

DISAGGREGATING POVERTY STATISTICS – THE PROMISE OF POVERTY MAPS – DOMINICA

Background/Context

Dominica is small Eastern Caribbean island with a population of 71,000 (51%males,49 % females-census 2001). It is the largest of the Windward Islands with a total land space of 289 square miles, measuring 29 miles long and 16 miles wide. The economy is primarily agricultural, concentrated in bananas for which Dominica together with the other windward islands enjoys preferential access to the UK and European market. The island also has a small manufacturing sector, a tourism sector and an infant off-shore sector. Although incomes are relatively high at US\$3140 per capita, the macroeconomic situation remains extremely volatile.

Dominica is currently experiencing an unprecedented decline in output and marked deterioration of its fiscal position, mainly due to a severe worsening of its external environment because of the declining preferential market access for its banana exports, the events of September 11, 2001 on tourism, the current global economic slow down and a retrenchment of its offshore sector due to increased international scrutiny.

Consequently government has had to embark on an Economic Stabilization and Recovery Programme with the support of the IMF, World Bank, regional governments and institutions. While the programme is expected to stabilize government's fiscal position it will result in a deterioration in the poverty situation.

The Country Poverty Assessment (CPA)

In June of 2002, the Government of Dominica (GOD) set out to conduct a Country Poverty Assessment (CPA) with the assistance of the Caribbean Development Bank and the Department for International Development (DFID).

The objective of the assessment was to do the following:-

- To determine the characteristics, extent and causes of poverty in Dominica;
- To identify effective strategies , programmes and projects at reducing the incidence of poverty in the country.

The assessment had three (3) major components:-

- A survey of living conditions (SLC);
- Participants Poverty Assessment (PPA);
- Institutional Analysis (IA)

The SLC was conducted by the National Statistics Office (NSO). The sample frame used was that from the 2001 census which was little more than a year old. A systematic sample of one in every ten occupied households in May 2001 was drawn from this sample frame for every second Enumeration District (ED). Half the EDs (around 150) were therefore sampled. The original sample size was 1,182 households from a Census household population of 24,000.

IN all 953 valid questionnaires were received giving a overall response rate of 80% rising to 86% if vacant and closed dwellings are excluded. The SLC therefore covered around 4% of the households listed in 2001, giving an overall weighting factor of approximately 25.

For the PPA seven (7) communities were chosen representing different levels of deprivation, social and economic orientation and background and location. The community studies involved a range of techniques including direct observations and transect walks, group discussions with community members, social mapping, focus group discussions, key informant interviews with local experts and case studies of poor individuals. The information was recorded on note books and on small tape recorders and then transcribed.

The Institutional Analysis involved visits to institutions, interviews with key persons and review of relevant documents. This component was conducted to determine to what extent current policies, strategies, programmes and projects target the poor.

METHODOLOGY

The CPA was conducted mainly on the basis of a poverty line. The poverty line was derived on the basis of a minimum cost food basket (MFB) for an adult to achieve a diet of 2,400 calories per day taking into account local dietary preferences and the need for a balanced diet. The total cost of this basket for an adult is EC\$5.51 per day which is equivalent to around EC\$165 per month and just over EC\$2000 per annum. The indigence line is defined as the cost of the MFB. Adults with total expenditure below this amount (EC\$2000 per annum) are classified as indigent or extremely poor. Essentially they are unable to satisfy even their basic food needs.

The poverty line on the other hand includes a component for non-food expenditure in addition to the MFB used in estimating the indigence line. The non-food element of the poverty line is calculated as the average per capita non food expenditure of the 40% of households with the lowest per capita total expenditure. From the SLC the average per capita non-food expenditure of the 40% of the households with the lowest per capita incomes was EC\$1,400 per annum. The adult poverty line is therefore $\$2,000 + \$1,400 = \$3,400$.

INSTITUTIONAL ARRANGEMENTS

The Caribbean Development Bank (CDB) provided administrative support and supervision for the project. At the local level a team of local level a team of technicians from the public sector, private sector and civil society were drawn together to form the National Assessment Team (NAT). The NAT supervised the Team of Consultants (TOC) and provided overall coordination. The work of the NAT was facilitated by a full time coordinator.

Major Findings:-

- The level of poverty in Dominica is high by East Caribbean standards: 29% of households and 39% of population.
- Poverty is more heavily concentrated in rural areas: more than 1 in 3 rural households are poor compared with 1 in 5 urban households.
- Nevertheless, a quarter of all poor households in Dominica are located in Roseau and Portsmouth.
- Poverty amongst the Caribs is very severe- 70% are poor and almost 50% indigent.
- Poor households tend to be larger and are more likely to contain children. Over half the children in Dominica live in poor households.
- Unemployment is much higher in poor households (40%) than in not poor households (18%).
- Poor households are more likely to contain a disabled person.
- Households with a adult with secondary/tertiary education: Poor : 27% - Not Poor: 45%.
- Households with tertiary education: Poor: 3% - Not Poor: 18%.
- Poor households are twice as likely to be overcrowded, lack kitchen, toilets, bathrooms, safe water or electricity.

CAUSES OF POVERTY

- High levels of un- and under-employment.
- Reduced incomes for many of those still working
- Single parenthood, family breakdown resulting from abandonment and emigration
- Inadequate support for the elderly living on their own

However, much of that information was provided at the parish level making it difficult to develop strategies and programmes specifically targeting poor households. The data has to be disaggregated below the parish level by use of a poverty map.

Poverty Map

Methodological Approach

The quantitative component of the poverty map consists of three distinct and clearly defined stages. The exercise involves detailed analysis of two main sources of data: a household survey (such as Dominica's 2002 SLC); and the population census (last collected in Dominica in 2001). In the first phase of the analysis (here called *zero stage*) the two data sources are subjected to very close scrutiny to identify a suitable set of common variables. In the second phase (*first stage*) the SLC survey is used to develop a series of statistical models that relate per capita consumption at the household level to the set of common variables identified in the *zero stage*. In the final phase of the analysis (*second stage*) the parameter estimates from the *first stage* are applied to the population census and used to predict per capita consumption for each household in the population census.

Once such a predicted consumption measure is available for each household in the census, summary measures of poverty (and/or

inequality) can be estimated for the households in the census. Statistical tests can be performed to assess the reliability of the poverty estimates that have been produced. If the estimates are judged not to be sufficiently reliable, it may be necessary to return to the *first stage* for further model specification. Alternatively, it may be necessary to increase the number of households over which the poverty measure is estimated (issues of statistical reliability will guide whether the poverty map can be reliably produced at the village level, for example).

When census and SLC data are combined the process benefits from the strength of each instrument: a census complete coverage of the country and the more detailed information from an SLC. The SLC provides the specific poverty indicators and parameters, based on regression models, to predict the poverty measures for the census.

Secondly the qualitative component of the poverty map involves actual visits to communities and localities to identify the poor households which emerged from the quantitative analysis. Once the households are identified basic information will be obtained on those households to be fed into a database. The findings of the qualitative component will be used to verify that of the quantitative component. In fact the qualitative assessment will allow for the verification of the variables used in the quantitative analysis.

BENEFITS OF THE POVERTY MAP

The Small Area Estimation technique being to be used will take the current level of poverty statistics below the parish level. This level of disaggregation will identify pockets of poverty that are currently difficult to identify in parishes with poverty above the national average as well as those below. The Country Poverty Assessment (CPA) 2002 and Social Protection Review (2003) identified the need for greater targeting of social protection programmes aimed at the poor. Current programmes such as the Dominica Social Investment Fund (DSIF) and the Basic Needs Trust Fund (BNTF-5) were designed based on parish level data. Their operations will benefit greatly from the

disaggregated data generated from the poverty mapping exercise.

The data generated from the poverty mapping exercise will allow for strategies, programmes and projects to be specifically targeted at the poor and vulnerable households in Dominica.

Secondly, it will allow for a monitoring system to be established to monitor the impact of poverty interventions on the lives of the poor.

Thirdly, it will permit for monitoring of progress in reducing the level of poverty in Dominica in line with the Millennium Development Goals (MDGs).

CONCLUSION

The current economic situation in Dominica is uncertain and will inevitably lead to a further deterioration of poverty in the island. The Country Poverty Assessment (CPA) 2003 recorded relatively high levels of poverty especially in rural Dominica caused mainly by the deteriorating situation of the agricultural sector primarily bananas.

The Economic Stabilization and Recovery Programme is laying the foundation for a return to economic growth. But employment creating growth is only likely in the medium to long term. In the short to medium term there is an urgent need to specifically target the poor through social protection programmes.

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