



# NOPOOR POLICY BRIEF



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Enhancing Knowledge for  
Renewed Policies against Poverty

## **NOPOOR POLICY BRIEF NR.20: AN APPLICATION OF THE ALKIRE-FOSTER'S MULTIDIMENSIONAL POVERTY INDEX TO DATA FROM MADAGASCAR: TAKING INTO ACCOUNT THE DIMENSIONS OF EMPLOYMENT AND GENDER INEQUALITY**

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The Multidimensional Poverty Index has broadened the measurement of poverty but still lacks some important dimensions of poverty. We propose here the Malagasy Multidimensional Poverty Index (MALAMPI), which is an augmented-MPI. In addition to the standard MPI dimensions (health, education and living standards), we add an additional and highly important dimension, namely employment, which is generally the sole means of production owned by poor or deprived people. Another shortcoming of the MPI approach is that it does not enable gender inequalities analysis. This is surprising since two out of the three dimensions of the classical MPI are individual attributes. In this study, we provide a new methodology aiming at computing gender sensitive MPI-type indicators. We use data from the 2012-2013 Malagasy MDGs national survey. Data was collected by the National Institute of Statistics (INSTAT) and covered all of the twenty-two (22) regions of Madagascar, using a sample of 16,920 households.

### INTRODUCTION

No sole indicator, such as income or expenditure, is uniquely able to capture the multiple aspects that contribute to living conditions. The main drawback of money-metric approaches to measuring wellbeing is that such an approach presupposes an existing market for all factors that contribute positively to welfare, with prices reflecting weighted utility across all households or individuals in a given context. But some public goods or other attributes may be impossible or difficult to purchase because markets do not exist or where they do exist, are imperfect. Income or expenditure are thus a limited reflection of living conditions because none of them really incorporate key dimensions or wellbeing related to quality of life, or “being” and “doings” as they are called in Sen’s conception. Another drawback of the money-metric approach of wellbeing is the fact that households or

individuals with a given level of income, or situated above an established poverty line, may not actually use their income to purchase the minimum required basket of basic goods and services. It follows that some households or individuals can remain deprived of some basic everyday life commodities even if they are non-poor in money-metric terms.

Since 1997, Human Development Reports (HDRs) have measured poverty in ways different from traditional income-based measures. In 2010, the UNDP Human Development Report Office, in collaboration with the Oxford Poverty and Human Development Initiative (OPHI), a research center in the University of Oxford's Department of International Development, designed a new index of Multidimensional Poverty (MPI). Undoubtedly, poverty analysis through the MPI lens leads to an improvement and a renewal of the efforts of poverty understanding, conception and measurement.

MPI includes three dimensions, namely health, education and living conditions. Considering three dimensions is of course better than the classical one-dimensional monetary approach, but it is still insufficient and only justified by the lack of internationally comparable, rich household databases. Hence, in a study on a single country and with a rich data set, it is important to complete Alkire's MPI by taking into account additional missing dimensions that are essential. In this study, we improve over classical MPI on two points: first of all, we add a new dimension of deprivation, namely the employment dimension. The classical MPI does not take into account integration in the labor market whereas labor is generally the only production factor owned by poor or deprived people. Acknowledging the importance of labor, the newly adopted Sustainable Development Goals (SDGs) stresses the key role of decent work in ensuring inclusive economic growth as well as its contribution to enhancing social and environmental outcomes, addressing the three dimensions of sustainable development in a balanced and mutually reinforcing way. From what was previously only a subcomponent of the MDGs on Poverty Eradication, decent work is now brought to the forefront of the new agenda through which SDG 8 aims to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, as well as mainstreamed across the post-2015 development agenda. Since the question of decent work is a universal concern, SDG 8 provides a further impetus to address the root causes of poverty and inequality. In view of the recent trends, the new development agenda is relevant to all countries, including Madagascar where less than 10% of the working population has a decent job. Taking into account the employment issue is of key importance in designing policies against poverty and that is the reason why we choose to add an employment dimension to MPI, leading to our Malagasy Multidimensional Poverty index (MALAMPI).

In a second step, we also take advantage of the fact that most MPI dimensions (health, education, and the newly added employment) can be computed at the individual level to include a gender dimension in MPI. Indeed, when dealing with poverty, one issue which cannot be left unmentioned is gender inequality. This approach improves on the classical way to include gender dimension in poverty which consists in a comparative analysis of poverty according to the household head gender (a male-headed household versus female one).

## EVIDENCE AND ANALYSIS

Our results show that adding the employment dimension to the MPI framework consistently increases multidimensional poverty in Madagascar, the poverty headcount moving from 56% to 72%, representing an increase of about 17% in absolute terms. The MPI index increases from 0.297 to 0.390, which is quite large. It is important to stress the fact that employment indicators (child labor, underpaid jobs, contributing family workers, and temporary jobs) included in the index really reflect features of vulnerability, bad working

conditions or lack of control over own work. In reality therefore, multidimensional poverty is more prevalent in Madagascar than suggested by the classical MPI.

Using the newly developed gender sensitive method, we bring to light a significant gender gap (about 7% in head count at the expense of women), while the classical comparison of poverty levels between female-headed households and male-headed households would have led to the conclusion that women are not disadvantaged. Disentangling gender gap according to the sex of the household-head shows that it is maximal in female-headed households, since the headcount gender gap is 19.4%, which is four times higher than the gender gap in male-headed households. This result clearly indicates therefore that women deprivations are worse in households led by women: the heading of households by women, instead of strengthening women's status, rather worsens it. When examining which indicators are at the origin of such deterioration, it appears that adults' education and underpaid jobs are the main drivers. Of course, these two indicators are intertwined: women's lower endowment in terms of human capital leads to lower productivity and wages in the labor market. Finally, if we were to ignore the gender differences within the household as is the case with the classical MPI methodology, we would have found that households led by women are not disadvantaged and that they are even a little bit better off.

## POLICY IMPLICATIONS

Tackling poverty requires adequate approaches in identifying poor. Classical MPI is already a good attempt in achieving this goal. However, it leaves aside important two dimensions: employment and gender. Our research, by including these missing dimensions, provides a powerful tool for designing policies aiming at reducing multidimensional poverty in Madagascar, in term of coupling targeted anti-poverty policies with gender and employment concerns. They are one the keys topics of the post-2015 development agenda with the recently adopted Sustainable Developments Goals.

## RESEARCH PARAMETERS

We improve over classical MPI by adding a new dimension of deprivation, namely the employment. The classical MPI does not take into account integration in the labor market whereas labor is generally the only production factor owned by poor or deprived people. Our MALAMPI then has two indicators for health (nutrition and child mortality), two for education (children school attendance and adult education) six for living standards (cooking fuel, sanitation, water, electricity, floor, and possession of assets) and four for employment (earning less than minimum wage, seasonal work, family worker and child labor 6-14 working). We take into account within household gender inequalities regarding deprivations and create two MALAMPI indexes (one for females, another for males). The gender gap is then the difference between the female and the mal MALAMPI.

We use data from the 2012-2013 national survey for the monitoring of the Millennium Development Goals (MDGs) in Madagascar (NSM/MDG). Data were collected from September 2012 to August 2013 by the National Institute of Statistics (INSTAT) in collaboration with the National Food Office (ONN). NSM/MDG covered all the twenty-two (22) regions of Madagascar, using a sample of 16,920 households, both for rural and urban strata, to cover all the MDGs indicators. A comprehensive questionnaire, including most socioeconomic and demographic characteristics, was developed. Hence, the survey included the following modules: employment, education, consumption, nutrition, poverty, agriculture, fertility, mortality, gender issues, etc. Each item was sufficiently detailed to make it possible

to compute all of the MDGs indicators. The data are rich enough to allow us to deploy our approach.

In addition, we use some control variables in order to assess the variation of the MPI, MALAMPI and MALAMPI-gender gap across various socioeconomic characteristics. More precisely, we analyze the heterogeneity of the multidimensional indicators according to the household place of residence, monetary living standards quintiles, head of household professional status, and gender.

#### FURTHER READINGS

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## PROJECT IDENTITY

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<b>CONSORTIUM</b>	CDD The Ghana Center for Democratic Development – Accra, Ghana CDE Centre for Development Economics – Delhi, India CNRS (India Unit) Centre de Sciences Humaines – New Delhi, India CRES Consortium pour la Recherche Économique et Sociale – Dakar, Senegal GIGA German Institute of Global and Area Studies – Hamburg, Germany GRADE Grupo de Análisis para el Desarrollo – Lima, Peru IfW Kiel Institute for the World Economy – Kiel, Germany IRD Institut de Recherche pour le Développement – Paris, France ITESM Instituto Tecnológico y de Estudios Superiores de Monterrey – Monterrey, Mexico LISER Luxemburg Institute of Socio-Economic Research – Esch-sur-Alzette, Luxemburg OIKODROM - The Vienna Institute for Urban Sustainability – Vienna, Austria UA-CEE Université d'Antananarivo – Antananarivo, Madagascar UAM Universidad Autónoma de Madrid – Madrid, Spain UCHILE Universidad de Chile – Santiago de Chile, Chile UCT–SALDRU University of Cape Town – Cape Town, South Africa UFRJ Universidade Federal do Rio de Janeiro – Rio de Janeiro, Brazil UNAMUR Université de Namur – Namur, Belgium UOXF-CSAE University of Oxford, Centre for the Study of African Economies – Oxford, United Kingdom VASS Vietnamese Academy of Social Sciences – Hanoi, Vietnam
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