The incidence of poverty in Solomon Islands

the importance of methodology

Wadan Narsey

Abstract

This paper explains some of the weaknesses in the 2005–2006 HIES in Solomon Islands and implications for the use of income distribution statistics, such as Gini Coefficients. It examines the UNDP (2008) analysis of the incidence of poverty in Solomon Islands, and indicates some inconsistencies in the methodology, analysis and results. This paper presents alternative methodologies for the construction of the Food and Non-Food Poverty Line baskets and resulting Basic Needs Poverty Lines, and an alternative statistic of well-being for the household—the maximum of household income and expenditure. It also presents data in a convenient form, so that stakeholders can easily estimate the incidence of poverty in rural and urban Solomon Islands, using their own choice of values for the Food Poverty Line (FPL) and Basic Needs Poverty Line (BNPL).

Keywords:
Food Poverty Lines (FPL), rural poverty, Solomon Islands, Basic Needs Poverty Line (BNPL)
Introduction

For sound national policy on poverty alleviation, it is critical for government to understand the quantitative dimensions of poverty, by all the disaggregated variables that are of interest to poverty stakeholders in the country. The most common international practice is to obtain such data through a national household income and expenditure survey (HIES).

In 2005–2006, the Solomon Islands Statistics Office carried out such a survey for Solomon Islands, which is now the most authoritative source for any national analysis of poverty in Solomon Islands. These survey data have been used by a recently published paper on the incidence of poverty in Solomon Islands (UNDP 2008) and these HIES data at the household level were also made available to this author by the SI Government Statistician for the purposes of this analysis.

This paper first points out some of the survey limitations, which constrain the conclusions that may be made about overall income and expenditure distribution in Solomon Islands.

By first outlining the usual method of quantitative poverty analysis, this study explains the UNDP methodology and its weaknesses in the Solomon Islands context. It also points out a significant internal inconsistency in the UNDP (2008) national results for the incidence of food and basic needs poverty.

The study then suggests an alternative methodology for the analysis of poverty in Solomon Islands and gives some broad relative results.

Next, the paper presents data to enable poverty stakeholders in Solomon Islands to estimate the incidence of poverty in Honiara, Provincial Urban and Rural Solomon Islands, using their own values for Food Poverty Line and Basic Needs Poverty Line.

Lastly, the paper suggests an initiative for stakeholders in poverty analysis in Solomon Islands, to devise more appropriate values for the Food Poverty Line, the Non-Food Poverty Line and the Basic Needs Poverty Line, which can enable more accurate and useful estimates of the incidence of food poverty and basic needs poverty in Solomon Islands.

Some limitations of the 2005–2006 HIES Survey

Details of the survey methodology and implementation may be obtained from the two national reports issued by the Solomon Islands Statistics Office (SISO)—National Report (Part 1) and Provincial Report (Part 2). While these reports give basic household income and expenditure data nationally and by province, there is no in-depth analysis of poverty in either report. But before any poverty analysis is carried out using the data, it is necessary to note some of the significant survey limitations that suggest the need for great caution in income distribution analysis for Solomon Islands.

(a) Under-representation of ethnic minorities in HIES sample

While a sample of 4320 households was originally planned, only 3822 households (88%) responded favourably according to the survey requirements. While this in itself would normally not be a major difficulty, it seems that the final sample is under-representative of households of Chinese and European ethnic origins. There were only 3 Chinese, 1 European and 1 Mixed Race
households in the sample ultimately analysed (Table 1). The survey weighted estimates of the numbers of households and population for these ethnic groups are therefore much lower than would be expected. Thus while the Melanesian share of the population was about 93% according to the 1999 Census, it was 96% according to the 2005–2006 HIES. Given the low counts in the sample, it may well be that the final survey weights for these ethnic minorities are on the low side. Given that the numbers of Chinese, European and Mixed race households in the sample are all extremely small (fewer than 5 in total), the HIES results for these minorities will be statistically inaccurate. It would be unwise to make inter-ethnic comparisons using the 2005–2006 HIES, except for Melanesians, Polynesians and Micronesians.

Table 1  Survey Estimates of Households and Persons

<table>
<thead>
<tr>
<th>Ethnicity of HH Head</th>
<th>Urban</th>
<th>Rural</th>
<th>All</th>
<th>Percent</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count of HH in Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melanesian</td>
<td>888</td>
<td>2703</td>
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<td>94.0</td>
<td></td>
</tr>
<tr>
<td>Polynesian</td>
<td>17</td>
<td>161</td>
<td>178</td>
<td>4.7</td>
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<tr>
<td>Micronesian</td>
<td>9</td>
<td>36</td>
<td>45</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Chinese</td>
<td>3</td>
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<td>4</td>
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</tr>
<tr>
<td>European</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Mixed Race</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0.1</td>
<td></td>
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<tr>
<td>All</td>
<td>919</td>
<td>2903</td>
<td>3822</td>
<td>100.0</td>
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</table>

<table>
<thead>
<tr>
<th>Ethnicity of HH Head</th>
<th>Estimated Total Households</th>
<th>Percent</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count of HH in Sample</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melanesian</td>
<td>12020</td>
<td>71598</td>
<td>83619</td>
</tr>
<tr>
<td>Polynesian</td>
<td>172</td>
<td>1735</td>
<td>1908</td>
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<tr>
<td>Micronesian</td>
<td>196</td>
<td>793</td>
<td>990</td>
</tr>
<tr>
<td>Chinese</td>
<td>41</td>
<td>38</td>
<td>79</td>
</tr>
<tr>
<td>Europeans</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Mixed Race</td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Others</td>
<td>81</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>All</td>
<td>12488</td>
<td>74246</td>
<td>86734</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity of HH Head</th>
<th>Estimated Total Persons</th>
<th>Percent</th>
<th>1999 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count of HH in Sample</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melanesian</td>
<td>82538</td>
<td>430475</td>
<td>513013</td>
</tr>
<tr>
<td>Polynesian</td>
<td>983</td>
<td>10424</td>
<td>11407</td>
</tr>
<tr>
<td>Micronesian</td>
<td>1450</td>
<td>6212</td>
<td>7662</td>
</tr>
<tr>
<td>Chinese</td>
<td>82</td>
<td>418</td>
<td>500</td>
</tr>
<tr>
<td>Europeans</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Mixed Race</td>
<td>327</td>
<td>327</td>
<td>327</td>
</tr>
<tr>
<td>Others</td>
<td>644</td>
<td>644</td>
<td>644</td>
</tr>
<tr>
<td>All</td>
<td>85457</td>
<td>448174</td>
<td>533630</td>
</tr>
</tbody>
</table>
Two important consequences follow from the apparent under-representation of the ethnic minorities. First, the average Household Incomes for Chinese, Europeans and Mixed races will not be reliable, although the broad relativities are as would be expected (Table 2). The average savings ratios are indicated to be negative for all the communities, an extremely unlikely result. There is likely to have been serious under-reporting of incomes for most households in the HIES.

Table 2  Average HH Incomes, Expenditures and Savings Ratios (by ethnicity) (SI$)

<table>
<thead>
<tr>
<th>HH ethnicity</th>
<th>Rural</th>
<th>Urban</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Melanesian</td>
<td>17012</td>
<td>59281</td>
<td>23089</td>
</tr>
<tr>
<td>B Polynesian</td>
<td>29251</td>
<td>31852</td>
<td>29486</td>
</tr>
<tr>
<td>C Micronesian</td>
<td>13368</td>
<td>118705</td>
<td>34271</td>
</tr>
<tr>
<td>D Chinese</td>
<td>20958</td>
<td>224439</td>
<td>126577</td>
</tr>
<tr>
<td>E European</td>
<td>69726</td>
<td>69726</td>
<td></td>
</tr>
<tr>
<td>F Mixed Race</td>
<td>198557</td>
<td>198557</td>
<td></td>
</tr>
<tr>
<td>G Others</td>
<td>32631</td>
<td>32631</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>17279</td>
<td>60765</td>
<td>23540</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HH ethnicity</th>
<th>Rural</th>
<th>Urban</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Melanesian</td>
<td>23115</td>
<td>69044</td>
<td>29718</td>
</tr>
<tr>
<td>B Polynesian</td>
<td>31298</td>
<td>64289</td>
<td>34275</td>
</tr>
<tr>
<td>C Micronesian</td>
<td>26954</td>
<td>82855</td>
<td>38047</td>
</tr>
<tr>
<td>D Chinese</td>
<td>32038</td>
<td>170279</td>
<td>103794</td>
</tr>
<tr>
<td>E European</td>
<td>91643</td>
<td>91643</td>
<td></td>
</tr>
<tr>
<td>F Mixed Race</td>
<td>206834</td>
<td>206834</td>
<td></td>
</tr>
<tr>
<td>G Others</td>
<td>33128</td>
<td>33128</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>23363</td>
<td>69935</td>
<td>30069</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HH ethnicity</th>
<th>Rural</th>
<th>Urban</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Melanesian</td>
<td>-36</td>
<td>-16</td>
<td>-29</td>
</tr>
<tr>
<td>B Polynesian</td>
<td>-7</td>
<td>-102</td>
<td>-16</td>
</tr>
<tr>
<td>C Micronesian</td>
<td>-102</td>
<td>30</td>
<td>-11</td>
</tr>
<tr>
<td>D Chinese</td>
<td>-53</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>E European</td>
<td>-31</td>
<td>-31</td>
<td></td>
</tr>
<tr>
<td>F Mixed Race</td>
<td>-4</td>
<td>-4</td>
<td></td>
</tr>
<tr>
<td>G Others</td>
<td>-2</td>
<td>-2</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>-35</td>
<td>-15</td>
<td>-28</td>
</tr>
</tbody>
</table>

Secondly, the ethnic shares of total weighted income and expenditure will also be unreliable and likely to be grossly under-estimated for the Chinese and European groups. It is extremely unlikely that Chinese households in the country, as estimated from the HIES data, contribute only 0.5% of Total Household Income and that European households contribute only 0.1% of Total Household Income.
Income (Table 3). Given that these latter households do contribute an extremely large proportion of the income and expenditure of Solomon Islands and at the higher levels, then the 2005–2006 HIES estimates of the top decile incomes, largely contributed by both these two minority ethnic groups, will be severely under-estimated, as will be the national aggregates.

**Table 3  Ethnic Distribution of Total Household Income ($m and %)**

<table>
<thead>
<tr>
<th>HH ethnicity</th>
<th>$ million</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Melanesian</td>
<td>1931</td>
<td>94.6</td>
</tr>
<tr>
<td>B Polynesian</td>
<td>56</td>
<td>2.8</td>
</tr>
<tr>
<td>C Micronesian</td>
<td>34</td>
<td>1.7</td>
</tr>
<tr>
<td>D Chinese</td>
<td>10</td>
<td>0.5</td>
</tr>
<tr>
<td>E European</td>
<td>2</td>
<td>0.1</td>
</tr>
<tr>
<td>F Mixed Race</td>
<td>6</td>
<td>0.3</td>
</tr>
<tr>
<td>G Others</td>
<td>3</td>
<td>0.1</td>
</tr>
<tr>
<td>All</td>
<td>2042</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Arising from this, it follows that analysis of income distribution will be significantly flawed, since these two economically powerful ethnic groups are severely under-represented in the top deciles. As such all income (and expenditure) inequality measures such as the Gini Coefficients or ratios of the average incomes (and expenditures) of the top quintile to the bottom quintile will be severely biased downwards.5

There needs to be great caution exercised in the use of Gini Coefficients. While UNDP (2008) estimates the Gini coefficient to be 0.39 at the national level for Solomon Islands, this is almost certainly on the low side (UNDP 2008, table 16, p. 29). The UNDP study also estimates the rural areas to have a higher Gini (0.32) than Honiara (0.30) and Provincial Urban (0.31)—a quite implausible result.

(*b*) **HIES provincial population compared to population projections**

Another sampling problem may have been caused by adjustments that were made to actual numbers of households selected at the last stages, to ensure that enumerators had even work-loads during the period of the survey and to ensure ‘good representation’ at the provincial level. One check on the overall provincial reliability of the weights is to compare the 2005–2006 HIES estimates of the SI population with the Statistics Office projections. Table 4 suggests that the HIES estimates of province populations are quite significantly different from those of the Statistics Office projections for 2006. Thus the HIES estimate for Choiseul is higher than the projections by 33%, for Rennell–Bellona by 60 per cent, and that for Makira–Ulawa by 36%. If the population projections are correct, then the HIES aggregate estimates for provinces (for instance for required share of poverty alleviation resources) will not be accurate for Choiseul, Rennell–Bellona and Makira–Ulawa. Overall, however, the total HIES population is higher than the projection by only 10 per cent.
Table 4  Provincial Population Estimates from HIES and Census Projection

<table>
<thead>
<tr>
<th>Province</th>
<th>Projection for 2006 SISO</th>
<th>HIES 05/06 Estimates</th>
<th>Difference</th>
<th>%((Est-Proj)/Proj)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choiseul</td>
<td>23550</td>
<td>31259</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Western</td>
<td>73932</td>
<td>81852</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Isabel</td>
<td>23950</td>
<td>23638</td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td>25424</td>
<td>24491</td>
<td>-4</td>
<td></td>
</tr>
<tr>
<td>Rennell–Bellona</td>
<td>2754</td>
<td>4409</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Guadalcanal</td>
<td>71270</td>
<td>84438</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Malaita</td>
<td>145580</td>
<td>140569</td>
<td>-3</td>
<td></td>
</tr>
<tr>
<td>Makira–Ulawa</td>
<td>36765</td>
<td>50026</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Temotu</td>
<td>22222</td>
<td>23800</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Honiara</td>
<td>57636</td>
<td>69189</td>
<td>20</td>
<td></td>
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<tr>
<td>Solomons</td>
<td>483083</td>
<td>533672</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

(c) The Survey covered only six months

Another possible limitation is that the survey was conducted only from October 2005 to March 2006 and not throughout the whole year as is the usual HIES practice internationally (SISO National Report, p. 2). It therefore would not have been able to capture any seasonal patterns that may exist throughout the year outside of these six months. It is unclear whether this would have had any significant impact on the HIES results.

(d) Very large and pervasive under-reporting of incomes

The degree of under-reporting of incomes appears to have been extremely high, with some 78% of all households reporting expenditures higher than their reported income (Table 5). This may be contrasted with only 28% of households dis-saving in Fiji (Narsey 2008). Clearly, income criteria (e.g. Income per Adult Equivalent) will not be appropriate for the assessment of poverty in Solomon Islands. Expenditure pAE, as used by UNDP (2008), would be a more suitable indicator and will be used here. Nevertheless, the significance of the discrepancies between Expenditure pAE and Income pAE have led this study to use an alternative variable, Z pAE (the higher of Income pAE and Expenditure pAE for each household), for poverty analysis in Solomon Islands.
Table 5  Distribution of Households by Savings Ratio (%(Inc-Exp)/Inc)

<table>
<thead>
<tr>
<th>Percentages</th>
<th>Numbers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>to -100</td>
<td>14287</td>
<td>3283</td>
</tr>
<tr>
<td>-99 to - 50</td>
<td>13413</td>
<td>2068</td>
</tr>
<tr>
<td>-49 to - 10</td>
<td>23842</td>
<td>2453</td>
</tr>
<tr>
<td>-9 to 0</td>
<td>7853</td>
<td>765</td>
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<tr>
<td>0 to 20</td>
<td>8446</td>
<td>1776</td>
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<tr>
<td>20 to 50</td>
<td>4451</td>
<td>1378</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>1953</td>
<td>765</td>
</tr>
<tr>
<td></td>
<td>74246</td>
<td>12488</td>
</tr>
<tr>
<td>Negative %</td>
<td>59395</td>
<td>8569</td>
</tr>
<tr>
<td>Positive %</td>
<td>14850</td>
<td>3919</td>
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</table>

Table 6 indicates that some 37% of total income is earned in Honiara and Provincial Urban areas and 63% in Rural areas. The urban share is probably significantly under-estimated, given the under-coverage of European and Chinese households, while the rural share is consequently over-stated. Table 6 indicates that nationally, only 37% of total income may be attributed to Home Production or the subsistence sector, with 38% comprising Wages and Salaries and other cash receipts, and 16% self-drawing and other receipts. Even in Rural areas, Wages and Salaries, cash receipts, and Own Drawings comprise 39% of all income, with Home Production comprising just 54%. This has a bearing on discussions on the differentials between the rural and urban valuation of the Food Poverty Line and the Non-Food Poverty Line.
Table 6  Distribution of Total Household Income (by income source)

<table>
<thead>
<tr>
<th></th>
<th>Honiara</th>
<th>Prov.Urban</th>
<th>Rural</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Income (SI$m)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages &amp; Salaries and cash income</td>
<td>434</td>
<td>53</td>
<td>284</td>
<td>770</td>
</tr>
<tr>
<td>Home Production</td>
<td>27</td>
<td>10</td>
<td>722</td>
<td>759</td>
</tr>
<tr>
<td>Self Drawings @ Other Income</td>
<td>103</td>
<td>15</td>
<td>216</td>
<td>334</td>
</tr>
<tr>
<td>Others</td>
<td>109</td>
<td>9</td>
<td>61</td>
<td>178</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>673</td>
<td>86</td>
<td>1283</td>
<td>2042</td>
</tr>
</tbody>
</table>

|                      |         |            |       |      |
| **Horizontal Percentages (%)** |       |            |       |      |
| Wages & Salaries and cash income | 56      | 7          | 37    | 100  |
| Home Production      | 4       | 1          | 95    | 100  |
| Self Drawings @ Other Income | 31      | 4          | 65    | 100  |
| Others               | 61      | 5          | 34    | 100  |
| **Total**            | 33      | 4          | 63    | 100  |

|                      |         |            |       |      |
| **Vertical Percentages (%)** |       |            |       |      |
| Wages & Salaries and cash income | 64      | 61         | 22    | 38   |
| Home Production      | 4       | 12         | 56    | 37   |
| Self Drawings @ Other Income | 15      | 17         | 17    | 16   |
| Others               | 16      | 10         | 5     | 9    |
| **Total**            | 100     | 100        | 100   | 100  |

Tables 7 and 8 indicate that the bulk of the rural incomes is concentrated at the low end of the income bands. Some 72 per cent of the rural population are in households earning SI$20,000 or less, compared to only 18% of the urban population. Table 9 indicates the extremely wide gaps between per capita incomes in the rural areas, compared to income per capita in Provincial Urban centres and in Honiara, with the latter being twice and three times that in rural areas respectively.

Table 7  Percentage Distribution of Persons by Total Household Income Bands

<table>
<thead>
<tr>
<th>Total HH Income (SI$)</th>
<th>Honiara</th>
<th>Prov.Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10000</td>
<td>2</td>
<td>11</td>
<td>33</td>
</tr>
<tr>
<td>10000-20000</td>
<td>12</td>
<td>23</td>
<td>39</td>
</tr>
<tr>
<td>20000-30000</td>
<td>18</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>30000-40000</td>
<td>16</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>40000-50000</td>
<td>10</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>50000-60000</td>
<td>6</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>60000-70000</td>
<td>12</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>70000-80000</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>80000-90000</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>90000-100000</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>&gt; 100000</td>
<td>15</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 8  Cumulative Percentage Distribution of Persons by Household Income

<table>
<thead>
<tr>
<th>Up to SI$</th>
<th>Honiara</th>
<th>Prov.Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10000</td>
<td>2</td>
<td>11</td>
<td>33</td>
</tr>
<tr>
<td>20000</td>
<td>15</td>
<td>34</td>
<td>72</td>
</tr>
<tr>
<td>30000</td>
<td>32</td>
<td>58</td>
<td>86</td>
</tr>
<tr>
<td>40000</td>
<td>48</td>
<td>73</td>
<td>93</td>
</tr>
<tr>
<td>50000</td>
<td>58</td>
<td>82</td>
<td>96</td>
</tr>
<tr>
<td>60000</td>
<td>64</td>
<td>87</td>
<td>98</td>
</tr>
<tr>
<td>70000</td>
<td>76</td>
<td>91</td>
<td>99</td>
</tr>
<tr>
<td>80000</td>
<td>80</td>
<td>93</td>
<td>99</td>
</tr>
<tr>
<td>90000</td>
<td>83</td>
<td>94</td>
<td>99</td>
</tr>
<tr>
<td>100000</td>
<td>85</td>
<td>94</td>
<td>99</td>
</tr>
<tr>
<td>&gt; 100000</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 9  Income and Expenditure per capita

<table>
<thead>
<tr>
<th>Data</th>
<th>Honiara</th>
<th>Prov.Urban</th>
<th>Rural</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income per capita</td>
<td>9722</td>
<td>5285</td>
<td>2862</td>
<td>3826</td>
</tr>
<tr>
<td>Expenditure per capita</td>
<td>10830</td>
<td>7606</td>
<td>3870</td>
<td>4887</td>
</tr>
<tr>
<td>% Saving</td>
<td>-11</td>
<td>-44</td>
<td>-35</td>
<td>-28</td>
</tr>
</tbody>
</table>

The quantitative analysis of poverty

Poverty cannot be understood without a thorough understanding of all its multidimensional aspects, such as are uncovered through the approaches by Sen (1999) or Townsend (1993). However, quantitative assessments of poverty have to be the foundation for such further qualitative analysis, for a number of reasons: to assist stakeholders to better target their poverty reduction strategies nationally (whether by regions, ethnicity, gender, employment characteristics and suchlike) and internationally; to be able to assess how much public resources would be required to eliminate poverty or reduce it to certain 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 high.

To obtain the basic robust quantitative results possible and necessary for future long-term accurate comparisons, this paper defines the poor by the narrow criterion of the Basic Needs Poverty Line (BNPL) which is the monetary value of goods and services that a household needs to consume as a minimum, so as to ensure what society accepts as representing a ‘minimum decent standard of living’ for Solomon Islands.
The Basic Needs Poverty Line methodology and the various alternatives practised throughout the developing world may be read in Ravillion (1998), World Bank (2003), Thorbecke (2004), United Nations Statistics Division (2005) and Asian Development Bank (2006). It should be noted, however, that small changes in methodology can result in significant changes in the assessment of the incidence of poverty amongst different groups within the country (Kakwani 2003).

The BNPL may be defined in many different ways, broadly categorised into ‘relative’ poverty lines and ‘absolute’ poverty lines. The relative approach defines the poverty line in relation to some ‘average’ standard of living enjoyed by a society (Kakwani 2003, p. 2). But that ‘average’ can also be defined in different ways. One approach simply sets the value of the BNPL as 50% or 60% of the median household income of the country. Such ‘relative’ poverty standards change over time, depending on the changes in median income, usually the outcome of broad changes affecting the bulk of the people in the middle classes. For developed countries in particular, this relative standard is preferred to absolute standards, which usually are so low as to make the analysis of poverty somewhat meaningless, especially when relative deprivation is the focus.

Absolute standards, on the other hand, attempt to use minimum standards of living based on two components, the Food Poverty Line and the Non-Food Poverty Line. The FPL is the value of the basic basket of foods that are typically consumed by the population, with the objective of satisfying the minimum nutritional requirements of a standard household, simplified usually to one criterion: 2100 calories per person per day.

The NFPL is the value of the essential non-food items required for the subsistence of the person or household. The BNPL is then the sum of the two components (FPL + NFPL) and the incidence of poverty (or the Head Count Ratio) is then estimated as the proportion of the population whose income is below this BNPL.

Absolute standards commonly used at the international level are the US$1 per day or US$2 per day at Purchasing Power Parity (or PPP) although there is considerable debate about its consistency and usefulness within countries, and across countries. Certainly, such international standards, which may be useful for Bangladesh or India, would not be considered to be appropriate for the Pacific, which does not have the abject poverty that exists in most parts of Asia and Africa.

Adjusting for Household Size

While economic analysis typically focuses on individuals, poverty analysis usually uses the ‘household’ as the unit of analysis. It can clearly be argued that individuals in a household pool their incomes and the expenditure is collectively and equally enjoyed by all in the household—adults, children and elderly alike. This may clearly not be the case, as there can be very unequal internal distribution of resources, linked to gender, age or the nature of family connection of individuals concerned.

For the purposes of ascertaining ‘poor’ and ‘non-poor’, households cannot be compared by using their ‘Total Household Income’ or their ‘Total Household Expenditure’. Since the Solomon Islands HIES results indicate that there has been significant under-reporting of incomes, it might be thought more sensible to use household expenditure per Adult Equivalent as the criterion for estimating
the incidence of poverty. It is generally held that in developing countries, it is harder to conceal expenditure than income of the poor, from the interviewers. Moreover, actual expenditure is a firmer indication of the realised standard of living than is income.

Nevertheless, there is always the problem that some households may have a high income, but choose to save more. If the resulting expenditure is lower than the poverty standard being used, such a household would be called ‘poor’ even though its potential for expenditure could be much higher, given the higher income. This paper examines in the next section, the extent of this problem.

It is also generally accepted that the standard of living of a household depends not just on the expenditure enjoyed, but on the number of persons in the household who need to be supported by that income. So for ranking purposes, the total expenditure of the household is usually standardised by adjusting for household size.

There are different methods of adjusting for household size. The simplest method is to divide the household expenditure by the number of persons in the household, obtaining the usual ‘expenditure per capita’ measure. This effectively treats each person in the household as requiring equivalent resources. It is, however, thought that children and the elderly do not normally require as much resources as adults of working age. Another approach therefore converts the number of persons in the household to ‘Adult Equivalents’ by some formula. Different formulae are possible, in discounting children and adults.

The UN approach is to treat each child between the ages 0 and 14 as equivalent to half an adult, and any person over the age of 14 as 1 adult.10 This paper uses the UN method of calculating Adult Equivalents, because of its widespread use although it does have a weakness in that it does not allow for economies of scale, whose impact can be significant.11

For this study, we use the UN approach and convert Total Household Expenditure to Expenditure pAE, which then reflects that household’s implicit ‘standard of living’. Households are ranked by this Expenditure pAE, from the lowest to the highest. This has also been the method followed in a recent Vanuatu Poverty Study.

It is useful to begin with the UNDP (2008) analysis of poverty in Solomon Islands, pointing to possible errors in the its estimates for national incidence of poverty.

**Inconsistency in the UNDP (2008) results**

The UNDP (2008) analysis was based on deriving values for the Food Poverty Lines and the Basic Needs Poverty Lines, and then estimating the percentages of households and population, below these poverty lines. Table 10 gives that Report’s estimates for the Food Poverty Line (FPL), the Non-Food Factor, the Non-Food Poverty Line, and then the resultant values for the Basic Needs Poverty Lines. Using these values, the Report estimated the Incidence of Food Poverty and the Incidence of Poverty as percentages of households and population, as given in Table 11.
Table 10 UNDP (2008) Basic Needs Poverty Lines ($ pAE pw)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Honiara</td>
<td>62.17</td>
<td>1.24</td>
<td>76.87</td>
<td>139.04</td>
</tr>
<tr>
<td>Provincial Urban</td>
<td>42.33</td>
<td>0.87</td>
<td>36.78</td>
<td>79.11</td>
</tr>
<tr>
<td>Rural</td>
<td>27.48</td>
<td>0.44</td>
<td>12.11</td>
<td>39.59</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>32.59</td>
<td>0.45</td>
<td>14.78</td>
<td>47.37</td>
</tr>
<tr>
<td>Honiara:Rural ratio</td>
<td>2.3</td>
<td>2.8</td>
<td>6.3</td>
<td>3.5</td>
</tr>
</tbody>
</table>


Table 11 UNDP (2008) results: Incidence of Food Poverty and Basic Needs Poverty (% of households and population)

<table>
<thead>
<tr>
<th></th>
<th>% of Households</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FPL</td>
<td>BNPL</td>
</tr>
<tr>
<td>Honiara</td>
<td>1.7</td>
<td>24.6</td>
</tr>
<tr>
<td>Provincial Urban</td>
<td>0.6</td>
<td>11.2</td>
</tr>
<tr>
<td>Rural</td>
<td>6.4</td>
<td>15.2</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>8.6</td>
<td>18.8</td>
</tr>
</tbody>
</table>


First, the national Solomon Islands estimate for the incidence of Food Poverty looks arithmetically implausible given that the values are much higher than the regional estimates for Honiara, Provincial Urban and Rural. Arithmetically, the national estimate should be between regional minimum and maximum, tending towards the largest component—in this case the values for the Rural households. While the actual numerical estimates for the Incidence of Food Poverty and the Incidence of Poverty in Table 12 are consistent with the values used for the FPL and BNPL in Table 11, the estimates for the national Solomon Islands incidence of Food Poverty and Incidence of Poverty are inconsistent with the sub-group estimates for Honiara, Provincial Urban and Rural.

Methodologically, if the disaggregated estimates of the proportions of households and populations are correct, then given the total numbers of households and population in Honiara, Provincial Urban and Rural areas, one simply needs to aggregate the numbers of ‘poor’ households and population (as defined by the FPL or the BNPL) in order to estimate the total national numbers and proportions of households and population in Food Poverty, and in Basic Needs Poverty. Assuming that the poverty estimates for Honiara, Provincial Urban and Rural areas are correct, then the corrected national percentages of households and population in Solomon Islands are as given here in Table 12. These corrected estimates are significantly lower than those given by UNDP (2008), being 28% lower for the population in Food Poverty and 10% lower for the population in Basic Needs Poverty.
The incidence of poverty in Solomon Islands

Table 12 Corrected UNDP National Incidences of Food Poverty and Basic Needs Poverty (households and population) for Solomon Islands

<table>
<thead>
<tr>
<th></th>
<th>Households</th>
<th></th>
<th>Population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FPL</td>
<td>BNPL</td>
<td>FPL</td>
<td>BNPL</td>
</tr>
<tr>
<td>UNDP (2008) estimates</td>
<td>8.6</td>
<td>18.8</td>
<td>10.6</td>
<td>22.7</td>
</tr>
<tr>
<td>Corrected Estimates</td>
<td>5.7</td>
<td>16.2</td>
<td>7.7</td>
<td>20.4</td>
</tr>
<tr>
<td>Perc. Difference</td>
<td>-34%</td>
<td>-14%</td>
<td>-28%</td>
<td>-10%</td>
</tr>
</tbody>
</table>

The UNDP (2008) error seems to be methodological, in that the national estimates of poverty were estimated by first trying to estimate some kind of weighted average ‘national’ values for the FPL and BNPL, and then estimating what percentage of households and population had Expenditure pAE below these values. This is not a correct approach as it would imply that households are classified as non-poor by the ‘national’ BNPL when they are clearly non-poor by the Honiara BNPL (and vice versa).\(^\text{14}\)

UNDP Values for the Food Poverty Line

It should first of all be noted that should the same values be used for the Basic Needs Poverty Line for Rural SI, Provincial Urban and Honiara, then the incidence of poverty would also be highest for Rural SI, then for Provincial Urban and then Honiara, in that order—at any BNPL value chosen (Figure 1). But according to the estimates made by UNDP (2008), there are very large differences between the FPL values for Honiara, Provincial Urban and the Rural areas. The UNDP Report explains that the SI HIES recorded the value of home consumption at the local prices and their review of the rural valuations suggested that on average, local produce had ‘shadow prices’ of between one-quarter and one-half of the Honiara market prices. The Report stated that this was ‘reflected in the different levels of the food and basic needs poverty lines between the regions’ (UNDP 2008, p. 13). However, it may be noted that even rural people have consumption of imported items, whose rural prices would be well above the Honiara prices, given the high transport costs to the rural areas, especially in the outer islands. The very large differences between urban and Honiara FPL and BNPL values need solid justification.

Figure 1
Some immediate questions that may be raised about the UNDP poverty results suggest that Rural households are far more in Food Poverty (6.4%) than households in Honiara (1.7%) or Provincial Urban (0.6%) (and similarly for proportions of the regional populations in Food Poverty). On a priori grounds, such a finding seems quite implausible given that rural households have far greater access to subsistence food-crops than do households in Honiara or in the Provincial Urban centres. Are the values used by UNDP (2008) for the Food Poverty Lines appropriate? And are the values used for Non-Food Poverty Lines appropriate?

Indeed, there are serious methodological questions to be raised about the Report’s estimation of the values for the FPL and BNPL for Rural and Urban Solomon Islands. One commonly used method of estimating the FPL value is by first drawing up a weekly or two-weekly menu (for urban areas and rural areas separately) for a typical household (of say 4 Adult Equivalents) comprising a basket of foods that delivers a minimum nutritional content. The menu should be such as not to reflect what would be consumed by the middle classes or the affluent, nor the absolutely poverty stricken: i.e. it should represent what the society considers as comprising a minimum decent diet for the poor.15 Such a menu would then be costed in local prices and divided by 4 to obtain the Food Poverty Line value per Adult Equivalent. While UNDP (2008) does give some menus in Annexes 1 and 2 of the Report, this was not the method followed, although Abbott claimed that both his methods gave similar results.16

The UNDP Report estimated the total food expenditure on all the major items for the lowest 30% of the population, separately in Honiara, Provincial Urban and Rural areas (UNDP 2008 Tables 9, 10 and 11, pp. 19–21). These were then scaled upwards by a factor that reflected the total value of these selected items, as a proportion of the total Diary expenditures on Food. These expenditures were then converted to Kilo Calorie per Adult Equivalent per day, to compare with the poverty target of 2100 Kcals per Adult Equivalent. The total cost per day of those items of expenditure was then adjusted by a factor to ensure that the items consumed did deliver exactly 2100 Kcals per day.

The FPL per Adult Equivalent per week values was estimated to be as follows:

- $67.75 per week for Honiara
- $42.35 per week for Provincial Urban
- $27.48 per week for Rural.
It may be noted that the Honiara FPL value is 2.3 times that for rural Solomon Islands. There are serious questions to be raised about this methodology.

First, the choice of the bottom 30% of each of the Honiara, Provincial Urban and Rural populations does not imply that there is any consistency of ‘poverty standard’ diet being applied across the three regions. For instance, one can easily imagine that the bottom 30% of Honiara may include large numbers of persons who are not poor at all, in comparison to the rural bottom 30%. Moreover, given the greater diversity of food items in urban areas, their major items of food consumption may be expected to have a higher proportion of ‘non-essential’ food items.

This indeed seems to be the case, if the items of consumption are compared with their values given by UNDP (2008) in their Tables 9, 10 and 11. The Honiara items include many that are relatively expensive but nutritionally poor in terms of calories. It is no surprise therefore, that the Honiara basket achieves only 1627 Kcal daily (as opposed to the standard of 2100 Kcals). The UNDP Report then adjusted the resulting already high cost per Adult Equivalent of this food basket, upwards by 29% to achieve the target of 2100 Kcals per day (Table 13) giving a weekly FPL pAE value of $62.70.  

<table>
<thead>
<tr>
<th></th>
<th>Kcals/day</th>
<th>Cost per day SI$</th>
<th>Adj. Factor to achieve 2100 Kcals pd SIS</th>
<th>Adjusted Cost pd SIS</th>
<th>Cost pAE pw SIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honiara</td>
<td>1627</td>
<td>6.94</td>
<td>1.29</td>
<td>8.96</td>
<td>62.70</td>
</tr>
<tr>
<td>Provincial Urban</td>
<td>2194</td>
<td>6.32</td>
<td>0.96</td>
<td>6.05</td>
<td>42.34</td>
</tr>
<tr>
<td>Rural</td>
<td>1932</td>
<td>3.61</td>
<td>1.09</td>
<td>3.92</td>
<td>27.47</td>
</tr>
</tbody>
</table>

The daily food costs for Rural Solomon Islands may be expected to be biased downwards since the bottom 30% without any doubt would be the poorest in the whole country. Given that they would generally tend to spend their limited resources on more nutritious foods (the basket achieves a total calorie value of 1932 Kcals per day), the Abbott study then adjusted their daily costs upwards by a factor of only 9%, giving a final FPL pAE pw value of $27.47.

It is quite likely therefore, that the UNDP estimation of the FPL values for Honiara are biased upwards for two reasons: first, the bottom 30% of the population in Honiara may be far better off as a group than the bottom 30% in rural Solomon Islands, in terms of both income and expenditure. Secondly, the Honiara population are consuming far less nutritious (generating less than the 2100 Kcals pAE standard) and more costly foods, and these higher costs are then perversely adjusted upwards even more, to achieve the 2100 Kcals pAE standard.

The UNDP Report claimed that the Menu approach gives similar results. However, it would seem from the menus given in Annexes 1 and 2 (presented here as Table 15), that the Menu food items and quantities given for Rural households are extremely limited, not even including rice, bread, sugar and tea—all items that now are consumed throughout rural Solomon Islands, as is also indicated by Abbott’s Annex Tables 9 to 11. It is not surprising therefore, that even in these ‘ideal menus’, the FPL value estimated for Honiara cost more than twice that for Rural Solomon Islands (Table 15).
Table 14  Quantities and Costs per week per Household of 4 Adult Equivalents Used by UNDP (2008)

<table>
<thead>
<tr>
<th></th>
<th>Urban grams/mls</th>
<th>Rural grams/mls</th>
<th>Urban Cost</th>
<th>Rural Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>white bread</td>
<td>5320</td>
<td>47.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rice boiled</td>
<td>8400</td>
<td>40.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cassava/kumala</td>
<td>6020</td>
<td>21000</td>
<td>15.12</td>
<td>42.00</td>
</tr>
<tr>
<td>cassava/breadfruit</td>
<td>11200</td>
<td></td>
<td>22.40</td>
<td></td>
</tr>
<tr>
<td>tuna tin</td>
<td>1400</td>
<td>7.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fish/grilled</td>
<td>4200</td>
<td>4900</td>
<td>79.52</td>
<td>19.60</td>
</tr>
<tr>
<td>bele</td>
<td>2800</td>
<td>12.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>coconut cream</td>
<td>1120</td>
<td>4760</td>
<td>1.12</td>
<td>3.36</td>
</tr>
<tr>
<td>coconut milk</td>
<td>5320</td>
<td>3500</td>
<td>48.16</td>
<td>21.00</td>
</tr>
<tr>
<td>coconut flesh</td>
<td>1400</td>
<td>2100</td>
<td>19.6</td>
<td>7.84</td>
</tr>
<tr>
<td>snake beans</td>
<td>1400</td>
<td>2.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tomato</td>
<td>5600</td>
<td>11.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>milk</td>
<td>2240</td>
<td>5.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sweet biscuit</td>
<td>700</td>
<td>3.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>butter/margarine</td>
<td>280</td>
<td>3.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>jam/honey</td>
<td>280</td>
<td>4.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sugar</td>
<td>560</td>
<td>2.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tea</td>
<td>14000</td>
<td>0.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>banana</td>
<td>4900</td>
<td>4900</td>
<td>12.6</td>
<td>8.40</td>
</tr>
<tr>
<td>papaya</td>
<td>6300</td>
<td>6.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>303.8</td>
<td>145.04</td>
</tr>
<tr>
<td>p AE pw</td>
<td>75.95</td>
<td>36.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


The net result of the UNDP (2008) methodology seems to be that the FPL estimates for Honiara are likely to be significantly biased upwards in comparison to the estimates for rural Solomon Islands. This must inevitably artificially push upwards the estimated incidence of poverty for Honiara, or conversely, push it lower for Rural Solomon Islands.

The derivation of Non-Food Poverty Lines also raises methodological questions.

The UNDP estimation of the Non-Food Poverty Line values

While it is recognised that poor people need to spend part of their income on essential non-food items (such as housing, clothing, transport, education) how to estimate a basic minimum dollar value required for a poverty standard is fraught with uncertainty. The UNDP study used Non-Food ‘factors’, which resulted in very large differences in Non-Food Poverty Lines (and hence the final
Basic Needs Poverty Lines) for Honiara, Provincial Urban and Rural areas. Such large differences need to be rigorously justified, given that the higher the FPL and the BNPL values, the higher will be the estimates of the Incidence of Food Poverty and the Incidence of Poverty.

The UNDP (2008) method was to take the ratio of actual Non-Food Expenditure to actual Food Expenditure for the lowest quintiles\(^9\) (20\%) in Honiara, Provincial Urban and Rural Solomon Islands, and then to apply these factors to the Food Poverty Line values estimated earlier. There are two problems with this approach.

First, there is again the assumption that the Non-Food to Food ratios for the bottom quintiles in Honiara, Provincial Urban and Rural Solomon Islands are comparable, in that they are derived from groups ‘equally in poverty’. That clearly does not have to be the case and is unlikely to be so, given that the bottom 20\% of the population in rural Solomon Islands are likely to be the poorest of the poor.

Second, one may question why a ratio derived from actual Non-Food in relation to actual Food expenditures should then be applied to the ‘ideal’ Food Poverty Line values, which we have seen previously have already undervalued the Rural FPL, and over-valued the Honiara FPL. By following such a process, the resulting NFPL must inevitably show an upward bias for Honiara and conversely, a downward one for Rural Solomon Islands.

This is obvious even at a superficial level, given that the UNDP’s estimate for Non-Food Poverty Line standard for Honiara is 62\% more than the actual Non-Food Expenditure per AE for the bottom quintile in Honiara, while estimated to be only 45\% above the actual value for the bottom quintile in Rural Solomon Islands. Table 11 shows that while the Report’s FPL for Honiara was 2.3 times that for Rural SI, the ratio for the NFPL was a much higher 6.3. Consequently, the ratio of the BNPL is a very large 3.5.

While it is accepted that the essential Non-Food expenditures for Rural people may well be less than those for Urban people—lower costs for housing and transport, for instance—many other essential non-food items pose similar challenges for both Honiara and rural people. Thus undoubtedly, rural people would like to spend on education or alcohol and tobacco, as much as any urban people. Yet the graphs (Figures 3 and 4) indicate that rural people do not ‘get out of poverty’ until the very high deciles. For Honiara, the sharp increase in Education Expenditure per 6 to 17 year olds in the household, begins only after the fifth decile, while that for Rural households begins only after the eighth decile, and even then does not reach the same level as that of the fifth decile in Honiara. Similarly, the sharp increase in expenditure on Alcohol and Tobacco does not begin until after the fifth decile, while that for Rural Solomon Islands begins after the seventh decile. Quite similar patterns are indicated for expenditure on clothing and medical items. By all such indicators, it would seem that whatever may be the incidence of poverty in Honiara, that for Rural Solomon Islands is likely to be much higher.
The UNDP methodology essentially adopts poverty standards from Honiara people who are not likely to be particularly poor, while adopting the consumption patterns of the bottom quintile in rural areas, who are almost certainly the poorest of the poor in all of Solomon Islands. It is not surprising therefore that the UNDP results indicate that the incidence of poverty is much higher in Honiara than in rural Solomon Islands.

The UNDP results indicating that urban poverty (in Honiara and Urban Provincial) is far greater than rural poverty does not sit well with common sense observation of conditions in rural Solomon Islands. There is consensus now that poverty needs to be defined in multidimensional ways, not just as the ‘inequality of conditions’, but as ‘inequality of opportunities and capabilities’ (Amartya Sen). Thus Townsend (1993:36) defined it 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 behaviour which is expected of them by virtue of their membership of society’ i.e. deprivation not just at work, but also at home, in the neighbourhood, travel and all arenas for the fulfilment of social obligations. Such thinking permeates the policies of international and regional organisations that set the global and national poverty agenda. By this broader definition, it is self-evident that the rural areas of Solomon Islands ought to be far more in poverty than Urban Honiara, as is indicated by Abbott’s results.

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The incidence of poverty in Solomon Islands

The poor and their characteristics: Section 7 in UNDP (2008)

UNDP (2008) continues its methodological mistake by basing Section 7 (Who are the poor and what are their characteristics?) by selecting the bottom 30% each of Honiara, Provincial Urban and Rural Solomon Islands as the ‘Poor’ to be compared: by provincial location, Age of Household Heads, Gender of Household Heads, Children in Poverty, Economic Activity, Educational Attainment, Energy Access and Use, and Access to Water and Sanitation.

This method of examining the ‘Poor’ may be consistent with other studies in the Pacific, for instance Narsey (2008: ch. 8) for Fiji. But implicit in this approach is the assumption that the dividing line (or BNPL standard) for ‘Poor’ households and ‘Non-Poor’ households is the same or close to the same Expenditure per Adult Equivalent for all the disaggregated areas: in Honiara, Provincial Urban centres, and Rural areas. That is not the case at all for the UNDP poverty lines in Solomon Islands, although it is a reasonable approximation for Fiji, disaggregated by rural and urban areas.

Are there better values for FPL, NFPL and BNPL?

The foregoing discussion leaves open the question: are there any better estimates of the incidence of poverty in Solomon Islands for Honiara, Provincial Urban and Rural Solomon Islands?

It is suggested here that local poverty stakeholders need to estimate more appropriate values for the Food Poverty Lines, Non-Food Poverty Lines and Basic Needs Poverty Lines, using better methodology than was used in the UNDP (2008) study.

It is suggested that the Food Poverty Line values be estimated by selecting Food Baskets that are ‘appropriate’ for households who are not in utter poverty and who are not well-off either. Choosing ‘appropriate’ food baskets is easier said than done. Ideally, there should be some consensus amongst poverty stakeholders in Solomon Islands for what items should comprise such a Food Basket. Such Food Baskets must be checked through a proper menu approach designed for rural and urban Solomon Islands, and properly costed at local prices.

Then there needs to be consensus on what would be an appropriate dollar value for the Non-Food Poverty Lines, again differentiated between rural and urban Solomon Islands. Selecting actual expenditures by some target decile group (e.g. third decile) would be one way.

As usual, the sum of the two (FPL + NFPL) would give more appropriate BNPL values, which could then be used to estimate the incidence of poverty separately for Honiara, Provincial Urban and Rural Solomon Islands.

An alternative criterion: ranking by \( Z_{pAE} \)
(Higher of Expenditure \( pAE \) and Income \( pAE \))

Expenditure \( pAE \) may not be an appropriate indicator of poverty, if the Income \( pAE \) for the household is much higher than a low Expenditure \( pAE \). This may be seen by examining the HIES households by both grouping them in population deciles, ranked by both Expenditure \( pAE \) and Income \( pAE \). For the Solomon Islands HIES, both rankings have been attempted and the distribution is as recorded in Table 15.
Each household has been allocated to deciles ranked by Income per AE (DI pAE) and by Expenditure per AE (DE pAE). Each household therefore has both labels. In an ideal world, if household expenditures were exactly proportional to household incomes so that each household had the same decile ranking, then a matrix as given in Table 10 would only have numbers along the left to right downward sloping diagonal.

What may be seen, however, is that those households labelled under the Expenditure pAE criterion as Deciles 1, 2 and 3 have large numbers of persons who are in Deciles 4 and above, ranked by Income pAE. By the Income pAE criterion, those in deciles 4 and above would hardly be called ‘poor’ in the Solomon Islands context. Thus looking at the last column of Table 10, of the persons classified as in the poorest 10% by the expenditure per AE criterion (DE pAE 1), some 8% were in deciles 4 and above, ranked by Income pAE. Similarly, some 28% of those in DE pAE 2 were in deciles 4 and above ranked by Income pAE; and fully 53% of those in DE pAE 3 were in deciles 4 and above ranked by Income pAE.

The converse is also true, looking at the numbers in the last row. Of those in DI pAE 1 (i.e. ranked by Income pAE), some 19% were in deciles 4 and above, ranked by Expenditure pAE; of those in DI pAE 2, some 31% were in deciles 4 and above, and 38% of those in DI pAE 3 were in deciles 4 and above.

Clearly, neither Expenditure pAE nor Income pAE on its own is a good indicator of poverty using the HIES results. This paper suggests that one may create another variable, Z pAE, which is equal to the higher of Expenditure pAE and Income pAE. All households are then ranked by this variable and the incidence of poverty estimated.

The rationale for this would be that should households have low Expenditure pAE but high Income pAE, they clearly have the potential for a higher standard of living, regardless of what they...
are recorded to be spending. Z pAE will ensure that this household is not treated as ‘poor’. Thus only if a household has an Expenditure pAE and Income pAE lower than the BNPL value would it be treated as ‘poor’.

For purposes of poverty alleviation measures to be implemented by stakeholders (whether government, NGO or donors) all that is needed is to understand what the order of priorities ought to be around the country, and to have some idea of a rational relative sharing of poverty alleviation resources—whatever the total amounts allocated.

From that point of view, it is desirable to conduct separate analyses for Rural Solomon Islands (differentiated by province) and Honiara. It must be kept in mind that, given that the majority of the SI population live in rural areas, the bulk of the Solomon Island poor are also likely to be in the rural areas, regardless of the standards adopted for Basic Needs Poverty Lines.

This section ranks all households by this new variable Z pAE and the incidence of poverty estimated for Rural SI, Provincial Urban, and Honiara, for a range of values for the BNPL. Table 16 (and Figure 5) indicate that whatever the level of BNPL chosen (for example at SI$2500 pAE per year), then the highest incidence of poverty (i.e. proportion of the population below the BNPL chosen) for Rural Solomon Islands, would be in Temotu (43%), followed by Choiseul (41%), Makira–Ulama (40%) and Malaita (27%). These relativities would generally be the same, for other chosen levels of BNPL.

**Table 16** The Incidence of Poverty with Rural Households ranked by Z pAE

<table>
<thead>
<tr>
<th>BNPL pAE pa</th>
<th>Choiseul</th>
<th>Western</th>
<th>Isabel</th>
<th>Central</th>
<th>Rennell–Bellona</th>
<th>Guadalcanal</th>
<th>Malaita</th>
<th>Makira–Ulama</th>
<th>Temotu</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>1000</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>1500</td>
<td>12</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>12</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>2000</td>
<td>23</td>
<td>8</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>25</td>
<td>35</td>
<td>16</td>
</tr>
<tr>
<td>2500</td>
<td>41</td>
<td>17</td>
<td>18</td>
<td>16</td>
<td>11</td>
<td>16</td>
<td>27</td>
<td>40</td>
<td>43</td>
<td>25</td>
</tr>
<tr>
<td>3000</td>
<td>48</td>
<td>24</td>
<td>28</td>
<td>26</td>
<td>14</td>
<td>23</td>
<td>38</td>
<td>53</td>
<td>54</td>
<td>35</td>
</tr>
</tbody>
</table>

**Figure 5**
However, given that these provinces have vastly different numbers of people residing there, then the provincial share of poor persons at various levels of BNPL would be as given in Table 17. For example, at a BNPL pAE per annum of between SI$2500 and SI$3000, 37% of those defined as the rural poor would be in Malaita, with 15% in Makira–Ulawa and 12% in Guadalcanal and Western Province respectively. Put very crudely, these proportions would indicate the appropriate provincial shares of all poverty alleviation resources to be devoted to rural people.

**Table 17** Distribution of the poor amongst rural households (by province) (by Z pAE)

<table>
<thead>
<tr>
<th>Z pAE per year (Maximum of Income and Expenditure pAE per year)</th>
<th>1500-2000</th>
<th>2000-2500</th>
<th>2500-3000</th>
<th>3000-3500</th>
<th>4500-5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choiseul</td>
<td>10</td>
<td>11</td>
<td>10</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Western</td>
<td>9</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Isabel</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Central</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Rennell–Bellona</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Guadalcanal</td>
<td>13</td>
<td>11</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Malaita</td>
<td>35</td>
<td>33</td>
<td>34</td>
<td>37</td>
<td>35</td>
</tr>
<tr>
<td>Makira–Ulawa</td>
<td>17</td>
<td>17</td>
<td>16</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Temotu</td>
<td>11</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>All</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Of course, there would first of all be a need to establish what proportion of poverty alleviation resources should go to the urban poor and what proportion should go to the rural poor.

A word of caution is necessary. It is common experience that rural people typically migrate to urban areas in order to improve their families’ living standards over the long term. What attracts them can be a variety of advantages that are not available in rural areas: jobs and cash incomes, and better education, health and leisure facilities. These are all the wider characteristics that go towards Sen’s definition of poverty as ‘poverty of opportunity’. To enjoy these benefits more easily available in urban areas, rural people are prepared to put up with sub-standard housing, water, sewerage and nutritious food.

Poverty stakeholders need to guard against strengthening the vicious cycle of rural–urban migration, which could be the unintended effect of focusing poverty alleviation strategies more on the urban poor while neglecting rural poverty, thereby increasing the attraction of urban life.

**Stakeholders’ own estimates of incidence of poverty**

This section presents the Solomon Islands HIES data in such a form that all stakeholders may be able to derive their own estimates of the Incidence of Poverty given their own choice of values for the FPL and the BNPL, and choice of ranking of households.

Table 18 gives the cumulative distribution of the persons in Honiara, Provincial Urban and Rural areas in Solomon Islands, with households ranked by Expenditure per Adult Equivalent.
Stakeholders may choose their own FPL value, or BNPL in the first column, and then read off the Incidence of Poverty in the appropriate column for Honiara, Provincial Urban and Rural areas. Note that using the same values for the three regions will give the same order of poverty—the highest in Rural Solomon Islands, followed by Provincial Urban and then Honiara.

Table 18 Cumulative percentage Incidence of Poverty for households ranked by Exp. pAE pw.

<table>
<thead>
<tr>
<th></th>
<th>Honiara</th>
<th>Prov.Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10-20</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>20-30</td>
<td>0</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>30-40</td>
<td>0</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>40-50</td>
<td>0</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>50-60</td>
<td>3</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td>60-70</td>
<td>6</td>
<td>9</td>
<td>49</td>
</tr>
<tr>
<td>70-80</td>
<td>7</td>
<td>14</td>
<td>57</td>
</tr>
<tr>
<td>80-90</td>
<td>9</td>
<td>19</td>
<td>64</td>
</tr>
<tr>
<td>90-100</td>
<td>14</td>
<td>27</td>
<td>69</td>
</tr>
<tr>
<td>100-110</td>
<td>17</td>
<td>33</td>
<td>74</td>
</tr>
<tr>
<td>110-120</td>
<td>22</td>
<td>38</td>
<td>78</td>
</tr>
<tr>
<td>120-130</td>
<td>27</td>
<td>46</td>
<td>81</td>
</tr>
<tr>
<td>130-140</td>
<td>33</td>
<td>51</td>
<td>84</td>
</tr>
<tr>
<td>140-150</td>
<td>36</td>
<td>57</td>
<td>86</td>
</tr>
<tr>
<td>150-160</td>
<td>40</td>
<td>61</td>
<td>87</td>
</tr>
<tr>
<td>160-170</td>
<td>43</td>
<td>64</td>
<td>88</td>
</tr>
<tr>
<td>170-180</td>
<td>46</td>
<td>68</td>
<td>90</td>
</tr>
<tr>
<td>180-190</td>
<td>51</td>
<td>72</td>
<td>91</td>
</tr>
<tr>
<td>190-200</td>
<td>55</td>
<td>75</td>
<td>92</td>
</tr>
</tbody>
</table>

Table 19 gives the cumulative distribution of the persons in Honiara, Provincial Urban and Rural areas in Solomon Islands, with households ranked by the new variable Z per Adult Equivalent, where Z was defined as the higher of Income pAE and Expenditure pAE. To reiterate, this was to ensure that a low expenditure household was not classified as poor, if the income was higher and vice versa. Again, stakeholders may choose their own FPL value, or BNPL in the first column, and then read off the Incidence of Poverty in the appropriate column for Honiara, Provincial Urban and Rural areas. Note that using the same values for the three regions will give the same order of poverty—the highest in Rural Solomon Islands, followed by Provincial Urban and then Honiara.
Table 19  Cumulative percentage incidence of Poverty for households ranked by Z pAE pw (higher of Income pAE pw and Expenditure pAE pw)

<table>
<thead>
<tr>
<th>Z pAE pw</th>
<th>Honiara</th>
<th>Prov.Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10-20</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>20-30</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>30-40</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>40-50</td>
<td>0</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>50-60</td>
<td>2</td>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td>60-70</td>
<td>5</td>
<td>7</td>
<td>46</td>
</tr>
<tr>
<td>70-80</td>
<td>7</td>
<td>10</td>
<td>54</td>
</tr>
<tr>
<td>80-90</td>
<td>9</td>
<td>15</td>
<td>61</td>
</tr>
<tr>
<td>90-100</td>
<td>12</td>
<td>21</td>
<td>66</td>
</tr>
<tr>
<td>100-110</td>
<td>15</td>
<td>27</td>
<td>71</td>
</tr>
<tr>
<td>110-120</td>
<td>19</td>
<td>33</td>
<td>76</td>
</tr>
<tr>
<td>120-130</td>
<td>24</td>
<td>42</td>
<td>79</td>
</tr>
<tr>
<td>130-140</td>
<td>29</td>
<td>47</td>
<td>82</td>
</tr>
<tr>
<td>140-150</td>
<td>31</td>
<td>51</td>
<td>84</td>
</tr>
<tr>
<td>150-160</td>
<td>34</td>
<td>55</td>
<td>86</td>
</tr>
<tr>
<td>160-170</td>
<td>38</td>
<td>58</td>
<td>87</td>
</tr>
<tr>
<td>170-180</td>
<td>41</td>
<td>63</td>
<td>88</td>
</tr>
<tr>
<td>180-190</td>
<td>45</td>
<td>66</td>
<td>89</td>
</tr>
<tr>
<td>190-200</td>
<td>49</td>
<td>68</td>
<td>91</td>
</tr>
</tbody>
</table>

Table 20, however, gives the percentage difference between the incidence of poverty as indicated by Z pAE pw, and that indicated by Exp pAE pw. As expected, the incidence of poverty by Z pAE is lower for all regions. However, the differences are greater for Provincial Urban and Honiara, than for Rural Solomon Islands. A factor that needs to be investigated is whether this indicates that there is greater under-reporting of incomes in the urban areas than Rural Solomon Islands.

Conclusion

This paper has explained that under-representation of ethnic minorities in the 2005–2006 HIES in Solomon Islands implies that income distribution statistics, such as Gini Coefficients, are to be treated with great caution. Those estimated by Abbott in UNDP (2008) are likely to seriously biased downwards, especially in urban Solomon Islands.

This paper has critically examined the UNDP (2008) analysis of the incidence of poverty in Solomon Islands. It has shown that the study’s results for the national incidence of food poverty and basic needs poverty are inconsistent with the disaggregated results for Honiara, Provincial Urban and Rural Solomon Islands. Corrected values are suggested. Questions have also been raised about the methodology used by UNDP (2008) in its estimation of the values for Food Poverty Lines, Non-Food Poverty Lines and hence the resulting values for the Basic Needs Poverty Lines. It is suggested that the FPL, NFPL and BNPL values for Honiara are biased upwards, and those for
The incidence of poverty in Solomon Islands

Rural Solomon Islands are biased downwards, creating the corresponding biases in the incidence of poverty estimated for the three regions.

This study has presented data in an easy to use tabular form, which should allow poverty stakeholders in Solomon Islands to estimate values for the incidence of poverty using their own values for the FPL, NFPL and BNPL for Honiara, Provincial Urban and Rural Solomon Islands.

Given the pervasive under-reporting of incomes, this study has also presented an alternative criterion for assessing poverty in Solomon Islands—the higher of Expenditure per Adult Equivalent and Income per Adult Equivalent ($\text{pAE pw}$). It has also presented data in a suitable tabular form for stakeholders to estimate values for the incidence of poverty using their own values for the FPL, NFPL and BNPL for Honiara, Provincial Urban and Rural Solomon Islands. It has been shown that these latter estimates are lower than is indicated by the criterion of Expenditure per Adult Equivalent. Moreover, the differences are shown to be greater for urban areas, rather than rural areas, suggesting that there is greater under-reporting of incomes in urban Solomon Islands.

It is suggested that Solomon Islands stakeholders in poverty initiate an exercise to arrive at a more appropriate definition of Food Poverty Line baskets for Rural Solomon Islands, Honiara and Provincial Urban centres and to select values for the Non-Food Poverty Line (and hence the Basic Needs Poverty Line) that are more appropriate for the Solomon Islands conditions.

Table 20  Perc. lower Incidence of Poverty if $Z \text{pAE pw}$ is used

<table>
<thead>
<tr>
<th>$\text{pAE pw}$</th>
<th>Honiara</th>
<th>Prov.Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>0</td>
<td>-18</td>
<td>-13</td>
</tr>
<tr>
<td>10-20</td>
<td>0</td>
<td>-74</td>
<td>-9</td>
</tr>
<tr>
<td>20-30</td>
<td>-35</td>
<td>-17</td>
<td>-8</td>
</tr>
<tr>
<td>30-40</td>
<td>-19</td>
<td>-29</td>
<td>-8</td>
</tr>
<tr>
<td>40-50</td>
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<tr>
<td>190-200</td>
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</table>

Rural Solomon Islands are biased downwards, creating the corresponding biases in the incidence of poverty estimated for the three regions.
Notes:

1. The 2005–2006 HIES was an initiative of the South Pacific Community’s Solomon Islands Statistics Development Project (SPC SISDP). This Project produced two reports issued by the SI Statistics Office, one the national HIES Report and the other the provincial report.

2. I am grateful to Mr Nick Gagahe (Government Statistician, Solomon Islands Statistics Office) for making available the household data, although the diary data were not available.

3. This non-response is not unexpected in the Pacific. However, if non-responding Chinese and European households originally selected in the survey sample were not replaced by other Chinese and European households, then the final sample reported on would be unrepresentative of the Chinese and European households, a major weakness given the critical importance of Chinese and European households in the economy. For future surveys, ethnic strata may be an important consideration, with a relatively higher proportion of the Chinese and European households being initially selected for the survey.

4. The ethnicity of households was defined by the ethnicity of the person designated as ‘Household Head’.

5. Thus the national Report states that the Urban Gini was only 0.26, lower than the 0.316 for the Rural areas (while the national Gini was presented as 0.361). The lower figure for the urban areas is clearly not a reasonable result, given the typically higher inequalities in the Urban areas.

6. Such comparisons need to be treated cautiously, as the rural nominal dollar incomes would be higher in real terms, given the lower prices of subsistence goods and services.

7. The median is preferred because it is more stable over time than the ‘mean’, which can be affected by the extreme values at both the upper and lower ends of the income distribution.

8. This was originally given as US$1 per capita per day in 1985 US dollars, then revised to US$1.08 in 1993 prices, and US$1.31 in 2004 prices.

9. It is, for instance, quite common in Fiji, especially amongst indigenous Fijian families, for extended family members to be part of the household for long periods of time, often because of better employment opportunities or better health services. Often, too, children are sent to urban families because of the better schools in urban areas.

10. This was the approach used by UNDP (1997).

11. There is, for instance, an OECD approach which allows for the possibility that there are usually economies of scale in household expenditure, in that the resource requirements of a household do not rise strictly in proportion to the numbers in the household (cooking, electricity bills, transport etc.). The OECD formula is: $AE = 0.3 + (0.7 * No. of adults) + (0.5 * No. of children).

12. The SI HIES data do give these results.

13. The corrected national estimate is now between the minimum and maximum regional estimates for both Incidence of Food Poverty and Incidence of Poverty.

14. For instance, having a national BNPL of $47.37 would mean that a household with $48 pAE pw would be considered to be ‘non-poor’, yet in Honiaria, the BNPL is given by Abbott as $139.04 pAE pw.

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

16. This claim is not accurate, given the data on actual expenditures of the bottom 30% of rural and urban household populations: rice, for instance, is important in the actual expenditure, but does not feature in the ideal menus.

17. The Report elsewhere has a slightly different value of $62.17.

18. The Report attributes the Menus he used to SPC nutritionists and the Ministry of Health in Solomon Islands.

19. These were quintiles of separate distributions.
These are covered in paragraphs 98 to 143, pages 30 to 38.

This will be an ongoing research project.

All tables have been calculated by the author from the household data provided by SISO, unless otherwise attributed. All monetary values derived relate to 2005/2006 when the HIES was conducted.

All figures have been derived by this author from the HIES data.

References


Abbreviations

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
DE pAE Expenditure deciles per Adult Equivalent
EA      Enumeration Area
FPL     Food Poverty Line
GDP     Gross Domestic Product
Gini    The Gini Coefficient, which is commonly used as a measure of inequality
hh      Household
HIES    Household Income and Expenditure Survey
IE pAE  Income deciles per Adult Equivalent
Incidence of Poverty Percentage of the population below the BNPL.
IMF     International Monetary Fund
LBG     Lower Bound Gini
NFPL    Non-Food Poverty Line
OECD    Organisation for Economic Co-Operation and Development
pa      per annum
pc      per capita
pAE     per Adult Equivalent
p4AE    per household of 4 Adult Equivalents
pm      per month
pw      per week
Poverty Gap The resources required to bring all poor households up to the Basic Needs Poverty Line
SI      Solomon Islands
SISO    Solomon Islands Statistics Office
SPC     Secretariat of the Pacific Community
UNDP    United Nations Development Programme
USP     The University of the South Pacific
WB      World Bank