



# CASE STUDY ON THE ST. LUCIA NATIONAL ELIGIBILITY TEST

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**for the UN Women Multi-Country Office for the Caribbean and the UNICEF Office for the Eastern Caribbean Area**

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# EXECUTIVE SUMMARY & RECOMMENDATIONS

In 2009, Saint Lucia, like other Eastern Caribbean states, underwent a social safety net assessment (SSNA). One of the common recommendations across countries in the region was that they should develop proxy means tests (PMTs) in order to improve targeting of poverty-oriented interventions. Such a test would form the basis of a unified (single) targeting mechanism, with the possibility of different cut-offs for different programmes.

The Saint Lucia SSNA observed that a new approach was needed because existing targeting tests were “not doing a very good job” of identifying appropriate beneficiaries (Blank, 2009: 46). A PMT was seen as an “objective and transparent” alternative mechanism that would avoid the problem of inaccurate reporting of income, and would lead to consistent decision-making processes in identifying recipients of support (Blank, 2009: 35).

Accordingly, government experts within the Ministry of Social Transformation, Local Government and Community Empowerment developed the Saint Lucia National Eligibility Test (SL-NET) PMT. This is a commendable achievement. The SL-NET not only draws on international experience, but it also has the

added benefit of using local knowledge in, for example, choosing variables relevant to identifying poverty in Saint Lucia and to the intended programmes.

PMTs are among several internationally used targeting mechanisms, each of which has advantages and disadvantages. This paper focuses on the PMT methodology, as this was the approach decided on by the Government of Saint Lucia. The purpose of this case study is therefore to highlight **key considerations and measures to be taken within a PMT methodology so as to implement targeting that ensures that those who need assistance receive it**. This case study highlights some aspects that are common to all PMTs and aspects that are specific to the SL-NET.

The SL-NET has several strengths, which include:

- None of the variables used are counter-intuitive, a characteristic that is not shared by some other PMTs;
- The SL-NET does not include any proxy variables that relate to the head of household. This is a strength because of various problems related to the head of household concept, explained further in this case study; and
- The SL-NET is ‘home grown’; it was informed by international approaches but developed by the Ministry and built on knowledge and information from the national context.

Identified challenges with the instrument, including both those found in PMTs in general and those found in the SL-NET in particular, include:

- Most, if not all, PMTs aim to predict the expenditure of **households** rather than the expenditure of **individuals**. Use of the household as the unit of measure implicitly assumes that the benefit of the available income, or expenditure, is spread evenly (or according to need) across all individuals in the household. This assumption is convenient as it would be conceptually and empirically challenging and costly to assess individual income and expenditure. Nonetheless, the assumption creates a challenge if a social protection benefit is intended to assist particular individuals (such as the elderly or children), but social or family norms give other individuals (typically men and those who earn the income) the power to exert more control over expenditure decisions;

- The reliability of the equation on which the PMT is based depends in large part on the reliability of the underlying survey, in this case, the 2005/06 Survey of Living Conditions. There are several issues that call into question the reliability of the survey (these are explained further in the case study);
- One of the concerns regarding the use of the 2005/06 survey is that it may not accurately reflect current reality. This points to a further weakness of using a PMT for targeting; ideally, surveys should be conducted on a regular basis to ensure that the test is up to date. This, in turn, will require substantial financial, human and other resources;
- When the SL-NET's predictive equation is tested on the same data-set as that used to derive the equation, it identifies more households incorrectly as poor and indigent than it identifies correctly. The degree of inaccuracy is particularly severe for indigence. This is a common finding for PMTs globally, in that inclusion errors (identifying non-poor households as poor) are especially severe at low cut-off points because of the clustering of incomes at the bottom end of the range. This reduces the effectiveness of PMT for programmes—including Koudmen Sent Lisi—that aim to target a very small proportion of the population;
- The SL-NET uses a sex-differentiated equivalence scale that discriminates against women and girls by giving less weight to female than male poverty for all ages except infants under one year;
- The SL-NET variable relating to completion of secondary school does not distinguish between male and female completion. This is a problem if, as is the case in many countries and as is suggested by analysis of Saint Lucia Labour Force Survey data from 2012, women tend to earn less than men after controlling for level of education; and
- The costs associated with use of the SL-NET may be significant. The case study summarizes some of the reasons for this.

Based on these strengths and challenges, the following is put forward for consideration as ways to maximize the strengths of the SL-NET to ensure increased child and gender sensitivity:

- Combining the SL-NET with other targeting methods can be considered, although this may not succeed in overcoming some of the challenges associated with PMTs;
- Approaches that take into account the income forgone by mothers and others with heavy caring responsibilities should be considered;
- An alternative equivalence scale should be used that does not differentiate on the basis of sex of household members. The weighting for children should incorporate expert opinion that this weight should be higher for middle- and higher-income countries than for poorer countries, and that childhood deprivation has long-lasting impact for the individuals, families and the country as a whole. Possible values are 0.5 for children under 5 years, and 0.7 for children aged 5 to 15 years, with a full weight for all other ages;
- A full costing of the roll-out of the SL-NET should be undertaken prior to its use in order to ascertain its full financial, human resource and logistical implications; and
- To complement an appeals process, the Ministry should assess the cases of all rejected applicants on a periodic basis so as to avoid excluding vulnerable individuals who may not have the confidence or capacity to initiate an appeal.

# INTRODUCTION

In 2009, Saint Lucia, like other Eastern Caribbean states, underwent a social safety net assessment (SSNA). One of the common recommendations across countries in the region was that they should develop proxy means test (PMTs) in order to improve targeting of poverty-oriented interventions. Such a test would form the basis of a unified targeting mechanism, with the possibility of different cut-offs for different programmes.

The Saint Lucia SSNA observed that a new approach was needed because existing targeting tests were “not doing a very good job” of identifying appropriate beneficiaries (Blank, 2009: 46). A PMT was seen as an “objective and transparent” alternative mechanism that would avoid the problem of inaccurate reporting of income, and avoid the possibility of political manipulation. Thus, Cadette (2012: 9) writes in the Saint Lucia case that a PMT “is very scientific and objective allowing little opportunity for corruption or bureaucratic and political capture.”

Accordingly, government experts within the Ministry of Social Transformation, Local Government and Community Empowerment developed the Saint Lucia National Eligibility Test (SL-NET) PMT. The PMT was developed using data from the 2005/06 Survey of Living Conditions (SLC). In addition to drawing on international experience, the Ministry benefited from

local knowledge in, for example, choosing variables relevant to identifying poverty in Saint Lucia and to the intended programmes.

It was understood from the start that the SL-NET would be tested in various ways. The tests would include practical application in the Koudmen Sent Lisi and Public Assistance Programmes, where the PMT would be applied alongside existing targeting methods. The World Bank would commission a consultant to conduct further tests. In addition, it was agreed with UNICEF and UN Women that the SL-NET would be used as a case study in a more general assessment of possible concerns related to child-friendliness and gender-responsiveness of PMTs. This short note draws on the latter assessment, but with special emphasis on the SL-NET. It thus includes observations applicable to all PMTs as well as observations that are specific to the SL-NET.

## DEFINITIONS

**Equivalence scale** is the generic term used to describe adjustments made in calculating poverty rates in order to account for differences in size and composition among households.

**Exclusion errors** are usually defined as the proportion of poor people who should be within the government's desired beneficiary target group but who are nonetheless excluded from the benefit by the targeting mechanism. In the case of a PMT, this occurs because the PMT incorrectly predicts for them an expenditure that is higher than the programme cut-off.

**Inclusion errors** are usually defined as the proportion of non-poor people who should not be within the government's desired beneficiary target group but who are nonetheless include by the targeting mechanism. In the case of a PMT, this occurs because the PMT

incorrectly predicts an expenditure that is lower than the programme cut-off.

**Proxy means tests** aim to achieve the same as standard means tests based on the income of the individual or household. However, instead of asking about income, the test asks potential beneficiaries about other characteristics of the individual or household that have been found to be statistically correlated with and a predictor for income or, more usually, expenditure. As the Saint Lucia SSNA explains, “A PMT uses data from household surveys to construct a scoring formula and a cut-off point for eligibility. Households that receive a score below the cut-off point are eligible for benefits; households that receive a score below the cut-off point are not eligible” (Blank, 2009: 46). The characteristics in the formula thus constitute a proxy for income, through the intermediate proxy of expenditure.

# ISSUES FOR DISCUSSION

## Individual Versus Household

Most, if not all, PMTs aim to predict expenditure of households rather than the expenditure of individuals. This is appropriate to the extent that much expenditure occurs at the household level. Further, in surveys, households are generally defined as a group of individuals who live together and who pool their income.

However, use of the household as the unit of measure implicitly assumes that the benefit of the available income, or expenditure, is spread evenly (or according to need) across all individuals in the household. This assumption is convenient as it would be conceptually and empirically challenging and costly to assess individual income and expenditure. Nonetheless, the assumption creates a challenge if a social protection benefit is intended to assist particular individuals (such as the elderly, or children) but social or family norms give other individuals (typically men and those who earn the income) the power to exert more control over expenditure decisions.

As Deaton & Muellbauer (1986: 742) state firmly, “there are cases in which [the assumption that everyone in the household has the same welfare level] would be clearly inappropriate, for example, in societies in which women and children are treated as the chattels of a dominant male.” To circumvent biases and inequalities within households, Kidd & Wylde (2011) suggest that a PMT should not be used for targeting of individual benefits such as old age, disability or child benefits.

An additional and related question with household-targeted benefits involves identification of the person who will receive the cash (or other benefit) on behalf of the household. Internationally, evidence suggests that monies placed in a woman’s control are more likely to be used for the benefit of children and the family, reflecting women’s disproportionate responsibilities for child care and household work.

A further challenge relates to the household or family unit. Castañeda & Lindert (2005) discuss some of

the complications involved in linking individuals to households and/or families. They explain that in Colombia, Chile and Costa Rica the ‘family unit’ refers to a group of people within a household who are related by blood (similar to a nuclear family), whereas the ‘household’ may include more distant relations as well as people who are not related. In the Caribbean, for example, many households are inter-generational, with siblings having differing fathers, and the ‘head’ of the household may not be the primary wage earner and/or may have migrated within the region or beyond. In addition to the closeness of the relationship, the definition of the family also takes into account whether members are dependent on each other in terms of income. Further complicating the matter is that different programmes may target different beneficiary units (e.g. families versus households), which will have different PMT scores.

None of the literature reviewed discussed the challenges that may arise when individuals join or leave the household (or want to do so). **From a gender perspective, one needs to consider the case of a woman victim of domestic abuse, and how the definition of household, PMT approach, choice of person to whom the benefit is paid, and length of application process may facilitate or obstruct her choices regarding her situation and that of her children.** Ultimately, any means test based on a household or family unit may not be appropriate for assistance that facilitates women and children escaping from domestic violence unless a way can be found that ensures that the women and children are immediately covered by benefits rather than having to wait while going through a new application process.



## The Proxy Variables

The independent variables chosen to model or predict expenditure (the dependent variable) need to reflect characteristics that are easily observable by an outsider are difficult to lie about, do not change rapidly and are easy to verify. If this is not the case, there is little advantage in using a PMT rather than straightforward questions about income. The choice of variables for the PMT is constrained by the questions asked in the survey on which the model is based. Typically, the variables chosen include those related to household assets, size of the household and demographics.

The SL-NET uses the following characteristics:

- Inverse of household size;
- Mean age of household members;
- Proportion of household members who completed secondary school;
- Number of bedrooms per capita;
- District;
- Materials used for outer walls of dwelling;
- Ownership of the dwelling;
- Ownership of a washing machine;
- Cable television connection;
- Internet connection;
- Ownership of a refrigerator;
- Ownership of a vehicle; and
- Ownership of a computer.

The fact that mean age of household members emerges as a significant predictor of expenditure in Saint Lucia, despite the use of adult equivalence scales (see discussion below), points to the extent to which households with a greater number of children are more likely to be poor.

A strength of the SL-NET, particularly when compared with some other PMTs, is that none of its chosen variables is counter-intuitive. A further strength is that, unlike many other PMTs, the SL-NET does not include any variables that relate to the head of household. This is a strength because of various problems related to the head of household concept. First, the definition (when it exists) of head of household often will not result in an objective and consistent choice of head among household members; characteristics based on head of household do not pass the test of being easily observable because the head itself is not easily

observable. Second, the characteristics of the head of household may not adequately describe the average characteristics of other members.

A possible concern that the variable relating to completion of secondary school does not distinguish between male and female completion. This is a problem because analysis of Saint Lucia survey data reveals that, as is common in most countries, women tend to earn less than men at all levels of education (this gender gap is reduced among younger women and men). The likely impact on household income of having a woman with a completed secondary education is less than that of having a man with this level of achievement.

## The Reliability and Currency of the Underlying Survey

The reliability of the equation on which the PMT is based depends in large part on the reliability of the underlying survey. One of the challenges in small island states such as those of the Eastern Caribbean is the small size of the population and the related small size of the survey—a little over 1,200 households and 4,300 individuals for Saint Lucia. This limits the extent to which the data can be reliably disaggregated and the number of variables that can be used for the PMT. The SL-NET is, appropriately, based on a relatively small number of variables (13).

Nevertheless, Cadette (2012: 10) notes several challenges with the quality of some of Saint Lucia's survey variables. The challenges include "considerable" missing values for education—ostensibly a question should be relatively easy to answer and not highly sensitive. This was problematic because one of the PMT variables is the proportion of household members who have completed secondary school. There are also substantial missing values for the earned income questions. This could be seen as justifying the use of a PMT in the first place, but the fact that so many income-related answers are missing (rather than possibly incorrect) raises concern as to the extent to which expenditure (on which the PMT regression equation is based) was fully recorded. This is especially so given that the number of questions and level of detail required for expenditure in the SLC was far



greater than for income. In Saint Lucia the main SLC interview lasted an average of two hours, in addition to which all adults and all employed children were required to complete expenditure diaries over a two-week period (Kairi Consultants, 2007b: 9).

In addition to missing data for those who participated in the survey, further bias in the PMT equation may result from the absence of information for households in the targeted sample for whom questionnaires were not completed at all. The response rate for the Saint Lucia SLC of 2005/06 was 94 percent. The responses for those who did respond can be weighted up to the full population, but errors will arise if those who did not respond share particular characteristics.

The SL-NET was based on data from the 2005/06 SLC, which raises concern as to whether the chosen characteristics, with the chosen weights, still serve as good predictors for expenditure nearly a decade later. The question is particularly relevant given that the SLC was done prior to the major global economic and financial crisis that started in 2008. Most of the variables used in the SL-NET are likely to remain as good predictors of poverty, although the strength of the relationships (and thus relevant weights) may have changed over time. The concern about changes since 2005/06 is most pertinent in respect of the variables relating to ownership of a computer and connections to cable TV and the Internet; the costs, levels of ownership and access to these services may have changed rapidly in recent years.

Even a measure such as the percentage of household members who have completed secondary education may need further investigation. Unfortunately, the 2005/06 survey coding was not aligned with the International Standard Classification of Education; the results are therefore not easily comparable with those of Saint Lucia's Labour Force Survey of 2012. Nevertheless, the fact that only 40 percent of the population aged 15 years and above were recorded as having completed secondary education in 2012, as against the 66 percent reported in the 2005/06 survey (using the non-standard classification), merits further investigation as to whether this affects the reliability of using this variable in the PMT.

If a PMT is implemented in Saint Lucia, the question of currency of survey data will arise repeatedly; the literature suggests that the PMT equation needs regular revision to reflect changing conditions (see, for example, Narayan & Yoshida, 2005; Sharif, 2009; Castañeda & Lindert, 2005).

## **Non-consideration of Existing Benefits**

If the PMT is to be used to determine eligibility for benefits — cash benefits in particular — then it should reflect the expenditure that households would have had in the absence of existing benefits. In practice, however, it seems that the PMT equations are derived on the basis of expenditure with existing benefits already in place. If, as it seems is the case, no correction is made for these benefits (particularly cash grants), then the affected households will appear better off than they actually are. If, as is likely, the affected households (those already receiving benefits) have particular characteristics, this will affect the equation that underlies the PMT.

In Saint Lucia, the SSNA recorded that 2,492 beneficiaries were receiving assistance from the Public Assistance Programme in April 2009 (Blank, 2009: 22). While this is a relatively small proportion of all households, the fact that beneficiaries will be concentrated among the poor could bias the PMT equation.

## **Exclusion and Inclusion Errors**

The PMT literature includes extensive discussion of exclusion ("undercoverage") and inclusion ("leakage") errors.

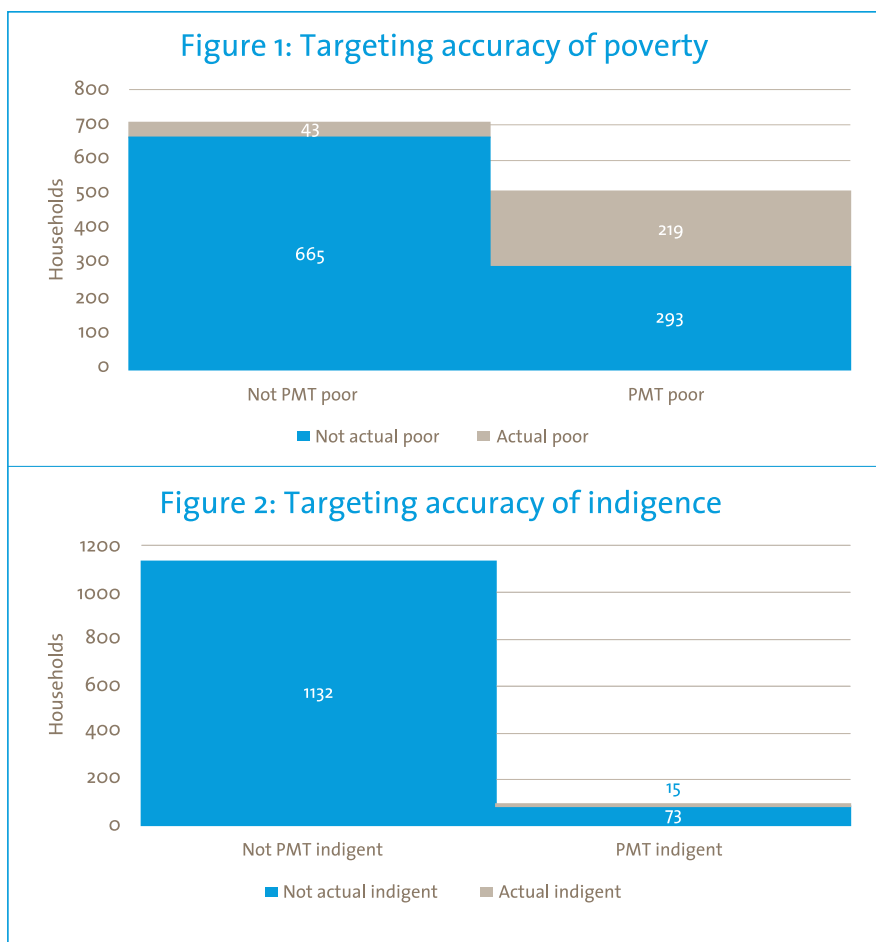
Exclusion and inclusion errors arise because the statistical analysis underlying the PMT produces an equation that predicts expenditure, but the choice of variables can never include all factors that influence expenditure (reasons include, among others, that not all factors have matching variables in the survey and because not all factors are known or measurable). There will therefore generally be a difference (error) between the expenditure predicted by the equation and the actual expenditure for a particular household. The statistical term *r-squared* describes the proportion

of the variation in expenditure across households as explained by the chosen variables. Fernandez (2008: 5) states any level of r-squared above 0.50 is “acceptable” for this type of model (although he does not justify this value). However, even r-squared values above 0.50 can result in substantial exclusion and inclusion errors.

The size of inclusion and exclusion errors varies as the cut-off or threshold changes. Where there is no cut-off (i.e. the benefit is universal), there will be no exclusion error but a large inclusion error. The opposite pattern will be found if the cut-off is very low.

The targeting accuracy (and inaccuracy) of the SL-NET, as calculated by Cadette (2012), is seen in Figures 1 and 2. The orange sections of the first column represent those households that are, according to the

survey data, below the poverty or indigence line but are not identified as such by the PMT. They translate into exclusion rates of 16 and 0 percent respectively. The blue sections of the second column show those who are not poor or indigent according to the survey data, but are identified as poor or indigent by the PMT. They translate into inclusion rates of 31 and 6 percent respectively. In both cases, the PMT identifies more households incorrectly as poor or indigent than it identifies correctly. The degree of inaccuracy is particularly severe for indigence. This is a common finding for PMTs; inclusion errors are especially severe at low cut-off points because of the clustering of incomes at the bottom end of the range. The SL-NET exclusion rates shown in the graphs are relatively small, although this disregards concerns as to whether the poverty and indigence lines as calculated in the SLC data-set correctly identify affected households.



The inclusion error for the Public Assistance Programme was reportedly 45 percent at the time the SSNA was conducted. The PMT represents a substantial improvement on this high error rate, but will still not produce accurate results for many households.

## Measuring Poverty

A common approach, and the one that was used in Saint Lucia, is to set an extreme poverty (or indigent) line at the level of expenditure needed to buy the basic minimum of calories (spread across the appropriate food groups) scientifically determined to be necessary. The Caribbean Nutrition and Food Institute provided the oft-quoted amount of 2,400 kilocalories per day for an adult. No allowance is made for any expenditure other than on food.

A household will only escape poverty at this level of expenditure if it meets two unrealistic assumptions. First, that it spends every cent in the most economical and judicious way based on full knowledge of nutrition and market prices. Second, that it does not have any other needs besides food. The poverty line therefore adds to this basic food amount a further allowance for non-food items. The allowance is based on the average non-food expenditure of the bottom two quintiles (poorest 40 percent) of households. For Saint Lucia in 2005/06, this yielded poverty and indigence lines that classified 21.4 percent and 1.2 percent of all households as poor and indigent respectively, and 28.8 percent and 1.5 percent of all people.

Means tests, whether proxy or direct and whether based on income or expenditure, generally count only monetary amounts. Means tests do not consider the value of unpaid care work—unpaid work performed mainly by women in caring for other household members (and especially children), in cooking and other housework. An approach that considers unpaid care work will also need to take into account the income foregone by mothers and others with heavy care responsibilities in terms of simultaneously managing income-earning and other work and by accepting lower-paid work because it more easily allows them to perform unpaid care work.

## Equivalence Scales

There is little, if any, evidence of adjustments for size of households (economies of scale) being used in derivation of poverty lines in the Eastern Caribbean. There are, however, often ‘equivalence scale’ adjustments for children and sometimes for female adults. This

means that instead of deriving ‘per capita’ household expenditure by dividing total expenditure by the number of household members, a ‘per (male) adult equivalent’ expenditure is derived by dividing total expenditure by the sum of the individuals, with some individuals counting as only a proportion of a full male adult.

Some decades ago, it was relatively common internationally to assume that women required somewhat less expenditure than men on the basis that they were smaller physically and less likely to do strenuous work, and therefore needed fewer calories. This was used as the basis for the broader assumption of women generally costing less (because food constitutes a large proportion of expenditure, especially for the poor). This assumption is rarely used nowadays. It is not seen as equitable and does not take into account that biologically (especially during pregnancy), women’s needs may be equal to or even exceed those of men. The assumption also fails to recognize that gendered job segregation may not be as rigid as it was previously (although some segregation certainly persists).

Sex differentiated equivalence scales have been used up to the present in the Eastern Caribbean—a very unusual practice. This Caribbean practice is reportedly based on an exercise done in Belize in the early 2000s (Kairi Consultants Limited, 2007b: 14-15). The sex-differentiated scales were used, for example, in the SLCs and are incorporated in the derived variables in the Saint Lucia SLC data-set. Because these equivalence scales are embedded in the SLC dataset, they were also used for SL-NET. What is especially unusual about the approach is that it treats the sex difference as if it starts at the age of one year—long before females tend to be smaller than males or engage in less strenuous work. Older adults are also weighted less than those of an adult male aged 19 to 29 years. Overall, the equivalence rates range from 0.270 for all children under 1 year to 1 for and adult male 19 to 29 years, and back down to 0.618 for a woman aged 61 years and above.

Andaiye (2003: 85) notes that use of a sex differential will result in underestimating poverty for female-headed households. This effect extends beyond female-headed households; the likelihood that a

household will be classified as poor decreases as the female proportion of household membership increases (whether or not the members are the head).

In his 1997 classic, Deaton (1997: 259) suggests that a weight of 0.4 for children under 5 years and 0.5 for children aged 5 to 14 might be appropriate for very poor countries, but acknowledges that these values are “arbitrary to some degree.” Deaton and colleagues argue further that the values for children will be higher for more developed countries where there are more substantial non-food expenditures incurred with respect to children. Overall, Deaton is of the view that there are no exact methods for determining the size of either economies of scale or equivalence scales. The Brazilian Institute for Geography and Statistics et al (1999) note that while different equivalence scales may not result in large differences in poverty rates, they may well result in a change in the demographic characteristics of households identified as poor.

Prior to the introduction of the Belize sex-plus-age scales, the common approach in the Eastern Caribbean was based on calorie requirements computed by the Caribbean Food and Nutrition Institute. This scale equates a child under seven years of age to 0.2 of an adult; aged 7 to 12 years to 0.3 of an adult; and aged 13 to 17 years to 0.5 of an adult (St Catherine, 2004; Tang, undated). These estimates are lower than those used internationally.

In line with the Brazilian Institute et al (1999) observation that whereas the choice of equivalence scale may result in only small changes to aggregate measures (such as the proportion of the population that is poor), using different measures may change the demographic profile of households that are classified as poor, a crude test of the impact of choice of equivalence scale in Saint Lucia using data from the SLC 2005/06 was conducted. The test used three different approaches: the Belize sex-plus-age adjustments used for the PMT, the simple child adjustments used prior to the introduction of the Belize approach, and a simple per capita calculation with no adjustment for age or sex. The comparisons used the same individual (adult male) poverty threshold level for all three measures.

Use of the old scale results in a small decrease in the overall poverty rate—from 22 percent using the Belize scale to 21 percent with the old scale. In contrast, use of a simple per capita measure results in an increase of the overall poverty rate to 34 percent. Further analysis reveals that even the move to the old scale results in noticeable differences for particular family forms. For the purpose of the analysis, family form is defined on the basis of the presence in the household of a child or children under 18 years (‘child’), men aged 18 or above (‘man’) and women aged 18 or above (‘woman’). Child-only households are omitted because the numbers are too small to produce reliable results (the same is probably true of the households that contain only adult men and children).

Table 1 does not distinguish between households with girl and boy children because the large number of combinations of boys and girls would result in cell sizes too small for reliable analysis. If such analysis was possible, it would reveal the extent to which the Belize scale disadvantages households with girl children when assessing for poverty.

Table 1 shows a decrease in the poverty rate for all except the woman-only and man-only households when comparing the old approach to the Belize/SL-Net approach. This pattern is a result of the smaller child equivalent ratios in the old approach. These decreases outweigh the smaller increase from removing the sex differential. The per capita approach results in a substantial increase in the poverty rate for all household forms that include children. These households now have poverty rates three times as high as the woman-only households.

A similar comparison for households that consist of one adult woman and one or more children shows the poverty rate at 20 percent using the Belize approach, 12 percent using the old approach, and 39 percent using an unadjusted per capita calculation. These calculations do not show which of the approaches is optimal, but provide strong evidence that choice of equivalence scale matters from a child and gender perspective.

**Table 1: Poverty rates by Family Form and Equivalence Scale, Saint Lucia 2005/06**

	Child and Woman	Child and Man	Child, Woman and Man	Woman Only	Man Only	Woman and Man
All households	6141	954	19771	4041	6428	
Belize approach	24%	28%	29%	4%	20%	11%
Old approach	17%	17%	24%	15%	24%	18%
Per capita	44%	44%	45%	15%	24%	18%

The relevance for the PMT is that changing the equivalence scale would necessitate a change in the weights used for the PMT variables and would likely result in a change in some of the predictor variables. Unfortunately there is as yet no agreed way to determine the exact size appropriate for the equivalence scale. However, following Deaton (1997 – see above), it would seem that for Saint Lucia a weight of 0.5 for children under 5 years and higher than this (perhaps 0.7) could be appropriate for children aged 5 to 14 years, with all older individuals accorded a full weight.

### Other Eligibility Criteria

The Eastern Caribbean SSNAs envisage the PMTs serving as targeting mechanisms for multiple social programmes. Not only will eligibility thresholds for these social programmes differ, they will often need to use additional criteria to determine eligibility. The need for further criteria arises because the PMT is a proxy test for income and primarily applicable to poverty reduction programmes. In particular, it makes the most sense for cash grant programmes, as the benefit is then directly compensating for low income. It also makes some sense for benefits such as tuition bursaries, health care fee waivers and housing assistance where poverty reduces the ability of individuals and households to provide for themselves. However, because many programmes do not have poverty reduction as their only (or even main) aim, eligibility tests often include additional elements.

Geographical targeting was used in 52 of the 122 programmes examined by Coady et al (2004), but might be less useful for small island states where there is likely to be less variation in poverty among different

areas than in countries that are larger in terms of population and geographical extent. The 52 cases do not include those in which geographical variables are among those used in a PMT. SL-NET is one such case in that the formula predicts higher expenditure (and thus less likelihood of poverty) for households based in Castries (urban or rural), Gros-Islet, Soufrière and Vieux-Fort than for households in other geographical areas. Inclusion of geographical variables in a PMT need not be problematic, but geographical targeting in which benefits are offered in only selected areas would contradict a rights-based approach.

Given the extent of vulnerability of Eastern Caribbean islands to natural disasters, it is worth noting that a PMT is not an appropriate targeting mechanism for natural disasters because short-term disaster-related income and expenditure will not vary with the medium- and long-term variables on which a PMT is based.

### Combining a PMT with Other Targeting Mechanisms

Supplementing the PMT with other criteria retains the PMT as the targeting mechanism in respect of poverty. This consideration does not address the weaknesses of a PMT and, in particular, does not address exclusion errors. This raises the question as to whether a PMT can be combined with other targeting mechanisms, such as community targeting, multidimensional targeting, self-identification or direct questions about income.

In **community targeting**, members or leaders of a local community identify households that they feel should be eligible for particular benefits. Under this approach, the PMT could be applied only to those households that were first identified by local communities.

Disadvantages of this approach include the effort and expense required for the community process and the fact that the PMT will still incorrectly exclude some of those who are poor and should be eligible.

Alternatively, the community approach could be used after the PMT is applied, with the community (or community leaders) asked to identify households that were excluded but should nonetheless receive the benefit and households that were included but should not have been. It seems that Nicaragua used the community approach for refining the results of a PMT in the Atención a Crisis programme implemented in 2005–2006 in rural areas of the country (Macours et al, 2012). It is unknown whether the community approach has ever been used as the basis of a unified targeting mechanism across a range of different programmes rather than for a particular programme or benefit.

In **multidimensional targeting**, a checklist of characteristics is identified and then each household is scored against these characteristics. Given that the relevant characteristics are not derived from a regression and are not given weights according to the degree of their influence on income or expenditure, this approach could be considered a simpler—and less scientific—version of a PMT. The approach would have similar incorrect exclusionary characteristics as a PMT if measured against other measures of poverty (see, for example, Diaz et al, 2014, for Grenada).

In **self-identification**, the benefit is defined in a way that makes it unattractive to households that are not extremely poor, for example through payment of a very low wage on a public employment scheme. This approach does not seem appropriate for a targeting mechanism that is to be the basis of a unified system unless all benefits are of very limited value.

With **direct questions about income**, instead of proxy questions the household or individual is asked about all income streams. Concerns about the accuracy (or lack thereof) of responses to such questions were among the motivations for the PMT approach. Responses could be inaccurate because of the difficulty of determining a standard amount where income varies

(e.g. in informal employment). Responses could also be inaccurate because applicants do not declare all of their income in order to qualify as eligible. These are valid concerns, but the degree of possible inaccuracy needs to be compared to the exclusion and inclusion errors of the PMT. If questions about income are asked, at least some of the dishonest applicants can be excluded by checking identification numbers against available databases such as government employment and tax records.

## Cost Considerations

In some cases, PMTs are used to assess the poverty status of all households in a country so as to determine those who should be eligible for benefits. This approach requires that every household be interviewed, unless there is recent census data that includes all the necessary variables for the PMT. The disadvantages of this approach include the costs involved in covering all households or, if a census is used, the problem that the data will soon be out of date—censuses are typically conducted only every ten years.

In other cases, as seems to be proposed for Saint Lucia, the PMT is applied only to those who apply for benefits. This approach will usually result in substantial cost savings because the test is applied to far fewer households. However, it increases the likelihood that households that would have been eligible are excluded because they do not apply.

Where a special PMT questionnaire is used, the cost and burden associated with a PMT is influenced by the length and nature of the questionnaire. The SL-NET questionnaire is two pages long and collects only the information required for the test. However, the Saint Lucia SSNA notes that internationally, most of the programmes that use a PMT still require an interviewer or social worker to visit the household to fill out the proxy-means testing form and to verify the household conditions as reported on the application form (Blank, 2009: 46). This would clearly involve additional costs.

## Appeal Mechanism

A rights-based approach requires that both citizens and government (as duty-bearers) have full knowledge of citizen entitlements. In some cases, countries do not disclose the variables and weights used so as to reduce opportunities for manipulation. Periodically changing variables and weights can serve this purpose, but will reduce the reliability of the targeting unless the situation being modelled has changed. In addition, lack of disclosure undermines the requirement that citizens know their entitlements.

Because exclusion errors are inherent to the PMT equation, even when the PMT is applied perfectly it will deny rights fulfilment to many who should be eligible. Therefore, a rights-based approach also requires that citizens who feel that their rights have not been fulfilled can appeal adverse decisions. An appeal mechanism that is restricted to ensuring that the PMT is applied correctly would not ensure rights as it would not correct for exclusion errors. The appeal mechanism would, instead, need to allow for all factors to be taken into account in deciding whether the household is eligible. This might then, however, be seen as undermining the 'scientific' nature of the PMT and reintroducing subjective judgement. With exclusion errors at 16 percent for the SL-NET at the poverty line cut-off, the issue is not minor. Further, relying on those excluded to institute an appeal is likely to discriminate against the most disadvantaged who do not have the knowledge, resources and confidence to institute an appeal.



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# NOTES





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