26. As already noted in rural households almost two-thirds of food consumed comes from own production; and rural households have very limited opportunities to generate income to purchase food so having 5.1% of households not being able to feed themselves is a concern related employment opportunities. In addition the remoteness of many of the smaller island-based or inland communities means that their non-food basic-needs are limited by the lack of availability of many facilities and services to be found on the larger islands. In this situation whilst their basic-needs are limited, they are still very restricted in the opportunities for employment and earning income, consequently the incidence of basic-needs poverty should be considered as quite high.

5. Depth and severity of poverty

27. The Poverty Gap Index (PGI), measuring the depth of poverty in Vanuatu has been estimated at a national average of 5.6, which is lower than the Solomon Islands (7.5), Fiji (11.2) and FSM (12.8), Papua New Guinea (12.4), Samoa (6.6), Tonga (7.7) and Timor-Leste (11.9). In general terms this means that the average per capita adult equivalent expenditure in poor households is closer to the BNPL in Vanuatu than the other countries. However the PGI for Port Vila is 10.4 showing that there is relatively severe poverty in the nation's capital. The Squared Poverty Gap Index (SPGI), which is a measure of the severity of poverty being experienced, is estimated at 3.0 nationally. Again this is a lower value than other countries in the region, the Solomon Islands 3.5, Fiji, 5.1 and FSM 6.2. This suggests that Vanuatu experiences a somewhat lower level of poverty severity than other regional countries; with the exception of Port Vila. Both these measures are derived using the BNPL and the average per capita adult equivalent expenditure below the poverty line and the relatively low values could indicate that the value of the poverty line should be higher.

6. Income distribution and inequality

28. Figures for the Gini Coefficient, a measure of inequality, indicate that the level of inequality in Vanuatu is approximately the same in all areas except for Port Vila. Nationally the Gini coefficient is estimated to be 0.41, the same in Luganville (0.41) and 0.40 in rural areas compared with 0.46 in Port Vila. Again this shows the higher levels of inequality in Port Vila than in the other regions (similar to the PGI and SPGI). This national Gini coefficient compares with FSM 0.28, and the Solomon Islands 0.39. Although there are very wide differences in expenditure per capita between the poorest and better-off households, the larger household size in the poorest households means that the overall share of expenditure incurred by these households is higher than might otherwise be expected.

7. Who are the poor and what are their characteristics?

Where are the poor

29. When examined in the national distribution of expenditure, just over 90% of the population (per adult equivalent) in the lowest three expenditure deciles are from rural areas (Chart 6). Torba and Tafea have significantly higher proportions of their population in the lowest expenditure deciles than other provinces. Torba represents 4.2% of the Vanuatu population but 8.1% of the lowest three expenditure deciles. Tafea represents 15.2% of the population but 23.6% of the population in the lowest three expenditure deciles.

Gender and hardship

30. The gender of the head of household appears to play a relatively small role in determining the likelihood of a household being in poverty in Vanuatu, partly because only a small proportion of households are headed by women (Table 24). The HIES analysis suggests that female-headed households are very slightly under-represented in the lowest three expenditure deciles nationally with 7.2% of female headed households being in the lowest three expenditure deciles compared with a national average of 8.5%. For rural areas female headed households are slightly disadvantaged with 6.4% being in the lowest three expenditure deciles compared with the proportion of 6.0% households headed by females.

Children in hardship

31. The survey resulted in estimates of a total of 76,321 children aged less than 15 years in the country, making up nearly 40% of the total population with an average of 2.4 children per household. The analysis indicates that although 83% of all children live in rural areas, this region accounts for 93% of those who live in the poorest households. Thus rural children are disadvantaged compared to those in other regions (Table 25).

Educational attainment of head of household

32. Education is generally acknowledged as being one of the most critical factors in influencing whether a household is likely to be in poverty, and whether it will be able to rise out of such a condition. It is therefore a serious concern that in Vanuatu, at the national level, one quarter (25.5%) of household heads reported having had no schooling at all, and in the poorest three deciles the reported rate was almost one third of all households (32.1%). In rural areas is 34.4% of heads of households in the lowest three expenditure deciles have no education (Chart 10).

Access to safe water

33. Access to both safe water and sanitation facilities are important factors in ensuring good health, particularly for children. Access to these is therefore a key issue in considering poverty and hardship alleviation. At the national level 56.5% of all households had some sort of access to a public system or cistern (piped water or standpipe private or shared). This compared with 51.1% of households in the lowest three expenditure deciles. A significant source of drinking water is well water for 2,193 poor households (16.9% of households in the lowest three expenditure deciles) compared with 13.8% of all households and only 9.3% of the top twenty-percent of households. Improved sources of drinking water are needed for poor households in rural areas, particularly those relying on wells (17% of rural poor households). In some rural areas, rain water is irregular and household tanks are not an adequate year round source of water for drinking and cooking, let alone cleaning and other household activities for which water is used (Chart 12).

Access to sanitation

34. The poorest households are also significantly disadvantaged in access to improved sanitation. There are no public sewerage systems in Vanuatu. Only 6.7% of the poorest households have access to a flush toilet either inside their own house or shared with other households, compared with 39.5% of households in the highest expenditure quintile. However 41.8% of households in the lowest three expenditure deciles use a private Ventilated Improved Toilet (VIP), considered to be a hygienic means of sanitation provided it is well maintained, compared with 33.1% national average. Of concern is that 2.6% of the poorest households had no access to improved sanitation and a significant proportion reported using a pit latrine which is not a hygienic means of human waste disposal (Chart 13).

Source of energy for cooking

35. Almost all of the poorest households at the national level rely on wood or coconut shell for cooking. In the regions the majority rely on wood and even the lowest rate of firewood used in Port Vila (60.4%) is still high. Amongst all households only 3.1% of those in the bottom three deciles used gas compared with 33.8% in the highest quintile. In the rural areas a very small proportion of the poorest households in rural Shefa province reported using electricity; reflecting an inability to afford electricity combined with limited 'national grid' access in rural areas where electricity is mostly from household or community generators.

36. The analysis suggests that the cost of purchased gas and electricity (or their availability) and the cost of purchasing stoves as is the easy availability of firewood from collection or the market are deterrents from gas and electricity use. Therefore in the rural areas there is very little use of

energy sources other than firewood. The use of renewable resources, including plantation type forests, needs to be strongly promoted.

8. Conclusions

37. Poverty in the Vanuatu context does not mean hunger or destitution in the traditional sense of understanding. It means rather that many households are struggling to meet their basic living expenses on a daily/weekly basis, particularly those expenses that require cash payments. Families, especially in Port Vila, probably are having to make choices on a daily or weekly or monthly basis between the competing demands for household expenditure and the limited availability of cash income to meet that expenditure. Trade-offs are made between one bill and another, food or fees. Households deemed to be experiencing basic-needs poverty are therefore facing hardship on a daily basis. They struggle to pay bills, and to purchase adequate and suitably nutritious food. They might need to borrow regularly from informal loan providers ("loan-sharks") who charge very high rates of interest for small unsecured loans to meet family commitments and community obligations. They are thus frequently, and in some cases constantly, in debt.

38. Perhaps the most critical issue is education. Without good basic education it is very difficult for the poor to move out of poverty. Higher income derives from having the ability to take advantage of economic opportunities, this means having an ability to read and write. The importance of education is clear; it is essential that parents encourage their children to go to school and to work hard. It is equally imperative that government provides a sound education system on which the younger generation can build for the future progress of the country. With better education come greater opportunities to find employment, with employment comes income and the ability to raise standards of living. In Vanuatu better education means the possibility of a better job and, if the choice is made, to emigrate.

39. The drift of people to the more urban centres, especially young men, generally leads to higher levels of unemployment and growing numbers of people living in over-crowded houses, poor quality and squatter-type settlements, and generally in sub-standard housing conditions. These all contribute to a deteriorating social environment.

40. Many of the poor live in low-quality housing without proper access to water, sanitation and other basic services. Regional and international research has shown that poor housing conditions lead to poor health, poor employment prospects, and poor education attainment. Children frequently miss school through ill-health or because school fees have not been paid. Adults are frequently poorly educated and thus unable to get anything but the lowest-paid and often casual employment, if such employment is even available. The cycle of poverty is therefore perpetuated.

41. This analysis seeks to provide government with clearer evidence-based indications of the extent and nature of poverty in Vanuatu. It suggests policy issues and possible policy options to address these. The levels of poverty and hardship point to a wide range of issues that need to be addressed including employment and income generating opportunities in both rural and urban areas, the need to 'upskill' the unemployed so they can be economically active and the need for assistance to improve housing conditions in Port Vila. Increased opportunities for employment or economic opportunity, not only in the urban centres but also in the rural areas, together with improved basic education and maintaining food security and production systems in rural 'subsistence economies' are amongst the most critical.

National Poverty Lines and Estimates of the Incidence in of Poverty in Vanuatu

1. Purpose of paper

1. This paper provides estimates of national poverty lines and the incidence of poverty for Vanuatu and three sub regions of Port Vila, Luganville and rural areas based on an analysis of the household data from the 2006 Household Income and Expenditure Surveys (HIES).

2. The HIES contains a wealth of information. This paper analyses the expenditure data to estimate the incidence of poverty, the Head Count Index (HCI)⁴, through the use of food and basic needs poverty lines and comparing and these with recorded levels of expenditure.

3. It also provides an analysis of the broad characteristics of low-expenditure households (those in the lowest thirty-percent of monthly per capita adult equivalent expenditure). This analysis assesses socio-economic status, demographics and levels of household access to basic services. Together with the poverty indicators these provide a good indication of which households are the most disadvantaged in Vanuatu and the three regions, what common characteristics they might share and why they might be in this situation. Such information will be useful for national and provincial governments to define targeted policies and interventions to assist in alleviating their poverty and hardship.

4. Specifically the paper will:

- Discuss the definition and context of poverty in the Pacific and Vanuatu in particular, Section 2;
- Outline the poverty analysis methodology used and provide an overview of some of the key household and socio-economic indicators from the HIES, Section 3;
- Estimate food and basic needs poverty lines for households in Vanuatu as a whole and each of the three regions⁵; Sections 4 & 5;
- Provide indications of the incidence of poverty amongst households in the regions, Section 6;
- Provide estimates of the depth and severity of poverty by region, and outline some of the characteristics of poor households, Section 6;
- Estimate the extent of inequality in income (or expenditure) amongst households, Section 7; and
- Provide a summary of key policy issues arising from the analysis of the poorest households, Section 8.

5. This report is the second occasion that a national poverty estimate has been estimated for Vanuatu. The previous analysis was undertaken on data from the 1998 HIES⁶ using the US\$1 a

⁴ The Head Count Ratio is not the same as the Poverty Indicator in Millennium Development Goal 1. The MDG 1 indicator, based on US\$1 per day, is not yet available for Vanuatu, or any other Pacific islands Countries, as estimates of the Purchasing Power Parity exchange rates required to calculate the MDG indicator have not yet been finalised by SPC. The MDG 1 indicator, when available, will enable direct comparisons of 'absolute' poverty levels to be made between countries. National poverty lines, which are used in this analysis, enable assessments of *relative* poverty within countries.

⁵ The survey defined households as units "where normal family or household living arrangements are exercised"; and therefore excludes institutional housing such as schools, hospitals etc.

⁶ Hardship and Poverty Status Discussion Paper; ADB RETA 6047, presented to a national workshop on 30 January 2004.

day poverty line (estimated PPP factors) where 40% of households were estimated to be below this absolute poverty line. Vanuatu is therefore one of the few Pacific countries that will be able to begin to assess whether development policies and initiatives have had any noticeable impact on the level of hardship and poverty being experienced by the people. However the 1998 estimate inflates poverty because expenditure levels were under reported and therefore many households did not meet basic needs requirements in the poverty analysis when in reality actual household expenditure was higher than reported in the HIES (external data sources verified the low expenditures recorded in the HIES). Nevertheless the 1998 estimate of 40% can be considered as the upper limit of poverty. For all analytical purposes the results of this study on the 2006 HIES data should be considered as the benchmark poverty estimates for Vanuatu and the sub regions.

2. Introduction

2.1 Defining hardship and poverty in the Vanuatu context

6. Although individual communities in Vanuatu may have differing traditions and cultures there is an underlying belief in the strength of the extended family system. In its broadest sense therefore, traditional Vanuatu society, as well as Pacific societies generally, embrace caring for and sharing with the extended family resulting in the continuing belief that poverty cannot and should not be a part of normal life. The suggestion that there might be poverty in some form is not, therefore, something that many people have been prepared to accept. Indeed, the usual images of poverty, i.e. starving children, landless peasants, and refugee camps, do not immediately spring to mind in relation to the Pacific or Vanuatu.

7. While the people of Vanuatu might not be especially well off in financial or material terms, their strong family and community ties have traditionally provided social safety nets for the most disadvantaged and vulnerable. However the increasing monetisation of Pacific economies, the impact of television and internet, and increasing rural/urban migration leading to greater urbanisation, and also increasing and overseas migration have begun to undermine these traditional structures.

8. As a consequence poverty and hardship, as now defined and understood in the Pacific, (see Section 2.2), are being increasingly accepted as concerns which need greater attention from the development community. Some countries in the Pacific region, including Fiji Islands, Papua New Guinea (PNG), and Timor-Leste, have fully embraced the need to deal with increasing levels of hardship and poverty and the implications that these have for society. Other countries, though perhaps not yet fully acknowledging hardship and poverty as serious issues, are nevertheless accepting that there are growing numbers of disadvantaged people who are being left behind as economic and social structures change in response to both external and internal developments. However, poverty and hardship must be seen as issues to be resolved before they become serious.

9. Poverty and hardship therefore need to be defined in ways which are more easily understood in Pacific societies. Poverty means different things to different people at different times and in different places. This has given rise to much misunderstanding and confusion. Poverty can be either absolute, as in the US\$1 per day situation, or it can be relative, where people are disadvantaged compared to their neighbours in terms of individual national, or localised, poverty lines.

10. It may be temporary and widespread because of a natural disaster such as cyclone, flooding or earthquakes. It could also be the result of conflict situations, as may have been the case with many people being displaced in Solomon Islands during “the tensions”; or is the case in Fiji as leases on the sugar farms are not renewed. Or it may be long-term, personal and chronic due to unemployment or to sickness or disability.

11. Most discussions of poverty centre on its most extreme manifestations: absolute poverty and destitution. There are, however, many other ways in which people can be poor or can suffer hardship. Indeed people can be reasonably well fed and moderately healthy but still live in relative poverty and suffer varying degrees of hardship. Their incomes might be insufficient to meet their food and other basic needs, or they might lack access to basic services, such as water and sanitation, or health and education facilities, or freedom of choice, or to socio-economic opportunities. This "poverty of opportunity"⁷ is just as important in defining the extent of poverty and hardship in a society as the lack of income. In fact, often the conditions and circumstances that give rise to poverty of opportunity (poor access to, or standards of, service delivery, poor governance, limited employment opportunities, and social exclusion) are the underlying causes of income poverty.

12. However defining poverty by level of cash income or expenditure alone might not be appropriate in the Pacific where most economies include high levels of subsistence production and consumption of own produced food. The current analysis takes account of this subsistence production/consumption by valuing it as part of both income and expenditure, thus providing a better picture of overall well-being, see Section 3.1 and Attachment 2.

13. Household survey data on subsistence production is now also providing a sounder basis for estimating the non-monetary sector in national accounts. Historically in many countries, calculating the value of such subsistence production in the national income (gross domestic product) has not been complete; it may have been inadequately assessed in GDP estimates or occasionally it is missing entirely.

14. Overall in the past, data from censuses and HIES has often not been collected with poverty and hardship in mind, or has not been fully analysed for poverty indicators. There might also have been a lack of community participation in assessing poverty and hardship, and the socio-cultural aspects may have been ignored. This is now changing. There is a growing recognition of the importance of the data generated by HIES, both in terms of the information it can provide on poverty but also the importance of accurately capturing subsistence production and consumption for national account purposes. But it must be noted that improvements are needed in the methods to provide accurate data on the value of subsistence production as respondent reported values are still much lower than so-called "market" values.

15. A common criticism of this kind of quantitative analysis of HIES results is that there has not been any community participation in assessing poverty and hardship, and the socio-cultural aspects may have been ignored. In 2002 the Asian Development Bank (ADB) and the Government of Vanuatu conducted such research in 12 village and settlement communities in four provinces (the Vanuatu Participatory Hardship Assessment), with the main finding being:

*"hardship ... is widely perceived to exist, primarily through lack of, or limited access to, basic services such as education, health, good roads and safe drinking water"*⁸

16. As a result of the Millennium Declaration and the establishment of the Millennium Development Goals (MDGs) at the World Summit in 2000, there has been a growing awareness of the need to increase both understanding and knowledge of the extent of poverty and hardship in society. The integration of the MDGs as part of a core hardship alleviation and poverty reduction focus in national development priorities and strategies is an overarching goal of all the agencies that have contributed to this analysis. Vanuatu is also a beneficiary of the Millennium Challenge Account, Vanuatu (MCA) which has the specific objective of reducing poverty in targeted communities. Attachment 1 contains an extract from the Vanuatu Millennium

⁷ First used in the Pacific context in the UNDP 1999 Pacific Human Development Report, and defined as "the inability of people to lead the kind of lives they aspire to."

⁸ ADB, 2003, Priorities of the People, Hardship in Vanuatu, page 3 as cited in UNDP, Vanuatu Millennium Development Goals Report, 2005, page 9.

Development Goals Report 2005 with the development context of Vanuatu as well as the chapter on Goal 1 Eradicate Extreme Poverty and Hunger.

2.2 Poverty = Hardship: a Pacific definition of poverty

17. After extensive consultations through a series of Participatory Assessments of Hardship (PAH) conducted by ADB⁹ in nine PICs, including Vanuatu, over 2001 – 2005 a working definition of Pacific poverty, or perhaps more correctly “hardship”, was defined in Human Development terms as:

An inadequate level of sustainable human development, manifested by:

- *a lack of access to basic services such as health care, education and clean water;*
- *a lack of opportunities to participate fully in the socio-economic life of the community; and*
- *a lack of access to productive resources and income generation support systems (rural credit, capital, markets, skill) to meet the basic needs of the household, and/or customary obligations to the extended family, village community and/or the church.*

18. The findings of the participatory assessments highlighted hardship and poverty as real issues in the lives of many people in both urban and rural areas and on outer islands, remote inland villages and atolls. The concerns of the people showed remarkable consistency not only between the urban and rural areas within each country, but also across the region. In other words, despite the wide differences in geography and resource endowments among the atolls of Polynesia and Micronesia and the high islands of Melanesia and most of Polynesia, the concerns of the people were very similar.

19. The causes of hardship and poverty centre around the need for income, the need for a reasonable standard of basic services, and the need for skills to meet opportunities and challenges as they become available. These are the challenges which face governments and policy makers in framing national, sector and community level interventions aimed at alleviating the causes of hardship and poverty and delivering on the achievement of the MDGs. These concerns although expressed widely at the regional level were specifically mentioned in the consultations in Vanuatu, see Box 1.

20. Increasingly planners, policy makers and statisticians have come to realise the importance and benefits of both sound evidence-based policy making and the engagement of communities in the policy process. In Vanuatu there are widespread community consultations for the Comprehensive Reform Programme and its implementation through the Prioritised Action Agenda (PAA) as well as the activities of Provincial and town governments and councils. In Vanuatu communities are actively engaged in the planning and decision making process, and analysis such as this provides effective programme monitoring as well as feedback for such processes.

⁹ RETAs 6002, 6047 and 6157 covering FSM, Kiribati, Fiji, PNG, RMI, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

Box 1: Priorities of the People of Vanuatu

These priorities for action were expressed during the consultations in four provinces during the participatory assessment of hardship conducted by ADB in 2002.

1. **Access to basic services and infrastructure** better utilities, roads, shipping services and air strips; notably the lack of water supply, farm-to-market roads, markets, formal education and training and health facilities. Affordability of electricity other utilities was raised as a major issue. Improve telephone service in the outer islands including wider access and the quality of the service (a reliable telephone service).
2. **Improve income sources** and supporting infrastructure particularly transport to connect villages to regional and overseas capitals to improve access to markets, e.g., to sell local produce, fish catch, and handicrafts. Banking and credit facilities are needed especially in the outer islands. The establishment of a fish canning factory was recommended. Business management, cattle farming and fund-raising skills are needed to develop local entrepreneurs.
3. **Address social issues** particularly urban drift of youth, domestic violence, excessive kava drinking, family planning, good parenting, and planning skills were priorities shared by men and women. The abandonment or placement of young children for adoption was a concern in both rural and urban communities. Women consulted said that physical abuse suffered by wives from their husbands was part of normal married life. Help is needed to resolve disputes over land.
4. **Improve access to education** for primary and secondary levels as well as technical skills for unemployed youth. For youth it was noted that they are 'pushed out' of the education system because there are too few schools and more rural training centres were recommended. Access to technical skills such as carpentry and auto mechanics as well as secretarial, cooking and dressmaking skills would benefit rural and urban youth.
5. **Improve access to health services** especially nutrition and family planning as well as improving the quality of health service delivery in terms of proper staffing of clinics, having a regular supply of medicines, and improving access to communities (in terms of time and distance to travel). Single parenthood and unplanned pregnancies were important issues causing hardship among women and increased information on family planning, increased availability of contraceptives and activities to address cultural taboos were raised. Nutrition of children in rural areas suffers because parents low levels of awareness of a balanced diet.

ADB: Priorities of the People, Hardship in Vanuatu, 2003, ADB Manila

2.3 What is the national poverty line?

21. Poverty as measured by national poverty lines is a relative measure of hardship. It assesses the basic costs of a minimum standard of living in a particular society, or region within a society, and measures the numbers of households, and proportion of the population, that are deemed to not be able to meet these needs. Every country experiences some incidence of poverty, but the levels of incidence measured by national poverty lines are not directly comparable across countries. Thus two countries may have similar levels of relative poverty measured by national poverty lines but very different levels of absolute poverty. The measurement of absolute poverty, enabling cross-country comparisons of the extent of poverty, is usually done through the estimating of the US\$1 per day PPP value used in Goal 1 of the MDGs. Presently this measure of poverty cannot be estimated since PPP indices are not yet available. However estimates should be available by mid 2008.

22. The estimation of poverty lines, and the incidence, depth and severity of poverty in society is not an exact science. There is considerable academic as well as empirical debate about the "best" methodology to be used. Box 2 summarises the view of the World Bank, one of the leaders in the debate on global poverty, its measurement and the development of policies and strategies to alleviate the hardship experienced by those who are poor.

23. Notwithstanding the issues raised by the World Bank, the "Cost of Basic Needs" method has been used in undertaking this analysis. This method has been used on similar analyses in other

Pacific Island countries¹⁰ and elsewhere in the world and provides a sound and well-tested methodology. It was also the method used previously to estimate the national poverty lines for Vanuatu from the 1998 data.

24. What does poverty mean then in the context of Vanuatu? In so far as an internationally recognised “official” definition exists it is widely accepted as the US\$1 per capita per day of Millennium Development Goal 1. But, as yet, this figure is not officially available for Vanuatu (or Pacific countries generally) because the “purchasing power parity” exchange rate indices on which this definition is based are still being developed for the Pacific situation. Instead for an income-or expenditure based poverty indicator we need to look at national basic-needs poverty lines.

25. National Basic Needs Poverty Lines are estimated from the cost of a minimally-nutritious, low-cost diet which delivers a minimum of 2,100 kilo calories (Kcal) per day plus adequate additional nutrition to provide a sound and balanced, but basic, diet. To this is added an amount for essential non-food expenditure (e.g. housing, transport, education, clothing, utilities) which is required to provide an overall basic-needs standard of living. Households which have per capita incomes or expenditure below the basic needs poverty line are then deemed to be living in poverty.

26. Data for estimating national basic needs poverty lines are becoming available as more surveys and analysis are undertaken to quantify the extent of hardship and poverty in Pacific societies. From the work which has been done to date it is estimated that, on average across the Pacific region, approximately one-in-four households have per capita incomes below what would be considered as the basic needs poverty line in their respective countries. On this measure poverty is estimated to be highest in PNG (37.5%, 1996), Fiji (28.8% in 2002/03), and Tuvalu (29.2% 2005) compared with the lowest in Tonga (22.3%, 2001), Samoa (20.3%, 2002) and the Solomon Islands (18.8%, 2005).

2.4 Estimating the poverty line for Vanuatu

27. Following the “Cost of Basic Needs” methodology the estimation of poverty lines and, from them, the extent or Incidence of Poverty (IP) in Vanuatu has been a four step process:

- a) calculating the Food Poverty Line (FPL);
- b) estimating a non-food basic-needs component;
- c) from these estimates of the FPL and the non-food basic needs component the Basic Needs Poverty Line (BNPL) is then calculated; and finally,
- d) estimating the Incidence of Poverty against the BNPL benchmark from the HIES data; the Head Count Index (HCI) and other poverty indicators.

28. The Basic Needs Poverty Line is made up of two components, the cost of food and an amount for expenditure on essential non-food basic needs. It is therefore intended to represent the **minimum expenditure** per week, month or year that is required by an individual, household or family: firstly, to provide a basic, low-cost, minimally nutritious diet, (measured in terms of the minimum daily calorie intake required for basic human survival, which is internationally benchmarked at an average of around 2,100 kilo calories/day per adult per capita¹¹), termed the “**Food Poverty Line**” (FPL); and secondly, an additional amount which is required to meet the costs of purchasing essential **non-food basic needs**, e.g. housing/shelter, clothing, utilities,

¹⁰ ADB Regional Poverty Programme RETA 6022, 6047 and 6157 undertook similar poverty analyses in Samoa, Tonga, and FSM and jointly with UNDP in FSM, Tuvalu, Solomon Islands and Fiji. World Bank/ADB estimates of poverty in PNG and East Timor. Analysis of HIES results for Palau, Kiribati and the Cook Islands are forthcoming.

¹¹ This is the FAO/WHO recommended daily minimum adult calorie intake for a moderately active adult.

school fees and other education related costs, health, and transport, and to meet family/community/church obligations. Most of these non-food costs require cash payments and are often the underlying cause of the greatest hardship.

29. Together the FPL and the non-food component make up the benchmark “**Basic Needs Poverty Line**” (BNPL). The **Incidence of Poverty** is then measured against the BNPL by estimating the proportion of households or population which have an expenditure (including subsistence) less than the BNPL value, referred to as the Head Count Index or Ratio.

Box 2: The World Bank View

What makes a good poverty line?

We define a *poverty line* as the monetary cost of achieving a standard of living above which one is not deemed to be poor. A *poverty comparison* assesses which of two distributions (of an agreed indicator of living standards among members of a group) has more poverty on average. The *groups* can be regions or sectors of a country, the same population at different dates, or the same population observed with and without a policy change. A special case of a poverty comparison is a *poverty profile*, in which groups of households defined by some common characteristic (such as where they live) are compared at one date.

The guiding principle in making a poverty comparison to inform policy is that it should be *consistent* with the policy objective. When that objective is to reduce poverty by increasing people's command over basic consumption needs, any two individuals (at one date or at different dates) with the same command over those needs should be treated identically. This requires that the poverty line should have a fixed purchasing power over relevant commodities.

The cost-of-basic-needs method

The *cost-of-basic-needs method* bases poverty lines on purchasing power over basic consumption needs. This achieves the desired consistency for the purposes of Bank Poverty Assessments. But putting this method into practice with imperfect data can be difficult. Once "basic needs" are defined, we need to be able to measure their cost over time and location. Setting basic needs requires an inherent value judgment, which often leads to disagreements. Also price data are often inadequate. World Bank, 1994

30. In the Pacific region as a whole many households, particularly in the rural areas, are able to provide a high proportion of their daily food needs from their own subsistence production (Tables 11 and 12). However, their ability to generate cash income for non-food basic needs is often very limited, albeit that in the rural areas the need for non-food expenditure may itself be low due to lack of access to services. This, as the following analysis will attempt to illustrate, means that low rates of incidence of absolute poverty (income/expenditure below the food poverty line) are seen along side quite high levels of basic needs poverty.

31. The depth and severity of poverty between households and population in the different regions is then estimated by using the Poverty Gap Index (PGI) and the Squared Poverty Gap Index (SPGI), Section 6.4. Estimates of inequality are made using the Lorenz Curve and Gini Coefficients, Section 7.

3. The Household Income and Expenditure Survey (HIES)

3.1 Survey methodology

32. The 2006 HIES comprised a total of 3,885 households made up of samples¹² of eight regions: Port Vila (405 households responding), Luganville (414), Torba (421), Sanma (rural) (566), Penama (552), Malampa (597), Shefa (rural) (445), Tafea (485). These sample households represented about 9% of the total households in Vanuatu.

33. The survey results indicate a total estimated population of 203,229 comprising 43,312 households throughout the country.

Location	Households	Population	0-14 yrs		15-64 yrs		65 yrs+	
			Male	Female	Male	Female	Male	Female
Torba	1,798	9,139	2,041	1,798	2,601	2,464	154	81
Sanma (rural)	5,914	26,263	5,567	4,568	8,224	7,389	389	126
Penama	6,447	31,459	6,797	6,427	8,539	8,668	610	417
Malampa	7,348	31,163	5,793	5,308	9,851	9,348	487	378
Shefa (rural)	5,643	27,639	5,892	4,926	7,849	7,955	493	524
Tafea	6,577	33,515	7,082	6,952	8,865	9,385	662	569
<i>Total Rural</i>	<i>33,727</i>	<i>159,178</i>	<i>33,172</i>	<i>29,980</i>	<i>45,928</i>	<i>45,210</i>	<i>2,794</i>	<i>2,095</i>
Luganville	2,358	10,896	1,868	1,754	3,509	3,600	108	57
Port Vila	7,227	33,155	4,800	4,747	11,545	11,510	250	303
<i>Total Urban</i>	<i>9,585</i>	<i>44,051</i>	<i>6,668</i>	<i>6,501</i>	<i>15,054</i>	<i>15,109</i>	<i>358</i>	<i>360</i>
Vanuatu	43,312	203,229	39,841	36,481	60,982	60,319	3,152	2,455

34. This compares with the most recent 2006 population listing from the Agricultural Census which recorded a population of 221,507, with 18,278 fewer persons in the HIES thought to be because of household members being temporarily absent from their usual residence, especially children living in boarding schools during the period of the HIES enumeration.

35. The survey field-work was conducted in late 2006 for four months starting September, technical support was provided to the conduct of the survey and data processing/editing by a technical consultant, the SPC and the Fiji Island Bureau of Statistics. The survey was funded through AusAID, the MCA and the Government of Vanuatu.

36. Information was collected on both household income and expenditure, and included information on the production and consumption of home produced foods and other commodities. Other questions were included about access to infrastructure and basic services (water, sanitation, education and health) for MCA information requirements. In the survey the value of subsistence production/consumption was estimated on the basis of householders' valuations of what the items might be worth if sold locally. Since there are few organised markets in the rural areas, and thus no established price mechanism (and produce is often exchanged rather than sold), this tends to result in variations in estimated values. Items purchased in stores, or in markets, were valued at the actual prices paid or at the CPI price. A broad review of subsistence valuations for key food items and firewood in the diaries suggested that on average local produce had an estimated value of around one quarter of the formal market price: on average cash purchases were 27% higher in price for the selected expenditure items than the price estimates for 'home produced' items.

¹² A stratified probability proportional to size (PPS) sample selection methodology was used based on national enumeration areas, with additional areas selected to better cover some MCA project areas; see details in Vanuatu 2006 Household Income and Expenditure Survey Preliminary Report, Vanuatu National Statistics Office, November 2007.

**Box 3: National Poverty Lines; Income or Consumption
The ADB Perspective**

There are two basic ingredients in measuring poverty. The first is a poverty line that refers to a benchmark level of consumption (or income) that enables a person to attain a threshold standard of living. A person whose consumption is below this benchmark level does not attain the threshold standard of living and is thereby defined as poor. The poverty lines is said to be absolute, as opposed to relative, when the threshold standard of living is held fixed both over time and space. Given that absolute poverty lines, and the poverty measures derived from these, are widely believed to be the appropriate bases on which to inform antipoverty policies in developing countries, the discussion focuses on these.

The second ingredient in measuring poverty is a survey that collects data on income and/or consumption levels from a sample of household's representative of a given population. The choice of income or consumption as an indicator of household welfare is often determined by the availability of data. Where choice is available, researches have normally preferred consumption to income on the basis that the former is a better indicator of permanent income and standard of living of people due to consumption smoothing through savings and insurance opportunities. It has also been argued that it is easier to collect information from respondents on consumption than on income. Once a poverty line has been set and survey data are available, it is a simple matter to determine how many households or people are poor.

Unfortunately, the setting of poverty lines always involves some element of subjective methodological choice. The poverty line refers to a minimum level of living necessary for physical and social development of a person. A minimum level of living defined in monetary terms comprises both food and non-food components of consumption. An objective approach could, in principle, be adopted for computing minimum food expenditure, the dominant component in the total consumption bundle of the poor. However, non-food expenditure is clearly affected by social needs and the minimum on this count obviously differs from one society (or region) to another. ... it is difficult to consider even the physical component of minimum needs entirely on an objective basis. Despite such problems, recent literature has grown substantially to define the absolute poverty line on a reasonably, although not completely, objective basis.

Once the poverty line is defined, data are required on size distribution of income or consumption to compute the number and proportion of the population below the poverty line. Household income or consumption expenditure surveys are the principle source of such data ... ADB 2004b, pp 7 & 8

... Poverty lines are defined either in terms of income or consumption. In practice, this choice is restricted by the availability of household survey data since most countries collect data on either household income or consumption. A few countries ... collect data on both income and consumption. Income is a better measure of opportunity for consumption than actual consumption in the case of households that save. But consumption might be a better measure of opportunity for poor households that save little or in fact dis-save. Most practitioners also prefer to define poverty in terms of total consumption expenditure because income data collection faces a wider range of measurement problems. Consumption is less affected by short-term fluctuations due to the consumption smoothing opportunities available to a household. Hence, total consumption expenditure is thought to be a better indicator of the permanent income of a household, particularly in an agrarian economy ... ADB 2004b, p 41

37. Whether data on income or expenditure is used as the basis for the calculation of the poverty line and incidence of poverty depends primarily in the perceived accuracy and reliability of the two data sources. In most cases expenditure data is usually regarded as the more reliable, see Box 3, although the choice between income and expenditure may rest primarily on the reliability criteria. For Vanuatu the recorded income was higher than the expenditure data, an unusual situation, possibly arising from problems defining 'regular' and 'irregular' income and weighting of irregular income to annual amounts when this should not have been the case. It was decided to use the recorded expenditure as the basis for the analysis as it was thought to be the more reliable of the two and there is much more detail in this set of data. This analysis therefore uses the per capita household expenditure, adjusted for adult equivalence¹³, as the basis for the estimation of the poverty lines, levels of poverty incidence and other poverty related indicators. All analysis in this paper, unless otherwise indicated, is therefore based on a **household's per capita adult equivalent (p.c.a.e) monthly expenditure** as recorded in the survey.

¹³ Adult equivalents are derived from "equivalence factors" where children under the age of 15 years are counted as half an adult, thus a household with two adults and two children would be equivalent to 3 adult equivalents. This methodology has been adopted to take account of the downward bias that would otherwise occur in households with more children.

38. The poverty analysis expenditure data includes values for imputed rent for owner occupied housing stock. This is a definitional requirement for national accounts as it represents the 'housing services consumed' by the household. The imputed rental values were derived from the valuation estimates of heads of households of owner occupied dwellings. As is common with most HIES data in the Pacific region, imputed rent was adjusted because owner's estimates were considerably higher than 'market' rental values for all types of dwellings, especially in rural areas where arguably there is no housing rental market because of traditional land tenure systems. Imputed rents were adjusted to a threshold of not more than 3% of the total household expenditure, with 3% used to derive a 'nominal' rental value and similar to threshold methods used in other poverty analysis research in Asia and Africa. Households where imputed rent was more than this threshold had rent derived based on the average value for the province from households in the same expenditure decile where imputed rent was less than 3%.

39. For the purposes of poverty analysis monthly expenditure does not include expenditure on kava, alcohol or tobacco as these were generally under reported in the HIES it was decided to exclude it from the poverty analysis dataset. Further analysis could adjust these types of 'undesirable' expenditures to more realistic values.

40. The survey also collected information on household demographics, employment, education attainment, and household characteristics including access to water and sanitation, and energy utilisation for cooking.

41. The detailed calculation of poverty lines and the estimation of poverty incidence has therefore been conducted on the basis of per capita adult equivalent household expenditure (without expenditure on kava, alcohol and cigarettes and including imputed rent values) and the proportion of households and population deemed to have per capita a.e. expenditure below the food and basic needs poverty line levels. Households have been divided into deciles ranked according to the level of per capita adult equivalent expenditure. For the broader analysis of poverty characteristics the lowest three deciles of households ranked in this manner have been used as the basis for detailed scrutiny.

3.2 Overview of HIES results

3.2.1 Household size and composition

42. In the survey the overall national average household size was reported as 4.7 (3.8 a.e), however for poor, low-expenditure households, for this purpose those with expenditure in the lowest three deciles, the average household size was 5.6 (4.6 a.e), see Table 1. The largest average household size was found in Port Vila where households in the lowest quintile had an average of 5.9 persons (5.0 a.e). The table illustrates that over all regions the size of household declines as household expenditure increases. This is a finding consistent with other parts of the Pacific. Low-expenditure, poor households, tend to be the largest and therefore most disadvantaged. Across the regions there is not much overall difference in the size of the households in the lowest three deciles; similarly households in the highest two expenditure deciles are all significantly smaller.

Table 1: Household size

Adult equivalent per capita HH expenditure deciles	National		Rural		Luganville		Port Vila	
	Actual	Adult Equivalent	Actual	Adult Equivalent	Actual	Adult Equivalent	Actual	Adult Equivalent
Average all households	4.7	3.8	5.1	4.0	4.6	3.9	4.6	3.9
Lowest quintile	5.8	4.7	5.6	4.5	5.4	4.5	5.9	5.0
Lowest three deciles	5.6	4.6	5.6	4.4	5.2	4.4	5.6	4.8
Highest quintile	3.7	3.0	3.4	2.7	3.7	3.0	3.2	2.7

43. The proportions of female headed households are shown in Table 2. Overall 8% of households were reported as being headed by women, with a high of 12% of households in Port

Vila and the same proportion of 8% in the other regions. In Luganville it seems that female headed households are slightly disadvantaged as 10%, 2% more than the average, are in the bottom three deciles (p.c.a.e). The opposite seems to occur in rural areas and Port Vila where a slightly lower proportion of households are headed by women (7% and 11% respectively) are in the lowest three deciles quintile compared with the overall average (8% and 12%). However in all regions female headed households seem to be at less risk to poverty as the proportion of these households in the highest quintile is higher than the average for all households in all regions. The poverty status of these households is discussed further in section 8.2.

Table 2: Proportion (%) of households headed by women

Adult equivalent per capita HH expenditure deciles	National	Rural	Luganville	Port Vila
Average all households	8	8	8	12
Lowest quintile	7	7	9	8
Lowest three deciles	8	7	10	11
Highest quintile	10	9	12	15

44. Table 3 suggests that a higher proportion of poor households are headed by aged persons (those aged over 60 years) in the urban areas. Table 3 also indicates that the poorest households are likely to have an elder household head than the national average. In rural areas female household heads are generally older than male household heads. It is difficult to make conclusive statements about the age and sex of the household head as in many households the household head is the most senior or elderly person in the household who may or may not be responsible for the economic affairs of the household in terms of day to day operations.

Table 3: Proportion of household heads aged 60+ years, average age and sex

Adult equivalent per capita HH expenditure deciles	National			Rural			Luganville			Port Vila		
	60+ yrs	Male av age	Female av age	60+ yrs	Male av age	Female av age	60+ yrs	Male av age	Female av age	60+ yrs	Male av age	Female av age
Average all households	12	42	45	14	42	47	8	42	41	8	40	39
Lowest quintile	13	44	46	14	44	48	10	43	40	6	42	43
Lowest three deciles	14	44	47	14	44	47	10	43	44	12	42	46
Highest quintile	10	40	44	10	40	46	8	41	38	7	39	39

45. According to the survey, children under the age of 15 years accounted for 38% of the population. The distribution of children through the regions is shown in Table 4. The household size information indicated that poorer households are likely to be larger than the national and regional averages, and now it seems that the poorest households in Port Vila have higher than average numbers of children. According to Table 4, nationally the poorest households have on average one more child (2.7 or 3) than average households (2.4 or 2). Rural households in the lowest three expenditure deciles have slightly fewer children than the average (2.2 compared with 2.8). Future analysis could investigate if there are any 'economies of scale' regarding children and hardship (the so-called 'children as wealth' theory). Further analysis of the poverty status of children is provided in section 8.3.

Table 4: Proportion of population aged < 15 years (% total population), dependency ratio and average number of children per household^a

Adult equivalent per capita HH expenditure deciles	National			Rural			Luganville			Port Vila		
	% < 15	Dep ratio	Av chn	% < 15	Dep ratio	Av chn	% < 15	Dep ratio	Av chn	% < 15	Dep ratio	Av chn
Average all households	38	68	2.4	40	75	2.8	33	53	2.1	29	44	2.1
Lowest quintile	38	69	2.7	40	76	2.7	34	56	2.5	30	45	2.5
Lowest three deciles	38	69	2.7	40	77	2.2	33	52	2.3	29	44	2.4
Highest quintile	36	61	2.1	37	65	2.1	37	62	2.0	27	42	1.6

^a Dependency ratio defined as proportion of the population aged 0-14 years and 65 years and over to population aged 15-64 years per 100 population. Average number of children is per household with children (not for all households).

46. Table 4 also indicates the dependency ratio for each region. In Vanuatu there are 68 dependent children and aged persons per 100 in the economically active age group. The lowest expenditure quintile in all regions has higher dependency ratios than the overall average for the

region. In Luganville there is a higher proportion of children aged less than 15 years in the highest quintile than the national average which increases the dependency ratio for this group.

3.2.2 Activities of household heads

47. A summary of the principal economic activity of the heads of households is shown in Table 5. In particular, the table indicates the significance of full/part time employment for urban households relative to those in the rural areas. In Port Vila 75.8% of all household heads are in some form of full- or part-time employment, and even in the lowest three deciles the proportion is 74.4%. In contrast, in the rural areas only 15.4% of household heads are in employment, this proportion falls to 10.2% for those in the lowest three deciles.

48. The importance of providing food for the family combined with the lack of employment or income generating opportunities is evident in the rural areas: just over half (51.3%) of all rural households in the lowest three expenditure deciles mainly produce food for home consumption. This compares with 5.0% of the lowest three decile household heads in Port Vila who were similarly engaged in home production.

49. Being unemployed (defined as available and looking for work) was recorded as the situation for 7.9% of all household heads in Port Vila, for 3.1% of household heads in Luganville and 6.1% of household heads in rural areas. Household heads in the lowest three deciles in rural areas are slightly more likely to say that they are unemployed than household heads in the two urban areas. Thus it would seem that the continuing migration into the urban centres to search for paid work is a rational response to the fact that the production of food for home consumption and unemployment are more likely in the rural areas than in urban ones.

50. Heads of households in the lowest three deciles in rural areas are more likely to be involved with domestic duties than household heads in urban centres. Again this suggests that some of these household heads would be available for paid work if it was available, if their domestic duties could be performed by other household members.

Table 5: Main activity of the head of the household

% of HH heads engaged in	Region	Adult equivalent per capita HH expenditure quintiles			
		Average all HH	Lowest quintile	Lowest three deciles	Highest quintile
Full/part time employment	Rural	15.4	9.6	10.2	27.0
	Luganville	67.4	58.0	61.3	69.9
	Port Vila	75.8	70.0	74.4	74.4
Own Business	Rural	3.9	2.0	2.4	7.7
	Luganville	6.5	3.7	4.0	14.5
	Port Vila	4.4	7.5	6.6	6.1
Sell Product	Rural	8.5	7.1	7.6	8.9
	Luganville	1.0	0.0	0.0	0.0
	Port Vila	1.2	3.8	2.5	0.0
Own Household Consumption	Rural	49.8	50.4	51.3	38.3
	Luganville	14.3	18.5	17.7	12.0
	Port Vila	3.2	5.0	5.0	1.2
Unemployed	Rural	6.1	6.3	6.6	7.2
	Luganville	3.1	9.9	6.5	3.6
	Port Vila	7.9	8.8	5.8	8.5
Domestic Duties	Rural	13.2	21.5	19.2	8.8
	Luganville	4.1	3.7	4.0	0.0
	Port Vila	3.2	2.5	4.1	1.2
Other	Rural	3.0	3.0	2.8	2.0
	Luganville	3.6	6.2	6.5	0.0
	Port Vila	4.2	2.5	1.7	8.5

51. But does employment and living in an urban area with its higher expenditure needs translate into a better quality of living? In section 4 the national food and basic needs poverty lines will be discussed, leading to an estimation of the extent of poverty in the different regions of the country.

3.2.3 Children’s education

52. There is a large body of international research which demonstrates direct links between successful poverty alleviation programmes and children’s education. As more children – boys and girls – are educated to higher levels, poverty levels reduce. Table 6 illustrates the higher than average proportion of children aged 6 – 13 years not attending school in the lowest quintile and bottom three deciles with the largest difference in Luganville where on average 7.3% of boys and 7.6% of girls do not attend school. In the lowest quintile households in Luganville 17.3% of boys and 16% of girls do not attend school. Similar differences occur in rural areas and Port Vila but not to the same magnitude.

53. Possible reasons for children from poor households not attending school include the obvious fact that households cannot afford the cost of educating their children in terms of school fees and associated costs of schooling (uniforms, transport to school, stationery and other school supplies). It could also be that children in poor households have work to do in and around the home (gardening, minding siblings, cleaning and so on) and families cannot afford to lose the labour and outputs from these children by sending them to school. Or it could be a combination of these factors with others such as perceived poor quality of the local school or the distance (and/or time) to travel to school could be prohibitive.

Table 6: Proportion of children aged 6 - 13 years (primary school age population) and school attendance^b

Adult equivalent per capita HH expenditure deciles	Rural		Luganville		Port Vila		Total
	Yes	No	Yes	No	Yes	No	
All households							
Male	40.7	12.0	42.3	7.3	41.9	9.9	52.7
Female	36.5	10.8	42.8	7.6	41.5	6.7	47.3
Lowest quintile							
Male	36.5	17.4	24.7	17.3	45.3	14.7	54.1
Female	31.5	14.6	42.0	16.0	29.3	10.7	45.9
Bottom three deciles							
Male	37.6	15.4	31.6	15.8	44.9	13.1	53.4
Female	32.1	14.8	39.5	13.2	32.7	9.3	46.6
Highest quintile							
Male	42.7	9.3	46.3	3.0	39.5	2.6	50.8
Female	37.9	10.1	49.3	1.5	52.6	5.3	49.2

^b The 141 children aged 6-13 years who did not state their current school attendance have not been included in this table (123 rural and 18 Port Vila). The 'not attending' group includes those whose school attendance was blank as they were assumed to be not attending (161 Port Vila, 23 Luganville, 1,739 rural).

3.2.4 Household expenditure

54. Average monthly household expenditure by region is shown in Table 7 (definition of expenditure see Attachment 2). This table also indicates average monthly adult equivalent per capita expenditure as recorded by the HIES. At the national level average p.c.a.e expenditure for the poorest quintile is not even one-fifth (17.8%) of that of the highest quintile households. This captures the wide difference between those who are in formal employment, and thus earning relatively high cash incomes, and those who are in the informal sectors or producing food for home consumption where opportunities for earning income are low.

55. The national average monthly household expenditure amounted to VT52,795, equivalent to VT11,226 per capita (VT13,854 p.c.a.e). For households in the lowest quintile average monthly household expenditure amounted to only VT19,571, equivalent to only VT3,368 per capita (VT4,159 p.c.a.e). Port Vila has the widest gap between the highest and lowest expenditure on a per capita a.e. basis, the highest quintile expenditure being 9.6 times greater than that of those in the lowest quintile. The corresponding figure for rural areas is 8.9 and 7.0 for

Luganville. Across all regions those in the lowest three expenditure deciles have an average adult equivalent per capita monthly expenditure of only around VT5,100 (VT170 per a.e per day). Given the widely acknowledged high prices of goods and services in Vanuatu, this suggests that many households are indeed likely to be experiencing high degrees of hardship and poverty.

Table 7: Monthly household expenditure

Ranked by adult equivalent per capita HH expenditure deciles	Monthly household expenditure (VUV per month)			
	National	Rural	Luganville	Port Vila
Average all households	52,795	44,802	63,711	86,532
Lowest quintile	19,571	16,266	26,328	32,971
Lowest three deciles	23,332	19,685	29,904	38,225
Highest quintile	109,825	94,844	123,643	174,569
VUV a.e. per capita per month				
Average all households	13,854	11,842	16,537	22,048
Lowest quintile	4,159	3,489	5,875	6,619
Lowest three deciles	5,105	4,336	6,854	7,995
Highest quintile	36,605	31,015	41,380	63,762
Ratio H20/L20	8.8	8.9	7.0	9.6

56. Food and non-food expenditure is shown in Tables 8 and 9. These show a typical pattern of increasing non-food expenditure as a proportion of total monthly expenditure both as expenditure in total increases and higher levels in urban centres. The tables also show a pattern typical for the Pacific where overall food expenditure (VT28,353 per household per month) is higher than non-food expenditure (VT24,442 per household per month). Thus the figures show that for households in Port Vila the average per capita a.e monthly food expenditure amounted to VT7,611 while in Luganville, the lowest, monthly food expenditure amounted to VT7,079 p.c.a.e. For those in the lowest three deciles the corresponding figures were VT3,867 in Port Vila and only VT3,238 in rural areas.

Table 8: Monthly household food expenditure

Ranked by adult equivalent per capita HH expenditure deciles	Monthly household food expenditure (VUV per month)			
	National	Rural	Luganville	Port Vila
Average all households	28,353	28,103	27,272	29,871
Lowest quintile	13,213	12,266	16,586	16,590
Lowest three deciles	15,537	14,701	18,454	18,490
Highest quintile	48,481	49,229	35,970	49,064
VUV a.e. per capita per month				
Average all households	7,440	7,428	7,079	7,611
Lowest quintile	2,808	2,631	3,701	3,330
Lowest three deciles	3,400	3,238	4,230	3,867
Highest quintile	16,159	16,098	12,038	17,921
Ratio H20/L20	5.8	6.1	3.3	5.4

Table 9: Monthly household non-food expenditure

Ranked by adult equivalent per capita HH expenditure deciles	Monthly household non-food expenditure (VUV per month)			
	National	Rural	Luganville	Port Vila
Average all households	24,442	16,699	36,439	56,661
Lowest quintile	6,357	4,000	9,742	16,381
Lowest three deciles	7,795	4,984	11,450	19,735
Highest quintile	61,345	45,615	87,672	125,504
VUV a.e. per capita per month				
Average all households	6,414	4,414	9,458	14,437
Lowest quintile	1,351	858	2,174	3,289
Lowest three deciles	1,706	1,098	2,624	4,128
Highest quintile	20,446	14,917	29,342	45,841
Ratio H20/L20	15.1	17.4	13.5	13.9

57. For non-food items households average monthly per capita a.e expenditure was VT6,414, but for those households in the lowest three deciles non-food expenditure amounted to only

VT1,706 p.c.a.e per month. In the regions, Port Vila had the highest average non-food expenditure VT14,437 p.c.a.e per month, while rural areas had the lowest at VT4,414. In the lowest three deciles non-food expenditure in Port Vila amounted to VT4,128 p.c.a.e. and in rural areas to only VT1,098.

58. The patterns of food purchases and food produced for own consumption are shown in Tables 10 and 11. These tables provide greater detail on the composition of household expenditure patterns. Households in Port Vila spend approximately twice as much on purchased food as compared with the national average. In rural areas households in the lowest three expenditure deciles spend just over two and a half times more on food produced by the household than purchased food; VT875 p.c.a.e. compared with VT2,245. The importance of subsistence agriculture in the Vanuatu economy is shown clearly in these tables and also in Table 12. Maintaining a healthy subsistence agriculture sector is essential for food security in the event of a natural disaster, or a disruption to shipping and transport services; and most importantly as ensuring the basic means of survival for rural households given the very limited access to both cash and stores.

Table 10: Monthly household purchased food expenditure

Ranked by adult equivalent per capita HH expenditure deciles	Monthly household purchased food expenditure (VUV per month)			
	National	Rural	Luganville	Port Vila
Average all households	12,267	8,887	19,274	25,754
Lowest quintile	5,482	3,213	10,802	14,465
Lowest three deciles	6,447	3,974	12,475	16,032
Highest quintile	22,777	17,935	27,420	43,645
VUV a.e. per capita per month				
Average all households	3,219	2,349	5,003	6,562
Lowest quintile	1,165	689	2,410	2,904
Lowest three deciles	1,411	875	2,859	3,353
Highest quintile	7,591	5,865	9,177	15,942
Ratio H20/L20	6.5	8.5	3.8	5.5

59. Table 11 shows that while Port Vila households spend considerably more than other households on purchased food, they consume far less (in monetary terms) food produced in the home. Again this is a typical pattern for urban areas where working for wages, salaries or profit combine with limited access to land means that people do not have the time or resources to produce their own food. Even the poorest urban households in Port Vila and Luganville rely more on purchased food items than home produced food.

Table 11: Own account food production expenditure

Ranked by adult equivalent per capita HH expenditure deciles	Monthly household food produced for own consumption expenditure (VUV per month)			
	National	Rural	Luganville	Port Vila
Average all households	14,685	17,641	6,570	3,541
Lowest quintile	7,356	8,654	5,327	1,892
Lowest three deciles	8,598	10,190	5,254	2,253
Highest quintile	22,092	27,054	5,917	4,392
VUV a.e. per capita per month				
Average all households	3,854	4,663	1,705	902
Lowest quintile	1,563	1,856	1,189	380
Lowest three deciles	1,881	2,245	1,204	471
Highest quintile	7,363	8,847	1,980	1,604
Ratio H20/L20	4.7	4.8	1.7	4.2

60. In Vanuatu, 52% of all food consumed is from home production (Table 12), not surprising given that 77% of households are in rural areas. This table illustrates very clearly the changing pattern of food grown and purchased between urban households (Port Vila and Luganville) and those in the rural areas, and between the differing levels of expenditure as discussed in the previous paragraphs. In Port Vila the proportion of own production is very low in all households at 12% compared with rural households at 63%.

Table 12: Own account food production as a percent of food consumed

Ranked by adult equivalent per capita HH expenditure deciles	Own account production % of food consumed			
	National	Rural	Luganville	Port Vila
Average all households	52	63	24	12
Lowest quintile	56	71	32	11
Lowest three deciles	55	69	28	12
Highest quintile	46	55	16	9

61. The pattern of higher proportional food to non-food expenditure in the rural areas compared to urban is common to other Pacific countries (Table 13). Urban living inevitably involves greater non-food expenditure; many rural, remote inland or small-island based households will not have power, water or communications bills to pay. They will often spend less on transport and housing costs. Thus their need for non-food expenditure is less. Moreover, since rural cash incomes are lower the resources available to meet non-food expenditure is less.

Table 13: Proportion of household food and non-food expenditure

Ranked by adult equivalent per capita HH expenditure deciles	Proportion of household food and non-food expenditure							
	National		Rural		Luganville		Port Vila	
	Food	Non-food	Food	Non-food	Food	Non-food	Food	Non-food
Average all households	53.7	46.3	62.7	37.3	42.8	57.2	34.5	65.5
Lowest quintile	67.5	32.5	75.4	24.6	63.0	37.0	50.3	49.7
Lowest three deciles	66.6	33.4	74.7	25.3	61.7	38.3	48.4	51.6
Highest quintile	44.1	55.9	51.9	48.1	29.1	70.9	28.1	71.9
Non-food / food ratio for lowest three expenditure deciles	0.5		0.3		0.6		1.1	

4. The Food Poverty Line

4.1 Low-cost diet

62. The first step in measuring poverty is the calculation of the Food Poverty Line (FPL). Two methods are typically used to derive food poverty lines: using “model diets” and using actual food expenditure and consumption patterns of the lowest three decile p.c.a.e households from the daily expenditure diaries.

63. For the “model” menu approach for each geographic region (or for other important sub-groups such as different ethnic groups) diets are developed by nutritionists which met the requirements of being both low-cost and minimally nutritious. Typically urban menus contain a greater proportion of purchased items compared with rural menus, reflecting patterns of household expenditure on purchased and own account food consumption. The menus are then priced according to CPI prices where available, and according to average recorded diary prices for other areas where CPI is not available and where home production was more significant. An average adult in a low-expenditure family living on either of these menus would therefore receive an adequate level of nutrition.

64. The menus are representative baskets of items and a similar estimating technique is used to that used for calculating the CPI. The basket of goods used for the CPI does not represent any individual family’s actual consumption, but rather an average or is symbolic of what is consumed overall, see Box 4 and 5. The menus do not necessarily represent what low-income families actually eat, (often the diets of low-income households are very poor in nutrition), but rather what such families could eat in order to stay healthy if they are only able to afford a low-level of food expenditure.

Box 4: The Food Poverty Line

The food component of the poverty line is almost universally anchored to nutritional requirements for good health. This does not generate a unique monetary poverty line, since many bundles of food goods yield the same nutrition. In practice, a diet is chosen which accords with prevailing consumption patterns, about which one might expect to arrive at a consensus in most settings. Ravallion 1998

65. For Vanuatu, the food poverty line was derived from the actual food expenditure and consumption patterns of the lowest three expenditure decile p.c.a.e households from the daily expenditure diaries. Further research could compare the results from this method with that of the “model menu” to see if there are differences. Research undertaken in other Pacific countries, the nearest being the Solomon Islands, has shown that there is very little difference in using the “model menu” approach and the actual food expenditure and items from the household expenditure diaries.

66. The following section describes the process of how the diet costs taken from the actual survey data have been used to estimate the FPL for Vanuatu.

4.2 The Food Poverty Lines

67. The food expenditure from the diaries of households in the lowest three expenditure deciles in each of the regions was analysed, Tables 14, 15, and 16. It was observed that 94% of food expenditure was accounted for by 60 or so items in Luganville and Port Vila. Because of concerns about the under reporting of food expenditure in rural areas, particularly for own account production, the number of items was extended to 81 covering 99% of all food expenditure. These items together with their share in monthly food intake are shown in Columns A and B of the tables. To get the daily per capita a.e Kcal value and per capita a.e daily cost of these diary expenditure items as the basis for the calculation of the FPL, the following steps were taken:

- the reported diary food expenditure values were grossed up to the total recorded food expenditure from the survey for the bottom three expenditure deciles, by the appropriate factor to give a notional total food expenditure based on the listed items, Column C;
- each item was priced using the urban CPI for all purchased items adjusted for home produced items, and the observed diary prices/values for items of own production, Column D;
- the implied unit volume consumed of each item in the diary was calculated, column E;
- the Kcal (energy) value from the South Pacific Food Composition Tables was applied to each of the items, column F, to give a total Kcal value for recorded consumption, Column G;
- the daily per capita adult equivalent Kcal consumption values represented by each item was then calculated, Column H;
- the daily cost of each item according to its share in the overall daily food intake was estimated, Column I; and finally
- the daily cost of each item according to its Kcal value per day per a.e. was estimated, Column J.

68. The pricing of the food items was problematic because the HIES did not collect information about units of items purchased or consumed so it was difficult to determine average prices. Where possible averages were derived using total expenditure divided by quantity but for many

Box 5: Step one: the food component

To construct a poverty line using the cost-of-basic-needs method, one begins by defining the “basic needs” food bundle. This is a normative judgment, though some judgments are more defensible than others. Nutritional requirements for good health are a widely accepted anchor for determining basic food needs. A defensible approach is to set the food component of the poverty line according to the local cost of a bundle of food goods that meet the pre-determined minimum food-energy requirements in a way that is consistent with prevailing food tastes.

How should food-energy requirements be determined? Nutritionists have estimated requirements for maintaining body weight when a person is resting, processing food, and doing various activities. The food-energy requirements needed to maintain *each* person’s actual activity level should not be considered binding when setting poverty lines. The poorest are often underweight, which often constrains their activity levels. In such a setting, incorporating existing differences in activity levels (and indeed weights) into sub-group poverty lines will bias the poverty comparison, in that the poverty lines need not be clearly anchored to a fixed standard of living. A better practice is to use the average food-energy requirement for each age group. World Bank, 1994

items prices were derived from values observed in the data. Further research should re-visit the prices used for the food items selected and make adjustments if required.

69. Summing the daily Kcal values of the expenditure patterns of each region (K) shows that Port Vila households reported notionally acquiring an average of 1,431 kcal per capita a.e per day compared with 2,193 Kcal for Luganville and 2,470 Kcal for rural areas. In order to get to the minimum Kcal daily food energy intake for Port Vila this value was inflated to the equivalent of 2,100 Kcal by the ratio of the recorded Kcal value to the minimum (L). In the other two regions the value was deflated using the same method.

70. The notional estimated daily cost of the food items (M) is then grossed up also by the factor (L). This gives the adjusted daily cost of acquiring the minimum 2,100 Kcal per day from the listed items (N).

71. Finally the daily cost is converted to a monthly value (O). Thus the cost of acquiring a minimum adult equivalent diet in rural areas is estimated at VT86 per day and VT2,589 per month; for Luganville the costs are VT120 per day and VT3,594 per month, and for Port Vila VT168 per day and VT5,034 per month. These are the Food Poverty Lines used in the analysis, Table 16. The differences between the regions in the level of the FPL represent the variations in the actual food expenditure patterns and the differences in the prices applied to calculate the cost of the diets. The national poverty lines for Vanuatu are derived based on the relative proportion of the adult equivalent population in the three regions applied to the food cost per adult equivalent.

72. Table 17 indicates that a household in the lowest three expenditure deciles living in Port Vila would need to “spend” considerably more on food, VT24,163 per month, compared to a similar bottom three decile household in rural areas, VT11,392; 47% the value of Port Vila. This reflects the higher basic FPL in Port Vila (VT168 p.c.a.e. per day) compared with rural areas, VT86 p.c.a.e. per day, as well as the larger household size in Port Vila (4.8 persons a.e) compared to rural areas (4.4 persons a.e), see also Table 1. The amounts required to be “spent” on food include both the purchased items and those non-cash items of consumption of own produce.

Table 14: Rural areas estimated food expenditure and daily kilo calorie intake

Item A	% of food exp B	Total value (mth) C	Price per unit D	Unit (kg) E	Implied unit volume consumed F	kcal value per 100g G	kcal value H	Kcal per day pae I	Cost per day per calorie J	Exact calorie value PAE K
11211 Island Taro/ Taro Fiji	12.5	18,129,442	55	1	10,988	99	10,877,665	233.8	0.1	13.0
11103 Bananas (Cooking)	11.3	16,425,429	35	1	15,733	111	17,463,818	375.3	0.0	11.8
13207 Rice	9.5	13,752,570	133	1	3,447	123	4,239,514	91.1	0.1	9.9
11208 Yam	8.8	12,801,752	60	1	7,112	115	8,178,897	175.8	0.1	9.2
11203 Manioc	8.7	12,636,530	25	1	16,849	151	25,441,546	546.7	0.0	9.1
11202 Island Cabbage	4.8	6,992,141	35	1	6,659	29	1,931,163	41.5	0.1	5.0
11209 Kumala	4.0	5,790,468	35	1	5,515	129	7,114,004	152.9	0.0	4.1
11106 dry Coconut / Copra	3.9	5,702,232	30	1	6,336	283	17,930,350	385.3	0.0	4.1
12312 Other Tinned Fish	1.9	2,683,370	200	1	447	182	813,956	17.5	0.1	1.9
11231 Water Taro	1.8	2,543,443	65	1	1,304	72	939,118	20.2	0.1	1.8
11215 Laplap (Yam, banana, manioc, etc...)	1.7	2,406,575	100	1	802	151	1,211,310	26.0	0.1	1.7
12201 Chicken/ Local chicken	1.6	2,360,025	200	1	393	231	908,610	19.5	0.1	1.7
13101 Bread (sliced, loaf, square, rolls, French)	1.5	2,120,739	250	1	283	242	684,292	14.7	0.1	1.5
12311 Tinned Tuna	1.5	2,109,289	180	0.25	391	290	283,192	6.1	0.2	1.5
11128 Bread fruit	1.3	1,954,683	50	1	1,303	103	1,342,216	28.8	0.0	1.4
12105 Pork fresh	1.3	1,863,762	300	1	207	338	699,946	15.0	0.1	1.3
12304 Other fish	1.2	1,764,413	250	1	235	81	190,557	4.1	0.3	1.3
16201 Sugar	1.1	1,638,658	180	1	303	394	1,195,614	25.7	0.0	1.2
11232 Com	1.0	1,424,442	60	1	791	107	846,752	18.2	0.1	1.0
13209 Flour	0.9	1,331,921	150	1	296	349	1,032,979	22.2	0.0	1.0
11105 Green Coconut	0.8	1,169,301	25	1	1,559	16	249,451	5.4	0.2	0.8
12116 Crabs	0.7	1,064,253	200	1	177	109	193,339	4.2	0.2	0.8
12303 Reef Fish	0.7	1,057,776	250	1	141	130	183,348	3.9	0.2	0.8
13104 Cream cracker, biscuits, Buns	0.7	984,044	180	0.25	182	414	188,609	4.1	0.2	0.7
12101 Beef fresh	0.7	957,796	200	1	160	198	316,073	6.8	0.1	0.7
18109 Plate of food/ Take away	0.6	903,131	200	0.30	151	93	41,996	0.9	0.7	0.6
17118 Salt	0.6	872,220	200	1	145	213	309,638	6.7	0.1	0.6
11224 Bowl Cabbage	0.6	868,726	100	1	290	22	63,707	1.4	0.5	0.6
13106 Doughnuts, Kato	0.6	844,115	30	0.10	938	439	411,740	8.8	0.1	0.6
16206 Peanuts	0.6	822,873	200	1	137	344	471,780	10.1	0.1	0.6
12150 Other meat n.e.c	0.6	822,215	200	1	137	28	38,370	0.8	0.7	0.6
13206 Noodles	0.6	812,569	45	0.09	602	104	53,208	1.1	0.5	0.6
11216 Tomatoes	0.5	790,876	100	1	264	93	245,171	5.3	0.1	0.6
15101 Cooking oil (incl. salad oil)	0.5	717,830	250	1	96	192	137,823	3.0	0.2	0.5
11212 Sugarcane	0.5	704,069	30	1	782	109	852,706	18.3	0.0	0.5
11225 Chinese Cabbage (white bun)	0.4	610,163	150	1	136	439	595,248	12.8	0.0	0.4
18102 Fish (Fried/ Cooked)	0.4	603,737	200	0.25	101	612	153,953	3.3	0.1	0.4
11207 Pumpkin	0.4	594,971	30	1	661	394	2,604,652	56.0	0.0	0.4
11112 Paw paws	0.4	561,544	30	1	624	29	180,942	3.9	0.1	0.4
11118 Watermelon & Rock melon	0.3	487,582	300	1	54	283	153,317	3.3	0.1	0.3
11107 Nangai	0.3	477,333	500	1	32	115	36,596	0.8	0.4	0.3
12130 Other tinned meat	0.3	460,973	200	1	77	331	254,304	5.5	0.1	0.3
12107 Steak (meat) / Fried	0.3	439,105	400	1	37	15	5,489	0.1	2.7	0.3
11201 Taro leaves	0.3	417,202	30	1	464	242	1,121,810	24.1	0.0	0.3
11132 Ripe Bananas	0.3	405,450	60	1	225	151	340,128	7.3	0.0	0.3
11240 Beans	0.3	404,615	50	1	270	99	267,046	5.7	0.1	0.3
13150 Other bread and biscuits	0.3	387,839	200	0.30	65	331	64,187	1.4	0.2	0.3
11125 Other fresh fruits n.e.c	0.2	325,040	40	1	271	182	492,978	10.6	0.0	0.2
18117 Food tray take away	0.2	306,556	200	0.30	51	102	15,634	0.3	0.7	0.2
18118 Ball Rice	0.2	295,363	120	0.30	82	213	52,427	1.1	0.2	0.2
11110 Mangoes	0.2	290,033	200	1	48	151	72,992	1.6	0.1	0.2
12350 Other shell fish n.e.c	0.2	282,800	100	1	94	21	19,796	0.4	0.5	0.2
11217 Other fresh vegetables	0.2	273,478	100	1	91	213	194,170	4.2	0.0	0.2
15104 Egg	0.2	269,776	40	0.06	225	542	73,109	1.6	0.1	0.2
12109 Tinned Corned Beef	0.2	263,738	350	0.34	25	110	9,394	0.2	0.9	0.2
13105 Cabin Biscuits	0.2	245,862	200	0.25	41	414	42,411	0.9	0.2	0.2
12202 Chicken (chicken parts)	0.2	234,849	600	1	13	22	2,870	0.1	2.7	0.2
12119 Tinned pork	0.2	231,769	140	0.20	55	588	64,246	1.4	0.1	0.2
12117 Freshwater Prawn	0.2	221,100	400	1	18	24	4,422	0.1	1.7	0.2
17150 Other Foods n.e.c	0.1	198,491	200	1	33	167	55,247	1.2	0.1	0.1
11204 Carrots	0.1	198,055	100	1	66	338	223,142	4.8	0.0	0.0
11214 Onions and chives	0.1	197,546	250	1	26	414	109,045	2.3	0.1	0.1
12110 Tinned Santo meat	0.1	185,261	300	0.25	21	44	2,264	0.0	2.7	0.1
15102 Butter/margarine	0.1	174,360	250	0.25	23	715	41,556	0.9	0.1	0.1
16202 Twisties, rashuns, chips, bongo	0.1	167,593	50	0.09	112	9	855	0.0	6.5	0.1
16101 Soft drinks (lemonade, coke, fanta etc)	0.1	158,160	200	0.35	26	43	3,967	0.1	1.3	0.1
11206 Cucumber	0.1	151,390	50	1	101	81	81,751	1.8	0.1	0.1
11226 Lettuce	0.1	150,974	100	1	50	9	4,529	0.1	1.1	0.1
11115 Pineapples	0.1	145,670	50	1	97	129	125,276	2.7	0.0	0.1
16203 Lollies	0.1	144,248	180	1	27	41	10,952	0.2	0.4	0.1

12250 Other birds	0.1	140,689	250	1	19	458	85,914	1.8	0.1	0.1
14101 Milk powder	0.1	137,413	350	0.40	13	89	4,659	0.1	1.0	0.1
11244 Water cress	0.1	132,320	60	1	74	15	11,027	0.2	0.4	0.1
17104 Tea / Lipton	0.1	124,099	250	0.25	17	250	10,342	0.2	0.4	0.1
11150 Fruits or fruit products n.e.c	0.1	121,577	30	1	135	231	312,048	6.7	0.0	0.1
17142 Nalot	0.1	108,179	100	0.25	36	69	6,220	0.1	0.6	0.1
17106 Peanut Butter	0.1	107,892	350	0.35	10	144	5,179	0.1	0.7	0.1
12131 Oxford tinned meat	0.1	105,290	400	0.34	9	177	5,280	0.1	0.7	0.1
12308 Crab kokonas	0.1	104,269	500	1	7	123	8,550	0.2	0.4	0.1
17131 Vetsin	0.1	100,194	250	0.10	13	213	2,845	0.1	1.2	0.1

Items % of Total Diary Food Expenditure 98% 142,806,303

K	Kcal p.c.a.e. per day from diary	2,472
L	% of minimum daily energy need	1.18
M	Cost per day from diary	101.6
N	Cost per day to meet minimum energy need	86.3
O	Monthly cost of minimum diet, FPL	2,589

Table 15: Luganville estimated food expenditure and daily kilo calorie intake

Item A	% of food exp B	Total value (mth) C	Price per unit D	Unit (kg) E	Implied unit volume consumed F	kcal value per 100g G	kcal value H	Kcal per day pae I	Cost per day per calorie J	Exact calorie value PAE K
13207 Rice	17.6	2,258,115	123	1	612	123	752,705	233.9	0.1	23.4
13101 Bread (sliced, loaf, square, rolls, French)	7.9	1,011,257	135	1	250	242	604,257	187.8	0.1	10.5
11103 Bananas (Cooking)	6.2	799,966	30	1	889	111	986,624	306.6	0.0	8.3
11211 Island Taro/ Taro Fiji	6.2	799,732	65	1	410	99	406,018	126.2	0.1	8.3
11209 Kumala	3.8	485,737	65	1	249	129	321,333	99.9	0.1	5.0
11208 Yam	3.8	484,296	80	1	202	115	232,058	72.1	0.1	5.0
11202 Island Cabbage	3.6	464,463	29	1	534	29	154,821	48.1	0.1	4.8
12311 Tinned Tuna	3.3	423,779	110	1	128	290	372,412	115.7	0.0	4.4
11203 Manioc	2.9	370,850	38	1	325	151	491,213	152.6	0.0	3.8
16201 Sugar	2.5	318,507	128	1	83	394	326,801	101.6	0.0	3.3
12312 Other Tinned Fish	2.2	276,313	120	1	77	182	139,692	43.4	0.1	2.9
11106 dry Coconut / Copra	2.0	250,825	20	1	418	283	1,183,059	367.6	0.0	2.6
12201 Chicken/ Local chicken	1.8	234,285	600	1	13	231	30,067	9.3	0.3	2.4
12202 Chicken (chicken parts)	1.8	225,628	1,340	1	6	209	11,730	3.6	0.6	2.3
13104 Cream cracker, biscuits, Buns	1.7	215,654	180	0.25	40	414	41,334	12.8	0.2	2.2
12150 Other meat n.e.c	1.5	196,403	300	1	22	183	39,935	12.4	0.2	2.0
13106 Doughnuts, Kato	1.5	190,047	35	0.1	181	439	79,458	24.7	0.1	2.0
12304 Other fish	1.3	166,689	400	1	14	81	11,252	3.5	0.5	1.7
15102 Butter/margarine	1.3	162,463	173	0.25	31	715	55,954	17.4	0.1	1.7
15101 Cooking oil (incl. salad oil)	1.1	141,583	291	0.75	16	878	106,795	33.2	0.0	1.5
13209 Flour	1.0	134,047	100	1	45	349	155,942	48.5	0.0	1.4
13206 Noodles	1.0	131,968	36	0.085	122	99	10,283	3.2	0.4	1.4
12130 Other tinned meat	0.9	121,870	200	0.25	20	331	16,808	5.2	0.2	1.3
13150 Other bread and biscuits	0.9	119,187	100	0.25	40	458	45,490	14.1	0.1	1.2
12101 Beef fresh	0.9	111,094	229	1	16	198	32,018	9.9	0.1	1.2
11105 Green Coconut	0.8	101,684	20	1	169	16	27,116	8.4	0.1	1.1
11216 Tomatoes	0.7	94,012	170	1	18	15	2,765	0.9	1.1	1.0
16202 Twisties, rashuns, chips, bongo	0.7	90,720	38	0.085	80	542	36,662	11.4	0.1	0.9
12303 Reef Fish	0.7	90,709	400	1	8	130	9,827	3.1	0.3	0.9
11132 Ripe Bananas	0.7	89,684	33	1	91	103	93,307	29.0	0.0	0.9
11231 Water Taro	0.7	89,154	120	1	25	72	17,831	5.5	0.2	0.9
11224 Bowl Cabbage	0.6	81,488	250	1	11	22	2,390	0.7	1.1	0.8
16206 Peanuts	0.6	74,516	200	1	12	568	70,542	21.9	0.0	0.8
15104 Egg	0.6	73,998	26	0.06	96	74	4,281	1.3	0.6	0.8
12108 Other fresh/frozen meat	0.5	63,751	400	1	5	256	13,600	4.2	0.2	0.7
17106 Peanut Butter	0.5	61,348	250	0.35	8	612	17,521	5.4	0.1	0.6
11215 Laplap (Yam, banana, manioc, etc.)	0.5	60,146	100	1	20	151	30,274	9.4	0.1	0.6
18102 Fish (Fried/ Cooked)	0.5	59,440	200	0.25	10	110	2,724	0.8	0.7	0.6
13105 Cabin Biscuits	0.5	59,411	193	0.25	10	414	10,620	3.3	0.2	0.6
18118 Ball Rice	0.5	58,705	100	0.3	20	123	7,221	2.2	0.3	0.6
11110 Mangoes	0.5	58,227	400	1	5	58	2,814	0.9	0.7	0.6
11214 Onions and chives	0.4	57,332	159	1	12	89	10,697	3.3	0.2	0.6
11206 Cucumber	0.4	55,544	60	1	31	12	3,703	1.2	0.5	0.6
17118 Salt	0.4	55,026	192	0.75	10	213	15,261	4.7	0.1	0.6
11225 Chinese Cabbage (white bun)	0.4	52,326	200	1	9	15	1,308	0.4	1.3	0.5
11240 Beans	0.4	51,933	100	1	17	22	3,808	1.2	0.5	0.5
11112 Paw paws	0.4	50,976	50	1	34	34	11,555	3.6	0.1	0.5
11207 Pumpkin	0.4	47,656	50	1	32	44	13,979	4.3	0.1	0.5
16208 Ice Block	0.3	41,265	200	1	7	36	2,476	0.8	0.6	0.4
14101 Milk powder	0.3	40,895	564	0.4	2	144	1,392	0.4	1.0	0.4
11118 Watermelon & Rock melon	0.3	40,775	400	0.5	3	24	408	0.1	3.3	0.4
16101 Soft drinks (lemonade, coke, fanta etc)	0.3	39,904	100	0.35	13	43	2,002	0.6	0.7	0.4
11125 Other fresh fruits n.e.c	0.3	39,272	100	1	13	41	5,367	1.7	0.2	0.4
12109 Tinned Corned Beef	0.3	38,656	191	0.2	7	192	2,591	0.8	0.5	0.4
12107 Steak (meat) / Fried	0.3	37,198	670	1	2	177	3,276	1.0	0.4	0.4
12119 Tinned pork	0.3	34,316	99	0.198	12	331	7,572	2.4	0.2	0.4
18109 Plate of food/ Take away	0.3	33,593	350	0.4	3	93	1,190	0.4	0.9	0.3
11232 Com	0.2	31,019	80	1	13	107	13,829	4.3	0.1	0.3
11107 Nangai	0.2	30,751	2,000	1	1	588	3,014	0.9	0.3	0.3

Items % of Total Diary Food Expenditure 94% 12,080,188

K	Kcal p.c.a.e. per day from diary	2,194	Sum H
L	% of minimum daily energy need	1.04	=K/2100
M	Cost per day from diary	125.1	Sum J
N	Cost per day to meet minimum energy need	119.8	=M/L
O	Monthly cost of minimum diet, FPL	3,593	=N*30

Table 16 Port Vila estimated food expenditure and daily kilo calorie intake

Item A	% of food exp B	Total value (mth) C	Price per unit D	Unit (kg) E	Implied unit volume consumed F	kcal value per 100g G	kcal value H	Kcal per day pae I	Cost per day pae J	Exact calorie value PAE K
13207 Rice	21.0	8,396,828	119	1	2,352	123	2,893,025	265.1	0.1	25.7
13101 Bread (sliced, loaf, square, rolls, French)	10.7	4,255,811	100	1	1,419	242	3,433,021	314.6	0.0	13.0
12202 Chicken (chicken parts)	4.5	1,784,355	1,340	1	44	209	92,769	8.5	0.6	5.5
12311 Tinned Tuna	4.1	1,651,022	110	0.35	500	290	507,814	46.5	0.1	5.0
11209 Kumala	3.3	1,302,180	70	1	620	129	799,911	73.3	0.1	4.0
11202 Island Cabbage	3.1	1,255,517	58	1	719	29	208,534	19.1	0.2	3.8
12201 Chicken/ Local chicken	3.0	1,181,534	600	1	66	231	151,630	13.9	0.3	3.6
12312 Other Tinned Fish	2.7	1,093,061	127	1	287	182	522,145	47.9	0.1	3.3
13104 Cream cracker, biscuits, Buns	2.2	877,304	198	0.25	148	414	152,864	14.0	0.2	2.7
12101 Beef fresh	2.1	834,228	415	1	67	198	132,672	12.2	0.2	2.5
16201 Sugar	2.1	823,129	113	1	243	394	958,371	87.8	0.0	2.5
11203 Manioc	2.0	810,780	45	1	607	151	917,062	84.0	0.0	2.5
11103 Bananas (Cooking)	1.8	734,495	58	1	420	111	466,146	42.7	0.1	2.2
11211 Island Taro/ Taro Fiji	1.6	626,608	70	1	298	99	295,401	27.1	0.1	1.9
12107 Steak (meat) / Fried	1.3	535,619	758	1	24	177	41,696	3.8	0.4	1.6
13206 Noodles	1.3	527,303	38	0.09	463	99	38,923	3.6	0.5	1.6
12108 Other fresh/frozen meat	1.3	499,323	415	1	40	256	102,672	9.4	0.2	1.5
15102 Butter/margarine	1.2	496,093	181	0.25	91	715	163,039	14.9	0.1	1.5
12130 Other tinned meat	1.2	487,885	200	0.35	81	331	94,202	8.6	0.2	1.5
13106 Doughnuts, Kato	1.2	461,814	30	0.10	513	439	225,263	20.6	0.1	1.4
11106 dry Coconut / Copra	1.2	460,565	28	1	552	283	1,562,829	143.2	0.0	1.4
15101 Cooking oil (incl. salad oil)	1.0	418,149	267	1	52	878	344,017	31.5	0.0	1.3
11216 Tomatoes	0.9	362,688	443	1	27	15	4,090	0.4	3.0	1.1
12105 Pork fresh	0.8	334,173	1,020	1	11	338	36,930	3.4	0.3	1.0
13209 Flour	0.8	331,264	100	1	110	349	385,371	35.3	0.0	1.0
11215 Laplap (Yam, banana, manioc, etc...)	0.8	324,323	300	1	36	151	54,414	5.0	0.2	1.0
11224 Bowl Cabbage	0.8	308,120	300	1	34	22	7,532	0.7	1.4	0.9
11208 Yam	0.8	306,460	96	1	107	115	122,755	11.2	0.1	0.9
16202 Twisties, rashuns, chips, bongo	0.7	289,651	30	0.02	327	542	35,478	3.3	0.3	0.9
12303 Reef Fish	0.7	276,410	450	1	20	200	40,950	3.8	0.2	0.8
11214 Onions and chives	0.7	262,991	176	1	50	89	44,380	4.1	0.2	0.8
18102 Fish (Fried/ Cooked)	0.6	255,693	200	0.25	43	110	11,719	1.1	0.7	0.8
12150 Other meat n.e.c	0.6	250,554	300	1	28	183	50,946	4.7	0.2	0.8
13150 Other bread and biscuits	0.6	247,163	150	0.25	55	458	62,889	5.8	0.1	0.8
17118 Salt	0.6	246,896	188	1	44	213	69,932	6.4	0.1	0.8
16150 Other beverages n.e.c	0.6	243,470	96	1	85	39	24,727	2.3	0.3	0.7
16101 Soft drinks (lemonade, coke, fanta etc)	0.6	242,328	96	1	84	43	27,136	2.5	0.3	0.7
18109 Plate of food/ Take away	0.6	219,647	700	0.40	10	93	3,891	0.4	1.9	0.7
11226 Lettuce	0.5	215,614	300	1	24	9	2,156	0.2	3.3	0.7
14108 Ice cream	0.5	215,507	400	1	18	195	35,020	3.2	0.2	0.7
12109 Tinned Corned Beef	0.5	201,856	216	0.35	31	192	20,933	1.9	0.3	0.6
12304 Other fish	0.5	195,040	450	1	14	81	11,702	1.1	0.6	0.6
15104 Egg	0.5	190,989	31	0.06	206	74	9,143	0.8	0.7	0.6
17106 Peanut Butter	0.5	189,526	200	0.25	32	612	48,329	4.4	0.1	0.6
13105 Cabin Biscuits	0.4	176,339	100	0.35	59	414	85,172	7.8	0.1	0.5
11225 Chinese Cabbage (white bun)	0.4	176,160	200	1	29	15	4,404	0.4	1.3	0.5
14101 Milk powder	0.4	173,002	556	0.40	10	144	5,974	0.5	1.0	0.5
17139 Coffee mix	0.4	146,289	20	0.02	244	132	6,437	0.6	0.8	0.4
11112 Paw paws	0.3	129,961	68	1	64	34	21,788	2.0	0.2	0.4
12203 Curry chicken	0.3	128,819	250	0.40	17	200	13,741	1.3	0.3	0.4
16206 Peanuts	0.3	128,391	200	1	21	568	121,543	11.1	0.0	0.4
18118 Ball Rice	0.3	125,839	100	0.25	42	123	12,898	1.2	0.3	0.4
13107 Cakes incl. Pastries, buns	0.3	119,986	400	1	10	356	17,798	1.6	0.2	0.4
11231 Water Taro	0.3	117,845	167	1	24	72	16,970	1.6	0.2	0.4
11204 Carrots	0.3	117,006	200	1	20	35	6,825	0.6	0.6	0.4
12131 Oxford tinned meat	0.3	114,490	342	0.34	11	192	7,285	0.7	0.5	0.3
11240 Beans	0.3	113,152	200	1	19	22	4,149	0.4	0.9	0.3
12119 Tinned pork	0.3	112,313	90	0.20	42	331	27,414	2.5	0.1	0.3
12116 Crabs	0.3	110,636	400	1	9	109	10,049	0.9	0.4	0.3
16102 Mineral water	0.3	109,833	172	1	21	0	0	0.0	0.0	0.0
17103 Milo	0.3	105,104	375	0.38	9	433	15,170	1.4	0.2	0.3
11105 Green Coconut	0.3	103,533	27	1	129	16	20,604	1.9	0.2	0.3

Items % of Total Dairy Food Expenditure 94% 37,532,666

K	Kcal p.c.a.e. per day from diary	1,431	sum H
L	% of minimum daily energy need	0.68	=K/2100
M	Cost per day from diary	114.3	sum J
N	Cost per day to meet minimum energy need	167.8	=M/L
O	Monthly cost of minimum diet, FPL	5,034	=N*30

Table 17 Monthly adult equivalent per capita food poverty lines

Region	per capita a.e. per day	per capita a.e. per month	per household per month a.e. hhholds in the lowest three deciles	av a.e. in hholds
Vanuatu average	102	3,064	14,097	4.6
Rural	86	2,589	11,392	4.4
Luganville	120	3,594	15,814	4.4
Port Vila	168	5,034	24,163	4.8

5. The Basic Needs Poverty Line

5.1 Non-food basic needs expenditure

73. The FPL is the foundation of the BNPL calculation. In reality even a low-income or low-expenditure family cannot be expected to survive on food alone, there are always other minimum costs of basic needs for survival. Therefore an allowance for **non-food basic-needs expenditure** is added to the value of the Food Poverty Line to arrive at the "Basic Needs Poverty Line".

74. The allowance for basic non-food expenditure is estimated from the HIES based on the level or proportion of non-food costs reported by households at defined levels of total expenditure. The costs of non-food basic-needs might include expenditure for housing/shelter, essential transport and communications, school fees and other education related costs, medical expenses and clothing.

75. There are a number of generally accepted methods of calculating non-food expenditures for the poverty lines. The World Bank suggests that a "non-food factor" should be applied to the Food Poverty Line based on the proportion of non-food expenditure actually incurred by households which have an average total income equal to or less than the Food Poverty Line, see Box 6. This is intended to represent the bare minimum additional expenditure required to meet non-food basic needs. Households whose total income is equal only to the Food Poverty Line have to choose very carefully between food and non-food items; any expenditure on non-food items can be seen as being an essential trade-off between basic food and basic non-food.

Box 6: Step two: the non-food component

The next problem is making an allowance for nonfood consumption. In principle, one could proceed the same way for nonfood goods--identify a normative bundle of such goods, and cost that bundle separately in each region, sector or date. However, anchoring the nonfood part of the poverty line is often difficult. There is even less agreement on the normative standard (comparable to food requirements). And comparable data on nonfood prices are rarely available.

Consistency with the consumption behavior of those who are found to be "food poor" is a defensible guide. A "basic nonfood good" can be defined as one that a person wants enough to forgo a "basic food". One can thus measure the nonfood component of the poverty line as the expected value of nonfood spending by a household that is just capable of affording the food component of the poverty line. This value constitutes the minimum allowance for nonfood goods consistent with being able to afford the bundle of food goods needed to reach food-energy requirements by prevailing diets. But again, that choice is a value judgment, and in some settings a more generous allowance might be considered appropriate. The key point is that the allowance should be equally "generous" for different groups if the poverty comparison is to be of use in guiding policies for fighting absolute poverty. World Bank. 1994

76. Alternative methods may be to calculate an absolute amount of non-food expenditure for a particular category of households; this could be for the lowest income quintile, the lowest three or four deciles or for any particular decile as may be chosen. The higher-up the expenditure deciles that the reference point is chosen so the greater will be the level of non-food expenditure. But a level has to be selected that which reflects some 'discretionary' expenditure,

households must be included which have non-food expenditure at a ‘realistic’ level as compared with the poorest households which would have sub-minimal levels of non-food expenditure.

77. For this analysis and to be consistent with other analyses undertaken for Pacific Island countries the average non-food expenditure for households in the lowest four deciles is taken as the non-food factor, for Vanuatu the factor is given in Table 18. For Port Vila the non-food factor is 1.2, that is per capita a.e non-food expenditure accounts for 1.2 times the amount of food expenditure; for Luganville and rural areas the factors are 0.7 and 0.3 respectively. The national average, being dominated by the large proportion of rural households was 0.5.

5.2 Basic Needs Poverty Lines

78. The actual average non-food expenditure recorded by households with adult equivalent per capita expenditure in the lowest four expenditure deciles provides the essential non-food basic needs component which is added to the food poverty line to give the Basic Needs Poverty Line (BNPL).

79. The BNPL is calculated by adding the estimated non-food basic needs expenditure to the food poverty line. It may be seen from Column D of Table 18 that there are wide variations between the BNPL across regions. These reflect differences in household size between urban and rural households and the much higher non-food expenditure in urban areas than rural ones.

80. Applying these factors to the respective FPL gives the cost of non-food basic needs for rural areas as VT3,366 per capita a.e per month; for Luganville VT6,110 per month and for Port Vila households the amount is VT11,075. The national weighted average for non-food basic needs costs is estimated at VT1,651 per capita a.e per month. These non-food costs are shown in Table 18.

81. The need for higher basic-needs non-food expenditure in urban centres is an extremely important factor in determining relative poverty. For instance a rural household with a relatively high income might be relatively poor with the same income in an urban situation where there is a need to meet a wide range of non-food essentials, often unavailable in the rural areas. It is therefore important to remember that national, and more particularly regionally based poverty lines, measure relative poverty in a specific set of local circumstances; food costs and the specific non-food “essentials”. And that the benchmark poverty lines will therefore vary depending on these circumstances.

Table 18 Monthly adult equivalent per capita poverty lines

VUV per capita adult equivalent per month	Food Poverty Line A	Non-food basic needs factor (% of food) B	Estimated non-food expenditure C=A*B	Basic Needs Poverty Line D=A+C	Monthly cost per hhold lowest three deciles a.e.
Vanuatu average	3,064	0.5	1,651	4,716	21,692
Rural	2,589	0.3	777	3,366	14,809
Luganville	3,594	0.7	2,516	6,110	26,883
Port Vila	5,034	1.2	6,041	11,075	53,159

6. The incidence and depth of poverty in Vanuatu

6.1 Head Count Ratio

82. On the basis of the per capita a.e. food and basic needs poverty lines in Table 18, the incidence of poverty observed from the household per capita expenditure in the HIES data is summarised in Table 19: Incidence of Poverty for population and households. The incidence of poverty is measured by the "Head Count Ratio" which indicates the proportion of either households or population which had expenditure less than the relevant poverty line.

6.2 Incidence of food poverty

83. From Table 19 it can be seen that the level of food poverty, those households with per capita adult equivalent expenditure less than the Food Poverty Line (generally referred to as “absolute” poverty), the poorest of the poor, is generally low with the exception of Port Vila. The data suggests that on average over the whole country 6% of households, representing 7.4% of the population, have expenditure which would be insufficient to meet basic food needs as defined by the food poverty line. The proportion of 7.4% in food poverty might seem low, but it must be noted that this represents about 15,000 people, many of whom will be children, who do not have enough per capita adult equivalent expenditure to meet basic food requirements. For Port Vila 4.7% of households do not have sufficient food expenditure per adult equivalent to meet the minimum recommended calorie intake levels of 2,100 Kcal a day. The lowest levels of food poverty occur in Luganville where 2.2% of households and population have insufficient daily food expenditure per adult equivalent. Rural households have a slightly higher incidence of food poverty at 5.1% of households or 6.6% of the population.

84. Households experiencing food poverty may not necessarily be going hungry; rather they are likely to be consuming a poor diet with inadequate nutrition, and are thus more likely to experience health problems as a result. These health problems generally translate into lowered learning abilities in children at school and less likelihood of adults getting employment; a perpetuation of the cycle of hardship and poverty. The reported increases in non-communicable diseases, many of which are related to diet (diabetes, hypertension, and high blood-pressure), suggest that many households – poor and non-poor alike – do indeed have a poor level of nutrition whilst at the same time having plenty to eat.

6.3 Incidence of basic needs poverty

85. The estimated incidence of basic needs poverty is also shown in Table 19. Nationally it is estimated that 12.9% of households representing 15.9% of the population, had monthly per capita a.e expenditure less than the basic needs poverty line. Port Vila at 27.2% of households (32.8% of the population) had the highest proportion with per capita a.e expenditure below the BNPL.

Table 19 Incidence of poverty

	Proportion of hholds and pop with monthly adult equivalent per capita expenditure less than the food and basic needs poverty lines			
	Households		Population	
	Food	Basic needs	Food	Basic needs
Vanuatu average	6.0	12.9	7.4	15.9
Rural	5.1	8.5	6.6	10.8
Luganville	2.2	9.2	2.2	10.9
Port Vila	4.7	27.2	5.4	32.8

86. Rural areas recorded a basic-needs poverty incidence of 8.5% of households, representing 10.8% of the population. In Luganville 9.2% of households, or 10.9% of the population, were estimated to be below the BNPL.

87. These figures suggest that although in Port Vila the national capital, and therefore the general centre of employment for many, there are, nevertheless, many households whose expenditure cannot cover the basic-needs costs of a reasonable, minimum standard of living: about one in four households. There are many who would be classified as working poor, especially those engaged in small private enterprise businesses or casual labour. They may be in employment, either full- or part-time, casual or permanent, but their incomes and thus expenditure is insufficient to meet all the family's needs.

88. Households that appear to be least disadvantaged in terms of the poverty line are those in Luganville. Many in Luganville are employed either by government or the provincial

administrations, from Table 5 it was seen that 67% of household heads were in some form of employment and Luganville had the highest proportion of household heads engaged in business enterprises. Luganville has the benefit of lower local produce prices, reasonable access to land for home production and less need to spend on non-food items than Port Vila. Thus people are generally better-off relative to those in Port Vila.

89. In considering the differences in the assessed incidence of hardship and poverty between the geographic regions it is important to remember that these are “relative” estimates. They measure the proportion of households or the population in each region that has a level of expenditure below the poverty line for that particular region. As both the food and basic-needs poverty lines have shown, there are quite significant differences in the costs of a minimum standard of living between the regions.

90. It is more useful to consider changes over time within the regions themselves, and this analysis will provide the benchmark for future analysis of poverty levels. Another HIES survey should be completed within five years to monitor poverty levels effectively.

6.4 Depth and severity of poverty

91. The Head Count ratio discussed in the previous paragraphs does not really give any indication of the seriousness of the poverty being experienced. Are those households that are below the poverty line just below it, or are they well below it? This is referred to as the depth and severity of poverty.

92. The depth and severity of poverty are measured by the Poverty Gap Index¹⁴ (PGI) and the Squared Poverty Gap Index (SPGI)¹⁵ respectively, Table 20. The former is a measure of the depth of poverty being experienced by each household below the basic needs poverty line, while the latter measures the severity of poverty by giving more weight to the poorest households whose poverty gap is greatest. The PGI is Indicator 2 of Target 1, Goal 1 of the MDGs.

Table 20 Depth and severity of poverty

	Poverty gap index <i>Depth of poverty</i>	Squared poverty gap <i>Severity of poverty</i>
Vanuatu average	5.6	3.0
Rural	3.8	2.0
Luganville	2.9	1.2
Port Vila	10.4	5.1

93. The importance of the PGI and SPGI for policy monitoring and evaluation is its change over time in Vanuatu, and more importantly in Port Vila, where if policies to alleviate poverty are successful the PGI should decrease. At the national level the PGI (depth of poverty) for Vanuatu has been estimated at 5.6, which is relatively low in the Pacific. Other countries in the region have higher PGI values such as the Solomon Islands 7.5, PNG 12.4, Timor-Leste 11.9, Fiji,

¹⁴ The Poverty Gap Index gives an indication of how poor the poor are and reflects the depth of poverty. The formula calculates the mean distance below the basic needs poverty line as a proportion of the poverty line where the mean is taken over the whole population, counting the non-poor as having zero poverty gap. The PGI is an important indicator as recognised by its inclusion as a specific indicator in MDG1.

$$\text{Poverty Gap Index: } 1/N * (\sum_{i=1}^m (\text{BNPL} - y_i) / \text{BNPL})$$

where: N = total number of households, m = number of households below basic needs poverty line; and y_i equals expenditure of each household.

¹⁵ Through the process of squaring the index the SPGI gives greater weight to those at the lowest consumption/income levels and thus better reflects the severity of the poverty gap. In both the PGI and SPGI the higher the index the greater the depth and severity of poverty respectively.

11.2, FSM 12.8, Tonga 7.7, Samoa 6.6 and implies that the depth of poverty is not as severe in Vanuatu than in other countries. The lowest PGI in Luganville (1.9) indicates that the average expenditure of households below the basic needs poverty line is the closest to the BNPL (VT6,110 p.c.a.e). The value for Port Vila (10.4) is the highest of the three regions in Vanuatu, again illustrating the incidence of poverty in Port Vila where the average expenditure levels of households in poverty are generally much lower than the poverty line. The PGI for Port Vila compares with 15.0 in Pohnpei, the capitol state in FSM (2005), and 8.5 in Honiara (2005).

94. The SPGI measuring the severity of poverty suggests that Vanuatu experiences generally a similar level of poverty severity as other regional countries. The SPGI at the national level was measured at 3.0 compared with national level SPGIs of 3.5 in the Solomon Islands, 5.1 in Fiji, 4.8 in FSM, 4.0 in Tonga and 2.6 in Samoa. Across the regions the SPGI was 5.1 in Port Vila, a low 1.2 in Luganville (where the incidence of poverty is lowest) and 2.0 in the rural areas. Again the higher value SPGI for Port Vila indicates that in Vanuatu poverty is most severe in Port Vila. This compares with 'urban centre' SPGI's of 7.4 for Pohnpei state in FSM and 3.4 for Honiara.

95. These indices suggest that Vanuatu experiences a similar level of poverty depth and severity than other regional countries. These two indices reflect the fact that there is wide variation in expenditure levels between poor and non-poor households, between poor households below the BNPL, between urban, provincial centre (Luganville) and rural households.

7. Income distribution and inequality

96. Levels of income distribution and inequality can be illustrated in a number of ways. Charts 1 to 4 plot the Lorenz Curves of household expenditure and Table 21 summarises the Gini Coefficients (where a higher coefficient indicates greater inequality and a lower one represents great equality). The Lorenz Curves are a graphical representation of the Gini Coefficient in that the farther away from the centre line is the distribution the greater the degree of inequality. Thus the charts suggest that whilst inequality is present it is similar across all regions, and indeed is not especially high.

Table 21: Gini coefficients of inequality (0=equality)

Region	Gini coefficient
Vanuatu average	0.41
Rural	0.40
Luganville	0.41
Port Vila	0.46

97. Figures for the Gini Coefficient indicate that the level of inequality in Vanuatu is relatively high at 0.41, and highest in Port Vila (0.46), as there are wide differences, as have already been seen, between household expenditure levels in Port Vila, and with Port Vila compared to the other two areas. The national Gini is similar to the Solomon Islands (0.39) but higher than that observed in FSM (0.28).

Chart 1: Vanuatu Lorenz curve

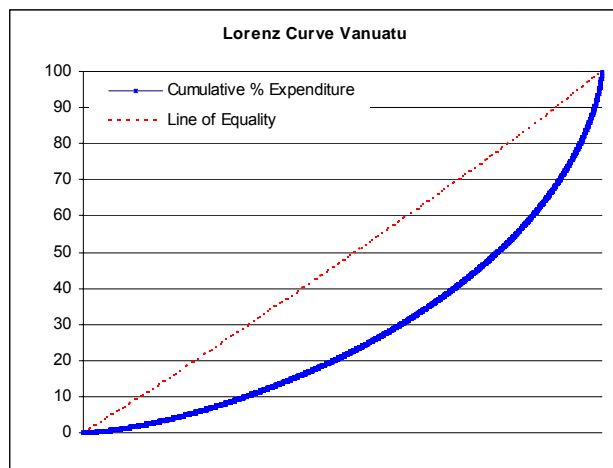


Chart 2: Rural Lorenz curve

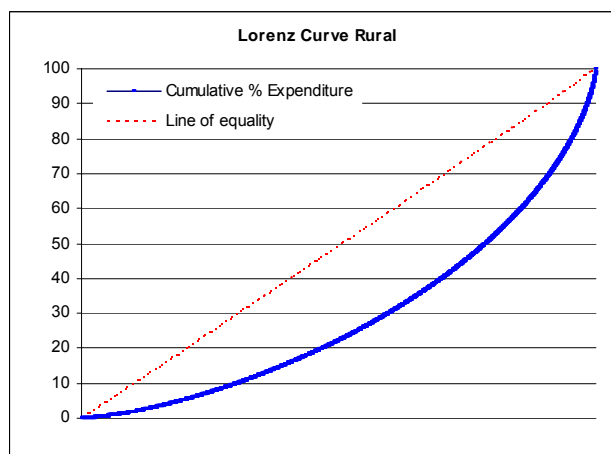


Chart 3: Luganville Lorenz curve

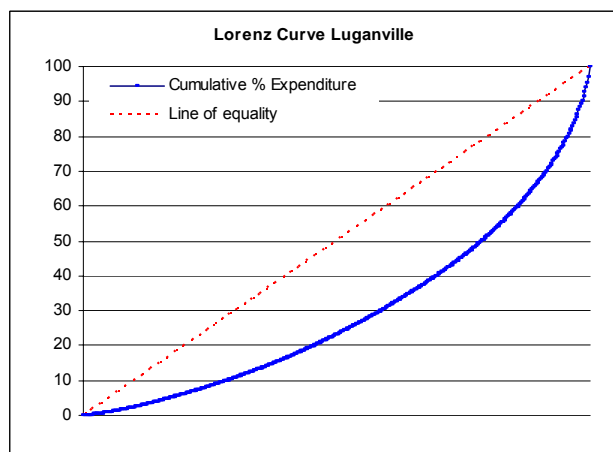
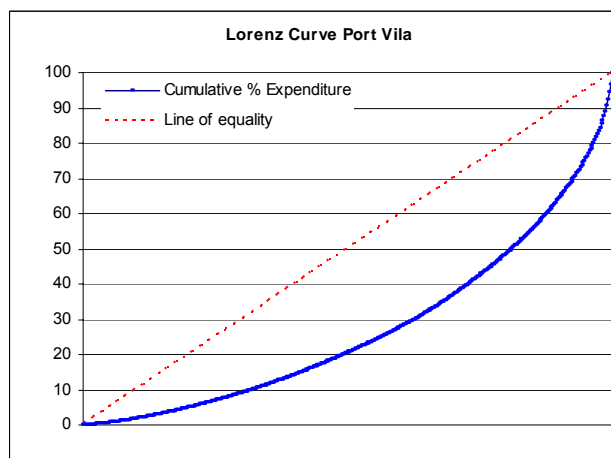


Chart 4: Port Vila Lorenz curve



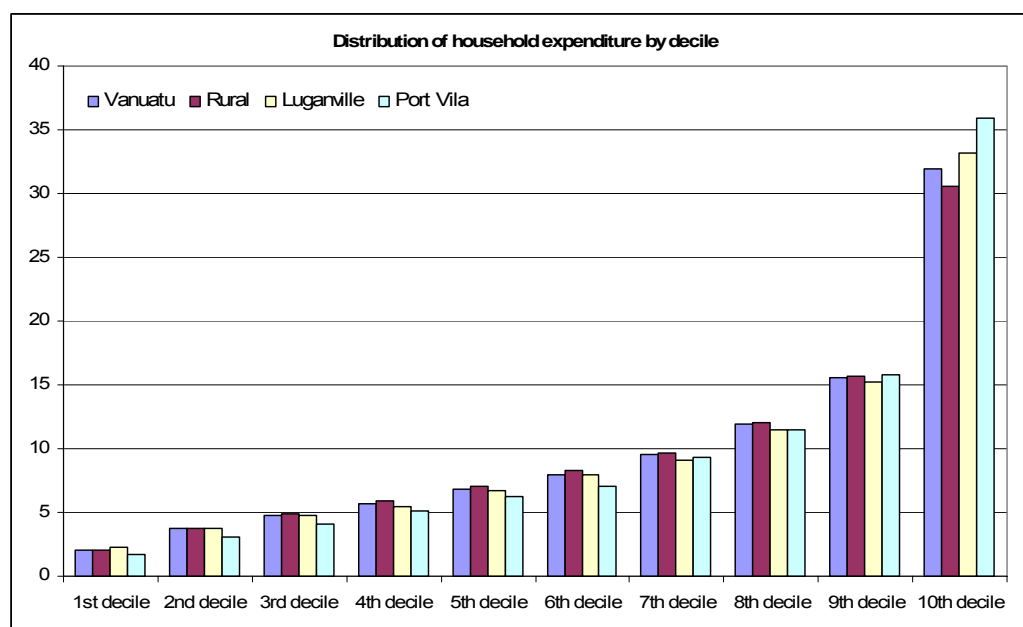
98. Table 22 and Chart 5 show the share of expenditure incurred by each decile. On average over the whole of Vanuatu the poorest ten-percent of households incurred 2.0% of expenditure while the top decile of households incurred almost one third (31.9%) of all expenditure. As can be seen there were slight variations between the regions with the lowest three deciles in Port Vila having a slightly lower share of expenditure (8.9%) compared to 10.8% in Luganville and rural areas. Chart 5 clearly shows the higher number of households in Port Vila in the highest two expenditure deciles and the lower number in the bottom six deciles.

99. In the highest three deciles households in Port Vila had 63.2% of expenditure compared to 58.3% in rural areas and 59.9% in Luganville. Similar to the other measures of distribution and equality, although there are very wide differences in expenditure per capita between the poorest and better-off households, the larger household size in the poorest households means that the overall share of expenditure incurred by these households is higher than might otherwise be expected.

Table 22: Distribution of household expenditure (%)

Adult equivalent per capita HH expenditure deciles	Vanuatu	Rural	Luganville	Port Vila
1st decile	2.0	2.1	2.3	1.7
2nd decile	3.7	3.8	3.7	3.1
3rd decile	4.8	4.9	4.8	4.1
4th decile	5.7	5.9	5.5	5.1
5th decile	6.8	7.0	6.7	6.3
6th decile	8.0	8.3	8.0	7.1
7th decile	9.5	9.7	9.1	9.3
8th decile	11.9	12.0	11.5	11.5
9th decile	15.6	15.7	15.2	15.8
10th decile	31.9	30.6	33.2	35.9
Total	100.0	100.0	100.0	100.0
Ratio of lowest quintile to highest quintile	8.3	7.9	8.1	10.7

Chart 5: Distribution of household expenditure by decile



100. The ratio of the share of the bottom quintile to the top quintile of households was 8.3 at the national level, and ranged from a high of 10.7 for Port Vila to a low of 7.9 for rural areas. This means that even in rural areas the consumption patterns of the wealthiest households are almost eight times as high as the poorest (bottom two deciles) households (as illustrated in Chart 5).

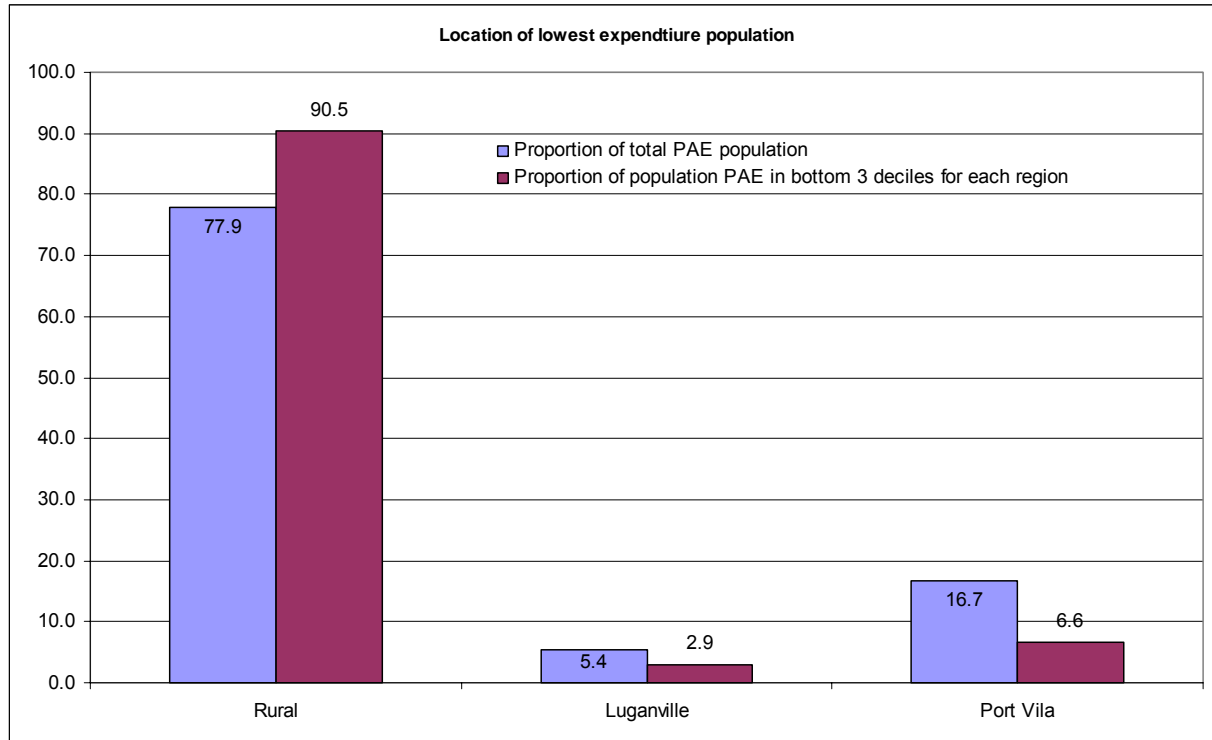
8. Who are the poor and what are their characteristics?

8.1 Location of the poor

101. The following tables and charts begin to analyse the characteristics of poor (those in the lowest three deciles of adult equivalent per capita expenditure) and non-poor households in Vanuatu. Chart 6 very clearly illustrates the location of the low-expenditure poor by population

across the three regions relative to the region's share of total population using national total expenditure p.a.e. deciles. The chart shows that rural areas have a higher proportion of the low-expenditure population than their share of the total population and are thus over-represented amongst those below the poverty line.

Chart 6: Location of the lowest expenditure population

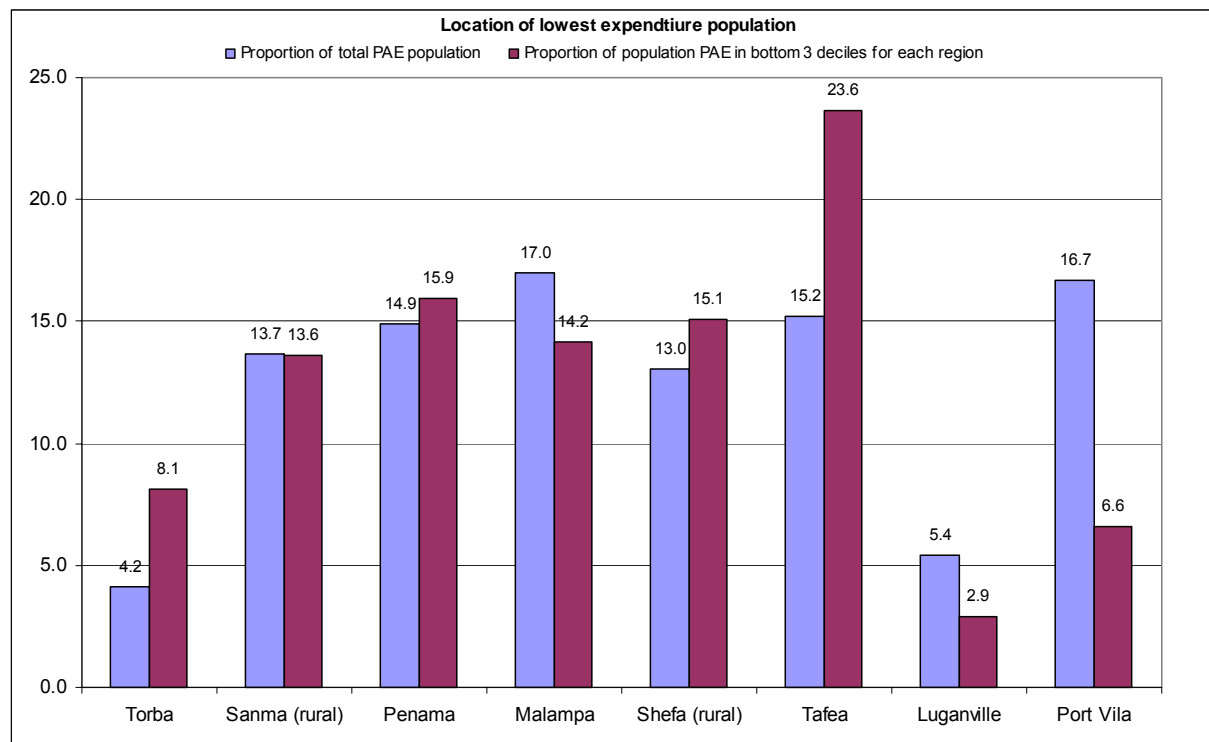


102. As the disparity is so great between the rural and urban areas Chart 7 and Table 23 show the lowest expenditure population by province. It clearly shows that the rural provinces of Torba, Tafea and to a lesser extent Penama and Shefa (rural) have higher proportions of their population in the lowest three expenditure deciles per adult equivalent than their share of the total population. Torba represents 4.2% of the Vanuatu population with 8.1% of the population of Torba in the lowest three national expenditure deciles. Conversely, a lower proportion of the Port Vila population is represented in the bottom three expenditure p.c.a.e deciles than its proportion of the Vanuatu population: Port Vila has 16.7% of the total population but only 6.6% of the total adult equivalent population in the lowest three expenditure deciles.

Table 23: Province of the lowest expenditure population

Population PAE	Proportion of total PAE population	Proportion of population PAE in bottom 3 deciles for each region
Torba	4.2	8.1
Sanma (rural)	13.7	13.6
Penama	14.9	15.9
Malampa	17.0	14.2
Shefa (rural)	13.0	15.1
Tafea	15.2	23.6
Luganville	5.4	2.9
Port Vila	16.7	6.6
Total	100.0	100.0

Chart 7: Province of the lowest expenditure population



8.2 Gender

103. Table 24 and Chart 8 illustrate how the proportion of female headed households compares across expenditure deciles and provinces. The gender of the head of household appears to play a relatively small role in determining the likelihood of a household being in poverty in Vanuatu. Nationally 8.5% of households were reported as being headed by females, in the lowest three deciles 7.2%.

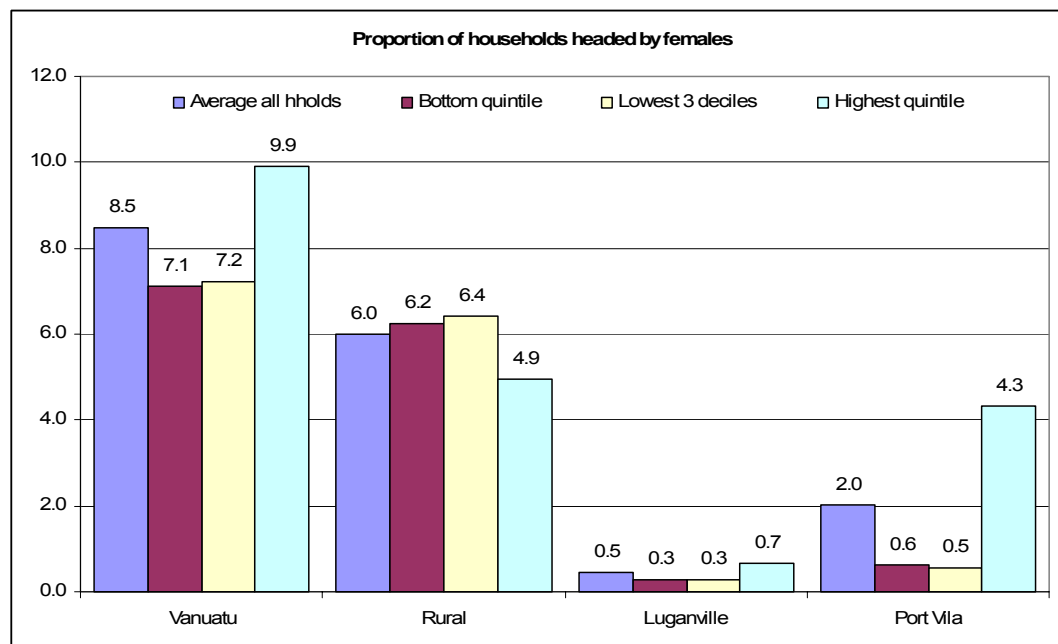
Table 24: Proportion of households headed by females

Population	Proportion of female heads	Proportion of households in bottom 3 deciles for each region
Torba	0.3	0.4
Sanma (rural)	0.4	0.2
Penama	1.1	1.5
Malampa	1.5	1.3
Shefa (rural)	1.5	1.4
Tafea	1.2	1.6
Rural	6.0	6.4
Luganville	0.5	0.3
Port Vila	2.0	0.5
Total	8.5	7.2

104. The HIES analysis suggests that female-headed households are slightly over-represented in rural households in the lowest three expenditure deciles, particularly in Tafea and Penama. In Port Vila female headed households are under-represented in the bottom 30% of households; 2.0% of households are headed by women and only 0.5% of households in the bottom 30% expenditure range are headed by women. Chart 8 and Table A2 show female headed households are over represented in the highest quintile nationally (9.9% of households

in the highest decile compared with 8.5% of household heads) and for households in Port Vila (4.3% compared with 2.0%) and Luganville (0.7% and 0.5%).

Chart 8: Proportion of households headed by women



8.3 Children in poverty

105. The survey results indicate that there were 76,321 (38% of total population) children under the age of 15 in the total estimated population of 203,229. The analysis indicates that although 83% of all children live in rural areas, this region accounts for 93% of those that live in the poorest households; particularly the provinces of Torba and Tafea. Thus children from rural areas are considerably more likely to be disadvantaged compared to those in urban, see Table 25.

Table 25: Proportion of children in lowest three household expenditure deciles

Population	Proportion of total children	Proportion of population in bottom 3 deciles for each region
Torba	5.0	8.5
Sanma (rural)	13.3	14.6
Penama	17.3	16.5
Malampa	14.5	12.9
Shefa (rural)	14.2	15.9
Tafea	18.4	24.4
Rural	82.7	92.7
Luganville	4.7	2.5
Port Vila	12.5	4.8
Total	100.0	100.0

8.4 Activity of household heads

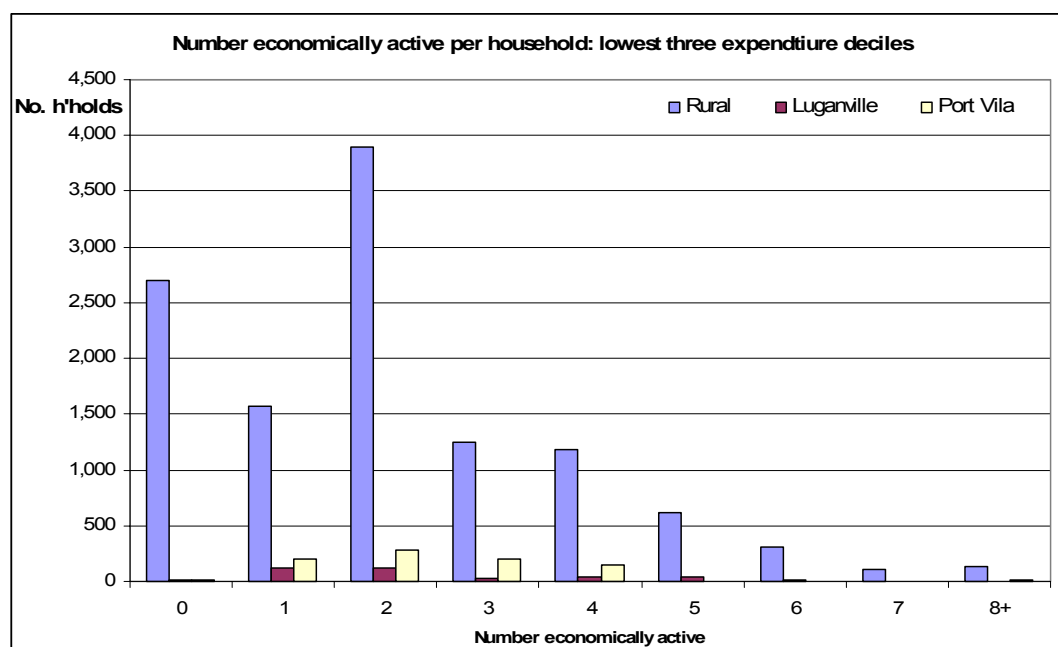
106. Lack of employment, or other income generating activities, is often a primary cause of a household experiencing hardship and poverty. Indeed, it is often found that there are households with employed persons which are below the poverty line. This is especially true in large households or in those households where the employed person is in a low-wage job or

has casual work with irregular hours. These are called the “working-poor”. It would seem from the survey results that many such households exist in Vanuatu.

107. The survey data indicates that on average 15.6% of all households are without any member in employment. Amongst the bottom three deciles however the proportion increases to 21.0%, while in the highest quintile the proportion of households without an employed person is only 11.2% (Tables A13-A15).

108. Rural areas account for 93.4% of all households without an employed person; this proportion rises to 98.7% amongst the lowest three deciles. In rural areas, 18.7% of all households do not have an economically active adult, compared with 4.6% of households in Luganville and 4.7% in Port Vila. Among the poorest households these proportions rise to 22.9% in rural areas, and decrease to 4.5% in Luganville and 2.1% in Port Vila. Chart 4 illustrates the number of workers in each household amongst the lowest three deciles.

Chart 9: Number of economically active adults per household in the lowest three expenditure deciles

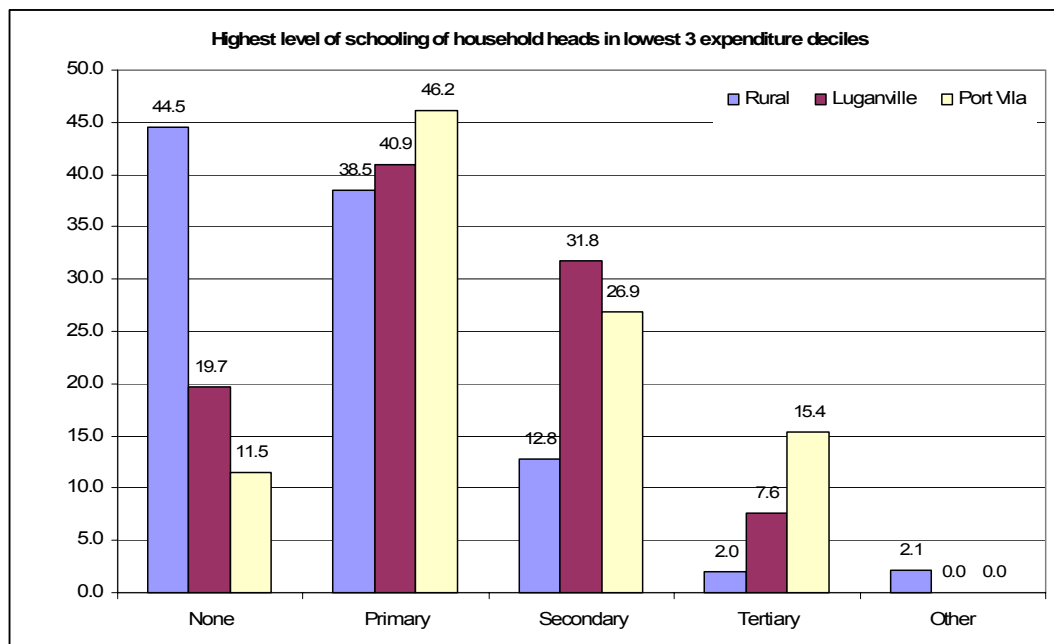


8.5 Educational attainment

109. Education is generally acknowledged as being one of the most critical factors in influencing whether a household is likely to be in poverty, and whether it will be able to rise out of such a condition. It is therefore a serious concern that in Vanuatu at the national level one quarter (25.5%) of household heads reported having had no schooling at all. The connection with poverty is illustrated by the fact that in the poorest three deciles the reported rate was almost one third of all households (32.1%). Amongst the highest quintile the proportion of households with no education was 12.3%, still a significant level. By province, those in the poorest households having the highest level of no education were in Sanma (rural), 49.5% and Torba 43.7%. The aggregated rate for rural areas is 34.4% of heads of households in the lowest three expenditure deciles having no education (Table A3).

110. Chart 10 shows the highest educational level attained by heads of households in the lowest three expenditure deciles by region.

Chart 10: Highest level of schooling of household heads in the lowest three expenditure deciles



Note that the percentages differ from those in Table A3 because the not stated category has been excluded from the total.

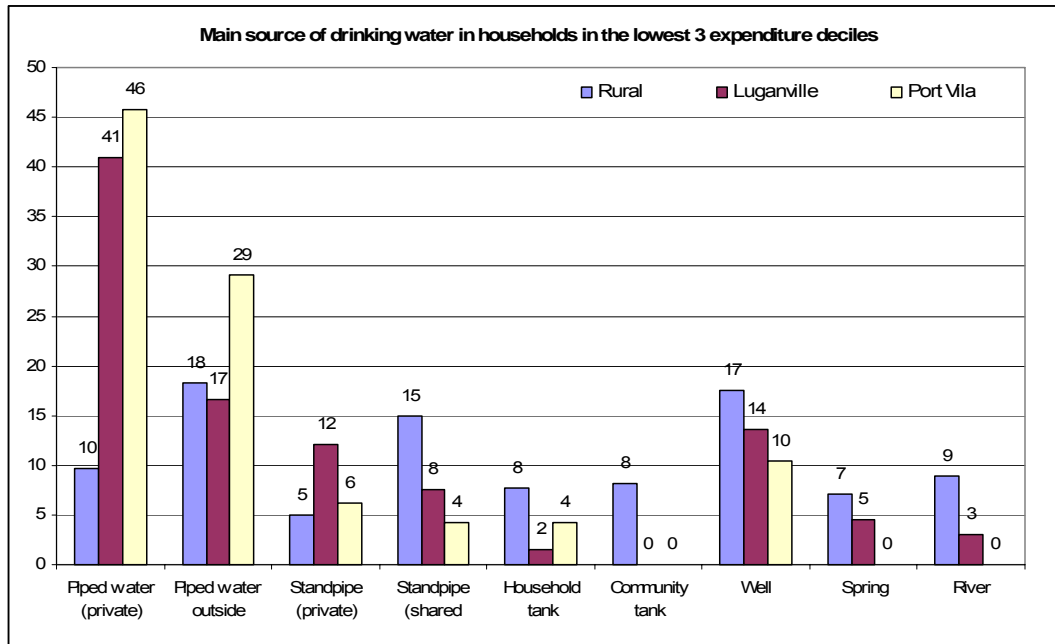
111. Those achieving only primary level accounted for 28.8% of all household heads but for 29.8% of those in the lowest three deciles. As education attainment increases so the proportion of those living in the poorest three deciles achieving these higher levels declines. Those completing secondary school accounted for 11% of those in the lowest deciles and 17% of all households. Thus there would appear to be a clear link between the poorest households and the lack of educational achievement.

112. Rural areas appear to have the highest rates of household heads in the poorest three deciles with no-schooling, and also the lowest number with any tertiary qualifications.

8.6 Access to water and sanitation

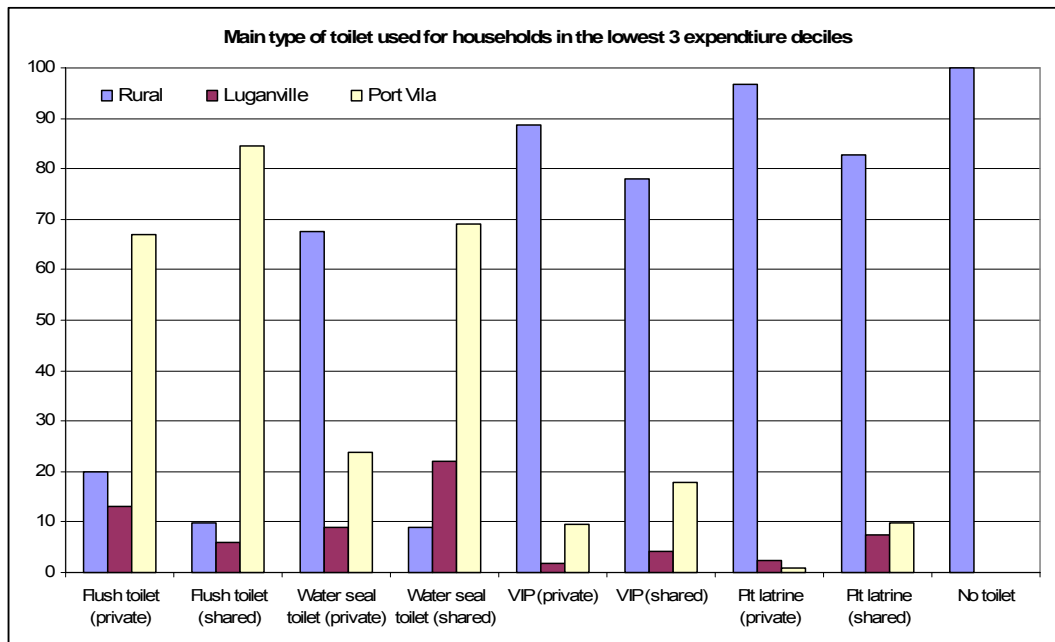
113. The next Charts 12 and 13 illustrate access to water and sanitation. Access to both safe water and sanitation facilities are important factors in ensuring good health, particularly for children. Access to these two is therefore a key issue in considering poverty and hardship alleviation. At the national level 56.5% of all households had any sort of access to a public system or cistern (piped water or standpipe private or shared). This compared with 51% of households in the lowest three expenditure deciles. A significant source of drinking water is well water for 2,193 poor households (16.9% of households in the lowest three expenditure deciles) compared with 13.8% of all households and only 9.3% of the top twenty-percent of households. Chart 12 clearly illustrates the need for improved sources of drinking water for poor households in rural areas, particularly those relying on wells. In some rural areas rain water is irregular and household tanks are not an adequate year round source of water for drinking and cooking; let alone cleaning and other household tasks water is used for (also see Tables A11-13).

Chart 12: Main source of drinking water used in households in the lowest three expenditure deciles



114. The poorest households are also significantly disadvantaged in access to improved sanitation. There are no public sewerage systems in Vanuatu. Only 6.7% of the poorest households have access to a flush toilet either inside their own house or shared with other households, compared with 39.5% of households in the highest expenditure quintile. However 41.8% of households in the lowest three expenditure deciles use a private Ventilated Improved Toilet (VIP), considered to be a hygienic means of sanitation provided it is well maintained, compared with 32.3% national average. Of concern is that 2.6% of the poorest households reported that they had no toilet and a sizeable proportion (35.1%) use pit toilets which are not considered to be a sanitary means of human waste disposal.

Chart 13: Main type of toilet used in households in the lowest three expenditure deciles



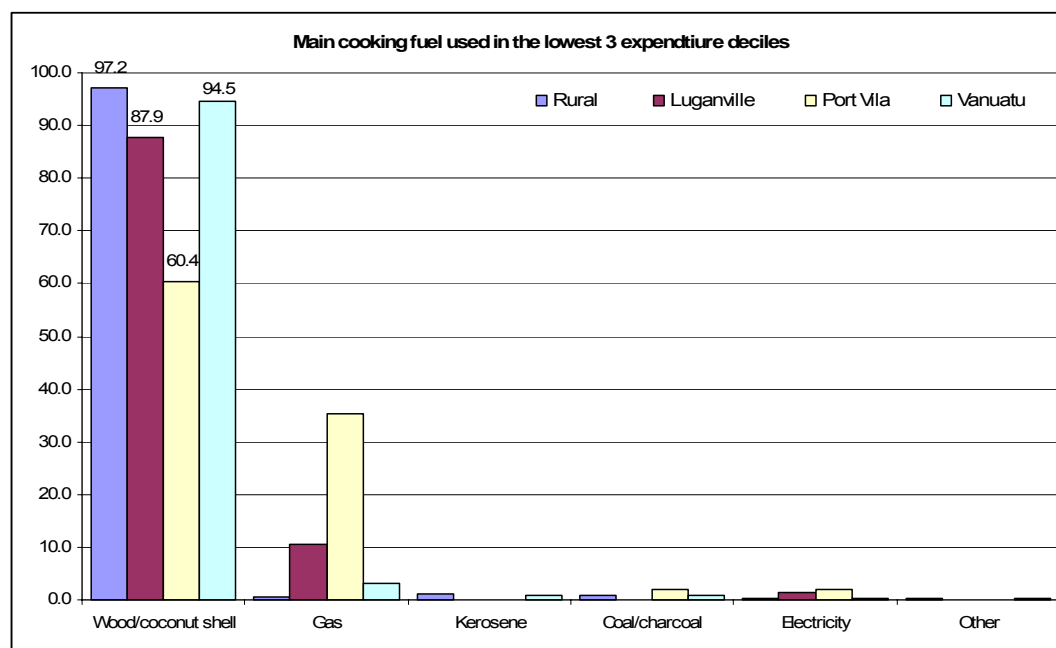
115. It has been noted above that there are many children living in households in the lowest three expenditure deciles, and thus these children are likely to be at high risk in terms of their health from environmental risk factors associated with safe drinking water and adequate sanitation (toilet) facilities.

8.7 Energy access and use

116. Chart 11 shows the nature of energy used for cooking by households in the lowest three deciles. Almost all of the poorest households at the national level rely on wood or coconut shell for cooking; in the regions the majority rely on wood and even the lowest rate of firewood use in Port Vila (60.4%) is still high. Amongst all households only 3.1% of those in the bottom three deciles used gas compared with 33.8% in the highest quintile. In the rural areas a very small proportion of the poorest households in rural Shefa province reported using electricity; reflecting an inability to afford electricity combined with limited ‘national grid’ access in rural areas where electricity is mostly from household or community generators. The analysis suggests that the cost of purchased gas and electricity and the cost of purchasing stoves as is the easy availability of firewood from collection or the market are deterrents from gas and electricity use. Therefore in the rural areas there is very little use of energy sources other than firewood. The use of renewable resources, including plantation type forests, needs to be strongly promoted.

117. Although electricity is widely available in Port Vila only 2.1% of the lowest expenditure households reported relying solely on electricity for cooking. This suggests that the cost of purchased power (and stoves) is a deterrent from its use and that there is an easy availability of firewood, either in market or from collection. In the island areas there is very little use of energy sources other than firewood. It is only in the higher expenditure deciles where “clean” fuel becomes a significant source of cooking energy; on average in the highest quintile 62% still rely on wood and 34% of households use gas. Clearly there is a need to provide access to affordable “clean” fuel sources – and the means to cook with them – for all households in Vanuatu but especially the poor. The use of renewable resources, even if this is plantation forests, needs to be strongly promoted.

Chart 11: Main cooking fuel used in households in the lowest three expenditure deciles



118. Thus while there may be significant health benefits, especially for women and young children, from the use of “clean” energy sources for cooking, the cost of such fuels compared to the “free” source of firewood is likely to be difficult to overcome let alone the costs of purchasing

cookers and stoves. Changing to clean fuels might also require significant changes in traditional cooking methods and food types. Any change will therefore likely need to be slow and gradual.

9. Conclusions

9.1 Poverty of income or of opportunity?

119. Poverty is a multi-dimensional issue. The national poverty lines and levels of incidence of poverty between the three regions are the "headline" indicators. They are the basic building blocks on which poverty and hardship alleviation strategies can be founded. More important from a policy perspective is to analyse the specific characteristics, and where possible, the causes of low-income/expenditure and poverty in the most disadvantaged sections of society. We need to know "who are the poor", "why are they poor", and specifically what are the characteristics of the poor and poor households, so that targeted poverty alleviation measures can be initiated.

120. The analysis in this paper therefore aims to provide a basis for this to be carried forward to the policy level, where the information available from the HIES can be used to effectively guide the formulation of specific hardship and poverty alleviation policies.

121. Poverty and hardship in Vanuatu is clearly not associated with starvation and destitution; poverty in Vanuatu is a relative concept, it is those households and people who cannot afford to have the basic necessities of life compared with their neighbours, such as: they cannot afford to buy good quality nutritious food; or perhaps children go to school without proper uniforms or books; or houses are unfinished or un-repaired; or they may be without proper water supply or sanitation; or families cannot always afford to pay the bills when they fall due; or they are unable to meet family commitments. These families are constantly struggling to meet payments, and are frequently in debt – this is poverty and hardship in Vanuatu.

122. The BNPL measures the incidence of "income or expenditure" poverty but this, then, is just one aspect of poverty or hardship. Families might have relatively low incomes but, through good household budgeting and prioritising of expenditure, might still be reasonably well-fed and healthy. Nevertheless they are still likely to live in conditions where they experience varying degrees of hardship.

123. As this paper indicates the poorest households might lack access to basic services, especially water and sanitation if they are in the remoter parts of the country, away from urban amenities or in the "squatter areas" or "informal settlements" in the urban centres of Port Vila and Luganville. Similarly they might lack access to health, education and transport facilities. A combination of low educational attainment, socio-cultural factors relating to age, gender and other personal characteristics might limit freedom of choice, or socio-economic opportunity.

124. This poverty of opportunity, e.g. lack of access to basic health and education services, employment opportunities, standards of good governance and equal opportunities across gender and age, is now regarded as just as important in defining the extent of poverty and hardship in a society as is the lack of income/expenditure. Often the conditions and circumstances giving rise to the poverty of opportunity are the causes of income/expenditure poverty. Alleviating poverty of opportunity will help to increase incomes and wealth.

9.2 How does poverty affect people?

125. The survey shows that those with a poor education are much more likely to be poor in their standard of living; on average 32.1% of heads of household in the bottom thirty percent of society had no schooling, and 29.8% had only reached a maximum of primary level; these rates of educational attainment compare with 12.2% of those in the top twenty percent of households with no education and 19.5% who had only progressed as far as primary level.

126. The importance of education is clear; it is essential that parents encourage their children to go to school and to work hard. It is equally imperative that government provides a sound education system on which the younger generation can build for the future progress of the country. With better education come greater opportunities to find employment, with employment comes income and the ability to raise standards of living. In Vanuatu better education means the possibility of a better job and, if the choice is made, to emigrate.

127. Productive investment is needed to provide the basis for employment creation in the domestic economy. This needs sound economic policies to encourage the growth of the private sector, it needs good governance and good economic management; these are challenges for all.

128. As already noted, households with income or expenditure below the basic needs poverty line level will not necessarily be going hungry, although their diet is likely to be poor in nutrition. It means, more likely, that whilst they are probably not going hungry they are, nevertheless, struggling to meet their daily/weekly/monthly living expenses, particularly those that require cash payments (power, water, transport, costs of sending children to school, clothing, housing, medical costs etc). These families will be constantly trying to balance their incomes with their expenditure and frequently something has to be given up, a trade-off will have to be made between paying one bill and another, food or fees.

129. Urban drift generally leads to higher levels of urban unemployment and growing numbers of people living in overcrowded conditions, squatter settlements and sub-standard housing conditions, resulting in a deteriorating social environment. Poor housing conditions lead to poor health, poor educational attainment and poor employment prospects, conditions which perpetuate poverty and hardship. The levels of hardship and poverty in the more urban parts of Vanuatu indicated by the analysis of the 2006 HIES point to a wide range of issues that need to be addressed by government policy. Increased opportunities for employment, not only in the urban centre of Port Vila but also in the provincial centres and rural areas, are amongst the most critical.

130. The data suggests that 16% of the population of the country struggle to meet the basic needs for a decent family life. Fortunately, although few people appear to be going hungry there are nevertheless indications in the expenditure patterns of the poorest households that many may be getting inadequate nutrition, particularly in Port Vila. This may be especially the case for children in the urban centres where local produce may not be so readily available in household diets.

131. Poverty and hardship in the Vanuatu context means having to make choices on a daily or weekly or monthly basis between the competing demands for household expenditure and the limited availability of cash income to meet that expenditure. Households deemed to be experiencing basic needs poverty are therefore facing hardship on a daily basis. They struggle to pay bills, and to purchase adequate food, they borrow regularly from "loan-sharks" who charge very high rates of interest for small unsecured loans to meet family commitments and community obligations. They would be frequently, and in some cases constantly, in debt.

132. As a consequence many of the poorest in Vanuatu society live in low-quality housing, without proper access to water, sanitation and other basic services. Children frequently miss school through ill-health or because parents cannot afford to meet the costs associated with school attendance; for example families cannot afford the costs of uniforms, books and other such costs. The data suggests that many adults are themselves poorly educated and thus unable to get anything but the lowest-paid employment, if such employment is even available. The cycle of hardship can therefore be perpetuated.

133. Perhaps the most critical issue is education. Without good basic education it is very difficult for the poor to move out of poverty. Higher income derives from having the ability to take advantage of economic opportunities, this means having an ability to read and write.

134. Urbanisation and rising transportation costs appear to be pushing prices higher both in the capital, Port Vila, as well as in the provincial centres and remote provinces, notably Torba, thereby further disadvantaging those who are not engaged in the cash economy. Local level poverty alleviation measures offer an opportunity to create new opportunities in rural areas. But these must rely on stability, transport and adequate economic infrastructure. In addition it is critical that poverty alleviation measures address the importance of own account food production in all areas of Vanuatu but especially in the rural provinces and provincial centres as the integrity of existing food production systems must be ensured (and output improved) before other 'economic growth' can begin given its unlikely that 'market' based food systems and the cash to purchase these goods will emerge overnight.

135. This analysis sought to provide government with clearer evidence-based indications of the extent and nature of poverty in Vanuatu. It suggested policy issues and possible policy options to address these. Increased opportunities for employment or economic opportunity, not only in the urban centres but also in the rural areas, together with improved basic education and food security in rural areas are amongst the most critical.

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Attachment 1: Extract from Vanuatu MDG Report

Socio - Economic Context

The Land

The Republic of Vanuatu comprises a chain of more than 80 islands in a 'Y' shaped chain, of which 65 are permanently inhabited. These islands extend 1,300 km along a north-south axis between latitudes 130 and 220 south, with an exclusive economic zone (EEZ) of 700,000km², a relatively small EEZ by Pacific island standards. The volcanic and coral platform islands are young, small and highly disturbed as a result of frequent cyclone, seismic and volcanic activity. The country has a reasonable natural resource base for achieving sustainable human development.

Most islands are either mountainous or steeply undulating, with 35% above 300m. There are nine active volcanoes, seven of which are terrestrial and two under sea. Because of the rugged and mountainous terrain most of the population live on the narrow coastal strip.

Much of the country's potential resource base is yet to be quantified. The land and the sea are the nation's major resources. There are few minerals, and little potential for industrialisation. An estimated 41% of the land is suitable for cultivation, but these amounts vary considerably from island to island. Over 90% of the land is held in customary land tenure for use by family members.

The large sea area and many islands to be covered, with rough island terrain make travel and communication between islands expensive and often very difficult. Many islands are linked by air but some can only be reached by boat, and travel within many islands is still by foot (or boat or canoe) as roads do not exist.

The People

Vanuatu's cultural and linguistic diversity has resulted in large variations between and within islands in social organisation, including land tenure systems. In Vanuatu social structure revolves around the clan, mainly patriarchal, and the clan's ownership of land, ownership and inheritance of which in customary sense is both patrilineal and matrilineal. Generally women have usufruct rights to land of their clan which can be used by the immediate family and men have primary rights to land.

Vanuatu's civil society has many different groups, both traditional and those introduced from outside. Church institutions provide an important role in uniting people, providing a sense of belonging and a strong form of social capital. Traditional chiefs play an important role in maintaining peace, law and order mainly in rural communities but also in urban areas. Elders commonly resolve conflicts and disputes.

Vanuatu's population is increasing. The 1999 Population Census showed that the urban centres of Port Vila and Luganville are increasing rapidly, with 21% of the people of Vanuatu living in these urban centres. The remaining 79% of the population live in rural areas and mostly live off the land and sea. Port Vila and Luganville grew at almost twice the amount (55%) of the rate of population growth (31%) in the 10 years between 1989 and 1999. Fertility – the number of babies being born to a woman – is declining slightly in Vanuatu (to note that birth cohorts are still increasing). The ni-Vanuatu total fertility rate decreased from 5.3 in 1989 to 4.8 in 1999, which is also reflected in the decrease in the Crude Birth Rate from 37 per 1,000 to 33 per 1,000. The rate of infant mortality – babies aged less than one year dying – has also decreased. This means that while women are having slightly fewer babies, more of the babies are surviving. The challenge is to provide the economic development and infrastructure to support the growing population – opportunities to generate income through things like access to land, jobs, business activities, develop skills, markets for produce, and so on are required.

The Economy

Government

National economic growth has been uneven, and in recent years has declined, although the slight growth of the past two years is projected to continue. The economy of Vanuatu has a narrow income base, with over half of economic activity being in the service sector (wholesale and retail trade, government services, transport and communication), one quarter in the agriculture sector (mostly subsistence agriculture) and one tenth in manufacturing. Tourism is the main source of foreign exchange earnings, with tourism activities mostly limited to Port Vila and surrounds. The offshore financial centre in Port Vila makes a significant contribution to the economy. The government relies heavily on external grant aid for its expenditure.

There are a number of reasons for the slow economic development including reliance on a narrow range of agricultural exports which are subject to international prices, distance from world markets, limited capacity to make full use of natural resources, the high cost of infrastructure (land, sea and air transport, communication, water, electricity), and vulnerability to natural disasters. Some commentators also point to the unstable political climate and government's difficulties in implementing good governance as other factors inhibiting economic growth. Furthermore, the lack of training opportunities has resulted in shortages of skilled people in key parts of Government as well as the private sector.

Opportunities for economic growth include the tourism, forestry, mining and fisheries sectors, however the challenge is to manage activities so urban and rural areas alike benefit from the economic opportunities and the land and sea environments of Vanuatu are preserved for future generations.

Vanuatu is ranked as a UN Least Developed Country since 1995. With a per capita GDP of less than US\$ 1,276, Vanuatu is the third poorest country in the Pacific with a national poverty incidence of 39% (1997, HIES). The Human Poverty Index (HPI) ranks Vanuatu number 13 of 15 Pacific Island Countries and 128 on the UNDP Global Human Development Index (HDI) in 2003. Vanuatu was also ranked the most vulnerable state of 110 small developing countries by a 1998 Commonwealth Secretariat report.

In 1980 Vanuatu became independent from France and the United Kingdom after being jointly administered for 76 years. It is a parliamentary democracy with executive power vested in the Prime Minister and the council of 13 Ministers, which is responsible for government departments, national administration and the provision of government services. The Head of State is the President.

Following an initial period of relative political stability there have been a number of changes of government between elections over the last 10 years; changes often linked to shifting political party loyalties of elected members and poor governance issues.

In 1994 the 11 Local Government Councils established at independence to form the link between government and rural areas were restructured into six Provincial Governments to promote rural growth and devolve administration to the level where the different needs and circumstances of rural districts could be better addressed and to ensure that rural areas receive an equitable share of government services. The long term goal is the devolution of financial and administrative decision making to the Provincial Government level.

Development Goals and Objectives

In an effort to address key structural problems in the economy, Vanuatu began a Comprehensive Reform Programme (CRP) in 1997, based on three areas of reform: public sector, economic and those promoting equity and social development (supported directly by the Asian Development Bank (ADB) through a US\$ 25 million loan, and integrated into assistance provided by other donors).

Public sector reform aims to improve the institutions of governance by increasing transparency, responsiveness and accountability in public sector management and reductions in the size of the public sector. Central to CRP are:

- Renewing and rehabilitating the institutions of good governance, including the offices of the Ombudsman, Attorney General, the Auditor General and the Judiciary that collectively ensure accountability in Government.
- Redefining the role of the public sector revolving around the core functions of law and policy design and regulation.
- Improving public sector efficiencies.

The reforms are interrelated and are mutually reinforcing, leading to increased private sector activity and delivering more equitable growth. Five millennium priorities and strategies were identified through the CRP, shown in the following table:

Millennium Priority	Strategies
1. Improving the lives of the people in rural areas	1.1 Ensuring basic Government services reach all rural communities 1.2 Encouraging improved economic activities through REDI schemes in all provinces 1.3 Expanding access to market for products from rural areas 1.4 Improving roads, jetties and other infrastructure in rural/outer islands 1.5 Enhancing access to rural credit at reasonable interest rates and establishing mechanisms to encourage savings in rural and urban areas 1.6 Protecting the rural environment for the benefit of the next generation 1.7 Developing long term sustainable government revenue sources and effective collection arrangements that support a young growing population
2. Supporting private sector growth	2.1 Lowering the costs of doing business, including through monitoring prices 2.2 Providing the framework and support for sustainable growth in agriculture and tourism 2.3 Clarifying the rights of use and development of land, including through establishing effective land dispute mechanisms

<p>3. Restoring good governance</p>	<p>3.1 Re-establishing political stability through amendment of the Constitution and strengthening the Parliament 3.2 Streamlining the machinery of the government by reducing the number of ministries and government agencies 3.3 Establishing a service charter with specific commitments to better services from all ministries 3.4 Strengthening the operation of the rule of law through enhancing the courts and the police and other legal institutions 3.5 Improving public sector performance and motivation, including by making public services accountable if they do not perform effectively</p>
<p>4. Improving participation by civil society</p>	<p>4.1 Strengthening the role of and authority of chiefs 4.2 Re-organising arrangements for CRP consultation so as to better involve local communities 4.3 Encouraging civil society organisations to work in partnership with government 4.4 Developing greater participation in local government 4.5 Improving effectiveness of local government through implementing the report of the DRC</p>
<p>5. Closing the gap between the rich and the poor and disadvantaged groups</p>	<p>5.1 Working towards youths having universal access to school education and to training 5.2 Extending access to and improving the quality of health services 5.3 Paying greater attention to the underlying causes of poverty and social discord 5.4 Alleviating the problems related to urban drift and squatter settlements 5.5 Improving the position of and opportunities for women 5.6 Addressing issues related to youth and to youth unemployment</p>

Progress in the CRP has been monitored against the program matrix established with the ADB as part of the loan process. The matrix has been revised and updated to reflect emerging priorities and resolutions of the National Summit in July 2000, approved by Council of Ministers in March 2001. The Government has made minor changes to reflect emerging priorities, namely through the Prioritized Action Agenda (PAA) which integrates and prioritises the action agendas contained in ongoing national and provincial programs such as the CRP, Business Forum Outcomes and the Rural Economic Development Initiatives (REDI) Plans. The overall objective of this undertaking is to link policy and planning with government resources, combining the three main priority areas for government in a cohesive framework identifying priority issues and actions (a criticism of the CRP process).

The Prime Minister during the CRP summit of November 2002 announced the following priorities that were subsequently approved by the Council of Ministers and the Development Committee of Officials (DCO):

1. Improving governance and public service delivery by providing policy stability & fiscal sustainability via a strengthened law-enforcement and macroeconomic management capacity and a small, efficient, and accountable government;
2. Improving the lives of the people in rural areas by improving service delivery, expanding market access to rural produce, lowering costs of credit and transportation, and ensuring sustainable use of natural resources;
3. Raising private investment by lowering obstacles to growth of private enterprise including lowering costs of doing business, facilitating long-term secure access to land, and providing better support services to business;
4. Enabling greater stakeholder participation in policy formulation by institutionalising the role of chiefs, non-governmental organisations, and civil society in decision-making at all levels of government; and,
5. Increasing equity in access to income and economic opportunity by all members of the community. Specific areas of focus include: enabling universal access to primary education by school-age children, universal access to basic health services, and inducing increased employment opportunity for those seeking work.

PAA, Government of the Republic of Vanuatu, page 10

It is too early to tell how successful the reforms will be. Those centred around government aimed at improving the effectiveness and efficiency of service delivery are almost completed. Emphasis is now shifting towards promoting equitable economic growth, particularly through income generating activities in the rural sector through agriculture and tourism. Good governance, political stability and coordinated and integrated activities from government departments as well as provincial governments are essential for the successful achievement of the PAA.

Evidence - based decision making

The MDGs, with their focus on targets and indicators, place considerable emphasis on accurate statistical information. In the preparation of this report every effort has been made not to compromise the quality of the statistical data used; with statistics obtained from official sources or, where noted, from other agencies. Where there are concerns about the quality of the data these have been noted.

The Vanuatu national statistical system is working to address weaknesses in the quality, timeliness and coverage of a number of key outputs; while trying to meet existing and emerging demands for information. Government's institutional capacity for analysing statistical and other information for policy and decision making, and making necessary policy adjustments, is weak but improving through CRP initiatives. Suitably skilled people are in limited supply and capacities of statistical sections in government ministries and departments are stretched.

The Vanuatu National Statistics Office compiles statistics from the broader national statistical system, gathering information from other agencies and, for some indicators, combining this with other statistics (such as population estimates for rates per 1,000 population or per capita, or for composite indicators such as GDP). Where the Statistics Office is aware of inadequacies in coverage or quality of the information this has been noted. For example in Vanuatu it is very difficult to get the full number of births in a year. Usually these are recorded from health clinics which are spread over a large number of islands and districts with communication with the central authority difficult, while not all births occur in health clinics and are not officially recorded. A similar situation occurs with deaths, particularly infant deaths, where deaths in the home are not reported to authorities.

Despite considerable progress in improving data availability in Vanuatu since CRP, there is still clearly a pressing need for much better and more reliable data in a range of socio-economic and governance areas to better understand local socioeconomic challenges and target those most in need. In this context, there is a particularly urgent need for better data on HIV/AIDS, infant mortality rates, public safety, maternal mortality rates, access to safe water, and poverty among others, ideally gender disaggregated. Strengthening the capacities of statistics units will be needed to support the collection, compilation and analysis of such essential data and information.

With the introduction of CRP, planning has been devolved to the sectors. However, due to human resource development constraints, priorities are normally poorly designed, with an absence of rigorous monitoring and measuring of services delivered. There are fairly weak linkages between the PAA and the provincial level Rural Economic Development Initiative (REDI) plans with the related recurrent and development budgets presented for national development activities, although this needs to be resolved.

GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER

Target 1: Halve between 1990 and 2015, the proportion of people living in poverty

Information on poverty and hunger in Vanuatu is sparse because of the difficulty in defining poverty in the Vanuatu context. Absolute poverty in terms of starvation and destitution is not an issue. However, many people, particularly in rural areas, have incomes below the international poverty line of US\$1 per day. No time series data exist and there is no national comprehensive assessment of the causes and outcomes of poverty.

The 2002 Participatory Hardship Assessment of 12 village and settlement communities in four provinces found that "hardship ... is widely perceived to exist, primarily through lack of, or limited access to, basic services such as education, health, good roads and safe drinking water"¹, with many of the participants saying that hardship had worsened over the last five years.

PHA respondents identified several groups which suffer from hardship disproportionately to the rest of the community including the "jobless, landless, widows and single mothers, orphans, disabled, elderly, settlers and 'lazy people'"

Causes of hardship for children included limited access to education, the distances children have to walk to school often over difficult terrain, child illness attributed to lack of access to health services and medicine as well as poor nutrition. Youth hardship was thought to be the result of factors such as the inability to continue schooling along with poor trade skills of youths unable to continue education. Hardships identified for women included single parenthood, unplanned pregnancies and domestic violence.

The 1998 Household Income and Expenditure Survey (HIES) economic and social data provide the only other source of information about poverty, with vulnerable groups emerging as those in urban centres without access to land, the unemployed and youth, and highlighted significant inequalities between urban (5 times higher) and rural income. Because of data quality concerns, results were considered preliminary and indicative of poverty levels in Vanuatu. However, it was found that the urban poor are more likely to be very poor; with majority of poor households having at least two people working in subsistence activities or paid jobs, indicating that the incomes from their labour, sale of produce or food and goods produced for home consumption is not enough to keep them out of poverty.

Progress

Target 1 MDG Indicators

Indicators	Baseline for Vanuatu	Most Recent Status	2015 Target
Proportion of households below \$1 (PPP) per day	26% (1998)		13%
Poverty headcount ratio (% of population below the national poverty line)household income	40% (1998)		20%
Poverty gap ratio (PGR) [incidence x depth of poverty] household income	31% (1998)		
Share of poorest quintile (20%) in national consumption household income	2% (1998)		

Challenges

A significant proportion of the households of Vanuatu live on less than US\$1 per day. In 1998 about 26% of the households of Vanuatu had incomes of less than US\$1 per day (in Purchasing Power Parity (PPP) terms⁴). However, there are concerns about the accuracy of this estimate because of poor response rates and quality of income data from the 1998 Household Income and Expenditure Survey. In addition, the 1998 data is based on household income rather than the income of people. An income survey is required to obtain the proportion of population below the US\$1 income level.

Almost half the households in Vanuatu have monthly incomes below the national poverty line (Vt 35,000). The poverty line is the estimated income required (including subsistence production) to meet minimum dietary needs, along with essential expenditures for goods and services that are required for a basic standard of living (such as soap, school fees etc). 40% of households in Vanuatu have a monthly income below the poverty line, implying that these households regularly struggle to find cash or produce subsistence goods to satisfy basic needs (such as food, transport fees).

From the 1998 HIES there are significant differences in household incomes between rural and urban areas, with household income in Port Vila almost twice the national average, while rural households had an average income of one-third the national average.

The poverty gap ratio (PGR) measures magnitude of poverty, considering both the number of poor people, and how poor they are. The PGR is the combined measurement of incidence of poverty and depth of poverty. By multiplying the incidence of poverty by the depth of poverty a measure of the magnitude of poverty results.

In Vanuatu the average income of the poor is 31% below the national poverty line. While more accurate information is needed to verify this estimate it would seem that the average income of those living in poverty in Vanuatu is very low; the poor are very poor. The poverty gap ratio is relatively high for Vanuatu because of the large proportion of households (40%) with incomes below the poverty line. The average monthly income of people below the poverty line was VT 20,936.

The monthly income of the poorest 20% of households in Vanuatu is 2% of total monthly income. Once again, there are concerns about the data quality of this estimate which strengthens the conclusion that the poor are very poor and that income distribution in Vanuatu is very inequitable.

There is no commonly accepted definition of what 'poverty' is to the people of Vanuatu, and such a definition must be accepted by the whole community, particularly those in urban areas and remote island villages.

While the government is currently working with communities, NGOs and donors to implement policies, programmes and projects to improve opportunities for income generation and equitable economic growth these are not referred to as poverty or hardship alleviation strategies but to "improve the wellbeing of the general population"

PPP estimates were derived by the Vanuatu National Statistics Office. PPPs measure the relative costs of the same basket of goods in different countries to provide an indication of the differences in the spending power of a currency unit, in each place. This means that PPP conversion takes into account not only exchange rates but also the cost of goods in a country relative to what the same goods would cost in the United States in US dollars.

Initiatives and responses

"To reduce the incidence of hardship in Vanuatu, ... the government [needs to] prioritise improvement of service delivery such as water supply, health, education, and roads in both rural and urban areas; and the creation of job opportunities in the urban areas through skills provision and access to credit."

Key challenges to achieving this target include translating the PAA and associated CRP, REDI and Business Forum initiatives into sustainable private sector growth and subsequent pro-poor employment and income opportunities in rural and urban areas. This will result in a healthy population with the skills to generate income through increased productivity and diversity within the agricultural sector along with other emerging sectors such as tourism; supported by an infrastructure facilitating access to local, regional and international markets.

Information needs to meet these challenges include a Household Income and Expenditure Survey of sufficient sample size and response rates to accurately derive key poverty indicators. In addition, a nationally agreed food and basic needs poverty line needs to be established to enable more accurate analysis of poverty. There should be a

follow up to the Participatory Hardship Assessment to continue to depict the perceptions of the causes, effects and solutions for poverty in the wider community and how, or if, these are changing over time.

Government's response to the increasing issue of hardship has been to introduce policies and projects that create the conditions for sustained economic growth and long-term reductions in income poverty, directly and indirectly through, for example, improving health and controlling disease to increase productivity and individuals' capacity to generate incomes. These policies are encapsulated in the Prioritized Action Agenda (PAA), building on previous reform and development initiatives in a medium term framework to:

- Lift the economy onto a higher and more sustainable growth path;
- Facilitate alignment of donor and government priorities in the priority areas to maximize impacts of such investments; and
- Promote policy stability through priorities with a life span beyond the budget election cycles.

The PAA contains a series of actions to improve governance, raise productivity of the public service, promote private enterprise, which in turn contain detailed recommendations for implementation, reduce the cost of transport and utilities, expand the primary sector, increase access to basic services such as education, health, police and local authorities and address population issues and employment opportunities.

The ADB in its strategies for equitable growth and hardship alleviation highlighted the need to improve governance; decentralise development efforts; improve quality and coverage of, as well as access to education and health services; strengthen government and NGO social support systems; and the need to remove impediments to private sector growth, in particular clarify property rights, as the over riding strategies to reduce poverty. Within these strategies, a number of detailed actions were listed as options in the PAA.

Target 2: Halve between 1990 and 2015, the proportion of people who suffer from hunger

Progress

In mid 2003 the Prime Minister's Office convened a workshop for government ministers as well as senior representatives from government and non-government organisations on poverty and governance which highlighted the global agenda and strategies for poverty alleviation including rights and sustainable livelihoods approaches and the importance of good governance in addressing poverty issues. Following this workshop the Council of Ministers directed the Prime Minister's Office, the Department of Strategic Management and the Ministry of the Comprehensive Reform Programme to develop a national definition for 'hardship' along with associated policies and quantifiable indicators to measure progress in alleviating hardship (including integrating the existing initiatives in the CRP matrix)⁸. The national poverty alleviation strategy ("Daonem Poveti") has yet to be released.

There is no timely information available on hunger and the prevalence of underweight children, with the 1996 National Nutrition Survey being the most recent source of information. There is sufficient food available in Vanuatu's predominantly agricultural society, with food security reinforced by customs and traditions which ensure that all family members have enough food. However "the major risk of food insecurity in Vanuatu occurs in the expanding urban communities where the adequacy and stability of food supply rely on market foods, cash incomes and the distribution of infrastructure. Rapid urbanisation and alienation of fertile land to cash cropping have also increased the demand for imported foods"

A 1993 survey found that in many parts of Vanuatu, malnutrition is seasonal and increases only when food supplies have dwindled due to a natural disaster, drought, pests, or inadequate supply.

The presence of underweight children is of particular concern because even moderate malnourishment in children inhibits cognitive development and affects health status later in life. Nutrition is particularly important for women during pregnancy and lactation if children are to be given the opportunity for sound physical and mental development. Nutritional diseases lower the body's immune response, making those suffering more vulnerable to other more serious diseases.

Target 2 MDG Indicators

Indicator	Baseline for Vanuatu	Most Recent Status	2015 Target
Prevalence of underweight children under five years of age (%)	23% (1983)	12% (1996)	6%
Proportion of population below minimum level of dietary energy consumption			

Available information suggests that under-nutrition is a significant factor in the poor health of children and adults in Vanuatu. The latest estimate available (1996) indicates that about one in 10 children is underweight, compared to one in four in 1983. The 1983 National Nutrition Survey found that over 17% of children less than five years showed evidence of acute or recent malnutrition.

Challenges

The Vanuatu Plan of Action for Food and Nutrition 1997 – 2001 notes that dietary food energy is supplied mainly by starchy products particularly in the rural areas. In urban areas, the consumption of rice has risen partly because of the availability of rice and also because of its lower price compared to the traditional root crops consumed as staples,

with the 'overall protein availability in Vanuatu decreasing by about 7% from 1972 to 1992. The decline in the consumption of meat, fish and other seafood was attributed to the decline in the availability of animal protein by 12% during the same period.

Two challenges have been raised regarding food security in Vanuatu: the decline in domestic food production and its availability to the general public; and the characteristics of those with insufficient food are poverty, unemployment (or underemployment), low income earners, landless and homeless. These people suffer the most from serious malnutrition (inadequate intake of energy and other nutrients) because they do not have access to land to cultivate food crops, they do not have the cash to purchase enough food for a balanced diet, or in extreme cases, both.

Changing patterns of food preferences and the relatively high prices for locally produced food compared with cheaper imported commodities have led to increased reliance on imported food, particularly rice and bread (made from imported wheat), often less nutritious than traditional foods. Traditional foods have become cash crops as these are sold for much needed cash to meet other commitments such as school fees and other needs – “we sell our taro to buy rice”.

Other challenges for improving the consumption of locally produced foods are problems faced by growers, namely limited access to markets, particularly in the remote outer islands, with transport difficulties and problems getting the cash to pay for the transport; gardens being spoilt by cyclones, floods, drought, volcanic ash and other natural disasters; very limited food preservation or storage options; and crops spoilt by animals because they are not fenced.

The quality of the maternal diet is a critical factor in the mother's status and health, with higher rates of anaemia reported in rural and semi-rural areas compared to urban areas, possibly reflecting the lower intake of food such as meat, fish or eggs (ie proteins). Nutritional deficiency, particularly micronutrients in women, is not well documented and further research is needed.

In order for Vanuatu to achieve this MDG target, it is important that timely quality statistical information is available on dietary energy and food consumption. More information is needed on the social factors influencing nutrition, and ways these can be addressed. “These factors include the lack of basic nutrition education, a mother's workload, changing eating habits and lifestyles, beliefs about food, and cultural and social factors which influence the way food is distributed among family members ... [as well as the prevalence of bottle feeding as a factor in poor nutrition compared to breast feeding]”. Once this information is available on a regular and timely basis, the capacity of key staff needs to be strengthened to enable the analysis of the information such as the derivation of econometric measures for poverty measurement and analysing dietary energy consumption levels.

Baseline information is incomplete and a nutrition survey is required to collect information on dietary energy consumption.

Attachment 2: HIES definitions of income and expenditure

From: Vanuatu 2006 HIES Preliminary Report, Vanuatu National Statistics Office 2007, pages 3 – 4, 14, 18

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 consumption; and
- (iv) current transfers received” (International Conference of Labour Statisticians (ICLS) Resolution)

The household income is comprised of income from wages and salaries, sales of agriculture, fish and handicrafts, other cash income, own account production (subsistence), net income-in-kind and gifts received.

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. Household expenditure is defined as the sum of household consumption expenditure and the non-consumption expenditures of the household. The latter are those 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.” (ICLS Resolution)

The main components of household expenditure are own account production (subsistence), food purchases, household operation, miscellaneous household expenditure, household items, transport, household income-in-kind, tobacco and alcohol, other and non-consumption expenditure. Other is comprised of gifts given, gifts received and clothing. Non-consumption expenditure is comprised mainly of contributions to religious organisations and to other non-profit organisations.

Attachment 3: Tables

Table A1: Location of households and population in lowest three expenditure deciles of national monthly expenditure

Proportions of population/households	Torba	Sanma (rural)	Penama	Malampa	Shefa (rural)	Tafea	Luganville	Port Vila	Vanuatu
Proportion of Vanuatu population	4.5	12.9	15.5	15.3	13.6	16.5	5.4	16.3	100.0
Proportion of Vanuatu population in lowest three deciles	1.2	2.1	2.3	1.8	2.2	3.4	0.4	0.7	14.1
Proportion of province population in lowest three deciles	64.1	39.1	35.5	31.9	41.0	52.1	18.9	15.5	36.0
Proportion of Vanuatu households	4.2	13.7	14.9	17.0	13.0	15.2	5.4	16.7	100.0
Proportion of Vanuatu households in lowest three deciles	2.4	4.1	4.8	4.2	4.5	7.1	0.9	2.0	30.0
Proportion of province households in lowest three deciles	58.7	29.9	32.1	25.1	34.7	46.6	15.9	11.9	30.0

Table A2: Proportion of households headed by females

Proportions of households	Torba	Sanma (rural)	Penama	Malampa	Shefa (rural)	Tafea	Luganville	Port Vila	Vanuatu
Average all households	6.7	3.0	7.1	9.1	11.3	8.1	8.5	12.1	8.5
Bottom quintile - province	5.9	1.2	10.0	7.4	9.7	5.6	10.8	10.3	7.1
Lowest three deciles - province	5.3	1.2	9.4	9.3	9.2	6.9	9.1	8.3	7.2
Highest quintile - province	15.0	4.6	4.1	7.6	16.1	7.9	9.4	12.6	9.9
Bottom quintile - Vanuatu	0.5	0.1	1.6	1.0	1.5	1.5	0.3	0.6	7.1
Lowest three deciles - Vanuatu	0.4	0.2	1.5	1.3	1.4	1.6	0.3	0.5	7.2
Highest quintile - Vanuatu	0.1	0.4	0.6	1.0	2.1	0.8	0.7	4.3	9.9

Table A3: Educational attainment of heads of households by expenditure decile

Per capita a.e. Vanuatu expenditure deciles	Highest qualification of household head							Total
	None	Primary	Secondary	Tertiary	Other	Not stated	Blank	
Decile 1	32.2	27.5	7.4	1.5	0.8	24.8	5.8	100.0
Decile 2	31.5	33.2	11.1	1.5	1.6	17.0	4.0	100.0
Decile 3	32.7	28.6	14.1	3.4	2.1	14.4	4.7	100.0
Decile 4	31.8	36.7	14.3	2.6	0.8	12.0	1.8	100.0
Decile 5	28.8	34.7	15.7	3.5	2.8	11.5	3.0	100.0
Decile 6	29.0	33.2	14.4	5.1	1.9	14.7	1.5	100.0
Decile 7	24.1	26.0	20.5	8.4	2.4	16.5	2.2	100.0
Decile 8	20.2	29.2	21.3	7.6	2.0	16.8	2.9	100.0
Decile 9	12.4	21.3	26.3	13.1	3.8	20.4	2.6	100.0
Decile 10	12.1	17.8	21.3	20.7	4.0	22.5	1.6	100.0
Total	25.5	28.8	16.6	6.8	2.2	17.1	3.0	100.0

Table A4: Educational attainment of heads of households in the lowest three expenditure deciles for Vanuatu

Households in lowest three expenditure deciles	Highest qualification of household head						Total
	None	Primary	Secondary	Tertiary	Other	Not stated	
Torba	43.7	29.1	10.5	1.6	2.4	12.6	100.0
Sanma (rural)	49.5	38.0	8.9	0.6	1.8	1.2	100.0
Penama	18.9	45.9	16.2	1.7	0.6	16.7	100.0
Malampa	40.8	31.3	10.9	2.7	3.5	10.7	100.0
Shefa (rural)	27.6	38.1	12.8	2.8	3.0	15.5	100.0
Tafea	33.5	8.0	3.6	0.4	0.0	54.5	100.0
RURAL	34.4	29.8	9.9	1.5	1.7	22.7	100.0
Luganville	19.7	40.9	31.8	7.6	0.0	0.0	100.0
Port Vila	6.3	25.0	14.6	8.3	0.0	45.8	100.0
Total	32.1	29.8	10.9	2.2	1.5	23.6	100.0

Table A5: Source of energy for cooking by province

All households	Main source of energy for cooking						Total
	Wood/coconut shell	Gas	Coal/charcoal	Kerosene	Electricity	Other	
Torba	98.3	0.7	0.0	0.0	0.0	1.0	100.0
Sanma (rural)	97.4	1.7	0.4	0.4	0.2	0.0	100.0
Malampa	96.8	2.0	0.7	0.3	0.2	0.0	100.0
Penama	93.1	2.1	2.0	2.7	0.0	0.0	100.0
Shefa (rural)	85.6	10.8	1.0	0.3	1.8	0.4	100.0
Tafea	97.4	1.5	0.4	0.2	0.0	0.4	100.0
Luganville	72.9	24.2	0.2	0.0	2.7	0.0	100.0
Port Vila	36.8	58.3	2.2	2.0	0.7	0.0	100.0
Total	83.7	13.6	1.0	0.9	0.6	0.2	100.0

Table A6: Source of energy for cooking by province for the lowest three expenditure deciles for Vanuatu

Lowest three expenditure deciles	Main source of energy for cooking						Total
	Wood/coconut shell	Gas	Coal/charcoal	Kerosene	Electricity	Other	
Torba	99.2	0.0	0.0	0.0	0.0	0.8	100.0
Sanma (rural)	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Malampa	98.6	0.0	0.7	0.7	0.0	0.0	100.0
Penama	92.9	0.0	4.9	2.2	0.0	0.0	100.0
Shefa (rural)	93.9	2.8	0.7	0.7	1.3	0.6	100.0
Tafea	99.0	0.0	0.0	0.5	0.0	0.4	100.0
Luganville	87.9	10.6	0.0	0.0	1.5	0.0	100.0
Port Vila	60.4	35.4	0.0	2.1	2.1	0.0	100.0
Grand Total	94.5	3.1	1.0	0.8	0.4	0.3	100.0

Table A7: Source of energy for cooking by province by expenditure deciles for Vanuatu

Vanuatu expenditure decile	Main source of energy for cooking						Total
	Wood/coconut shell	Gas	Coal/charcoal	Kerosene	Electricity	Other	
Decile 1	95.4	2.1	0.6	1.8	0.0	0.1	100.0
Decile 2	93.1	4.0	0.6	0.9	0.7	0.7	100.0
Decile 3	95.0	3.1	1.2	0.3	0.4	0.0	100.0
Decile 4	94.2	4.0	0.8	0.6	0.4	0.1	100.0
Decile 5	86.6	9.8	1.4	1.9	0.3	0.0	100.0
Decile 6	90.4	7.8	0.7	0.4	0.4	0.3	100.0
Decile 7	83.0	15.3	1.1	0.5	0.1	0.0	100.0
Decile 8	75.9	22.2	0.8	0.3	0.9	0.0	100.0
Decile 9	69.4	25.5	2.1	1.8	1.2	0.1	100.0
Decile 10	54.4	42.1	1.2	0.7	1.2	0.4	100.0
Total	83.7	13.6	1.0	0.9	0.6	0.2	100.0

Table A8: Access to sanitation facilities by province

Province	Type of toilet									Total
	Flush toilet (private)	Flush toilet (shared)	Water seal toilet	Water seal toilet	VIP (private)	VIP (shared)	Pit latrine (private)	Pit latrine (shared)	No toilet	
Torba	2.9	0.0	1.9	0.2	62.5	5.2	16.9	8.8	1.7	100.0
Sanma (rural)	2.5	2.2	3.7	1.4	35.7	6.4	30.6	15.6	2.0	100.0
Malampa	3.6	0.8	11.0	1.5	31.5	3.3	26.4	20.9	1.0	100.0
Penama	1.7	0.4	0.2	0.0	22.7	1.4	63.0	7.9	2.7	100.0
Shefa (rural)	13.5	1.9	11.2	1.2	28.2	4.6	30.4	8.2	0.7	100.0
Tafea	1.0	0.2	0.7	0.2	67.1	17.6	7.1	3.1	2.9	100.0
Luganville	44.9	6.0	9.4	8.0	8.5	1.9	12.8	8.2	0.2	100.0
Port Vila	50.1	23.2	3.5	3.5	10.9	4.2	2.0	2.7	0.0	100.0
Total	14.1	5.0	5.1	1.7	32.3	5.9	24.8	9.7	1.4	100.0

Table A9: Access to sanitation facilities by expenditure deciles for Vanuatu

Vanuatu expenditure decile	Type of toilet									Total
	Flush toilet (private)	Flush toilet (shared)	Water seal toilet (private)	Water seal toilet (shared)	VIP (private)	VIP (shared)	Pit latrine (private)	Pit latrine (shared)	No toilet	
Decile 1	3.8	1.1	4.6	0.9	42.5	11.9	24.0	8.7	2.5	100.0
Decile 2	3.8	3.1	3.1	1.1	41.5	8.7	24.1	11.1	3.5	100.0
Decile 3	7.3	1.0	4.7	1.3	41.3	5.0	26.7	10.8	1.8	100.0
Decile 4	5.7	2.9	7.4	0.9	34.6	6.4	28.1	12.4	1.6	100.0
Decile 5	9.0	4.3	6.0	1.5	33.6	4.3	28.6	12.0	0.6	100.0
Decile 6	10.8	3.3	4.1	1.3	34.3	7.1	24.0	13.2	2.0	100.0
Decile 7	17.1	6.5	5.7	1.9	28.5	4.2	26.6	8.2	1.3	100.0
Decile 8	22.2	9.3	5.3	3.5	23.9	2.5	25.5	7.6	0.3	100.0
Decile 9	22.1	8.3	5.7	1.9	24.6	4.0	24.0	8.8	0.6	100.0
Decile 10	38.7	9.8	4.7	2.3	18.6	5.2	16.6	3.8	0.3	100.0
Total	14.1	5.0	5.1	1.7	32.3	5.9	24.8	9.7	1.4	100.0

Table A10: Access to sanitation facilities for the lowest three expenditure deciles for Vanuatu

Province	Type of toilet									Total
	Flush toilet (private)	Flush toilet (shared)	Water seal toilet (private)	Water seal toilet (shared)	VIP (private)	VIP (shared)	Pit latrine (private)	Pit latrine (shared)	No toilet	
Torba	1.2	0.0	1.2	0.4	66.8	3.6	14.2	10.5	2.0	100.0
Sanma (rural)	0.0	0.6	0.6	1.2	39.3	4.1	32.6	18.0	3.6	100.0
Malampa	0.9	0.9	14.9	3.0	35.2	2.1	17.4	23.7	2.0	100.0
Penama	0.0	0.0	0.0	0.0	24.9	1.1	61.1	9.0	3.9	100.0
Shefa (rural)	7.2	0.0	9.0	1.9	35.6	8.8	28.3	8.5	0.7	100.0
Tafea	0.9	0.0	0.5	0.0	62.4	21.9	8.9	1.5	3.9	100.0
Luganville	30.3	10.6	9.1	6.1	15.2	1.5	16.7	10.6	0.0	100.0
Port Vila	39.6	18.8	2.1	0.0	22.9	10.4	4.2	2.1	0.0	100.0
Total	5.0	1.7	4.2	1.1	41.8	8.6	24.9	10.2	2.6	100.0

Table A11: Main source of drinking water by province

Province	Main source of drinking water										Total
	Piped water (private)	Piped water outside	Household tank	Standpipe (private)	Standpipe (shared)	Community tank	Well	Spring	River	Other	
Torba	4.8	20.2	12.6	9.3	10.0	15.4	10.2	7.1	9.0	1.4	100.0
Sanma (rural)	3.4	5.7	14.1	2.5	24.9	13.6	9.5	6.1	14.1	6.0	100.0
Malampa	12.8	29.2	5.7	6.9	12.9	1.9	20.7	2.3	7.4	0.2	100.0
Penama	10.8	7.9	13.2	5.7	4.3	15.9	34.6	1.1	4.7	1.8	100.0
Shefa (rural)	24.4	14.1	15.4	4.5	4.4	3.0	15.0	1.4	11.8	6.0	100.0
Tafea	11.3	21.7	3.0	6.7	17.4	5.5	1.2	19.9	11.8	1.5	100.0
Luganville	55.8	15.9	1.4	6.3	7.2	0.0	9.9	1.4	1.0	1.0	100.0
Port Vila	54.6	31.4	2.0	0.7	6.2	0.2	4.2	0.0	0.0	0.7	100.0
Total	21.5	19.0	8.3	4.8	11.3	6.5	13.8	5.0	7.7	2.4	100.0

Table A12: Main source of drinking water by expenditure deciles for Vanuatu

Vanuatu expenditure decile	Main source of drinking water										Total
	Piped water (private)	Piped water outside	Household tank	Standpipe (private)	Standpipe (shared)	Community tank	Well	Spring	River	Other	
Decile 1	11.5	22.3	7.0	2.5	14.1	7.3	15.8	9.2	6.7	3.6	100.0
Decile 2	12.0	21.3	6.0	5.1	15.1	8.2	19.2	6.0	5.5	1.7	100.0
Decile 3	15.3	13.2	8.7	8.2	12.7	6.7	15.6	4.6	12.2	2.8	100.0
Decile 4	12.2	15.0	8.3	5.1	10.5	9.0	20.6	6.9	9.1	3.3	100.0
Decile 5	19.7	18.0	11.2	4.4	10.0	4.9	14.3	6.4	8.1	2.9	100.0
Decile 6	17.5	19.2	9.4	4.0	12.2	9.3	11.2	5.1	9.7	2.4	100.0
Decile 7	27.7	19.9	6.4	6.3	7.0	6.3	11.9	4.2	7.8	2.6	100.0
Decile 8	26.1	25.3	8.0	3.6	12.2	4.6	10.3	3.3	5.5	1.0	100.0
Decile 9	31.9	17.5	8.4	6.2	11.0	5.4	10.4	2.1	6.3	0.9	100.0
Decile 10	40.9	18.2	9.0	2.7	7.8	2.9	8.3	1.8	5.8	2.5	100.0
Total	21.5	19.0	8.3	4.8	11.3	6.5	13.8	5.0	7.7	2.4	100.0

Table A13: Main source of drinking water for the lowest three expenditure deciles for Vanuatu

Province	Main source of drinking water										Total
	Piped water (private)	Piped water outside	Household tank	Standpipe (private)	Standpipe (shared)	Community tank	Well	Spring	River	Other	
Torba	2.0	22.7	13.8	7.7	9.3	20.2	10.9	6.1	5.3	2.0	100.0
Sanma (rural)	2.4	6.6	12.0	3.0	30.6	14.3	9.2	6.9	10.8	4.1	100.0
Malampa	15.7	21.5	4.9	6.4	12.0	2.0	29.7	0.0	7.9	0.0	100.0
Penama	7.9	7.4	10.3	5.1	4.5	12.4	41.3	1.1	6.2	3.9	100.0
Shefa (rural)	17.5	24.6	9.2	2.7	5.3	2.7	18.5	2.0	10.7	6.6	100.0
Tafea	8.8	24.8	1.8	5.6	22.7	4.9	0.4	19.3	10.3	1.4	100.0
Luganville	40.9	16.7	1.5	12.1	7.6	0.0	13.6	4.5	3.0	0.0	100.0
Port Vila	45.8	29.2	4.2	6.3	4.2	0.0	10.4	0.0	0.0	0.0	100.0
Total	12.9	18.9	7.2	5.2	14.0	7.4	16.9	6.6	8.1	2.7	100.0

Table A14: Number of working adults per household by province

Province	Number of working adults per household									Total
	0	1	2	3	4	5	6	7	8+	
Torba	21.6	23.0	29.5	11.6	7.4	3.3	2.6	0.7	0.2	100.0
Sanma (rural)	2.3	8.4	58.0	13.1	9.4	5.0	2.1	1.1	0.7	100.0
Malampa	8.8	19.8	45.1	12.1	8.0	4.0	1.1	0.7	0.2	100.0
Penama	26.4	14.9	37.5	9.4	6.9	3.8	0.8	0.0	0.3	100.0
Shefa (rural)	11.4	25.6	41.1	11.2	6.0	2.2	2.0	0.2	0.2	100.0
Tafea	40.0	18.4	27.0	4.8	4.1	2.4	1.6	0.2	1.5	100.0
Luganville	4.6	31.9	39.1	14.7	5.1	2.2	1.9	0.2	0.2	100.0
Port Vila	4.7	40.0	33.8	12.6	6.9	1.2	0.5	0.0	0.2	100.0
Total	15.6	22.1	39.5	10.8	6.8	3.0	1.4	0.4	0.5	100.0

Table A15: Number of working adults per household by expenditure deciles for Vanuatu

Vanuatu expenditure decile	Number of working adults per household									Total
	0	1	2	3	4	5	6	7	8+	
Decile 1	27.2	17.2	27.8	7.8	10.1	4.9	2.8	1.2	1.1	100.0
Decile 2	21.1	13.3	32.1	14.4	9.1	5.3	2.6	0.5	1.6	100.0
Decile 3	14.8	13.3	39.6	11.6	12.0	4.8	2.0	0.9	0.9	100.0
Decile 4	14.8	20.3	40.7	12.0	6.6	3.1	2.3	0.2	0.0	100.0
Decile 5	16.6	18.2	39.7	14.8	6.1	3.4	0.9	0.0	0.4	100.0
Decile 6	16.2	19.4	44.4	10.9	5.1	2.8	0.6	0.2	0.3	100.0
Decile 7	13.0	22.1	43.1	11.4	6.2	2.3	1.2	0.3	0.3	100.0
Decile 8	10.0	28.4	42.5	10.3	6.4	2.0	0.1	0.3	0.0	100.0
Decile 9	11.5	29.4	46.9	6.1	3.8	1.2	0.7	0.0	0.4	100.0
Decile 10	10.8	39.6	37.8	8.1	2.5	0.6	0.6	0.0	0.0	100.0
Total	15.6	22.1	39.5	10.8	6.8	3.0	1.4	0.4	0.5	100.0

Table A16: Number of working adults per household in the lowest three expenditure deciles for Vanuatu

Province	Number of working adults per household									Total
	0	1	2	3	4	5	6	7	8+	
Torba	23.5	13.4	31.2	12.6	9.7	4.5	3.6	1.2	0.4	100.0
Sanma (rural)	2.3	2.3	44.3	12.9	18.5	10.8	4.7	2.4	1.8	100.0
Malampa	4.5	20.0	40.5	14.5	12.5	5.2	1.1	1.2	0.6	100.0
Penama	34.7	11.5	25.3	9.3	9.6	7.1	1.8	0.0	0.6	100.0
Shefa (rural)	12.7	18.4	43.0	12.4	5.5	3.0	3.9	0.6	0.6	100.0
Tafea	46.5	13.2	20.9	5.7	6.7	2.6	1.6	0.5	2.2	100.0
Luganville	4.5	33.3	31.8	6.1	9.1	9.1	4.5	1.5	0.0	100.0
Port Vila	2.1	22.9	33.3	22.9	16.7	0.0	0.0	0.0	2.1	100.0
Total	21.0	14.6	33.1	11.3	10.4	5.0	2.5	0.9	1.2	100.0

