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Review Paper

Poverty Redefined: Why Multidimensionality Matters? - Literature Review

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Abstract

This critical review highlights the evolution of poverty measurement from income-based traditional measures to multidimensional ones using extensive literature search. Through comparative analysis, the study identified the limitations of unidimensional measures, such as oversimplification and excluding systemic disparities and how multidimensional measures provide a holistic picture of poverty. Empirical evidence suggests significant divergence between income-based and multidimensional measurements, the latter capturing higher rates of deprivation, specifically 44% versus 23% in Ethiopia. Literatures also indicate gaps in multidimensional measures, that is, insufficiency of proper measuring indicators of education, health and standard of living and exclusive emphasis on newly emerging issues, like social protection, digital disparities, climate risks, and gender disparities, proposing context-specific dimensions and indicators for enhancing the Multidimensional Poverty Index (MPI). By bridging between the theoretical frameworks and realities, the current research reiterates the need for applying multi-dimension frameworks towards developing robust, reliable and contextually appropriate poverty measures to aid anti-poverty programs elsewhere. Policy responses should aim at holistic planned interventions to go hand in hand towards promoting inclusive development.

1. Introduction

Poverty, which continues to impact billions of people globally, is one of the primary obstacles to sustainable progress. The conventional method of measuring poverty, which primarily uses consumption and income indicators, is inadequate to recognize its complexity. These methods fail to address issues such as social inclusion, psychological well-being, and access to essential services. The World Bank's global poverty line serves as an illustration of how these methods estimate poverty using income or consumption metrics (World Bank, 2022). Though these measures are no doubt useful in that they provide a background, they cannot adequately account for wide-ranging poverty issues

such as housing, social participation, psychological well-being, health, and education (OPHI, 2022).

Poverty is defined in this study as a state of deprivation, which is a deficiency of opportunities, freedom, and resources needed to access basic standard of living (Thorbecke, 2013). Deprivation is termed as a dearth of access to basic services and capabilities, health, education, and housing, needed for well-being. To another notable scholar such as Townsend (2013), poverty is also the lack of social inclusion. The exclusionary approach views poverty as more than just manifestations of economic hardship. It extends to those who are discriminated from economic, political, and

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social opportunities. The shortcomings of unidimensional approaches have made academics and policy makers consider other paradigms. Notable thinkers such as Sen and Townsend have suggested defining poverty in capabilities and social exclusion, respectively, extending the discourse beyond economic deprivation.

The transfer from an exclusively poverty dimension to an extensive poverty understanding is reflected in the use of multiple indicators, of which the subject could be the Multidimensional Poverty Index (MPI) so as to put to rest some issues encompasses measurements on the concept of poverty. These tools might complement regional and international development portfolios defined in the United Nations-sponsored Sustainable Development Goals (SDGs) Agenda for 2030, to eliminate all forms of poverty by then (UN, 2015).

This evolution in conceptualizing the multidimensionality of poverty puts into question the reductionist approach of earlier studies with a predominantly unidimensional assessment (Edmore and Odhiambo, 2018). Evidence is now showing that the multidimensional way of assessing poverty presents a broader and more pragmatic framework, including economic. social, psychological, and dimensions (Fahad et al., 2023). This position is in agreement with the SDGs which put living standards, education, and health as the most important determinants of well-being on the top of the list.

This study contributes to poverty research emphasizing the need to apply multidimensional frameworks, such as MPI, in poverty metrics to better capture wellbeing outcomes than unidimensional one. It offers transformative policy insight by suggesting the current MPI enhancements and proposing incorporation of current poverty issues like social protection, digital divide, climate resilience and gender equality for enhanced capturing of poverty's lived experience. Thus, the study tried to address the research question: 'How can multidimensional poverty frameworks offer a more thorough and flexible picture of deprivation than the standard income-based measures?'

2. Materials and Methods

This study examines and builds on how the capacity approach (Sen, 1985), the social exclusion framework (Townsend, 2013), and material deprivation theory

contribute to a wider ranging understanding of poverty. These frameworks were chosen because they emphasize on the non-monetary components of deprivation, which are consistent with the study's goal of investigating multidimensional poverty.

A thorough review of existing literature relevant to the research question was carried out in order to create a rigor foundation for the analysis. For this, reports from reputable international organizations, such as the United Nations Development Program (UNDP) and its affiliates, and academic literatures found through Google, were utilized. Particular consideration was given to peer-reviewed publications, along with authoritative books, policy papers, and scholarly articles that investigated a variety of poverty measurement methods, from traditional income-based assessments to multidimensional poverty indicators. The literature search was carried out with careful comparison of the various ways of evaluation and focused on finding out their approaches, data sources, theoretical structures, and concrete applications. Selection criteria were based on a multifaceted approach to poverty measurement and contribution towards the understanding of incomebased versus alternative frameworks. A qualitative content analysis approach was used to summarize the major topics covered in the literature on poverty dimensions, measuring approaches, and their policy implications. Thus, this study followed ethical research methods by utilizing publicly available secondary data from credible sources. No personally identifying information was used, and the analysis was carefully designed to protect the dignity and privacy of affected communities.

3. Poverty Indicators, Measurement Approaches, and Redefining

3.1 Going beyond financial indicators

For decades, the traditional understanding of poverty as a lack of money has dominated international debate. According to utility and welfare economic theories, it is characterized as having an income or consumption below a certain threshold. While income-based measures like the Foster-Greer-Thorbecke index are simple, they ignore the non-monetary aspects of deprivation that affect quality of life (Foster et al., 1984). As of the capability approach, which represented

poverty as a lack of essential skills such as the capacity to live a healthy life, gain information, and participate in society, it is difficult to understand or resolve poverty issues just with improvements in financial income only.

Researchers opposed this notion because it ignores other dimensions of poverty (Bradshaw, 2007). According to Townsend (2013) also, poverty goes beyond income constraints as evidenced by social exclusion concepts. Thus, one has to take into consideration the social, psychological, and environmental issues in determining poverty to minimize the complexity of poverty. It is evident that systemic inequalities continue to limit access to resources and liberties, which make poverty a complex issue. Income gains alone could not eradicate housing, healthcare, and education disparities, since this would prolong disadvantages (Shepherd, 2013; Alkire et al., 2015). This is why using comprehensive strategies that put capacities ahead of economic growth are needed to get beyond these barriers (Wagle, 2008). Efforts to attain sustainable development is unachievable if the complex relationships between the causes of poverty that might exacerbate inequality are not focused on (Todaro & Smith, 2015).

Poverty is complex and diverse, making its measurement challenging. However, most studies still rely on traditional income-based criteria, even though this method has significant limitations. However, the full spectrum of deprivation, which includes social, cultural, and experiential components, even if they appear to be simple measures of financial instability were not considered in the metrics (Alkire & Foster, 2011; Ravallion, 2016). As underlined by Laderchi et al. (2003) too, this method frequently misrepresents the everyday reality of poverty and advocates for reforms that go beyond financial solutions.

A theory that goes beyond income based metrics is Amartya Sen's capability approach. Unlike financial metrics it considers other components of well-being such as education, health and social integration (Sen, 1985; Sameti, et al., 2012). According to this interpretation, poverty is not just financial difficulties but inability to live a good life (Sen, 2000). However its dependence on data and cultural sensitivity makes it impractical to implement. Despite its flaws, the framework's focus on human development and agency

gives a more complete picture of poverty than the standard monetary measures (Anand et al., 2021).

Relatively, the social exclusion approach extends its scope by setting the measurement of poverty in relational and structural contexts. This approach is regarded by Sameti et al. (2012) to consider poverty as a process linked to incapability with respect to active exercise of economic, social and political life. The method aligns with the multidimensionality of deprivation through its identification of barriers that create perpetuating mechanisms for exclusion (Laderchi et al., 2003). However, it also underlines the relationship marginalization between social and financial deprivation, meaning that requires addressing both material insufficiencies and relational inequalities (Bird, 2013; Hoff and Walsh, 2018).

New interactive methods further challenge traditional measures of poverty by encouraging subjective and context-sensitive assessments. According to Chambers & Conway (1991) and Laderchi et al. (2003), these strategies prioritize the perspectives of individual or household livelihood aspects in poverty because externally imposed criteria often do not correctly reflect their situation. **Participatory** frameworks combine several livelihood perspectives based on one's capability to create a more complete and flexible approach to poverty study (Sen, 1985; Bebbington, 1999). Despite their potential, these methodologies have issues with scalability and consistency, especially when comparing data from various societies or geographical locations. However, because they expand the use and breadth of poverty assessment, these perspectives are a valuable complement to current frameworks. These choices all highlight the difficulty of defining poverty and the necessity for a variety of methods.

The measurement of poverty, therefore, has been more popular among practitioners during the last couple of decades due to its comprehensive approach. Some of the key indices include the United Nations' Human Development Index (HDI) and the Human Poverty Index (HPI), and the MPI. Utilizing the Alkire and Foster (AF) method, the development of the MPI, in conjunction with the UNDP, has been developed starting from 2010 by Oxford Poverty and Human Development Initiative (OPHI) under the co-directed

work of Alkire & Santos (2010) and Alkire et al. (2020). MPI reveals comprehensive insights with regard to concurrent deprivations concerning health and education, attainments of lives, while the focus of HDI is life expectancy, education, and income.

The global MPI was first introduced to evaluate severe multifaceted poverty in more than 100 developing countries by measuring three extents of poverty: health, education, and living standard (UNDP, 2022). The dimension comprises of ten indicators in all, with weights and deprivation cut-offs determined using the count technique (Alkire &d Foster, 2011), as shown in Table 1. The MPI measures extreme poverty in the three areas on the bases of Alkire-Foster method, which weights multiple factors, such as nutrition, school

attendance and housing quality, to represent the complexities of poverty that goes beyond income.

As shown in Table 1, each indicator of MPI is assigned a weight based on its importance to people's overall well-being reflecting the interconnected nature of deprivation. Selecting dimensions and indicators can be context-specific based and flexible needing researchers' intuitive decision with the targeted research objective (Alkire & Santos, 2010). Using the dimensions and indicators and applying the AF technique for quantification, a number of studies (Wang et al., 2021; Crentsil, et al., 2019; Misganaw, et al., 2020; Desawi, et al., 2021; Fahad et al., 2023) were conducted and revealed poverty as a multidimensional phenomenon.

Table 1: Dimensions, measures, deprivation thresholds, and weights of the global MPI (Source: Alkire & Santos, 2010 and UNDP, 2022)

Poverty	Indicators	Description of deprivation	Weight	SDG
Dimensions	mulcators	If		Area
	Nutrition	A household member under 70 years old is malnourished.		SDG 2
Health				
(1/3)	Child	Under 18 years old child has passed away in the household		SDG 3
	mortality	within the past five years.	1/6	
Education (1/3)	Years of	None of the eligible household members have finished at least	1/6	SDG4
	schooling	six years of education.		~
	School	A voungetor of school ago does not start attending classes		
	attendance	A youngster of school age does not start attending classes until reaching the age typically required to complete grade 8.		SDG4
	Cooking	The household relies on solid fuels like wood, charcoal, dung,		
	fuel			SDG7
	Tuci	or coal for cooking.		
	~	The household shares facilities with others or practices poor	1/18	SDG6
	Sanitation	sanitation.	-,	22 23
Living Standards (1/3)				
	Drinking	Drinking water is unsafe or requires a 15min or longer trip for	1/18	SDG6
	water	access (single trip).		
	Electricity	The household lacks power supply access.	1/18	SDG 7
	2100011010	The household fuels power supply usesses.	1, 10	220,
	II	The household's floor, walls, or roof are made of inferior	1/10	SDG11
	Housing	materials.	1/18	SDG11
	Assets	The household owns no more than one basic asset (e.g., radio,	1/18	SDG1
		TV, computer) and no motorized vehicle.		

SDG 1, 2, 3, 4, 6, 7 and 11are about No Poverty, Zero Hunger, Health and Well-being, Quality Education, Clean Water and Sanitation, Affordable and Clean Energy, and Sustainable Cities and Communities, respectively

The study recommends policy intervention that is aimed at addressing different dimensions deprivations rather than relying solely on income indicators. According to Evans et al. (2024), integrating non-monetary perspectives is critical for addressing the root causes of deprivation and supporting sustainable development, even while monetary indicators provide baseline information. The many techniques used to assess poverty reflect evolving perceptions of hardship, but obtaining a consensus among academics and decision-makers remains a significant challenge. Table 2 provides a critical review of key literature on poverty measurement approaches. It highlights the results, critical suggestions, and areas for further exploration in the existing literature on poverty measurement.

3.2 Comparison of poverty measurement approaches

The unidimensional approach measures poverty quantitatively, classifying people or households as impoverished if their income falls below predetermined "poverty lines" (Laderchi et al., 2003). This technique is commonly used with tools like the Foster-Greer-Thorbecke (FGT) formula (Foster et al., 1984). It provides important data for fiscal and economic policy initiatives, allowing policymakers to assess poverty levels using actual economic criteria. However, because the metric considers only monetary thresholds and disregard non-economic aspects critical to well-being, such as social participation, health, and education, it fails to capture the multifaceted reality of poverty. For example, in Ethiopia, health and education deprivations caused 44% of the population to be multidimensional poor, whereas income-based measurements found 23% of the population to be poor (OPHI, 2022). This striking disparity shows that the multifaceted frameworks are capable to uncover hidden facets of poverty that income-based approaches neglect.

Hence, the HPI, HDI, and MPI all take into account elements that influence welfare like educational achievement, health outcomes, and living conditions. Unlike the one-dimensional paradigm, the MPI approach emphasizes the interconnectivity deprivations and underlines that poverty is beyond just a lack of financial income; it is also a failure to accomplish basic human skills (Sen, 1985; Alkire and Foster, 2011). Multidimensional metrics, similarly capture the numerous forms of poverty, giving policymakers a more precise picture of where to concentrate their efforts. In areas with limited data sources, however, this approach may face challenge since it frequently needs extensive data collection and exact weighting of the indicators. Despite this drawback, the approach recently attracted the attention of development professionals and is generally gaining recognition as an important technique for comprehensive understanding of and mitigating of all forms of poverty. The method also provided a strategically inclusive approach to policymaking (Alkire et al., 2020).

A useful overview of the pros and cons of the various poverty measures point towards a shift from the unidimensional to the multidimensional approaches. Simple and understandable income or consumption-based statistics take away from the reality of misery, whereas a rounded dimension offers a much more insightful picture of complex deprivation through a multidimensional assessment designed to encompass and appraise levels of standard-of-living, health, and education. With both approaches having merits, the multidimensional framework is now better recognized to afford a comprehensive and effective gateway for poverty-reduction policies with these insights.

Despite the fact that the MPI is a very compelling method of measuring poverty, it does stumble somewhat on flexibility in relating to local conditions on account of the dependence on standardized indicators. However, the holistic framework addressing poverty has turned out to be a highly important instrument in constituting and resolving the complexities of deprivation. The merits and demerits of each approach are given in Table 3.

Table 2: Analysis of the key literatures on multidimensional poverty (MP) topic

Topic of study	Main Findings	Critical Insight	Improvement Needed	Reference
The Sen index of poverty and its role in the multidimensional framework	Introduced the concept that poverty is beyond income (capability approach)	Focused on individual capabilities than just income or basic needs	Limitation in defining and measuring capability at national level	Thorbecke (2013)
The multidimensional poverty index: a comprehensive approach to poverty measurement	Introduced MPI that embraced health, education, and living standards as poverty components.	Presented more holistic approach that contributed to poverty measurement approach	Contextual variation in dimension selection, weight explanation and data limitation is not fully addressed	Alkire & Santos (2010)
Poverty measurement a multidimensional approach	Challenged the broader use of multidimensional poverty measures	Considered income as a primary dimension in poverty measurement	Failed to provide holistic model	Ravallion (2016)
Multidimensional poverty and wellbeing: revisiting approaches of measuring poverty in a changing world	Introduced new poverty measurement: the AF methodology	It provides robust tools in poverty measurement	Data shortage, especially in developing country was not fully addressed	Alkire & Foster (2011)
Multidimensional poverty: empirical evidence from the China family panel studies	Assessed different dimensions including income	Context specific multidimensional poverty measurement in china	Qualitative data was not targeted	Wang et al. (2021)
Multidimensional poverty in Ghana: a longitudinal analysis of determinants and outcomes	Evaluated determinants of poverty focusing on education and access to basic services and income	Assessed time variations	How multidimensional poverty interacts with gender, age, and other social factors in Ghana not addressed	Crentsil et al. (2019)
Multidimensional poverty and inequality: evidence from Ethiopia	Emphasized the role of education, health, and living conditions and measured MP.	Utilized robust data analysis technique	Other context specific dimensions not included	Misganaw et al. (2020)
Multidimensional poverty in Arab nations: a critical review	Revealed significant poverty levels	Showed how political instability and conflict influence poverty	Community participation for qualitative data missing	Fahad et al. (2023)

Table 3: Comparative Analysis of Poverty Measurement Approaches (Source: Fahad, et al., 2023; Williams et al., 2023; OPHI, 2022; World Bank, 2021; Addae-Korankye, 2019; Ravallion, 2016; Todaro & Smith, 2015; Alkire & Foster, 2011; Alkire & Santos, 2010; Alkire, 2007; Foster et al., 1984)

Description	Unidimensional Approach	Multidimensional Approach	
Measurement focus	Poverty is defined by income or consumption below a set threshold or poverty line.	Defined by multiple deprivations, including health, education, and living standards.	
Easiness	Simple to understand and apply globally; based on income or consumption alone.	Holistic understanding of poverty by including diverse aspects beyond income.	
Impartiality	Offers clear criteria to assess poverty with minimal subjective interpretation.	Objective but incorporates subjective elements.	
Global comparability	Facilitates upfront comparisons of poverty levels across countries/regions based on income.	Allows global comparisons with deeper analysis due to complexity.	
Relevance for policy intervention	Best for targeting financial needs (e.g., subsidies, income- based welfare programs).	Guides interventions in multiple sectors.	
Problem solving	Useful for addressing urgent financial needs.	More appropriate for creating long-term, sustainable poverty reduction strategies.	
Oversimplification	Reduces poverty to a single dimension.	Fail to address local context due to pre-determined indicators.	
Lack of future insight	Fails to account for vulnerability to future poverty.	Adjustable to evaluate future poverty.	
Equity issues	Does not capture inequalities within populations (gender, age, or geography).	Spots disparities & supports policies for more inclusive, equitable development.	
Data challenge	Relies mainly on income/consumption data, which are more readily available.	Requires extensive data across multiple sectors.	
Cultural sensitivity	May fail to consider cultural and contextual factors that influence poverty experiences.	May overlook locally specific factors unless adapted to cultural contexts.	
Judgement for measurement	Less open to subjective interpretation.	Open to subjective selection of indicators.	
Addressing up-to-date global issues	Doesn't address current global issues (digital inequality, climate change, or migration).	Though open to incorporate, often excludes new global challenges.	

Overall, though both poverty indices have limitations, the comparison overweighs the significance of multidimensional frameworks that consider multidimensions and indicators of poverty to capture the broad feature of poverty. While the MPI offers a complete perspective of poverty, it must grow to reflect current issues such as digital inequality, gender issue, and climate change. For example, internet access is fast emerging as indispensable for education and work; however, a sizeable number of disadvantaged households still lack it. Including such factors will ensure that poverty measures are relevant in a constantly evolving environment.

It is widely accepted that the MPI, comprising a diverse set of variables, will be more successful in capturing the many dimensions of poverty so that a better understanding of the phenomenon itself will be obtained if its weakness are handled. Attempts to remedy the problems need governments to invest on data infrastructure, especially in low-income countries, might enhance the accuracy and usefulness of multidimensional frameworks (Evans et al., 2024). Technological developments, like big data and satellite images, may improve poverty evaluations and provide affordable substitutes for conventional techniques (World Bank, 2022). Moreover, government needs to

adapt dimensions and indicators to reflect local cultural, social and environmental contexts to ensure their relevance and acceptance by community (Alkire & Foster, 2011; FAO & OPHI, 2022). It is also important to train policymakers and practitioners on the use of multidimensional indicators and the technical applicability which might help them develop and implement effective interventions (Scoones, 2015). Using subjective well-being indicators to acquire a better understanding of poverty and its consequences are also important (Brown et al., 2023). It is also important to incorporate dimensions and indicators addressing the emerging issues such as digital inequality, climate vulnerability, and urbanization.

3.3 Rethinking dimensions of poverty

In spite of the vast evidence supporting multidimensional poverty frameworks, their adoption is complicated mainly because of lack of data. The critics claim that multidimensional poverty measures are far too complex and difficult to deploy (Ravallion, 2016), and refinement to be more practical and policy-relevant is recommended. Thus, in Table 4, areas of improvement to the existing global MPI dimensions and indicators are pointed out; moreover, other dimensions to incorporate are suggested.

Table 4: Areas of Improvements to the multidimensional poverty index

Current dimensions	Existing indicators	Issues missing	Areas of improvement
Health	Nutrition	Dietary diversity	Food security; nutritious food affordability
	Child mortality	Adult mortality and maternal health	Access to emergency health care; maternal mortality
Education	Years of schooling	Quality of education	Efficiency of learning; digital literacy
	School attendance	Reason for dropout	Economic, gender and conflict
Living Standards	Cooking fuel	Pollution effect	Indoor air pollution
	Sanitation	Hygiene accessibility	Personal hygiene access
	Drinking water	Seasonal shortage and contamination	Water shortage; occurrence of contamination
	Electricity	Reliability	Power cut frequency; affordability
	Housing	Overcrowdings and security	Property right; displacement fear
	Assets	Separating productive and non-productive assets	Productive assets ownership (livestock, farming tools, digital devices)

Currently there is a need to propose new dimensions and indicators to be incorporated to the global MPI, based on a number of evolving poverty and inequality issues stemming from the current global challenges in the areas of financial inclusion, climate exposure, digital connectivity, and social inequalities. The new indicators and dimensions should be guided by modern poverty studies and reflect the SDGs that aim to tackle multidimensional poverty in a broader way. Figure 1 shows the dimensions and indictors of multidimensional poverty proposed to be included to the MPI based on (IPCC, 2022; World Bank, 2018; WEF, 2020). The framework is flexible, allowing for context-specific dimensions and indicators. A weighted structure for each dimension and indicators need to be assigned, computed from overall dimensions and indicators intended to be evaluated with regard to the current MPI.

3.4 Policy implications

The multidimensional poverty framework advances the goals of improved policy monitoring and assessment. The MP indicators comprise of several aspects of poverty in order to allow governments, among other things, to assess progress in health and education. This nexus is further integrated with the SDGs, linking education in the MPI to SDG 4 and health with SDG 3. Hence, due to this connection, multidimensional measurements are able to track not only changes in poverty but also future directions with the aim of realizing global goals. Knowledge of such measurements also provides the information necessary for designing social safety nets in a way that the programs will enable pre-emptive measures to reduce vulnerabilities before they grow into widespread deprivation. This holistic perspective enables governments to cultivate resilience and agency among their citizens, such that they never fall into the traps of poverty (Wong & Guggenheim, 2018). In this way, overlapping deprivations may be addressed by policy makers through addressing poverty dimensions, hence producing much more sophisticated, effective, and longterm policy solutions for the improvement of human wellbeing.

For instance, education reforms (accessibility and quality education) initiated by South Korea greatly reduced multidimensional poverty in the 1960s. As the result, the country was transformed from a low-income economy to a high-income economy; the frequency of poverty decreased from 50% in the 1950s to less than 4% by 2015 (Mukhopadhyay & Kundu, 2023). In the health sector, Rwanda's 'Mutuelles de Santé', meaning, community-based health insurance, now covers more than 90% of the population and has set a record in health insurance cost reduction, with child mortality reductions of about 60% (WHO, 2017). Under the social support program, Ethiopia's Productive Safety Net Programme has affected a total of 8 million people, thereby reducing the poverty rate from 38.7% in 2004 to 23.5% in 2016, through cash transfers and a work-for-money program (MoFED, 2016).

Future policy priorities should concentrate on sustainability through coordination social of development and financial access, environmental protection, digital connectivity and gender equity. Health, education, and standard of living will be important focuses, with improved food security, quality education, less school dropout, and better access to clean water, electricity, and decent housing. In addition, policy makers are suggested to consider environmental sustainability, digital inclusivity, social protection, and gender equality through reducing pollution, adapting to natural disasters, bridging the digital divide for marginalized groups, expanding social safety nets, and reducing gender gaps in accessing resources and opportunities respectively.

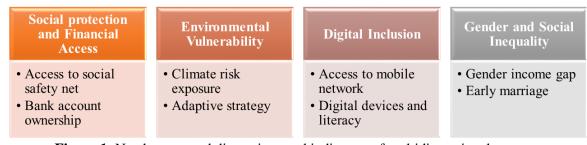


Figure 1: Newly proposed dimensions and indicators of multidimensional poverty

4. Conclusion

This review critically assessed poverty measurement frameworks with a focus on the need for going beyond income-based measures to reflect the multidimensionality of deprivation. It utilized framework analysis. The comparative study demonstrated that classical unidimensional measures are unable to capture important dimensions of poverty whereas multidimensional measures like the MPI provide a broader perspective by incorporating health, education, and living standards.

Key findings demonstrated significant disparities between income-based and multidimensional poverty measurements, with the MPI witnessed capturing holistic poverty features. The study also identified gaps in current MPI dimensions in the areas of education, health and living standards proposing additional but new indicators for each dimension. The proposed MPI enhancements include education factors like quality and dropout causes, health factors like adult and maternal mortality and dietary diversity, and living standards measured by hygiene, power cut frequency, and seasonal water shortages. Additionally, MPI is insufficient in incorporating other current global issues

such as social protection and financial access, digital device, gender equality, and climate vulnerability, which are increasingly relevant in modern poverty contexts. Data reliability, specifically in developing countries, is also a critical challenge.

The study calls for policy action that addresses multidimensional deprivations, coordinating poverty eradication efforts with SDG targets. Future researchers are encouraged to incorporate the proposed indicators of existing MPI and cover new issues, such as digital divide, climate change resilience, social protection and gender equality, aligning with contextually appropriate indicators for sound policy recommendation. To overcome data challenges, technological innovations like geospatial analysis are suggested to be utilized to enhance accuracy, track poverty dynamics, and improve policy effectiveness.

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Reference

- Addae-Korankye, A. (2019). Theories of Poverty: A Critical Review. *Journal of Poverty, Investment and Development*. 48, 55-62.
- Alkire, S. (2007). Choosing dimensions: The capability approach and multidimensional poverty, CPRC Working Paper 88. University of Oxford.
- Alkire, S., & Santos, M. (2010). Acute Multidimensional Poverty: A New Index for Developing Countries. OPHI Working Papers 38, Oxford Poverty and Human Development Initiative (OPHI), University of Oxford.
- Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics*, 95 (7-8), 476–487.
- Alkire, S., Foster, J.E., Seth, S., Santos, M.E., Roche, J.M., & Ballon, P. (2015). Multidimensional Poverty Measurement and Analysis: Chapter 5 *The Alkire-Foster Counting Methodology*. Oxford Poverty & Human Development Initiative (OPHI), Working Paper NO. 86.
- Alkire, S., Kanagaratnam, U., & Suppa, N. (2020). The Global Multidimensional Poverty Index (MPI) 2020. OPHI MPI Methodological Note 49, Oxford Poverty and Human Development Initiative (OPHI), University of Oxford.
- Anand, P., Jones, S., Donoghue, M. &, Teitler, J. (2021). Non-monetary poverty and deprivation: A capability approach. *Journal of European Social Policy*, 31(1), 78–91.
- Bebbington, A. (1999). Capitals and capabilities: A framework for analyzing peasant viability, rural livelihoods, and poverty. *World Development*, 27(12), 2021–2044.
- Bird, K. (2013). The Intergenerational Transmission of Poverty: An Overview. In: Shepherd, A., Brunt, J. (eds) *Chronic Poverty*. Rethinking International Development Series. Palgrave Macmillan, London.
- Bradshaw, T.K. (2007). Theories of Poverty and Anti-Poverty Programs in Community Development. *Community Development*, 38 (1), 7-25.
- Brown, C., Ravallion, M., & van de Walle, D. (2023). Child Health and the Housing Environment. *World Development*, 168, 106265.

- Chambers, R., & Conway, G.R. (1991). Sustainable rural livelihoods: Practical concepts for the 21st century. IDS Discussion Paper 296. Brighton: Institute of Development Studies.
- Crentsil, A.O., Asuman, D., & Fenny, A.P. (2019). Assessing the determinants and drivers of multidimensional poverty in Ghana. *Energy Policy*, 133, 110884.
- Desawi Kiros Gebrekidan, Abate Mekuriaw Bizuneh, & Cameron, J. (2021). Determinants of Multidimensional Poverty among Rural Households in Northern Ethiopia. *Journal of Rural and Community Development*, 16(1), 133–151.
- Edmore, M., & Odhiambo, N.M. (2018). The Dynamics of Extreme Poverty in Developing Countries. *Economics Series*, 28(2), 18-35.
- Evans, M., Nogales, R., & Robson, A.M. (2024). Monetary and Multidimensional Poverty: Correlations, Mismatches and Joint Distributions. *The Journal of Development Studies*, 60(1), 147-170.
- Fahad, S., Nguyen-Thi-Lan, H., Nguyen-Manh, D., Tran-Duc, H., & To-The, N. (2023). Analyzing the status of multidimensional poverty of rural households by using sustainable livelihood framework: policy implications for economic growth. *Environmental Science and Pollution Research*, 30, 16106–16119.
- FAO & OPHI (2022). *Measuring rural poverty with a multidimensional approach: The Rural Multidimensional Poverty Index*. FAO Statistical Development Series, No. 19. Rome, FAO.
- Foster, J., Greer, J., & Thorbecke, E. (1984). Foster-Greer & Thorbecke, E., 1984. A class of decomposable poverty measures. *Econometrica*, 52 (3), 761-766.
- Hoff, K., & Walsh, J. (2018). The Whys of Social Exclusion: Insights from Behavioral Economics. *Research Observer*, 33(1), 1-33.
- IPCC (2022). Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge, UK and New York, NY, USA.
- Laderchi, C.R., Saith, R., & Stewart, F. (2003). Does it matter that we do not agree on the definition of poverty? A Comparison of four approaches. *Oxford Development Studies*, 31(3), 233-274.
- Misganaw Teshager Abeje, Tsunekawa, A., Nigussie Haregeweyn, Zemen Ayalew, Zerihun Nigussie, Daregot Berihun, Enyew Adgo, & Asres Elias (2020). Multidimensional Poverty and Inequality: Insights from the Upper Blue Nile Basin, Ethiopia. Soc Indic Res 149, 585–611.
- MoFED (2016). Growth and Transformation Plan II (GTP II) (2015/16-2019/20). Ministry of Finance and Economic Development, Addis Ababa, Ethiopia.
- Mukhopadhyay, M., & Kundu, A. K. (2023). Assuring Quality Education for All: South Korea, In book: Academic Framework for 21st-Century Schooling: Promoting Global Peace and HarmonyPublisher: IGI Global.
- OPHI (2022). Global MPI 2022 Unpacking deprivation bundles to reduce multidimensional poverty, OPHI. https://ophi.org.uk/global-mpi-report-2022/.
- Ravallion, M. (2016). The economics of poverty: History, measurement, and policy. New York: Oxford University Press.
- Sameti, M., Esfahani, R.D., & Haghighi, H.K. (2012). Theories of Poverty: A Comparative Analysis. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1(6), 45-56.
- Scoones, I. (2015). Sustainable Livelihoods and Rural Development. Rugby, Practical Action Publishing.
- Sen, A. (1985). Commodities and Capabilities. Amsterdam: North-Holland.
- Sen, A. (2000). Social Exclusion: Concept, Application, and Scrutiny. Social Development Papers No. 1, Asian Development Bank, Manila, Philippines.
- Shepherd, A. (2013). An Evolving Framework for Understanding and Explaining Chronic Poverty. In: Shepherd, A., & Brunt, J. (eds) Chronic Poverty. Rethinking International Development Series. Palgrave Macmillan, London.
- Thorbecke, E. (2013). Multidimensional Poverty: Conceptual and Measurement Issues. In: Kakwani, N., Silber, J. (eds) The Many Dimensions of Poverty. Palgrave Macmillan, London.
- Todaro, M.P., & Smith, S.C. (2015). Economic Development: 12th edition, Pearson, USA.
- Townsend, P. (2013). International Analysis of Poverty. Routledge. New York, USA.
- UN (2015). Transforming our World: The 2030 Agenda for Sustainable Development, A/RES/70/1. United Nations,
- UNDP (2022). Crisis, Resilience and Opportunity: Poverty, Human Development, and the Macro-Economy in Ethiopia, 2020-23, Working Paper Series No.1, Ethiopia: UNDP.
- Wagle, U. (2008). Multidimensional Poverty Measurement: Concepts and Applications. Part of the book series: *Economic Studies in Inequality, Social Exclusion and Well-Being* (EIAP, volume 4), Springer.

- Wang, W., Lan, Y., & Wang, X. (2021). Impact of livelihood capital endowment on poverty alleviation of households under rural land consolidation. *Land Use Policy*, 109, 105608.
- WEF (2020). Global Gender Gap Report 2020. World Economic Forum.
- WHO (2017). Primary health care systems (PRIMASYS): comprehensive case study from Rwanda. Geneva: World Health Organization.
- Williams, T.H., Iriobe, G.O., Ayodele, T.D., Olasupo, S.F., & Aladejebi, M.O. (2023). Do Illiteracy and Unemployment Affect Financial Inclusion in the Rural Areas of Developing Countries? *Investment Management and Financial Innovations*, 20(2), 89–101.
- Wong, S., & Guggenheim, S. (2018). Community-Driven Development: Myths and Realities. Policy Research Working Paper; No. 8435. World Bank
- World Bank (2021). Poverty and Shared Prosperity 2020: Reversals of Fortune. World Bank Group.
- World Bank (2022). Fact Sheet: An Adjustment to Global Poverty Lines. Retrieved from https://www.worldbank.org/en/news/factsheet/2022/05/02/fact-sheet-an-adjustment-to-global-poverty-lines.