

Experiences with the Development and Use of Poverty Maps

Case Study Note for JAMAICA*

1. Background information on the poverty mapping initiative

In the early to mid-1990s, Jamaica developed a national poverty-eradication policy, which created increased demand for poverty data. To meet this demand, in 1995 the World Bank-funded Jamaica Social Investment Fund (JSIF) project identified the need to develop a poverty map. The Planning Institute of Jamaica (PIOJ), already involved in the development of the Jamaica Living Standards Measurement Survey (LSMS), was commissioned to develop the poverty map. The PIOJ worked jointly with the JSIF to select various indicators upon which the poverty map was based (see Section 2).

2. Process of poverty mapping

A technical committee made up of several staff from the JSIF and the PIOJ was established to 1) select various indicators to be incorporated in a composite poverty indicator and 2) assign relative weights to these individual indicators. Using 1991 census data, the committee selected four indicators: unemployment among those aged 15-29; primary school education; exclusive use of toilets; and the homes with drinking water supplied by modern plumbing. In 1995-96, the PIOJ developed a community-level poverty indicator and map based on these indicators and their respective weights.¹ The PIOJ poverty indicator and map results were published (Planning Institute of Jamaica 1996) and copies of the poverty map have been freely available upon request from the PIOJ. To further encourage broad dissemination, the PIOJ gave presentations on the indicator and map results and various newspapers circulated copies of the poverty map.

Poverty mapping results indicated that poverty was widespread throughout Jamaica. This finding was a source of embarrassment to the government, as well as a source of potential political advantage for the opposition. A cartoon in a Jamaican newspaper highlighted the poverty indicator results by depicting the poverty map with poor communities shown in black and other communities in white; in the cartoon, the Prime Minister is portrayed pointing to the few non-poor areas.

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¹ Note that the map represented 500 communities of varying sizes. For example, the number of households surveyed per community ranged from 130 to 13,000.

While the poverty indicator has generally been used by the JSIF to help allocate its social funds (see Section 3), selecting the indicators and weights proved to be challenging and time consuming. After lengthy debate, the committee selected the four primary indicators upon which the poverty map was based. Various analysts and scholars noted that some of these primary indicators may inadequately capture poverty. For example, while census data indicates that communities have exclusive use of toilets, these facilities may not be functional.

Concerns have also been raised regarding the scale of the poverty map and the varied number of households evaluated in each community. The number of households surveyed per community ranged from 130 to 13,000. Evaluating poverty at a community (rather than household) level precludes the possibility of identifying pockets of poverty within larger communities. To capture variation within communities, the JSIF used the poverty indicator and map in conjunction with qualitative community-based poverty assessments (see Section 3).

Over the past several years, a major drawback has been the use of outdated 1991 census data to develop the poverty indicator. The distribution of poverty in Jamaica has changed substantially since 1991. While the JSIF has been able to provide some updated data on poverty through its community-based poverty assessments (see Section 3), various other agencies (such as the PIOJ) believe that the poverty indicator inadequately reflects the current reality of poverty in Jamaica. The PIOJ and other agencies have emphasized the need for a new and more reliable poverty map. Jamaica plans to develop an updated poverty map using the Hentschel et al. (2000) methodology. The use of a statistically rigorous methodology such as that of Hentschel et al. is being looked upon very favorably, especially considering the difficulties in selecting indicators for Jamaica's first poverty map.

Jamaica's current poverty map has seldom been linked to other data. The PIOJ did, however, recently receive a request from a Latin American NGO to use the poverty map to evaluate El Nino's impact on poor communities. In addition, PIOJ compared the poverty map with data on crime and violence to gain a better understanding of the relationship between the distribution of crime and poverty in Jamaica.²

3. Use and impact

The use of the PIOJ poverty indicator and map has been limited mainly to the JSIF. Among other things, JSIF has applied the poverty map in targeting projects for social expenditures. Due to concerns that the poverty indicator may be outdated (see Section 2), the maps have been used in conjunction with community-based poverty assessments. Typically, the JSIF uses the indicator to establish initial eligibility of a funding request. Thereafter, qualitative community-based assessments are conducted to further assess the extent of poverty.

² This work was primarily conducted for research and its results have not yet been used.

Aside from the JSIF, use of the poverty indicator and map in other agencies has been minimal. In the first several years following publication of the poverty map, the PIOJ did refer to the map to help generally describe poverty in Jamaica but did not use it for prescriptive purposes (such as targeting of expenditures). Soon after the development of the poverty map in 1996, the PIOJ received various requests from donors for copies of the poverty indicator and map. Although donors expressed concerns regarding the map's reliability, it is thought that some donor-funded projects did make use of the poverty map for purposes of targeting. Use of the poverty map has progressively tapered as the data upon which it is based have grown increasingly outdated (see Section 2).

Various additional uses of Jamaica's poverty map are envisioned once an updated map is developed. A new poverty reduction initiative—funded by the Inter-American Development Bank and focusing on reform of the social safety net—is expected to use the updated poverty map to target funding. In addition, the PIOJ plans to use the updated poverty map to better target its projects. The electric and water sector also are expected to use the poverty maps to expand their services, especially to poorer communities.

While the PIOJ poverty indicator and map have not been extensively used in Jamaica (aside from at the JSIF), their development has produced several impacts. Foremost, the poverty map raised awareness of the use of such maps as a tool to improve program targeting. This awareness has helped generate the current demand for an updated and more reliable poverty map. Despite the indicator's weaknesses, the PIOJ poverty map, in conjunction with community-based poverty assessments, provided the JSIF with greater confidence that investments were being made in poor communities. Widely circulated in Jamaica, the poverty indicator and map results are thought to have helped highlight poverty itself as an issue and to have focused government interest on poverty reduction.

Bibliography

Planning Institute of Jamaica. 1996. *Poverty Mapping: A Report on the Spatial Representation of Deprivation in Jamaica*. Policy Development Unit, Planning Institute of Jamaica. March 1996.