S E E I N G  I S  B E L I E V I N G:
P O V E R T Y  I N  T H E  P A L E S T I N I A N  T E R R I T O R I E S

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Introduction: The Palestinian Territories have a uniquely fragmented geography, characterized by the isolation of Gaza from the rest of the world, and the man-made barriers to mobility within the West Bank. The internal mobility restrictions imposed by Israel, unique to the West Bank, play an important role in explaining spatial variations in outcomes within the West Bank. This is strikingly analogous to the role of Gaza’s external barriers in explaining the divergence between the West Bank and Gaza. These have consequences for poverty and economic development. Detailed analysis using a series of labor force and household surveys were undertaken as part of the West Bank and Gaza Poverty and Inclusion Assessment, Coping with Conflict? The analysis shows that over the last decade, internal and external barriers have been associated with tremendous constraints to growth and investment, which is evident in high rates of unemployment, especially in Gaza and among women and youth.

Over the same period, the territories have also witnessed large and widening gaps in poverty and labor market outcomes between the two territories of the West Bank and Gaza. Arguably, one of the most important reasons for this divergence is the external mobility restrictions imposed on Gaza, which has been entirely “closed” with almost all movements across the border controlled by Israel. In practice, this means that few people and a limited number of goods are allowed to travel in and out; in particular, many inputs for commercial production are prohibited from entering the area. The lack of inputs and lack of access to markets have resulted in a virtual shut-down of the private sector, which in turn, has been associated with high levels of unemployment, under employment and higher rates of poverty in Gaza.

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Map 1: Density of Poverty: Poor Population per Square km

The West Bank too is hampered by mobility restrictions, but of a different kind than Gaza. The West Bank is controlled by internal barriers in the form of road closures as well as external barriers. Goods and services still make it across the border, but transportation within the area is restricted and often encounters significant delays. As in Gaza, the mobility restrictions hamper the growth potential of the private sector, albeit to a lesser extent. What is unique to these internal restrictions in mobility is that they artificially create disadvantaged areas within the West Bank, namely those areas where restrictions are most severe.

These spatial disparities imply that poverty can vary widely within the space of a few kilometers, and therefore, poverty estimates at a highly disaggregated level can reveal pockets of extreme poverty, even in more prosperous areas, that more aggregate analysis can mask. Such information is especially important for policy making, and for prioritizing the development efforts of the many international and national agencies working on the ground. A poverty map is a visual representation of precisely this kind of information.

**World Bank-PCBS Collaboration:** This Poverty Mapping exercise builds on a programmatic and comprehensive collaboration between the World Bank and the Palestinian Central Bureau of Statistics (PCBS). This collaboration began in 2010 with a request for Technical Assistance (TA) to validate and update methodology for poverty measurement. Using a long series of Palestinian Expenditure and Consumption Surveys (PECS), the World Bank worked with the PCBS to create a fully consistent poverty series from 2004 to 2009, including a simulation of poverty estimates for Gaza in 2008 (due to the inability to complete data collection in Gaza that year). In October 2010, the Palestinian Authority publicly announced the 2009 poverty estimates in line with the new methodology and international good practice. A series of four technical notes describe this body of work and were delivered to PCBS in August 2010. A core component of this TA involved several in-country capacity building exercises at the PCBS as well as dedicated training for PCBS and Ministry of Social Affairs (MoSA) staff in using ADePT, a computational package for poverty analysis that the Research Group of the World Bank has developed.

The analysis in the Poverty and Inclusion Assessment revealed implications for survey design and methodology which is in line with PCBS’s original request for TA to improve the quality and comparability of survey instruments and for continued assistance to create poverty maps using the most recent census and survey data to identify vulnerable groups.

This poverty mapping exercise is the latest result of the collaboration between the World Bank and PCBS. This has involved technical assistance from the World Bank on calculating small-area (locality level) poverty estimates for the Palestinian Territories. This also included training of the PCBS staff on the methodology of poverty mapping, as well as the use of PovMap2, the software developed by the World Bank software for such work. Throughout the process, all the maps and analysis in this report have been replicated by both the World Bank and the PCBS teams.

**What is a Poverty Map?** Poverty estimates are usually calculated using a nationally representative household survey with consumption data. In the Palestinian Territories, the Palestine Expenditure and Consumption Surveys (PECS) are designed to provide estimates of poverty at the regional level (West Bank and Gaza), strata level (Urban, Rural, Refugee Camp), and some larger governorates. However, for policy makers, often, further disaggregation is needed. For instance, with limited resources, what parts of a governorate should be prioritized for poverty reduction programs? How do we identify poor and vulnerable pockets to target social assistance?

Poverty Mapping, using a methodology pioneered by the World Bank, can produce highly disaggregated databases of welfare. Poverty Maps involve the estimation of poverty indicators at very detailed level (locality, enumeration area, and even households themselves) in order to identify pockets of poverty. This is a tool for effective and efficient allocation of resources and programs according
to the greatest need, to achieve the broader development goal of poverty reduction. Poverty maps are not simply useful as visual representations of poverty but also to understand the relationship with a host of other important socio-economic indicators such as health, education, labor market outcomes and social assistance.

Poverty mapping relies on household survey and census data, making the most of the strengths of each, and compensating for their weaknesses. Certain key data requirements must be fulfilled to be able to construct a poverty map. Survey data must include detailed consumption data, which is the basis for calculating poverty estimates, for instance at the national and the regional level. However, the survey usually covers only a representative sample of the population. This tradeoff between sample size and the cost and time needed to collect quality consumption data implies that surveys cannot typically be used to calculate reliable poverty estimates for more disaggregated areas. This is because, at such lower levels of disaggregation, for instance, the community or village, the number of observations in the survey is too small to produce statistically reliable estimates. The census on the other hand covers the entire population and can therefore be reliable even at lower levels of aggregation. However, the census usually covers only basic information like demographics, education and employment but not detailed information on consumption.

The methodology behind poverty mapping thus takes advantage of the strengths of the survey and the census. In principle, it estimates consumption for every household covered by the census, and can therefore reliably produce measures of poverty for small areas.

This particular poverty mapping exercise makes use of the most recent census, the General Census of Population and Housing 2007. Two possible surveys were considered for the exercise—the PECS 2009 and 2010. The 2009 PECS was chosen as it was the household survey closest to the census year. The PECS 2007 was eschewed on account of it being a crisis year in Gaza, and the PECS 2008 was not considered because it did not cover Gaza.

Conclusions: Given the fragmented geography of the Palestinian Territories, the visualization of small-area poverty estimates is unique and has posed unique challenges. The presence of manmade barriers to mobility, the large parts of the West Bank that lie outside the control of the Palestinian Authority, and Gaza’s relative isolation imply that localities and communities living a few kilometers apart can have wide disparities in welfare. Even within Hebron, the poorest governorate in the West Bank, locality level estimates of poverty range from 14% to a whopping 83%. There is also a lot of variation in the number of poor people in Hebron governorate—from the heavily populated city of Hebron to small, isolated Bedouin communities in the south-eastern part of the governorate.

The poverty map and estimates should be interpreted in relation to the unique nature of restrictions in place. For instance, Hebron city itself is divided into H1 and H2, with the latter under the control of the Israeli Defense Forces. The city has 11 permanently manned checkpoints. Many communities in the south eastern part of Hebron lie in large part in area C, and the resulting isolation and lack of access
to services implies correspondingly high rates of poverty. Overall, thus, poverty and vulnerability are linked to and must be understood in relation to these types of restrictions. The poverty map is a visual illustration of estimated poverty indices at locality level. It is a powerful tool for policy makers and provides key information at a level of disaggregation that matters to prioritize the use of scarce resources in areas that need it most. It is important to remember that these are estimates, and are accompanied by standard errors. Therefore, the poverty map is in effect a range of poverty rates for each locality. The better the model and the quality of data, the smaller these errors, and the more accurate the estimates are likely to be.

The full report also provides cartographic representations of various correlates of poverty, which taken together with the poverty map are a striking visual story. These correlations illustrate the analysis in the poverty assessment for the West Bank and Gaza, *Coping with Conflict?* Poverty goes hand in hand with labor market outcomes. Several localities with high levels of unemployment also lie in the highest quintile of poverty rates, and vice versa. While education matters in many parts of the West Bank, in Gaza, irrespective of education, poverty remains high. A sheer lack of jobs and insecure employment are the main drivers of welfare.

The poverty map thus can be a very useful live monitoring tool, provided it is regularly updated and linked to relevant information such as geo-referenced datasets of market accessibility, facility locations (schools, hospitals and clinics), agro-climatic information, road networks, and availability of services such as water and sanitation. As a combined and disaggregated database, it can serve as a tool for planning purposes, especially in decentralized structures. Similarly, it can provide a first stage filter for identification of project or program areas. This database cannot substitute for careful policy design, but rather can serve as a guide for policy prioritization.

It is important to also recognize the limitations of the poverty map and its accompanying geo-referenced data and using care in applying it appropriately. Poverty maps have become popular in contexts of social safety net programs. They are best suited to guide spatial targeting, for instance, identifying pockets of high poverty rates or large populations of the poor. For instance, they could be combined with the Ministry of Social Affairs’ database of current beneficiaries to identify areas with inadequate coverage.

Poverty maps are also useful to rank geographical areas and communities for a phased roll-out of programs, but they are not a substitute for the identification of beneficiaries, which requires household or individual-level targeting. Secondly, the poverty estimates are based on consumption only, and may not adequately capture other attributes of poverty or vulnerability. Thirdly, these estimates do not explain the causes of poverty—well designed surveys and careful analyses will be needed to obtain diagnostics of the attributes and causes of poverty, which are essential to design interventions.

The poverty mapping exercise has also highlighted areas for improvement in the census and the PECS. One important area that needs to be revisited is the sampling frame of the PECS to gain representativeness at the governorate level and oversample small, isolated and vulnerable communities, particularly in area C. Since the poverty map depends critically on the nature and amount of information that is commonly available in the survey and the census, the census instrument can also be redesigned to improve this aspect in looking forward to the next poverty map.