

The Adoption of the Multidimensional Poverty Index in Developing Asia: Implications for Social Program Targeting and Inequality Reduction

*(Pengambilan Indeks Kemiskinan Pelbagai Dimensi di Asia Membangun: Implikasi untuk
Penyusunan Program Sosial dan Pengurangan Ketidaksamaan)*

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ABSTRACT

The size and effectiveness of government expenditure is widely acknowledged as critical for global inequality reduction and achieving the Sustainable Development Goals (SDGs) by 2030. Yet, in addition to fiscal limits, governments in poor countries face a host of administrative constraints for effective targeting of social spending. Similar governance deficits also affect many Asian middle-income countries. It is in this context that this paper revisits the call for countries to embrace multidimensional poverty and inequality instruments in poverty program planning and implementation throughout developing Asia. We do so by critically reviewing the related academic and policy literature and taking stock of how multidimensional poverty indices (MPI) are presently utilized in the process of designing, adopting and evaluating social protection strategies across developing Asia in general, and in the Middle East in particular. The relative pros and cons of the MPI and the proxy means tests (PMT), their respective records of implementation, and the prospects of applying them in tandem are discussed. In conclusion, we assess the policy significance and promise of an approach that integrates MPI and PMT, and discuss whether and under what circumstances, such as approach can be effective in the area of social program targeting and tailoring, particularly in middle-income Asian countries.

Keywords: Multidimensional poverty index; social protection; poverty targeting; proxy means test.

JEL: I0, I32, I38, P46, H72

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ABSTRAK

Saiz dan keberkesanan perbelanjaan kerajaan diakui secara meluas sebagai kritikal untuk mengurangkan ketidaksamaan global dan mencapai Matlamat Pembangunan Mampan (SDGs) menjelang 2030. Namun, sebagai tambahan kepada had fiskal, kerajaan di negara miskin menghadapi pelbagai kekangan pentadbiran untuk sasaran yang berkesan bagi perbelanjaan sosial. Defisit tadbir urus yang sama juga menjejaskan banyak negara berpendapatan sederhana di Asia. Dalam konteks inilah kertas kerja ini meninjau semula seruan agar negara-negara menerima instrumen kemiskinan dan ketidaksamaan multidimensi dalam perancangan dan pelaksanaan program kemiskinan di seluruh Asia membangun. Kami berbuat demikian dengan mengkaji secara kritis literatur akademik dan dasar yang berkaitan dan mengambil kira bagaimana indeks kemiskinan berbilang dimensi (MPI) digunakan pada masa ini dalam proses mereka bentuk, mengguna pakai dan menilai strategi perlindungan sosial merentasi membangun Asia secara amnya, dan di Timur Tengah dalam khususnya. Kebaikan dan keburukan relatif MPI dan (PMT), rekod pelaksanaan masing-masing, dan prospek penggunaannya seiring dibincangkan. Kesimpulannya, kami menilai kepentingan dasar dan janji pendekatan yang mengintegrasikan MPI dan PMT, dan membincangkan sama ada dan dalam keadaan apa, seperti pendekatan boleh berkesan dalam bidang penyusunan dan penyesuaian program sosial, terutamanya di negara-negara Asia berpendapatan sederhana. .

Kata kunci: Indeks kemiskinan multidimensi; perlindungan social; sasaran kemiskinan; ujian proksi min

INTRODUCTION

Many parts of developing Asia are characterized by high inequality and multiple forms of poverty. Systematic and persistent inequality and poverty is a policy challenge not only from the fairness and social-justice perspective, but also out of concern for sustaining macroeconomic growth (ECA, UNCTAD, UNDESA and UNICEF 2012; ILO 2022). Between-group gaps are a particular concern as they are associated with social polarization and conflict, as the events in the Middle East since 2011 show. However, how to measure and create provisions for poverty and inequality reductions in multiple dimensions is a policy challenge. This is particularly so following the introduction of the SDGs framework which has broadened the definition of poverty beyond monetary terms and a nation level phenomenon, additionally emphasizing the need to reduce welfare inequalities across different social groups.

While recent research on the trends in multidimensional poverty in developing countries shows that both income poverty and multidimensional poverty fell between 2000 and 2012, the decline in income poverty was twice as large as the decline in multidimensional poverty (Burchi et al. 2019). Moreover, the rate of decline was less responsive to economic growth -- the elasticity of multidimensional poverty to growth ILOs between five and eight times lower than that of income poverty (Balasubramanian et al. 2023). This suggests that growth alone is not enough -- reducing poverty in all dimensions requires targeted provisions.

In addition, governments within the developing world differ significantly in terms of administrative and fiscal capacity to support social programs. In the recent past, during the MDGs campaign, countries with strong state capacity registered larger fall in income poverty (Asadullah & Savoia 2018). In the pre-MDGs era, in East Asian countries like Malaysia, state capacity advantage in early years was critical for mass reduction in extreme poverty (Asadullah et al. 2021). For the SDGs goal of eliminating poverty by 2030, the challenge for income poor countries is to overcome the double hurdle of low budgetary spending as well as state capacity deficit (Asadullah et al. 2020). On the other hand, in middle income countries with adequate fiscal capacity, policymakers are interested in innovations to improve program implementation strategy.

Well-targeted social-protection schemes (either through public work or direct transfers) have been shown to reduce multidimensional poverty (Borga & D'Ambrosio 2021). However, targeting efficiency varies significantly across countries and how much can be gained through effective targeting remains debated given the gaps in state capacity. Conventional approaches for poverty-targeting such as proxy-means tests (PMTs) suffer from significant targeting errors. It is

in this context that, in this paper, we assess the proposal for a wider adoption of Multidimensional Poverty Index (MPI) and, whether and to what extent, it presents multiple advantages for planners, going beyond its traditional role as a national measure of poverty. We do so first by reviewing the regional trends in poverty and inequality in multiple dimensions. Then we present the case for multidimensional poverty indicators for measurements as well as poverty targeting purposes. This is followed by a review of the state of adoption and implementation of MPI methodology by developing Asian countries in the process of designing and rolling out social programs, targeting needy households, and tailoring multifaceted assistance to their needs. Finally, we consider the case for combining the strengths of money-metric targeting approaches such as PMT, with those of MPI, reflecting both on the merits of the proposal as well as the pre-conditions that need to be met for its successful implementation.

MULTIDIMENSIONAL POVERTY AND INEQUALITY ACROSS WORLD REGIONS

This section offers a brief overview of the nature and extent of inequality and poverty challenges across major world regions. In total, 11 indicators are considered. This includes 6 indicators of inequality, 3 of which refers to non-income inequality (i.e. life expectancy, education and their combination). Equally, of the 5 indicators of poverty, 3 corresponds to deprivations in multiple dimensions. For comparison purposes, we also consider regional disparity in human development. Therefore, by way of comparing monetary and non-monetary indicators, this section sets the context for our following discussion on the need for multidimensional measurements and targeting in developing Asia.

Table 1 presents the indicators by region for the period 2021-2010, wherever data is available for multiple years. A number of patterns are noticeable. First is the heterogeneity in the degrees of inequality and poverty across regions even within Asia. While in general poverty has declined in most regions, it has increased in the Middle East where income inequality is also relatively high compared to East and South Asia. Second, while income inequality varies across world regions, inequalities in life expectancy and education differ vastly between Europe and Central Asia, on one extreme, and Middle East, South Asia and Sub-Saharan Africa, on the other. Third, (extreme) poverty is distributed unequally across world regions. Europe and Central Asia, East Asia and the Pacific, and Latin America and the Caribbean have low monetary poverty rates and intensities, the Middle East and South Asia have medium poverty rates and intensities, and Sub-Saharan Africa has an extremely high prevalence and depth of poverty. The distribution of multidimensional poverty (to which living standards contribute between

one-quarter in Europe and Central Asia, to as much as one-half in Sub-Saharan Africa) is more unequal.

Lastly, comparison of the level of human development in the regions, against this level adjusted for multidimensional inequalities, highlights the importance of the inequalities to the human experience. The adjustment is largest in the Middle East, South Asia and Sub-Saharan Africa, relatively small in East Asia and the Pacific, and smallest in Europe and Central Asia.

Based on the data presented in this section, within Asia, inequality reduction in the Middle East presents a unique challenge. Compared to East Asia (a region with a comparable average per capita income) and based on the latest data (i.e. year 2021), the region has a relatively high income share of the richest 10% (26.6%), inequality in life expectancy (14.1%), inequality in life education (33.1%). Unsurprisingly the ME also lags behind East Asia in terms of multi-dimensional poverty (both headcount and intensity) as well as human development indices. Multidimensional inequality, proxied by the coefficient of human inequality is also very high when compared to East Asia (24.2% vs 15.5%). This implies that addressing multidimensional poverty in the region may have the added benefit of reducing inequality in the region. For this reason, our later discussion on multidimensional poverty targeting primarily focuses on the Middle East.

SOCIAL PROTECTION PROGRAMS AND COMPETING TARGETING APPROACHES

A fundamental issue for effective social-protection programs is the choice of targeting criteria to select the beneficiaries. Well-known social protection schemes such as India's National Rural Employment Guarantee Act (NREGA), China's rural minimum living standard guarantee (Dibao) program, Peru's Juntos and Ethiopia's Productive Safety Net Program (PSNP) work by targeting poor families or individuals. Depending on the government's priorities, this can range from (i) means tests (setting a threshold based on income or asset indicator); (ii) proxy means tests (threshold based on a score of socioeconomic status); (iii) categorical targeting (targeting of socio-demographic groups); (iv) geographical targeting (targeting based on a mapping of socioeconomic indicators); (v) community-based targeting (CBD) and (vi) self-targeting (targeting through self-selection for participation) (IPC-IG 2012; Hanna & Karlan 2017).

THE EVIDENCE AGAINST PMT

In general, most targeting efforts in the recent part is motivated by a money-metric definition of poverty which explains why PMT continues as the dominant approach throughout Asia. Compared to PMT, MPI is relatively recently developed, partly in response to growing

evidence against PMT-based targeting. PMT measures poverty via the collection of verifiable and observable proxy indicators of household budget, along with data on demographics and welfare aggregates, and imputes households' welfare scores used to rank households based on need and thereby establish a repository of potentially eligible households from which social assistance programs can draw beneficiaries according to the respective programs' defined PMT score cut-off points and eligibility criteria.¹

However, a host of problems and challenges arise when relying on PMT based targeting. For developing Asia, these have been well-researched. Many programs suffer from serious exclusion errors in their targeting (Brown et al. 2018). Research also confirms that, at least among certain demographic groups, monetary poverty does not capture the multiple forms of deprivations (Bader et al. 2016; Illien et al. 2022). Eligible households have no better than one-in-two chance of being selected, and in some cases even view proxy means testing as a lottery (Cruz-Martínez 2019; Grosh et al. 2022).

Relatedly, Alatas et al. (2012) compared PMT targeting with community-based-targeting (CBD) – which is by its nature more multidimensional and subjective – in Indonesia. They concluded that PMT targets consumption-deprived households better in rural settings, but community-based targeting performs as well as PMT in semi-urban areas, where people hold poverty concepts more akin to the consumption poverty addressed by the PMT. Many scholars therefore are arguing in favor of a new approach to target the poor for social service delivery. A single PMT formula may not fit well different households such as those with children or those with elderly, and better targeting and tailoring of aid is needed. Gender-disaggregated information may complement the construction of the PMT. Overall, the above findings call for designing efficient multidimensional poverty targeting policies (Duclos et al. 2018).

THE CASE FOR USING MPI MEASURES

It is well-acknowledged that global goal setting can have a profound impact on national strategies for poverty and inequality reduction. During the first decade of the new millennium, by way of introducing Poverty Reduction Strategy Papers (PRSPs), national development strategies incorporated the Millennium Development Goals (MDGs) into development planning (Seyedsayamdost 2018). In some instances, even non-PRSP national strategies also responded to MDGs, though the adaptation strategies differ by country context. This legacy has prompted global development partners and national planners to incorporate SDGs in their planning instruments for ending poverty and inequality by 2030.

TABLE 1. Inequality, poverty and human development: Asia vs Rest of the World

	Year	East Asia & the Pacific	South Asia	Middle East	Central Asia & Europe	Latin America & the Caribbean	Sub-Saharan Africa	World
Inequality indicators								
Income inequality								
Income share of poorest 40% (%)	2021	17.6	20.1	20.8	19.7	13.6	16.2	18.1
	2019	17.3	19.2	20.7	19.7	12.9	15.4	17.6
Income share of richest 10% (%)	2021	29.5	29.3	26.6	26.7	36.7	32.6	29.9
	2019	29.5	30.9	26.6	27.2	37.8	33.9	30.6
Inequality in income (%)	2021	25.4	18.9	25.3	16.5	33.9	27.1	23.2
	2019	26.2	18.5	25.4	17.2	34.9	27.6	23.8
	2015	27.4	17.8	26.2	16.7	34.9	27.4	23.8
Non-income inequality								
Inequality in life expectancy (%)	2021	7.9	17.6	14.1	7.3	10.1	28.3	13.2
	2019	9.9	20.2	15.0	9.7	11.6	29.7	14.7
	2015	11.2	23.9	17.9	13.2	14.0	34.9	17.1
Inequality in education (%)	2021	13.4	36.2	33.1	7.0	14.8	34.3	21.7
	2019	13.4	37.5	32.5	8.2	18.0	34.1	22.1
	2015	18.3	39.5	37.1	7.9	19.7	34.0	25.9
Coefficient of human inequality (Avg. %)	2021	15.5	24.3	24.2	10.3	19.6	29.9	19.4
	2019	16.5	25.4	24.3	11.7	21.5	30.5	20.2
	2015	19.0	27.1	27.1	12.6	22.9	32.1	22.3
Poverty indicators								
Income poverty								
Poverty Headcount at \$2.15/day 2017PPP	2019	1.1	8.5	7.5	2.4	4.3	35.1	8.4
	2015	2.7	16.7	4.8	3.2	4.2	38.0	10.8
	2010	13.3	26.2	1.8	4.2	6.4	42.1	16.3
Poverty Gap at \$2.15/day 2017PPP	2019	0.2	1.5	2.3	0.7	1.5	12.6	2.6
	2015	0.5	3.3	1.3	0.9	1.4	13.7	3.1
	2010	3.3	5.7	0.4	1.4	2.6	15.9	4.7
Multidimensional poverty								
MP Headcount (%)	2021	5.4	29.0	14.5	1.0	6.9	53.4	—
	2019	5.4	29.2	15.8	1.0	7.2	55.0	—
MP Intensity (%)	2021	42.5	45.2	48.7	38.0	42.8	53.5	—
	2019	42.5	45.2	48.5	38.1	43.0	54.3	—
MPI: Living standards contribution (%)	2021	36.9	42.3	39.1	22.4	37.4	48.6	—
	2019	36.8	42.3	38.8	22.6	37.9	48.4	—
Human development								
HDI (Score)	2021	0.749	0.632	0.708	0.796	0.754	0.547	0.732
	2019	0.748	0.641	0.715	0.802	0.768	0.552	0.739
	2015	0.722	0.623	0.697	0.783	0.758	0.534	0.724
	2010	0.684	0.576	0.676	0.746	0.733	0.503	0.697
Ineq-adj. HDI (Score)	2021	0.630	0.476	0.534	0.714	0.601	0.383	0.590
	2019	0.621	0.475	0.531	0.697	0.596	0.380	0.587
	2015	0.581	0.449	0.498	0.660	0.575	0.355	0.557
	2010	0.505	0.361	0.426	0.607	0.527	0.261	0.489

Source: Authors' compilation based on data from various reports. Poverty headcount and gap are from the World Development Indicators, World Bank. The rest of indicators are from the Human Development Reports 2011 (Year 2010), 2016 (Year 2015), 2020 (Year 2019), 2021–2022 (Year 2021).

Notes: (i) “Inequality in income” refers to Atkinson inequality index for income; “Inequality in education” refers to Atkinson inequality index for years of schooling; “Inequality in life expectancy” refers to Atkinson inequality index for expected length of life; “Coefficient of human inequality” refers to unweighted average of inequalities in income, health and education. (ii) “MP Headcount” refers to “share of population in multidimensional poverty”; “MP Intensity” refers to multidimensional poverty gap against poverty threshold. (iii) HDI refers to Human Development Index; “Ineq.adj. HDI” refers to HDI adjusted for inequalities in the 3 basic dimensions of human development. (iv) The regional categorization is based on the UNDP report. Middle East comprises Algeria, Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Palestine, Oman, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, UAE, Yemen. For poverty headcount and gap, it also includes Iran, Israel and Malta; East Asia & the Pacific comprises Brunei Darussalam, Cambodia, China, Fiji, Indonesia, Kiribati, DPRK, Laos, Malaysia, Marshall Islands, FS Micronesia, Mongolia, Myanmar, Nauru, Palau, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu, Viet Nam; Europe & Central Asia comprises Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Montenegro, North Macedonia, Serbia, Tajikistan, Türkiye, Turkmenistan, Ukraine, Uzbekistan.

Similar to the PRSPs of the MDGs era, the 2030 Agenda for Sustainable Development nudges countries to prepare regular, inclusive country-led and country-driven briefs i.e. Voluntary National Reviews (VNRs), on the progress made in the implementation of the SDGs. Compared to the MDGs, policy targets and goals related to SDGs are many. Therefore poverty measures that consolidate multiple measures in a unified framework while also allowing country specific customization offer an advantage. Therefore, unsurprisingly, a number of countries have already used national MPIs as part of the process to measure their progress in VNRs of the High-Level Political Forum on Sustainable Development.

While everyone agrees that poverty is more than income deprivation, there is a lively debate on how this should be measured including whether a single aggregate metric is at all appropriate and feasible (e.g. see Ravallion 2011; Ferreira & Lugo 2013; Dutta et al. 2021). In spite of this academic discourse, MPI has emerged as an international harmonized indicator simultaneously capturing overlapping deprivations in multiple dimensions of well-being – health, education, and living standards – and complementing traditional monetary poverty measures (OPHI 2018). This framework allows nuanced comparisons between countries and over time, and poverty reduction tracking in terms of both intensity (or depth) and incidence (or population headcount ratio) of poverty in multiple dimensions and that too in different country settings (Alkire & Foster 2011). The approach is also attractive for capturing chronic poverty which often takes the form of a lack of access to assets (such as land or credit) and capabilities (e.g. education, ill health) as well as locational disadvantage (remote or resource-constrained region) and social discrimination (e.g. owing to ethnicity) (Morvaridi 2014, p.7).

The primary instrumental significance of MPI, which incentivizes its adoption in national poverty planning processes, is that MPI contributes to measuring and tracking the status of progress towards meeting the SDGs by 2030. Regional and global MPIs are aligned with the SDGs as they address concurrently multiple SDGs and their indicators (UNDP & OPHI 2019).

MPI may improve the targeting of multidimensional deprivations by channeling aid to the most *socially* disadvantaged groups or regions, in order to reduce their

individual MPI deprivations. To the extent that even prosperous regions include some disadvantaged units, additional subnational targeting using MPI measures may identify such pockets of poverty. Finally, MPI can address both spatial and horizontal inequality, and can be helpful for developing specific actions tailored to local needs.

Some countries have started relying on MPIs as an instrument for the formal design, enactment and evaluation of social policies and programs, or are on the path to formalizing the role of MPIs in their policymaking processes. On the methodological side, major strides have been made on projecting MPI to years without survey microdata (particularly future years), under alternative scenarios regarding the available type of external information, and under various assumptions regarding future shocks and their distribution across the population (ESCWA 2021). A policy optimization methodology has been devised to derive the best poverty-reduction strategy – identifying the channels and the needed interventions to achieve the multidimensional-poverty reduction target subject to least cost (ESCWA 2022b). These developments in regional knowledge present an ideal opportunity to identify how MPIs could contribute conceptually to social protection program design, targeting and evaluation, properly measuring deprivation, locating pockets of poverty, identifying innovative poverty-reduction strategies, and assessing the effectiveness of new policies, at the national and especially the subnational level across developing Asia.

MPI ADOPTION AND SOCIAL PROGRAM TARGETING ACROSS ASIA

Today, many countries worldwide use their national MPIs to track their progress in relation to SDG1 Target 1.2, Indicator 1.2.2. This includes Bhutan among others.² Nepal’s National Planning Commission (NPC) uses multidimensional poverty to yardstick its achievements in relation to the 2030 Goals. Beside Poverty (SDG1), some countries find the MPI to be informative in relation to other SDGs including Food Security (SDG2), Education (SDG4), or Water and Sanitation (SDG6). Some countries also advocate for the use of the MPI at a finer degree of granularity, and emphasize the need to disaggregate MPI by subnational groups.

As per UNDP's classification for developing countries, the MPI 2019 covers the following countries: 40 out of 46 in Sub-Saharan Africa; 7 out of 9 in South Asia; 11 out of 24 in East Asia and the Pacific; 11 out of 20 in the Arab region; 20 out of 33 in Latin America and the Caribbean; and 12 out of 17 in Europe and Central Asia. The global MPI has further been adapted to countries' domestic needs through the construction of locally tailored MPIs. The following paragraphs summarize the current state of use of MPI in policymaking across Asia.

In *South Asia*, the majority of countries do have national MPIs, but only a handful have used the MPI as a formal policy tool (UNDP Bangkok Regional Hub 2019). In Bhutan, the national MPI serves as an important factor considered in allocating national resources to local governments. India uses a multidimensional poverty targeting approach with a view to leaving no one behind; including in Andhra Pradesh State where MPI is used to encapsulate the deprivations faced by location and social categories, and to support evidence-based policymaking aimed at alleviating multidimensional poverty. Nepal monitors the main simultaneous disadvantages affecting the multidimensionally poor, tracks the advance toward the meeting of the SDGs, complements the monetary poverty measurement and supports more forceful and multi-sectoral policies at both the country and the local level (UNDP & OPHI 2019). In Pakistan, the national MPI is used for planning, resource allocation, and evaluation of social programs (Iqbal & Nawaz 2019). The government of Bangladesh has acknowledged the role of MPI in making countries' progress comparable in the global perspective. Finally, Maldives have recently adopted MPI as poverty assessment tool.

In *East and Southeast Asia*, the record of MPI adoption has been rich. In China, household-level Accurate Poverty Targeting program has been conducted using the MPI to coordinate policies aspiring to target the most deprived households (Alkire 2020). The Philippines has endorsed a national MPI in 2018 as a tool to gauge the status of comfortable lifestyle among the country's population, and to identify beneficiaries of targeted assistance programs. Vietnam has used the MPI for policy development and evaluation down to the level of communes. Cambodia included the multidimensional child poverty in the strategic results framework of the Rectangular Strategy Phase IV in 2018 which formulates and prioritizes annual budget. Laos has committed to reduce multidimensional child poverty via a multi-pronged advocacy strategy which combines hard evidence and high-level meetings made to prioritize investments in children and adolescents; in addition to monitoring and evaluating progress on these commitments. Thailand has become one of the first countries to adopt a child multidimensional poverty index in 2019, which increased awareness on non-monetary dimensions of child poverty, and secured

quality measurement to monitor reductions in child poverty in all its dimensions.

In *Western Asia*, Armenia has adopted a national MPI to complement the existing income poverty measures, and monitor progress and development goals (UNDP & OPHI 2019). In the *Middle East* region, national MPIs have been adopted in Iraq, Palestine, and a proposal in an advanced stage exists in Jordan. National consultations have occurred in Oman, Qatar, Saudi Arabia and Syria. Palestine formally adopted its national MPI in 2017. It is presently working on revising its PMT targeting formula based on a more multidimensional conception of poverty. In Jordan, a two-step multidimensional vulnerability assessment has been used to target social program recipients.

In spite of the growing evidence in favor of MPI and against PMT, in the area of targeting of social protection programs, the MPI has not been adopted as widely as the proxy means test (PMT) targeting instrument, which we consider to be a major gap in practice as well as an opportunity.

FROM PMT TO MPI ADOPTION FOR TARGETING PURPOSES: A UNIFIED FRAMEWORK

Due to the known errors in existing targeting approaches, as discussed earlier, one proposal is a complementary multi-dimensional targeting approach based on non-monetary criteria to supplement monetary PMT. MPI might be more complete in its dimensions and indicators than PMT methods, assessing living conditions that may be harder for beneficiaries to misrepresent. This does not necessarily translate into a better identification of a target population or the necessary level of support. This may be either because the PMT could be already doing a reasonable job to that end, or because of a possible trade-off in technical specifications between the two methods.

A combination of PMT and MPI could resolve some drawbacks of the two standalone approaches. Besides providing validation for one another (e.g. through the correlations of their scores), PMT and MPI may be used sequentially, for example with MPI identifying subnational localities with greatest deprivations, where a PMT-style household census could be administered. MPI could also potentially inform the construction of the PMT formula by pointing out the clearest indicators of overall poverty in the country. Similarly, once target beneficiaries are identified, MPI could advise regarding the most relevant needs in terms of in-kind support and required social services. In follow-up studies of support take-up, graduation from dependency, and the need for expansion/curtailment of the program, MPI survey could be used to assess candidate households' various needs and coping strategies. These ideas have been summarized in Figure 1.

The Middle East, comprising mostly middle-income countries, offer a good setting for further experimentation with MPI-based targeting given that, over the past ten years, the governments here have exerted considerable efforts to reforming their social protection systems. For non-contributory social protection, i.e. social assistance, there has been a clear shift in the region from universal subsidies to targeted cash and in-kind transfers, particularly amid the uneven impacts of COVID-19. Employment guarantee schemes and employment-intensive investment programs have also received active consideration. As poverty targeted social assistance has been rolled out, public resources allocated to social assistance gradually become concentrated on the monetary poor and the vulnerable rather than distributed to residents at large (ESCWA 2021; Kurdi et al. 2018; Abdelkhalek & Boccanfuso 2021). However, the experiences with and practices of social assistance implementation varies across countries and may be challenged owing to exclusion by design, subjectivity and bias, costliness, or moral hazard (Kurdi et al. 2018). As an advanced quantitative alternative, the PMT policy targeting approach has been devised and rolled out in countries worldwide³.

To seriously consider MPI for use in social program targeting, the MPI construct must reflect local norms and living conditions on the ground. Over the past five years, major strides have been made in the Middle East towards designing, adopting and streamlining the use of MPIs. Regional intergovernmental organizations have advocated for the use of MPIs – both national MPIs and

the regional Arab MPI – in tracking countries’ socio-economic status and progress both in absolute and relative terms (ESCWA et al. 2017). In fact, the Arab MPI is the first formally adopted regional MPI globally. During 2019–2020 substantial efforts were extended towards producing a revised Arab MPI better tailored to capturing the moderate degrees of deprivation seen across the region. This presents an opportunity to experiment with the integrated MPI-PMT approach in the region.

A NOTE OF CAUTION: PRE-CONDITIONS FOR SUCCESSFUL IMPLEMENTATIONS

To our knowledge, the PMT approach has not been (adequately) combined with MPI information. We recommend more pilot studies attempting that, using one of several scenarios (or stages) for the integration of MPI and PMT, as summarized in Figure 1. Given cross-country differences in institutional capacity and the availability and quality of administrative data, however, our analysis does not recommend a universal adoption of an integrated approach. For successful governments keen to adopt an integrated approach, a number of factors should be taken into account: (1) whether respondents can be matched across health survey and economic census; (2) whether the ministry of social affairs is capable to provide cash/in-kind assistance at the level of survey sampling units (city blocks) versus at the census/household level; (3) whether the state has good administrative capacity to condition transfers, or monitor households’ behavioral response.

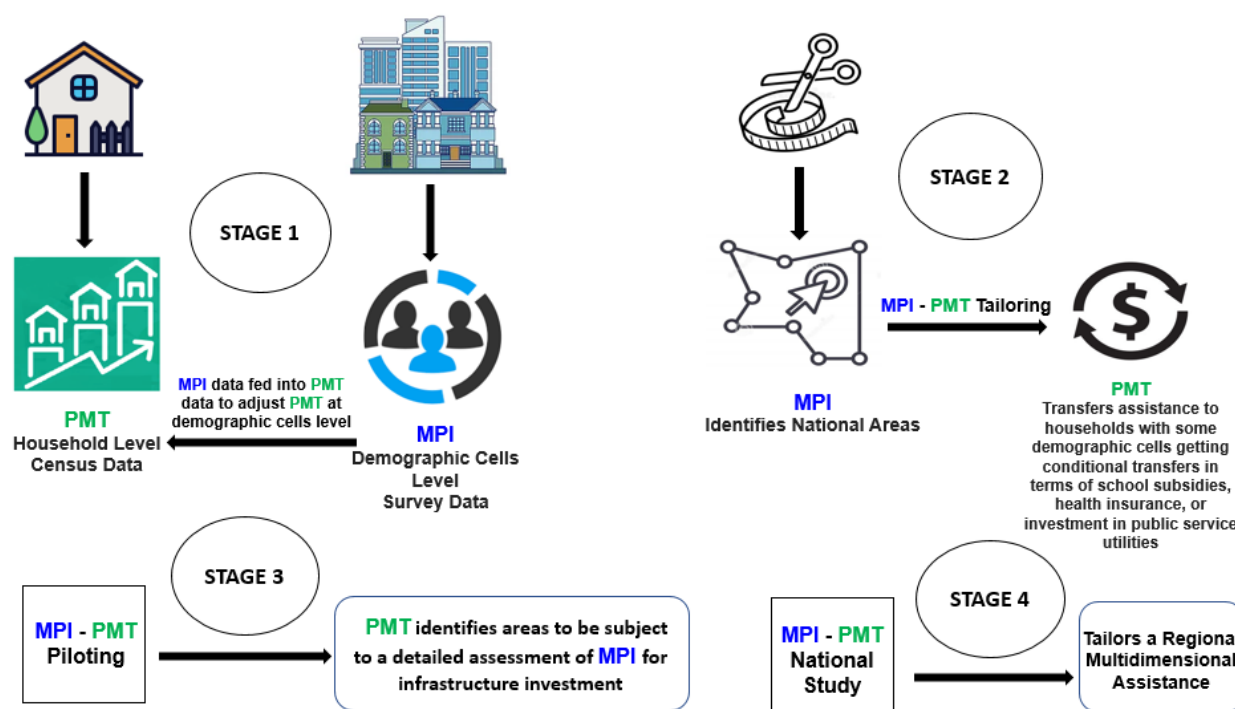


FIGURE 1. A proposed MPI-PMT approach

Moreover, an MPI-based targeting approach (including one that combines with PMT) is demanding, requiring data from socioeconomic surveys and an economic census. This is a continuing challenge in parts of the world where reliable data is lacking in general. Exceptions (within the Middle East) include Palestine which is experimenting with the use of national MPI for targeting the beneficiaries of the Palestinian National Cash Transfer Program, both directly and by informing the updates to its PMT formula (ILO 2022).

For the MPI to serve as an effective measurement tool and to guarantee its sustainability, the following main principles should be adopted (UNDP & OPHI 2019; UNDP Bangkok Regional Hub 2019): *Policy buy-in* is needed whereby MPI is approved and implemented with the support of national leadership and civil society. *Technical implementation* should be conducted, whereby rigorous, non-partisan, action-impacted indicators are selected, and are regularly updated to generate solid information. *Strong communication strategy* can facilitate stakeholder engagement and the understanding and acting on the findings. *Credible data* of good quality and a nationally-representative sampling frame are needed to guarantee the precision of targeting, and sustainability of the measure over time. *Facilitation* can lead to geographically and demographically finely disaggregated data to inform local planning, resource allocation and aid targeting.

Lastly, MPI also has some drawbacks. For instance, flow data are not available for all indicators, including standard MPI indicators (e.g., child mortality irrespective of the time of death), household outputs (e.g., schooling years), and inputs (e.g., indoor cooking fuel); health data are inadequate and overlook some groups' deprivations particularly for nutrition. Missing data must often be addressed case-by-case; intra-household inequalities are typically not reflected; and MPI does not measure inequality among the poor although it reflects the intensity of poverty experienced (OPHI 2018; UNDP Bangkok Regional Hub 2019). In follow-up studies of support take-up, graduation from dependency, and the need for expansion/curtailment of the program, MPI surveys could be used to assess candidate households' various needs and coping strategies.

CONCLUSION

Based on a critical review of the emerging literature, this paper has offered a synthesis of the emerging literature advocating the use of MPI both as a measurement and targeting tool and offer a framework that integrates the MPI with the PMT approaches. We have argued that those advocating in favor of wider adoption of multi-dimensional indicators in national planning processes in the post-MDG era has been partly motivated by the ambitious set of targets included in the SDGs

and the related challenges of poverty planning and administration. Our global overview of trends in poverty and inequality indicators also underscores the need for employing multiple measures.

In this context, our paper offers a conceptual analysis of social program targeting for poverty and inequality reduction and additionally present a framework for multi-dimensional poverty targeting. While a thorough empirical assessment of the competing targeting approaches in a unified framework is still lacking in the literature, a number of new studies are calling for such an integrated approach in future assessments (e.g. see Robano & Smith 2014) who applied the MPI measure to fine-tune the targeting of the ultra-poor program in Bangladesh; MPI has been used for impact evaluations). While we welcome this shift in the poverty scholarship, we have stressed on the importance of policy learning i.e. how existing experiences with income-based targeting and CBD can offer lessons for countries assessing the merits of PMT, MPI and other standalone or mixed targeting approaches, and for other countries developing poverty and inequality targeted social assistance programs.

On the inequality front, just as with poverty, income distribution provides only a partial unidimensional view of human inequality experiences. Multidimensional inequalities are "driven by specific, inter-related bio-medical, cultural-psychological, and politico-economic processes" and lead to "life-curves of widening gaps between advantage and disadvantage, as well as longer and shorter life-spans" (Therborn 2015). With the aim to enhance broader human capabilities and self-realizations as per Amartya Sen's vision, and with the urgency of approaching the targets of the SDG 10, it is important to design and implement policies addressing the overlapping inequalities in various fundamental spheres of social, political and environmental capabilities (ESCWA 2022a).

To other words, regardless of whether MPI per se becomes more universally accepted and integrated in social policy design across countries worldwide, policy makers and practitioners in Asia would do well to buy into the norm of constructing, harmonizing and monitoring poverty and inequality using a combination of monetary and non-monetary indicators, and using them along other approaches to identify multidimensionally-deprived households.

NOTES

- ¹ Data are analysed via regression which correlates certain proxies indicating the variation in logarithm of total expenditure per capita by selected explanatory variables such as assets and household characteristics. Finally, a ranking of all applicants is doable by welfare ranging from the poorest (lowest score) to the less vulnerable (highest score).

- ² Bhutan also relies on the Child MPI in this regard, while Rwanda reports also using MODA.
- ³ A regional MPI for Latin America has been recently proposed and statistically validated, and is slated for member states' endorsement (Santos & Villatoro 2018).
- ⁴ PMTs are known to suffer from lack of transparency and accountability, and from inclusion and exclusion errors (Brown et al. 2018). Recipients of PMTs do not align perfectly with the neediest units considering households' multiple deprivations in various dimensions and of various degrees. On the other hand, there is emerging evidence that targeting performance is better based on multidimensional poverty than based on monetary poverty (Han & Gao 2019).

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ONLINE APPENDIX

PMT measures poverty via the collection of verifiable and observable proxy indicators of household budget, along with data on demographics and welfare aggregates, and imputes households' welfare scores used to rank households based on need and thereby establish a repository of potentially eligible households from which social assistance programs can draw beneficiaries according to the respective programs' defined PMT score cut-off points and eligibility criteria.⁴

An increasing number of countries rely on indirect PMT for targeting beneficiaries as it focuses on several factors that correlate with poverty. In this method, a social worker visits the household to verify the status of its living condition and hence calculates its "poverty score" to determine whether it is sufficiently poor or vulnerable to benefit from social assistance. For example, a family whose breadwinner is a woman would be positively correlated with poverty and one who owns a car would be negatively correlated with poverty.

Most Middle Eastern countries, following the practices in the rest of the world, have relied on geographical targeting and PMT (UNESCO & MOST 2011). Five Middle Eastern countries rely primarily on PMT for targeting their social safety net programs: Jordan, Kingdom of Saudi Arabia, Lebanon, Palestine and Yemen. Nevertheless, country experiences with PMT have been mixed (Table 1). As already demonstrated by a number of studies (e.g. Brown et al. 2018; Han & Gao 2019), PMT based approaches for out-of-sample poverty-targeting helps identify the non-poor but often also at the expense of excluding many poor beneficiaries. Inclusion and exclusion errors, amongst others, emerge as a consequence of individuals' transition into or out of poverty and lag-time due to PMT processing. The application of household verification

visits and exclusion criteria aim to prevent resource leakage. From a qualitative perspective, the checking of exclusion factors by local program implementers enhances beneficiaries' confidence in the project's fairness as compared to an identification process, which solely relies on PMT scoring.

PMT challenges include potential high in-built errors (especially at the 20th percentile of population and below); inadequate correlation between multiple measures and household consumption (exclusion and inclusion errors); the fact that household PMT data represent households' momentary status, and are thus inherently imprecise to varying degrees; sampling errors in household surveys and assumptions made in applying the PMT, which impact the decision for individual households to receive social protection benefits. Finally, if households face crises or shocks, but which do not result in real-time changes in households' characteristics and assets used as proxies, they run the risk of the PMT score misrepresenting the shock-induced changes in HH income.

MPI also has some explicit drawbacks. MPI challenges include the downside that flow data are not available for all indicators, including standard MPI indicators (e.g., child mortality irrespective of the time of death), household outputs (e.g., schooling years), and inputs (e.g., indoor cooking fuel); health data are inadequate and overlook some groups' deprivations particularly for nutrition; missing data must often be addressed case-by-case; intra-household inequalities are typically not reflected; and MPI does not measure inequality among the poor although it reflects the intensity of poverty experienced (OPHI 2018; UNDP Bangkok Regional Hub 2019). In follow-up studies of support take-up, graduation from dependency, and the need for expansion/curtailment of the program, MPI surveys could be used to assess candidate households' various needs and coping strategies.

TABLE 1 – PMT Uses in the Middle East

Country	Program	Advantages
Jordan	NAF Program (PMT formula determining household eligibility & level of transfers to which each household is entitled)	Includes the working poor which were previously excluded
Palestine	PMT formula composed of 34 indicators	applications get reviewed by Social Protection Networks to check for errors
Iraq	PMT	Beneficiaries were revaluated using a formula comprising indicators (housing status, household demographic characteristics, education, economic activity & valuables)

Source: UNESCO & MOST 2011.