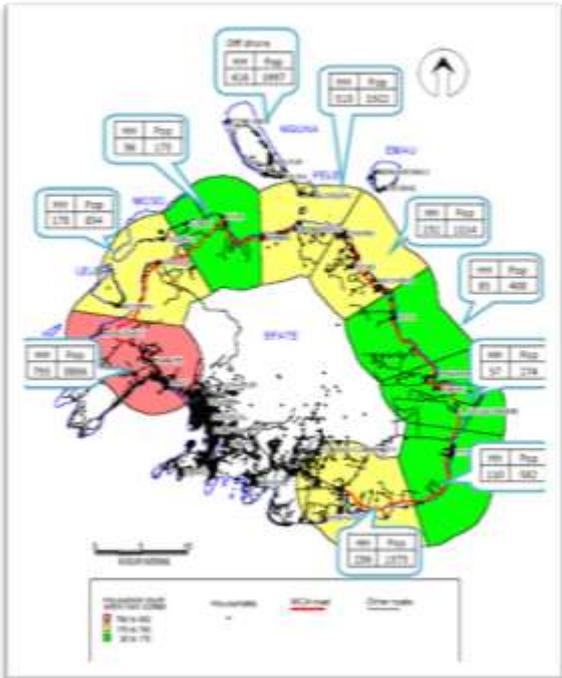


HIES 2010 Poverty Analysis

21 June 2011

Prepared for MCA (Vanuatu)



Monitoring progress towards achieving income and poverty targets in the transport sector for Rural Efate and East Coast Santo.

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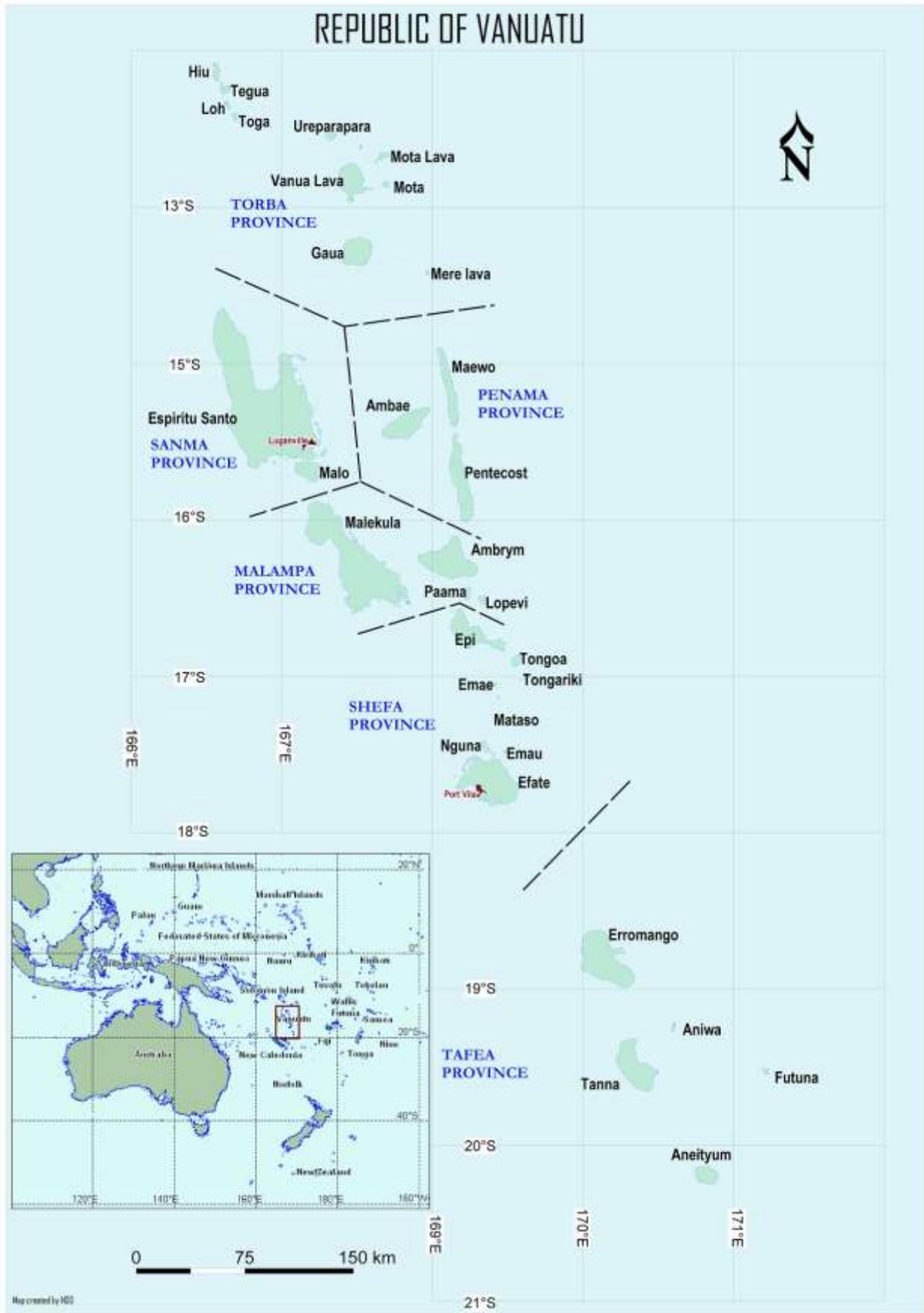


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Note: throughout this report the national currency of Vanuatu, the Vatu, is shown in its equivalent value in United States dollars (US\$) using the exchange rate of \$1.00 = Vt 108. This rate is from the Monitoring and Evaluation Plan Vanuatu Transport Infrastructure Development Program (Revised M&E Plan; Version II: 21 September 2010, Version 2 page 33).

Abbreviations

ADB	Asian Development Bank
BNPL	Basic Needs Poverty Line
CPI	Consumer Price Index
EA	Enumeration Area
FPL	Food Poverty Line
HIES	Household Income and Expenditure Survey
Kcal	Kilo calories
MCA (Vanuatu)	Millennium Challenge Account (Vanuatu)
MCC	Millennium Challenge Corporation
P.C.A.E	Per capita adult equivalent
PPP	Purchasing Power Parity
SPC	Secretariat of the Pacific Community
UNDP	United Nations Development Program
VNSO	Vanuatu National Statistics Office
Vt	Vatu

HIES 2010 Poverty Analysis for MCA (Vanuatu)

Executive Summary

Poverty is a multidimensional concept. It can be applied at the individual, household or national level. From any geographic perspective, poverty is a multidimensional concept in terms of how it is measured. It can be measured using changes in per capita incomes, per capita cash incomes, or against poverty lines which are fixed and absolute such as US\$ 1.25 a day or relative and changing such as the poverty lines derived from household survey data in this analysis. Measuring poverty, as with all measurement of social issues, necessarily requires simplification. Many of the dimensions of poverty outlined above are difficult, or impossible, to quantify. Even for those features that seem possible to measure, summarising the various dimensions in a single index is highly challenging. In order to provide a measure of poverty it is necessary to make choices, leading to a simplification of the concept of poverty. This report uses some of these measures to assess the impact of the Millennium Challenge Account – Vanuatu (MCA-V) road improvement program in rural Efate and the East Coast of Santo (maps with household and population counts are included in Annex 3).

The results of the Household Income and Expenditure Survey (HIES) of 2006 and the Monitoring and Evaluation Plan of the Vanuatu Transport Infrastructure Development Program (Version 2) were used to establish benchmark per capita income and poverty reduction targets for rural Efate and the East Coast of Santo. These are the impact targets for the road improvement program. When the monitoring and evaluation plan was designed it was anticipated that the road improvements would be completed in 2009 or early in 2010. The commencement of the road works was delayed and the roads were not completed until September 2010 in Santo and November 2010 in Efate. It is anticipated that the final evaluation of the impact of the road on increasing incomes and decreasing poverty will occur in 2012 or two years after the ‘implementation’ of the completed roads.

The Household Income and Expenditure Survey (HIES) of 2010 was conducted to measure progress towards achieving poverty reduction targets for the Millennium Challenge Account (Vanuatu) (MCA-V). The final survey data will provide national estimates of per capita income and a range of poverty lines at the national, urban and rural levels when the analysis is completed in late 2011. The analysis contained here uses the HIES 2010 data for rural Efate and Santo which was checked and edited specifically for the MCA-V.

The 2010 HIES, like that of 2006, was based on a national sample of 10% of private households with sufficient sampling in the areas of rural Efate and East Coast of Santo to provide reliable estimates of income and the incidence of poverty in these areas of interest for the MCA-V. The 2010 sampling methodology replicated that of 2006 in the program areas. The HIES survey data was evaluated for rural Efate and East Coast Santo and was considered to be robust and reliable for poverty analysis. The 2010 HIES data was analysed using the same methods as the 2006 poverty analysis carried out by the Vanuatu National Statistics Office.

The two areas of interest are quite different in terms of socio-economic characteristics. The southern half of the East Coast of Santo is comprised of large mixed agricultural land holdings (copra, beef etc) and household members generally work in agriculture for subsistence production or mixed subsistence and sale of surplus in all communities along the road with some small businesses serving the communities, mostly small scale retail stores and some tourism related activities. The cash economy is not extensive. Rural Efate household members have a number of sources of income including earnings from cash work in local businesses or in the urban centre of Port Vila as well as household business enterprises engaged in tourism, transport, agriculture and so on. The cash economy is widespread.

The 2010 HIES results indicate that the roads are making a considerable contribution to increasing incomes and reducing poverty in terms of both relative and absolute poverty measures. The HIES data from 2010 shows increased per capita income from US\$ 1,291 in 2006 to US\$ 3,248 in 2010 in rural Efate; an increase of a magnitude of two and a half times. Per capita incomes also increased in the East Coast of Santo by 9% from US\$ 2,122 to US\$ 2,319 in 2010. The increase in income in Santo has not been as large as what has occurred in Efate. There are a number of possible reasons for this including the slower uptake of commercialism and the cash economy in Santo, with traditional economic systems based on traditional agricultural and other custom products, as both assets and the medium of exchange, still predominant. Other contributing factors are that the urban and peri-urban labour market in Santo has not grown at the same rate as in Efate and the southern half of the road is in private ownership plantation style farming limiting the land available for entrepreneurial activities by private households.

The World Bank 'dollar a day' poverty lines provide absolute measures of poverty in East Coast Santo and rural Efate; and are less complex to understand than the relative poverty lines for food and basic needs derived from the HIES survey data. These measures complement the per capita income measures used by the monitoring and evaluation plan warranting inclusion in this report. Table 1 contains a series of poverty lines based around those used by the World Bank, with the US\$ 1.25 measure adopted in 2008 as the standard in the revision to the \$1.08 poverty line. There was a 69% decrease in the population living on less than US\$ 1.25 a day in rural Efate in 2010 compared with 2006, or a decrease of 1,340 people. In 2006 in the East Coast of Santo 1,060 people were living on less than US\$ 3.00 a day which decreased to 310 in 2010.

These results show that incomes are increasing in rural Efate and increased economic activity and associated returns from labour or investment are reaching everyone, not just the wealthy or the elite: the benefits of economic growth do seem to be 'trickling down' to benefit the poorest households. Approximately 1,340 people moved out of poverty between 2006 and 2010 (population numbers taken from Table 1). In the East Coast of Santo one could only conclude that the prevalent lifestyle of subsistence consumption and the associated traditional economy and transfers between households (particularly gift exchanges) which was evident in 2006 continues in 2010 with increasing economic activity (either traditional or cash) raising household per capita incomes in 2010.

Table 1: Population in households below the US\$ Poverty Line

	Population in households below poverty line			
	East Coast Santo		Rural Efate	
	2006	2010	2006	2010
\$1.08 per day	0	0	1,170	520
\$1.25 per day	0	0	1,930	600
\$2.00 per day	110	0	3,210	1,910
\$3.00 per day	1,060	310	5,210	3,370
\$4.00 per day	2,510	770	7,810	5,850

Source: VNSO HIES 2006, 2010. Purchasing Power Parity (PPP) exchange rates used; see Table 4.

The 2010 HIES results indicate that the roads are making a considerable contribution to increasing incomes when these are measured against poverty lines derived from the survey data – so called 'relative' poverty measures. This first manifests in the poverty lines derived from the survey data. There has been an increase in the minimum average level of food consumption in East Coast Santo as defined by the poorest 30% of households, shown in the Food Poverty Line (essentially a relative measure of poverty as it is derived from the survey data). In 2010 the average adult diet in East Coast Santo was valued at Vt 132 or US\$ 1.22 a day compared with Vt 123 or US\$ 1.14 in 2006, an increase of 7%. The average adult in the poorest households consumed an average of 2,792 kilo calories a day in 2006 compared with 3,766 kilo calories in 2010. The increase in consumption was not limited to food, with the ratio of food to non-food expenditure increasing from 30% in 2006 to 70% in 2010. The generally higher level of consumption in the East Coast of Santo has resulted in a higher incidence of poverty in 2010 when compared with 2006 because the poverty lines are relative measures based on food and non-food consumption in the poorest households. In 2006 80 people had average incomes below the Basic Needs Poverty Line, increasing to 410 in 2010.

In rural Efate the food poverty line decreased from Vt 144 per average adult per day in 2006 to Vt 133 a day in 2010 in the poorest 30% of households. In 2006 on average in the poorest 30% of households an adult consumed 933 kilo calories of food a day which increased to 2,218 kilo calories in 2010 indicating that poor households were consuming more nutritious food. There are a number of possible reasons for this including the better quality of the HIES data in 2010 compared with 2006 resulting in more information about food expenditure being collected, the consistent application of uniform market prices used to value food produced and consumed in the home and possibly even changes in food consumption towards cheaper more nutritious food produced in the home. Non-food expenditure increased in rural Efate in 2010 shown by the ratio of food to non-food expenditure increasing from 40% in 2006 to 90% in 2010. In sum, the 8% decrease in the 'food' component of the basic needs poverty line was offset by the 125% increase in the 'non-food' component of the Basic Needs Poverty Line. In rural Efate in 2010 4,960 or 19.1% of the population had average per capita household incomes below the Basic Needs Poverty Line compared with 3,990 or 22.6% in 2006.

In addition to these broad targets the 2012 analysis should take a closer look at the characteristics of 'poor' and 'non poor' households in comparison with 2006, including the economic activities of household members (labour force participation, business activities within households), sources of household income, types of expenditure and so on to provide more contextual information about the extent of the 'cash' and 'traditional' economies. In late 2011 the national poverty lines derived from the HIES will be available and the incidence of poverty in the MCA areas can be compared to the national poverty line and the rural poverty line as well as per capita cash income. The VNSO is also exploring a number of initiatives in its continuing efforts to improve the quality of the HIES data.

The analysis of the HIES data presented here shows that the formal or cash economy of rural Efate has increased in size and that the returns from investment and labour are impacting in terms of increased per capita incomes and associated declining poverty in the poorest of households. The Efate ring road is providing a vital artery for rural Efate communities and those on the close offshore islands to increase access to markets and employment opportunities both in the larger rural communities and the main urban centre of Port Vila. The road is making impacts in terms of increased incomes in rural Efate.

The increase in cash incomes in the East Coast of Santo is nowhere near the same magnitude as in rural Efate. Economic livelihoods in the East Coast of Santo are more complex with the traditional economy based on subsistence production and gift giving and sharing of surpluses is still prevalent. A larger proportion of the road is tied up in privately owned commercial agricultural activities in large land holdings which the average person does not benefit greatly from. Uptake of the opportunities the road presents in terms of participating in the labour market or other entrepreneurial activities in Luganville has not occurred to the same extent as in Efate. Other survey data shows that business activity in the larger rural communities along the road is increasing, so perhaps the pattern of economic development will be different in the East Coast of Santo. The HIES in 2012 will shed more light on the pattern of economic development in the East Coast of Santo.

1. Introduction

Background to this analysis

The overall objective of the road and infrastructure improvement program in Vanuatu is to reduce poverty and increase incomes in rural areas by stimulating economic activity in the tourism and agricultural sectors through the improvement of transport infrastructure, which is key to economic growth and poverty reduction. Benefits of the tourism and agricultural sectors include increased roadside enterprise development, traffic counts, household income, household agriculture production and economic activity. Other more complex benefits to measure include improved access to social services such as health care, education, vocational and capacity training activities.

MCC Funding and additional funding from the New Zealand government was used to rehabilitate or construct priority infrastructure, namely:

- (i) Efate - Ring Road. Upgrade 92.5 km of the Ring Road on Efate, the most populous of Vanuatu's islands, to a two-lane bitumen seal standard, with improved drainage systems; and
- (ii) Santo - East Coast Road. Upgrade the 57.2 km road from Luganville to Port Olry on the island of Santo to a two-lane, bitumen seal standard, including associated drainage structures.

The Monitoring and Evaluation Plan of the Vanuatu Transport Infrastructure Development Program details the mechanisms for quarterly and annual reporting on results to track progress and contribute information towards potential needed Program Adjustments for the MCC compact agreement in Vanuatu.

The economic impact of the compact was estimated by forecasting the probable economic value-added benefits of each project relative to the costs, as encapsulated in the Economic Rate of Return ("ERR"). Expected benefits for each project were identified and quantified by estimating the induced value added impact of (i) reduced transport costs; and (ii) improved reliability of access on economic activity in the tourism and agriculture sectors. For example baselines for key benefits in household income, including basic household agriculture production and economic activity were established.

The Monitoring and Evaluation Plan of the Vanuatu Transport Infrastructure Development Program states the three indicators to be used to measure the program goal; of which two are directly relevant to this analysis:

- a) the change in [annual] cash income, used to measure the extent of income earned through participation in the formal economy, whilst taking note of changes within the traditional economy practices within beneficiary populations.
 - i. Baseline (2006): Efate: \$US 1,291; Santo: \$US 2,122
 - ii. Target (2010): Efate: \$US 1,617; Santo: \$US 2,711
- b) change in poverty, as indicated by an improved standard of living above the most basic needs poverty line.
 - i. Baseline (2006): Efate: 37.7%; Santo: 14.6%
 - ii. Target (2010): Efate: 31.2%; Santo : 7.3%

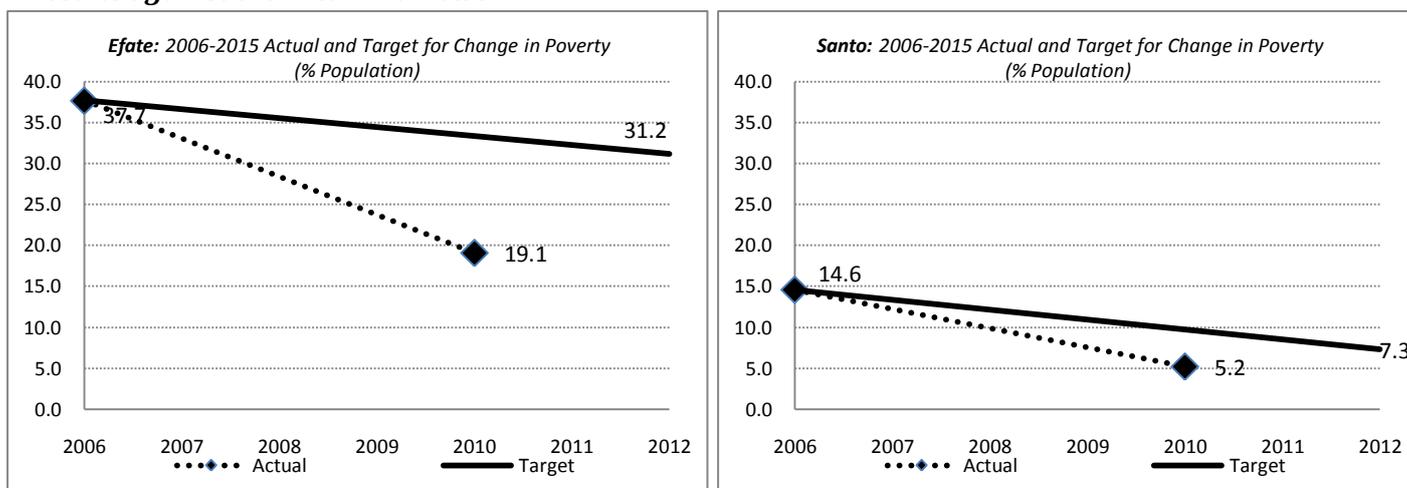
Cash income and poverty indicators and targets were developed following the Household Income and Expenditure Survey (HIES) of 2006 as baseline data, and the accompanying poverty analysis that was undertaken after the survey. Using the HIES 2006, the Vanuatu National Statistics Office (VNSO) developed more reliable measures of cash income, and also established a national poverty line in local currency (Vatu), defined as the "Basic Needs Poverty Line". Consequently, baseline poverty and income measures that had not been previously available were established, providing a much-improved measure of high-level Program results (presented as the 'baseline' information above). The 2006 HIES is serving as the primary baseline dataset with the 2010 HIES survey results now providing close-out data for comparison of the two groups (presented as the 'target' information above).

The data quality of the 2010 HIES was reviewed prior to the preparation of the 2010 BNPL. It was found that as in 2006 there were considerable problems with non-response to the parts of the survey with the highest respondent burden: completing the daily expenditure diary. The 2010 data underwent the same checks and methods used to impute or derive missing diary information as was used in 2006.

The results presented here are for rural Efate and Santo only. The final HIES dataset for the whole of Vanuatu will be available in late October 2011 when national and other poverty lines will be derived.

The purpose of this paper is to summarise the methodology used to derive the estimates of the incidence of poverty from the HIES 2010, and present an analysis of the incidence of poverty and per capita consumption in the program sites of rural Efate and the East Coast of Santo. The poverty estimates included are specific to the program site areas and are compared to the targets contained in the M&E Plan.

Results against the M & E Framework



In the above charts the solid lines are the targets in the monitoring and evaluation plan and the dotted lines are the observed values. In sum, the analysis of the 2010 HIES data shows that Vanuatu is on track to achieve the targets for poverty reduction in the monitoring and evaluation framework. Annex 3 contains the household and population counts for the Efate ring road and the East Coast of Santo living in the 5 kilometre zone on either side of the road. These counts differ somewhat from the HIES of 2010 which is based on units of land called Enumeration Areas which in some cases extend over the 5 km radius because the size is determined by the average of households which VNSO has set to 80. The HIES data also contains the outer islands of Efate; the population of which rely on the road for transport of goods and services as well as for access to markets and other basic economic and social services. The Census 2009 maps include a considerable peri-urban population at the southern end of the road around Luganville which was not included in the HIES data analysed here. However the 2009 Census counts show the distribution of household's and population in the two islands.

Measuring poverty

Poverty is a multidimensional concept. The concept of poverty is applied at the individual (or household, regional (eg province) and national levels. From any geographic perspective, poverty is a multidimensional concept. At the national and province level poverty is linked to a number of factors such as the capacity of the economy, and donor partners, to provide the government administrations with sufficient resources to develop infrastructures, organise public services and implement development programs. In addition social factors (education and skill levels, health status, vulnerable groups etc) are also key determinants of the capacity of the economy to provide adequate resources to government.

Measuring poverty, as with all measurement of social issues, necessarily requires simplification. Many of the dimensions of poverty outlined above are difficult, or impossible, to quantify. Even for those features that seem possible to measure, summarising the various dimensions in a single index is highly challenging. In order to provide a measure of poverty it is necessary to make choices, leading to a simplification of the concept of poverty.

However measurement of poverty is necessary in order to provide essential information for all programs that aim to reduce poverty. For example the overall objective of the MCC compact in Vanuatu is to reduce poverty and increase incomes in rural areas by stimulating economic activity in the tourism and agricultural sectors through the improvement of transport infrastructure. Benefits to the tourism and agricultural sectors from improved transport, in this case roads, include increased roadside enterprise, increased road traffic and potential customers, increased household income from increased economic activity and the returns from labour or business investments, increased household agriculture production and so on. Other more complex benefits to measure include improved access to social services such as health care, education, vocational and capacity training activities.

Therefore concepts must be simplified. Two aspects of poverty are more easily quantified than others and are used as the basis for poverty assessment: income and consumption (as measured by household expenditure). In Vanuatu consumption values have been selected as the basis for attempts to quantify poverty. The main reason for selecting consumption rather than income as a basis for a poverty index is that discrepancies are often observed between declared income and expenditure, with the declared income being significantly lower than the declared consumption. Another reason is that this is the standard used in the Pacific region for the analysis of poverty by the Secretariat of the Pacific Community (SPC), United Nations Development Program (UNDP) and the Asian Development Bank (ADB).

The consumption that separates the poor from the rest of the population is called the poverty line. The first step in calculating a consumption-based index is to assess a level of consumption below which an individual will be defined as poor: the so-called poverty line. Considerable research has shown that if consumption is divided into two categories, food consumption and non-food consumption, the poorer people are the higher the proportion of their overall consumption that is accounted for by food consumption. In determining consumption levels that can be used to separate the poor from the non-poor, food consumption is the most significant measure. **Thus a Food Poverty Line (FPL), a minimum level of food consumption, is first calculated. A non-food minimum allowance is then calculated and added to the food poverty line using the Engels ratio of food to non-food consumption in the lowest 30% of household consumption to produce the total poverty line which is called the Basic Needs Poverty Line (BNPL).**

Nutrition is itself a complex subject. Diet must fulfil a wide range of nutritional needs, such as protein, energy and many micronutrients. Again, measurement requires simplification. The choice made in Pacific regional standards is to simplify by focusing on energy intake, measured in terms of calories. The benchmark adopted is an average 2,100 calories minimum energy requirement per person per day. There are many possible ways to provide 2,100 calories per day. In the Pacific typical consumption patterns are identified for broad categories of population in a country using household food consumption (expenditure) per capita. The population group chosen to derive the model composition of food consumption is the lowest three percentiles for total consumption distribution. A reference food basket is constructed by taking the average values of the reported quantities consumed for each food item by this population group. The overall daily calorie intake is then either scaled up or down to achieve a reference food basket with a calorie content of 2,100 and the average price per unit is used to calculate the FPL.

To incorporate non-food expenditure into the construction of the BNPL a minimum allowance for non-food goods was derived based on the typical non-food spending in the lowest three percentiles for total consumption distribution. An alternative is to use the typical non-food spending of those who can just afford the reference food

basket ($\pm 10\%$ households in food poverty) and are therefore just on the food poverty line; but the incidence of food poverty was too low and the non-food expenditure too variable in the two sites to use this method and the same reference group was used as to derive the FPL; that is, the non-food expenditure of the lowest 30% of households. Again this is in keeping with standard practice in the Pacific region.

Once a poverty line has been set, a number of summary statistics describing the incidence, depth and severity of poverty may be calculated when per capita household consumption is compared with the corresponding poverty line value. These include the headcount index (which measures the incidence of poverty), the poverty gap (which measures the depth of poverty) and the squared poverty gap (which measures the severity of poverty). In general terms those classified as poor are those whose level of per capita household consumption is below the poverty line.

Annex 2 contains the detailed calculations used to derive the Food Poverty Line for the two program sites.

2. Estimation of poverty lines and poverty incidence

The Food Poverty Line (FPL) was been developed using the food expenditure of the lowest three percentile expenditure households (total expenditure p.c.a.e percentiles) of three different areas:

1. East Coast Santo – the Enumeration Areas (EAs) with access to the East Coast road;
2. Rural Santo – Espiritu Santo excluding the Luganville urban area (and including the East Coast);
3. Rural Efate – the island of Efate including outer islands except Ifira and excluding the Port Vila urban area.

The FPLs were derived using the major food items purchased by the lowest three percentile expenditure households with unit prices assigned from the consumer price index market prices for December 2010 and the daily expenditure diary average prices for selected units. Non-food expenditure was derived using the ratio of food to non-food expenditure in the lowest expenditure households¹. The FPL for East Coast Santo was Vt 3,971 (US\$ 36.77); Rural Santo Vt 3,179 (US\$ 29.44) and Rural Efate Vt 3,980 (US\$ 36.77) (Table 3). This means that the average adult in the East Coast area of Santo in 2010 needed to consume Vt 3,971 (US\$ 36.77) worth of food (both purchased and subsistence production) per month to meet the minimum dietary energy intake of 2,100 Kcal per day.

Table 2: Monthly per capita adult equivalent poverty lines (Vt, \$US), 2010

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 (Vt)	Basic Needs Poverty Line D=A+C (\$US)
2006 (in 2010 Vatu)¹	Vt		Vt	Vt	\$US
Rural Santo	3,257	0.3	890	4,147	\$38.40
East Coast Santo	3,679	0.3	1,104	4,783	\$44.29
Rural Efate	4,309	0.4	1,853	6,162	\$57.06
2010					
Rural Santo	3,179	0.7	2,154	5,333	\$49.38
East Coast Santo	3,971	0.7	2,690	6,662	\$61.69
Rural Efate	3,980	0.9	3,721	7,702	\$71.31

Source: VNSO HIES 2006, 2010. Note ¹ the annual average rate of inflation was applied to the 2006 poverty lines to 2010. US dollar exchange rate is from the M&E Plan Version 2: 108 Vt/USD.

Adding the basic needs expenditure to the FPL gives the monthly Basic Needs Poverty Line (BNPL): Vt 6,662 (US\$ 61.69) in East Coast Santo; Vt 5,333 (US\$ 49.38) in Rural Santo and Vt 7,702 (US\$ 71.31) in Rural Efate. Using these

¹ This ratio was adjusted for Efate to take into account the imputation of food expenditure in the incomplete daily expenditure diaries.

poverty lines gives the incidence of poverty in Table 3. In all areas the proportion of household expenditure in the lowest three expenditure percentiles increased in 2010 compared to 2006. This could be as a result of increased access to markets and basic social services and related expenditure for transport and related goods and services.

Table 3: Proportion of households and population with monthly p.c.a.e expenditure less than the food and basic needs poverty lines

VUV per capita adult equivalent per month	Households		Population	
	Food	Basic Needs	Food	Basic Needs
2006				
Rural Santo	0.4	2.2	0.7	4.2
East Coast Santo	0.0	1.0	0.0	1.3
Rural Efate	12.4	17.1	16.6	22.6
2006 in 2010 Vatu¹				
Rural Santo	0.0	0.0	0.0	0.0
East Coast Santo	0.0	0.5	0.0	0.6
Rural Efate	6.8	10.7	8.8	12.5
2010				
Rural Santo	0.0	0.8	0.0	1.5
East Coast Santo	0.0	3.7	0.0	5.2
Rural Efate	5.0	17.1	6.3	19.1

Source: VNSO HIES 2006, 2010. Note ¹ the annual average rate of inflation was applied to the 2006 poverty lines to 2010.

These results indicate that households in Santo, including the East Coast, have a diet which provides for average energy needs, whether from cash or 'own production and consumption' and because their other essential spending is relatively small the overall incidence of poverty as measured by the BNPL is not significant. The incidence of poverty in Santo as measured by 2006 poverty lines (in 2010 Vatu) indicates that overall there has been a slight increase in household consumption and of note is the decrease in the incidence of food poverty in 2010 when compared with 2006.

There has been a significant increase in the poverty lines for the East Coast of Santo in 2010 compared with 2006 reflecting a substantial increase in overall consumption, particularly of non-food goods and services. In 2006 the minimum consumption for food and basic needs (the BNPL) was estimated to be Vt 4,783 (US\$ 44.29) per adult equivalent per month (which would be approximately Vt 4,780 (US\$ 44.26) in 2010). From the 2010 HIES the same methods to estimate the minimum consumption required for food and basic needs resulted in a BNPL of Vt 6,662 (US\$ 61.69) per adult equivalent per month; the most significant increase in the study areas.

In Rural Efate the diet derived from the HIES was just sufficient to meet daily average adult energy requirements at an estimated average of 2,128 kcal of energy per day and this has resulted in a significant decrease in the incidence of food poverty when compared to the 2006 incidence. This is reflected in the 2010 incidence of food poverty where 5% of households or 6% of the population of Rural Efate did not have sufficient p.c.a.e expenditure to meet the minimum food energy requirements. In Efate at the household level the incidence of poverty as measured by the BNPL was 17%, on par with poverty estimates from 2006. But these households contained fewer people in poverty than in 2006 as the population in households with per capita adult expenditure below the BNPL was 19% in 2010 compared with 23% in 2006.

These results show that poverty, as measured by poverty lines, has decreased in the road catchment area of Rural Efate. These results indicate that households in Santo have adequate food, either purchased or grown etc, and that their other 'basic needs' while relatively modest, compared to rural Efate, are increasing. The target incidence of

poverty in the Monitoring and Evaluation Plan for 2012 was 31.2% for Efate and 7.3% for Santo: both of these targets have been achieved in 2010.

Table 4: Proportion of households and pop with monthly adult equivalent per capita expenditure less than the adjusted food and basic needs poverty lines

VUV per capita adult equivalent per month	Households		Population	
	Food	Basic needs	Food	Basic needs
Rural Santo				
Poverty Line +20%	0.0	2.1	0.0	2.6
Poverty Line +50%	0.4	5.5	0.8	7.2
Poverty Line +100%	2.1	12.3	2.6	15.9
Non Poor	97.9	87.7	97.4	84.1
East Coast Santo				
Poverty Line +20%	0.5	5.7	0.6	7.4
Poverty Line +50%	1.6	10.2	1.9	13.1
Poverty Line +100%	5.3	25.8	6.9	30.5
Non Poor	94.7	74.2	93.1	69.5
Rural Efate				
Poverty Line +20%	7.4	23.6	9.2	25.5
Poverty Line +50%	10.2	29.3	11.9	31.2
Poverty Line +100%	19.0	35.4	21.3	36.9
Non Poor	81.0	64.6	78.7	63.1

Source: VNSO HIES 2010

Table 4 shows that poverty in rural Santo does not increase significantly with an increase in the FPL and BNPL of 20%; the incidence of poverty is only above 10% of the population when the BNPL is increased by 100% or doubled. In contrast in Rural Efate basic needs poverty is above 30% for the population with a 50% increase in the BNPL.

Table 5: Proportion of households with monthly adult equivalent per capita expenditure less than the 'PPP' poverty lines, 2006 and 2010

Poverty lines (US\$ PPP)	% households with p.c.a.e expenditure below poverty line					
	2006			2010		
	Rural Santo	East Coast Santo	Rural Efate	Rural Santo	East Coast Santo	Rural Efate
\$1.08 per day	0.2	0.0	5.2	0.0	0.0	1.2
\$1.25 per day	0.2	0.0	8.1	0.0	0.0	1.5
\$2.00 per day	3.0	1.0	13.5	0.0	0.0	5.7
\$3.00 per day	16.5	10.7	22.3	2.1	2.7	11.3
\$4.00 per day	36.4	28.2	36.7	6.5	5.7	20.2
PPP exchange rates: 2006 68.6 VUV per \$1.00 PPP; 2010 69.7 VUV per \$1.00 PPP						

Source: VNSO HIES 2006, 2010; 2006 PPP exchange rates from www.un.org; 2010 PPP exchange rate VNSO estimate.

Finally it is possible to analyse the incidence of poverty according to absolute measures like the World Bank's 'dollar a day' measure. This was revised in 2008 to \$US 1.25 using Purchasing Power Parity (PPP) exchange rates². Table 5 shows the incidence of poverty using these absolute poverty lines from the 2006 HIES and the 2010 HIES. This information is also presented in Table 1 where population living below the poverty lines is included. In Rural

² PPP exchange rates are a currency conversion rate intended to assure a common purchasing power over commodities and are therefore internationally comparable. www.worldbank.org key word search PPP.

Efate the increase in per capita incomes is the most apparent change. The population living on less than US\$ 1.08 (PPP) per day are the poorest of the poor. The proportion of households in rural Efate with per capita adult equivalent³ total income living on less than this declined by 76% in terms of households and 56% in terms of population (from Table 1). These results show that incomes are increasing in rural Efate and increased economic activity and associated returns from labour or investment are reaching everyone, not just the wealthy or the elite: the benefits of economic growth do seem to be 'trickling down' to benefit the poorest households. In rural Efate in 2006 8.1% of households or an estimated 1,930 people had per capita incomes below US\$ 1.25 (PPP) a day, which decreased to 1.5% of households or 600 people in 2010. This means that approximately 1,340 people had moved out of poverty between 2006 and 2010 (population numbers taken from Table 1).

Table 5 also shows that the increases in incomes have not been small but have been reasonably large by the incidence of poverty using the US\$ 4.00 poverty line. In 2006 people living in almost two out of every five households (36.7% or 7,810 people) in Rural Efate lived below US\$ 4.00 a day. In 2010 people living in one out of every five households (20.2% or 5,850 people) lived on less than US\$ 4.00 a day.

Table 5 shows that there is no extreme poverty in the East Coast of Santo in 2010 nor was there in 2006 with no one living on less than US\$ 1.25 per day and only a very small proportion lived on less than US\$ 2.00 per day. One could only conclude that the prevalent lifestyle of subsistence consumption and the associated traditional economy and transfers between households (particularly gift exchanges) which was evident in 2006 continues in 2010 with increasing economic activity (either traditional or cash) raising household per capita incomes in 2010. The number of people living on less than US\$ 3.00 a day decreased from 1,060 in 2006 to 773 in 2010, a decrease of 27% (from Table 1). In terms of households the decrease was from 10.7% to 2.7%. There was a large movement of people out of risk to poverty if the US\$ 4.00 a day is used as the measure. In 2006 28.2% of households or 2,510 people were living on less than US\$ 4.00 a day which decreased to 5.7% or 770 people in 2010.

3. Household Expenditure Patterns

In terms of expenditure per capita and per household, the highest overall average was recorded in Rural Efate with an average per capita of Vt 28,814 (US\$ 266.80) per month or Vt 131,286 (US\$ 1,215.61) per household per month. The median occurs in the 5th percentile and for Rural Santo this was approximately Vt 14,413 (US\$ 133.45) per person per month or Vt 61,553 (US\$ 569.94) per household per month; for the East Coast part of rural Santo it was slightly higher at Vt 18,428 (US\$ 170.63) per person or Vt 69,670 (US\$ 645.09) per household and in Rural Efate it was Vt 15,938 (US\$ 147.57) per capita and Vt 72,148 (US\$ 668.04) per household. This was mainly because of the much higher incomes in the upper quintile compared with Santo. Santo had higher per capita and per household income than Rural Efate for the lowest 40% of households as ranked by total expenditure per capita adult equivalent.

Monthly averages for the three regions have been included in US dollars and US dollars using PPP exchange rates in Table 7. In annual values, the average per capita expenditure in rural Santo in 2010 was US\$ 2,071; with the East Coast of Santo having an average per capita of US\$ 2,319 and in rural Efate the average was US\$ 3,248. Incomes in rural Efate have exceeded by just over double the 2012 target in the Monitoring and Evaluation Plan of the Vanuatu Transport Infrastructure Development Program while incomes in rural Santo have not yet increased to the target amount of US\$ 2,711 for 2012, falling short by 24% in 2010. There are many possible reasons for this including the delayed starting of the road improvements in East Coast Santo, traditional economic systems, different patterns of land use and land ownership, lower uptake rates in urban and peri-urban labour markets.

³ This is the UNDP scale used to reflect economies of scale to household composition whereby the population is represented by an adult with a value of 1 and every child under the age of 15 years has a value of 0.5. In a household with 2 adults and 2 children aged under 15 years the population is 4 but the adult equivalent population is 3. It is the standard population measure used in poverty measurement in the Pacific region.

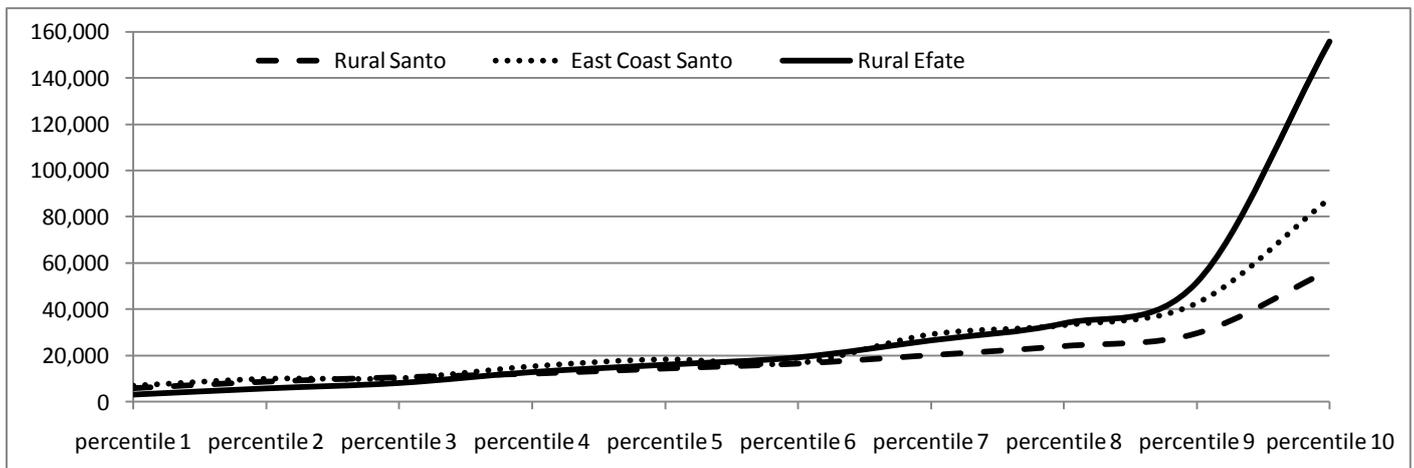
Table 6: Total monthly expenditure per capita and per household for MCA areas, 2010 HIES

Expenditure Percentile	Rural Santo		East Coast Santo		Rural Efate	
	Average expenditure per capita	Average expenditure per h'hold	Average expenditure per capita	Average expenditure per h'hold	Average expenditure per capita	Average expenditure per h'hold
percentile 1	5,918	36,558	7,104	38,965	3,039	16,507
percentile 2	8,738	44,866	10,070	48,759	5,705	28,378
percentile 3	10,631	52,327	10,283	53,628	8,055	36,373
percentile 4	12,184	65,149	15,421	71,636	12,755	61,035
percentile 5	14,413	61,553	18,428	69,670	15,938	72,148
percentile 6	16,535	74,524	16,826	65,404	19,118	99,070
percentile 7	20,165	84,432	29,210	76,113	26,453	114,771
percentile 8	24,068	88,838	33,165	107,144	33,807	147,391
percentile 9	29,575	109,312	42,639	146,950	51,479	214,470
percentile 10	56,862	222,302	87,718	303,784	155,613	517,045
Average (VT)	18,373	84,174	20,571	86,201	28,814	131,286
Average (US)	\$170.12	\$779.39	\$190.47	\$798.16	\$266.80	\$1,215.61
Average (US) Annual	\$2,071.24	\$9,489.08	\$2,318.96	\$9,717.59	\$3,248.27	\$14,800.08
Average (US PPP)	\$263.60	\$1,207.66	\$295.13	\$1,236.75	\$413.40	\$1,883.59

US dollar exchange rate is from the M&E Plan Version 2: 108 Vt/USD. PPP exchange rate (2010, VNSO estimate): 69.7 Vt per \$1.00 PPP

Source: VNSO HIES 2010.

Figure 1: Total monthly household expenditure per capita, 2010 HIES



Source: VNSO HIES 2010

The 2010 HIES estimate for total income (as measured by total expenditure) in the Rural Efate area was approximately Vt 735 million a month (US\$ 6.8 million), Vt 500 million a month (US\$ 4.6 million) in Rural Santo, of which 41% or Vt 204 million (US\$ 1.9 million) was within the Santo East Coast area (see Table 7 and Figure 2 over).

Table 7: Total monthly expenditure (VT), estimated population and households for MCA areas, 2010 HIES

Expenditure Percentile	Rural Santo			East Coast Santo			Rural Efate		
	Total Expenditure	Total Population	Total Households	Total Expenditure	Total Population	Total Households	Total Expenditure	Total Population	Total Households
percentile 1	21,379,449	3,613	585	10,440,465	1,470	268	8,985,701	2,957	544
percentile 2	26,740,561	3,060	596	14,556,791	1,446	299	15,953,901	2,797	562
percentile 3	30,883,087	2,905	590	13,314,960	1,295	248	20,484,594	2,543	563
percentile 4	39,136,847	3,212	601	26,637,448	1,727	372	34,277,588	2,687	562
percentile 5	36,556,425	2,536	594	18,409,255	999	264	40,775,995	2,558	565
percentile 6	44,400,429	2,685	596	8,162,164	485	125	55,046,243	2,879	556
percentile 7	49,935,419	2,476	591	15,846,554	543	208	64,065,881	2,422	558
percentile 8	52,537,691	2,183	591	28,105,139	847	262	83,972,469	2,484	570
percentile 9	65,929,656	2,229	603	27,230,192	639	185	118,952,286	2,311	555
percentile 10	132,954,873	2,338	598	41,399,309	472	136	292,821,732	1,882	566
Total	500,454,437	27,238	5,945	204,102,278	9,922	2,368	735,336,390	25,520	5,601

Table 8: Total monthly expenditure (US\$), estimated population and households for MCA areas, 2010 HIES

Expenditure Percentile	Rural Santo			East Coast Santo			Rural Efate		
	Total Expenditure	Total Population	Total Households	Total Expenditure	Total Population	Total Households	Total Expenditure	Total Population	Total Households
percentile 1	\$197,958	3,613	585	\$96,671	1,470	268	\$83,201	2,957	544
percentile 2	\$247,598	3,060	596	\$134,785	1,446	299	\$147,721	2,797	562
percentile 3	\$285,955	2,905	590	\$123,287	1,295	248	\$189,672	2,543	563
percentile 4	\$362,378	3,212	601	\$246,643	1,727	372	\$317,385	2,687	562
percentile 5	\$338,485	2,536	594	\$170,456	999	264	\$377,556	2,558	565
percentile 6	\$411,115	2,685	596	\$75,576	485	125	\$509,687	2,879	556
percentile 7	\$462,365	2,476	591	\$146,727	543	208	\$593,203	2,422	558
percentile 8	\$486,460	2,183	591	\$260,233	847	262	\$777,523	2,484	570
percentile 9	\$610,460	2,229	603	\$252,131	639	185	\$1,101,410	2,311	555
percentile 10	\$1,231,064	2,338	598	\$383,327	472	136	\$2,711,312	1,882	566
Total	\$4,633,837	27,238	5,945	\$1,889,836	9,922	2,368	\$6,808,670	25,520	5,601

Source: VNSO HIES 2010

Figure 2: Total monthly household expenditure (VT), 2010 HIES

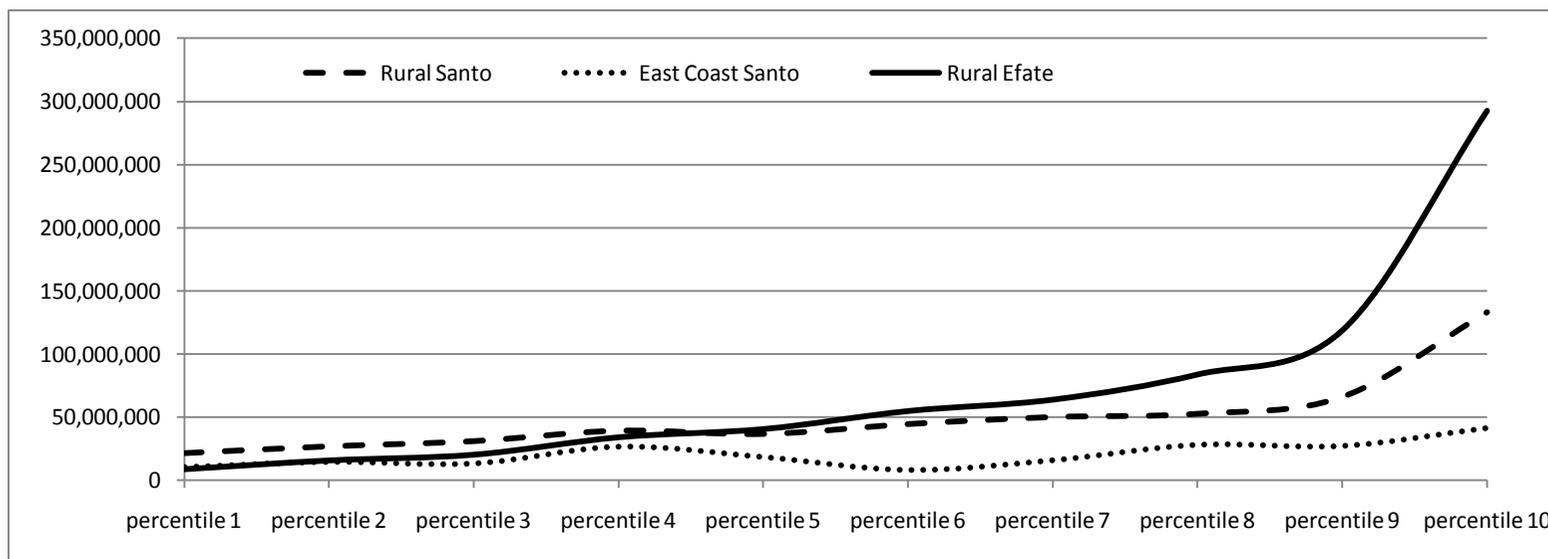
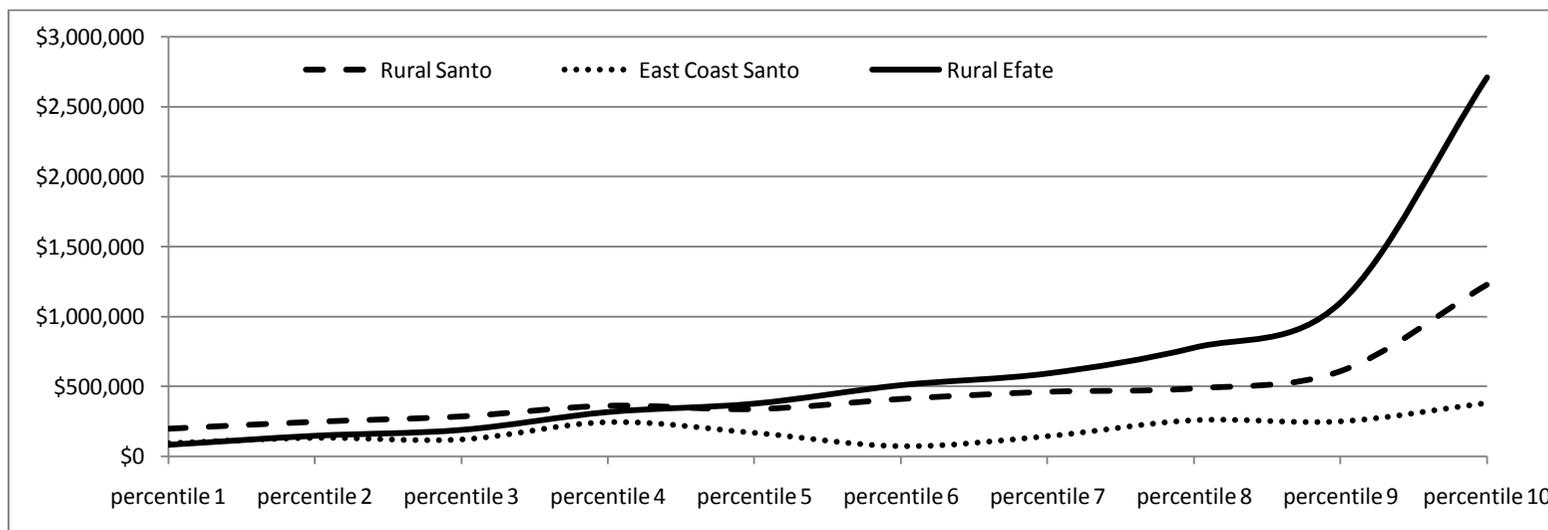


Figure 3: Total monthly household expenditure (US\$), 2010 HIES



Source: VNSO HIES 2010

Total food expenditure

In Rural Santo households spent a total of Vt 299 million (US\$ 2.8 million) a month on food, including purchased food and that produced and consumed in the home. Of this the East Coast Santo region contributed Vt 96 million (US\$ 0.9 million). In Rural Efate total monthly food expenditure was Vt 190 million (US\$ 1.8 million) a month.

It is not possible to do a detailed analysis of food expenditure because the imputation of the daily expenditure diaries did not differentiate between food and non-food expenditure.

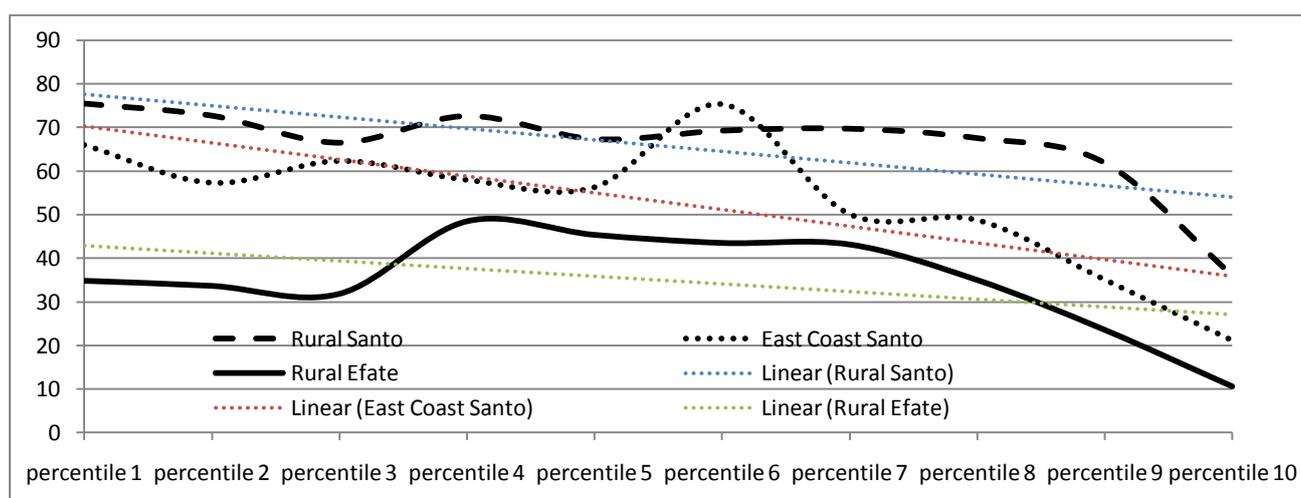
Table 9: Total monthly food expenditure for MCA areas, 2010 HIES

Expenditure Percentile	Rural Santo		East Coast Santo		Rural Efate	
	Vatu	US \$	Vatu	US \$	Vatu	US \$
percentile 1	16,122,737	\$149,285	6,889,251	\$63,789	3,128,350	\$28,966
percentile 2	19,422,118	\$179,834	8,346,374	\$77,281	5,367,606	\$49,700
percentile 3	20,517,271	\$189,975	8,299,437	\$76,847	6,517,317	\$60,346
percentile 4	28,393,404	\$262,902	15,446,622	\$143,024	16,604,981	\$153,750
percentile 5	24,590,174	\$227,687	10,364,159	\$95,964	18,487,105	\$171,177
percentile 6	30,724,806	\$284,489	6,148,339	\$56,929	23,936,448	\$221,634
percentile 7	34,776,181	\$322,002	7,948,211	\$73,595	27,630,718	\$255,840
percentile 8	35,457,331	\$328,309	13,712,849	\$126,971	29,389,481	\$272,125
percentile 9	40,758,862	\$377,397	9,569,678	\$88,608	28,034,742	\$259,581
percentile 10	47,906,080	\$443,575	8,778,643	\$81,284	31,054,561	\$287,542
Total	298,668,963	\$2,765,453	95,503,563	\$884,292	190,151,309	\$1,760,660

Source: VNSO HIES 2010.

Monthly food expenditure on average represented 60% of total expenditure in rural Santo (compared with 68% in 2006); 47% in the East Coast of Santo (64% in 2006) and 26% in rural Efate (compared with 57% in 2006 and underestimated due to imputation of daily expenditure diaries not separating food and non-food expenditure). Food expenditure as a proportion of total expenditure was highest in rural Santo (Figure 4).

Figure 4: Food expenditure as a proportion of total expenditure for MCA areas, 2010 HIES



Source: VNSO HIES 2010.

All expenditure other than food

All other expenditure includes gifts given and received and expenditure on housing, household operation and supplies, alcohol, kava and tobacco, clothing and footwear, transport, communications, health, education and other goods and services. In the East Coast of Santo the proportion for the lowest 40% of households was about 40% and 30% in rural Santo. For Efate it is not practical to do a detailed analysis of the different types of non-food expenditure because of sampling and non-sampling error because imputation of missing daily expenditure diaries did not differentiate between food and non-food expenditure.

Table 10: Total monthly expenditure and proportion of non-food (NF) expenditure (Vt) for MCA areas, 2010 HIES

Exp. %ile	Rural Santo		East Coast Santo		Rural Efate	
	Total expenditure	NF % total exp	Total expenditure	NF % total exp	Total expenditure	NF % total exp
p 1	5,256,712	24.6	3,551,215	34.0	5,857,351	65.2
p 2	7,318,443	27.4	6,210,416	42.7	10,586,296	66.4
p 3	10,365,816	33.6	5,015,523	37.7	13,967,277	68.2
p 4	10,743,443	27.5	11,190,825	42.0	17,672,607	51.6
p 5	11,966,252	32.7	8,045,097	43.7	22,288,889	54.7
p 6	13,675,624	30.8	2,013,825	24.7	31,109,795	56.5
p 7	15,159,239	30.4	7,898,344	49.8	36,435,164	56.9
p 8	17,080,360	32.5	14,392,290	51.2	54,582,988	65.0
p 9	25,170,794	38.2	17,660,514	64.9	90,917,544	76.4
p 10	85,048,793	64.0	32,620,666	78.8	261,767,171	89.4
Total	201,785,474	40.3	108,598,715	53.2	545,185,081	74.1

Source: VNSO HIES 2010.

Table 11: Total monthly expenditure and proportion of non-food (NF) expenditure (US\$) for MCA areas, 2010 HIES

Exp. %ile	Rural Santo		East Coast Santo		Rural Efate	
	Total expenditure	NF % total exp	Total expenditure	NF % total exp	Total expenditure	NF % total exp
p 1	\$48,673	24.6	\$32,882	34	\$54,235	65.2
p 2	\$67,763	27.4	\$57,504	42.7	\$98,021	66.4
p 3	\$95,980	33.6	\$46,440	37.7	\$129,327	68.2
p 4	\$99,476	27.5	\$103,619	42	\$163,635	51.6
p 5	\$110,799	32.7	\$74,492	43.7	\$206,379	54.7
p 6	\$126,626	30.8	\$18,647	24.7	\$288,054	56.5
p 7	\$140,363	30.4	\$73,133	49.8	\$337,363	56.9
p 8	\$158,151	32.5	\$133,262	51.2	\$505,398	65
p 9	\$233,063	38.2	\$163,523	64.9	\$841,829	76.4
p 10	\$787,489	64	\$302,043	78.8	\$2,423,770	89.4
Total	\$1,868,384	40.3	\$1,005,544	53.2	\$5,048,010	74.1

Source: VNSO HIES 2010.

4. Conclusions

The 2010 HIES results indicate that the roads are making a considerable contribution to increasing incomes and reducing poverty in terms of both relative and absolute poverty measures. The HIES data from 2010 shows increased per capita income from US\$ 1,291 in 2006 to US\$ 3,248 in 2010 in rural Efate; an increase of a magnitude of two and a half times. Per capita incomes also increased in the East Coast of Santo by 9% from US\$ 2,122 to US\$ 2,319 in 2010. The increase in income in Santo has not been as large as what has occurred in Efate. There are a number of possible reasons for this including the slower uptake of commercialism and the cash economy in Santo, where traditional economic systems based on traditional agricultural and other custom products as both assets and the medium of exchange still predominate. Other contributing factors are that the urban and peri-urban labour market in Santo has not grown at the same rate as in Efate and the southern half of the East Coast Santo road is in private ownership plantation style farming limiting the land available for entrepreneurial activities by private households. It is also possible that the later start date of the road improvement program in East Coast Santo is a contributing factor, although it is not possible to verify this from the 2010 HIES data⁴.

The analysis of the 2010 HIES data for rural Efate and the East Coast of Santo has shown considerable reduction in the incidence of basic needs poverty in both areas. The general increase in household incomes is evident in that the poverty lines developed from the 2010 survey data using the incomes of the lowest 30% of households are considerably higher than those developed from the 2006 HIES data. It is also evident in the incidence of poverty when absolute poverty measures are used such as US\$ 1.25 a day. Annual per capita incomes have increased in both areas, but the increase in the East Coast of Santo is not as great as that in Efate and possibly, under prevailing rates of increase, the target of US\$ 2,711 cash income will not be achieved.

The analysis of the HIES data presented here shows that the formal or cash economy of rural Efate has increased and that the returns from business investment and labour are impacting in terms of increased per capita incomes and associated declining poverty in the poorest of households. The Efate ring road is providing a vital artery for rural Efate communities and those on the close offshore islands to increase access to markets and employment opportunities both in the larger rural communities and the main urban centre of Port Vila. The road is making impacts in terms of increased incomes in rural Efate.

The increase in cash incomes in the East Coast of Santo is nowhere near the same magnitude as in rural Efate. Economic livelihoods in the East Coast of Santo are more complex with the traditional economy based on subsistence production and gift giving and sharing of surpluses is still prevalent. A larger proportion of the road is tied up in privately owned commercial agricultural activities in large land holdings which the average person does not benefit greatly from. Uptake of the opportunities the road presents in terms of participating in the labour market or other entrepreneurial activities in Luganville has not occurred to the same extent as in Efate. Other survey data shows that business activity in the larger rural communities along the road is increasing, so perhaps the pattern of economic development will be different in the East Coast of Santo. The HIES in 2012 will shed more light on the pattern of economic development in the East Coast of Santo.

In addition to these broad targets the 2012 analysis should take a closer look at the characteristics of 'poor' and 'non poor' households in comparison with 2006, including the economic activities of household

⁴ The Efate road works started approximately 9 months before the Santo East Coast road works and b) that the Efate sections 1-3 were handed over in March 2010, whereas only Section 1 of Santo was handed over at that time.

members (labour force participation, business activities within households), sources of household income, types of expenditure and so on to provide more contextual information about the extent of the 'cash' and 'traditional' economies. The VNSO is also exploring a number of initiatives in its continuing efforts to improve the quality of the HIES data.

The VNSO is continuing its efforts to improve the quality and reliability of its household survey data, and the HIES is no exception. The introduction of a daily expenditure diary for every adult in the household (aged 18 years and over) considerably reduced diary non-response problems compared with 2006. However diary non-response (mostly partial where a respondent will only complete one week of the two week cycle) was again a problem in 2010 especially in rural Efate. This was not picked up by the data receipt and processing system which should have 'flagged' such households for intervention and checking of the incomplete expenditure diaries and other questionnaires. The VNSO is continuing to improve its data processing systems with enhanced data checking and quality controls.

Annex 1: Minimum and maximum expenditure ranges, per capita adult equivalent, class mid points and number of households sampled for MCA areas, 2010 HIES

p.c.a.e expenditure percentiles and ranges	Rural Santo				East Coast Santo				Rural Efate			
	Minimum	Maximum	Mid-Point	H'holds (n)	Minimum	Maximum	Mid-Point	H'holds (n)	Minimum	Maximum	Mid-Point	H'holds (n)
percentile 1	1,900	5,300	4,500	44	3,857	5,957	5,200	17	408	2,723	2,000	25
percentile 2	5,400	6,700	6,100	46	6,108	7,428	7,200	19	2,789	5,814	4,100	28
percentile 3	6,700	7,700	7,500	47	7,481	8,274	8,000	19	5,815	7,507	6,500	27
percentile 4	7,700	8,600	8,300	47	8,347	9,358	9,000	19	7,515	8,684	7,900	27
percentile 5	8,600	10,000	9,700	47	9,610	11,175	10,500	19	8,749	11,234	9,700	27
percentile 6	10,000	11,300	11,100	46	11,215	13,175	12,400	19	11,316	14,002	12,000	27
percentile 7	11,400	13,000	12,400	47	13,218	15,449	13,800	18	14,032	16,978	15,400	26
percentile 8	13,000	15,500	15,000	47	15,967	19,252	17,200	19	17,114	21,392	19,000	27
percentile 9	15,500	21,100	20,200	48	19,717	24,044	20,800	19	21,871	33,847	26,400	28
percentile 10	21,500	111,000	28,900	50	24,502	111,026	32,200	21	34,134	270,437	47,900	28
Total				469				189				270

Source: VNSO HIES 2010.

Annex 2: Methodology for poverty analysis

Low-cost diet

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.

For the MCA Vanuatu, the food poverty line was derived from the actual food expenditure and consumption patterns of the lowest three expenditure percentile 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.

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 this analysis; exactly the same used to derive national estimates.

The food expenditure from the diaries of households in the lowest three expenditure deciles in each of the three sites was analysed, Tables a, b, and c⁵. It was observed that 97% of food expenditure was accounted for by 66 items with expenditure over Vt 80,000 in Rural Santo; 90% of food expenditure was accounted for 42 items with expenditure over Vt 80,000 in the East Coast of Santo and 93% of food expenditure occurred for 63 items with expenditure over Vt 50,000 in rural Efate. 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 percentile, by the appropriate factor to give a notional total food expenditure based on the listed items, Column C;
- each item was priced using the CPI prices for Efate and East Coast of Santo with observed prices from the diary used for home produced items not included in the CPI, 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;

Box 1: 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

⁵ The expenditure percentiles were derived for the whole island of Santo, so for the east coast this means that east coast households in the lowest 30% of households in Santo were used.

- 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.

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 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.

Summing the daily Kcal values of the expenditure patterns of each region (K) shows that Efate households reported notionally acquiring an average of 2,128 kcal per capita a.e per day compared with 3,766 Kcal for the East Coast of Santo and 5,157 Kcal for rural Santo. In order to get to the minimum Kcal daily food energy intake these values were deflated to the equivalent of 2,100 Kcal by the ratio of the recorded Kcal value to the minimum (L).

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).

Finally the daily cost is converted to a monthly value (O). Thus the cost of acquiring a minimum adult equivalent diet in rural areas in Santo is estimated at VT 106 per day and VT 3,179 per month; for East Coast Santo the costs are VT 132 per day and VT 3,971 per month, and for Rural Efate VT 133 per day and VT 3,980 per month. These are the Food Poverty Lines used in the analysis, Table 2. 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.

Table a: Rural Santo estimated food expenditure and daily kilo calorie intake

Item A	% of food expenditure B	Total Value (month) C	Price per unit D	Unit(kg) E	Implied unit volume consumed F	K/Cal per 100g G	Total kcal value H	Kcal per day pae I	Cost per day per calorie J	Exact calorie value PAE K
13207 Rice	12.41	7,546,823	250	1.0	1,006	123	1,237,679	165	0.20	33.48
11211 Island Taro/ Taro Fiji	11.14	6,778,073	50	1.0	4,519	99	4,473,528	595	0.05	30.07
11103 Bananas (Cooking)	9.80	5,960,873	22	1.0	9,032	111	10,025,104	1,334	0.02	26.44
11208 Yam	5.19	3,155,242	90	1.0	1,169	115	1,343,899	179	0.08	14.00
11209 Kumala	5.01	3,050,336	45	1.0	2,260	129	2,914,766	388	0.03	13.53
11202 Island Cabbage	4.18	2,541,368	60	1.0	1,412	29	409,443	54	0.21	11.27
11203 Manioc	3.73	2,266,095	25	1.0	3,021	151	4,562,405	607	0.02	10.05
12101 Beef fresh	3.38	2,057,292	560	1.0	122	198	242,467	32	0.28	9.13
11231 Water Taro	2.92	1,776,082	55	1.0	1,076	72	775,017	103	0.08	7.88
11110 Mangoes	2.33	1,418,462	80	1.0	591	58	342,795	46	0.14	6.29
13101 Bread (sliced, loaf, square, rolls, French)	2.14	1,298,770	200	1.0	216	242	523,837	70	0.08	5.76
12304 Other fish	2.11	1,281,608	732	1.0	58	81	47,272	6	0.90	5.68
12201 Chicken/ Local chicken	1.81	1,102,292	650	1.0	57	231	130,579	17	0.28	4.89
11106 dry Coconut / Copra	1.77	1,079,131	15	1.0	2,398	283	6,782,533	903	0.01	4.79
11115 Pineapples	1.59	965,250	100	1.0	322	41	131,917	18	0.24	4.28
16201 Sugar	1.43	870,112	200	1.0	145	394	571,373	76	0.05	3.86
12311 Tinned Tuna	1.34	812,637	210	0.3	129	290	93,518	12	0.29	3.60
13105 Cabin Biscuits	1.28	777,606	250	0.3	104	414	107,310	14	0.24	3.45
11118 Watermelon & Rock melon	1.24	751,448	400	1.0	63	24	15,029	2	1.67	3.33
12202 Chicken (chicken parts)	1.21	737,655	375	1.0	66	209	137,040	18	0.18	3.27
11215 Laplap (Yam, banana, manioc, etc..)	1.10	669,370	500	1.0	45	151	67,383	9	0.33	2.97
12105 Pork fresh	1.04	633,267	500	1.0	42	338	142,696	19	0.15	2.81
11112 Paw paws	0.98	593,461	30	1.0	659	34	224,196	30	0.09	2.63
18109 Plate of food/ Take away	0.97	588,917	350	0.3	56	93	15,648	2	1.25	2.61
11105 Green Coconut	0.88	536,816	20	1.0	895	16	143,151	19	0.13	2.38
13104 Cream cracker, biscuits, Buns	0.81	490,555	116	0.3	141	414	145,898	19	0.11	2.18
15101 Cooking oil (incl. salad oil)	0.70	424,827	250	0.8	57	878	372,998	50	0.04	1.88
11128 Bread fruit	0.68	416,518	60	1.0	231	103	238,341	32	0.06	1.85
13209 Flour	0.67	405,908	130	1.0	104	349	363,235	48	0.04	1.80
13206 Noodles	0.61	372,688	33	0.1	376	99	31,679	4	0.39	1.65
16150 Other beverages n.e.c	0.61	371,258	113	0.4	110	39	15,015	2	0.82	1.65
11212 Sugar cane	0.60	365,018	30	1.0	406	68	275,792	37	0.04	1.62
12303 Reef Fish	0.60	362,483	610	1.0	20	130	25,750	3	0.47	1.61
12116 Crabs	0.58	350,523	350	1.0	33	109	36,388	5	0.32	1.55
11232 Corn	0.55	337,090	40	1.0	281	107	300,572	40	0.04	1.50
11206 Cucumber	0.54	327,513	50	1.0	218	12	26,201	3	0.42	1.45
11125 Other fresh fruits n.e.c	0.53	322,162	30	1.0	358	41	146,763	20	0.07	1.43
17118 Salt	0.53	320,038	225	1.0	47	213	100,990	13	0.11	1.42
11207 Pumpkin	0.51	312,303	55	1.0	189	44	83,281	11	0.13	1.39
11240 Beans	0.49	299,971	40	1.0	250	22	54,995	7	0.18	1.33
12117 Freshwater Prawn	0.49	295,100	400	1.0	25	104	25,575	3	0.38	1.31
12312 Other Tinned Fish	0.42	253,522	355	1.0	24	182	43,325	6	0.20	1.12
11132 Ripe Bananas	0.41	247,650	45	1.0	183	103	188,948	25	0.04	1.10
13106 Doughnuts, Kato	0.40	242,450	40	0.1	202	439	88,696	12	0.09	1.08
11216 Tomatoes	0.39	238,875	70	1.0	114	15	17,063	2	0.47	1.06
11213 Leaf laplap	0.36	221,975	50	1.0	148	NOT EATEN	0	0	0.00	0.00
12150 Other meat n.e.c	0.36	219,302	560	1.0	13	183	23,888	3	0.31	0.97
16206 Peanuts	0.35	215,757	200	1.0	36	568	204,250	27	0.04	0.96
12131 Oxford tinned meat	0.33	201,305	330	0.3	20	192	13,274	2	0.51	0.89
11225 Chinese Cabbage (white bun)	0.32	195,585	65	1.0	100	15	15,045	2	0.43	0.87
12305 Crayfish (lobster)	0.32	193,808	475	1.0	14	97	13,193	2	0.49	0.86
11111 Oranges	0.28	167,353	475	1.0	12	40	4,698	1	1.19	0.74
11108 Navele	0.22	135,785	200	1.0	23	588	133,069	18	0.03	0.60
11228 Capsicum	0.22	130,823	50	1.0	87	47	40,991	5	0.11	0.58
16202 Twisties, rashuns, chips, bongo	0.20	118,907	28	0.1	142	542	65,215	9	0.06	0.53
11217 Other fresh vegetables	0.19	115,440	70	1.0	55	21	11,544	2	0.33	0.51
12350 Other shell fish n.e.c	0.19	113,533	250	1.0	15	44	6,661	1	0.57	0.50
12250 Other birds	0.19	112,768	650	1.0	6	250	14,457	2	0.26	0.50
11133 Oranges & Mandarine (local)	0.18	110,327	60	1.0	61	46	28,195	4	0.13	0.49
11224 Bowl Cabbage	0.18	106,838	100	1.0	36	22	7,835	1	0.45	0.47
11245 Spring onions & other herbs	0.16	94,467	100	1.0	31	61	19,208	3	0.16	0.42
15102 Butter/margarine	0.16	94,423	900	0.3	3	715	6,251	1	0.50	0.42
17106 Peanut Butter	0.15	90,913	195	0.4	16	612	33,288	4	0.09	0.40
14101 Milk powder	0.14	83,698	675	0.4	4	144	2,381	0	1.17	0.37
11150 Fruits or fruit products n.e.c	0.14	83,330	45	1.0	62	69	42,591	6	0.07	0.37
11107 Nangai	0.13	80,040	800	1.0	3	588	19,610	3	0.14	0.36
Items % total diary food expenditure	96.82	14,153,764								
						K	Kcal p.c.a.e. per day from diary			5,157
						L	% of minimum daily energy need			2.46
						M	Cost per day from diary			260
						N	Cost per day to meet minimum energy need			106
						O	Monthly cost of minimum diet, FPL			3,179

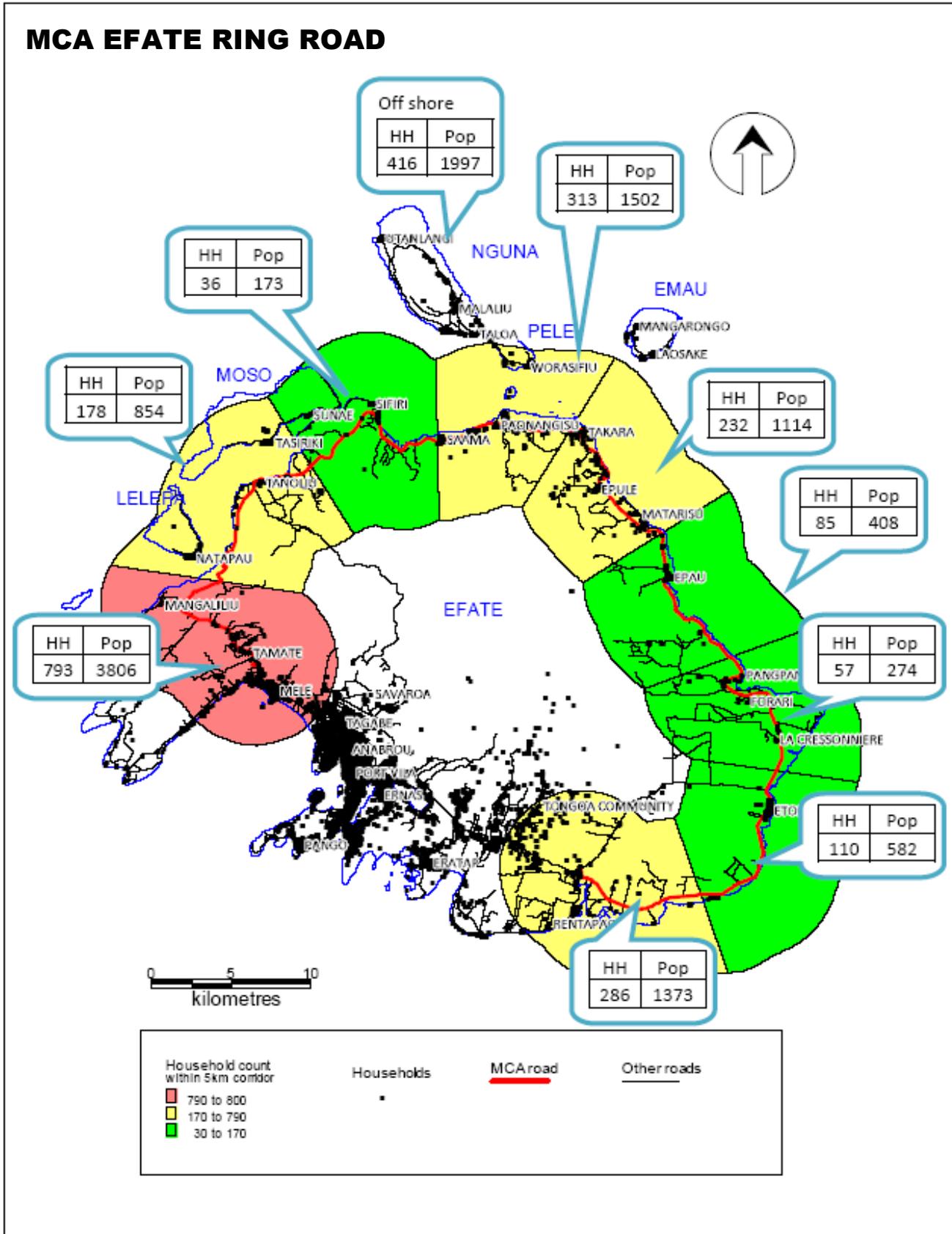
Table b: East Coast Santo estimated food expenditure and daily kilo calorie intake

Item A	% of food expenditure B	Total Value (month) C	Price per unit D	Unit(kg) E	Implied unit volume consumed E	K/Cal per 100g F	Total kcal value G	Kcal per day pae H	Cost per day per calorie I	Exact calorie value PAE J
13207 Rice	16.52	4,114,354	200	1.0	686	123	843,443	264	0.16	42.86
11103 Bananas (Cooking)	9.57	2,382,358	32	1.0	2,482	111	2,754,602	861	0.03	24.82
11211 Island Taro/ Taro Fiji	8.16	2,033,308	60	1.0	1,130	99	1,118,320	349	0.06	21.18
11209 Kumala	5.58	1,390,486	55	1.0	843	129	1,087,108	340	0.04	14.49
11203 Manioc	4.57	1,137,478	37	1.0	1,025	151	1,547,380	484	0.02	11.85
11202 Island Cabbage	4.48	1,115,562	76	1.0	489	29	141,892	44	0.26	11.62
13101 Bread (sliced, loaf, square, rolls, French)	3.81	948,710	200	1.0	158	242	382,646	120	0.08	9.88
12304 Other fish	2.58	642,658	720	1.0	30	81	24,100	8	0.89	6.69
12101 Beef fresh	2.23	554,550	560	1.0	33	198	65,358	20	0.28	5.78
12202 Chicken (chicken parts)	2.22	553,973	352	1.0	53	209	109,797	34	0.17	5.77
11115 Pineapples	2.11	524,983	120	1.0	146	41	59,790	19	0.29	5.47
13105 Cabin Biscuits	2.05	509,903	240	0.3	71	414	73,299	23	0.23	5.31
11208 Yam	2.00	498,850	103	1.0	161	115	185,656	58	0.09	5.20
11118 Watermelon & Rock melon	1.88	469,040	450	1.0	35	24	8,338	3	1.88	4.89
16201 Sugar	1.85	459,680	195	1.0	79	394	309,596	97	0.05	4.79
12311 Tinned Tuna	1.71	425,642	205	0.3	69	290	50,177	16	0.28	4.43
11106 dry Coconut / Copra	1.45	360,967	19	1.0	633	283	1,792,168	560	0.01	3.76
11128 Bread fruit	1.45	360,012	80	1.0	150	103	154,505	48	0.08	3.75
11110 Mangoes	1.37	340,102	100	1.0	113	58	65,753	21	0.17	3.54
11112 Paw paws	1.27	317,005	40	1.0	264	34	89,818	28	0.12	3.30
11105 Green Coconut	1.27	315,101	25	1.0	420	16	67,221	21	0.16	3.28
16150 Other beverages n.e.c	1.19	296,357	105	0.4	94	39	12,842	4	0.77	3.09
12201 Chicken/ Local chicken	1.06	262,903	700	1.0	13	231	28,919	9	0.30	2.74
13209 Flour	1.00	248,163	130	1.0	64	349	222,074	69	0.04	2.59
15101 Cooking oil (incl. salad oil)	0.95	237,640	250	0.8	32	878	208,648	65	0.04	2.48
13104 Cream cracker, biscuits, Buns	0.93	231,942	116	0.3	67	414	68,983	22	0.11	2.42
11231 Water Taro	0.86	213,265	66	1.0	108	72	77,551	24	0.09	2.22
13206 Noodles	0.80	199,658	30	0.1	222	99	18,668	6	0.36	2.08
12312 Other Tinned Fish	0.70	173,962	344	1.0	17	182	30,679	10	0.19	1.81
18109 Plate of food/ Take away	0.65	160,832	375	0.3	14	93	3,989	1	1.34	1.68
11232 Corn	0.63	157,387	45	1.0	117	107	124,744	39	0.04	1.64
12131 Oxford tinned meat	0.62	153,898	294	0.3	17	192	11,391	4	0.45	1.60
17118 Salt	0.55	137,670	215	1.0	21	213	45,463	14	0.10	1.43
11215 Laplap (Yam, banana, manioc, etc..)	0.52	130,303	523	1.0	8	151	12,540	4	0.35	1.36
13106 Doughnuts, Kato	0.48	120,163	40	0.1	100	439	43,960	14	0.09	1.25
11216 Tomatoes	0.45	112,255	88	1.0	43	15	6,378	2	0.59	1.17
11207 Pumpkin	0.45	111,193	66	1.0	56	44	24,710	8	0.15	1.16
12303 Reef Fish	0.42	105,820	600	1.0	6	130	7,643	2	0.46	1.10
11132 Ripe Bananas	0.41	102,050	56	1.0	61	103	62,566	20	0.05	1.06
16206 Peanuts	0.38	94,228	225	1.0	14	568	79,291	25	0.04	0.98
11213 Leaf laplap	0.38	93,600	100	1.0	31	NOT EATEN	0	0	0.00	0.00
11125 Other fresh fruits n.e.c	0.35	87,490	40	1.0	73	41	29,892	9	0.10	0.91
Items % total diary food expenditure	89.51	22,291,122								
					K	Kcal p.c.a.e. per day from diary				3,766
					L	% of minimum daily energy need				1.79
					M	Cost per day from diary				237
					N	Cost per day to meet minimum energy need				132
					O	Monthly cost of minimum diet, FPL				3,971

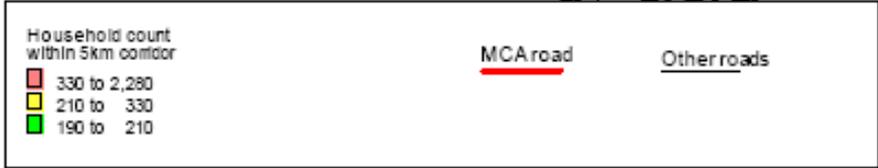
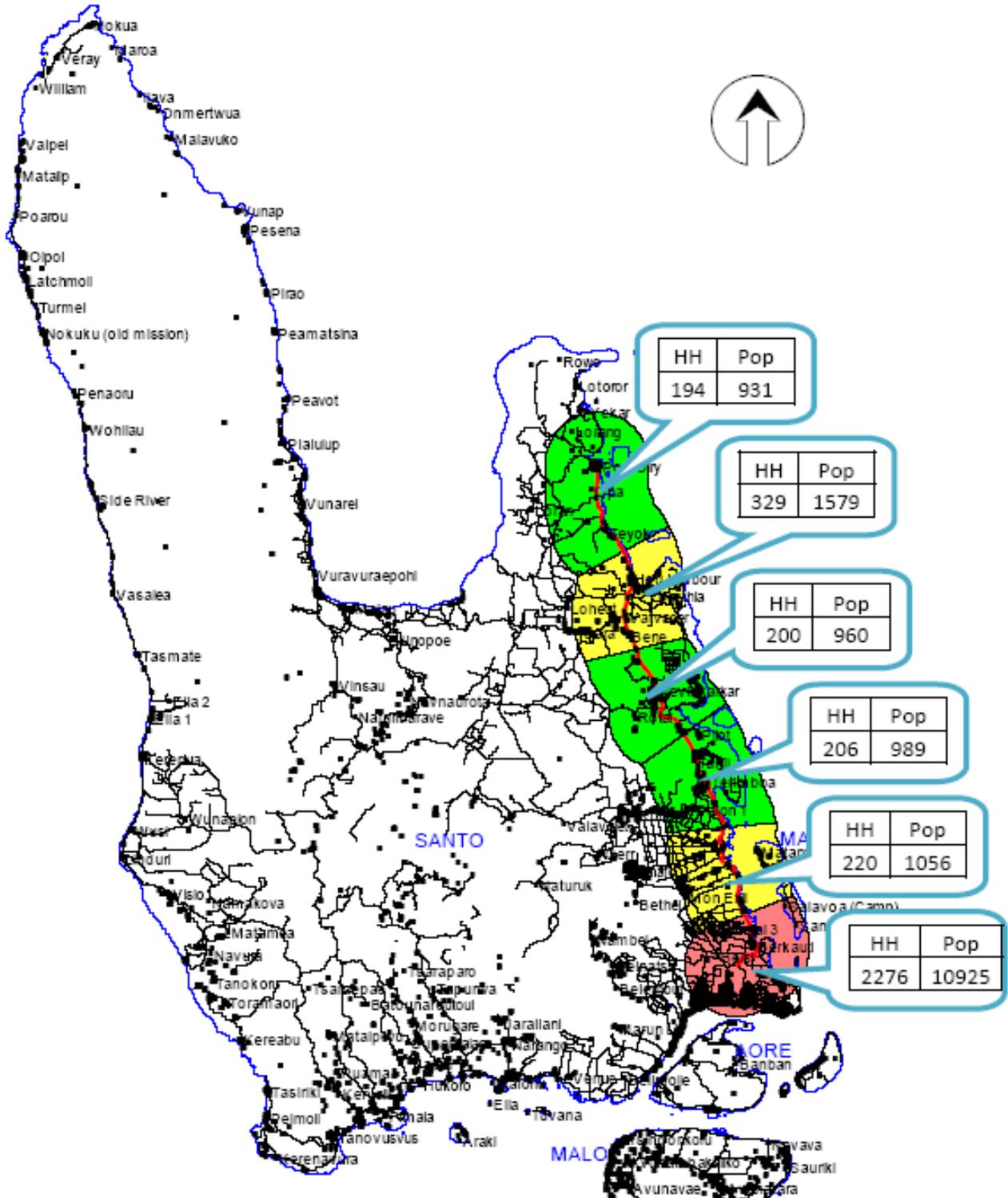
Table c: Rural Efate estimated food expenditure and daily kilo calorie intake

Item A	% of food expenditure B	Total Value (month) C	Price per unit D	Unit(kg) E	Implied unit volume consumed F	K/Cal per 100g G	Total kcal value H	Kcal per day pae I	Cost per day per calorie J	Exact calorie value PAE K
13207 Rice	13.11	4,062,592	30	1.0	4,514	123	5,552,210	821	0.02	20.03
11103 Bananas (Cooking)	6.11	1,893,476	80	1.0	789	111	875,733	130	0.07	9.34
11203 Manioc	5.85	1,814,566	132	1.0	458	151	691,918	102	0.09	8.95
13101 Bread (sliced, loaf, square, rolls, French)	4.49	1,390,393	200	1.0	232	242	560,792	83	0.08	6.85
11209 Kumala	4.47	1,385,151	123	1.0	375	129	484,240	72	0.10	6.83
11202 Island Cabbage	3.53	1,094,655	132	1.0	276	29	80,164	12	0.46	5.40
12202 Chicken (chicken parts)	3.47	1,075,202	850	1.0	42	209	88,124	13	0.41	5.30
11211 Island Taro/ Taro Fiji	3.12	966,383	64	1.0	503	99	498,291	74	0.06	4.76
11215 Laplap (Yam, banana, manioc, etc..)	2.99	926,445	178	1.0	173	151	261,972	39	0.12	4.57
11208 Yam	2.54	787,990	75	1.0	350	115	402,750	60	0.07	3.88
11106 dry Coconut / Copra	2.49	772,313	30	1.0	858	283	2,428,494	359	0.01	3.81
12311 Tinned Tuna	2.15	666,811	195	0.3	114	290	82,639	12	0.27	3.29
11115 Pineapples	1.87	580,200	80	1.0	242	41	99,117	15	0.20	2.86
12101 Beef fresh	1.77	550,048	500	1.0	37	198	72,606	11	0.25	2.71
13105 Cabin Biscuits	1.75	543,736	245	0.3	74	414	76,567	11	0.24	2.68
11112 Paw paws	1.67	518,760	80	1.0	216	34	73,491	11	0.24	2.56
11110 Mangoes	1.61	498,073	200	1.0	83	58	48,147	7	0.34	2.46
16201 Sugar	1.60	495,484	105	1.0	157	394	619,748	92	0.03	2.44
12304 Other fish	1.49	461,087	720	1.0	21	81	17,291	3	0.89	2.27
12201 Chicken/ Local chicken	1.48	457,925	500	1.0	31	231	70,520	10	0.22	2.26
12312 Other Tinned Fish	1.21	375,388	195	1.0	64	182	116,787	17	0.11	1.85
13104 Cream cracker, biscuits, Buns	1.10	339,612	200	0.3	57	414	58,583	9	0.19	1.67
12131 Oxford tinned meat	1.03	320,424	700	0.3	15	192	9,961	1	1.07	1.58
13106 Doughnuts, Kato	0.99	307,201	40	0.1	256	439	112,384	17	0.09	1.51
13206 Noodles	0.98	304,417	48	0.1	211	99	17,789	3	0.57	1.50
11105 Green Coconut	0.98	303,052	30	1.0	337	16	53,876	8	0.19	1.49
11225 Chinese Cabbage (white bun)	0.86	266,357	182	1.0	49	15	7,317	1	1.21	1.31
15101 Cooking oil (incl. salad oil)	0.84	261,853	750	0.8	12	878	76,635	11	0.11	1.29
15102 Butter/margarine	0.81	250,430	250	0.3	33	715	59,686	9	0.14	1.23
11128 Bread fruit	0.79	246,113	100	1.0	82	103	84,499	12	0.10	1.21
18109 Plate of food/ Take away	0.79	244,844	276	0.3	30	93	8,237	1	0.99	1.21
12303 Reef Fish	0.76	235,257	600	1.0	13	130	16,991	3	0.46	1.16
11132 Ripe Bananas	0.72	222,781	89	1.0	83	103	85,942	13	0.09	1.10
17150 Other Foods n.e.c	0.69	212,990	276	1.0	26	250	64,203	9	0.11	1.05
11118 Watermelon & Rock melon	0.68	210,405	160	1.0	44	24	10,520	2	0.67	1.04
12116 Crabs	0.67	208,152	590	1.0	12	109	12,818	2	0.54	1.03
11232 Corn	0.66	204,598	91	1.0	75	107	79,927	12	0.09	1.01
16101 Soft drinks (lemonade, coke, fanta etc)	0.62	193,483	140	0.4	46	43	6,933	1	0.93	0.95
16202 Twisties, rashuns, chips, bongo	0.57	175,738	181	0.1	32	542	14,910	2	0.39	0.87
14108 Ice cream	0.55	171,838	750	0.4	8	195	5,957	1	0.96	0.85
12105 Pork fresh	0.52	162,333	590	1.0	9	338	30,999	5	0.17	0.80
11213 Leaf laplap	0.51	158,860	200	1.0	26	NOT EATEN	0	0	0.00	0.00
12308 Crab kokonas	0.51	156,992	500	1.0	10	102	10,675	2	0.49	0.77
13209 Flour	0.50	154,678	200	1.0	26	349	89,971	13	0.06	0.76
16150 Other beverages n.e.c	0.46	142,107	120	0.4	39	39	5,388	1	0.88	0.70
15104 Egg	0.46	141,505	40	0.1	118	74	5,236	1	0.90	0.70
16102 Mineral water	0.45	140,075	120	0.4	39	0	0	0	0.00	0.00
11207 Pumpkin	0.45	138,331	100	1.0	46	44	20,289	3	0.23	0.68
11231 Water Taro	0.41	128,050	91	1.0	47	72	33,660	5	0.13	0.63
11125 Other fresh fruits n.e.c	0.40	122,872	500	1.0	8	41	3,358	0	1.22	0.61
17106 Peanut Butter	0.39	121,138	190	0.4	21	612	45,523	7	0.09	0.60
11240 Beans	0.37	115,241	70	1.0	55	22	12,073	2	0.32	0.57
11216 Tomatoes	0.36	112,435	800	1.0	5	15	703	0	5.33	0.55
14101 Milk powder	0.36	110,359	700	0.4	5	144	3,027	0	1.22	0.54
17118 Salt	0.34	104,188	190	1.0	18	213	38,933	6	0.09	0.51
11224 Bowl Cabbage	0.32	99,190	182	1.0	18	22	3,997	1	0.83	0.49
11111 Oranges	0.32	98,945	150	1.0	22	40	8,795	1	0.38	0.49
11214 Onions and chives	0.31	95,247	178	1.0	18	89	15,874	2	0.20	0.47
11206 Cucumber	0.30	92,040	56	1.0	55	12	6,574	1	0.47	0.45
12150 Other meat n.e.c	0.30	91,715	321	1.0	10	183	17,429	3	0.18	0.45
11108 Navele	0.27	82,485	1,000	1.0	3	588	16,167	2	0.17	0.41
16206 Peanuts	0.26	81,330	25	1.0	108	568	615,940	91	0.00	0.40
13107 Cakes incl. Pastries, buns	0.26	81,077	48	0.1	56	439	24,717	4	0.11	0.40
Items % total diary food expenditure	92.68	28,727,417								
					K	Kcal p.c.a.e. per day from diary				2,218
					L	% of minimum daily energy need				1.06
					M	Cost per day from diary				140
					N	Cost per day to meet minimum energy need				133
					O	Monthly cost of minimum diet, FPL				3,980

Annex 3: Census 2009 households and population for rural Efate and East Coast Santo



MCA SANTO EAST COAST ROAD



VNSO Internal Quality Control Documentation

Access database used:	W:\DATA\ECONOMIC\Surveys\HIES\2010 HIES\Databases\MCA-Interested-Areas\WorkingDatabase.mdf
Source data workbook:	<ol style="list-style-type: none">1. All workbooks, databases and associated working files are stored in the VNSO 'stats data' server in folder \DATA\ECONOMIC\Surveys\HIES\2010 HIES\Databases\MCA-Interested-Areas\.2. The HIES database: MCA-Interested Areas.mdb.3. All HIES data used in the Excel workbooks has the same query name as in the Access Database MCA-Interested Areas.mdb. Poverty analysis: qry_hhold_monthly_poverty_analysis.xls; Charts_M&E_Targets.xls.4. Food poverty line workbooks: VU_POV_FPL_DIET(MCA)_2010.xls; CPI_Dec_2010_Prices.xls.5. Imputed rent workbook: qry_hhold_monthly_exp_rent_imp_WKG.xls.6. Household sample weights prepared by the Poverty Consultant: Detailed working is contained in HIES_2010_weights.xls in W:\DATA\ECONOMIC\Surveys\HIES\2010 HIES\Sampling.7. Documentation for checking and editing undertaken is in HIES_output_doco.doc.
Date data accessed:	Friday 17 June
Data assessment:	Data final for MCA Interested Areas.

This document: W:\DATA\ECONOMIC\Surveys\HIES\2010 HIES\Databases\MCA-Interested-Areas\2010_MCA_Analysis.docx