

# **Inter-Regional Preparatory Meeting in preparation for the Third International Conference on Small Island Developing States**

**Addressing Structural Deficiencies in Knowledge Gaps on Vulnerabilities in SIDS-  
Investing in Statistical, Human and Institutional Systems towards Enhanced  
Information for Decision Making**

## **Measuring Multidimensional Poverty in Barbados and the OECS**

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# SIDS Statistical System Infrastructure Context

- **Geographic and Institutional Characteristics**

- higher per capita cost of data acquisition,
  - e.g. larger sample requirements for valid results, we have to be strategic about what we collect due to the relatively higher cost of data gathering from the population per capita
- Confidentiality issues related to data are higher due to small population size

- **Human Resource issues**

- Staff have to be generalist and deal with many different statistical issues and cannot specialize as is required.
  - Need for continuous training and re-training to shore up the knowledge base, it is costly but unavoidable
- Due to our limited technical and human resource capacity we must leverage to our advantage external assistance, example we don't develop software but customize software already built on **“open data”** standards
- Due to small numbers, staff turnover can create large disruptions so wherever possible redundancies must be built to counteract these limitations.

# Why Multidimensional Poverty Measures (MPI)?

- Data are increasing as are technical measurement tools:
  - In the Caribbean region from the decade of the '90s through to today
    - Increasing availability of more data sources in addition to Census we have seen the introduction of and increasing frequency of LSMS type SLCs with CDB support, CWIQ Surveys and MICS with UN Agencies and Labour Surveys with increasing demand for data on employment and unemployment.
- Improvement of our methods
  - Income poverty: important but doesn't proxy key indicators
  - Economic Growth obscures weakness in the social fabric of society
  - No single non-income proxy
  - Income/expenditure is not a sufficient proxy of multidimensional poverty
- Political Reasons
  - National and International "demand" increasing for better measures
  - Political space for new current metrics

# Growth? Claims are strong...and debatable

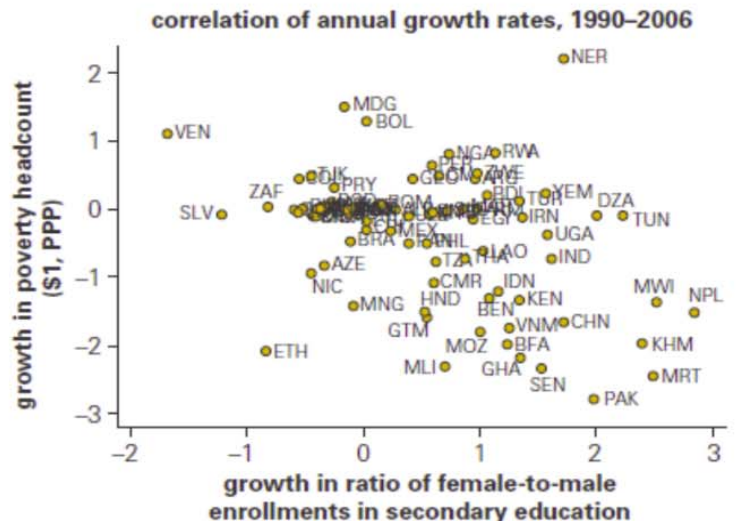
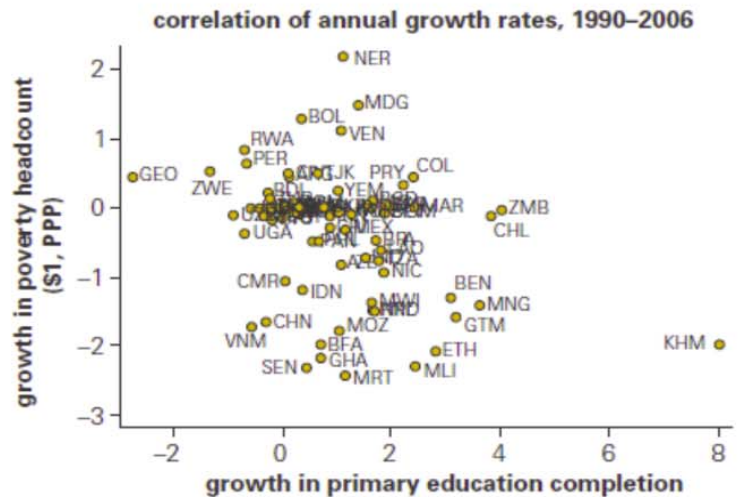
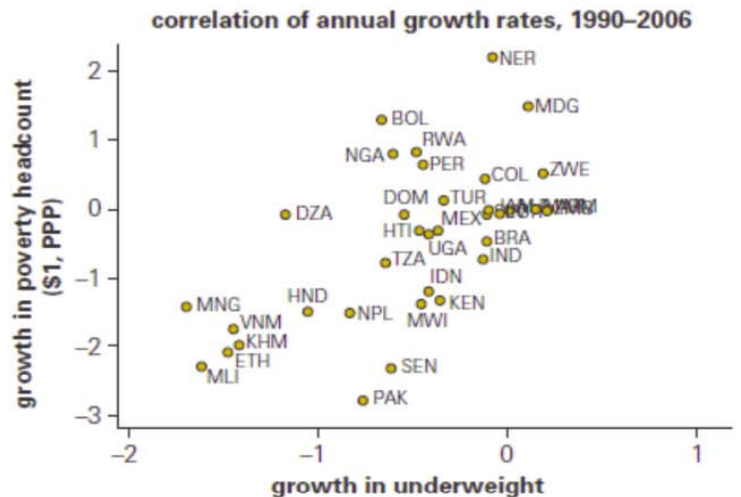
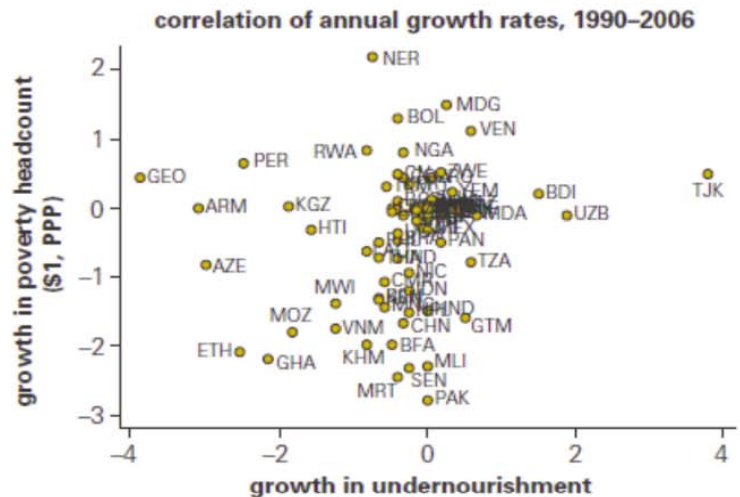
**“Growth is not an end in itself. But it makes it possible to achieve other important objectives of individuals and societies. It can spare people *en masse* from poverty and drudgery. Nothing else ever has.”**

- **2008 Growth Commission (Michael Spence)**

**‘The correlation between GDP per capita growth and non-income MDGs is practically zero... *This interesting finding suggests that economic growth is not sufficient per se to generate progress in nonincome MDGs. Sectoral policies and other factors or circumstances presumably matter as much as growth....***’

François Bourguignon, Agnès Bénassy-Quéré, Stefan Dercon, Antonio Estache, Jan Willem Gunning, Ravi Kanbur, Stephan Klasen, Simon Maxwell, Jean-Philippe Platteau, Amedeo Spadaro

Figure 2.3 Heterogeneity across MDGs



# Current Situation – Data Sources

- Potential Data Sources for Multi-Dimensional Poverty Measurement
  - Census 2010 – 2011 (Based on CARICOM Common Core Questionnaire)
    - Census Barbados, St Lucia 2010
    - Census Rest of OECS 2011
      - Pro: Many indicators are available to cover poverty dimensions to be considered
      - Pro: Highly geographically specific since data available at small geographic level
      - Con: Data availability and timeliness given the date census was conducted is a serious issue  
most countries have census data are still not published. UNFPA support is key here.
      - Con: limited specificity of measurement of some dimensions example education and in particular health
  - Labour Force Survey
    - Quarterly Survey in Barbados and St Lucia (commencement dates Oct 1975 and November 1992, respectively)
      - St Lucia Survey contains indicators on household assets which is frequently included in the measurement of wealth or in as indicators of Welfare or access to information in an MPI
      - Opportunity to with the inclusion of household assets to use these surveys as a vehicle to measure Multi-dimensional poverty
    - For the Rest of OECS Labour Force Surveys are ad hoc but there is a high policy demand for these surveys on a frequent basis

# Current Situation – Data Sources

- Summary of last round of CDB supported SLC, \* - Similar survey prior to 2003

Country	Type in Most Recent Year (with reference period)
	SLC+HBS with Diary
Barbados	2010 linked to 2009 HBS
<b>OECS Countries:</b>	
Antigua and Barbuda	2005/06(six mths)
St Kitts and Nevis*	2009(six mths)
Dominica*	2009(six mths)
Anguilla	2009(six mths)
St Vincent and the Grenadines*	2009(six mths)
St Lucia*	2005/06(six mths)
Grenada, Carriacou*	2009(six mths)
Monsterrat	2008(six mths)

- Pros:
  - Very comprehensive, measures most of the indicators necessary for an MPI, incl labour
  - Conforms with international methods for poverty measurement using uni-dimensional money-metric methods
- Cons:
  - Quality issues due to resource constraints in data collection.
    - Cloud connected tablet computers to program consistency checks and improve data quality

# Current Situation – Data Sources

- CWIQ
  - St Lucia 2004 and Grenada 2006
- MICS
  - Barbados and St Lucia 2012
    - Pros: High Quality Data Collection and Consultation Process and application of international best practice in survey implementation process
    - Pros: Contains high quality measurement of MDG indicators on Women and Children, particularly related to Health, Education and Assets
    - Cons: Cost to conduct and replication may require heavy external input in OECS Countries, however potentially much higher eventual societal cost if issues revealed by this source remains unknown.
    - Cons: Does not capture labor indicators for the potential inclusion in an MPI





# Current Situation – Methods:

## Basic Needs Approach:

“As a first step, it might be useful to define the best indicator for each basic need. At present the essential BN are considered to cover six areas: basic education, health, sanitation, water supply and housing and related infrastructure. This list is not exhaustive, nor do all needs listed have the same status. A limited set of core indicators covering these areas would be a useful device for concentrating efforts” (Hicks & Streeten, 1979).

Current Situation – Methods: Basic Needs Two approaches:

- **Modified “Unmet Basic Needs” index to rank population groups**
  - Applied in Censuses of 2001 and 2010, CWIQ and SLC/HBS
  - Used indicators based on Assets, employment rate, education of head, overcrowding and “intuitive” weights
    - Development of poverty maps for the 2001 and 2010 Census where available
    - Use of Census Data to rank communities by living condition index
- **Statistical Method, Filmer and Pritchett**
  - Applied in Census 2010 in St Lucia and is a standard output of MICS
  - The introduction of the Statistical method using PCA in 2010 (Principle Components Analysis)/Multiple Correspondence Analysis
  - Applied mostly using number of household Assets as an indicator of welfare

## ***Unmet “Basic Needs” Index at the level of Small Areas***

- This approach was used on the Census 2001 and 2010 in St. Lucia and a number of Other OECS Countries
  - Poverty Reduction Fund (SSDF) draws upon the poverty map as a method for targeting poor communities for policy intervention
- This approach was used on the Census 2001 of Grenada (GREP).

# Single-Dimensional Money-metric Approach Implemented in SLC supported by CDB

- Single dimensional achievement
  - Income, Expenditure, Calories
- Achievements of a society or a country can be represented by a vector or a distribution of expenditure
- Unit of analysis may be individual or household

### 3. Income poverty is not a proxy for key non-income deprivations

**Table 5. Lack of overlaps between monetary and CA poverty**

Capability poverty measured as	I (omission)	Education		Nutrition/health	
		Children	Adults	Children	Adults
% of CA poor not in monetary poverty:	India	43	60	53	63
	Peru	32	37	21	55
% of monetary poor not CA poor:	India	65	38	53	91
	Peru	93	73	66	94

Source: Franco et al. (2002).

II (inclusion)

Ruggieri Laderchi Saith and Stewart 2003. 'Does It Matter That We Don't Agree on the Definition of Poverty? A Comparison of Four Approaches', *Oxford Development Studies* 31(3): 243-74



# The Problem with our Uni-dimensional Expenditure per Capita Methods

- shows some changes with lag; others at once
- does not show *how* people are poor and
- affected by different policies
- have measurement error & data collection issues due especially to the extensive coverage of household and personal expenditures

# Problem of Many Indicators from Multiple Sources

“As communications instruments, one frequent criticism is that they lack what has made GDP a success: the powerful attraction of a single headline figure allowing simple comparisons of socio-economic performance over time or across countries” (Stiglitz, Sen, Fitoussi, 2009) .....*use method that has this elegance for communication where necessary.*

# The Problem of Many Indicators from Multiple Sources is:

When the base population coincides in part or in total, overlaps in deprivations are overlooked, ie. the **joint distribution** is ignored. Blind to joint deprivations (Ferreira, 2011; AFS, 2011)

*.....Use one primary data source constantly and consistently, but supplement it with MICS/DHS to investigate issues further*



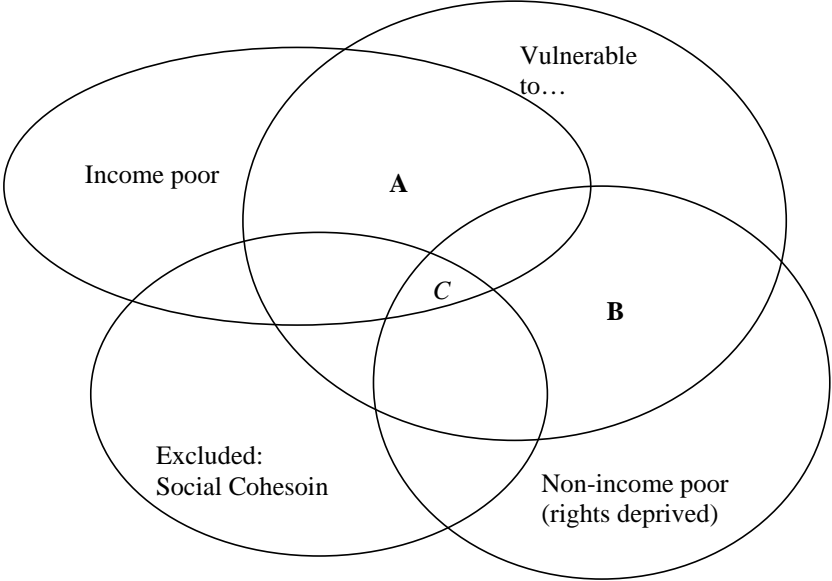
# Considerations for an MPI Measure in Barbados and the OECS

- Our Data Sources:
  - Decennial Census Best Source for Comparability across all countries but
  - Given the limitation that it is a once in a decade event, consider incorporating a household assets module within the Labour Force Survey and a module on Health periodically
    - Health Dimension will include BMI for women and weight to age ratios for Children
  - The World Bank is already supporting the OECS Secretariat with such an initiative and this can allow the production of an MPI on a regular basis
  - MICS because of its international attributes can be done at least once every five years to obtain more in-depth data on women and children.
- Our Consultative process can be based on Human Rights or MDG Framework and if possible be rooted in legislation to ensure broad based consensus on:
  - Dimensions and associated indicators for Health, Education, information, Assets as a proxy for living standards and attributable weights and cut-offs which draw a line between who is deprived and who is not.
  - Employment is **a Central Theme** of our national policy agendas and this dimension of the MPI must be represented in indicators, for example:
    - Money Income
    - Household Employment Rate or
    - Unemployed Youth and these must be weighted appropriately in the overall MPI

# Consultation on Multi-dimensional poverty using a human rights approach



# Combining other dimensions of deprivation and poverty



**C – Contains the set of persons with multiple deprivations and of most concern or persons who are severely deprived**

# Regional Examples of MPI

The Multidimensional Poverty Measurement developed by Coneval (Mexico) is a bi-dimensional measure. The model's conceptual framework is the human rights approach and the dimensions included in the model are guided by the Social Development Law (2004).

Columbia has its own version of the MPI



# Considerations for an MPI Measure in Barbados and the OECS

- This methodology must be robust and deeply rooted in a widely accepted theoretical axiomatic framework such as Alkire/Forster which is akin to Forster-Greer-Thorbecke from the Uni-dimensional expenditure based approaches which has been used widely in the Caribbean region.
- Measures derived using this axiomatic framework can be summarized as with GDP or as is done with the money-metric approaches, example a poverty or headcount rate associated with all deprivations with respect to the total population can be derived from a single dataset even one where consumption expenditures are not measured.
- Our measures based on this framework will be additively decomposable and therefore lend itself to potentially intensive policy use:

# Considerations for an MPI Measure in Barbados and the OECS – Our Objective is to facilitate better policy responses:

*We will be able to associate poverty with specific types of deprivations for each region and this will allow better targeting of deprivations.*

*-One National summary MPI Poverty rate which is decomposable by subpopulation groups, the working poor, poor mothers, children etc.*

*-One MPI poverty rate for each region allowing comparison of regions based on the elegance of one rate*

*This rate will be decomposable into the elements which affect the population most in the region be it a health, education or a labour related deprivation in order of importance thereby lending itself to varying policy responses based on how people are poor.*

# OUR MPI SHOULD BE LIKE A HIGH POWERED LENS

You can zoom  
in to see more

