



Fiji Islands Bureau
of Statistics

Poverty in Fiji

Changes 2002-03 to 2008-09

and policy implications

Dr Wadan Narsey

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The views in this publication are those of the author
and not of AusAID (which funded the analysis and publication),
nor of FIBoS (which provided the raw data).

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Preface (Government Statistician, FIBoS)

This Report on the Analysis of Poverty in Fiji is another important output from the 2008-09 Household Income and Expenditure Survey.

The provision of solid data on poverty is an extremely important part of the nation's attempt to discuss our development problems in an objective manner, based on hard facts rather than prejudices.

Household Income and Expenditure Surveys are extremely useful for the analysis of poverty as they extract data a genuine representative sample of households throughout the entire economy, documenting their incomes and detailed expenditures.

This publication covers a number of policy areas relevant to poverty alleviation: guidelines on who the poorest are and distribution of poverty alleviation resources; food security; health; education; narcotics; and many others.

Rather than taking an academic approach full of tables that the public have difficulty absorbing, this publication is full of easy-to-understand graphs with a minimum of tables. The text is written simply and may easily be used for workshops around the country.

I am grateful that Dr Wadan Narsey is adding value to the Bureau's HIES surveys with this publication, which will further assist the contribution of the Bureau to the national dialogue on poverty analysis and alleviation.

Timoci Bainimarama
Government Statistician

Acknowledgements

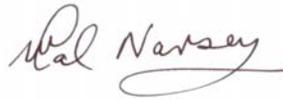
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I am grateful to the FIBoS staff (**) and AusAID (**) who read the draft and made suggestions for improvements.

The basic analysis of the data was begun during my sabbatical at the Kagoshima University Research Center for Pacific Islands and I am grateful to the Center for providing the opportunity to do this work. I am also grateful to The University of the South Pacific for initially granting me the sabbatical.

I am grateful to AusAID which funded the study.

A handwritten signature in black ink, reading "Wadan Narsey". The signature is written in a cursive style with a large initial 'W' and a long, sweeping underline.

Dr Wadan Narsey

Acronyms and Glossary

AE	Adult Equivalent (children less than 15 years old = half an adult)
BNPL	Basic Needs Poverty Line
BNPL pAE	Basic Needs Poverty Line per Adult Equivalent
BNPL p4AE	BNPL per Household of 4 Adult Equivalents (e.g. 3 adults and 2 children)
CPI	Consumer Prices Index (usually referring to that for Fiji)
EA	Enumeration Area
ECREA	Ecumenical Centre for Research, Education and Advocacy
FIBoS	Fiji Islands Bureau of Statistics
FPL	Food Poverty Line
GDP	Gross Domestic Product
Gini	The Gini Coefficient which is commonly used as a measure of inequality.
hh	Household
IMF	International Monetary Fund
Incidence of Poverty (Headcount Ratio):	Percent. of Population Group below the BNPL.
IQ	Population quintiles based on households ranked by Income pAE
HIES	Household Income and Expenditure Survey
NFPL	Non-Food Poverty Line
NGO	Non-Government Organisation
NSA	Non-State Actors
pa	per annum
pAE	per Adult Equivalent
per 4AE	per household of 4 Adult Equivalents
pc	per capita
pm	per month
pw	per week
Poverty Gap	The resources required to move a household or group of households to just above the BNPL
RQ	Regional population quintiles, with households ranked by Income pAE
SPC	Secretariat of the Pacific Community
USP	The University of the South Pacific
WB	World Bank
WTO	World Trade Organisation

1. Introduction

- 1 This publication is somewhat different from the previous poverty report on Fiji using the 2002-03 Household Income and Expenditure data. This report will be referred to here as Narsey (2008).¹ Narsey (2008) was the first substantial analysis of poverty since the 1997 Fiji Poverty Report by the UNDP and Fiji Government², and therefore necessarily had to cover new ground.³ That study updated the 1997 Food Poverty Line (FPL) basket by putting it on a sounder footing, both nutritionally and in relation to actual patterns of food consumption in Fiji. The 2008 Poverty Report also based the Non-Food Poverty Line (NFPL) on the actual patterns of expenditure in 2002-03.
- 2 The recently published *Report on the 2008-09 Household Income and Expenditure Survey for Fiji*, then revised the Basic Needs Poverty Line components as follows:
 - (a) The FPL basket of foods used for the 2008 Report, was valued at 2008-09 prices;
 - (b) the NFPL was adjusted by the percentage change in the non-Food Consumer Prices Index that is measured by the Fiji Islands Bureau of Statistics (FIBoS).
- 3 The methodology of the current analysis has therefore been kept consistent with that used for the 2008 Poverty Report using the 2002-03 data.⁴
- 4 For stakeholders in Fiji's poverty situation, there is now greater choice in terms of methodology, analysis and results, because of a recent World Bank initiative in this area.⁵ While this study uses income as the welfare criterion for both the 2002-03 and 2008-09 analysis, the World Bank study used a modified form of expenditure, and was different in a number of other ways described in Annex B.
- 5 As would be expected given the significant differences in methodology between the World Bank and this study, there are some significant differences in the BNPL values estimated for 2008-09 and 2002-03, and consequently, some differences in the poverty results obtained.
- 6 This Report therefore not only has a discussion of the relative merits and demerits of using the different methodologies, but also an assessment of some of the differences in results, and how they relate to the general understanding of the actual developments of the Fiji economy between 2002-03 and 2008-09, as expressed by other economic

¹ Narsey W (2008) *The Quantitative Analysis of Poverty in Fiji*. Fiji Islands Bureau of Statistics and The School of Economics (FBE, The University of the South Pacific.

² UNDP (1997).

³ The FIBoS felt that much of the data was unreliable, possibly because households were reluctant to give information, soon after the 1987 military coups.

⁴ If comparisons in the incidence of poverty between two time periods are to be useful, it is critical that the same methodology be used for the two time periods.

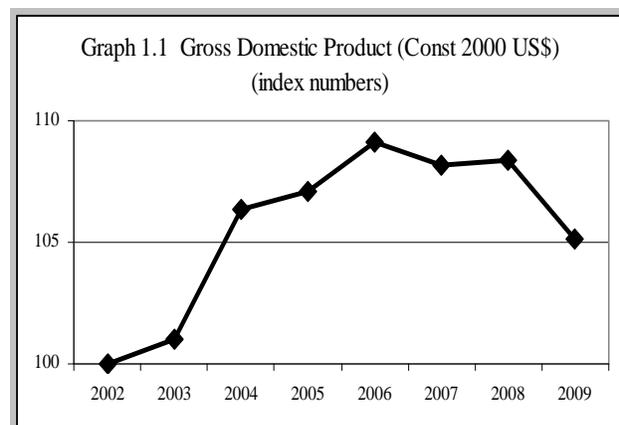
⁵ World Bank (2011) "Poverty Trends, Profiles and Small Area Estimation (Poverty Maps) in Republic of Fiji (2003-2009)". Social Protection Unit, Human Development Group, East Asia and the Pacific Region, WB.

indicators. This Report covers different areas from that covered by the WB Report, although there are some common areas and conclusions.

- 7 One key difference is that World Bank (2011) concluded that “rural areas showed no decline in poverty”. This is contrary to this Report’s findings which indicate that there was a significant worsening of rural poverty. Clearly, the methodology of poverty analysis is important. Poverty stakeholders can make their own judgment on which conclusion seems more appropriate given their understanding of economic trends in Fiji over the period 2002-03 and 2008-09.
- 8 The World Bank study also ventured into a new and useful area: mapping the HIES results into the 2007 Census data frame, in order to obtain “small area” estimates of poverty based on a combination of the 2008-09 HIES and the 2007 Census data.
- 9 This Report is different from Narsey (2008) in that the major objective is to make this report “reader-friendly” and immediately usable by ordinary stakeholders in poverty, such as those likely to use it in workshops and seminars around Fiji. The previous Report was more suitable for academics, rather than practitioners in poverty alleviation in Fiji.
- 10 There is an attempt in this Report to focus on policy areas and recommendations, where the public at large need to be aware of the implications of the solid HIES data for policy formulation in a wide range of areas such as food security, education, health, family planning, computer technology and other areas. This Report is therefore written to facilitate its use as a resource document for public awareness campaigns, that can maximize the return for the large amounts of tax-payers funds used to mount the HIES throughout Fiji and process the data obtained.
- 11 This Report may also be used as a prototype for HIES analysis in other Pacific Island countries, which are now also conducting HIES fairly regularly, with the assistance of the South Pacific Community.

12 The macroeconomic background: 2002-03 to 2008-09

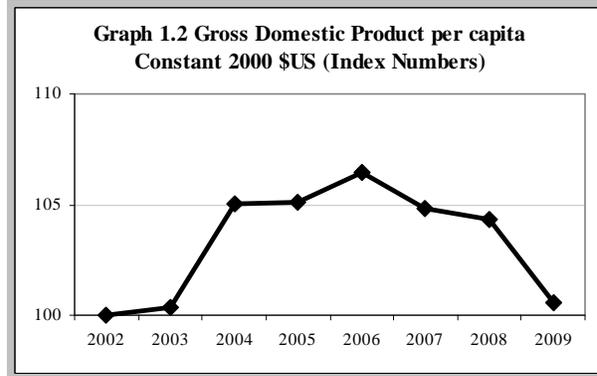
- 13 To better situate the poverty analysis and results, it is important to understand the major macro-economic changes occurring over this period. Gross Domestic Product gives a fairly good indication of the health of the economy over this period. GDP was generally increasing from 2002 to 2006, following which it declined somewhat, to 2009 (Graph 1).



- 14 With a growing population, the GDP per capita indicates a much large

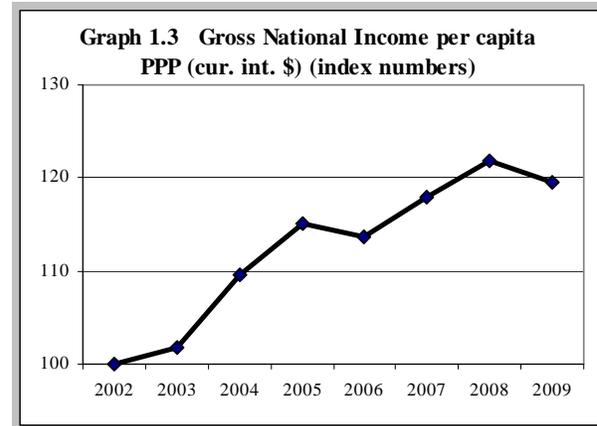
decline after 2006, reverting to just below the 2002 level by 2009 (Graph 2).

15 To take account of the significant remittance income flows, the chart for Gross National Income per capita in PPP current international dollars (index numbers) gives the more positive upward trend, but still turning downwards by 2009.



16 The difference between the more extreme downturn trend in Graph 1.2 and the more moderate downturn in Graph 1.3 is a strong reflection of the positive impact of large foreign remittances on the household welfare, as GDP does not include foreign remittances.

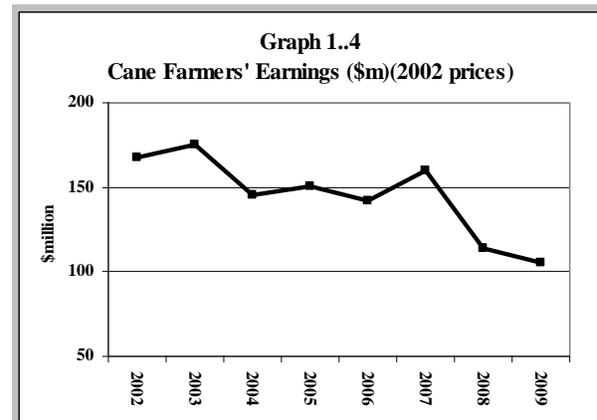
17 The upwards and downwards trends indicated here are also followed by a whole range of other indicators for Fiji, all outlined in the Preliminary Report on Poverty and Household Incomes for Fiji (Narsey et al, 2010): Building Permits Approved and Put in Place; new vehicles registered (commercial and total); electricity usage, gross tourism earnings (in constant dollars) and Cane Farmers' Earnings (Graph 1.4).



18 In particular, strong downward trends were shown for loans to agriculture, and sugar industry earnings, reinforcing the findings of this report that poverty was indeed worsening in rural areas, contrary to the findings of the World Bank study.

A note on quintiles

19 Throughout this Report, there will be tables and graphs which give statistics by “quintiles” or “20% groups of population”⁶. It is important to be clear about the difference between “national” quintiles and “regional” quintiles. National quintiles (eg IQ1) will refer to the bottom 20% of Fiji’s population in households ranked by Income per Adult

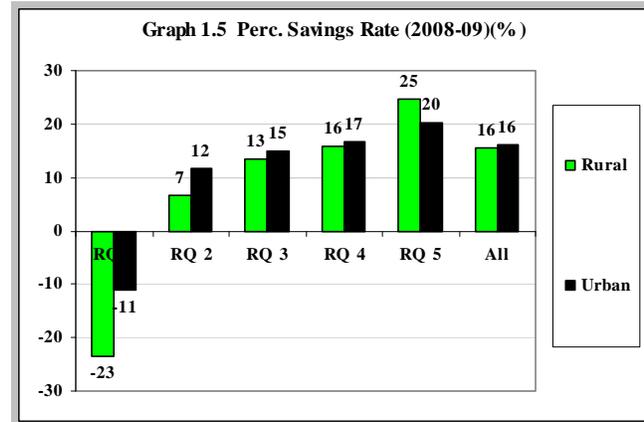


⁶ Quintiles can also comprise 20% of households, but population is preferred because it is exact. Percentages of households could have quite different percentages of populations depending on the average household sizes.

Equivalent. Usually, the bottom quintiles (IQ1, IQ2) are dominated by rural people and the top quintiles (IQ4, IQ5) are dominated by urban people.

20 Regional quintiles are quintiles identified separately for rural urban areas. Thus where the quintile refers to rural people, RQ1 is the bottom 20% of rural people, while RQ5 will be the top quintile for rural people. Where the quintile refers to urban people, RQ1 will refer to the bottom 20% of urban people, while RQ5 will refer to the top 20% of the urban people.

21 The graphs will usually have the poorest quintiles (RQ1 or IQ1) on the left, and the richest quintiles on the right (RQ5 or IQ5), often followed by the national figure for all rural areas and urban areas, or for all Fiji. There will often be values associated with the columns or graph points.



22 On the graphs, the rural quintiles will usually be shown in green, while the urban quintiles will be in black.

23 Thus in Graph 1.5 (which gives the Percentage Savings Rates separately for rural and urban quintiles in 2008-09), one can see that there is the expected “dis-savings” (i.e. household expenditure higher in aggregate than household income) at the lowest quintiles with the rate for rural RQ1 being -23% while that for urban RQ1 being -11%. The columns representing negative values will be below the 0 axis, while the positive values will be above the 0 axis.

24 Graph 1.5 indicates that the savings rates then become positive for RQ 2 onwards, with the urban savings rates being higher than rural savings rates for RQ2, RQ3 and RQ4, with the relativity reversing for RQ5.

25 In aggregate (All), rural and urban households had the same savings rate of 16% in 2008-09.

2. How identify the poor: the Basic Needs Poverty Line

2 How identify the “poor”? Basic Needs Poverty Line Value

26 The basic quantitative analysis of poverty is usually conducted internationally as follows:

- (a) To ensure that stakeholders in poverty do not become overly engrossed in quantitative analysis of poverty, it has to stressed that poverty (like good standards of living) has multiple dimensions, which in turn require the monitoring of many quantitative indicators. Nevertheless, there has to be some simple quantitative criterion which enables consistent regional comparisons within a country, and international comparisons.
- (b) Some criterion has to be chosen for ranking households in poverty: the usual choice is between income and expenditure.
- (c) The poverty criterion needs to be adjusted for household size i.e. criterion becomes Expenditure per Adult Equivalent or Income per Adult Equivalent (many methodologies).
- (d) There needs to be Food Poverty Line (FPL) (many methodologies)
- (e) There needs to be a Non-Food Poverty Line (NFPL) (many methodologies)
- (f) The FPL is added to the NFPL to obtain the Basic Needs Poverty Line (BNPL);
- (g) Households which are below the BNPL standard are assessed to be “poor” and the proportion of total population below the BNPL is then the “incidence of poverty” or the “Head Count Ratio”.⁷
- (h) Other statistics may then be derived such as the Poverty Gaps (resources required to make a household “non-poor”, and guidelines for distribution of poverty alleviation resources.

Poverty is multi-dimensional

27 Poverty may be defined in many different ways. International comparisons are usually made with “Absolute Standards” such as the need to have an income or expenditure of US\$2 per day as a minimum to satisfy the basic needs of one adult person. However, it is also internationally accepted that there is a need for multidimensional approaches which examine all the material factors that contribute to persons feeling “satisfied”.

⁷ It is important to use percentages of the population and not households, because different households have different numbers of persons in them, and the average household size may change between two different time periods.

2. How identify the poor: the Basic Needs Poverty Line

- 28 Amartya Sen's (1999) work "Development as Freedom" is often a starting point for discussion. Dasgupta's (1993) *Inquiry into Wellbeing and Destitution* points to a whole range of measurable and some immeasurable conditions such as health and nutrition, sense of personal utility, political and civil liberties, resources and property rights, access to public goods, intra-household inequalities, and national taxation and subsidy systems.
- 29 Townsend (1993:36) defined poverty as "relative deprivation" where a poor person "cannot obtain, at all or sufficiently, the conditions of life – that is, the diets, amenities, standards and services – which allow them to play the roles, participate in the relationships and follow the customary behavior which is expected of them by virtue of their membership of society". Such an approach requires an analysis of deprivation not just at work, but also at home, in the neighborhood, travel, and all arenas for the fulfillment of social obligations.
- 30 Such multidimensional discussions of poverty now permeate the thinking of the international and regional organizations which set the international agenda for policy analysis, as illustrated by the United Nations' use of Millennium Development Goals (MDGs) or somewhat more narrowly, the Human Development Index (HDI).⁸
- 31 Thus MDG 1 is the eradication of extreme poverty and hunger, with two targets. Target 1 is set out to be the halving of the proportion of people who are living on incomes below US\$1 per day (or US\$2 per day), between 1990 and 2015. Target 2 is to halve the proportion of people who suffer from hunger. There are also hundreds of other targets which reflect different aspects of poverty.
- 32 The UN's Human Development Index (HDI) brings together component indices based on long and healthy life (life expectancy), state of knowledge (adult literacy and total enrolment at primary, secondary and tertiary levels), and decent material standard of living (Gross Domestic Product per capita in PPP US dollars). The UN also has indices on poverty such as the Human Poverty Index, Gender Related Development Index, and the Gender Empowerment Index.
- 33 The UN gives extensive internationally comparable data on a whole series of economic, technological, social, and political variables, which are recognized to express the state of development, underdevelopment and poverty.⁹
- 34 The World Bank approach also addresses risk, vulnerability and social capital and the need to examine the implications of policy changes for poverty through a wide-ranging set of transmission channels such as employment; prices

⁸ The 2007-08 Report and discussions around it may be read at the website <http://hdr.undp.org/en/reports/>.

⁹ Internationally comparable data, for instance, are available on carbon dioxide emissions, crime rates, international conventions which have been signed, aid, foreign debt, etc.

2. How identify the poor: the Basic Needs Poverty Line

- (production, consumption, and wages); access to goods and services; assets; and transfers and taxes.¹⁰
- 35 Similar approaches are taken by the Asian Development Bank (ADB) which has an influential role in analyzing poverty and devising poverty reduction strategies for many Pacific Island countries.¹¹
- 36 ADB (2007) emphasizes the need to understand three related poverty concepts: human poverty (lack of essential human capabilities such as education and nutrition), income poverty (lack of sufficient income to meet basic needs) and absolute poverty (the degree of poverty below which the minimal requirements for survival are not being met, in food and non-food essentials). ADB (2007) also holds “vulnerability” to be important, identified as environmental risk (droughts, floods, and pests); market risk (price fluctuations, wage variability, and unemployment); political risk (changes in subsidies or prices, income transfers, and civil strife); social risk (reduction in community support and entitlements); and health risk (exposure to diseases that prevent work).
- 37 Readers might also need to keep in mind the quite difficult issues associated with the well known reality that materially rich people are not necessarily “happy” and that materially poor people are not necessarily “unhappy”, an issue popularized internationally by the King of Bhutan’s advocacy of the measure “Gross National Happiness” rather than “Gross National Product” as a measure of national well-being.¹²

Use of wealth, income, or expenditure?

- 38 While the multi-dimensional approaches are vital for understanding the nature of poverty, the practical reality for poverty stakeholders is that simple quantitative assessments of poverty are the necessary first step, for a number of reasons: to assist stakeholders to better target their poverty reduction strategies nationally (whether by regions, ethnicity, gender, employment characteristics etc.) and internationally; to be able to assess how much public resources would be required to eliminate poverty or reduce it to target levels; to evaluate the effectiveness of institutions whose goal it is to help the poor; to monitor the state of poverty over time, so as to assess the degree of success or failure of past policies; and to keep the poor and poverty on the agenda, if poverty is considered a serious enough problem.
- 39 It is common sense that the capacity of an individual to enjoy a particular standard of living is indicated not just by current income or expenditure, but the overall

¹⁰ World Bank (2006) *A User’s Guide to Poverty and Social Impact Analysis*. Poverty Reduction Group and Social Development Department..

¹¹ *Poverty Impact Analysis: selected tools and applications*. Asian Development Bank, 2007. Appendix 1, Poverty Definition, Measurement, and Analysis.

¹² Read the discussion in the Box on p.3. of Narsey (2008).

2. How identify the poor: the Basic Needs Poverty Line

- “wealth” of the individual. Some individuals may have low flows of income and/or expenditure but possess quite high levels of wealth such as potentially productive land or property which may not be producing flows of income that could be expected at market rates of return. There may be individuals in the population who possess significant amounts of wealth in the form of financial securities, or real estate, which may result in moderate flows of income, but which do not reflect adequately the degree of economic security and sense of material well-being possessed by the wealth owner, nor the capacity of the household to indulge in higher expenditure by judicious liquidation of the wealth over the household’s.
- 40 This issue may also be an important consideration for ethnic comparisons in the Fiji context where indigenous Fijians are generally supposed¹³ to have access to their *mataqali* land which may not be optimally used, while there are large proportions of Indo-Fijians who do not own land. Food poverty, for instance, should not be an issue where there is ready access to adequate land and sea resources. Lack of access to land and sea resources would also give a perspective on income poverty of households.
- 41 It is an unfortunate weakness of Fiji’s HIES that there have been no questions on land ownership and access, which could have allowed this to be factored into the analysis. This Report will attempt a preliminary analysis on poverty and household assets which are recorded by the HIES.

Differences from World Bank Study

- 42 During the same period when the FIBoS was sponsoring the use of the 2008-09 HIES for poverty analysis, the World Bank also conducted an exercise to estimate poverty in Fiji as well as to try and relate the 2008-09 HIES small sample data to the complete 2007 Census data on all households in Fiji.
- 43 The World Bank chose to use a modified form of consumption expenditure of households which is the preferred criterion the World Bank used in Low and Middle Income countries. The World Bank argument is that consumption expenditure represents the current standard of living, and usually smoothes out fluctuations in long term incomes through savings and informal social insurance opportunities. They believe that income on the other hand, is likely to be under-reported, some parts of income (such as from informal activities) are difficult to observe.
- 44 These arguments do have some validity. However, my 2008 study chose income as the criterion, primarily because in Fiji, the evidence indicates that different groups of individuals choose to spend more or less of their same income, not because of any intention of evening out consumption over their life-time, but because of systemic preferences for saving leaving larger inheritances, and

¹³ Many Fijian communities do not own land, and much of the best native lands are leased out.

2. How identify the poor: the Basic Needs Poverty Line

- possibly investing for future consumption. Others on similar incomes may have higher consumption levels even funded by borrowings. Both the 2002-03 HIES and the 2008-09 HIES data indicate that the sub-groups which are differentiated in this study for the analysis of poverty, do have significant differences in propensities to save, and hence consume. It is the opinion of this author that poverty estimates based on consumption expenditure would tend to produce systematic biases.
- 45 Consumption expenditure may also have measurement problems, such as the question of including large expenditures for ad hoc events such as weddings and funerals, and also the appropriate amortization of durable goods whose purchase prices and dates may not be known.
- 46 The World Bank also decided to leave out expenditures on durable goods¹⁴ as well as on hospitalization.¹⁵ The WB study noted that their “sensitivity analysis reassuringly showed little impact of this omission on the poverty estimates”.
- 47 Both these omissions may be debated. If the households had not made these expenditures, then presumably the equivalent monies would be available for other expenditure, which would therefore raise the value of total expenditure by that household as measured, and make the household appear “richer”. If the sensitivity analysis indicated “little impact” on the poverty analysis, one would have thought it simpler to not make the adjustments at all.
- 48 This study will continue to use household income as the major criterion for poverty analysis, although analysis has also been conducted using the unadjusted consumption expenditure as the criterion. The results indicate that there are large proportions of households indicated to be “poor” by the expenditure criterion, who are “not poor” by the income criterion. Conversely, there are significant proportions of households indicated to be “poor” by the income criterion, who are “not poor” by the expenditure criterion. Annex * therefore gives results on poverty by both the income and expenditure criteria. Annex * will also give some comparisons with the World Bank results, and point to some different results.

Adjusting for Household Size

- 49 Both this study and the World Bank use the same “Equivalence Scale” to adjust the household welfare criterion for household size, as has been used by previous studies for Fiji and elsewhere in the Pacific. The welfare criterion (income or expenditure) is divided by the number of “Adult Equivalents” in the household: each child aged 0 to 14 is treated as half an adult, and over 14 as one adult. See Narsey (2008, p.14) for an explanation for this procedure.

¹⁴ Their rationalisation “to avoid introducing noise into the poverty estimates”.

¹⁵ Their rationalisation: health expenditures are omitted as a conventional practice, since these expenditures are a “regrettable necessity” that incorrectly registers an increase in welfare when loss of welfare from being sick cannot be estimated.

2. How identify the poor: the Basic Needs Poverty Line

Estimating the Values for Food Poverty Line

50 Narsey (2008) estimated the FPL values for 2002-03 by

- (a) Presenting the actual expenditure on major food items consumed by the third quintile in 2002-03 to the Fiji Food and Nutrition Centre, who then devised a 2-week menu of food for a family of 5 (comprising 2 adults, 1 teenager and 2 children below age 15) i.e. 4 Adult Equivalentents (here given as Annex A). There are only some 41 items in total altogether, with each group only having about 35 items priced for their FPL: about 8 items of carbohydrates, 7 items of fish and meat (including eggs), 3 items of Fats and Oils, 10 vegetables, 2 fruits, and 6 condiments.
- (b) These menu items were then priced to give the total FPL values for rural and urban Fijians and urban and rural Indo-Fijians and divided by 4 to give the FPL per AE.
- (c) The nutrient values of these baskets of foods are given in Annex *.
- (d) No adjustment was made up or down to achieve the supposed target of 2100 Kcals per day. The menu as quite basic, different from what would be consumed by either the affluent or the totally poverty stricken.¹⁶

51 These same four baskets of foods were also used for 2008-09 and priced at 2008-09 prices, but the ethnic values were then merged by using the population weights to obtain separate urban and rural FPL values. The rationale for this merging was that poverty gaps (on which are based guidelines for poverty alleviation resources), cannot be estimated with reference to ethnicity). It may be noted that the WB approach to the FPL derived one single value used for rural and urban Fiji, without reference to ethnic or any other differences in diets. The WB approach has the value of simplicity.

52 Over the last three years, there have been serious disagreements with employers over the values used for the FPL and BNPL by the Wages Councils in Fiji. While the World Bank approach may have the technical advantage for them that it is in keeping with their analysis the world over, for ordinary stakeholders in poverty in Fiji, the WB methodology is a “black box” which would have grave difficulty in being explained and argued for or against.

53 The Food Poverty Line Basket method used in Narsey (2008) has a transparent and sensible explanation as to what it costs households to buy certain quantities of foods accepted as necessary for decent nutrition. Stakeholders can “see” exactly why the value of the FPL has to be increased and by how much.

¹⁶ Of course, there has to be much subjectivity about this. Such concerns can only be decided by ‘social consensus’ amongst all the stakeholders.

2. How identify the poor: the Basic Needs Poverty Line

- 54 One criticism may be made is that there is little to be gained by having separate Food Poverty Line baskets for different ethnic groups and for different areas. It may be politically useful to just have one Food Poverty Line Basket which can then be priced over time, and changed as food consumption patterns change over the long term.

Estimating the Values for Non-Food Poverty Line

- 55 The approach taken by Narsey (2011) for estimating the NFPL values has been to take the values used for the NFPL in the analysis of the 2002-03 data, and then adjust it by the non-Food components of the Fiji CPI, over the same period to 2008-09.
- 56 Thus not only is the FPL adjusted by the actual change in prices, but so also in the NFPL standard used in for the analysis of the 2002-03 data, adjusted by the inflation of non-food items between the two HIES.

The Resulting Values for Food Poverty Lines and Basic Needs Poverty Lines

- 57 Table 2.1 gives the resulting estimated values for the FPL and BNPL for 2002-03 and 2008-09.

	Rural	Urban	FIJI	%(U-R)/R
	Food Poverty Line			
2002	15.99	15.84	15.92	-1
2008	21.76	21.28	21.52	-2
% Change	36	34		
	Basic Needs Poverty Lines			
2002	31.30	36.02	33.43	15
2008	40.82	46.10	43.43	13
% Change	30	28		

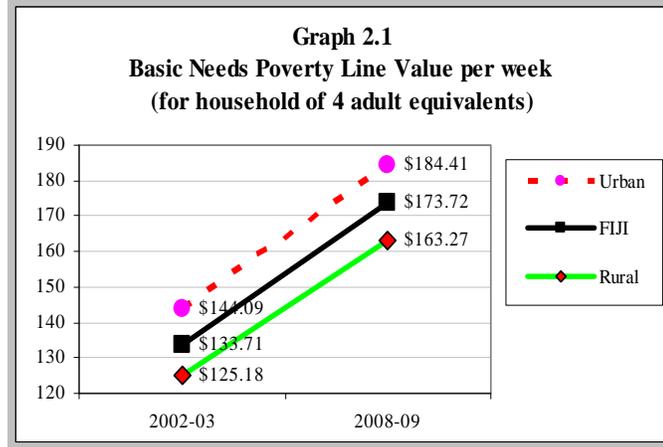
- 58 There are very little rural:urban differences in the values for the FPL, although the differences in the Non-Food Poverty Lines¹⁷ are such as to have a moderately higher value for the BNPL- by 15% in 2002-03, reducing slightly to 13% in 2008-09.

- 59 In order to keep the analysis of poverty simple for stakeholders, we focus only the Basic Needs Poverty Lines for 2008-09, compared with what was used for the 2002-03 data.

¹⁷ These are easily estimated by subtracting the FPL from the BNPL values.

2. How identify the poor: the Basic Needs Poverty Line

60 The BNPL for a household of 4 Adult Equivalents (or 3 adults and 2 children) was \$173.72 for Fiji in 2008-09, some \$10 dollars higher (\$184) for urban households and some \$10 lower for rural households.



61 It may be noted that the WB values for the BNPL are just 2% lower for urban households in 2008-09, and about the same for 2002-03. However their BNPL for rural households is a large 14% lower in 2008-09 and 10% lower for 2002-03. The other difference from the WB analysis is that while the CPI changed between the two surveys by 27%, this study's values for BNPL increased by around 29%, while the WB values for BNPL changed by a much lower 25% (the same for both rural and urban) households. The implications for the different poverty results are presented in Annex B.

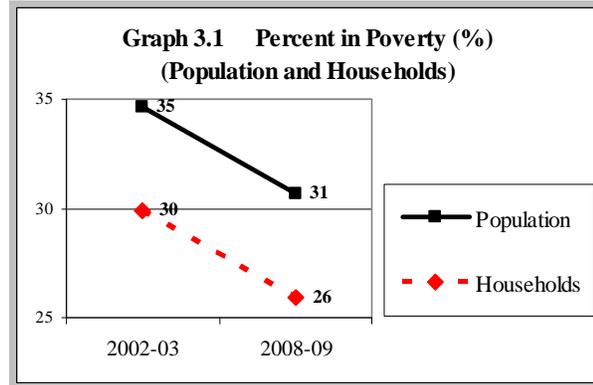
62 ***Recommendation 2.1: Stakeholders in poverty in Fiji, examine the usefulness of developing one Food Poverty Line basket of foods for all Fiji, satisfying the basic nutritional requirements, without reference to ethnicity or area.***

63 ***Recommendation 2.2: Stakeholders discuss the methodology and resulting values of the BNPL, both for 2008-09 and using the current prices (i.e. for 2012) for the Food Poverty Basket and CPI-adjusted BNPL, with a view to approval for general use as guidelines for Minimum Wages.***

3. Results for the Incidence of Poverty or Head Count Ratios

3. Key Results for Incidence of Poverty or Head Count Ratios

64 The “incidence of poverty” is defined as the “Percentage of the Population Below the Basic Needs Poverty Line” (BNPL) popularly referred to as the Head Count Ratio.



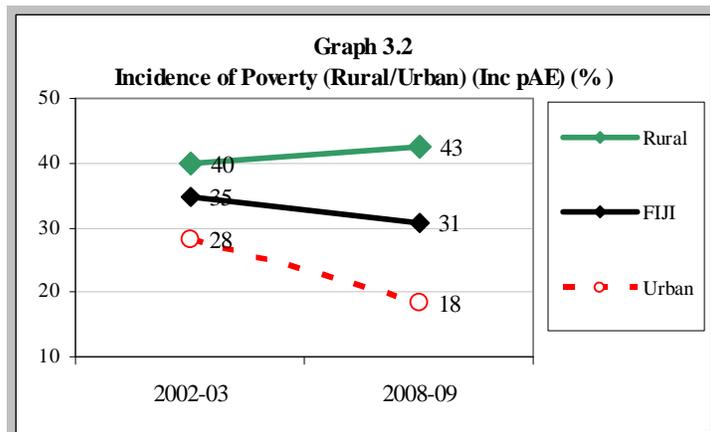
65 Between the two HIES, the percentage of households in poverty declined from 30% to 26%, while the percentage of the population in the households declined from 35% to 31%. The percentage of population in poverty is usually higher than the percentage of households in poverty because poor households are usually larger on average than non-poor households (Graph 3.1).

66 Given the trends indicated in Section 1, it may be confidently surmised that the national incidence of poverty was probably declining from 2002-03, and rose slightly in 2008-09.

	2002-03	2008-09	% Ch.
Rural	40	43	6
Urban	28	18	-34
All	35	31	-11

67 Graph 3.2 and Table 3.1 indicate that the reduction in poverty was uneven: the urban areas saw a dramatic reduction in poverty from 28% to 19% (a reduction of 34%), while poverty in rural areas increased from 40% to 43%. This is in keeping with the indicators presented in Section 1, on the decline in the sugar industry, and declining proportions and amounts of loans to agriculture.

68 This result for rural areas contradicts the result from the WB study that poverty in rural areas remained the same (at around 44%). If the result in this study is more consistent with what the deterioration that is known to have occurred in rural areas, then it casts doubt on the overall methodology of the WB study. Some possible explanations of this study’s different results from that of the WB are explored in Annex B.



3. Results for the Incidence of Poverty or Head Count Ratios

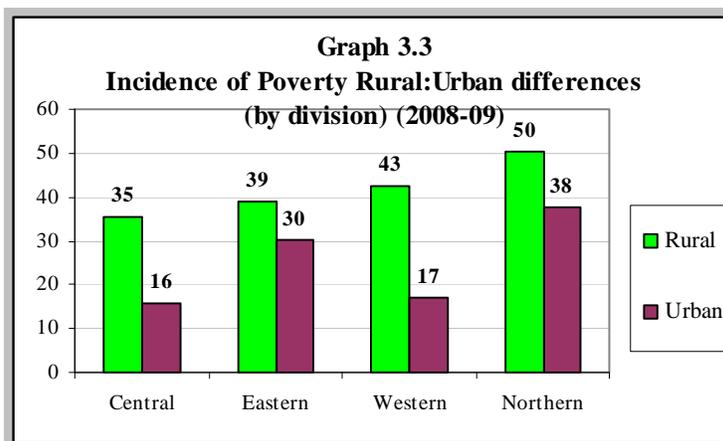
69 All the divisions, except the Eastern Division, saw some reduction of poverty (Table 3.2). The Northern Division, however, remained the most poor of all the divisions, with some 47% of the occupants below the BNPL.

Division	2002	2008	% Ch.
Central	26	21	-17
Eastern	35	37	4
Northern	53	47	-11
Western	36	32	-11
FIJI	35	31	-11

70 Disaggregating by rural and urban continues the earlier conclusion that all the rural divisions have much higher incidence of poverty than their corresponding urban households (Graph 3.3).

71 Rural Northern had the highest rate of poverty (50%), while urban Northern had the highest rate of urban poverty (47%).

72 With the overall estimated rural Northern population remaining the same as in 2002-03, while the number of Poor seems to have declined, one possible explanation may be that the poorest in the rural Northern division have migrated out to urban areas, both in Vanua Levu and Viti Levu.



73 It is also a possibility that the remaining Indo-Fijians have better access to resources as well as marketing opportunities through networking with Northern migrants to Viti Levu.¹⁸ Other statistics in this Report indicate that there may also have been an increase in agricultural output in the northern division, with some reduction in rural crime.¹⁹

74 Ethnic dimensions of poverty have always been of interest in Fiji, although the data here suggests that it should not be of any great significance in the future. Table 3.3 indicates that the two major ethnic groups had almost the same incidence of poverty in 2002-03 (around 35%) and in 2008-09 (around 31%) and the same reductions in poverty of around -10%. The “Others” group saw a slight increase in poverty.

Ethnicity	2002	2008	% Ch.
iTaukei	35	31	-10
Indo-F	36	32	-11
Other	24	25	4
All	35	31	-10

¹⁸ Personal communication from Mr Baljeet Singh (Lecturer in Economics, USP)

¹⁹ FIBoS field staff gave anecdotal evidence that there are some agricultural and other projects which are beginning to bear fruit in the Northern division.

3. Results for the Incidence of Poverty or Head Count Ratios

75 No doubt a reflection of the continuing decline through emigration and lower fertility rates of the Indo-Fijian population, indigenous iTaukei increased their share of the Poor from 55% to 60% while Indo-Fijians reduced theirs from 42% to 35%. This will have a direct bearing on the prescribed ethnic shares of poverty alleviation resources (see below).

76 The current trends indicate that with higher and improving income opportunities in urban areas, the rural:urban drift has continued its inexorable advance. Failure to improve the living standards and household incomes in rural areas, together with a continuation of poverty alleviation measures in the highly visible and easily accessible urban areas, will only serve to accelerate the rural:urban drift, increase pressures for basic services in urban areas, while further worsening rural poverty.

Ethnicity	2002	2008	% Ch.
iTaukei	55	60	9
Indo-F	42	35	-16
Other	3	5	53
All	100	100	

77 It is of the utmost importance that development strategies for Fiji and public sector infrastructure investment programs focus their efforts on rural development, including the appropriate support for cash income generating agriculture.

78 ***Recommendation 3.1 Participants agree that the rural households face the highest incidence of poverty, compared to urban households.***

79 ***Recommendation 3.2 Participants agree that the Northern Division has the highest incidence of poverty and is in need of special attention.***

80 ***Recommendation 3.3 Participants agree that there are no significant ethnic differences in the incidence of poverty.***

81 It is absolutely important that there is national consensus on these three conclusions/recommendations presented here so that political decision making in line with these recommendations can proceed without being side-tracked by vested lobby groups. Allocation of development and poverty alleviation resources are “zero-sum” games- more for one group usually means less for others, who will have a vested interest in maximizing their own shares.

4. Poverty Gaps: Guidelines for Distribution of Poverty Alleviation Resources

4 Poverty Gaps and Required Poverty Alleviation Resources

82 Of interest to poverty stakeholders is the amount of poverty alleviation resources that are needed to lift each Poor household to just above the Basic Needs Poverty Line. This depends on two variables: how far below the BNPL each household hold is; and how many poor households there are with their different poverty gaps. Thus if the BNPL is \$41.15 per Adult Equivalent per week, and a particular household has an Income pAE pw of say \$40, then the poverty gap is \$1.15 per Adult Equivalent per week. The total resources required to shift this household up to the BNPL would be:

$$(i) (\$1.15) * (\text{the size of household in AEs}) * 52.$$

83 Aggregating these amounts for all the poor households (using the HIES weights for each household) in the country then gives a rough estimate of the total amount of poverty alleviation resources that the country would theoretically require, if all the poor households were to be given a cash transfer to lift them to the BNPL. If necessary, these aggregates may be compared with what Government actually spends on the Poor households for poverty alleviation.

84 Table 4.1 presents the positive news that between the 2002-03 HIES and the 2008-09 HIES, the value of the Poverty Gap rose by 26% from \$120 million to \$152 million in nominal terms. This increase was more than compensated by the 40% increase in GDP (current prices) and 41% increase in Government Expenditure (current prices).

	2002-03	2008-09	% Ch.
	\$ million		
Poverty Gap	120	152	26
GDP (<i>cur.pr.</i>)	3465	4861	40
Govt. Expend.	1065	1499	41
	Poverty Gap as Perc. of		
GDP	3.5	3.1	-10
Govt. Expend.	11.3	10.2	-10

85 Hence the Poverty Gap as a percentage of GDP fell by 10% from 3.5% to 3.1%. In normal times, this amount would represent the annual growth rate of Fiji's GDP in a good year. However, Fiji's average real growth rate of GDP over the last ten years has unfortunately been much less than that and finding this amount of resources for poverty alleviation is even harder.

	2002	2008	% Ch.	% Real Ch.
Rural (\$m)	74	108	46	15
Urban (\$m)	47	44	-4	-25
All (\$m)	120	152	27	0
Rural Share (%)	61	71		

86 The Poverty Gap as a percentage of Government Expenditure also fell by 10% from 11.3% to 10.2%. While not a large percentage in normal times when Government Revenues are buoyant, this percentages poses a serious challenge

4. Poverty Gaps: Guidelines for Distribution of Poverty Alleviation Resources

when the economy is not performing well, and Government revenues are stagnant or declining in real terms.

87 While the total amount of poverty alleviation resources required for all Fiji increased by 27% in nominal terms, and 0% in real terms (allowing for 27.1% inflation in the CPI) that required for Rural Fiji increased by 15% while that required for Urban Fiji decreased by -25% (Table 4.2).

88 With the incidence of poverty increasing relatively more in rural areas, it is not surprising that the rural areas also deserve a much larger share of poverty alleviation resources, increasing from 61% in 2002-03 to 71% in 2008-09 (last row Table 4.2).

89 It is natural that urban poverty is more visible to poverty stakeholders, being concentrated in locations, in contrast to rural poverty which is dispersed widely. Nevertheless, the statistics in Table 4.2 must drive home the message that poverty alleviation measures by Government, NSA/NGOs, donor agencies and international organisations, must focus on rural areas far more than on urban areas. If poverty alleviation measures and resources continue to be focused on urban areas, all the indications are that rural:urban migration will be exacerbated even more than indicated by the current trends.

90 Table 4.3 indicates that for 2008-09, the Western Division would have required some 42% of all the poverty alleviation resources, with 33% due to Rural Western households. This is a considerable worsening from the situation in 2002-03, and is no doubt a reflection of the severe decline in the sugar industry.

Division	Rural	Urban	All
Central	10	14	24
Eastern	4	1	6
Northern	23	6	28
Western	33	8	42
All	71	29	100

91 It should be noted that the Northern Division is deserving to a higher percentage of total poverty alleviation resources (28%) than the Central Division (24%). In the Northern Division as well, of the 28% of total resources, 23% would need to be devoted to rural households.

92 Table 4.4 gives the ethnic shares of poverty alleviation resources indicated by the 2008-09 HIES data, with some 57% to iTaukei and 38% to Indo-Fijians.

Ethnicity	Rural	Urban	All
iTaukei	44	13	57
Indo-F	24	14	38
Other	2	2	5
All	71	29	100

93 It should be noted that these are virtually the population relativities at the time of the 2007 Census: *poverty alleviation resources, if allocated purely according to need, would be in the same proportions to the ethnic shares of population.*

4. Poverty Gaps: Guidelines for Distribution of Poverty Alleviation Resources

- 94 *Politicians need to take heed of this very fundamental conclusion arising out of the objective HIES data that poverty alleviation measures cannot be justified by reference to ethnic categories.*
- 95 Again, not a surprise, the largest shares of all poverty alleviation resources (some 71%) should accrue to the Rural Groups with only 29% indicated for the urban areas.
- 96 ***Recommendation: Assess what percentage of total government expenditure is the amount allocated directly for direct poverty alleviation purposes and compare with target of 10%.***
- 97 ***Recommendation: In all national allocations of poverty alleviation resources, and broad development initiative, a rough target should be to allocate roughly 70% to rural areas.***
- 98 ***Recommendation: Poverty alleviation resources are to be allocated purely on the basis of need, not ethnicity.***

5 Income Sources: changes 2002-03 to 2008-09

99 The most effective and sustainable method to tackle poverty over the long term is to improve the income earning capacities of the population groups who are vulnerable to poverty.

100 Average household incomes do not give a good indication of the vulnerability of the different groups, since the HIES aggregates the incomes of everyone in the household.

101 Nevertheless, the income sources and associated values are recorded, although the number of persons earning those incomes are not on the database.

Income sources	2002-03	2008-09	% Ch.	R % Ch.
	\$ millions		Percentages	
Wages Permanent	851	1344	58	24
Wages Casual	228	294	29	2
<i>Agricultural Business</i>	197	216	10	-14
<i>Commercial Business</i>	145	126	-14	-32
<i>Home Consumption</i>	151	158	4	-18
All Remittances/Gifts	84	259	206	141
Other Income	342	652	91	50
Total Household Income	1998	3048	53	20

102 Table 5.1 gives the total values for 2002-03 and 2008-09 and the nominal and real changes, adjusted for the CPI inflation of 27%. Table 5.2 gives the total shares of the incomes sources in Total Household Income, and the percentage changes between the two HIES.

103 While Total Household Income increased in real terms by 20%, there were significant differences in the trends in the components.

104 The really worrying signs were that all the productive sectors (Agricultural Business, Commercial Business²⁰ and Home Consumption) showed large declines in real values (grey shades).

105 Transfers (Foreign and Local Remittances, and Gifts) showed a large increase in aggregate of 141%, while that of Other Incomes indicated a large increase also of 50%.

Income source	2002	2008	% Ch.
Wages Permanent	43	44	4
<i>Wages Casual</i>	11	10	-15
<i>Agricultural Business</i>	10	7	-28
<i>Commercial Business</i>	7	4	-43
<i>Home Consumption</i>	8	5	-32
Remittance Abroad	2	4	134
Remittance Local	1	1	39
Gifts Received	2	4	99
Other Income	17	21	25
Total Income	100	100	
Productive sectors	25	16	-34

²⁰ The overall values and shares of incomes from Commercial Business appear to be very much on the low side and need cross-referencing from FIRCA.

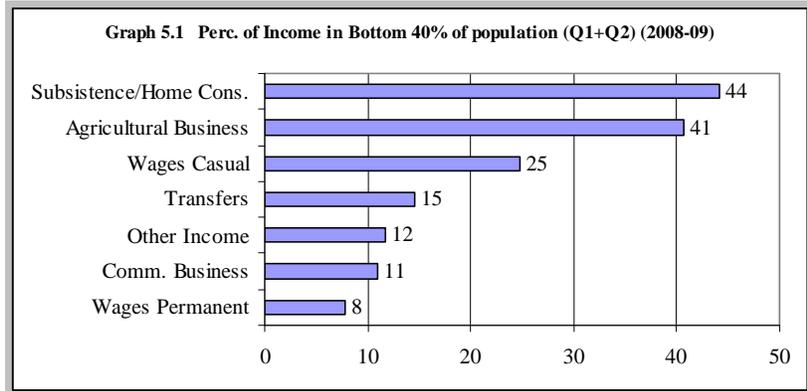
5. Income Sources: changes 2002-03 to 2008-09

106 In Wages and Salaries, “Wages Permanent” managed a real increase of 24% during this period, while Casual Wages showed a mere decline of 2%. Wages Permanent refer largely to salaried

Income source	IQ 1	IQ 2	IQ 3	IQ 4	IQ 5	FIJI
Home Consumption	20	24	23	21	11	100
Wages Casual	9	16	22	24	29	100
Wages Permanent	2	6	12	22	59	100
Agric. Business	17	24	25	20	14	100
Comm. Business	3	7	13	22	54	100
Foreign Remittances	4	6	10	13	67	100
Local Remittances	8	10	15	24	42	100
Gifts Received	7	11	16	23	43	100
Oth Inc	5	7	10	17	61	100

employees in the formal sector- government, statutory organization and the private companies. Wages Casual refer to employees mostly in the non-unionized sectors, covered largely by Wages Councils.

107 Overall, the worrying result is that in aggregate productive sectors saw an extremely large 34% decline from 25% to 16% share of total household incomes.



108 The fact that Casual Wages also saw a large decline in its share while that of Permanent Wages increased slightly, emphasizes the vulnerability of the informal sector during economic down-turns, and the relative security of formal sector salaries and wages.

109 Table 5.3 indicates which quintiles particular incomes sources fall into. Interestingly, some 67% of Foreign Remittances, and around 42% of Local Remittances and Gifts are received by households in the top quintile. It would be an interesting exercise to examine the state of poverty of households, if these income sources were excluded.²¹

110 Graph 5.1 indicates more clearly the income sources which are most associated with households in poverty. The most vulnerable with some 44% of their income falling in households in the bottom 40% of the population, was income from from subsistence or home consumption. This was closely followed by income from commercial agriculture, of which 41% fell in the bottom 40% of Fiji’s population.

²¹ The World Bank study did an econometric exercise on this issue.

5. Income Sources: changes 2002-03 to 2008-09

111 Income from Casual Wages was next in vulnerability, with some 25% falling in the Bottom 2 quintiles.

112 The converse of these problems is that only 8% of income from Permanent Wages, and only 10% from Commercial Business fell into the bottom 2 quintiles, suggesting that these two sources of income are not prone to poverty.

113 Subsistence incomes rarely get the attention they deserve.

Data	IQ 1	IQ 2	IQ 3	IQ 4	IQ 5	FIJI
Home Consumption	5	-3	-8	-18	-57	-18
Wages Casual	-17	-9	-2	5	17	2
Wages Permanent	11	46	28	26	22	24
Agric. Business	42	24	-3	-28	-54	-14
Comm. Business	21	6	8	-16	-45	-32
Foreign Remittances	200	81	88	42	310	181
Local Remittances	24	5	45	78	116	67
Gifts Received	205	173	227	193	88	139
Oth Inc	-5	2	10	27	90	50
Total	12	17	14	15	26	20
All Transfers	139	94	125	103	175	141

114 Table 5.4 indicates the sources of income and their national quintile levels, which have declined in real terms between 2002-03 and 2008-09.

115 Thus Home Consumption increased only slightly (by 5%) in national Quintile 1 while declining most seriously in all the higher quintiles.

116 Casual Wages have declined significantly in the lowest three quintiles, while Quintile 1 saw a real decrease of -17%. Some increase took place in the higher quintiles, giving a small 2% increase altogether.

117 In contrast, Permanent Wages saw large real increases from quintile 2 upwards, with even the Quintile 1 seeing a positive 11% increase.

118 Agricultural Business and Commercial Business saw large decreases in the upper quintiles while paradoxically, there were moderate increases in the bottom two quintiles.

119 All the transfers (Foreign and Local Remittances, and Gifts) saw large increases at all quintile levels, with foreign remittances in particular seeing large increases at the lowest quintiles and at the highest quintiles. It must be remembered however, that the large percentage increases in the lowest quintiles are on very small flows in 2002-03.

120 Commercial agriculture, while a clear focus of all governments' efforts over the last three decades, have not succeeded, largely because efforts have been devoted to encourage production, which has been readily forthcoming, but failed by abysmally poor arrangements for marketing. The typical cycle has been on

5. Income Sources: changes 2002-03 to 2008-09

- increased production, lack of markets and adequate prices, gluts, and price declines to levels which do not even cover the cost of harvesting and transport to the outlets.
- 121 Efforts by Wages Councils to increase Casual Wages have similarly been thwarted largely by a stagnant economy, failing to improve the capacity of employers to pay sustainable higher wages.
- 122 In this context, it is extremely unwise for government to be granting across the board salary increases as have been done in the 2012 Budget. The salary increases have moreover not been granted evenly but relatively higher for the security services, namely the military and police. This is introducing a long term bias in the salary structure which will be difficult to reverse in future years.
- 123 These salary increases are unlikely to be matched by the private sector, especially for those in the informal sector.
- 124 The salary increases will also lead to increased monetary demand, which, without a corresponding increase in real output, will lead to upward pressure on inflation.
- 125 There are investments taking place in primary resource extraction. However, the economy as a whole, is not seeing the robust levels of investment that are needed to foster sustained economic growth of 5% or more.²² It is abundantly clear that the economic stagnation is caused by lack of broad-ranging investment, due primarily to lack of investor confidence, and that is contributed largely by political uncertainty, and military decrees such as the Public Emergency Regulations and those that prevent certain cases from being taken to court.

Foreign Remittances

- 126 It is well recognized now of the importance of Remittances to Fiji's macro economy. Reserve Bank data indicates that remittances have been increasing quite dramatically and around 2005 and 2006 were more than \$300 million. This is now well in excess of the sugar industry earnings, and possibly as much as the retained earnings from Tourism. The amounts seem to have reduced in the last few years because of the global financial crisis but are still officially recorded at over \$250 million. The real flows are likely to be more as much does not come through the official channels.

Income	Rural	Urban	ALL
Quintiles	\$ million		
IQ 1	3	1	4
IQ 2	4	4	7
IQ 3	5	7	11
IQ 4	5	10	15
IQ 5	4	73	78
FIJI	21	95	116
Hor %	18	82	100

²² The Investment to GDP ratio needs to be higher than 25% for reasonable growth to occur.

5. Income Sources: changes 2002-03 to 2008-09

127 Table 5.5 indicates some unusual features of the Remittance flows.²³ The bulk of the \$116 million recorded (some 82%) went to the urban households and only 18% to the rural households.

128 Contrary to the general idea that remittances are sent back to assist the poor, Table 5.6 indicates that only 4% end up in Quintile 1, and 6% in Quintile 2, ie 10% in the bottom 40% of the population. Of the flows going to urban households, some 77% ended up in the top quintile, and only 5% in the bottom 2 quintiles.

	Rural	Urban	All
IQ 1	14	1	4
IQ 2	18	4	6
IQ 3	23	7	10
IQ 4	24	11	13
IQ 5	21	77	67
FIJI	100	100	100

129 However, the flows going to the rural households were far more poverty alleviating in that some 32% did end up in households which were in the bottom 40% of the country.

130 Nevertheless, the facts indicate that the bulk of the remittances, do not go to the poorest households in the country.

131 The WB Report on Poverty Trends in Fiji concluded from their econometric model that every \$100 of foreign remittances reduced poverty by 1.5% in urban areas and 1% in rural areas.

132 Here we take a different approach and ask the question: what would be the poverty situation of the households which receive remittances, if the remittances were not there. What would be the impact on the incidence of poverty without the remittance flows? Table 5.7 confirms the results in Table 5.6.

133 In 2002-03 there would have been a 4 increase in the Head Count Ratio or the Incidence of Poverty: 2% in rural areas, and 6% in urban areas.

134 In 2008-09, the increases in the incidence of poverty would have been slightly larger: 3% in rural areas and 12% in urban areas, 6% in total.

Area	IOP w/o		
	IOP	For.Rem.	% Ch.
2002-03			
Rural	40.0	40.8	2
Urban	28.1	29.9	6
FIJI	34.6	35.9	4
2008-09			
Rural	42.5	43.9	3
Urban	18.5	20.7	12
	30.6	32.4	6

135 Quite clearly, the urban poor households are benefiting much more from foreign remittances than rural households.

136 The rural:urban relativities here are much larger than that indicated by the World Bank analysis (see paragraph 120

above). One possible explanation is that the WB analysis used expenditure as the

²³ These quintiles are national quintiles- ie quintile 1 is the bottom 20 % of Fiji's population (mostly in the rural areas).

5. Income Sources: changes 2002-03 to 2008-09

criterion for poverty, and hence their econometric analysis model would have to model the impact of a reduction of remittance incomes on expenditure. Because our analysis here uses income as the criterion to assess poverty, hence the actual income less the foreign remittances give an immediate indication of the impact on poverty.

137 It should also be noted that since the bulk of the remittances are going to the upper quintiles, they are quite likely to equally boost savings (being effectively “windfall” incomes) as they are to boost expenditure, which is where the WB methodology would register the impact on poverty.

Income Quintiles	Rural	Urban	ALL
	\$ million		
IQ 1	8	3	11
IQ 2	11	4	15
IQ 3	14	8	22
IQ 4	17	17	34
IQ 5	19	42	61
FIJI	70	73	143
Hor %	49	51	100

Local Remittances and Gifts

138 Using a similar method as for foreign remittances, it is useful to ask what would have been the Incidence of Poverty or Head Count Ratio without the Local Remittances and Gifts.

139 Table 5.8 indicates that for 2008-09, the total amount of Local Remittances and Gifts was not only considerably higher (at \$143 million) than the recorded Foreign Remittances (\$119 million), but was spread quite equally between the rural households and urban households. The rural distribution was also more even, and may be expected to have a greater impact on poverty as a total of \$70 million was redistributed to the rural areas compared to only \$21 million of Foreign Remittances.

	Rural	Urban	All
IQ 1	12	4	8
IQ 2	16	6	11
IQ 3	21	11	16
IQ 4	24	23	23
IQ 5	28	57	43
FIJI	100	100	100

140 Table 5.9 therefore indicates also that the quintile distribution was also not as skewed as that for Foreign Remittances. The lowest two national quintiles received 20% of all Local Remittances and Gifts than was received from Foreign Remittances (10%).

Area	w/o		% Ch.
	IOP	LR + G	
	2002-03		
Rural	40.0	41.8	5
Urban	28.1	29.5	5
FIJI	34.6	36.2	5
	2008-09		
Rural	42.5	48.3	13
Urban	18.5	20.2	10
	30.6	34.4	12

141 Table 5.10 indicates that for 2002-03, the impact on the incidence of poverty would have been roughly the same (increasing by 5%) in rural and urban areas, and nationally, slightly greater impact than foreign remittances (4%).

5. Income Sources: changes 2002-03 to 2008-09

142 However, in 2008-09, the impact on rural poverty would have been a much higher 13%, compared to the 10% in urban areas, and the overall impact would have been a much larger 12% (compared to the 6% impact of the foreign remittances).

143 Overall, therefore, Local Remittances and Gifts have a much higher aggregate impact on poverty than Foreign Remittances, and have a far greater impact on Rural poverty where the incidence of poverty is much higher.

144 *Recommendation 5.1: Stakeholders in poverty alleviation work need to focus in terms of priority on re-enforcing income generation for*

(a) subsistence incomes

(b) commercial agriculture

(c) casual wages whose wages are intended to be protected by Wages Councils.

145 *Recommendation 5.2: Stakeholders in public sector salaries and wages note the need for income control when the economy is in serious down-turn, so as to even the burdens on all stakeholders.*

146 *Recommendation 5.3: Stakeholders examine the causes of economic stagnation- namely the lack of investor confidence.*

6 Income Distribution Issues²⁴

147 All societies are interested to know whether income distribution is getting better or worse: i.e. are the “rich getting richer” relative to the “poor” or is the opposite happening? With the data now available for two household surveys conducted with the same methodology, it is now possible to examine the trend in Fiji during these survey periods. As in estimating the incidence of poverty, the households are first ranked by Income per Adult Equivalent.

148 Distribution may be examined from many different angles. At the aggregate level, there is the Gini Coefficient which ranges from 0 (perfect distribution) to 1 (totally unequal distribution).

149 Note: if the Gini Coefficient rises, then income distribution is worsening. If the Gini Coefficient decreases, then income distribution is improving.

150 The Gini may be calculated for shares of households in the total income, or the shares of population in total income. Shares of population is preferred as “households” may have different numbers of occupants and so the same percentage of households could refer to a higher or lower percentages of the population at different points in time. Percentages of population are therefore a more accurate measure.

151 A clearer and easier to understand statistic is the ratio of the income received by the top 20% of the population (Q5) compared to that received by the Bottom 20% of the population (Q1) (here referred in the tables as Q5:Q1).

152 Both sets of measures can however hide what is happening at each quintile (20% group) level hence analysis by quintile level is always necessary to get a better picture.

153 All these measures can of course also be applied to shares of total expenditure, and rather than confuse people here in the text, is given in Annex C for those who wish to make international comparisons.

	2002-03	2008-09	% Ch.
Population Gini	0.416	0.439	5.5
Household Gini	0.341	0.359	5.3

154 Table 6.1 indicates that the population Gini deteriorated by 5.5% from 0.416 to 0.439 a worsening of 5.5%. The Household Gini deteriorated from 0.341 to 0.359, a worsening of 5.3%.

155 For Fiji in aggregate, income distribution worsened between 2002-03 and 2008-09 by around 5%. But the tables below indicate two different processes at work in rural and urban areas.

²⁴ IQ will imply that the quintiles are from the national distribution; RIQ will imply that they are from separate regional distributions for urban and rural areas.

6. Income Distribution Issues

156 A large factor in the uneven distribution of incomes at the national level, is the gap between the urban households as a group, and rural households as a group.

157 Within each area (rural and urban on their own) the distributions are far more even with much lower values for the Gini Coefficient (Table 6.2).

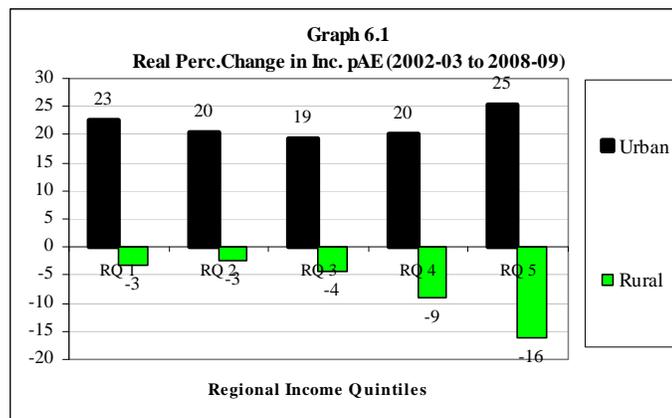
Table 6.2 Gini Coefficients (Rural/Urban)			
	2002-03	2008-09	% Ch.
Rural			
Households	0.126	0.115	-9
Population	0.197	0.194	-2
Urban			
Households	0.138	0.149	8
Population	0.222	0.245	11

158 For Rural areas, the Gini were not only quite low but declined from 2002-03 to 2008-09- by -9% for Household Gini, and -2% for Population Gini. Paradoxically, while the incidence of poverty was increasing in rural areas, the income distribution was improving slightly. Normally, any improvement in the Gini Coefficient is “good news”. The hope of course, is that it is the poor who are gaining ground on the rich. But this is not the case in rural Fiji, as below.

159 For Urban areas, the Ginis were expectedly higher than for Rural areas but indicated a significant worsening of income distribution between 2002-03 and 2008-09: increasing by 8% for Household Gini, and 11% for Population Gini. i.e. income distribution in urban areas was worsening. This is also clarified below.

Income Changes by Quintiles

160 Before one examines the changes in income distribution at quintile levels, in either rural or urban areas, it is useful to examine the patterns of income changes separately in rural and urban areas, as national quintiles can be misleading.



161 Graph 6.1 shows the quite unusual patterns of income changes. All urban quintiles showing improvements in Income per Adult Equivalent, with the highest quintile gaining the most (by 25%) and the lowest quintile gaining more (23%) than the three middle quintiles.

162 However, in the rural areas, the top two quintiles have seen the largest deterioration in their standards of living with the top 20% in rural areas seeing a

6. Income Distribution Issues

large -16% deterioration in its Income per AE, with the second highest quintile seeing a -9% deterioration. This is no doubt related to the significant decline in the sugar industry.

163 It is clear therefore that the improvement in income distribution in rural areas is not due to the “poor getting poorer”, but the “rich getting poorer”.

164 The poorest rural quintiles saw a much smaller deterioration of around -3% in Income per AE, giving some credence to the view that subsistence people in rural areas tend to be cushioned from crises in the modern sector, whether due to international factors (such as the global financial crisis) or domestic factors such as political instability.

165 Table 6.3 elaborates on the impact of Table 6.2: all the bottom four quintiles (i.e. the bottom 80% of the rural people) increased their shares of total rural income, with the larger gains going to the middle quintiles. The top quintile (top 20%) lost -5% in their shares of total income. This is a result of all rural people losing ground, but the top quintile losing more ground than others.

	2002-03	2008-09	% Ch.
RQ 1	6.4	6.7	5
RQ 2	10.7	11.8	10
RQ 3	15.3	15.9	4
RQ 4	22.0	22.2	1
RQ 5	45.6	43.3	-5
	100	100	
Q5:Q1	7.1	6.4	-10

166 The rural areas do not represent the situation of the “rural poor getting poorer” but the “rural rich getting poorer”. The ratio between the Top 20% and the Bottom 20% reduced from 7.1 to 6.4. Thus while the Rural Gini showed a slight improvement in falling by -2%, the picture is more complex.

167 Table 6.4 describing the changes taking place in urban shares of income, has the complete inverse picture of the rural changes. All the bottom four quintiles (i.e. bottom 80% of the urban population) saw small reductions in their shares of income, while the top quintile saw a small 2% improvement in its share.

Urban	2002-03	2008-09	% Ch.
RQ 1	5.9	5.9	-1
RQ 2	10.2	10.1	-1
RQ 3	14.7	14.2	-3
RQ 4	21.1	20.6	-3
RQ 5	48.1	49.3	2
	100	100	
Q5:Q1	8.1	8.4	4

168 The ratio of share of the Top Quintile to that of the Bottom Quintile increased slightly from 8.1 to 8.4. The overall picture was captured by the Urban Gini increasing slightly (as given in Table 5.2).

6. Income Distribution Issues

169 Again, there is a lesson to be learnt here. While the Gini showed a deterioration of income distribution in urban areas, the same picture as shown by Table 6.4, the earlier Graph 6.1 had clearly shown that the lowest urban quintiles did gain in terms of standards of living as indicated by moderate increases in Income per Adult Equivalent.

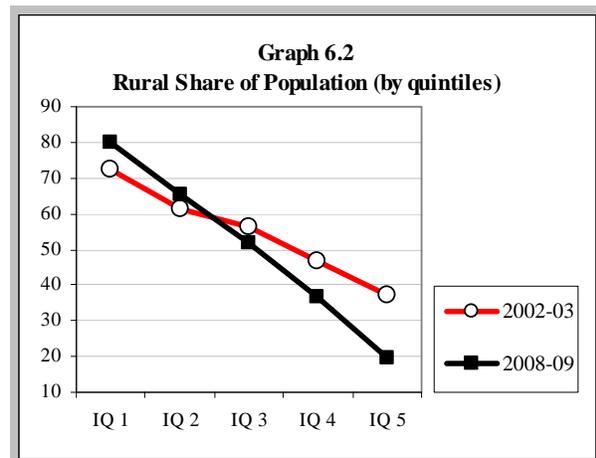
FIJI	2002-03	2008-09	% Ch.
IQ 1	5.8	5.4	-7
IQ 2	10.0	9.8	-3
IQ 3	14.7	14.0	-5
IQ 4	21.5	20.6	-4
IQ 5	47.9	50.2	5
All	100	100	
Q5:Q1	8.2	9.3	13

170 This illustrates clearly the dangers of relying

solely on Gini Coefficients as indicators of the welfare of the poor. This is a debate which has gone on in many other countries, most recently in China, where income distribution has clearly been “worsening” while the poorest in China have seen large improvements in their standards of living. Many development economists suggest that more important than Gini coefficients is whether there are actual improvements taking place in the condition of the poor.²⁵

	2002-03	2008-09	% Ch.
IQ 1	73	80	10
IQ 2	61	65	6
IQ 3	56	52	-8
IQ 4	47	37	-22
IQ 5	37	19	-48
All	55	51	-8

171 With a better understanding of the finer changes taking place in rural and urban Fiji, Table 6.5 therefore gives the aggregate picture for all Fiji, with national quintiles. One can see that the Bottom four quintiles (IQ1 to IQ4) all saw reductions of their share of Total Household Income, while only the Top Quintile (IQ5) saw a small increase in its share. As expected, the ratio of Q5:Q1 increased from 8.2 to 9.3. The overall Gini coefficient in Table 5.1 had of course, increased from 0.416 to 0.439 (Table 6.2).



172 Table 6.6 gives the overall shares of rural people at the different quintile levels. While the total rural share had declined from 55% in 2002-03 to 51% in 2008-09, the shares at the lower quintiles were much higher and increasing: for instance, at Q1, the rural share increased from 73% to 80% ; at Q2, increased from 61% to 65%.

²⁵ This is not to imply that for the poor to gain, there must be inequalities in income distribution. This is a totally different argument.

6. Income Distribution Issues

173 Conversely, the rural shares at Q3, Q4 and Q5 all decreased. At Q5, the rural share decreased by a massive -48% from 37% to 19%, again reinforcing the impoverishment of the rural upper income groups between the two HIES.

Ethnic issues

174 It is important for all in Fiji to understand the full facts regarding the ethnic distribution of incomes, as this has been a political “hot potato” for decades.

	iTaukei	Indo-F	Other	FIJI
IQ 1	62	33	5	100
IQ 2	61	35	3	100
IQ 3	59	37	4	100
IQ 4	63	32	5	100
IQ 5	52	36	12	100
All	59	35	6	100

175 Table 6.7 indicates that with the ethnic shares of total population being around 59%, 35% and 6% respectively for iTaukei, Indo-Fijians and Others, the ethnic shares at quintile levels are around the same proportions, except at the highest quintile.

176 At Quintile 5, Others comprise a much larger 12%, while the iTaukei share declines slightly to 52%. The Indo-Fijian share is uniform throughout the quintiles, except where it rises slightly at Q5 from 32% to 36%..

177 Table 6.8 indicates that the downturn in the rural sector affected the ethnic groups negatively as is evident from the prevalence of the negative values for all ethnic groups, and large decreases at the higher quintiles for all ethnic groups and smaller decreases at the lower quintiles. While in aggregate, both major ethnic groups appear to have suffered equally in the rural areas, but rural Indo-Fijians in the Bottom quintile suffered a relatively larger (-11%) reduction in Income pAE, suggesting a particularly vulnerable group in poverty. Also, rural Indo-Fijians in the top quintile also suffered the largest decline in the rural areas, of -22%.

	Fijian	Indo-F	Others	All
	Rural			
RQ 1	1	-11	3	-3
RQ 2	-3	-1	-2	-3
RQ 3	-4	-5	-3	-4
RQ 4	-10	-8	0	-9
RQ 5	-14	-22	-11	-16
Rural	-11	-10	-4	-10
	Urban			
RQ 1	23	22	27	23
RQ 2	20	21	22	20
RQ 3	19	21	13	19
RQ 4	20	20	19	20
RQ 5	25	11	49	25
Urban	17	18	54	23

178 There were conversely large real increases in incomes per adult equivalent for all ethnic groups at all quintile levels in the urban area- as evidenced by the large positive numbers in the lower half of the table.

6. Income Distribution Issues

179 The second opposite example are the “Others” in Quintile 5 who enjoyed a particularly large (49%) real improvement in incomes per Adult Equivalent. Both these sets of anomalies, could do with further research.

180 Within each ethnic group, there have been different changes to income distribution. For iTaukei, income distribution has worsened in this inter-HIES period- by 6.5% according to the Household Gini, and by 2.3% according to the population Gini (Table 6.9).

181 Indo-Fijians on the other hand have seen some ambiguous changes: a small improvement in income distribution-of some 4.3% by the Household Gini but a small worsening (of 0.4%) by the Population Gini.

182 Comparing the two major ethnic groups, therefore, the Indo-Fijian population generally had a more unequal distribution of incomes than iTaukei (largely because of their greater predominance in the business sector), although the difference has reduced between 2002-03 and 2008-09: by Household Gini, from a 16% difference in 2002-03 to a mere 4% in 2008-09.

	2002-03	2008-09	% Ch.
Household Gini			
iTaukei	0.311	0.331	6.5
Indo-F	0.360	0.345	-4.3
Diff.(I-F)/F	16	4	
Population Gini			
iTaukei	0.394	0.403	2.3
Indo-F	0.427	0.429	0.4
Diff.(I-F)/F	9	7	

183 By Population Gini, the difference was a reduction from 9% to 7%.

184 In summary, the iTaukei and Indo-Fijian income distribution patterns are converging.

Redistribution policies

185 All societies have “redistribution” mechanisms which attempt to move resources from those that “have” to those that “have not”. The usual mechanisms are taxation policies and welfare distribution payments to the needy.

186 The World Bank 2011 Report has a large section devoted to the efficiency of Fiji welfare payments which readers may refer to.

187 One area which needs further attention however, is taxation policies. The main redistribution tools are direct income taxes which usually tend to have higher tax rates on higher incomes, and higher import duties on items more consumed by upper income persons: ie considered to be “progressive” taxes by economists.

6. Income Distribution Issues

- 188 Working in the opposite direction are sales taxes such as Value Added Tax (VAT) which, being a tax on consumption, tends to hit the poorer people relatively harder. VAT is generally considered to be “regressive” by economists.
- 189 In both these areas, there have been substantial policy changes in Fiji in recent years. Income taxes, both personal and corporate taxes have been substantially reduced, with the most recent being the large reductions declared in the 2012 Budget. VAT has been significantly increased from 12.5% to 15%.
- 190 With welfare payments generally not changing much over the last decade, the taxation changes will have had substantial impact on overall income distribution in Fiji. There is an urgent need for solid research to examine the impact of these taxation changes on distribution measures.
- 191 ***Recommendation 6.1: There is an urgent need to reverse the decline in the sugar industry.***
- 192 ***Recommendation 6.2: Subsistence agricultures be given greater support in strategies for rural development.***
- 193 ***Recommendation 6.3: Urgent attention be given to sponsoring a study to examine the impact on income distribution of recent policy changes in taxation-personal and corporate taxes, fiscal, customs and excise duties, and VAT.***

7. Impact of Household Size

7 Impact of Household Size: need for family planning

194 One policy area which has become somewhat neglected in recent years is the need for family planning as a strategy for improving standards of living.

195 Of course, the number of children a couple have is very much a personal choice. However, it can also legitimately be a policy matter for the state and tax-payers, because it is the state and taxpayers who have to provide for children's education and training, and health, and other public benefits.

196 Academics have long debated whether the improvements in standards of living followed the reductions in fertility rate, or whether the fertility rates fell, after standards of living rose.

197 Whatever the causality, the world over, the average size of families and number of children born to women (reflected in the statistic "fertility rate") has been falling. In some countries, such as in China, it was also as a result of direct state policy- the "one child" policy - enforced for the last three decades (although that policy is being relaxed somewhat now). The beneficial impact on China is easily seen by contrasting with India, for instance in the number of children needing to be supported in primary and secondary schools.

198 In Fiji, there has been a remarkable decrease in the fertility rate of Indo-Fijian women, falling below replacement levels in the last decade. The indigenous Fijian fertility rate has also been falling but far more slowly. Table 7.1 indicates that the indigenous Child Dependency Ratio is not only much larger than the Indo-Fijian rate, but the difference has grown from 59% in 2002-03 to 74% in 2008-09.

Ethnicity	2002-03	2008-09	% Ch
iTaukei	60	54	-11
Indo-F	38	31	-18
Other	49	56	15
FIJI	50	45	-9
%(F-I)/I	59	74	24

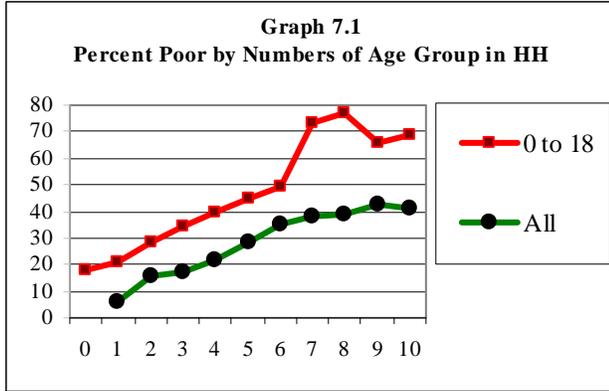
199 The average size of Indo-Fijian families is therefore significantly smaller (by one) than indigenous Fijian families, with the gap growing from 21% in 2002-03 to 27% in 2008-09 (Table 7.2).

200 The HIES data clearly shows the economic advantages for Indo-Fijian families with household incomes very similar to indigenous Fijian incomes, allowing Indo-Fijian families much higher standards of living. These can be seen in expenditures on education, health, and other discretionary items such as mobile phones.

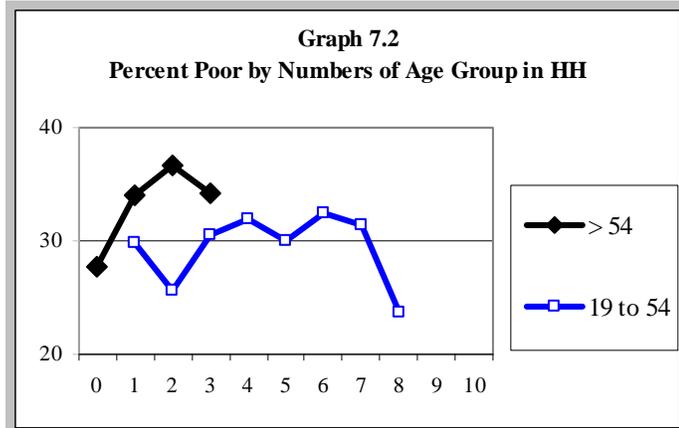
Ethnicity	2002-03	2008-09	% Ch.
iTaukei	5.4	5.1	-5
Indo-F	4.4	4.0	-9
Other	4.9	4.7	-4
FIJI	4.9	4.7	-5
%(F-I)/I	21	27	

7. Impact of Household Size

201 The World Bank Report on Fiji has a table which shows that the incidence of poverty for 2008-09 steadily rises as the average household size increases, for both rural and urban households (Figure 8 of WB Report). While the WB had used Expenditure per Adult Equivalent as the criterion, the same strong upward trend is revealed if Income per Adult Equivalent is used as the criterion.

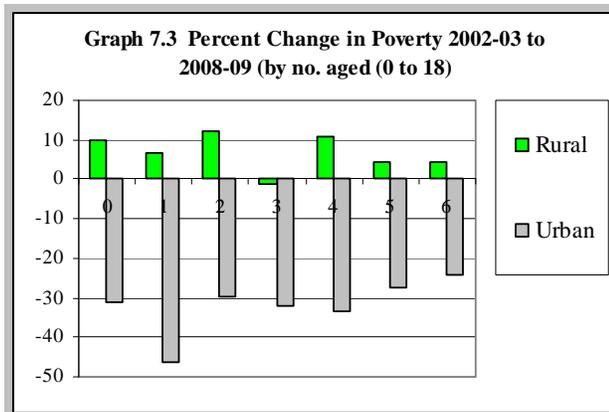


202 However, it is important to understand that total household size is the sum of the number of children (who are usually dependents), the number of elderly (who are usually dependents but may have their own sources of income by the time they become old) and the number of working age people (who usually earn income, and would be expected to decrease the incidence of poverty in a household).



203 Graph 7.1 indicates the upward trend in incidence of poverty as the total number of persons in the household increases. However, not only is the same trend there for the number of those aged (0 to 18) but also the line is much higher (i.e. the incidence of poverty is much higher) than for the line for total household size.

204 Graph 7.2 on the other hand indicates that while the incidence of poverty increases slightly between 0 and 2 elderly in the household, it falls for the third elderly person.

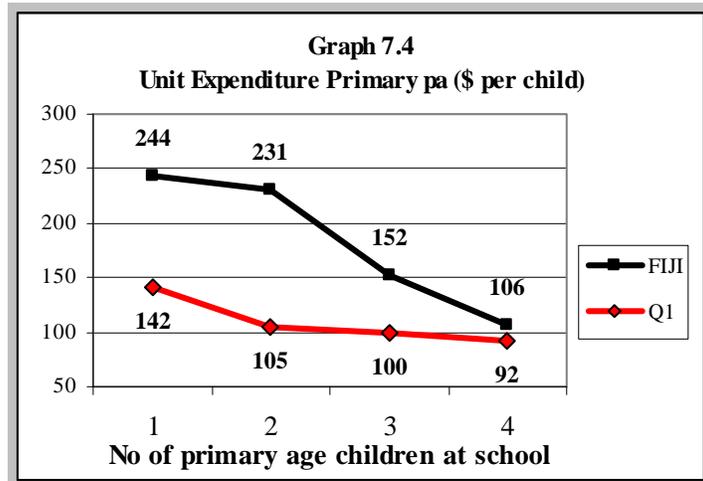


205 The graph is even flatter for the number of potential income earners in the household, those aged 19 to 54.

7. Impact of Household Size

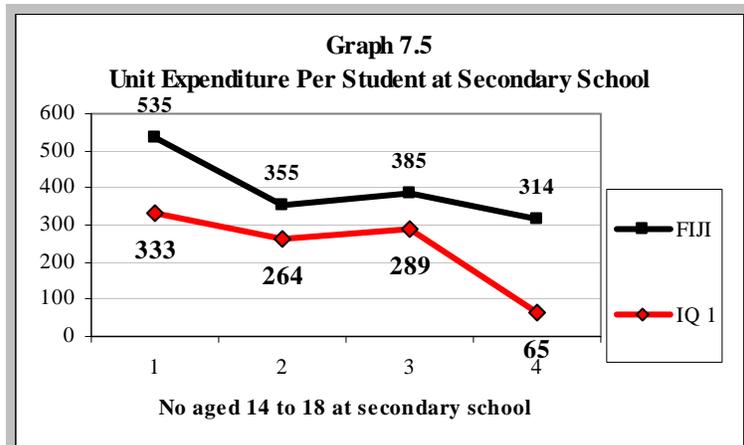
206 Graph 7.3 gives the interesting result that while the incidence of poverty worsened in rural areas between 2002-03 and 2008-09, the increases did not seem to be related to the number of children aged 0 to 18. The reductions in poverty in urban areas, however, do seem to be a bit larger for households with fewer children in the household. In other words, family with fewer children seemed to have larger reductions in poverty.

207 The evidence indicates that attendance at primary school is fairly good throughout Fiji and does not seem to depend on family size. What is affected by the number of children in the household, is the amount of expenditure that households are able to expend on primary education per child.



Graph 7.4 indicates that for Fiji as a whole, Unit Primary Expenditure per child is a high \$244 when there is only one child attending primary school, falling slightly to \$231 when there are 2 children, but dropping significantly then to \$152 with 3 children, and even further to \$106 when there are 4 children in the family.

208 For households in Quintile 1 (i.e. the bottom 30%), unit expenditures are of course much lower, but households with only 1 child attending primary school, the unit expenditure is \$142 which is around 40% higher than what



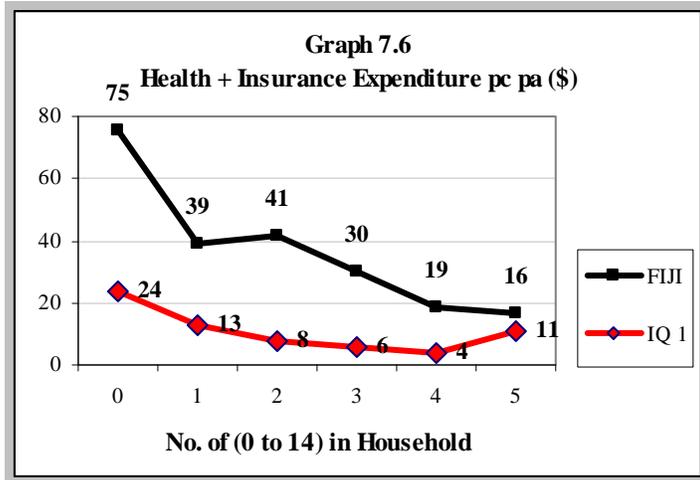
is spent if households have more than one child attending primary school.

209 At the secondary level, for Quintile 1, unit expenditure per child at secondary school is generally lower than that for all children, but clearly indicates that unit expenditure declines sharply to only \$65 per child when the number of children is 4, compared to \$333 per child when there is only 1 child at school (Graph 7.5).

7. Impact of Household Size

210 What is remarkable is that the unit expenditure at the top quintile when there is only 1 child in the household is an extremely large \$1004, which drips to \$483 with 2 children, and a mere \$237 with 3 children at school (graph not given here).

211 Both the above graphs indicate that households are able to spend more per child, and presumably improve the quality of their children's education more, when there are fewer children in the family.



212 Graph 7.6 indicates quite similar trends in Health and Insurance

Expenditure per capita per annum, declining from a high of \$75 for a household with no children, to a mere \$16 for a household with 5 children. For households in the bottom 20% the levels of expenditure are also much lower, and indicate the general down trend, with increasing numbers of children, falling from \$24 per capita pa when there were no children, to a mere \$4 when there were 4 children.

213 A much clearer understanding of the impact of household size may be had by comparing the household and per capita incomes of indigenous Fijians and Indo-Fijians.

	Fijian	Indo-F	%(F-I)/I
Av. Income per household	16994	15537	9
Av. Expenditure per household	13957	13585	3
Adjusting for Household Size			
Income per Adult Equivalent	3995	4341	-8
Expenditure per Adult Equivalent	3281	3796	-14

Table 7.3 shows that indigenous Fijians Average Household Income was 9% higher than that of Indo-Fijians, with the advantage reducing to only 3% for Average Household Expenditure.

214 However, when household size is adjusted for, then Fijian Average Household Income per Adult Equivalent becomes 8% lower and Household Expenditure per Adult Equivalent is 14% less. Undoubtedly, the material standard of living of indigenous Fijian households becomes lower because of the larger household size, and especially of the larger number of children in the household (as indicated earlier by Tables 7.1 and 7.2).

215 It needs to be also kept in mind that women who have larger numbers of children also generally tend to stay out of the workforce longer, and hence lose a number

7. Impact of Household Size

of years of promotions and training at the work-place, leading to lower incomes over their lifetime. This effect, of course, is also partly a result of Fiji not having enough provisions for paternity leave to enable fathers to share some of the burden of looking after infants and children.

- 216** *Recommendation 7.1: Poverty stakeholders agree on the impacts that larger numbers of children have on household standards of living, including expenditures on education and health.*
- 217** *Recommendation 7.2 Poverty stakeholders call for greater urgency and higher levels of resources to be devoted towards the encouragement of family planning and fewer children.*

8. Food security issues

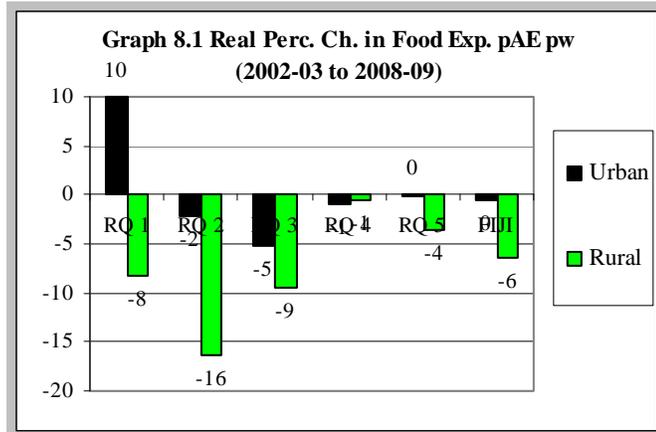
8 Food security issues

218 Food expenditure patterns and changes in them are good indicators of the impact of poverty. Table 8.1 indicates the fairly steady increase in Food Expenditure per Adult Equivalent till the fourth quintile with very similar values for rural and urban households, with the urban value increasing relatively more for the fifth quintile.

	Rural	Urban
RQ 1	12.53	13.92
RQ 2	16.21	16.43
RQ 3	20.26	20.97
RQ 4	24.98	26.31
RQ 5	34.42	38.69
FIJI	21.84	23.41

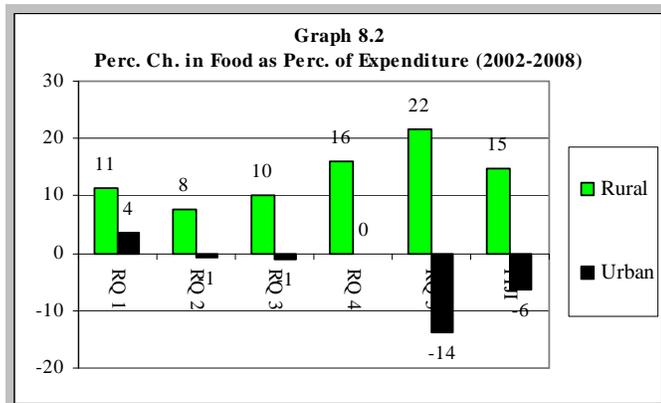
219 With the Fiji CPI for Food increasing by around 42% between 2002-03 and 2008-09, Graph 8.1 indicates the quite unusual patterns of change between the two HIES. Rural households saw declines in the real expenditure on food per adult equivalent (adjusted for inflation), with the larger declines taking place at both the low and high quintiles.

220 Urban households also saw real declines in expenditure per adult equivalent, although the first quintile saw a large increase of 10%. Overall, rural food expenditure per adult equivalent in urban households remained about the same, while that in rural households decreased by 6%.



221 It is an n general, as real incomes increase, food expenditure as a proportion of total expenditure tends to decline. Conversely, if incomes are falling, then Food as a proportion tends to rise.

222 Graph 8.2, with the rural quintiles all showing increases in the food as a proportion of total expenditure, suggests that rural areas were facing constraints in income which led them to increase the proportions spent on food, especially in quintiles 4 and 5 where the declines were larger.



8. Food security issues

223 In contrast, urban quintiles saw large reduction in food as a proportion of income for the fifth quintile, and a small increase for the first quintile.

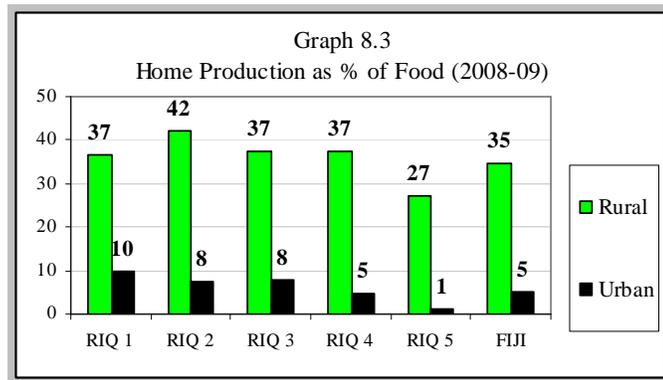
224 The improvement in food consumption in the urban areas and deterioration in the rural areas is confirmed by Table 8.2. The proportions of the population in rural areas, whose actual expenditure on food was less than the estimated dollar value of the Food Poverty Line baskets used to construct the Basic Needs Poverty Line (as given in Table 2.1), increased by 7% from 59% to 64%, while the corresponding proportion in urban households declined by 7% from 61% to 56%.²⁶

	2002-03	2008-09	% Ch.
Rural	59	64	7
Urban	61	56	-7

Own Consumption or Own Production

225 An important food safety net for the community is the ability to produce own food for consumption, measured by Home Production as a percentage of Total Food consumed, especially in rural areas.

226 Of course, urban households, with a lack of access to land cannot be expected to grow their own food. Graph 8.3 indicates that in 2008-09, urban households on average only produced 5% of their food consumption. The poorest urban quintile (RIQ1) however still produced a significant 10% of their total food consumption, while RIQ2 and RIQ3 produced only slightly less at 8%. As would be expected, the top quintile (IQ5) only produced 1 percent of their food consumption.



227 The rural households produced a higher proportion of their food consumption at 35% with the second quintile producing a maximum of 42%. Unusually, however, rural Quintile 1, produces a somewhat lower 37% compared to 42% for RQ2, and 37% for RQ3. It is possible that RQ1 contains relatively more households who do not have access to their own land. Somewhat

	RIQ 1	RIQ 2	RIQ 3	RIQ 4	RIQ 5	FIJI
Rural	-18	-15	-22	-16	-24	-20
Urban	-14	-11	1	-49	-85	-43

²⁶ Using the WB values for the FPL and ranking by Income per AE, gives the corresponding changes in proportions as an increase of 10% in rural areas, and a reduction of 5% in urban areas, consistent with the results here.

8. Food security issues

positive is that RQ5, the top rural quintile also produces some 27% of their total food consumption.

228 This aspect of food security shows a significant deterioration between 2002-03 and 2008-09. Table 8.3 indicates that not only did the urban households reduce their home production (by a large -43%) but so also did the rural households reduce their food self-sufficiency by -20%. The reductions were moreover uniform across all the quintiles, including an 18% reduction for RQ1 and 22% for RIQ3.

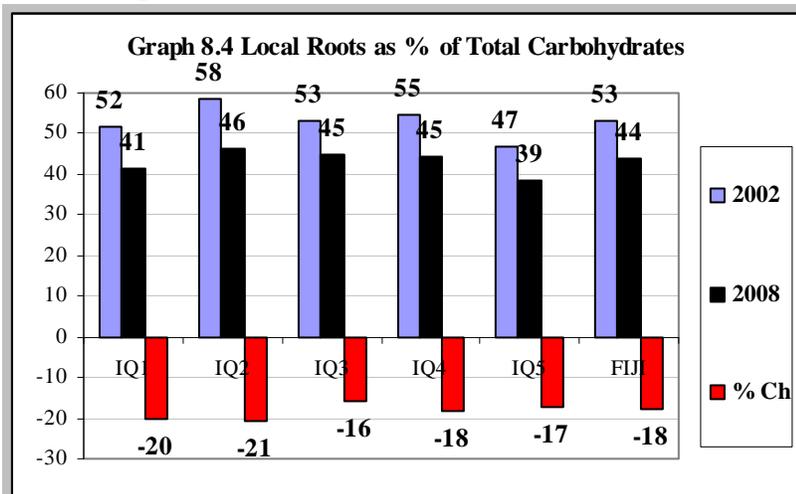
229 It would seem that even during a time of economic worsening in rural areas, rural households were reducing their self-sufficiency in food. It is useful to examine this in greater detail with respect to the major groups of food items, such as carbohydrates and meats.

	2002-03	2008-9	% Ch.
Local roots pc pa			
Cassava	43.87	54.71	25
Dalo	31.55	32.33	2
Imported carbohydrates pc pa			
Potatoes	11.00	13.04	19
Rice	33.85	59.93	77
Flour	33.57	48.27	44
Noodles	8.20	14.82	81

Carbohydrates

230 While Total Food Expenditure pc²⁷ pa rose by 40% (in nominal terms), *dalo* rose by only 2% and *cassava* by 25%. Expenditure on the main competing carbohydrates rose by 77% for rice, 44% for flour, and a large 81% for noodles. These competing items are imported or manufactured using imported raw materials. While cassava was the most important item in 2002-03, by 2008-09, rice had become the most important single carbohydrate item. By 2008-09, noodles had become more important than potatoes, a reversal from 2002-03.

231 The above indicates that there is a strong trend of imported items displacing domestically produced foods.



232 While one expects that that this would be definitely the trend for the well-off in society, is this also the case for the poorer people? Graph

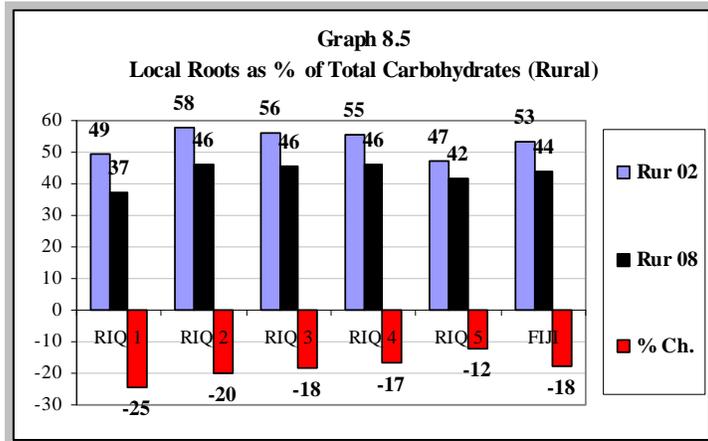
²⁷ Because children generally consume less than adults, the more accurate indicator is Expenditure “per Adult Equivalent”. However “per capita” expenditures are used in this section as more easily understood by the public. The results are however very similar.

8. Food security issues

8.4 indicates that the poorest national income quintiles have also shifted significantly from the consumption of local root-crops to imported carbohydrates. While nationally, the proportion declined by -18% from 53% to 44%, for the lowest quintile, the decrease was even greater, by -20% from 52% to an even lower 41%. For Quintile 2, the decline was also significant, falling from a high of 58% to 46%.

233 As would be expected, at the top quintile, by 2008-09, local root crops was the lowest proportion of 39% compared to the 49% in 2002-03.

234 One possibility that needs to be investigated is whether this trend towards imported carbohydrates is simply a reflection of the urbanization that is taking place at a rapid rate. Graph 8.5 indicates that not only did the bottom rural quintile (below the zero axis) show the largest decline in Local root-crops as a percentage of total carbohydrates (-25%), but it ended up with the lowest proportion as well, with only 37% (above the zero axis).



235 All the bottom rural quintiles showed significant decreases in the proportions of local root crops, with all falling below 50% by 2008-09. The converse of all this is of course, the relatively greater increase in expenditure on imported carbohydrates such as rice, flour and flour products.

236 Along with the move towards greater consumption of imported carbohydrates,

Area	RIQ 1	RIQ 2	RIQ 3	RIQ 4	RIQ 5	FIJI
Rural	-25	-18	-18	-16	-10	-17
Urban	-15	-5	31	-15	-67	-13

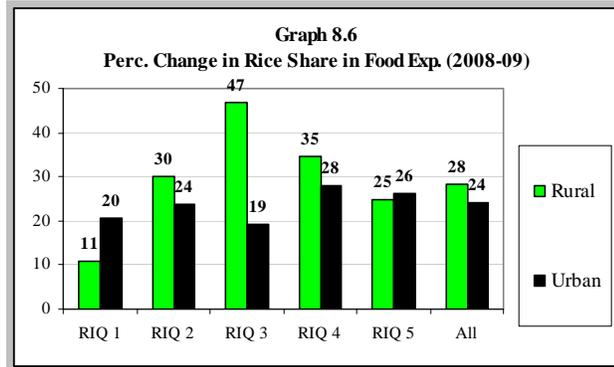
is also a very strong trend towards the reduced share of “Own Production” or “Own Consumption” of local root crops as indicated by Table 8.5. As would be expected, there are major decreases in the urban areas, with the largest decline of -67% taking place at the top urban quintile.

237 However, the rural households also saw significant declines, with the largest decreases taking place at the lowest quintiles, and the lowest decrease at the highest quintile. This is cause for concern since it might be expected that with

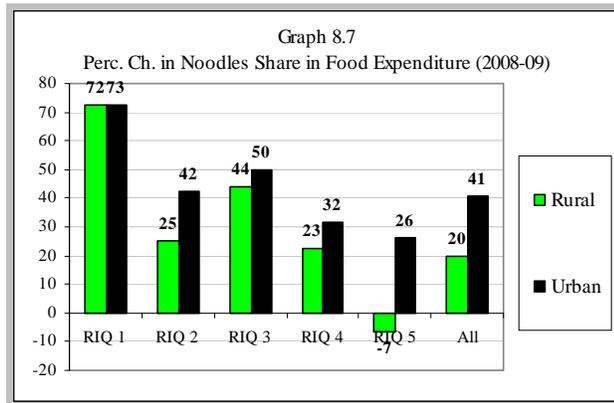
8. Food security issues

economic downturn, rural households ought to be resorting to own production of foods, especially at the poorer quintiles. The data indicates otherwise.

238 The two carbohydrates that need some investigation are rice and noodles. The per capita expenditure on rice consumption has increased by 74% in rural areas and 78% in urban areas.²⁸ Graph 8.6 indicates that for all regional quintiles (i.e in both rural and urban households), the share of rice in total Food expenditure increased significantly. The increases were higher in the upper quintiles, suggesting that the price increase in rice (approximately 98%) may have been a prohibitive factor for the lower quintiles. Worthy of note, is that the increase in the importance of rice expenditure in food, was greater for rural households than for urban households in all the middle quintiles.



239 Graph 8.7 indicates the large increases in the noodles share of expenditure on food, rising by 41% in urban households, and 20% in rural households. The remarkable trend is that the highest increases of more than 70% have taken place in both the rural and urban bottom quintiles.



240 It seems that the forces encouraging rural consumers to consume imported carbohydrates is far stronger than the question of availability of local substitutes. One factor that needs to be investigated is whether the poorest rural people (for example in RQ1) do not have free access to agricultural land, and the move towards imported food-stuffs is driven by the relative cheapness of imported carbohydrates, whose consumption make the poorer consumers' dollars "go further".

²⁸ With the FIBoS apparently registering an increase in the rice price by 98%, even these large nominal increases would suggest that the quantities consumed may have decreased.

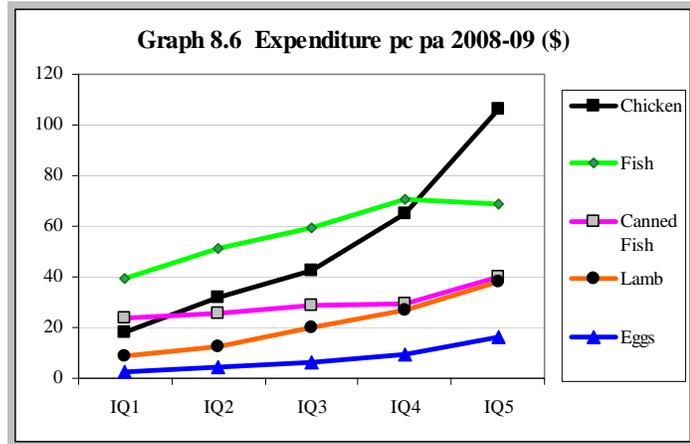
8. Food security issues

Meats and Canned Fish

241 Table 8.6 suggests that While Fresh Fish remained the most important meat item, expenditure on it rose by only 31% in nominal terms while that on chicken rose by 53%, and on Canned Fish by 21% .

	2002-03	2008-09	% Ch.
Fish	44.12	57.85	31
Tinned Fish	24.32	29.51	21
Chicken	34.53	52.77	53
Lamb	17.91	21.24	19
Food Total	717.72	1002.24	40

242 Graph 8.6 indicates that while fresh Fish was the most important meat for the poorest quintile in 2008-09, followed by Canned Fish, chicken was increasingly the most important for all the other quintiles, rising very rapidly for the top quintile. Fresh Fish expenditure per capita declines slightly for the top quintile. The other meats (beef and pork) are relatively unimportant (graphs not given here). Canned fish consumption is fairly level throughout the quintiles, rising only slightly for the top quintile.



243 Table 8.7 indicates that for national quintiles, the largest increase in expenditure per capita has been on chicken, followed by Canned Fish, and Fresh Fish. Two interesting trends are that for the bottom two quintiles, both chicken and fresh fish had large increases.

244 Pork had reduced per capita expenditure in all quintiles, with the largest decreases taking place at the lowest quintiles. Beef also saw large decreases at the lowest two quintiles. For these two meats, relative affordability was probably the important factor.

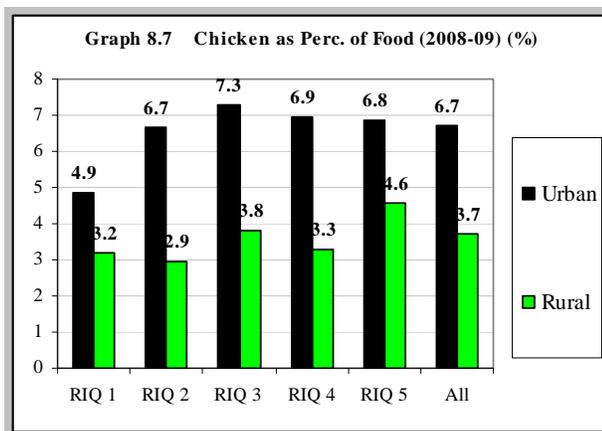
	IQ1	IQ2	IQ3	IQ4	IQ5	FIJI
Chicken	73	82	40	51	49	53
Can Fish	36	46	47	37	54	44
Fish	65	34	37	31	12	31
Eggs	12	4	3	24	39	22
Lamb	16	2	25	19	23	19
Beef	-45	-24	-17	-1	34	5
Pork	-72	-72	-62	-3	-30	-46

245 Of some concern is that the top quintile showed only a 12% nominal increase in per capita expenditure, which would amount to a significant decline in real expenditure given that fresh fish may have had a price increase of around 40% during this period.²⁹

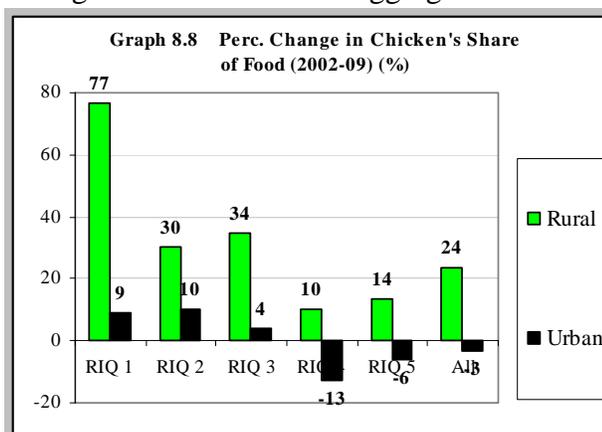
²⁹ The fish species priced by the FIBoS may not have the same compositional weights as that consumed throughout Fiji.

8. Food security issues

246 Graph 8.7 indicates the uniform importance of chicken throughout the urban quintiles, at around 7% of total food expenditure, with the share dropping for the lowest urban quintile, probably because of affordability. The shares for rural households are roughly half that for urban households.



247 Graph 8.8 indicates some very unusual changes taking place in chicken's relative importance in overall food expenditure. All rural quintiles saw significant increases in aggregate amounting to a 24% increase. However, while the lower rural quintiles all saw the largest increases and the lower urban quintiles saw moderate increases, in complete contrast, the urban upper quintiles saw moderate decreases in chicken's share of total food expenditure.



248 Table 8.8 indicates that the top two quintiles in both rural and urban areas, saw significant reductions in the importance of meats and eggs in their total food expenditure, with a -11% reduction in the top quintiles. Are these changes due to the upper quintiles becoming more diet conscious with a reduced emphasis on meat? The poorest two rural quintiles however saw increases in the proportions spent on meat and eggs. These trends need further investigation.

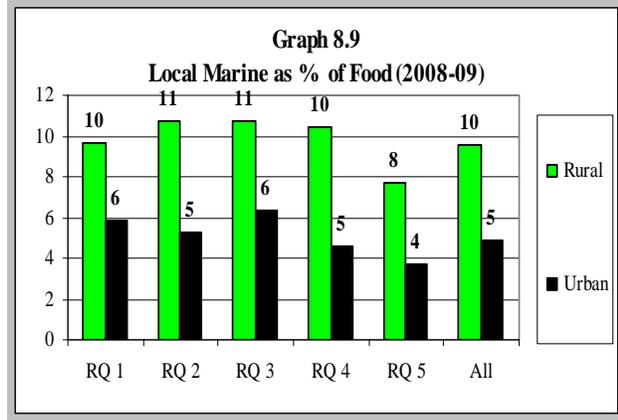
	Rural	Urban
RIQ 1	15	-1
RIQ 2	8	1
RIQ 3	3	7
RIQ 4	-3	-11
RIQ 5	-11	-11
All	-1	-5

249 In Fiji as in most Pacific Island countries, marine foods are an important part of the diet. Graph 8.9 indicates that all rural quintiles supplied roughly 10% of their food expenditure through local marine foods (fresh fish and other marine products, excluding Canned Fish), with urban households roughly half of that around 5%.

250 Table 8.9 however indicates that the long term trend is for Local Marine Foods to reduce their contribution to Total Food, by -11% in rural households, and a much larger -16% decline for urban households. The decreases seem to affect both the poorest and the richest households.

8. Food security issues

251 Graph 8.10 shows the clear importance of Canned Fish in the diets of both rural and urban people, with higher percentages at the lower quintile, fairly equal for both rural and urban households.



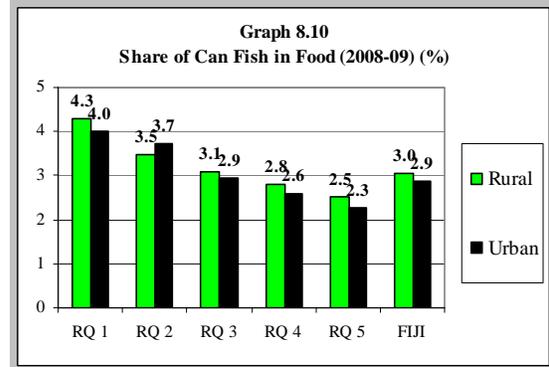
252 The data also indicates that the share of Canned Fish in Food Expenditure has increased between 2002-03 and 2008-09 by 3% in rural households and 5% in urban households. The quintile patterns were somewhat complex, with urban quintiles consuming relatively more of Canned Fish.

Table 8.9 Percent. Change in Local Marine Food Share of Total Food (2002-2009)

	Rural	Urban
RQ 1	-11	-21
RQ 2	-10	-27
RQ 3	-8	13
RQ 4	3	-13
RQ 5	-23	-25
All	-11	-16

253 It would seem that local marine foods are giving way to other meats which are either imported (like lamb and Tinned Fish) or have significant import content in feed, such as chicken.

254 There are three important policy implications of this trend. The first is that much of the local marine foods such as fish, shellfish and seaweeds are extremely nutritious and certainly more nutritious than imported food-stuff. Third, they are also part of the unique Fijian culture and worth preserving. Second, these foods are all local foods, generating local employment, and saving foreign exchange. All three require that policy makers do all they can to encourage the greater consumption of local marine foods.



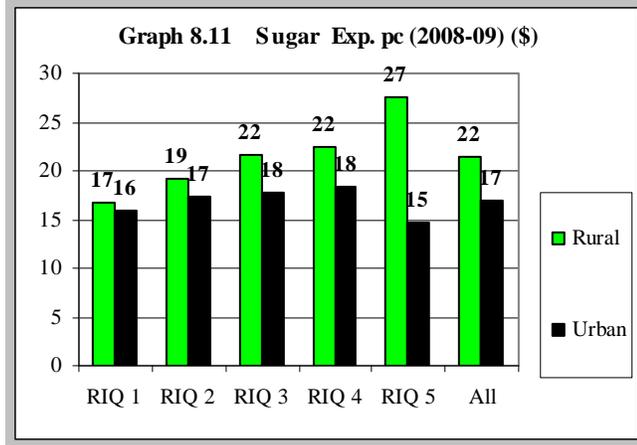
Sugar and junk-food consumption

255 The excessive consumption of sugar, sugary products and “junk-food” items with minimal nutritional content is of great concern to the Ministry of Health. Excessive consumption of sugar leads to the increase of Non-Communicable Diseases (NCDs) such as diabetes, which poses enormous physical damage to the victims, and logistical and financial burdens on the Ministry of Health in coping with the disease.

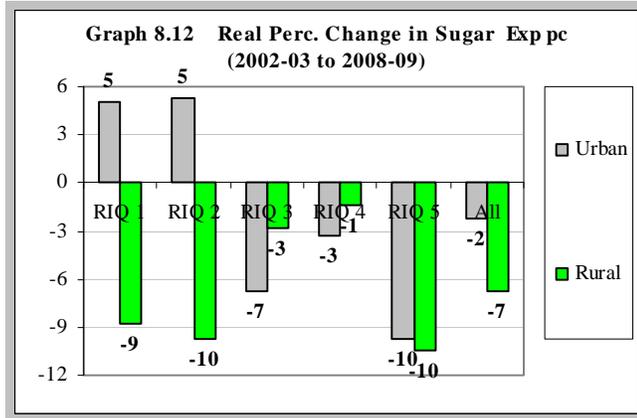
8. Food security issues

256 The HIES data reveals several dimension to the consumption of sugar and junk food items, with a mix of “good news” and “bad news”.

257 Graph 8.11 indicates the unusual change in relativity in that rural consumption of sugar per capita is significantly higher than the urban values for every quintile. It is especially a high \$27 per capita for the Rural Quintile 5.

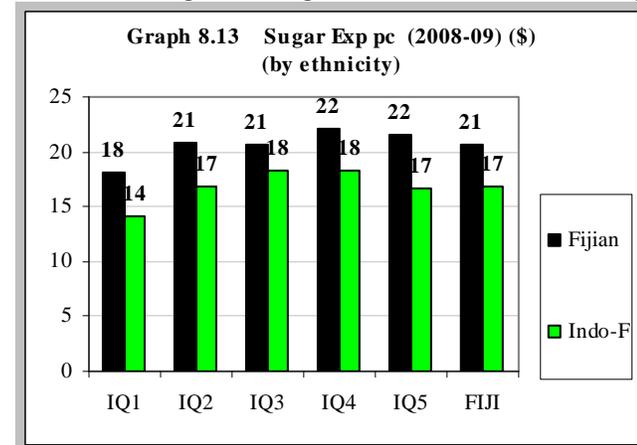


258 The good news is that urban values do not show any significant increases, and indeed declines for urban Quintile 5. This would suggest that urban households are more conscious of the need to restrict sugar intake, and the top quintile far more than the others.



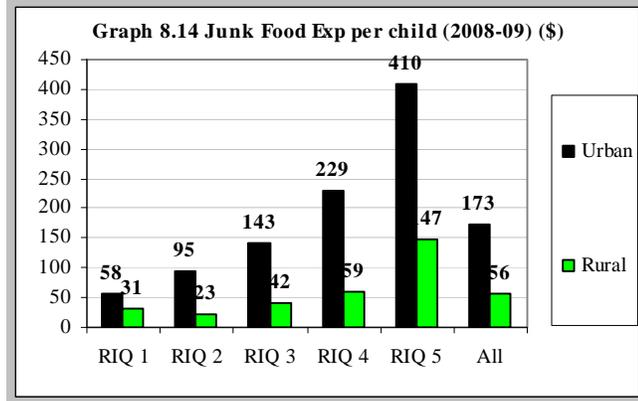
259 Graph 8.12 indicates the excellent news that most of the quintiles are showing significant decreases in their real expenditure (adjusted for the price rise in sugar) per capita, with the rural quintiles showing the largest decreases. The only exceptions are the lowest two urban quintiles, who still show 5% increases between the two HIES. It is important that education campaigns are conducted amongst the poorest urban communities as well as the rural communities, whose consumptions are currently at quite high levels.

260 Graph 8.13 indicates that the publicity campaigns need to be conducted especially amongst indigenous Fijians whose consumption per capita is higher than that of Indo-Fijians at all quintile levels. Both ethnic groups indicate the good news of declines taking place at the highest two quintiles.

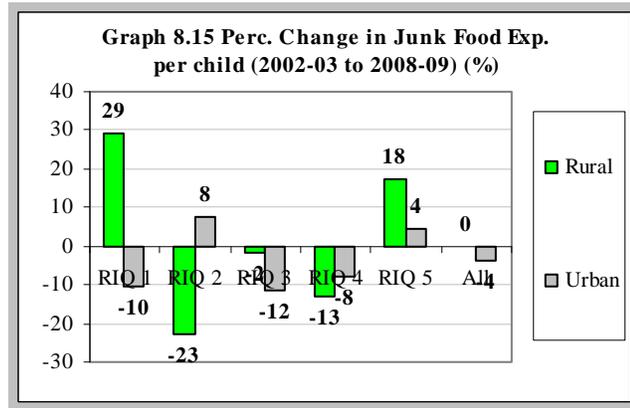


8. Food security issues

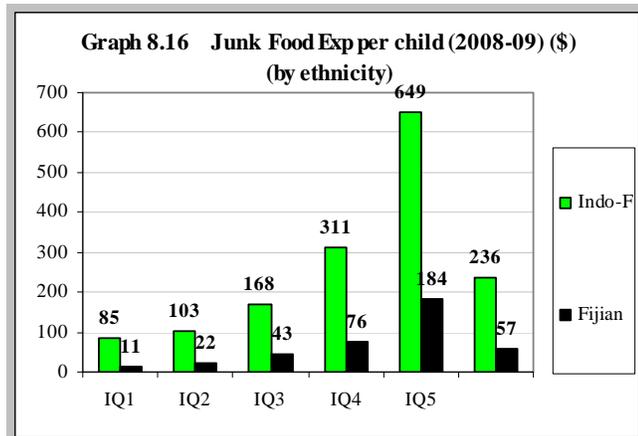
261 Graph 8.14 shows the quite alarming results that not only are children spending much higher amounts on “junk food”³⁰ expenditure, but there are massive increases taking place at the higher income levels with the per child expenditure for urban quintile five being more than six times higher than that for the lowest quintile. It is clear that education campaigns must especially focus on the urban upper income quintiles.



262 Graph 8.15 indicates the excellent news that nearly all the quintiles are showing decreases even in nominal expenditure per child, which would translate into much larger decreases in real terms, if price increases in the junk foods were to be taken into account.³¹



263 As the overall increase in prices is likely to be higher than 30 percent between the two HIES, even the nominal increases indicated in Graph 8.15, would convert to decreases in real terms.



264 Graph 8.16 indicates the extremely strong ethnic dimension, with Indo-Fijians spending around four times per child than that spent by indigenous Fijians. The expenditure by Indo-Fijian children in Quintile 5 is more than ten times higher than the average for Fijians.

³⁰ The items classified as “junk foods” are soft drinks, ice cream and ice lollies, sweets, airy snacks such as bongoes, twisties, UFOs. Excluded are the traditional Indian snacks such as sao and beans, although Indian sweets are included.

³¹ Given the large number of items involved, it would be difficult to obtain a composite price index for all the junk food items.

8. Food security issues

- 265 Analysis of the changes taking place between the two HIES suggests that there are large nominal increases taking place for both poorer and richer Indo-Fijians.
- 266 This pattern of Indo-Fijian households spending so much on junk foods consumed by children, is no doubt related to the fact that Indo-Fijian households, because of their small size due to fewer children, end up with more disposable income than indigenous Fijian households.
- 267 Stakeholders however must investigate why there is such a large difference between Indo-Fijians and Fijians. One factor that needs to be investigated is the influence of advertisements targeting Indo-Fijian consumers.
- 268 *Recommendation 8.1 Stakeholders agree on the need for a major effort to revitalize home production and consumption in both rural and urban households through innovative campaigns.*
- 269 *Recommendation 8.2 Stakeholders agree on the need for major infrastructure improvements to the marketing of locally produced agricultural and marine products.*
- 270 *Recommendation 8.3 Stakeholders agree on the need to dramatically improve the quality and access of consumers to local fresh food markets.*
- 271 *Recommendation 8.4 Stakeholders agree on the urgent need to improve the quality and presentation of value added agricultural and marine products in super-markets and shops (including the use of ice for marine products), to counter consumer tendencies to move towards imported processed foods.*
- 272 *Recommendation 8.5 Stakeholders agree on concerted national campaigns and competitions to design nutritious snack foods using local agricultural and marine products, that are acceptable to children's tastes, and affordable in the Fiji situation.*
- 273 *Recommendation 8.6 Stakeholders agree on the need to place "health taxes" on nutritionally poor snack foods and other foods such as fatty meats, with the tax revenues being earmarked for campaigns for better quality food products.*
- 274 *Recommendation 8.7 Stakeholders agree on the need to ban advertisements for non-nutritious snack foods on television and radio.*
- 275 *Recommendation 8.8 Stakeholders agree on the need to ban sponsorship of children's sports by manufacturers of non-nutritious food products, with the revenue short-falls for sporting bodies to be provided by tax-payers through the annual Fiji Government budget.*

8. Food security issues

276 ***Recommendation 8.9 Stakeholders agree on the need to monitor the fat and general nutritious content of certain meat products such as sausages.***

9 Narcotics: Alcohol, tobacco and kava

277 While alcohol and kava taken in moderation are not considered health risks, excessive consumption is known to have severe costs both to the individual and to society in a number of ways. Tobacco³² consumption is undeniably thought to be negative for both individuals and society.

	2002	2008	% Ch.
Rural	10	10	-9
Urban	25	26	3
FIJI	17	18	4

278 Table 9.1 gives the national changes taking place with a small 4% nominal increase in alcohol expenditure per adult, between the two HIES, with a 3% increase in urban areas and a -9% decline in rural areas. With moderate increases in the prices of most alcohol products, the above data would indicate that overall alcohol consumption has probably gone down in real terms, adjusted for inflation. There are however worrying quintile patterns.

	Rural	Urban
RIQ 1	3	2
RIQ 2	1	14
RIQ 3	4	6
RIQ 4	9	27
RIQ 5	28	77
All	10	26

279 Table 9.2 indicates that for 2008-09, urban quintiles 5 (\$77) and 4 (\$27) and rural quintile 5 (\$28) had quite high values for per adult expenditures on alcohol products. Given that what is recorded in the HIES is bound to be underestimated, the actual expenditures are probably much higher. Further, if allowance is made for the fact that many households do not consume alcohol at all, then the actual average expenditure per adult is likely to be even higher.

	Rural	Urban
RIQ 1	-49	48
RIQ 2	-79	23
RIQ 3	-41	-73
RIQ 4	143	-14
RIQ 5	-10	37
All	-9	3

280 Table 9.3 gives the generally good news that nearly all quintiles in rural areas saw decreases in the per adult expenditures on alcohol products (with the exception of Rural Quintile 4) as well as the two middle quintiles in urban areas. The increases in urban quintiles 2, 3 and 5 while nominally significant, would probably reduce to insignificance if allowance were to be made for price inflation. The real consumption of alcohol products has therefore probably decreased significantly in rural areas, and moderately in urban areas. While the rural deterioration may have been driven by economic decline there, the urban decline is probably due to public education campaigns by the Ministry of Health and a greater awareness of the health consequences of excessive alcohol consumption.

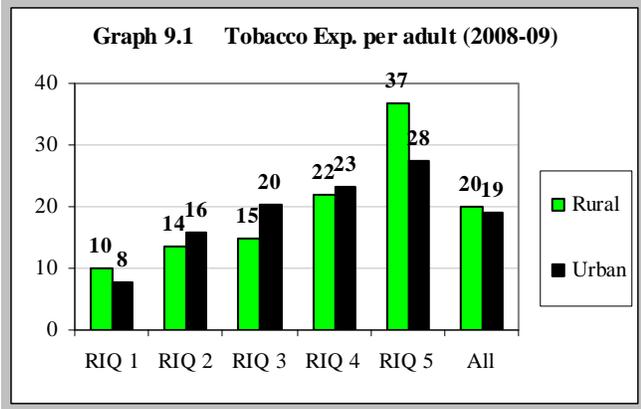
281 Stakeholders need to examine active policies to further discourage the consumption of alcohol products (as are given at the end of this section).

³² Tobacco here refers to all tobacco products including cigarettes.

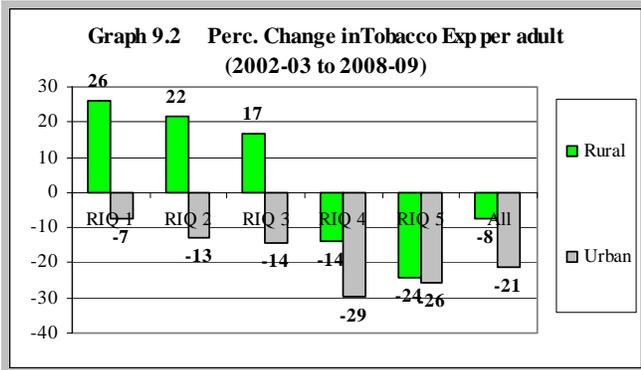
282 The HIES results for Average Tobacco Expenditure per adult also show quite good news. In nominal dollars, there was an 8% reduction for rural households and a large 21% reduction for urban households, resulting in an aggregate 15% reduction for Fiji as a whole. Given that tobacco and cigarette prices were rising during this period, the real decreases would be of a greater magnitude.

	2002	2008	% Ch.
Rural	21.55	19.91	-8
Urban	24.41	19.19	-21
FIJI	22.89	19.54	-15

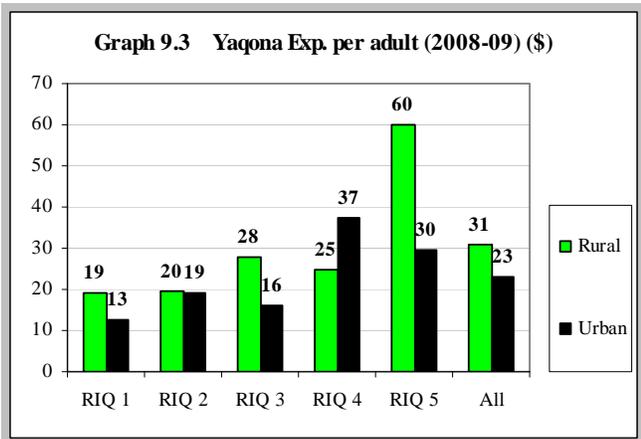
283 Graph 9.1 indicates that there consumption for the poorest rural quintile and the richest rural quintile is higher than that for their urban counterparts.



284 While Graph 9.2 gives nominal expenditure changes only between 2002-03 and 2008-09, it indicates the good news that all urban quintiles have been reducing their expenditures per adult, as also have been the top two rural quintiles. The real changes adjusting for the changes in tobacco product prices are probably of greater magnitude.



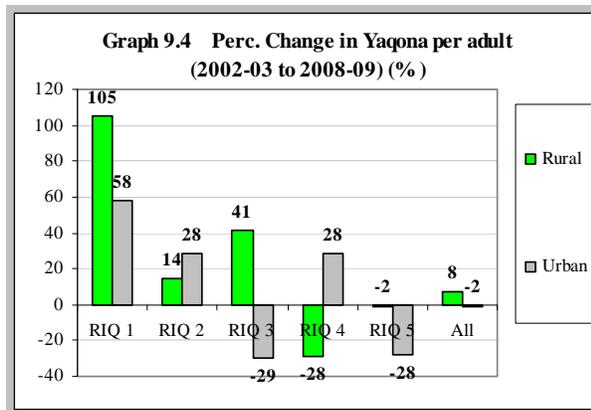
285 The slightly bad news is that the lowest three rural quintiles indicate moderate increases in nominal expenditure per adult, suggesting that education campaigns need to focus efforts on the poorer rural people, as well as the well off in rural areas who have significantly higher consumption levels.



286 Yaqona expenditure per adult shows similar trends to that of tobacco expenditure, with rural quintiles generally having higher levels than their

urban counterparts (Graph 9.3). The fifth rural quintile indicates a very dramatic jump in consumption from the other four quintiles which are fairly uniform in the amounts they consume.

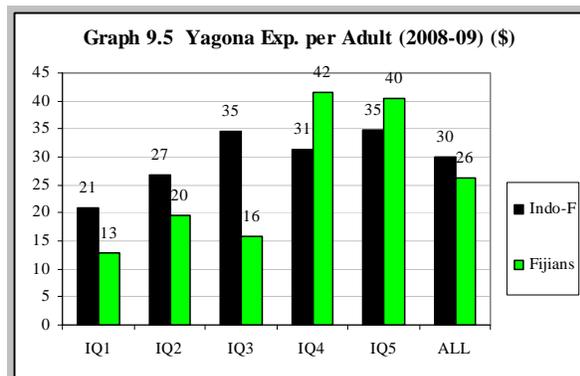
287 Graph 9.4 indicates that while there two of the urban quintiles show nominal decreases in expenditure per adult equivalent, the lowest rural quintile shows an extremely large 105% increase in expenditure. Overall, the rural quintiles had an 8% increase in expenditure per adult while the urban areas had a 2% decline.



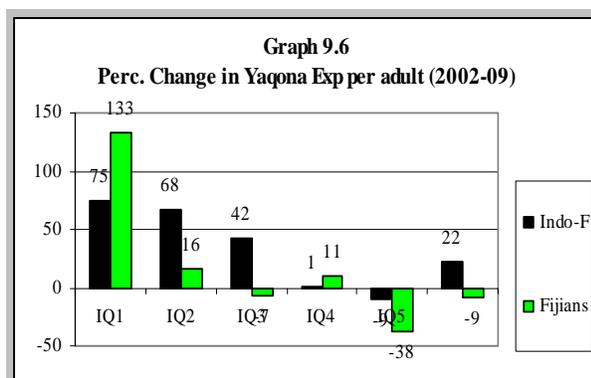
288 Table 9.5 indicates the quite interesting development that between 2002-03 and 2008-09 there has been a complete reversal of ethnic relativities in yaqona consumption. Fijian consumption per adult declined by 9% while that for Indo-Fijians increased by 22% resulting in Indo-Fijians having a higher yaqona consumption per adult than indigenous Fijians.

	2002-03	2008-09	% Ch.
Fijian	29	26	-9
Indo-F	25	30	22
Others	15	14	-8
FIJI	26	27	3

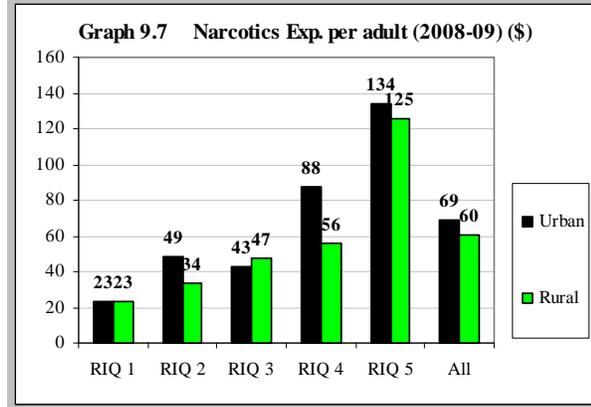
289 Graph 9.5 indicates the somewhat disturbing feature, that yaqona consumption amongst Indo-Fijians is quite high for the poorest Indo-Fijians in the lowest three quintiles, relative to Fijians whose consumption is relatively higher in the upper quintiles.



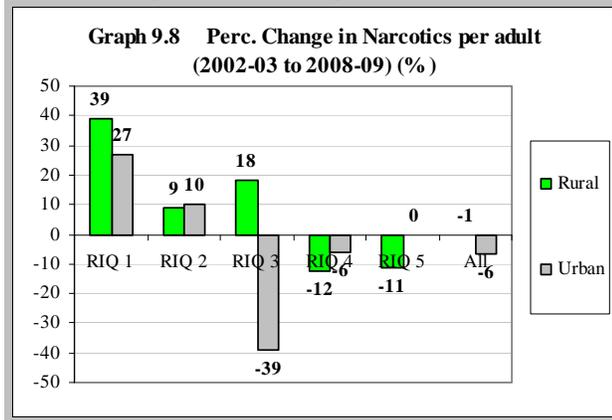
290 Graph 9.6 indicates the trend for the poorest Indo-Fijians and Fijians. Between the two HIES, yaqona consumption per adult has increased far more for the Indo-Fijians in the lowest three



national quintiles, and for the Fijians in the lowest quintile, than for the higher income groups. The largest percentage change is in fact for the Fijians in Quintile 1, with a 133% increase over 2002-03 levels.

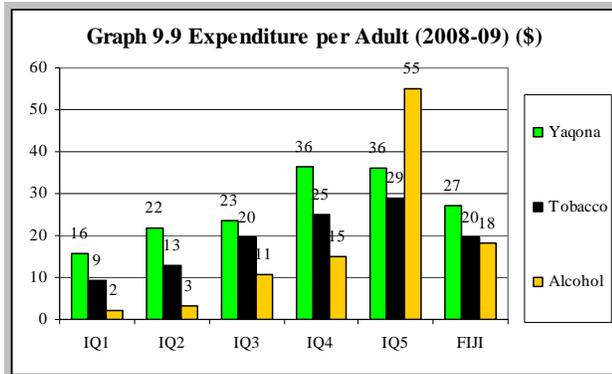


291 Anecdotal evidence suggests that amongst Indo-Fijians, yaqona consumption has become something of a “social evil” at gatherings for weddings and funerals, where even the poorest families feel compelled to provide large quantities of yaqona for the nightly gatherings, at great financial cost. It is important that Indo-Fijian social organisations tackle this emerging problem.



292 It should also be investigated why the indigenous Fijians in the lowest quintile, have such a high increase in yaqona consumption. One possibility is that economic pressures have moved consumption from higher priced alcohol to yaqona.

293 Despite all the differential quintile changes taking place, Graph 9.7 indicates that the high levels of narcotics consumption are taking place at the top two quintiles, especially in urban quintiles 4 and 5.

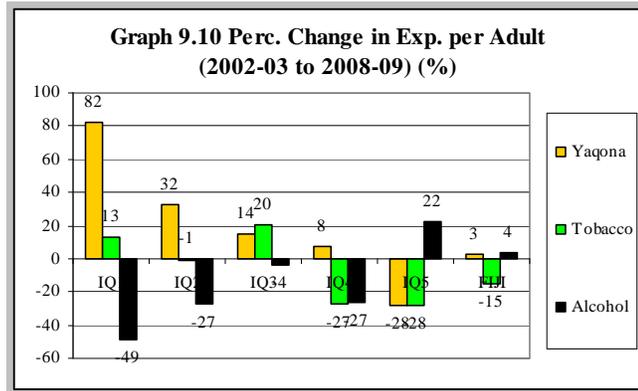


294 Graph 9.8 indicates the generally good news for the upper quintiles that the trend is for lower expenditure on narcotics in aggregate and probably larger declines in real terms if price changes are taken into account.

295 However, the lowest two quintiles indicate quite moderate increases in nominal expenditure, which may not be significant given the price increases that have been taking place.

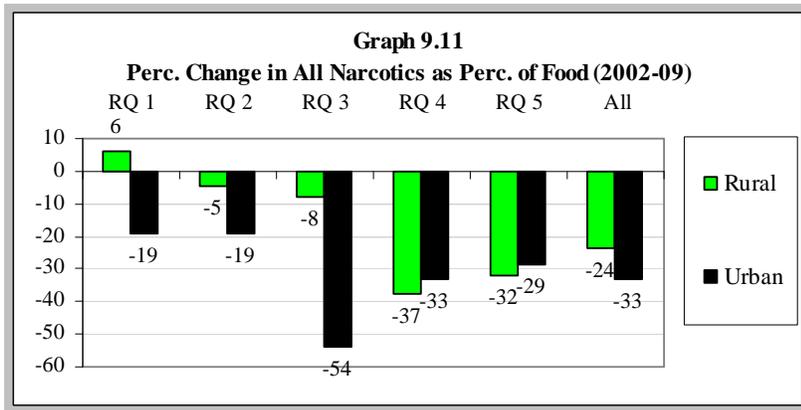
296 Graph 9.9 puts all the three narcotics in one picture: not only was yaqona the most important narcotic nationally in 2008-09, but it was also the most important for the bottom three quintiles.

297 While health stakeholders strongly advocate higher taxes on alcohol and tobacco products in order to discourage consumption of these two “bad health” products, one criticism often is that such taxes are “regressive” in that they affect the poorest people proportionately more. While it would be important to estimate price and income elasticities in order to draw sound conclusions, Graph 9.9 strongly suggests that increased taxes on alcohol and tobacco would have lower impact on the poorer quintiles, compared to that the well-off. Arguably, alcohol and tobacco also have larger negative impacts on individual consumers’ health and public health budgets.³³



298 Graph 9.10 indicates the changes in expenditure per adult, taking place between the two HIES at the national quintiles. Clearly, the poorer quintiles are reducing their alcohol expenditure, but increasing their yaqona, and slightly their tobacco expenditure.

299 One graph which indicates some good news all around is Graph 9.11 which gives for regional quintiles, the percentage change in All Narcotics as Percentage of Food.



All rural and urban quintiles (except for Rural Quintile 1) show large or moderate decreases.

300 The decreases are quite significant for all urban quintiles and largest for 3rd, 4th and 5th quintiles. The declines are quite significant for rural quintiles 4 and 5, but not so significant for rural quintiles 2 and 3. That for rural quintile 1 has

³³ While there is no shortage of anecdotal views, health stakeholders may wish to explore through sound research the impact of yaqona consumption on productivity and general welfare of yaqona consumers and their families.

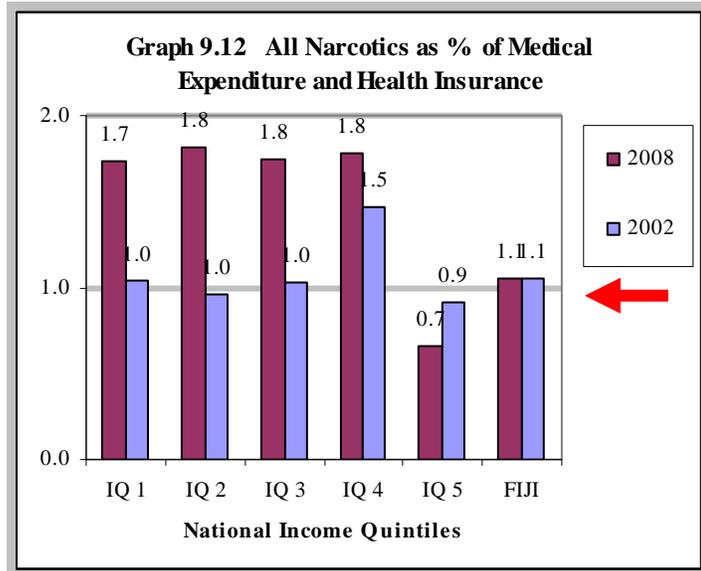
increased. This is quite consistent with our earlier conclusions that it has been the upper quintiles in rural areas which have seen the larger decreases in their Income per AE.

301 The changes taking place are encouraging. Stakeholders in health and poverty may also wish to consider a “health tax” to be also imposed on yaqona, with the increased revenues to be earmarked to the Ministry of Health for related activities.

302 Any proposal for increased taxes usually draws protests from the public. However some difficult questions need to be faced honestly. One question needs to be asked: how important do consumers rate their expenditure on narcotics relative to other household needs, for example medical health and insurance expenditures. Table 9.6 gives the interesting result that while for Fiji in aggregate, the ratio did not change much at all between 2002 and 2009, this was not true at all by quintiles.

Inc Quin	2002	2008	% Ch.
	Ratio		% Ch.
IQ 1	1.04	1.74	67
IQ 2	0.96	1.81	89
IQ 3	1.03	1.75	70
IQ 4	1.47	1.78	21
IQ 5	0.91	0.66	-28
FIJI	1.05	1.06	0

303 Quintiles 1, 2 3 and 4 all spent more than 70% more on narcotics than they did on Health and Insurance. Only Quintile 5 spent less.



304 The changes between 2002-03 and 2008-09 are even more instructive. There was a major reduction of 28% in the ratio at Quintile 5, while all other quintiles saw very large increases in the ratio, especially the poorest three quintiles.

305 Consumers who may naturally be expected to protest at any tax increases being proposed for narcotics (which will of course increase the prices and cost of living), need to also face up to the reality that they are choosing to spend relatively more on health destroying consumption (of alcohol, tobacco and yaqona) and less on medical expenditures (including health insurance) which seek to enhance the health of the household.

- 306 Recommendation 9.1 Poverty stakeholders strongly recommend further increases in taxes on alcohol and tobacco, with the increased revenues to be earmarked to the Ministry of Health for related activities.**
- 307 Recommendation 9.2 Poverty stakeholders seek professional and technical advice on the welfare impact of excessive yaqona consumption in Fiji.**
- 308 Recommendation 9.3 If it is found that excessive yaqona consumption does pose a significant cost to individuals and society, then stakeholders consider recommending a health tax on yaqona to discourage its consumption, with the increased revenues to be earmarked to the Ministry of Health for related activities.**

10 Health Expenditure (including Health Insurance)³⁴

309 Health outcomes are probably the most important welfare indicators for the household. Private health and health insurance expenditures by households which complement public health care expenditures, are therefore important inputs into the good health of the household occupants.

	2002-03	2008-09
Total Private HH Exp (\$m)	33	35
Govt Health Exp. (\$m)	104	111
Total Health (\$m)	137	146
Private HH share %	24	24

310 Table 10.1 indicates that household expenditure on Health and Health Insurance (H&HI) amounted to around 24% in both 2002-03 and 2008-09.

Area	2002-03	2008-09	% Ch	R % Ch
	\$ millions			
Rural	12	8	-35	-54
Urban	21	27	31	-8
FIJI	33	35	6	-25
	As % of Tot HH Expenditure			
Rural	1.7	1.0	-44	
Urban	2.2	1.6	-27	
FIJI	2.0	1.4	-30	

311 Table 10.2 indicates however, that Health and Health Insurance Expenditure, declined in rural areas by a massive -54% in real terms, and -8% in urban areas. In aggregated, there was a decline of -25%.

312 There was also a decline relative to Total Household Expenditure: in rural areas declining by -44% from 1.7% to 1.0%, and in urban areas by -27% from 2.2% to 1.6%. There are very low percentages being expended by households on what ought to be a priority spending area. The \$35 millions

Component	2002	2008	% Ch.
Prescribed Medicine	32	34	5
Other Pharm.Products	7	3	-55
Private Medical services	34	29	-13
Hospitalisation	2	1	-20
Health insurance	25	32	28
Total	100	100	

on Health and Health Insurance may be compared with \$37 million spent on narcotics (alcohol, tobacco and yaqona), \$41 million on restaurants and holidays, \$38 million on personal care items, \$60 million for religious contributions, \$58 million on mobile phone recharges. There has to be a serious

313 Table 10.3 indicates that the total expenditure on health is roughly distributed a third each to Prescribed Medicie, Private Medical Services, and Health Insurance. Note the extremely small proportion spent on hospitalisation.

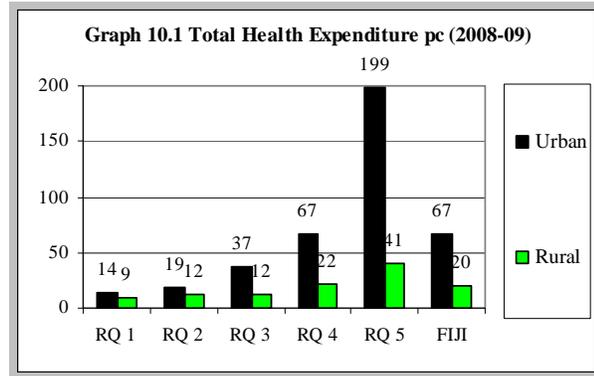
³⁴ While Health Insurance is not included as part of the division for Health Expenditure in the HIES, it is aggregated here for completeness of general health expenditure by households.

314 Between 2002-03 and 2008-09, there was a small 5% increase in the share of Prescribed Medicine, -13% decline in expenditure on private medical services which matches anecdotal evidence from GPs.

315 There has, however, been a surprising 28% increase in the share of Health Insurance, suggesting increasing public concern over the ability of public health care to deliver adequately and to consumers' satisfaction.

316 Given the long-held concerns about the health services in the rural areas, the following analysis disaggregates by rural and urban areas wherever useful.

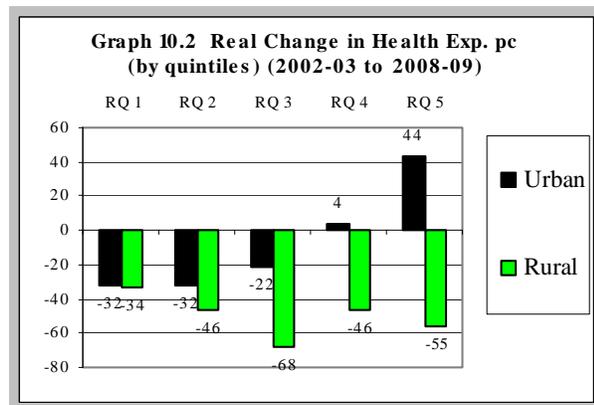
317 Graph 10.1 drives home the large disparities between rural and urban households, and the poorest and the richest quintiles, especially in the urban areas.



318 Overall, private household expenditure is three times higher per capita in urban areas than in rural areas. Given that the bulk of publicly provided health care is urban-based, the lack of private expenditure in rural areas, would be widening the rural:urban gap.

319 Rural expenditure per capita remained low for the first four quintiles, before rising slightly for the 5th quintile to \$41 pc, which was just over what was spent by the 3rd urban quintile. The total health expenditure is in fact totally distorted by the very large amount spent by the 5th urban quintile (\$199 pc) and the 4th urban quintile (\$67 pc).

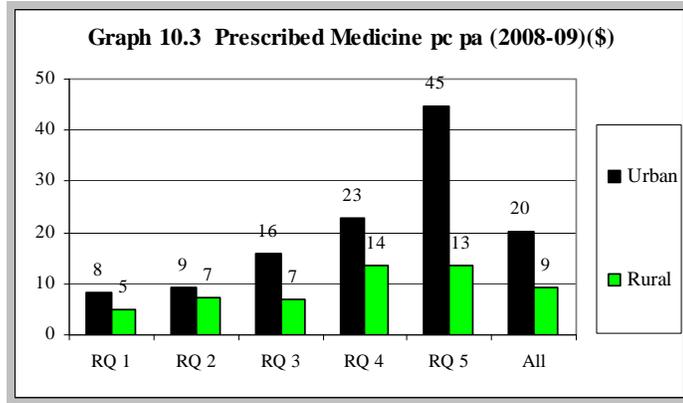
320 Note however, that the bottom 2 urban quintiles also spend very small amounts pc – at just around \$14 and \$19 pc – again not impressive compared to their spending on narcotics in 2008-09 (section 9).



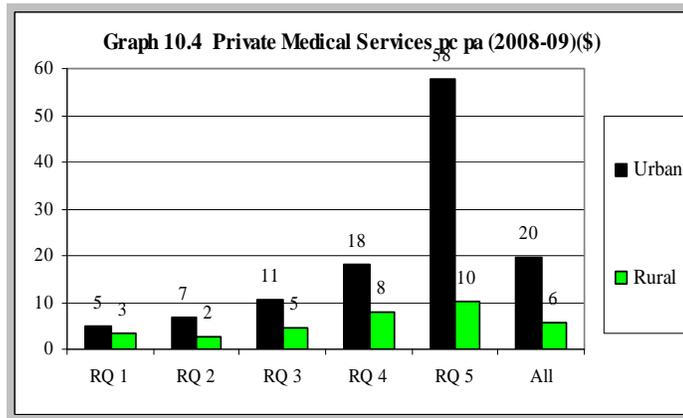
321 Graph 10.2 makes quite clear the real inflation-adjusted change in Health and Health Insurance Expenditure per capita, between 2002-03 and 2008-09. Only the top urban quintile saw any substantial increase (of 44%), the

4th urban quintile saw a small increase of 4%, while all other quintiles, rural and urban, saw significant decreases, with the largest being borne by the top 3 rural quintiles.

322 Graph 10.3 gives a good indication of the very small amounts that are spent on prescribed medicine by the bottom 60% of the rural people and the bottom 40% of the urban people (all less than \$10 per capita per year. The only groups that spend reasonable amounts are the top two urban quintiles.



323 The policy question that must be asked is: are the middle and lower quintiles spending so little because they do not need to, or because they cannot afford to, or because health expenditure is low on their list of priorities, or, in the case of rural people, because there are no suppliers in the rural areas?

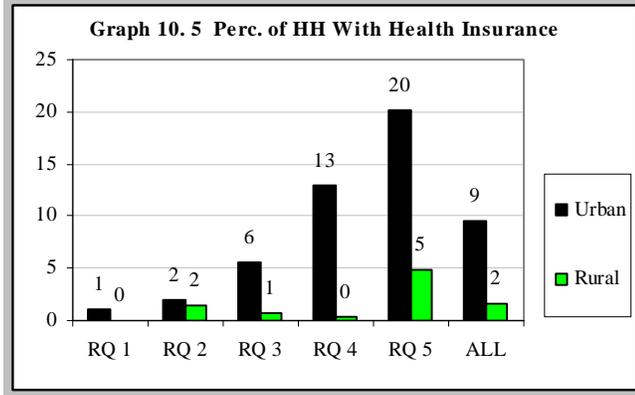


324 Exactly the same patterns are visible for expenditure on Private Medical Services pc pa. Virtually the only substantial expenditure is by the urban top quintile (at \$58 pc pa) and the 4th urban quintil (at a much lower \$18 pc pa). The rural values are all below \$10 pc pa for the bottom four quintiles and a mere \$10 pc pa for the top rural quintile.

325 Table 10.4 indicates the quite poor, and deteriorating coverage of Health Insurance. Some 8% nationally in 2002-03, the figure had reduced by a third to only 6% in 2008-09. The rural deterioration was even worse, by 66% from 5% to 2%, while urban households saw a reduction from 12% to 9%.

	2002-03	2008-09	% Ch.
Rural	5	2	-66
Urban	12	9	-24
FIJI	8	6	-33

326 Graph 10.5 shows the extremely low coverage of health insurance in rural households in 2008-09 and the extremely steep gradient in urban households.



327 While 20% of the top urban quintile were covered, and 13% of the 4th quintile, the lowest 2 urban quintiles also had negligible coverage.

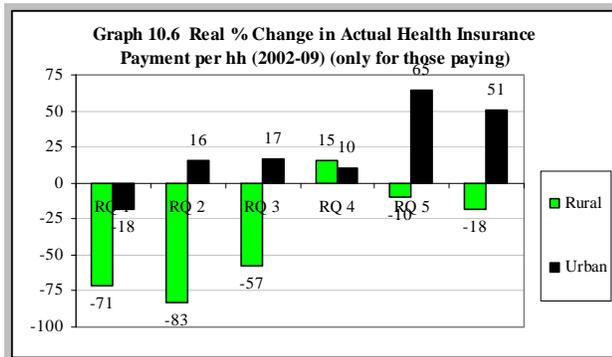
328 Table 10.5 indicates that for those households paying health insurance in 2008-09, the amounts were not particularly high being less than \$1000 per annum, with the amount rising only for the 5th quintile- to \$1306 for rural households and \$1495 for the urban Quintile 5.

	Rural	Urban
RQ 1		403
RQ 2	436	622
RQ 3	223	729
RQ 4	495	803
RQ 5	1306	1495
	1042	1160

329 Graph 10.6 shows the real percentage changes (allowing for inflation) in actual payments made per household between 2002-03 and 2008-09.

There were large decreases in the rural households in the bottom 3 quintiles, a small increase for quintile 3 and a moderate 18% decline for rural quintile 5.

330 These results are is fairly consistent with rural households reducing their discretionary expenditures on health insurance under economic pressure of declining real incomes.

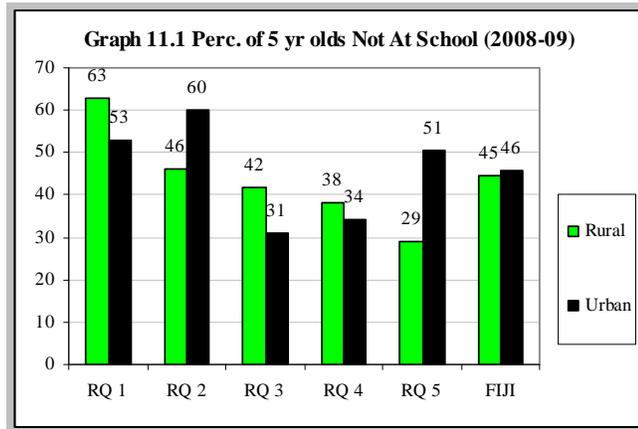


331 Except for a small decline in payment in the lowest urban quintile, all other urban quintiles saw real increases in unit payment per annum. There was an extremely large 65% increase for the top urban quintile (134% increase in nominal dollars).

332 Recommendation 10.1 Given the small amounts being spent on health expenditures by the rural and urban poor, poverty stakeholders agree on the continuing need for subsidized health care for the poor.

11 Education

333 For the poorest in Fiji, the important issues in education are firstly access (attending school) and secondly, the quality of education, which depends on many factors such as the quality of teachers, facilities, libraries, and computers. The HIES is able to give quite good information on school attendance, and private



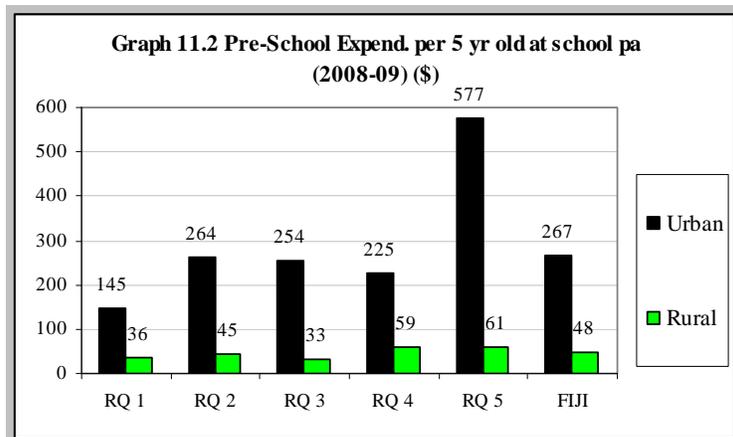
household expenditure on education at different levels. In both these areas, there is evidence of the relative deprivation of the poorest families, with rural families invariably doing far worse than urban families.

Pre-school or Early Childhood

334 Pre-school or Early Childhood Education is considered to be important not just for the children, but also for the mothers who freed up to pursue career objectives in work or education and training. Graph 11.1 indicates the very clear pattern of high non-attendance of 5 year olds, amongst the poorer rural quintiles (63% Not At School for Rural Quintile 1) reducing significantly and steadily to only 29% for top rural Quintile 5.

335 The urban quintiles show high non-attendance at the two lowest quintiles (53% and 60% respectively for the 1st and 2nd quintiles) falling to the low thirties for Quintiles 3 and 4 (and oddly rising to 51% for Quintile 5).

336 Graph 11.2 gives the stark expenditure picture that parents in all rural quintiles, spent extremely low amounts on pre-school per 5 year old at school- rising from \$36 per year at Quintile 1 to \$61 per year at Quintile 5. The urban families on the other hand spent \$145 per year in the bottom quintile, over \$200 per year in quintiles 2, 3 and 4, and an extremely large \$577 per child in Quintile 5.

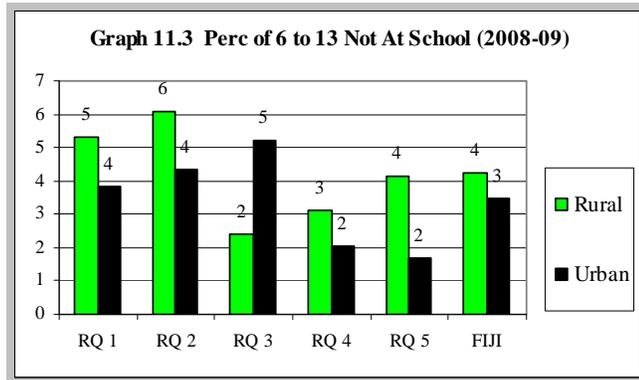


337 The data also indicates that that there was a large -58% decline in real funding per rural pre-school child between 2002-03 and 2008-09, for all the rural quintiles, while there was a 26% increase for urban children in aggregate.

338 Given that these expenditures would tend to result in better quality teaching materials for the pre-schoolers, it is essential that government funds be directed towards greater financial assistance to rural early child-hood education centers in rural areas.

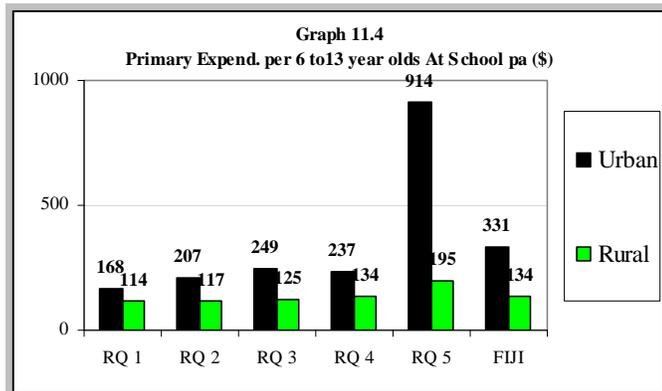
Primary

339 While Fiji has long had a policy of universal access to primary school, that goal is still not being achieved for the poorest children. Graph 11.2 indicates that some 5% to 6% or rural children in the lowest two quintiles were not at school during the 2008-09 HIES. In the three lowest urban quintiles, some 4% to 5% were also not at school. The situation may have changed since then because of the recent introduction of subsidized bus-fares for school children.



340 Graph 11.4 indicates the significant rural:urban differences in private household resourcing of primary age students. While the average for the urban top quintile was extremely high at \$914 per student per year, that for the other four urban quintiles was \$168 for the lowest quintile, rising to around \$249 for quintiles 3 and 4.

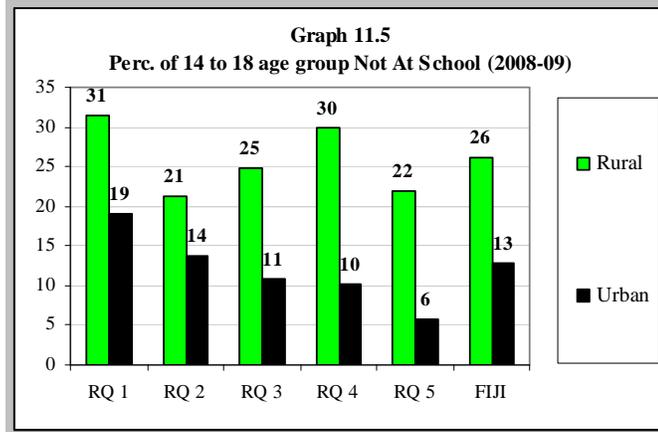
341 The private household resources for rural students was generally a half of that for the comparable urban quintiles, rising from \$114 per annum for rural quintile 1 to \$196 for rural quintile 5. To equalize the funding for rural students, Government would need to have a bias of more than \$100 per student (in 2008-09 prices) in favour of rural students.



Secondary

342 It is at the secondary level, however, that the impact on the poor becomes more

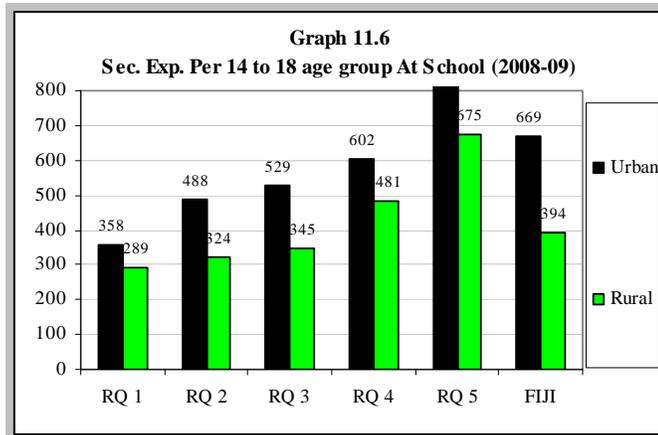
pronounced both from the point of access and private household funding. Graph 11.5 indicates the very large proportions of the age group 14 to 18 (proxy for secondary schooling ages) who were Not At School during the 2008-09 HIES. The average for all rural quintiles was 26%, twice that of the urban average of 13%. All rural quintiles,



however, had extremely high percentages Not At School, clearly having dropped out for various reasons. The major cause is likely to have been failing various examinations rather than financial reasons as there is no obvious gradient between the poor and rich rural quintiles.

343 There is however a very obvious gradient in the urban quintiles, with the poorest quintile having a 19% non-attendance, gradually dropping down to 6% for the top urban quintile.

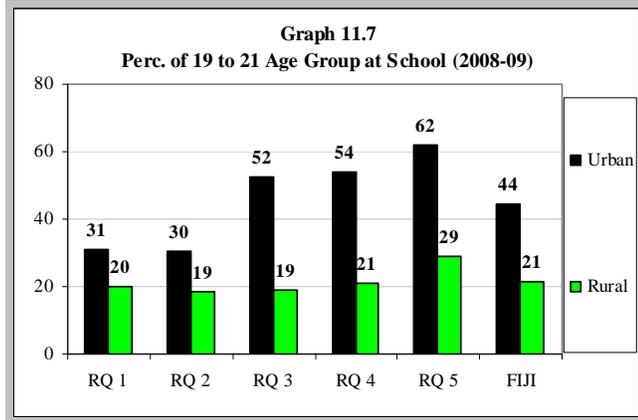
344 Graph 11.6 indicates the funding disparities at secondary school, with the urban expenditures rising rapidly to from \$358 per student per annum in the first urban quintile to \$602 in the fourth quintile, and (off the chart) to \$1189 per student for the top urban quintile. The rural expenditures per students rise from a much lower \$289 per student in Rural Quintile 1, to \$345 in Rural Quintile 3, before rising moderately to \$481 and \$575 per student in the 4th and 5th rural quintiles.



345 It seems clear that there needs to be substantial additional government funding per student in rural areas, to equalize resources between rural and urban counterparts.

Tertiary

346 Since the coups of 1987 and after, an important challenge facing Fiji has been the training and retention of tertiary trained persons facing more and more attractive emigration options. Ensuring that the maximum percentage of tertiary aged persons are able to receive tertiary training is therefore a priority.

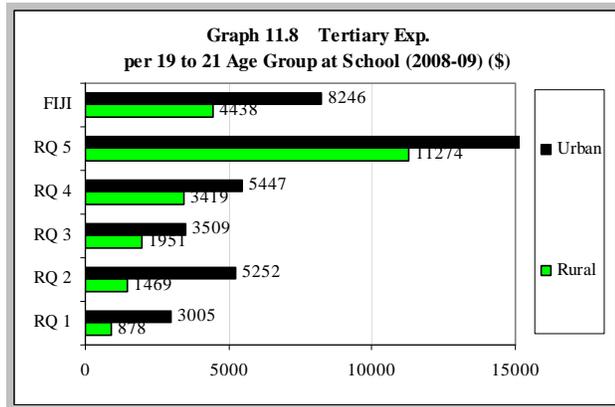


347 Graph 11.7 indicates that there is a very gap between the rural and urban households, with 44% of those aged 19 to 21 (proxy for tertiary age population) being at school in 2008-09, in contrast to only 21% of the rural counterparts.

348 The graph indicates that of the urban households, those in the lowest two quintiles, one and two, had only around 30% at school, compared with just over 50% for quintiles 3 and 4 and 62% for the top quintile.

349 Of the rural households, the proportions at school remain flat at around 20% right up till the 4th quintile. Only for the top rural quintile, does the proportion rise to 29%.

350 This data suggests that Fiji’s tertiary age population are not seeing their full potential in tertiary training. This Report does not go into the reasons for these disparities between urban and rural households, nor the disparities between the lower poorer quintiles and the top quintiles. It is hoped that the graph substantiates the size of the gaps between rural and urban households, and that between the poorer and richer households.



351 Graph 11.8 indicates the very large disparities in tertiary expenditures per 19 to 21 old At School. The urban Quintile 5 value is way off the chart at \$25,433 per person At School, while the rural Quintile 5 value is also quite high at \$11,214.

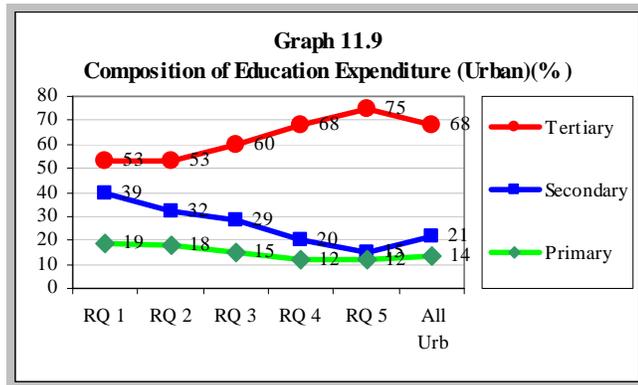
11 Education

352 At all quintiles, the rural value is way below the urban value. For Rural Quintile 1, it is a mere \$878 per person pa, rising slowly to \$3419 for Rural Quintile 4. The urban quintile values rise quickly to \$5252 for Quntile 2 and \$5447 for Quintile 4.

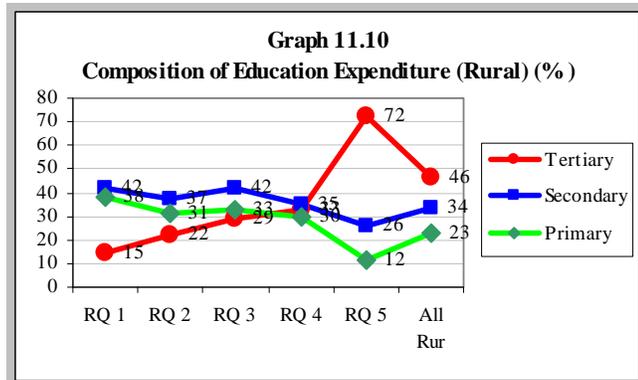
353 These are all quite high values, relative to the incomes of the households. Given that these are private household expenditures, they also indicate the great value that households now place on tertiary education, which is now well recognized as the passport to well-paying employment both in Fiji and abroad.

354 Given that the unit expenditure in the urban households take a step up even by the 2nd urban Quintile (which is relatively poor), it suggests that this is clear evidence that households are prepared to pay for services that they value. Even the urban Quintile 1 value of \$3000 is quite high relative to the average household income—roughly some 40%. Even in rural households, the unit tertiary expenditure amounts to some 20% of the average household income.

355 Any poor household (for example in the bottom urban quintile, and bottom 2 rural quintiles) having more than one person of tertiary schooling age, would find these expenditures extremely difficult to maintain out of their meager household incomes, especially after essentials such as food have been paid for.

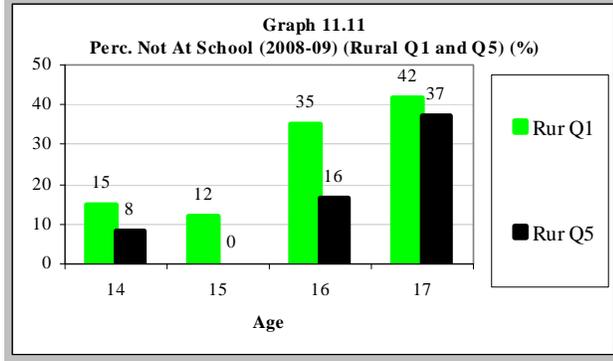


356 It is critically important therefore that access to tertiary education is facilitated be ensuring as a minimum that tertiary students have easy access to finance to pay for whatever fees are required by tertiary training institutions.

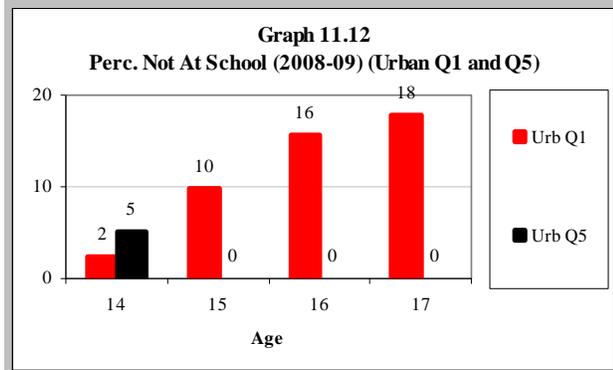


357 It may be noted that the patterns of expenditure are quite different for urban households (Graph 11.9), for whom expenditure at tertiary levels is the most the most important at all quintiles, whereas for the rural households (Graph 11.10), expenditure at primary and secondary is more important than tertiary expenditure. This of course, reflects the fact that the children from the poor fail to achieve optimum participation at the tertiary levels, as previously indicated.

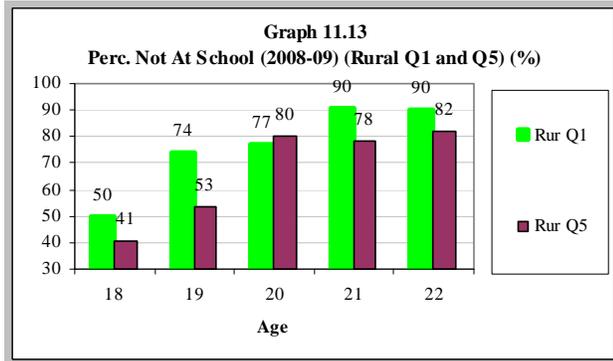
358 One last set of graphs to indicate how the children in the poorest quintiles drop out of school. Graph 11.11 shows quickly the children in the rural poorest quintile drop out of school: 35% have dropped out by the age of 16, rising to 42% by 17. The rural top quintile also shows quite high drop-out rates of 16% at age 16 and 37% at age 17. These percentages will be somewhat on the high side to the extent that rural students have moved to urban schools.



359 Graph 11.12 shows high drop out rates in the poorest urban households as well, though not as high as rural schools. In the poorest urban quintile, some 10% had dropped out by age 15, rising to 16% at age 16 and 18% age 17. These are quite high drop out rates, which need to be minimized for the poorest in urban areas.



360 Graph 11.3 shows again the gap between the poorest rural quintile and the top rural quintile. While the proportions Not At School are similar from ages 20 onwards, at age 18, 50% of the poorest RQ1 are not at school, compared to 41% of rural Q5. The drop-out is higher at age 19, by which time 74% of the poorest quintile are not at school, compared to 53% of the rural top quintile.

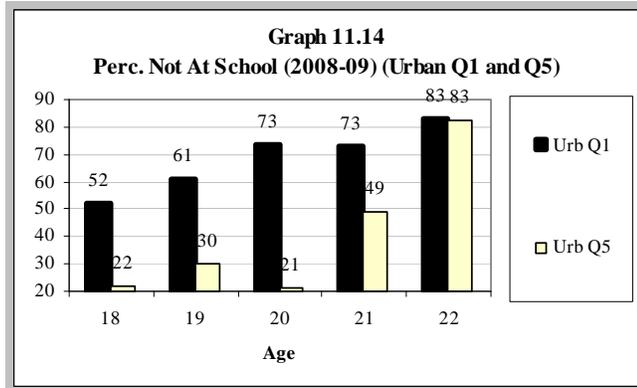


361 Graph 11.14 indicates the sharp disparities in the urban households. For the poorest urban quintile (RQ1) the percentages Not At School rise rapidly from 52% at age 18 (only 22% for urban Q5), to 73% at age 20 (only 20% for urban Q5) and 73% at age 21 (only 49% for urban Q5).

362 These graphs indicate quite clearly how large proportions of the poorest households are not able to keep their children at school for a variety of reasons,

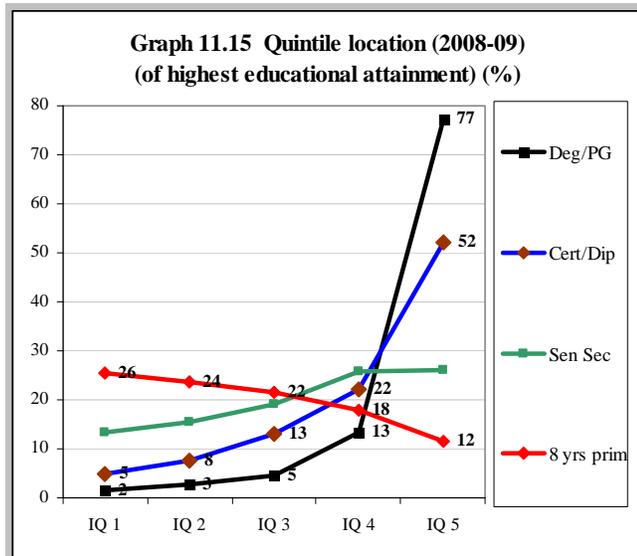
thereby reducing their overall education levels, which then feeds through into lower incomes throughout their lifetimes. It is critical to examine what factors are leading to students dropping out of school from secondary school age onwards.

363 Where the primary factors are financial hardships, then clearly there has to be more provisions made by government budgets to ensure that schools are not pressured to refuse students who are not able to pay fees.



364 Where the factors are failure to pass the required examinations, then the causes of higher failure rates amongst the poorest children need to be identified and tackled.

365 It is useful to also examine the impact of education on poverty. The 2011 World Bank Report on Poverty Trends in Fiji tried to get a handle on this by examining the level of educational attainment of the “Head of Household”. Of course, that would be a factor in influencing the poverty level of the household. However, it is far more useful to examine the education level of all the individuals in the household, as it is the aggregate income of all the productive members of the household that contributes to the total household income, and the Income per Adult Equivalent that determines the poverty ranking of the household.

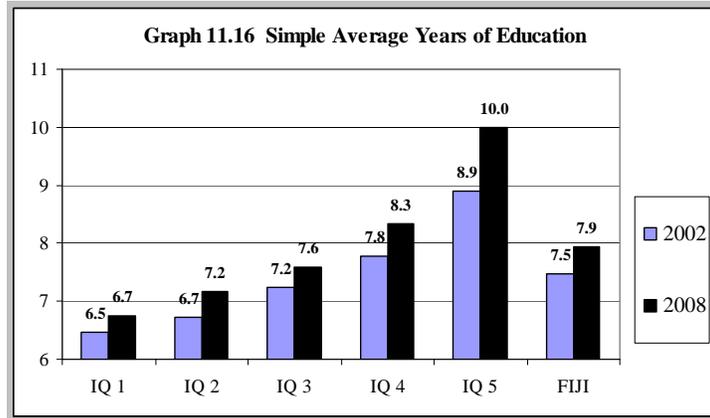


366 Graph 11.15 shows the clear advantage for individuals to have degree or post-graduate qualifications, with some 77% of them ending up in the top quintile, and 13% in the 4th quintile (ie 90% in the top 2 quintiles) . For those with Certificate and Diploma, 52% were in the top quintile, and 22% in the 4th quintile (i.e. 74% in the top 2 quintiles).

367 In contrast, of those with only 8 years of primary education, only 12% were in the top quintile and 18% in the 4th, or 30% in the top 2 quintiles.

11 Education

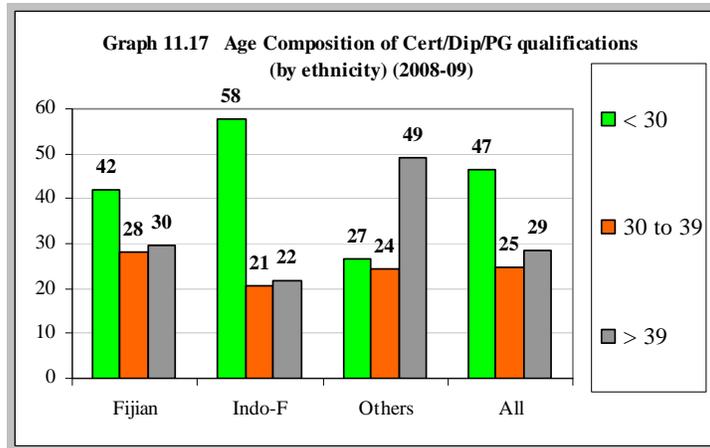
368 Another perspective on the association of education with poverty status is given by Graph 11.16 which gives the average years of education, by national quintile level. There are two interesting results evident from the graph.



369 First, there is a clear trend of rising averages with rising quintiles: for 2008-09, the average years of education steadily rises from 6.7 years at quintile 1 to 10.0 years for quintile 5.

370 Second, there have been small improvements between 2002-03 and 2008-09 at all quintile levels, of about 4% to 7%, but a large improvement of 12 percent at the top quintile. This improvement is evident, despite the continuing high levels of emigration that results in a loss of the most educated persons in the economy. The improvements would of course, have been much higher had the emigration been significantly lower.

371 It seems reasonably clear that the education system has been able to cope with the departing skilled personnel, although fresh graduates cannot of course be expected to have the experience and productivity that mature graduates would have.



372 Some idea of the decline in experience may be seen in an ethnic age comparison of education achievements as given by Graph 11.17. Indo-Fijian emigration since 1987 has been roughly five times greater than that of indigenous Fijians.³⁵ The percentage of Indo-Fijians with Certificates/Diplomas/Degrees/PG qualifications is extremely high for the under 30 years of age group- at 58% compared to only 42% for indigenous Fijians. On the other hand, the percentage over 30 is around 21% compared to 30% for indigenous Fijians. The older and more experienced Indo-Fijians have largely emigrated, leaving the younger less experienced persons.

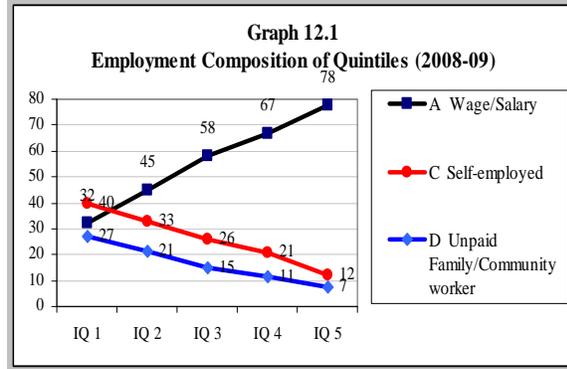
³⁵ Note however that in the last few years, indigenous Fijian emigration has also increased.

- 373 Recommendation 11.1** Poverty stakeholders strongly urge greater budgetary allocations for rural pre-schools- setting up the required classes, and hiring the required trained teachers for the rural areas, do reduce the enrolment gap with urban areas.
- 374 Recommendation 11.2** Poverty stakeholders strong urge greater budgetary allocations for rural pre-schools so as to improve facilities and pedagogical materials and close the private funding gap between urban and rural pre-schools.
- 375 Recommendation 11.3** Priority be given to the encouragement of higher pass rates in rural secondary schools so that adequate entry may be made to tertiary training institutions.
- 376 Recommendation 11.4** Thorough research be undertaken to identify the causes of the high drop-out rates in the poorest households, in both rural and urban areas. Where the causes are identified to be related to financial hardship, budgetary provisions be made to ensure that schools are not forced to reject students not able to pay fees. Where the causes are failure at required examinations, then the causes of the poorer academic performance of the drop-outs be addressed.
- 377 Recommendation 11.5** Priority be given to the encouragement of higher pass rates in rural secondary schools to improve participation rates at tertiary training institutions.

12 Profiles of poor households: employment and gender

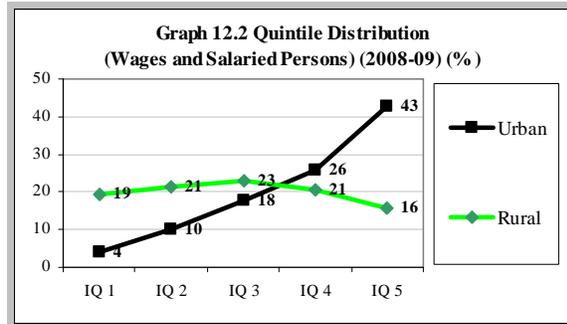
- 378 Most poverty studies attempt to give a profile of the “poor” households. Given the way that the HIES data is constructed and made available to outside consultants, the usual approach is to examine the poverty status with reference to the characteristics of the “Head of Household”.
- 379 Thus World Bank (2011) attempts to examine the association of poverty with the characteristics of the Head of Household, such as gender, education level or employment status.
- 380 While this method has its merits, there are also inherent weaknesses. First, it seems that the “Head of Household” is not defined by any particular characteristic such as the person with the higher income, or education or decision-making role. For instance, with respect to gender analysis, the data suggests that the only time that the Head of Household is designated as a female is when the male spouse is absent.
- 381 Second, the education level of the Head of Household is not particularly correlated with the education, qualifications and income earning capacities of the rest of the household- especially in the Fiji situation, where many of the middle-aged people may not have had the opportunity to acquire formal education qualifications.
- 382 Similarly, the employment status of the Head of Household is not necessarily the “highest” status in the family, often with spouses or children having higher employment status.
- 383 Examining the poverty status in relation to the characteristics of the Head of Household (as is done by WB (2011) and other poverty studies) is therefore not as useful as examining the characteristics of the individuals in the household in relation to the poverty status of the household. For the 2002-03 and 2008-09 HIES data, this information is available not at the “household” level, but at the “person” level in the “demographic” characteristics file which needs to be related back to the poverty characteristics of the household, as determined by the estimated Income or Expenditure per Adult Equivalent.
- 384 In 2008-09, Wages and Salaried persons were some 58% of all the employed persons, Self-employed persons were 25% and Unpaid Family/Community workers were about 16% of all working people (table not given here). Their distribution in the national quintiles are quite opposite however.

385 Graph 12.1 indicates that the proportion of Wages and Salaried persons rises with the quintiles, comprising 32% at Quintile 1 but rising steadily to 78% of the top quintile. The proportion of Self-employed persons and Unpaid-Family and Community workers however steadily falls with the rising quintiles.



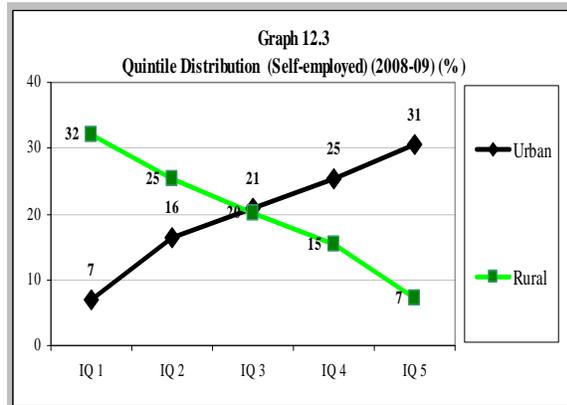
386 The national aggregate picture however disguises the sharp contrast that exists between the rural and urban areas with respect to these employment categories.

387 Graph 12.2 shows that in the rural areas (in green), Wages and Salaried persons are distributed fairly evenly throughout all the quintiles. It may be said with confidence that the rural workers in the upper quintiles would largely be those working for the public sector and large corporations, while those in the lower quintiles would be informal sector workers.



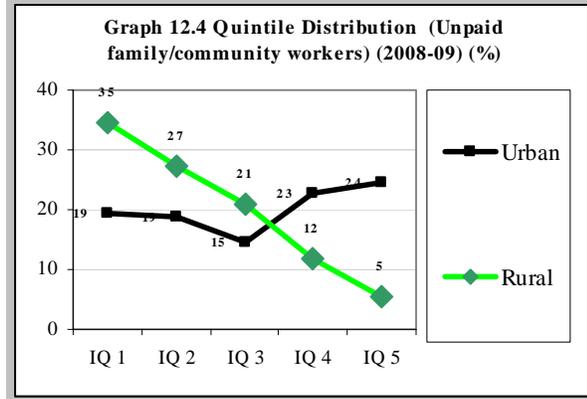
388 In urban areas, a mere 4% of Urban Wages and Salaried persons are in the 1st quintile and 10% in quintile 2 (likely to be those in the informal sector) while 43% are in the top quintile and 26% in the 4th quintile.

389 Graph 12.3 shows the completely opposite patterns of distribution of Self-employed persons. Only 7% of the urban Self-employed were in Quintile 1, rising steadily to 31% of Quintile 5. In the rural areas, some 32% of the Self-employed were in Quintile 1, falling steadily to 7% in Quintile 5.



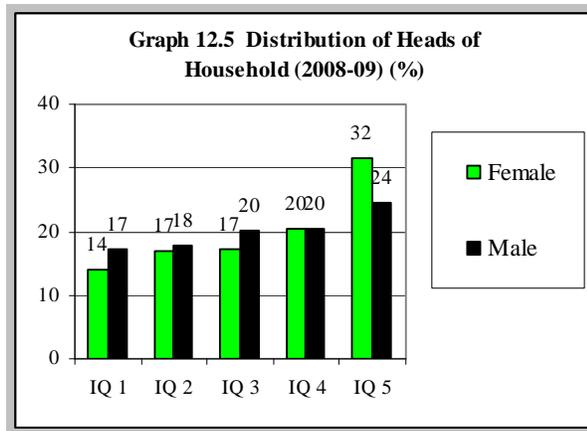
390 Similar statements may be made about employers and Unpaid Family and Community workers. Rural Unpaid Family and Community Workers are distributed evenly throughout the quintiles. The urban Family and Community workers have relatively smaller proportions in the lower quintiles and higher proportions in the top quintiles.

391 Rural Employers are distributed evenly through all the quintiles, slightly higher proportions in the lower quintiles and lower in the upper quintiles. Urban employers on the other hand are distributed evenly throughout the quintiles.

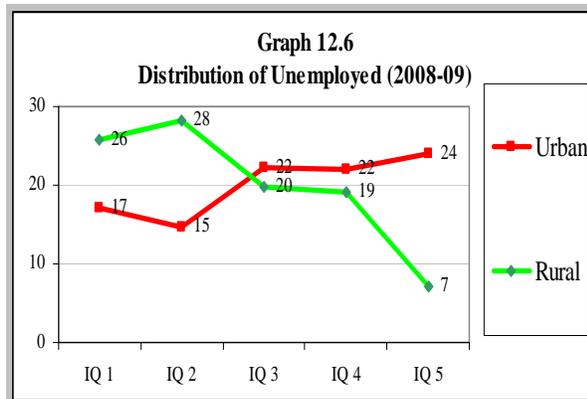


392 The above 4 graphs illustrate clearly the dangers of generalizing about employment categories from national aggregate data. In nearly all cases, the rural employment categories are far worse off than their urban counterparts.

393 Graph 12.5 indicates that a slightly higher proportion of female-headed households (some 32%) were in the top income quintile, compared to 24% of male-headed households.



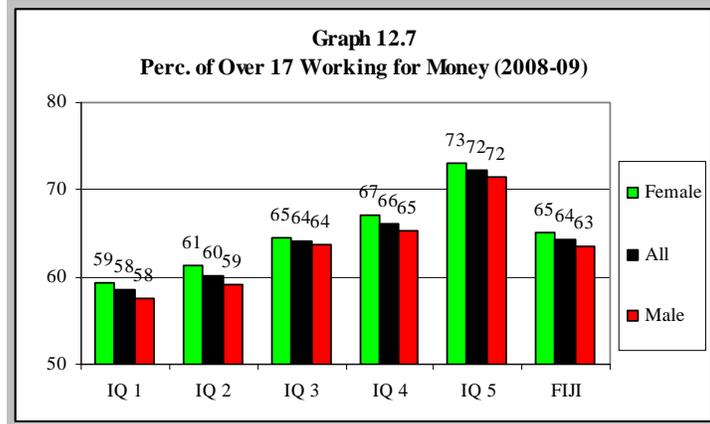
394 Graph 12.6 gives again the rural:urban differences in the distribution of the formally Unemployed. While the bulk of the rural unemployed are in the lower quintiles with only 7% in the top quintile, the urban unemployed are inversely distributed with 24% in the top quintile and a somewhat lower 17% in the bottom quintile. The category of “formal unemployment” does not adequately address the serious problem of real unemployment, or more accurately, under-employment in Fiji.



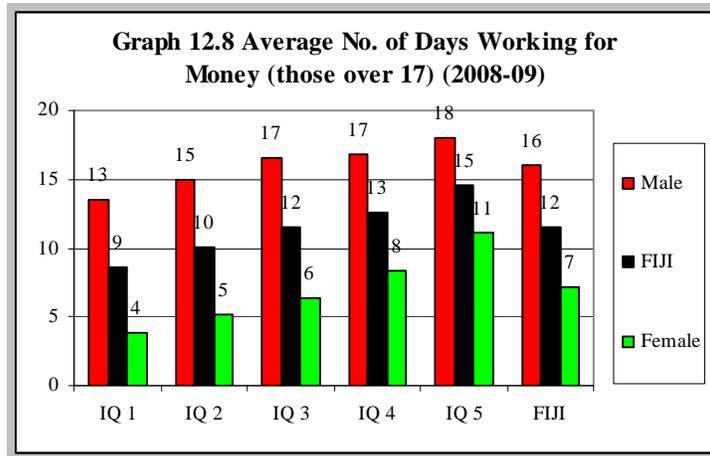
395 An extremely useful perspective is obtained by examining the distribution of those who stated that they were Working for Money, and the number of days in the month they said they worked for money.

12 Profiles of Poor Households: employment and gender

396 Graph 12.7 gives the expected trends that the percentages of both Males and Females Working for Money rises with the rising quintiles- around 58% in Quintile 1 rising to 72% in Quintile 5. Oddly, the percentage for females is slightly higher than that for Males.

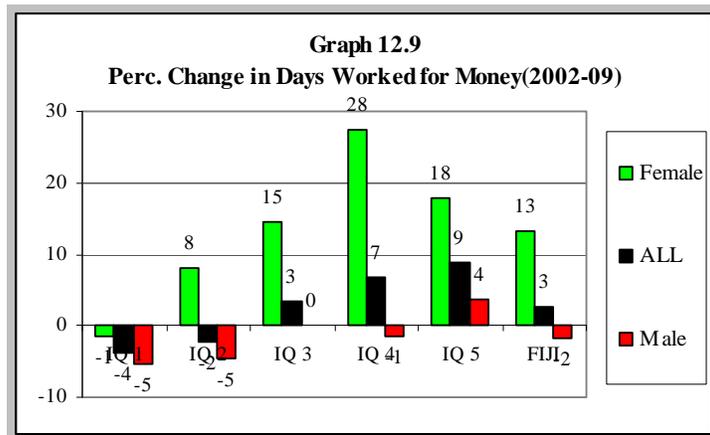


397 The real interesting trends are however to be seen in Graph 12.8 which gives the Average Number of Days in the month worked for those aged Over 17. For Fiji as a whole, the average days in the month worked was only 9 in quintile 1 rising to 15 in quintile 5.



398 As was indicated in an earlier publication (Narsey 2007b) these numbers indicate that while people may say they are “employed” there are very significant levels of under-employment.³⁶

399 Graph 12.8 brings out the very significant gender differences. Overall, females over 17 worked for money on average only 7 days, while males worked for 16 days. In Quintiles 1, 2 and 3, females worked for money on average for only 4, 5, and 6 days respectively compared to the 13, 15 and 17 days for males.



³⁶ When the true state of under-employment was taken into account, the real rate of unemployment was found to be around 26% rather than the 8% to 12% level of formal unemployment often quoted.

400 Females working fewer days for money therefore are a large part of the explanation of the poverty status of households in the lower quintiles.

401 Graph 12.9 brings out the interesting result that between 2002-03 and 2008-09, females had a much higher 13% increase in the average number of days worked in the month, while Males had a -2% reduction. Moreover, the progress for females was generally much higher in the upper quintiles (18% in Quintile 5 and 28% in Quintile 4) than in the lower quintiles.

402 Females in the lowest quintile suffered a small reduction in the average number of days worked, as also did males in the bottom 2 quintiles.

403 Recommendation 12.1: Stakeholders emphasize the importance of female gainful employment for money, as an important part of poverty reduction strategies.

404 Recommendation 12.2: The Fiji Islands Bureau of Statistics make a special effort to obtain better information on under-employment, from future HIES to ensure that poverty status is better related to the nature of employment of members of the household.

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Annex A Food Poverty Line Baskets and Nutritional Values

Annex A Food Poverty Line baskets and Nutritional Values

Table A.1 2002-03 FPL Baskets of Foods for family of 4 AE per week (gms)				
Food Name	Rur Fij	Urb Fij	Rur Ind	Urb Ind
Cassava, peeled, boiled	11000	5000	500	500
Taro, common, white, boiled	6000	5000	500	500
Potato, pale skinned, peeled, boiled		1000	2000	2000
Biscuit, cabin, hard, Pacific Is.	1000	800	200	200
Bread, white, regular	1000	2000	500	1000
Flour, wheat, white, plain	6000	5000	8000	7000
Noodles, Maggi-type, boiled	100	100		
Rice, white, boiled	4000	4000	7000	8000
Reef Fish, composite, steam/poach	1500	1000	750	500
Chicken, curry without bones	250	500	500	500
Egg, chicken, whole, boiled (medium 32 gm)	202	404	404	404
Beef, minced	500	500		
Lamb, neck Chop, simmer, lean&fat		500	1000	1000
Mackerel, canned In Natural Oil	425	425	425	425
Beef, corned, canned	163	163		
Butter, regular	50	200	100	200
Ghee, butter			100	100
Vegetable Oil, polyunsaturated	500	500	1000	1000
Taro, leaves, cooked (<i>rourou</i>)	2000	1000		
Edible Hibiscus, leaves, boiled (<i>bele</i>)	2000	1000		
Fern, leaves, boiled (<i>ota</i>)	1000	250		
Coconut, flesh, mature, fresh	1500	500		
Cabbage, Chinese, cooked		250	250	250
Cabbage, European White, boiled	250	250	500	500
Eggplant, boiled	500	500	1000	1000
Tomato, ripe		500	1000	1000
Beans, green, boiled			1000	1000
Okra, boiled			500	500
Pumpkin, boiled			1000	1000
Onion, mature, boiled	250	250	1000	1000
Garlic, boiled		100	200	200
Peas, split, dried, boiled		250	2000	2000
<i>Tubua/ churaiya</i>			1000	1000
Banana, ripe	1000	1000	1000	1000
Pawpaw	1000	1000	1000	1000
Sugar, brown	750	750	750	750
Chilli, long, thin, boiled	50	100	200	200
Soft drink, cola		500	500	500
Jam	100	100	100	100
Milk Powder, whole	750	750	750	750
Tea, Indian, infused	50	50	100	100

Source: Narsey (2008), Table 3.8, p. 31.

Annex A Food Poverty Line Baskets and Nutritional Values

Table A.2 Nutrient Content Per Adult of revised 2002 Food Poverty Line Baskets					
	Requirements per adult	Rur Fij	Urb Fij	Rur Ind	Urb Ind
Energy	2200 k cal	2819	2406	2441	2489
Protein	55 gm (or 1 gm per kg)	77	72	80	77
Fat	Less than 65 gms	65	60	71	74
Carbohydrate	200 to 300 gms	492	404	379	389
Thiamin	1.2 ug	1.4	1.2	1.3	1.2
Riboflavin	1.3 ug	1.6	1.4	1.3	1.3
Niacin	16 mg	17	15	17	16
Vitamin C	45 gms	239	155	110	110
Vitamin A	600 units	1335	896	797	831
Retinol		179	260	247	278
b-carot-eq_ug		6924	3800	3291	3307
Sodium	920 to 3200 mg	778	969	536	637
Potassium	1950 to 5460 mg	4395	3184	2552	2540
Magnesium_mg	260 mg	912	619	278	280
Calcium	600 mg	1110	824	608	634
Iron	27 to 9 mg	21	14	11	11
Zinc	14 to 4.2 mg	6	7	8	8

Source: Narsey (2008), Table 3.9, p.32.

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Annex B World Bank Methodology and Results: comparisons with this study

- 1 The World Bank 2011 Report on Poverty in Fiji
 - i) used expenditure, which is the criterion used by World Bank in many developing countries.
 - ii) excluded expenditure on household durables and on health.
 - iii) used different methodology to derive the values for the Food Poverty Lines and Basic Needs Poverty Lines. While this study uses the 2002-03 values for FPL and BNPL and adjusts them forward to 2008-09 values, the WB devised FPL and BNPL values for 2008-09 and adjusted them backwards to 2002-03 using the Fiji Consumer Prices Index.
- 2 The World Bank approach to derive the Food Poverty Line values was somewhat complicated.
 - i) While they recognized 2,100 calories as the dietary energy required per person, they stated that the “reference” household in Fiji was a 4 person household, with 2 adults and 2 children, hence contained 3 Adult Equivalents. They therefore adopted a “scaling factor” of 1.33 applied to the 2,100 calories per person, to obtain a target 2,793 Calories per Adult Equivalent for the “Reference Household”.
 - ii) Then they estimated the price per calories that reflected the purchasing patterns of households in the second, third, fourth and fifth deciles of 2008-09.
 - iii) the cost of the Food Poverty Line was then set at 2793* (the estimated unit cost of 1 calorie).
 - iv) This resulted in the WB estimate for a FPL pAE of \$961 per Adult per year, which they then used for both Urban and Rural Households.
 - v) There is much to be said for having one Food Poverty Line value for rural and urban areas (as long as the costs do not vary significantly).
 - vi) There is also much to be said in having one FPL value for all ethnic groups even if the cost of the different ethnic low-income diets are significantly different.
 - vii) A major implementation issue arises when poverty lines are applied to guide minimum wages legislation, as has recently happened in Fiji. The WB approach to the FPL, while theoretically justifiable for economists, is not transparent at all to the ordinary stakeholders in minimum wages negotiations,

Annex B World Bank Methodology and Results: comparisons with this study

such as employers, unions and members of the minimum wages councils. The FPL basket approach is totally transparent, and makes sense to all stakeholders, in that they can see exactly why minimum wages need to be adjusted and by how much, in relation to the changes in cost of basic food items.

- 3 The World Bank approach to the Non-Food Poverty Line was also quite different:
- i) They first obtained the Non-Food shares of total expenditure for households whose total expenditure was close to the FPL values (they estimated to be 0.59 in urban areas, and 0.47 in rural areas.
 - ii) they then obtained the values for BNPL by multiplying the same FPL for both rural and urban areas, with the “multipliers” : i.e for

$$\text{Urban BNPL} = \text{FPL}/(1-0.59) = \$2349 \text{ per AE pa.}$$

$$\text{Rural BNPL} = \text{FPL}/(1-0.47) = \$1830 \text{ per AE pa.}$$

These BNPL values were used to estimate the Incidence of Poverty or Head Count Ratio in 2008-09.

- 4 To obtain the FPL value for 2002-03, the WB Team deflated the 2008-09 FPL value by the Food CPI change between 2003 and 2009 (stated to be 1.42 or implying a 42% increase in prices between these two HIES. Our study found has estimated that the FPL basket of foods increased in price by a somewhat lower 35%.
- 5 The WB study then deflated the 2008-09 Non-Food Poverty Line by the Total CPI change between 2003 and 2009, ie a factor of 1.2466 or 24.66%. Our study has estimated that the BNPL changed between 2002-03 and 2009-09 by a higher 30%.
- 6 The World Bank study also reported that prices in rural areas seemed to be systematically higher than that in urban areas, which they explained as due to the higher costs of transportation to rural areas. They therefore used price deflators on all expenditure values in rural areas (divided by 1.03 in 2002-03, and divided by 1.04 in 2008-09); while in urban areas they divided by 0.97 and by 0.96 respectively.
- 7 These calculations are not available to this author or to the Bureau. In previous studies, this adjustment has not been bothered with as it has generally been thought that while modern processed foods would be more expensive in rural areas, the converse would be true for locally produced foods, with the effects largely balancing out. It was also not thought viable to obtain proper rural price indices as even the rural prices given out by the Bureau are largely obtained along the major highways.

Comparisons of FPL, NFPL and BNPL values

8 Table B.1 indicates that the Urban BNPL values are some 28% higher than the rural values.

Table B.1 World Bank values for BNPL pAE pw (2002-03 and 2008-09)			
	Rural (\$)	Urban (\$)	Diff. %
2002-03	28.23	36.23	28
2008-09	35.19	45.17	28
Perc. Ch.	25	25	

9 They also indicate that both rural and urban values have increased by 25%, largely a result of their methodology.

10 Table B.2 gives this study's estimated values for the BNPL. While the values have changed between 2002-03 and 2008-09 by about the same percentages, the urban:rural differences are much lower.

Table B.2 World Bank values for BNPL pAE pw (2002-03 and 2008-09)			
	Rural (\$)	Urban (\$)	Diff. %
2002-03	31.30	36.02	15
2008-09	40.82	46.10	13
Perc. Ch.	30	28	

11 Table B.3 gives the percentage difference in values for the BNPL between this study (Narsey 2012) and World Bank (2011).

Table B.3 % Difference (WB-Narsey)		
	Rural (\$)	Urban (\$)
2002-03	-10	0.6
2008-09	-14	-2.0

12 There is very little difference between the urban BNPL values for both the HIES periods. Hence the estimates for the urban incidence of poverty will be fairly consistent, except for the WB use of expenditure instead of income.

13 However, the WB rural values are significantly lower than used by this study- by 10% for 2002-03 and by a pretty large 14% for 2008-09. These differences are bound to have some impact on the estimates for the incidence of poverty and Head Count Ratio with the WB estimates

Table B.4 World Bank Estimates of Incidence of Poverty			
	2002-03	2008-09	% Ch.
Rural	44.1	44.0	0
Urban	34.5	26.2	-24
FIJI	39.8	35.2	-12

14 for rural poverty likely to be lower than this study's, especially for 2008-09.

Comparisons of Results

15 Table B.4 gives the WB estimates for the incidence of poverty or Head Count Ratio for 2002-03 and 2008-09. Table B.5 gives the estimates by this study (Narsey 2012) and Table B.6 gives the percentage differences (Narsey-World Bank).

Table B.5 Narsey (2012) Estimates of Incidence of Poverty			
	2002-03	2008-09	% Ch.
Rural	40.0	42.5	6
Urban	28	18	-34
FIJI	35	31	-11

16 First, the World Bank estimates imply that there has been no change in poverty in rural areas, Narsey (2012) indicates that there has been a 6% worsening of poverty

in rural areas. The World Bank result is not compatible with all the many indicators that have been derived in this study, which suggest that rural poverty has worsened and is in urgent need of attention, because of the relative worsening compared to the urban areas.

- 17 Both studies indicate that the urban poverty has decreased, the World Bank suggests by -24%, while Narsey (2008-09) suggests by -34%. Given that Narsey (2012) has used Income per AE as the poverty criterion while WB has used expenditure, then it is possibly that the urban increases in income may not have been transmitted through to expenditure, hence the lower reduction of poverty estimated by the World Bank. This study argues that income is a better criterion to use for measuring poverty.

- 18 Table B.6 indicates that the Narsey (2012) estimates of the incidence of poverty are all much lower than the World Bank estimates. The national incidence of poverty was -13% lower in both 2002-03 and 2008-09.

	2002-03	2008-09
Rural	-9	-3
Urban	-19	-30
FIJI	-13	-13

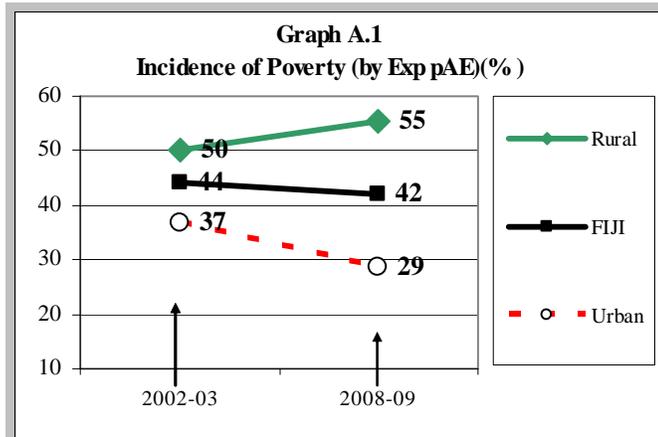
- 19 However, in urban households, the Narsey estimates are some 19% lower in 2002-03 and a very large 30% lower in 2008-09.
- 20 These differences are no doubt partly due to the use by the World Bank of expenditure instead of income, and also partly because of the methodological differences in deriving the values for the Basic Needs Poverty Lines, which resulted in different relativities.
- 21 One area in which these differences would express themselves more is the guidelines for poverty gaps and poverty alleviation resources required for the different rural and urban areas and divisions. Having a higher proportion of the population below the poverty line would automatically increase the total quantity of poverty alleviation resources indicated to be needed.

Using Unadjusted Expenditure

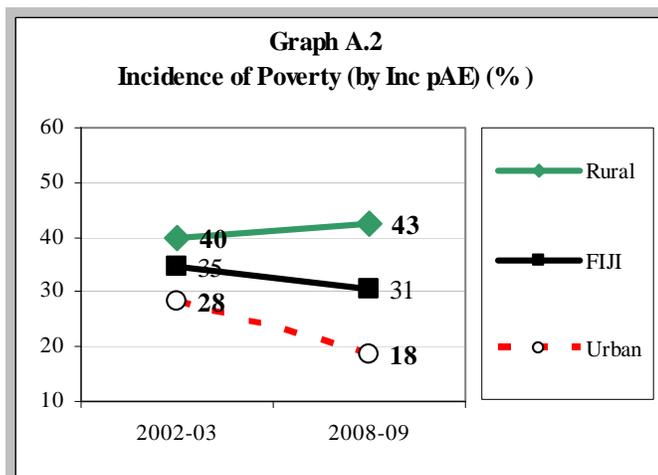
- 22 The World Bank study (2011) adjusted their expenditure criterion by deducting expenditure on durables and expenditure on hospitalisation. The latter would not have made much difference. However deducting expenditure on durables raises some questions. The rationale for doing so is that theoretically, expenditure on durables has to be amortized over its life time. Not knowing the life-time of the durables purchased therefore prevents that exercise from being undertaken,
- 23 Nevertheless, had the household not spent those sums on durables, they would have spent it on other expenditure (hence that amount would have been included in the WB criterion of expenditure and made the household seem less poor) or saved hence not reflected at all in the WB expenditure criterion. Using the income

criterion, however, makes the deductions totally unnecessary, and more accurately reflects the standard of living of the household.

24 While the WB used expenditure as the criterion because that is usually the case for poverty analysis in most developing countries where income is not well picked up in the HIES, the Fiji HIES have been well implemented and the income and expenditure are quite consistently correlated, with dis-savings at the low income levels, and positive savings rates at the higher income levels, increasing with income levels. For Fiji, one may make a case that income is a better criterion for measuring poverty, just as it is used in middle income and more developed countries.



25 Graph A.1 indicates that exactly the same trends are indicated using the using Expenditure per Adult Equivalent or using Income per Adult Equivalent. Rural poverty rises (10% by expenditure and 6% by income) while urban poverty decreases (22% by expenditure and 34% by income). The changes in poverty are more extreme, if expenditure is used, rather than income. This is another indication that income is a better criterion to use than expenditure.



26 It should also be noted that the estimate of “poverty gaps” i.e the total resources required to move the poor households just up to the poverty line is naturally higher if expenditure is used rather than income.

	2002-02	2008-09
A: By Expenditure (\$m)	157	200
B: By Income (\$m)	120	152
%(A-B)/B	31	31

27 For Fiji in 2002-03, the difference would have been \$37 million or 31% higher than that indicated by the income criterion, while in 2008-09 it would have again been 31% higher, at \$48 millions. These are substantial sums in relation to the actual amounts that are available for poverty alleviation policies.

Annex B World Bank Methodology and Results: comparisons with this study

- 28 To give an extreme example, if a household has an expenditure level which is below the BNPL it would be considered to be poor and in need of poverty alleviation resources. But its income may be higher than the BNPL and therefore could not reasonably be considered to be a “poor” household deserving of poverty alleviation resources.
- 29 This factor is clearly extremely relevant in the Fiji case, given that the expenditure criterion for poverty would require 31% more poverty alleviation resources than that indicated by the income criterion used in this study. This is therefore another justification for using income per adult equivalent as the poverty criterion in Fiji rather than the expenditure criterion that has been used by the World Bank (2011).³⁷
- 30 In summary, the choice of a methodology to identify the poor should produce results which are clearly in consonance with the observed trends in the economy, and give policy guidelines on poverty alleviation measures, which are reasonable. On both these criteria, the WB use of their modified expenditure is not as sound as the income criterion used in this study. The WB approach fails to identify the real deterioration that has occurred between 2002-03 and 2008-09 in the rural areas in Fiji. Moreover this approach will give a guideline for poverty alleviation resources that are 31% higher than that indicated by the income approach.
- 31 Given that the income criterion is inherently superior to the expenditure approach, and there are clear disadvantages to using the expenditure approach in Fiji, there is no theoretical or practical justification to using the expenditure approach in Fiji.

³⁷ While the WB (2011) used a modified form of expenditure, the poverty gap results would not be significantly different from that derived here using the unadjusted expenditure.