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Assessing the poverty footprint of World Bank projects at sub-national levels

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Every year, the World Bank spends millions of dollars on development projects in its member countries. But do these investments reach the poor? This note presents a spatial approach to examine the poverty footprint of Bank operations. This allows CMUs to identify missed investment opportunities and facilitates portfolio monitoring.

Since the 2009 World Development Report on “Reshaping Economic Geography” more attention is being paid to spatial aspects of poverty. The World Bank even created a special site to map its projects at global, regional, and national levels.¹ This site provides valuable information (committed amount, risk categories, product line, lending instruments, etc.) but at sub-national level it only comprises information on number of projects and sectors. This reduces the value of these maps to the country management unit (CMU) when it comes to reviewing its portfolio through an equity lens.

This note addresses this gap by proposing a rapid and pragmatic approach to assess Bank operations through an equity lens at sub-national levels. It provides the spatial distribution of the projects and links this information with the spatial distribution of welfare within a country.

The approach examines the geographical overlap between a country’s poverty and the Bank’s investments at sub-national levels. It informs how much money and what types of projects reach impoverished areas and allows for the identification of locations that host large numbers of poor people

but few investments, or, sometimes no investment at all.

This assessment can be carried out on a regular basis which would inform the CMU on how the poverty footprint of the portfolio evolves over time. Depending on the issue at hand (disbursement, committed amount, etc.), the assessment can be implemented quarterly, annually, or for each Annual and Spring Meetings. It can be part of the Performance and Learning Review (PLR) and support a ‘learning’ Country Partnership Framework (CPF).

How to measure the poverty footprint of Bank operations?

Data: (i) recent household consumption data or a poverty map, (ii) budget and spending data (at sub-national levels) from projects that are ongoing or in the pipeline, and (iii) population at sub-national levels. The latter is only necessary when the number of poor is of interest, which it usually is.

Staff time: approximately 2-3 weeks.

¹ <http://maps.worldbank.org/p2e/mcmap/index.html>

Prior to examining the poverty footprint of Bank operations, one needs to decide on three key elements. First, for which administrative unit level is it meaningful to have information? Household consumption surveys are designed to produce welfare measures at the national level and, often at the first subnational level (e.g. regions). Disaggregating the data to lower administrative levels will give less precise estimates, so some trade-offs between accuracy and detail will have to be made.² (The same holds for project budget data which are typically less precise at a very low level of administration).

Second, which poverty measures are relevant to evaluate the operations? Depending on the type of projects, different dimensions of poverty could be considered. These include non-monetary poverty either as an index or a dashboard, and monetary poverty such as poverty rates, poverty gap, severity of poverty, number of the poor, density of the poor (number of the poor per square kilometer), etc.

And third, how to disaggregate the Bank's portfolio? The spatial distribution of the entire portfolio is important, but it may be more informative to know what types of projects are found in which locations.

The next step is to produce maps of poverty and poverty density by estimating poverty indicators at sub-national levels. This step makes use of household consumption data and population.

The underlying information for maps of Bank operations is budget allocation at sub-national levels of each ongoing or pipeline project. This requires contacting and following up with Task Team Leaders (TTLs). Depending on the information obtained, their projects can be grouped by type (e.g.

infrastructure vs. human capital, etc.), thematic group, by national priorities, and so on.

The last step is to combine the two types of maps (maps of poverty and maps of operations). The final output provides a visualization of the poverty footprint of the Bank's portfolio.

Application: Burkina Faso's Country Partnership Framework

With nearly half of the population (or approximately 8 million people) living in extreme poverty, Burkina Faso continues to embark on a challenging journey to end extreme poverty by 2030.

For poverty reduction strategies to work, location matters. Poverty-targeted policies are likely to be different between remote areas and dense areas. In dense areas, policies that maximize the benefits of agglomeration economies may be preferred. This includes projects promoting growth, urbanization, infrastructure, job creation, and human development. In remote areas one may prioritize investments in agricultural productivity, connectivity and in (portable) human capital such as health, nutrition and education.

For Burkina Faso's CPF, we assessed the poverty footprint of ongoing and pipeline projects. We disaggregated the portfolio into infrastructure projects, and human capital and social projects.

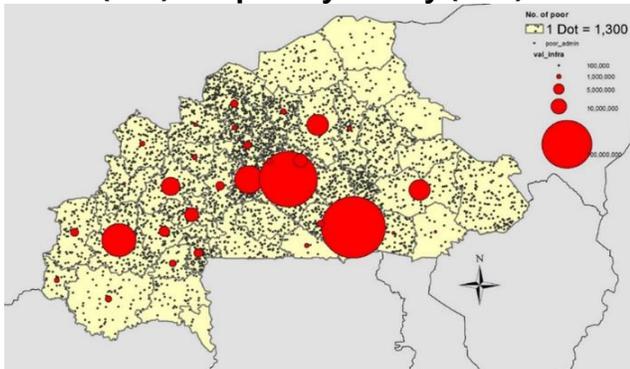
Data: (i) Burkina Faso Continuous Multi-Sectoral Survey 2014 data, (ii) ongoing and pipeline projects' budget allocation at provincial level, the second-level of administration, (iii) population from the National Institute of Statistics and Demographics.

² Precise poverty estimates at more disaggregated levels can be obtained through poverty mapping, but not all countries

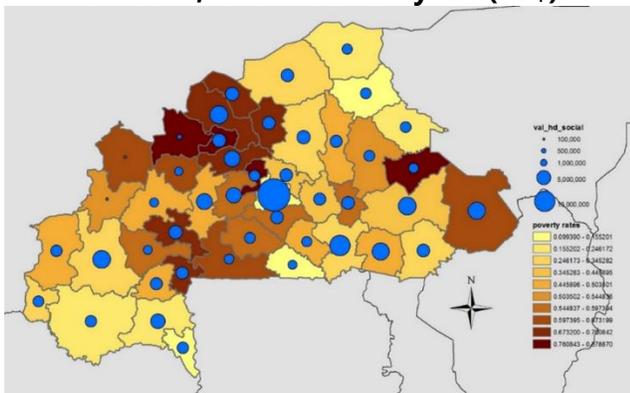
have poverty maps readily available. The described approach is also relevant in the absence of a poverty map.

We find that about half of the total investments in Burkina Faso concentrate in three growth poles: Kadiogo, Houet, and Boulgou provinces. Approximately a quarter of the portfolio is invested in Kadiogo where the capital Ouagadougou is located. The portfolio is heavily tilted towards infrastructure projects which make up about two third of the total dollar amount tied up in projects.

Spatial distribution of infrastructure projects (US\$) and poverty density (dots)



Spatial distribution of investments in health, education, and social safety net (US\$)



Consequently, the geographic footprint of Burkina Faso portfolio is mostly driven by the spatial pattern of infrastructure projects, such as transport modernization, urban water, electricity, etc. These projects which have high fixed costs tend to aggregate in locations with large concentrations of poor people to maximize coverage and minimize the cost per user, which, in

this case, are in the three growth poles, Kadiogo, Houet, and Boulgou provinces.

When we consider investments in portable assets (health and education) and social safety nets, it appears that the Bank achieves an equitable coverage across all provinces. It is positive that the Bank manages to reach lagging regions, though a careful inspection of where many of the poor live (north-central) and the allocation of projects also demonstrates a disconnect, suggesting scope for improvement.

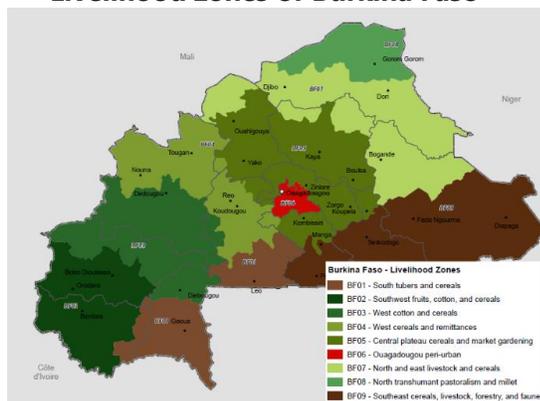
Variations

There are many ways of assessing the poverty footprint of the Bank’s operations. Here are some other ideas:

1. Other *dimensions of poverty* could be used, depending on the nature of the projects. For example, non-monetary poverty index, poverty rates, poverty gap, severity of poverty, or number of the poor may be useful to assess social safety net projects. Poverty rates and number of the poor per square kilometer may be useful to examine infrastructure projects.
2. *Additional correlates could be overlaid on the maps.* Other aspects of relevance to portfolio management could be added, such as livelihood zones, road density or security. Comparing the livelihood zone below with the map showing the density of poor people suggests that the Bank has few projects in the cotton zone, even though many poor people live there.
3. *Bank projects could be categorized differently:* by projects’ type (e.g. infrastructure vs. human capital), by national priorities, by thematic group, or by the Country Partnership Framework pillars, etc.
4. The same approach can be used to assess the spatial distribution of the *Bank’s disbursement*, or the *Government’s public expenditure*.

5. *Time-period* of interest could also be changed. For example, instead of on-going and pipelined projects, an assessment can be applied to projects implemented in the country over the past 5 or 10 years, depending on what the CMU wants to learn.

Livelihood zones of Burkina Faso



Source: FEWSNET

When the exercise is carried out on a regular basis, it will be efficient to develop a template of required information so CM/CD can request TTLs to fill it out systematically. This template should include information on administrative units, budget allocation by project's components, and so on. This template will help us easily update the assessment over time.

In addition, one needs to have consistent definition of budget allocation across projects. For example, if the issue at hand is committed amount, one needs to obtain project costs for all projects and avoid mixing up with disbursement amount. Certain national projects may be excluded (such as Development Policy Operation) and some project components that only benefit central governments should not be disaggregated to lower administrative levels (i.e. technical assistance, governance, etc.).

Lessons learnt

After implementing this assessment in four countries in West Africa (Benin, Burkina Faso, Cote d'Ivoire, and Togo), we draw the following lessons.

First, this is a demand-driven exercise, so it is important to have the Country Manager's (CM) or Country Director's (CD) involvement. They offer guidance on how to disaggregate the portfolio and their support helps ensure TTLs provide information on their projects in a timely manner. This spatial assessment can be implemented on a regular basis (for every the Annual and Spring Meetings), so that one can see how the poverty footprint of the portfolio evolves over time. In this way, the poverty footprint becomes part of a 'learning' CPF and iterative portfolio monitoring.

Last but not least, it is crucial to document all underlying information and share this with the CMU. For example, some projects may not have information on budget allocation or some TTLs may not respond. Keeping a detailed list of all projects and the reasons why they are excluded from the exercise prevents queries and allows to present summary statistics including the number of projects and portfolio amount excluded from the assessment.

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