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# Discussion Paper BRIEFS

Food Consumption and Nutrition Division of the International Food Policy Research Institute

*Discussion Paper 115*

## **Are Women Overrepresented Among the Poor? An Analysis of Poverty in Ten Developing Countries**

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It is frequently asserted that 70 percent of the world's poor are women, which implies that globally there are 900 million poor females and 400 million poor males. However, robust evidence supporting this claim is scarce. Moreover, a focus on male- and female-headed households has perhaps distracted researchers and policymakers from a more general concern about the link between gender and poverty. As a result, two basic questions remain unaddressed. First, *do women contribute disproportionately to overall poverty?* Second, *do female-headed households contribute disproportionately to overall poverty?* A related question is implied by the answers to these two questions: *does measuring poverty in male- and female-headed households serve as a good proxy for the poverty suffered by individuals within households?*

### ***Objective of the Paper***

This paper brings together a number of household surveys to address the above questions, presenting new evidence on the association between gender and poverty based on an empirical analysis of datasets from 10 developing countries. The paper computes income- and expenditure-based poverty measures and investigates their sensitivity to the use of per-capita and per-adult equivalent units, and different specifications of the poverty line. It also tests for differences in poverty measures between individual males and females, and between households headed by males and females, using the Foster-Greer-Thorbecke poverty measures and stochastic dominance analysis.

### ***Some Measurement and Conceptual Issues from the Literature***

We divide the empirical literature on gender and poverty in developing countries into comparisons of male and female poverty and comparisons of the poverty of male- and female-headed households. While there are very few empirical comparisons of male and female poverty using survey data, comparisons of the income and poverty levels of female- and male-headed households are far more numerous. However, because each study responds differently to a wide range of conceptual and measurement issues, cross-study comparisons are impossible. These conceptual issues include (1) the accurate

measurement of the nonleisure time of men and women; (2) the different sizes of households headed by males or females; (3) the different composition of households headed by males or females; and (4) the definition of headship.

Due to data limitations, we do not address all these issues. We do, however, make consistent assumptions across our datasets and analyses so as to maximize the comparability of our results. Specifically, (1) we use comparable income and consumption measures; (2) we control for household size and composition by constructing both per-capita and per-adult equivalent measures of income or consumption for each dataset; and (3) we use self-reported headship definitions in all datasets.

### ***The Theoretical Approach***

First, for a series of poverty lines, we construct poverty incidence, depth, and severity indicators for different groups of individuals or households. Then we test for statistical differences between males and females, and between male- and female-headed households. However, the robustness of poverty comparisons using summary measures can be compromised by errors in household survey data, unknown differences between households at similar consumption levels, and uncertainty and arbitrariness about both the poverty line and the precise poverty measure. Hence, our second approach is to examine entire distributions of per-capita (or per-adult equivalent) consumption (or income) for males and for females and for male- and female-headed households with stochastic dominance techniques.

### ***The Data***

We use household survey data from Sub-Saharan Africa (Botswana, Côte d'Ivoire, Ethiopia, Ghana, Madagascar, Rwanda), Asia (Bangladesh, Indonesia, Nepal), and Central America (Honduras) for our empirical analysis. Most of the surveys were conducted to investigate patterns and determinants of food security. Some are nationally representative, while others are from rural surveys that were not designed to be nationally representative. Some surveys focused on a specific region, while others aimed

***More females in male-headed households are poor, compared to the proportion of female-headed households among poor households.***

for representativeness across agroclimatic settings, ethnic groups, and infrastructure and market access.

### ***Findings and Conclusions***

The results showed that there is indeed weak evidence that females, as well as households headed by females, are overrepresented among the poor. While female-headed households are worse off in terms of a number of poverty measures, these differences are statistically significant in one-fifth to one-half of the datasets, depending on the poverty measure used. Poverty measures are also higher for females than males; these differences are significant in a smaller proportion of the datasets. Because female-headed households account for a small proportion of the population, their contribution to aggregate poverty is small, compared to the contribution of females to poverty. Stochastic dominance analysis reveals that differences between male- and female-headed households (and between males and females) are insufficiently large to generalize that females are unambiguously worse off in the entire sample of 10 developing countries. Only in Ghana and Bangladesh are both female-headed households and females consistently worse off using two stochastic dominance criteria.

Why is the evidence in support of poorer female-headed households so weak? We have already noted that our samples tend to be drawn from poorer segments of the population, giving our sample per-capita incomes or expenditures lower than the national average. It is possible that differences between male- and female-headed households may not be so acute at such low-income levels.

There are several implications of our results. First, this work needs to be routinely replicated with nationally representative datasets. Institutions with greater access to nationally representative datasets should undertake these kinds of gender-disaggregated poverty breakdowns.

Second, note that income-based measures relate to only one aspect of poverty. Differences in power, nutrition, health, and time allocation may be more important indicators of differences in well-being along gender lines. Some social indicators, notably adult and infant mortality rates, may differ more widely across males and females.

Third, more work should be done as to why men and women become poor. Indeed, the general lack of dominance in our results suggests a need for multivariate analysis. When only cross-section data are available, the determinants of poverty should be estimated and any differences in such determinants between men and women should be tested for. When panel data are available, such analyses can ask which factors are responsible for certain households becoming poor, staying poor, or moving out of poverty, and what role women play in these different types of households.

Fourth, given that this analysis does not control for other individual and household characteristics, the results should not be taken to argue that policy interventions should not be targeted by gender. Even if there are no strong poverty differences between men and women, in many countries, women have lower levels of education, assets, and social indicators than do men—inequalities that, in many societies, are indirectly caused by gender.

Finally, a greater focus on the determinants of family structure will be important to understand why families form and dissolve and what role policy and programs play—knowingly and unknowingly—in that process.

**Keywords: poverty comparisons, gender, headship**

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