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**Global Versus Country-Specific Measurement – Do they
Draw the Same Picture of Child Poverty?
The Case of Vietnam**

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Global versus country-specific measurement – Do they draw the same picture of child poverty? The case of Vietnam

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-Abstract-

Child poverty can be measured on a global scale, using approaches that aim to make cross-country comparisons, or at a lower level of analysis, aiming to capture a country's specific poverty context. The underlying rationales for the design and use of these child poverty approaches have great implications for their theoretical and conceptual frameworks. This paper investigates whether the increasing trend to analyze developmental issues at a global level provides different outcomes in terms of child poverty compared to the use of a country-specific approach. Vietnam is used as a case study. Findings suggest that the approaches capture different groups of children in terms of domain vulnerabilities but do not point towards significant differences with respect to demographic decomposition. The findings are a valuable contribution to the discussion on the relevance of the use of global concepts for the assessment of more local issues, underlining the argument that a tailor-made approach might be preferable to a general one.

Keywords: child poverty, multidimensional poverty, poverty measurement

Introduction

Different ways of measuring poverty can tell different stories about children's lives. Within the child poverty literature, it is widely recognized that a multidimensional child-specific approach to poverty is of great importance to complement the household poverty measurement (e.g. Minujin et al. 2005). Children are dependent on their direct environment for the distribution of resources for the fulfillment of their basic needs, calling for the use of a poverty measurement that considers the child as a unit of analysis rather than the household or community it lives in (White, Leavy and Masters 2002). Poverty manifests itself as a vicious cycle and poor children often grow up to be poor adults (Corak 2006a). Child-focused poverty measurement can provide valuable information to break this cycle. Further, children have different basic needs than adults and a lack of these basic needs can have life-long adversary impacts (Waddington 2004). A child-focused poverty approach provides insight into the degree to which basic needs are not met and how this impacts children's lives. Finally, a practical and sound child poverty approach can not only demystify the state of children's well-being but also provides an important tool for the design, formulation and evaluation of policies geared towards the enhancement of children's lives (Ben-Arieh 2000).

Several studies have attempted to capture child poverty through conceptualization and measurement (Roelen and Gassmann 2008). The majority of these attempts take a global perspective, aiming to draw a picture of child poverty in a comparative manner at a regional or global level. Examples of these are the EU Child Well-being Index, comparing performance of child well-being within the EU region (Bradshaw et al. 2006), the US Child Well-Being Index that specifically compares and ranks the individual US States' performances over time (Land 2005, 2001) and the Bristol deprivation study that compares child poverty figures in 46 developing countries on a global scale (Gordon et al. 2003a, 2003b). These approaches draw from national or state-level data and provide an aggregate and standardized picture of the reality of children's lives in the specified geographic areas. These types of studies, with inter-country comparison being their primary purpose, might be less capable of capturing the specific dynamics and characteristics of child poverty within a given country. An approach that is specifically designed to identify and capture the country-specific context might tell a different story of and give more insights into the aspects of in-country child poverty. In this paper, we investigate whether the underlying conceptual differences between the global and country-specific approaches also lead to different child poverty estimates. The case of Vietnam is used for the application of both approaches and analysis of results.

In the past two decades, Vietnam has experienced a period of outstanding rapid economic growth after the Doi Moi (renovation) reform policies came into place in the late 1980's, accompanied by a large reduction of poverty. Central planning made way for free-market oriented economic policies, bringing about great changes in the agricultural sector, private business and employment development, foreign trade and social sector policies, creating business and entrepreneurial opportunities for Vietnamese as well as foreigners. The reforms proved to be greatly beneficial for Vietnam's economic performance, with average economic growth rates of 6.9 percent from 1988 to 1994 and 7.4 percent from 1994 to 2000 (Glewwe 2004). Furthermore, monetary poverty was also reduced notably;

from 58 percent in 1993 to 19.5 percent in 2004 (VASS 2006). These poverty figures can be decomposed by various demographic groups and are often presented by region, gender and ethnicity. However, representation per age group is less common and, as a consequence, little is known about the state of child poverty. Further, the monetary measure does not provide a picture about other important aspects of children's lives including education, nutrition, health and social participation, among others.

The acknowledgement of the need for a child-focused poverty approach in Vietnam to visualize children in a comprehensive, multidimensional manner and provide information for policy input and monitoring has led to the development of a tailor-made child poverty approach for Vietnam (Roelen et al. 2006). This child poverty approach serves as a specific illustration of a country-specific approach. The global approach, with which the country-specific approach is compared, is represented by the Bristol deprivation approach developed by Gordon et al. (2003a, 2003b). The results of the application of these approaches to the specific case of Vietnam are compared and analyzed to assess the question whether global scale measurement provides a different picture than tailor-made country-level measurement does. The findings provide valuable input into the debate on global and comparative measurement versus country-level and specific measurement. The paper is structured as follows. First, the underlying theory and concept of both approaches and their commonalities and differences are discussed. Second, the data and method used are explained. Next, the results are presented and discussed and finally, a conclusion is drawn from our analysis.

Theory and concept

The approach by Gordon et al (2003a, 2003b), from here onwards referred to as the global approach, and the country-specific approach share a number of common characteristics but also display fundamental differences. Commonalities include the multidimensional perspective, the use of children's rights and needs as conceptual underpinnings, the use of quantitative data and methodologies for the calculation of poverty incidence rates. The main difference between both approaches can be found in the methods and criteria employed for the selection of domains and indicators and, as a result, the actual domains and indicators used for the operationalization of the child poverty approach.

The majority of approaches aiming to measure child poverty has recognized the importance and need for a multidimensional stance towards poverty (Roelen and Gassmann 2008). Poverty is more than a monetary issue and measures of such should thus also incorporate other areas of deprivation (e.g. Waddington 2004, Minujin et al 2005). However, not all of these approaches have also translated this conceptual logic in its actual implementation. For example, Corak's approach to the measurement of child poverty for rich nations (Corak 2005, 2006b) conceptually builds upon multidimensional notions of poverty but de facto employs a unidimensional monetary measure. This is due to the six principles for best practices that emphasize practical implementation and

interpretation for the child poverty approach (Corak 2005, 2006b)¹. The global approach as well as country-specific approach can both be regarded as multidimensional in concept and in implementation (Roelen et al. 2006; Gordon et al. 2003a, 2003b). Within the conceptual framework, a range of domains and indicators is chosen to give a comprehensive picture of child poverty in different areas of deprivation.

A second commonality, in line with the majority of child poverty approaches, is the use of the Conventions of the Rights of the Child (CRC) together with the basic needs framework as the basis for the multidimensional framework of both approaches (Roelen and Gassmann 2008; Gordon et al. 2003a, 2003b). Within the CRC, a denial of constitutive rights can be regarded to contribute to child poverty (Delamonica 2007)². The needs defined under the basic needs approach and the constitutive rights formulated under the CRC are largely overlapping and point to the same areas of development for children. Hence, they complement and reinforce each other as underlying lines of thought for child poverty.

Further, the global and country-specific approach both use predominantly quantitative information for poverty estimates, building on secondary qualitative information for the underlying conceptual framework and verification of results. Other child poverty approaches are known to have a stronger focus on the inclusion of qualitative methods, including the Young Lives study³ and DEV framework⁴ (Roelen and Gassmann 2008; Feeny and Boyden 2003; Young Lives 2001). The Young Lives project aims at long-term combined qualitative and quantitative research to investigate the changes in child poverty in four selected countries over a period of 15 years (Young Lives, 2001). The DEV framework rejects the emphasis that is generally placed on statistics and quantifiable outputs in the child poverty literature. Instead, it builds upon a framework that acknowledges the complexity of poverty and the experiences of children themselves (Feeny and Boyden 2003). As a result, however, the DEV approach becomes more difficult to implement and use for child poverty measurement. To keep the child poverty approach feasible and employable as a practical tool for advocacy and policy input purposes, the global and country-specific approach are foremost quantitative approaches that can be complemented with qualitative information.

The method of aggregation of the quantitative results is a final commonality between the global and country-specific approach. Results are presented at different levels of aggregation but all in the form of poverty incidence rates as opposed to, for example, an index score. Index scores are used within the EU Child Well-Being Index study by Bradshaw et al (2006) and the US Child Well-Being Index study by Land (2001, 2005).

¹ The six principles of Corak's practical approach include the avoidance of unnecessary complexities, the use of a limited number of complementary indicators to income measures, the inclusion of social norms in the drawing of poverty lines, regular updating of indicators, the use of a fixed as well as moving poverty line and the building of public support for poverty reduction (Corak 2005, 2006b).

² Delamonica (2007) argues that children's rights can be divided into constitutive rights and instrumental rights. A denial of constitutive rights can be considered as (leading to) deprivation while a denial of instrumental rights can not.

³ The Young Lives project is an initiative of DFID and Save the Children, UK, started in 2001 and is conducted in Ethiopia, India, Vietnam and Peru (Young Lives 2001).

⁴ DEV framework stands for Deprivation, Exclusion and Vulnerability framework and was developed by the Christian Children's Fund (CCF) to assist CCF staff and other stakeholders in deepening their understanding of child poverty and its related issues (Feeny and Boyden 2003).

The use of index scores provides the opportunity to display the relative performance on child well-being for the specified units of analysis and rank them as such. The use of an index, however, holds the disadvantage that it does not provide any information on the absolute performance and the index scores as summary statistic does not have a strong intuitive meaning. A child poverty incidence rate, on the other hand, can easily be interpreted as the proportion of children suffering from poverty. The aggregation methods used for the country-specific as well as global approach are the union approach (Atkinson 2003) and the dual cut-off identification strategy (Alkire and Foster 2007).

Despite these similarities, the global and country-specific approaches also display crucial differences that can have great impact on their poverty estimates. These differences are predominantly the result of the underlying purpose and rationale for the development and use of the child poverty approaches. The global approach was designed for the purpose of international comparison (Gordon et al. 2003a, 2003b) and thus not necessarily geared to capture the national context of child poverty. The country-specific approach, on the other hand, was mainly developed to gain an insight into the Vietnam-specific characteristics of child poverty without considering the use of the approach for international comparability purposes (Roelen et al. 2006). As a result, different mechanisms were at work for the selection of domains and indicators representing the areas or dimensions of child poverty and different criteria for the identification of indicators were adhered to. The selection of domains and indicators within the global approach is based on purely conceptual and theoretical foundations, not considering participatory processes or other selection mechanisms⁵. It employs a standard list of domains and indicators for all countries in the study, ranging from Asia to Africa and Latin America, to make direct comparisons possible. The wide social and cultural diversity and its implications on children's lives are not taken into consideration in the application of this approach. The choice of domains and indicators for the country-specific approach, on the other hand, is based on the living conditions and the direct as well as indirect environment of children in the specific country. The final selection is based upon a mix of methods, including expert opinions, conceptual and theoretical foundations, data availability, participatory processes and sensitivity and responsiveness analysis.

Further differences between the global and child-specific approach can be observed with respect to the indicator criteria. The criteria for indicators within the global approach primarily focus on the comparative characteristics of indicators over time and place, their multidisciplinary nature and aspects of feasibility (Gordon et al. 2003a, 2003b). The country-specific approach employs criteria that place greater emphasis on the child as unit of analysis and the incorporation of country-specific characteristics. Indicators are to be measured at the child-specific level, be easily observable and measurable, be easily interpretable, be factual, be Vietnam-specific, be decomposable by gender, age, location and ethnicity and measure outcomes (Roelen et al. 2006). For both approaches, we should note that indicators adhering to these criteria are ideal indicators. The majority of indicators will de facto not meet all of the above criteria, forcing us to work with imperfect measures. Nevertheless, the criteria serve as important guidance for the selection of indicators that fit the underlying conceptual and theoretical framework.

⁵ For a detailed account of the selection mechanisms that can be used for the selection of domains and indicators within a multidimensional (child) poverty approach, see Alkire (2008) and Biggeri (2007).

A final fundamental difference between the global and country-specific child poverty approach lies in the formulation of indicators and threshold setting. While the global approach errs on the side of caution and uses very restrictive thresholds (Gordon et al. 2003a, 2003b, Delamonica and Minujin 2006), the country-specific approach employs cut-off points relevant within the social and cultural context (Roelen et al. 2007). The thresholds determined under the global approach employ much lower standards for vulnerability for the various dimensions of deprivation. The country-specific approach uses the average standard of living and perceptions about child well-being as a benchmark for the determination of thresholds and is more inclusive with respect to child vulnerability and deprivation.

The global approach employs 7 domains with a total of 11 indicators, while the country-specific approach consists of 8 domains including 15 indicators. Both approaches incorporate the dimensions of education, nutrition, health, shelter, water and sanitation as separate domains. The global approach distinguishes between water and sanitation as two separate domains and incorporates information as a separate issue. The country-specific approach bundles water and sanitation in one domain and further includes the domains of labor, leisure and social inclusion and protection. The full lists of domains and indicators of both approaches are presented in Table 1.

Table 1 Domains and indicators of the Global and Country-specific approach

Global Approach		Country-specific approach	
1. Education		Education	
1	gross enrollment rate: children that have never attended school and are not currently attending school as a percentage of all children, age 7-15	1	net enrollment rate
		a	children in age 3-5 attending pre-school as a percentage of all children in age 3-5
		b	children in age 6-10 attending primary school as a percentage of all children in age 6-10
		c	children in age 11-15 attending lower primary school as a percentage of all children in age 11-15
		2	completion rate: children in age 11-15 that have completed primary education as a percentage of all children 12-15
2. Nutrition		2. Nutrition	
1	Children that are underweight as a percentage of all children, age 0-4	1	Children that are underweight as a percentage of all children, age 0-4
2	Children that are stunted as a percentage of all children, age 0-4	2	Children that are stunted as a percentage of all children, age 0-4
		3	Children that are wasted as a percentage of all children, age 0-4
3. Health		3. Health	
1	Children not having received any immunization as a percentage of all children, age 0-4	1	children in age 2-4 that have received full immunization as a percentage of all children age 2-4
2	Children that had diarrhea in the last two without drinking rehydration fluids as a percentage of all children, age 0-4		
4. Shelter		4. Shelter	
1	Children living in dwellings with more than 5 persons per room as a percentage of all children, age 0-15	1	children living in a dwelling with electricity as a percentage of all children age 0-15
2	Children living in a dwelling with natural/mud floor as a percentage of all children, age 0-15	2	children living in a dwelling with natural/grass roof as a percentage of all children age 0-15
		3	children living in a dwelling with natural/mud floor as a percentage of all children age 0-15
5. Water		5. Water and Sanitation	
1	Children having access to surface water only for drinking purposes as a percentage of all children, age 0-15	1	children living in a dwelling with hygienic sanitation facility as a percentage of all children age 0-15
2	Children living in households that are at least 15 minutes away from nearest water source as a percentage of all children, age 0-15	2	children drinking safe drinking water as a percentage of all children age 0-15
6. Sanitation			
	Children having no access to a toilet or sanitation facility as a percentage		

	of all children, age 0-15		
7. Information		6. Labor	
1	Children not having access to radio, tv or telephone in the household as percentage of all children, age 0-15	1	children age 5-14 that have worked for an employer, in household production or self-employer in the last 12 months as a percentage of all children age 5-14
		7. Leisure	
		1	children in age 0-4 that do not store bought or home-made toys worth as a percentage of all children age 0-4
		2	children in age 0-4 not having at least one children's or picture book as a percentage of all children age 0-4
		8. Social Inclusion and Protection	
		1	children in age 0-4 not having a birth registration as a percentage of all children age 0-4

Note: Nutrition is included as a separate domain due to its theoretical significance in both approaches. However, lack of data prevents us from incorporating this domain into our empirical estimations and results.

Data and Methodology

Data

The data used for our study is the Multiple Indicator Cluster Survey (MICS) from 2006. This household survey provides child as well as household specific information that are crucial for child poverty estimation. The Vietnam MICS is based on the standardized MICS surveys as technically supported by UNICEF. The first and second round was conducted in 1995 and 2000, while the third round was completed in 2006. The survey contains a range of questions especially focused on education, health, reproductive health, HIV/AIDS and is separated into a questionnaire for households, women of reproductive age and children under five. Regions were identified as the main sampling domains and the sample was selected in two stages, based on enumeration areas from the census (GSO, 2007). The sample consists of a total number of 10.861 households with 36.573 individuals out of which 10.874 are children up to 16 years of age.

Opportunities

Household surveys like the MICS provides micro-data or, in other words, data at the individual child level. This offers the possibility to derive all deprivations back to the individual child, thereby creating the possibility to make cross-tabulations and create poverty profiles. The survey provides data on a range of issues related to children's well-being and poverty, providing information in the majority of the conceptually defined domains.

Limitations

This study is subject to a number of limitations, which are largely the result of the data used. A first limitation is that nutritional data is not available from MICS 2006. Rather than including the module on anthropometric measures in the MICS 2006, it was part of Vietnam Household Living Standards Survey (VHLSS) 2006. As the VHLSS uses a different sample than the MICS does, nutritional information can not be derived back to individual children and be incorporated in this study. Second, the sampling method of the MICS causes a substantial group in the society to be omitted from the sample and subsequent data. The survey sample is constructed on the basis of the official lists of registered households in communes and urban wards in Vietnam that have lived in the enumeration area for at least six months (Pincus and Sender 2006). This implies that households or individuals that have recently migrated are not included in the sampling frame. Further, due to the strict the household registration system, or *ho khai* system, many households and individuals do not satisfy the necessary criteria to newly register and stay unregistered. The omission of this group in society is not only an important issue to point out because of its suspected significant size but even more so because of the denial of social and public services they experience due to their status. The structural exclusion of this group from the data will most likely present us with underestimations for all indicators. Third, the data is only representative when broken down to regional level but does not permit us to consider child poverty at a lower level of disaggregation, such as the province or district. This limits in the use of the child poverty measurement approach for geographic comparative purposes in Vietnam.

Methodology

The issue of child poverty is considered at three different levels of aggregation for the global as well country-specific approach. At the lowest level of aggregation, we find the most detailed information from the individual indicators. The second level of aggregation presents domain vulnerability rates and the final level of aggregation is constituted by the child poverty rates, referred to as severe deprivation or absolute poverty.

Individual indicators can be broken down by gender, age, area and region to provide as detailed information as possible and renders a direct method of comparison between the global and country-specific approach. The indicators are dichotomous or binary indicators, indicating whether a child is below or above a pre-determined threshold. We refer to the percentage of children falling below the specified threshold per indicator as the indicator vulnerability rate. This can be denoted as follows:

$$IV = \frac{\sum_{i=1}^n I_i}{n} \quad (1)$$

where n stands for all children for which the indicator is observable and I_i represents a dichotomous variable with value 1 if the child is below the indicator threshold and thus vulnerable and value 0 if the child meets the threshold and is not vulnerable.

At the next level of aggregation, the domain vulnerability rate reflects the rate of children experiencing vulnerability within a specific domain as a percentage of children for whom the indicators within that domain are observable. The domain vulnerability rate is given by

$$DV = \frac{\sum_{i=1}^n D_i}{n} \quad (2)$$

where n represents all children for which the indicators are observable and D_i stands for domain vulnerability, a dichotomous variable with value 1 if the child suffers vulnerability within the specific domain and value 0 if the child does not suffer vulnerability. A child is considered to suffer domain vulnerability if it experiences indicator vulnerability for at least one indicator within that domain:

$$D_i = 1 \quad \text{if } \sum_{i=1}^d I_i \geq 1 \quad (3)$$

where d stands for the total number of indicators identified per domain.

The construction of the aggregate child poverty figures is based on the union approach (Atkinson 2003) and dual cut-off identification strategy (Alkire and Foster 2007)

methodology and builds upon the domain vulnerabilities. Two different poverty lines are used to determine the headcount of child poverty, the severe-deprivation line (union approach) and absolute-poverty line (dual cut-off identification strategy). A child is considered severely deprived when it is vulnerable in at least one of the domains and absolute poverty is constituted by deprivation in two or more domains. The rates for severe deprivation and absolute poverty can be written as follows:

$$SevDep = \frac{\sum_{i=1}^N Sev_i}{N} \quad (4)$$

$$AbsPov = \frac{\sum_{i=1}^N Abs_i}{N} \quad (5)$$

where N represents the full sample size of children aged 0-16 and Sev_i and Abs_i represent dichotomous variables with value 1 if a child suffers severe deprivation or absolute poverty:

$$Sev_i = 1 \quad \text{if } \sum_{i=1}^D D_i \geq 1 \quad (6)$$

$$Abs_i = 1 \quad \text{if } \sum_{i=1}^D D_i \geq 2 \quad (7)$$

where D stands for the total number of domains within the specific approach.

Severe deprivation and absolute poverty are not mutually exclusive concepts. Children that are identified as absolutely poor are by definition also identified as severely deprived since they suffer more from more than one domain vulnerability.

A limitation of the data and methodology used within both approaches is that not all indicators can be observed for all children. Due to questionnaire design, information for the education, health, labor, leisure and social inclusion and protection domains is only available for children in specific age brackets. Indicators that are collected at the household level, including shelter, water, sanitation and information are available for children of all ages. As a result, the presented domain vulnerability and poverty rates likely represent underestimations of actual child poverty. A child, for whom vulnerability for a specific indicator is unobservable due to the restrictive age categories, is automatically counted as not deprived. The use of our poverty rate definition circumvents this problem to a certain degree. As the poverty definition does not consider the total number of deprivations, or a percentage of that, as a measure of poverty but the experience of one, two or more domain deprivations, it ensures that children of all ages can theoretically be included.

Results

On the basis of our methodology, we calculate the rates of severe deprivation and absolute poverty for the global and country-specific approach. The results are presented in Table 2. High child poverty rates are observed for both the global and country-specific approach. The rates are considerably lower for the global approach than the country-specific approach with an overall rate of severe deprivation of 39 percent compared to 66 percent and rate of absolute poverty of 15 percent compared to 36 percent⁶. We observe similar patterns for both child poverty rates per demographic characteristic, including gender, area and region, for the global and country-specific approach. Poverty rates are similar for boys and girls, not conveying any significant degree of gender inequality. Rural poverty is more wide-spread than urban poverty with almost half of all children in rural areas identified as severely deprived by the global approach and 74 percent by the country-specific approach. Regional disparities are substantial with relatively low poverty rates for the Red River Delta and South East regions and high poverty rates in the North West and North East regions. The pattern of poverty per age category does not follow the same trend for the global and country-specific approach. Within the global approach, the rate of severe deprivation drops as the age of the children increases. The figures for the country-specific approach, however, display an initial drop in severe deprivation with an increase in age but a rise in rates from the age 11 onwards. A similar picture can be observed for absolute poverty.

Table 2 Severe deprivation and Absolute poverty (% all children)

	global approach		country-specific approach	
	<i>Severe deprivation</i>	<i>Absolute poverty</i>	<i>Severe deprivation</i>	<i>Absolute poverty</i>
Total	38.81	15.31	66.97	36.65
<i>Gender</i>				
Male	38.76	15.44	66.39	36.86
Female	38.87	15.16	67.58	35.42
<i>Area</i>	***	***	***	***
Urban	16.31	3.12	38.80	12.04
Rural	44.99	18.66	74.70	43.40
<i>Region</i>	***	***	***	***
Red River Delta	13.26	2.00	47.63	11.26
North East	56.93	35.31	80.20	58.76
North West	66.10	42.13	93.09	77.65
North Central Coast	37.96	9.44	68.49	30.95
South Central Coast	43.26	16.52	60.61	28.79
Central Highlands	44.09	22.18	74.21	40.53
South East	27.25	5.66	55.14	22.63
Mekong River Delta	55.22	21.29	83.20	59.95
<i>Age group</i>	***	***	***	***
0-2	50.39	18.14	82.98	51.12
3-4	46.10	21.97	76.50	52.04
5	44.61	19.13	60.52	28.08
6-10	37.65	15.89	56.21	27.30

⁶ The large differences between the severe deprivation and absolute poverty rates can be attributed to their specific methodology. As severe deprivation is determined by deprivation with respect to at least one domain, the vulnerability rate of a single indicator can inflate the overall poverty figure.

11-14	33.07	12.12	65.38	35.05
15	31.82	10.41	73.59	36.14

Source: Authors' calculations from MICS 2006

Note: *** indicates that poverty rates are significantly different at a p -value < 0.001.

Tables 3 and 4 present the domain vulnerability rates for the specific domains identified within the global and country-specific approach. The percentages indicate the proportion of children in reference to all children in the specific age group that suffer vulnerability in the various domains. For the global approach, we observe high rates of vulnerability for the domains of health, shelter and sanitation, ranging from 25 percent to 17 percent. A remarkably low vulnerability rate of 1.4 percent is presented for the education domain. The domain that is specific to the global approach, the information domain, holds a vulnerability rate of 13 percent. The highest rates of vulnerability within the country-specific approach can be attributed to the domains of leisure, water and sanitation and health, ranging from 69 percent to 32 percent. Leisure is one of the domains only included in the country-specific approach as well as labor and social inclusion. The latter two domains display vulnerability rates of 24 and 12 percent.

Table 3 Domain vulnerability rates – Global approach

		Vulnerability rate
<i>Education</i>	age 7-15, n=6972	1.38
<i>Health</i>	age 0-4, n=2680	25.10
<i>Shelter</i>	age 0-15, n=10874	17.18
<i>Water</i>	age 0-15, n=10874	8.12
<i>Sanitation</i>	age 0-15, n=10874	16.66
<i>Information</i>	age 3-15, n=9242	13.45

Source: Authors' calculations from MICS 2006

Table 4 Domain vulnerability rates – Country-specific approach

		Vulnerability rate
<i>Education</i>	age 5-15, n=8167	18.71
<i>Health</i>	age 2-4, n=1612	31.37
<i>Shelter</i>	age 0-15, n=10874	24.57
<i>Water and Sanitation</i>	age 0-15, n=10874	44.07
<i>Labor</i>	age 5-15, n=7228	23.67
<i>Leisure</i>	age 0-4, n=2680	69.09
<i>Social Inclusion and Protection</i>	age 0-4, n=2680	12.37

Source: Authors' calculations from MICS 2006

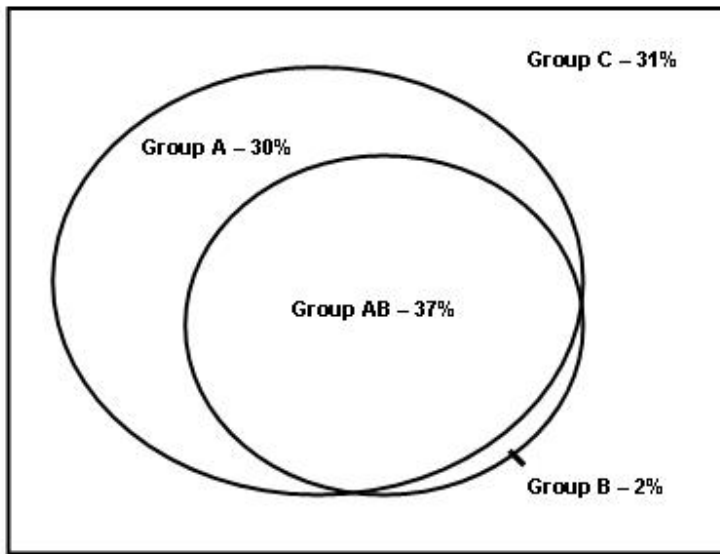
Linking the domain vulnerability figures back to the aggregate poverty rates can serve as a two-fold explanation for the higher rates of severe deprivation and absolute poverty in case of the country-specific approach compared to the global approach. Firstly, the formulation of the indicators and their specific thresholds serve as a reason for the higher domain vulnerability rates for the country-specific approach. The global approach employs errs on the side of caution and uses less demanding thresholds in setting the cut-off point determining indicator vulnerability. Take the example of the education indicators, the formulation of which can be found in Table 1 for both approaches. While the country-specific approach considers net enrollment as an appropriate determinant for education vulnerability, the global approach considers whether a child has ever attended school or not. The great disparity in the thresholds results in an education domain

vulnerability rate of 1.4 percent for the global approach and 21 percent for the country-specific approach. The large majority of indicators within the approaches follow the same trend. While the global approach formulates indicators and sets thresholds in a way that will only include the highly destitute children, the country-specific approach provides a more inclusive number.

The second part of the explanation for different child poverty levels can be attributed to the choice of domains and indicators within the underlying conceptual frameworks of the global and country-specific approach. The country-specific approach includes more domains and, within those domains, more indicators, which are capable of identifying more children as being vulnerable. Further, the domains included in the country-specific approach that are not part of the global approach (labor, leisure and social protection) have high domain vulnerability rates, inflating the aggregate poverty figures. The information domain that is part of the global approach and not included in the country-specific approach does not increase overall poverty rates to the same degree. The choice of domains and indicators can also explain the differences in age patterns for both approaches. The inclusion of the labor domain in the country-specific approach, for example, conveys considerably higher vulnerability rates for older children, causing higher overall poverty rates for children in the higher age categories.

The micro-data used in this study further enables us to analyze whether the global and country-specific approach also identify the same group of children as severely deprived or absolutely poor. Is there overlap in the children identified as poor or do both approaches include children with different characteristics due to the differences in included domains and indicators? Venn diagrams are used in Figures 1 and 2 to present investigation of this issue. Four different poverty groups can be identified. Group AB includes those children identified as poor by both approaches, group A stands for children identified as poor by the country-specific but not by the global approach, group B incorporates the children identified as poor within the global but not country-specific approach and group C are the non-poor.

Figure 1 Overlap Severe Deprivation

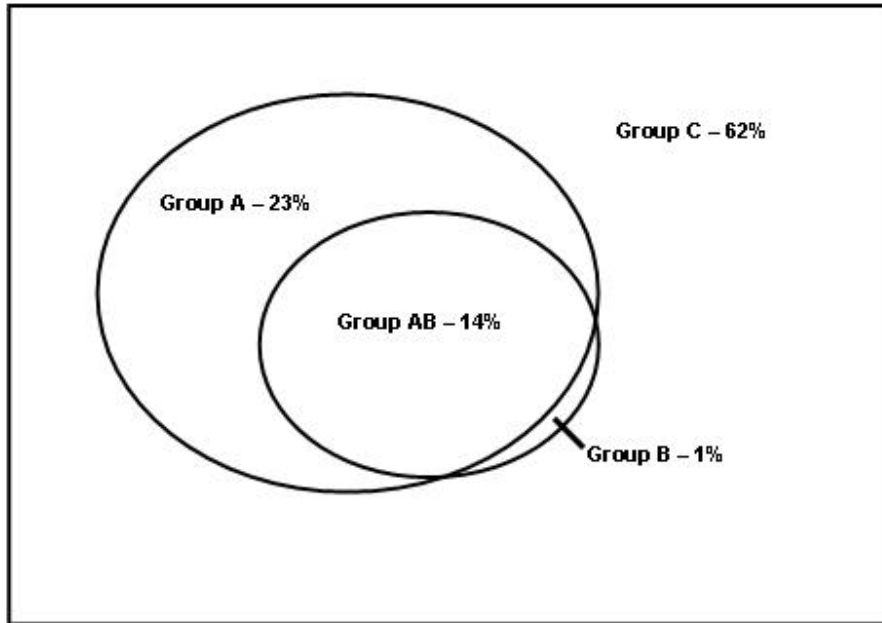


Source: Authors' calculations from MICS 2006

Note: group A – children severely deprived in country-specific approach, group B – children severely deprived in global approach, group AB – children severely deprived in both approaches, group C – not deprived

Figure 1 displays the overlap between the groups of children identified as severely deprived by the global and country-specific approach. The large majority of the group of children identified as severely poor by the global approach is also identified as such by the country-specific approach. As a proportion of all children up to the age of 16 years 37% are identified as severely deprived by both approaches. Only 2 percent of all children are considered severely deprived when using the global approach but not when using the country-specific approach. We can also observe that the country-specific approach is more inclusive than the global approach, capturing 30% of all children in addition to those already identified as severely deprived by the global approach. In other words, the country-specific approach captures twice as many children as the global approach does.

Figure 2 Overlap Absolute Poverty



Source: Authors' calculations from MICS 2006

Note: group A – children absolutely poor in country-specific approach, group B – children absolutely poor in global approach, group AB – children absolutely poor in both approaches, group C – not poor

Figure 2 displays a similar picture for the case of absolute poverty. More than half of all children are not identified as poor by either the country-specific or global approach. Merely one percent of all children identified as poor by the global approach are not considered as such by the country-specific approach. Further, the country-specific approach captures 23% of all children as absolutely poor that are not captured as such otherwise. The children that are identified as being poor by both approaches can be considered the core-poor. They are poor using the strictest criteria, meaning the absolute poverty measure, and their poverty status is insensitive to the approach used. This group represents 14% of all children up to the age of 16.

Further analysis of the groups of children identified by both or one of the approaches provides more information about their specific characteristics, which is crucial for the investigation whether the same types of groups are captured. A breakdown of demographic groups over the various poverty groups provides insight into their demographic composition. Further, gaining an understanding of the most urgent vulnerabilities can be done by breaking poverty group results down by domain vulnerability.

Table 5 Vulnerability rates for demographic characteristics and domain vulnerabilities as a proportion of child in specific poverty group

	<i>Severe Deprivation</i>				<i>Absolute Poverty</i>			
	<i>A n=3189</i>	<i>B n=200</i>	<i>AB n=4444</i>	<i>C n=3041</i>	<i>A n=2518</i>	<i>B n=162</i>	<i>AB n=1916</i>	<i>C n=6278</i>
	<i>Vulnerability rate</i>	<i>Vulnerability rate</i>	<i>Vulnerability rate</i>	<i>Non-poor</i>	<i>Vulnerability rate</i>	<i>Vulnerability rate</i>	<i>Vulnerability rate</i>	<i>Non-poor</i>
<i>Total</i>	30.03	1.87	36.94	31.16	22.63	1.29	14.01	62.07
<i>Gender</i>								
<i>Male</i>	29.52	1.89	36.87	31.72	22.51	1.09	14.35	62.05
<i>Female</i>	30.56	1.85	37.02	30.57	22.75	1.50	13.67	62.09
<i>Area</i>	***	***	***	***	***	***	***	***
<i>Urban</i>	24.43	1.94	14.36	59.26	9.44	0.52	2.60	87.45
<i>Rural</i>	31.56	1.85	43.14	23.45	26.25	1.50	17.16	55.10
<i>Region</i>	***	***	***	***	***	***	***	***
<i>Red River Delta</i>	36.52	2.15	11.11	50.22	10.07	0.81	1.19	87.93
<i>North East</i>	25.09	1.82	55.11	17.97	24.00	0.55	34.76	40.69
<i>North West</i>	27.43	0.44	65.66	6.47	36.54	1.03	41.10	21.32
<i>North Central Coast</i>	34.28	3.75	34.21	27.76	23.87	2.36	7.08	66.69
<i>South Central Coast</i>	19.47	2.12	41.14	37.27	15.91	3.64	12.88	67.58
<i>Central Highlands</i>	32.26	2.14	41.95	23.66	20.04	1.70	20.48	57.78
<i>South East</i>	29.32	1.43	25.82	43.43	17.61	0.64	5.02	76.73
<i>Mekong River Delta</i>	28.47	0.49	54.73	16.31	39.40	0.73	20.55	39.31
<i>Children in hh.</i>	***	***	***	***	***	***	***	***
<i>1 child <16 in hh</i>	29.19	1.02	35.10	34.69	24.30	0.70	7.60	67.39
<i>2 children <16 in hh</i>	32.95	1.58	30.28	35.19	22.22	1.07	11.31	65.41
<i>3 children <16 in hh</i>	42.98	2.19	28.23	26.60	22.22	1.04	18.36	58.38
<i>More than 3 children <16 in hh</i>	60.41	4.47	20.66	14.45	21.31	4.12	32.21	42.36
<i>Ethnicity</i>	***	***	***	***	***	***	***	***
<i>Kinh/Chinese ethnicity</i>	31.96	2.15	29.55	36.34	20.84	1.19	7.43	70.564
<i>Other ethnicity</i>	20.46	0.49	73.50	5.55	31.45	1.76	46.64	20.16
<i>Age group</i>	***	***	***	***	***	***	***	***
<i>0-2</i>	34.69	2.10	48.30	14.92	33.76	0.78	17.36	48.11
<i>3-4</i>	31.34	0.94	45.16	22.56	30.45	0.38	21.58	47.58
<i>5</i>	19.39	3.47	41.14	36.00	11.98	3.03	16.10	68.89

6-10	20.86	2.29	35.36	41.49	13.68	2.27	13.68	70.43
11-14	33.94	1.63	31.44	33.00	23.88	0.95	11.17	64.00
15	42.77	1.00	30.82	25.42	25.88	0.13	10.28	63.73
Country-specific approach								
Education	23.11		19.23		26.54		25.01	
Health	4.83		8.72		9.47		12.40	
Shelter	11.17		57.42		46.83		85.06	
Water and sanitation	42.58		84.70		83.24		97.31	
Labor	30.25		17.89		29.72		20.00	
Leisure	22.50		27.92		32.93		32.05	
Social Inclusion and Protection	1.94		6.71		6.30		11.19	
Global approach								
Education		0	2.41			0.83	3.88	
Health		15.60	15.99			6.64	21.11	
Shelter		25.21	45.22			36.62	70.41	
Water		7.02	21.64			35.52	32.70	
Sanitation		0	45.09			64.62	65.30	
Information		55.40	28.07			65.84	50.84	

Source: Authors' calculations from MICS 2006

Notes: The rates for demographic subgroups represent children in a specific poverty group as a proportion of all children in that subgroup. As a result the rates of groups A, B, AB and C add up to 100% per category. The domain vulnerability rates represent children from the specific poverty group as a proportion of all children in that poverty group. As domain vulnerabilities are not mutually exclusive, the rates do not add up to 100%

*** indicates that differences between poverty rates are significant at a p-value < 0.001.

Table 5 provides information about the poverty groups constituted by combining the country-specific and global approaches in terms of demographic characteristics and domain vulnerabilities. Per demographic group, the shares of the four poverty groups are presented as percentages of the total demographic group. The domain vulnerability rates represent the percentages of children in the specific poverty group suffering from domain vulnerabilities. As domain vulnerabilities are not mutually exclusive, a single child can suffer vulnerability in more than one domain. Hence, the total of all domain vulnerability rates per demographic group does not add up to 100 percent.

From the demographic figures, it can be observed that the gender composition of the poverty groups is not biased towards either boys or girls. The proportions of boys and girls over the various poverty groups do not display significant differences, regardless of the poverty method used. However, children living in rural areas are disproportionately poorer than children living in urban areas. While more than half of all children in urban areas are not severely deprived, more than 75 percent of those in rural areas belong to one of the severely deprived poverty groups. Regional disparities are also large and observable for all poverty groups. Merely 1 percent of all children living in the Red River Delta region are identified as absolutely poor by the global and country-specific approach, while this amounts to more than 40 percent for the North West region. Further, children living in households with more than 3 children typically belong to the various poverty groups in a disproportionate manner when compared to children living in households with fewer children. The aspect of ethnicity shows that children of another ethnicity than the Kinh/Chinese ethnicity are at a higher risk of poverty. 95 percent of children of other ethnicities are severely deprived according to either the country-specific or global approach or both. The poverty group shares by age group do not display a consistent pattern that could lead to the conclusion that younger or older children are more prone to poverty than others.

The analysis above provides insight into which demographic groups are more prone to poverty. However, it also shows that the demographic characteristics of the various poverty groups do not substantially differ between each other. Although the country-specific approach captures more children than the global approach and some demographic groups are more biased towards specific poverty groups, the demographic composition within these poverty groups is rather constant. Gender equality, the rural-urban divide and regional discrepancies, for example, hold for all poverty groups, regardless of the identification method or approach used.

An analysis of the domain vulnerability rates investigates the vulnerabilities suffered by each poverty group. With respect to severe deprivation, the figures in Table 5 show that the most frequently occurring domain vulnerabilities among the core severely deprived children (group AB) are water and sanitation and shelter. Almost 85 percent of all children in group AB suffer water and sanitation vulnerability and more than half experiences vulnerability in the shelter domain. Among children of group A, the domains of water and sanitation, education, labor and leisure present the highest vulnerability rates. More than 40 percent of the children identified as severely deprived by the country-specific approach suffer water and sanitation vulnerability, 23 percent experiences vulnerability within the education domain and 30 percent are labor vulnerable. Children

belonging to group B are mainly vulnerable in the information and shelter domains. More than half of all children in that group are information vulnerable and 25 percent is vulnerable with respect to shelter. With respect to absolute poverty, the domains holding the highest vulnerability rates for group AB are also water and sanitation and shelter with rates as high as 97 percent and 85 percent. Water and sanitation, shelter and leisure are the domains with the highest vulnerability rates for the children in group A. With respect to group B, more than half of those children suffer vulnerability in the domains of leisure and information. Only a very small percentage, less than 1 percent, of the children in group B are identified as vulnerable to education.

The formulation of indicators and their thresholds and the choice of domains and indicators within the country-specific and global approach largely explain the domain vulnerability rates for the various poverty groups presented in Table 5. The relatively high vulnerability rates for education and water and sanitation in groups A and AB can be attributed to the fact that the indicator thresholds within these domains set by the country-specific approach are considerably less demanding compared to the global approach. Due to the labor and leisure domains not being included in the global approach, the vulnerability rates for these domains are high for group A. The same argument explains the high vulnerability rate for the information domain for group B children. Further, the use of different thresholds for the shelter, health and water domains ensures that some children suffering these vulnerabilities are only captured by either one of the approaches. The low vulnerability rate for education for group B, for example, can be attributed to the fact that educational vulnerability within the global approach is defined in a strict way, excluding many children in that domain. In sum, children that identified as poor by only the country-specific approach, group A, experience high vulnerability in especially those domains specific to the country-specific approach and domains that employ strict formulations or thresholds within the global approach. By the same token, children that are only identified as severely deprived or absolutely poor by the global approach, group B, primarily experience vulnerability in the domain not included in the country-specific approach or those with different indicator formulations. Children captured by both approaches can be considered core-poor as they meet the criteria of both approaches in terms of thresholds and formulation of indicators.

Conclusion

In this paper, we investigated whether the use of a global versus country-specific approach for the measurement of in-country child poverty results in different outcomes, using Vietnam as a case study. Although the global and country-specific approach convey a number of similarities in implementation, their conceptual multidimensional frameworks and choice of domains and indicators display fundamental differences. As a result empirical outcomes differ with respect to domain vulnerabilities but not in reference to demographic characteristics. An analysis of the poverty groups formed through identification by either the country-specific or global approach or both provides insight into the composition and nature of these poverty groups.

Overall child poverty rates, expressed as severe deprivation and absolute poverty, are considerably higher for the country-specific approach. Further, the country-specific approach is more inclusive than the global approach. The large majority of those children identified as poor by the global approach are also captured by the country-specific approach. Breakdown of the poverty groups by domain vulnerabilities points towards a twofold explanation for the empirical disparities. The group of children identified as poor by the country-specific approach and not by the global approach primarily includes those children suffering vulnerabilities in domains with considerably less strict indicators and domains not included in the global approach. By the same token, children identified as poor by the global approach but not by the country-specific approach include children that suffer vulnerability in the domain not included in the country-specific approach but also other domains due to different formulation of indicators. In other words, the global approach errs on the side of caution and employs strict formulations of indicators and their thresholds. Moreover, the global and country-specific approaches include different domains with different indicators, thereby targeting different children. More domains and indicators are incorporated within the country-specific approach, making the approach by definition more inclusive than the global approach.

An analysis of the demographic characteristics of the various poverty groups provides a valuable insight into the demographic distribution. Gender and age of children do not display significant and consistent patterns for the various poverty groups. The area and region in which children live, however, does have a large impact. Children living in rural and mountainous regions are significantly more prone to being poor according to the country-specific and global approach, regardless of the method used. Further, children living in households with more than 3 children hold a disproportionately large share in either of the three poverty groups compared to children living in smaller households. Finally, children that do not have the Kinh or Chinese ethnicity have a much greater chance to be identified as severely deprived and absolutely poor by both approaches than those that do. However, the global and country-specific approaches do not disproportionately include or exclude children belonging to specific demographic groups. In other words, they capture the same groups of children in terms of demographic characteristics.

In conclusion, the application of the global and country-specific approaches to the case of Vietnam only partly draws a different picture of child poverty. The approaches capture different groups with respect to overall child poverty and domain vulnerabilities but not in terms demographic composition. The different outcomes of overall estimates and domain vulnerabilities can largely be attributed to the fundamental differences in the conceptual frameworks underlying both approaches, which are in turn a result of the underlying rationale and purpose. Consequently, the underlying rationale and purpose should serve as guidance for the suitability of the use of either the global or country-specific approach. The poverty figures springing from this study do not provide a value judgment about the aptness of the approaches to measure child poverty in Vietnam. Further research efforts should be directed towards improvement and fine-tuning of the methodology used for both approaches. Moreover, on-going efforts should address the

development of alternative perspectives that can best serve the underlying rationale, concept and context of these and other child poverty approaches.

Relating these results to the use of global measurement in the form of the Millennium Development Goals (MDG's), the findings suggest that the goals might be a useful tool for comparative measurement purposes but less so for capturing a country's specific situation. The specified targets and indicators for the eight MDG's might not be relevant for certain social and cultural contexts and thereby fail to indentify in-country hurdles and obstacles towards development. The analysis in this paper is a showcase proving that tailor-made approaches do provide, at least in part, different results than global approaches do and go beyond a superficial cross-country comparison. If the MDG's are to capture country-specific issues and dynamics, they should thus also be tailored to the country's social and cultural context.

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