

SECRETARIAT OF THE PACIFIC COMMUNITY  
REGIONAL POVERTY ANALYSIS TECHNICAL WORKSHOP  
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*“Translating theory into practise in the Pacific context”*

**ESTIMATING NON-FOOD EXPENDITURE AND THE BASIC NEEDS POVERTY LINE**

**THE ISSUE**

1. The Basic Needs Poverty Line (BNPL) is derived from the Food Poverty Line (FPL) plus a component that reflects the cost of the non-food basic needs of a minimum standard of living. These may be costs associated with housing, utilities, education, health, transport and communications, gifts and donations to family, community or church.
2. The issue is how best to measure these costs in the context of developing a non-food basic needs component for the national line.

**MAIN APPROACHES**

3. Whilst for food there is a benchmark of the 2100 kcal per day minimum food energy need, there is no such standard that can be applied for non-food items. The availability (and often the cost) of non-food items varies significantly between urban and rural areas. Items such as housing, utilities, transport and communications are examples of such variation. In the rural areas there are frequently few non-food items available. The analysis of PICs data indicates that this is very much the case, in all countries the amount of expenditure on non-food items by rural households is much less than that of urban households. In urban areas the ratio of non-food to food items is invariably  $>1$ , whereas in the rural areas it is almost always  $<1$ .
4. It is the concept of “relative poverty” that is important. In the poverty lines, either at the national or regional (urban/rural) level we are usually assessing the relative poverty of households experiencing the same general living environment. Within the urban or rural centres the living environment, and what might be regarded as the “essentials”, are broadly similar across households (with the “essentials” much broader in the urban areas than in the rural areas). This may be because some things are simply not available in the rural areas (e.g. fast internet access), that might be regarded as an essential by even the poorest urban household, or it may be that, although available, they are too expensive in rural areas relative to household income. But how do we measure what constitute non-food necessities in each of these areas?

5. The Compendium of Best Practices in Poverty Measurement has the following to offer:

*The most commonly used approach for drawing the non-food poverty line is based on the observed Engel-coefficient (the proportion of expenditure devoted to food) for a reference group of the population.*

*The approach consists in multiplying the inverse of this coefficient by the cost of the food basket, such that the non-food basket cost is directly obtained from the consumption habits of the reference population. This methodology is based on the original work done by Mollie Orshansky when drawing the U.S. poverty lines; it is therefore sometimes referred to as the Orshansky multiplier.*

*Using this procedure has several conceptual implications. First, it “assumes that the households that satisfy their nutritional needs are satisfying, at the same time, the minimum standards of the other basic needs”, something that is not necessarily sustained by empirical evidence (Feres, 1997). Second, Streeten (1989) points out that “there may be an inconsistency in this way of arriving at a poverty line. The minimum food requirements are derived normatively, by calculating how much the minimum requirements would cost; while the non-food items are determined by observing how much people actually spend. In order to remove the inconsistency, we would have to assume that what people actually happen to spend is what they need to spend on non-food items, a clearly unrealistic assumption.”*

*In practice, there are numerous options for applying the described methodology, including the following:*

- *Use of a single value for total non-food expenditures or different values for each non-food category.*
- *Use of the same reference group as for the selection of the food basket or a different reference group.*

*The former option uses the non-food consumption habits of the reference group identified as satisfying their nutritional requirements. It is also possible to select another reference group for the construction of the non-food poverty line, such as households with a level of food expenditure close to the food poverty line.*

- *Use of a range of non-food poverty lines. Under this option, lower and upper bounds are calculated for the non-food poverty line, as explained in Ravallion (1998). The lower bound is given by the expenditure on non-food items of households with total incomes approximately equal to the food poverty line. The upper bound is given by the expenditure in non-food items of households with food expenditure approximately equal to the food poverty line.*

6. The above best practice notes some of the theoretical weaknesses of the observed Engel-coefficient approach in assessing non-food basic needs. Nevertheless, no other more practical approach that overcomes these theoretical weaknesses has been identified, and the Engel-coefficient is now internationally accepted as the most practical approach to the measurement of non-food basic needs. Using this international standard for the analysis of poverty in PICs therefore provides an internationally consistent measurement approach both nationally within countries and regions.
7. The Compendium notes that the first alternative described is frequently used in Latin America, the second is widely used in Asia and Africa (Cambodia, Gambia, Sri Lanka and Vietnam). China and Sri Lanka have both used the third method.

8. The basic premise underlying all these approaches is that households whose total expenditure is approximately equal to the FPL have to choose very carefully between food and non-food items; any expenditure on non-food items can be seen as being an essential trade-off between basic food and basic non-food. Survey data indicates that such households always have some non-food expenditure, thus the implication is that they are trading some food for some non-food essentials. Only those households that produce all their own food would not have to make such a trade-off, although even these households might have to sell some of their food if they needed to raise cash for specific non-food purchases.
9. To date in the poverty analysis for PICs the second method of estimating the Engel coefficient validated by an analysis of the actual expenditure of the reference group used for the estimation of the FPL has been used to as the basis for the non-food component. This method is therefore consistent with that used in most other Asian countries.
10. As noted in the Compendium, using the Engel coefficient means that the non-food component becomes a direct function of the inverse of the level of food expenditure. Where the average actual food expenditure of the reference group is very close to the food poverty line then this will not make a significant difference. However if the FPL is set significantly higher than the average actual food expenditure of the reference group then this method may not always provide the most satisfactory estimate of actual non-food basic needs. It will tend to overestimate the basic non-food needs and thus could raise the implied level of poverty incidence. In the analysis of Fiji (2005/06) this appeared to be the case and thus the actual level of average non-food expenditure for the bottom three deciles was taken as the basis for the non-food component.

#### **RECOMMENDED APPROACH**

11. It is recommended that the Engel coefficient based on the food/non-food relationship of the reference group used to estimate the food poverty line be the basis for calculation of the non-food basic needs factor. Wherever possible this should be validated by a comparison with the actual average level of non-food expenditure observed in the same reference group. Where a significant difference between the non-food component indicated by the Engel coefficient, and that indicated by an analysis of the actual expenditure is observed then the lower of the two values should be taken as the basis for the non-food factor.