A Gender-Sensitive Insight of Poverty Mapping for Timor-Leste
Foreword

Poverty maps are powerful visual tools that enable governments, civil society and development partners to better identify areas of poverty with greater accuracy. They also allow highly complex information to be presented in a visual format that is easy to understand. Poverty maps can also be used to display simultaneously the various outcomes of interest, for example school enrolment, access to health, economic activities, etc. This allows us to not only use Poverty Maps to identify the distribution of poor population, but also pinpoint those places where development outcomes are lagging.

While in recent years Timor-Leste has achieved impressive reductions of poverty, the progress was not experienced equally across the country. Moreover, concerns exist regarding gender gaps based on broader socioeconomic dimensions, such as access to economic activities, education, health, and power and agency. However, gender-disaggregated statistics are missing and the existing poverty estimates resulting from the 2014 Survey of Living Standards only provide district-level disaggregation. This limits the Government’s ability to identify and target pockets of extreme poverty and gender disparity across the country below the district level.

In addressing this gap, the World Bank, in close collaboration with the General Directorate of Statistics Timor-Leste, has generated a new set of gender-disaggregated poverty statistics at the village (suco) level. The aim is for these Poverty Maps to help informing policymakers in designing and introducing more socially inclusive and gender-sensitive policies and programs to eradicate poverty across the country in better targeted and efficient ways.

With strong commitment and sound policies, the Government of Timor-Leste has great potential to bring its people a better and brighter future. We look forward to furthering our partnership with the Government of Timor-Leste and development partners to jointly tackle the most challenging development issues that still face the people of Timor-Leste going forward.

Sara Lobo Brites  
Vice Minister/Acting Minister  
Timor-Leste Ministry of Finance

Elias dos Santos Ferreira  
Director General  
Timor-Leste General Directorate of Statistics

Macmillan Anyanwu  
Country Representative  
World Bank Timor-Leste
Acknowledgements

“A Gender-Sensitive Insight of Poverty Mapping for Timor-Leste” is the result of a collaborative work between the World Bank and the General Directorate of Statistics (GDS) of Timor-Leste and aims to support the efforts of the Timor-Leste Government to better understand the gender dimensions of results of household surveys and national poverty assessments in Timor-Leste at a more granular level of detail.

The Bank’s team was led by Ririn Salwa Purnamasari (Task Team Leader), with vital support from Prof. John Gibson (the principal author of the technical report), Bagus Arya Wirapati, Mercoledi Nikman Nasiir, Peter Kjaer Milne, Imam Setiawan, and Astrid Rengganis Savitri. Excellent comments to the draft technical and policy reports were received from the peer reviewers, Kathleen G. Beegle, Elizaveta Perova and Kenneth Simler.

Overall guidance was provided by Salman Zaidi (Practice Manager, Poverty Global Practice, East Asia Pacific), Macmillan Anyanwu (Country Representative, Timor-Leste), and Rodrigo Chaves (Country Director, Indonesia and Timor-Leste).

The team acknowledges the leadership and support of Mr. Elias dos Santos Ferreira (Director General, Timor-Leste General Directorate of Statistics), with technical support from Mr. Silvino Lopes (National Director, System and Reports, Timor-Leste General Directorate of Statistics) and Mr. Lourenco Soares (Chief of Department of Statistics Data Management, Timor-Leste General Directorate of Statistics). Crucial inputs were shared by Timor-Leste government agencies and development partners participated in consultative meetings on the preliminary findings of the exercise.

Financial support was gratefully received from the Umbrella Facility for Gender Equality, a multi-donor trust fund dedicated to strengthening awareness, knowledge, and capacity for gender-informed policy-making. Sincere thanks to Helle Buchhave, Manohar Sharma and David Knight for their support in obtaining the funding.
Introduction

Timor-Leste has made impressive progress over the past decade in reducing national poverty levels. Geographically, however, this progress has been highly uneven across the country. In addition, concerns exist regarding gender gaps based on broader socioeconomic dimensions, such as access to economic activities, education, health, and power and agency.

In response, the Government of Timor-Leste has set a goal of eradicating extreme poverty by introducing more socially inclusive and gender-sensitive policies and programs. However, the existing consumption-based poverty estimates resulting from the 2014 Survey of Living Standards only provide district-level disaggregation. This limits the Government’s ability to identify and target pockets of extreme poverty and gender disparity across the country below the district level.

In addressing this gap, the World Bank, in close collaboration with the General Directorate of Statistics Timor-Leste, has generated a new set of gender-disaggregated poverty statistics at the village (suco) level. In so doing, a small-area estimation (SAE) approach was employed to link the data of all households across the country available in the 2015 Population and Housing Census with the 2014 Survey of Living Standards and the 2016 Demographic and Health Survey. Complementing these exercises, some suco-level gender-disaggregated maps of indicators are directly created from the available variables in the 2015 Census.
The SAE methodology is based on the Elbers, Lanjouw and Lanjouw (2003) approach, which has been widely tested and validated around the world.

Besides the ‘traditional’ poverty mapping approach, which uses monetary measures of poverty, the analysis also employs the ‘non-traditional’ SAE techniques to spatially disaggregate gender-related indicators from the 2014 Timor-Leste Survey of Living Standards (TLSLS) and from the 2016 Demographic and Health Survey (DHS).

The Population and Housing Census was conducted in 2015 and consisted of questions for individuals (some of which were age- and gender-specific) and households. The data on consumption expenditures come from the TLSLS, fielded in 2014/15. The survey is representative at district level and stratified by urban and rural sector. Though the 2015 Census contains very limited variables on health, the 2014 TLSLS contains several.

The 2016 DHS contains information relating to aspects of power and agency, which are important gender indicators that can usefully be disaggregated using the SAE approach.

Key Findings
The suco-level poverty maps confirm an already known pattern that poverty headcount rates are much higher in western areas of Timor-Leste than in eastern areas. The maps also reveal new findings that were not previously known, namely that there is far more variation in poverty rates within districts than between districts.

On spatially disaggregated individual-level gender indicators, two key patterns are revealed. First, it is in poorer areas of Timor-Leste where there is more education-related female disadvantage, and where there are higher levels of abuse and domestic violence against women. Second, there is an inverse pattern between gender-related labor force gaps and poverty rates.
Knowing the poverty headcount rate at the district level, as already provided by the survey, gives no insight regarding the poverty rates of suco that are within a district. For example, while the Dili district-level poverty rate is only 29 percent, its suco-level poverty rates range from 8 to 80 percent.

A dense belt with high numbers of poor per suco runs from Dili through Liquiçá and Ermera, and also along the western boundary of Ainaro.
“The lower gender gap seen in literacy among the younger generation shows improvements in education outcomes.”

In Timor-Leste, the literacy rate for the population aged 15 to 40 years old is relatively high. However, it is highly gender-unequal, where the male population is more likely to be literate than the female population. This gender gap in the literacy rate, however, is much narrower if we restrict the age group in our analysis to the youth population (15 to 24 years old). The findings suggest that the gender disparity in the literacy rate is narrower among the younger generation, as younger cohorts of the female population catch up with the male population, emphasizing improving education outcomes in Timor-Leste.
Consistent with the findings on literacy rates among youth, school enrollment among the school-aged population (7 to 18 years old) is also relatively high, at around 70 percent. In most suco, the female population is more likely to be enrolled in education than the male population.

“...The female student-aged population is more likely to be enrolled in education.”
The prevalence of female disadvantage in the education index is higher in poorer areas, while it is lowest in and around Dili.

“Female disadvantages in education are more profound in poorer areas.”

The index of gender gaps in education is measured by the difference in the proportion of female-male household members who are illiterate or unschooled. The map presents the proportion of households with female disadvantage in education.
There is a higher proportion of the population living in households with a female health disadvantage in Oecusse, and there are also concentrations in Baucau and Viqueque.

The index of gender gaps in health is measured by the difference between female-male household members in the number of days spent being ill in the past 30 days, or hospitalized in the past 12 months. The map presents the proportion of households with a female disadvantage in health.

“There is no clear correlation between poverty and the index of gender gaps in health.”
The employment rate in Timor-Leste is highly gender-unequal across areas, with the employment rate of the male population significantly higher than that of the female population. The female population is also less likely to look for a job, although there are some suco with more unemployed females than unemployed males looking for a job.
The index shows an inverse pattern between gender disadvantage in the labor market and poverty rates. In other words, the gender-related labor force gaps are bigger in suco where, on average, households are richer and where poverty rates are lower. In contrast, in poor areas, gender disparity in the labor market is less apparent.

The index of gender gaps in the labor force is constructed from the difference in the proportion of female-male household members, aged 10 and above, having no economic activity in the past week, and the number of hours of wage labor in the past seven days, across all jobs. The map presents the proportion of households with female disadvantage in the labor force.

“Richer areas tend to have higher gender gaps in the labor force.”
The index is calculated based on whether the adult females who were married or living with a man at the time of the survey makes decisions regarding her own health care, major purchases, and visits to her family and relatives.

The map presents the proportion of households with female disadvantage in decision-making autonomy. There are no apparent patterns between female decision-making autonomy with respect to poverty.
The index was created from a smaller sample of women, selected from among the adult females in the households in the 2016 DHS sample who answered (confidentially) a module on domestic violence, which consists of experiences in physical abuse, limiting autonomy, verbal threats and fear of the male partner.

The western areas, and especially Oecusse, appear to have a higher prevalence of domestic violence. This geographic pattern is similar to the pattern of poverty headcount rates, which are also higher in the west. Thus, interventions designed to deal with partner abuse and domestic violence may usefully be targeted at poorer areas.

"Prevalence of abuse and domestic violence is higher in poorer areas."
Concluding Remarks

The poverty maps offer new insights into existing knowledge of poverty in Timor-Leste, with more finely grained detail of poverty variations at the suco level.

Beyond the traditional approach of SAE, the maps also highlight gender-disaggregated deprivation hotspots in dimensions such as access to education, health, economic opportunities, and power and agency.

The gender-sensitive poverty maps provided by this work can help in informing the design of policies and programs targeting the suco level, and potentially improve resource allocation aimed at raising living standards and balancing the targeting of poor areas and poor people, while also closing gender gaps in these dimensions.

A further use of the results is for future analytic studies that aim to explore some of the driving forces behind the spatial variation in poverty and gender disparity in Timor-Leste. Furthermore, the work provides a cost-effective way of adding value to existing census and survey data collections, and can serve as an effective substitute for fielding expensive new censuses or surveys.