

# RESEARCH & TRAINING WING

Planning & Development Department Government of Sindh

# Multidimensional Doverty Index A Planning Tool for Sindh



# **Research & Training Wing** Planning & Development Department Governmont of Sindh

**Multidimensional Poverty Index** 

A Planning Tool for Sindh

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# Introduction

Multidimensionality of poverty and interconnectedness of dimensions need to be recognized to design policies and programs that tackle poverty in a comprehensive and holistic way. Government, in this regard, has a crucial role in addressing the root causes of poverty and creating an enabling environment for each segment of the population. Clear identification of the vulnerable and marginalized groups is needed such as women, children, persons with disabilities, the elderly, victims of sexual orientation discrimination, Indigenous communities, members of lower castes and outcasts, undocumented migrants, refugees, etc. For many of these groups or individuals, constant stigmatization and discriminations push them into a vicious circle of poverty, powerlessness and exclusion. Poverty is not only about having not enough money to meet basic needs including food, clothing and shelter. It is also the absence of an enabling environment to flourish and reach one's potential.

According to the World Bank's official definition, "Poverty is hunger. Poverty is lack of shelter. Poverty is being sick and not being able to see a doctor. Poverty is not having access to school and not knowing how to read. Poverty is not having a job, is fear for the future, living one day at a time".<sup>1</sup>

Globally, poverty is measured under two methods determined by the World Bank & United Nations. A person who earns less than US\$ 1.90 per day is said to be below the poverty line. This method is considered the income method that takes into account income denominated poverty. Hence, its unidimensional focus on income makes it unreliable in terms of capturing the true incidence of poverty.

Measuring poverty through multidimensionality is considered a more reliable source to capture the true poverty incidence. The Multidimensional Poverty Index (MPI) is prepared by the UNDP & OPHI<sup>2</sup> to track deprivation across different dimensions. For example, there can three dimensions and 10 indicators to assess deprivations: health (child mortality, nutrition), education (years of schooling, enrollment), and living standards (water, sanitation, electricity, cooking fuel, floor, and assets).

Multidimensional Poverty Index (MPI), typically uses the household as its unit of analysis, though this is not an absolute requirement. A household is considered 'deprived' for a given indicator if they fail to satisfy a given 'cutoff' (e.g. having at least one adult member with at least six years of education). A household is assigned a 'deprivation score' determined by the number of indicators they are deprived in and the 'weights' assigned to those indicators. Each dimension (health, education, standard of living, etc.) is typically given an equal weighting, and each indicator within the dimension is also typically weighted equally in terms of global parameters.<sup>3</sup> However, in-case of Pakistan, the MPI weights may vary across all three dimensions and also across indicators within each dimension (**Refer Table#1)**. If the household deprivation score exceeds a given threshold, then a household is considered to be 'deprived', or 'poor'. The final 'MPI score' (or 'Adjusted

<sup>&</sup>lt;sup>1</sup> <u>https://openknowledge.worldbank.org/handle/10986/32354</u>

<sup>&</sup>lt;sup>2</sup> United Nations Development Program (UNDP) and Oxford Poverty & Human Development Initiative (OPHI)

<sup>&</sup>lt;sup>3</sup> <u>https://multidimensionalpoverty.org/</u>

Headcount Ratio') is determined by the proportion of households deemed 'poor', multiplied by the average deprivation score of 'poor' households.

		Pakistan's N	atio	nal MPI – Indicator	rs, Deprivatio	n Cu	t-offs and Weights	
I	Indicator	Weights		Indicator	Weights		Indicator	Weights
	Years of schooling	1/6 = 16.67%		Access to health	1/6 = 16.67%	Standa	Water	1/21 = 4.769
	Child school attendance	1/8 = 12.5%		facilities/clinics/Basic			Sanitation	1/21 = 4.76%
	Educational quality	1/24 = 4.17%	포	Health Units (BHU)			Walls	1/42 = 2.38%
	Educational quality	1/24 - 4.1//0	Health	Immunisation	1/18 = 5.56%	D	Overcrowding	1/42 = 2.38%
			5	Ante-natal care	1/18 = 5.56%	0f	Electricity	1/21 = 4.76%
				Assisted delivery	1/18 = 5.56%	두	Cooking fuel	1/21 = 4.76%
						ĥ	Assets	1/21 = 4.76%
						00	Land and livestock (only for rural areas)	1/21 = 4.76%

### Table: 1 (Pakistan's National MPI Cut-offs and Weights)

Source: Pakistan Bureau of Statistics

MPI advocates state that the method can be used to create a comprehensive profile of people living in poverty beyond the income parameter. The granularity permits comparisons both across countries, regions and the world and within countries by ethnic group, urban/rural location, as well as other key household and community characteristics. MPI is useful as an analytical tool to identify the most vulnerable people – the poorest among the poor, revealing poverty patterns within countries and over time, enabling policy-makers to target resources and design policies more effectively.

# Global Evidence of MPI

According to the report published by the UNDP (Global Multidimensional Poverty Index 2020), across 107 developing countries, 1.3 billion people 22 percent people are living in multidimensional poverty. Among its recipients, children show higher rates of multidimensional poverty. About a half of multidimensionally poor people (644 million) are children under the age of 18. Comparatively, one in three children is poor as compared with one in six adults.

About 84.3 percent of multidimensionally poor people live in Sub-Saharan Africa (558 million) and South Asia (530 million). 67 percent of multidimensionally poor people are in middle-income countries. Every multidimensionally poor person is considered 'deprived' in a critical mass of indicators. For example, 803 million multidimensionally poor people live in a household where someone is undernourished, 476 million have an out-of-school child at home, 1.2 billion lack access to clean cooking fuel, 687 million lack electricity and 1.03 billion have substandard housing materials. 107 million multidimensionally poor people are aged 60 or older, a particularly important figure in the context of COVID-19 pandemic.

65 countries reduced their global Multidimensional Poverty Index (MPI) value significantly in absolute terms. Those countries are home to 96 percent of the population of the 75 countries studied for poverty trends. The countries with the fastest reduction in MPI value in absolute terms were Sierra Leone, Mauritania and Liberia, followed by Timor-Leste, Guinea and Rwanda. North Macedonia had the fastest relative poverty reduction, followed by China, Armenia, Kazakhstan, Indonesia, Turkmenistan and Mongolia. Each of these countries cut its original MPI value by at least 12 percent a year. Between 2006 – 2016, India reduced the incidence of poverty nationally

and among children and also had the biggest reduction in the number of multidimensionally poor people (273 million).

From December 2013 to March 2016, the Ebola crisis spread in West Africa. As terrible as the tragedy was, it did not create a widespread slide into poverty. The fastest reduction in multidimensional poverty was in Sierra Leone, where the percentage of people in multidimensional poverty fell from 74 percent in 2013 to 58 percent in 2017; the same years as the Ebola crisis. The percentage of people who were multidimensionally poor and deprived declined for all 10 indicators, with the biggest reductions related to deprivations in cooking fuel and electricity. Sierra Leone also had the largest annualized absolute reduction in deprivation in clean cooking fuel and in child mortality among the 75 countries studied. It had the fastest absolute reduction in MPI value among children of all countries, though poverty among adults declined faster.

The major areas of improvement at the community level were the Free Healthcare Initiative (FHCI) launched in 2010 in Sierra Leone. This initiative provides pregnant women, new mothers, and young children with access to basic healthcare in order to reduce infant mortality rates. Although the FHCI is not a solution to poverty in Sierra Leone, it led to several healthcare reforms, including adequate pay for healthcare workers.<sup>4</sup>

Solving infrastructure-related problems, such as access to water, sanitation and hygiene was the next big challenge for Sierra Leone. The Tiger Worms Toilet Project had a significant contribution to improving the Hygiene conditions of the deprived citizens of Sierra Leone. This project helped prevent communicable diseases by addressing sewage concerns through enhanced sanitation practices. It also helped prevent diseases by educating those in Sierra Leone about their spread. Significant improvement in the educational infrastructure was also evident coupled with other targeted areas. All of the aforementioned initiatives created a holistic impact on reducing the incidence of poverty in the country.

### Box:1 Case Study of Costa Rica: MPI as a Resource Allocation Tool for Social Programs

The Multidimensional Poverty Index (MPI) can cover a wide range of socio-economic areas that makes it is a potent identification tool of deprivations. It can show areas where the most improvement is needed to alleviate deprivation and even the areas where funding needs to be cut back. In case of Costa Rica, the Multidimensional Poverty Index, one interesting point to note is that Costa Rica's MPI, called the MPI-CR, included some non-conventional measurements, such as the availability of access to the internet, as well as "noncompliance with minimum wage or other labour rights" (MPPN).

While studying the case of Costa Rica many senior figures of Costa Rica's political leadership, such as the President, Mr. Luis Guillermo Solis, Second Vice President Ms. Ana Helena Chacón, and Human Development Minister Mr Carlos Alvarado, were of the view that the MPI "will be used to reduce extreme poverty by allowing the government to target government resources to those that need it". This was when Costa Rica and El Salvador were jointly launching a Multidimensional Poverty Index, on the 29th of October, 2015. The UNDP representative of El Salvador, Christian Salazar, felt that there was a need for a poverty-measure that went beyond income, and one that would not be susceptible to changes in prices and currency volatility.

The Government of Costa Rica set up a commission that would ensure that the Costa Rican MPI would be followed as the official measure for allocating resources and monitoring and evaluating social programs; this committee involved representatives from Costa Rica's Ministry of National

<sup>&</sup>lt;sup>4</sup> <u>https://borgenproject.org/poverty-in-sierra-leone/</u>

Planning and Economic Policy, Presidential Social Council Advisory Team, the Ministry of Finance, the Fund for Social Development and Family Benefits, and the Horizonte Positivo association. Trends for each dimension and indicator at the national and regional level were identified by this commission using the MPI-CR. This commission also compared the actions of the central government's social programs with trends of deprivations, which resulted in an eye-opening discovery. There was clearly much room for improvement with resource allocation to ensure that the more resources were earmarked towards areas of deprivation where they were needed the most.

In March 2016, the government was presented with the proposal by the commission for the usage of the MPI as the basis for resource allocation. The Presidential Directive N-045 was passed in May of the same year, making the MPI-CR the basis of the allocation of budgetary funds as well as for monitoring and evaluating social programmes. Seven main institutions or government departments used the MPI-CR to plan their budgets for 2017, as a result of a pilot plan stemming from the publication of the president's directive.

While resources were allocated according to Costa Rica's National Development Plan, Costa Rica's version of the Multidimensional Poverty Index identified the beneficiaries as well. These institutions were trained on how to target resources using the MPI-CR, with 2017 set as the baseline. The use of the MPI in the budget planning process can guarantee, to some extent, a reduction in multidimensional deprivations and poverty.

(Source: OPHI, News)

# **Poverty at National Level**

Pakistan Vision 2025 is people-centric and aimed at reducing national poverty and enhancing people's well-being. Vision 2025 recognizes poverty as being both multidimensional & multifaceted and stresses a broader definition of poverty, one which includes health, education and other amenities alongside income and consumption. Pakistan's national MPI constitutes three dimensions; health, education, and standard of living and 15 indicators, each weighted at 1/3 equally.

According to the official estimations from OPHI, the scores for National level Poverty Headcount in Pakistan are recorded at 45.65 percent<sup>5</sup> in the year 2021. Federally Administered Tribal Areas (FATA) has by far the highest poverty rate (headcount), with more than 71.52 percent of its total population living below the poverty line. Sindh's MPI scores for the 2021show an alarming situation at 50.54 percentage, followed by the Baluchistan and KPK at 65.32 percent & 50.70 percent respectively.

Estimates for the MPI, Incidence of Poverty (H) and Intensity of Poverty (A) suggest that among Pakistan's provinces, multidimensional poverty is highest in FATA and lowest in Punjab. According to the Multiple Indicator Cluster Survey for 2018-2019, the rural areas of Sindh face more multidimensional deprivation than the urban areas, with 24.8 Percentage of the urban population and 71.4 Percentage of the rural population of Sindh being classified as multi-dimensionally poor.<sup>6</sup>

<sup>&</sup>lt;sup>5</sup> <u>https://data.humdata.org/dataset/pakistan-mpi</u>

<sup>&</sup>lt;sup>6</sup> https://resourcecenter.nhnpakistan.org/phocadownload/government/reports/Sindh-MICS-2018-19.pdf

# The Case of Sindh

The multidimensional poverty Incidence in Sindh is relatively on the higher side as compared to that of Punjab, mainly because of multi-faceted deprivations and impoverishments in the province of Sindh.

From as far back as 2018, reports indicate that the Sindh has a problem of malnutrition, "Sindh is severely affected by intensifying malnutrition and stunting indicators. As many as 48 percent of children under the age of five are stunted while 35 percent of them are severely stunted. The incidence of global acute malnutrition (GAM), a measurement of the nutritional status, in Tharparkar is 22.7 percent followed by Sanghar 16.0 percent and Qamber-Shahdadkot 13.8 percent" (Talpur, 2018).

The Pakistan Social and Living Standards Measurement, or PSLM, found that, for the duration of 2014-2015, illiteracy was the biggest contributor to multidimensional poverty in the whole of Pakistan, with only 42.8 Percentage of the entire country's population being literate at that time (UNDP Pakistan). In the year 2017, "Pakistan's total literacy rate was around 59 percent" (O'Neill, Statista, 2021). It seems that the situation of the literacy rate has not improved very much since then, especially in the province of Sindh. In 2020, the literacy rate of Sindh was reported to be around 57 Percentage (Dawn, 2020), which is not very promising. To counter the menace of illiteracy in the province, the Government of Sindh allocated funds and continues to plan its budget for spending on the education sector. The budget estimate allocated towards education for the period 2017-2018 was 991.038 million Rupees (Finance Department pg. 91).

Education is a 'good' or skill that has multiplying benefits, meaning that it has positive externalities that permeate the society. Keeping this in mind, the government of Sindh invested a total of 13150.0 million Rupees in education (2020-2021 Budget, pg. 30) and "earmarked 23 Percentage of the total budget for education" (Tahir, Express Tribune, 2021), because educating the people of today leads to an investment into the education of the people of tomorrow and future generations.

According to the Multiple Indicator Cluster Survey (MICS) for 2018-2019, the rural areas of Sindh face more multi-dimensional deprivation than the urban areas, with 24.8 Percentage of the urban population and 71.4 Percentage of the rural population of Sindh being multi-dimensionally poor.

For the duration of 2018-2019, the funds allocated towards the eradication of malnutrition and stunted growth were increased by 112 percent from Rs.2.4 billion to Rs.5.1 billion", as part of the 'Accelerated Action Plan' for reduction of stunting & malnutrition (pg. 16, Finance Department). The 'throw-forward' of funds allocated for public expenditure on food in the 2019-2020 budget, as of the 1st of July 2019, was 100.0 million Pakistani Rupees (Finance Department, pg. 1).

The computation of Multi-Dimensional Poverty Index (MPI) in Sindh as per MICS 2018-19 along with the district-level scores are provided below to delineate the disaggregated snapshot of multidimensional poverty in the province along with deprivations across the dimensions of health, education and living standard along with the corresponding indicators.

Dimension	Indicators	Deprivation cut-off	Relative weight
Health	Nutrition	Any adult under 70 years of age or any child for whom there is nutritional information is undernourished in terms of weight for age or height for age. For MICS this is restricted to children under age 5.	1/6=16.7%
	Child mortality	Any child has died in the family in the five-year period preceding the survey	1/6=16.7%
Education	Years of Schooling	No household member age 10 years or older have completed six years of schooling	1/6=16.7%
	Child School Attendance	Any school-aged child is not attending school in years 1 to 8	1/6=16.7%
Standard of living	Electricity	The household has no electricity	1/18=5.6%
	Sanitation	The household's sanitation facility is not improved or is shared	1/18=5.6%
	Drinking Water	The household does not have access to improved drinking water or drinking water is at least a 30-minute walk from home, roundtrip.	1/18=5.6%
	Housing	The household has natural or rudimentary roof or walls or natural floors.	1/18=5.6%
	Cooking fuel	The household cooks with 'solid fuel', e.g. dung, wood or charcoal.	1/18=5.6%
	Assets	The household does not own more than one of these assets: radio, TV, telephone, computer, bicycle, motorbike, animal cart or refrigerator, and does not own a car or truck.	1/18=5.6%

### Table# 2: Dimensions, Indicators, Cut-Offs and Weights of MPI – MICS 2018-19

Source: MICS 2018-19 -SBoS

	Percentage of the Population who are MPI poor and deprived in each indicator								Percentage of MPI-		
	Education Health				Living Standards						poor
	Years of Schooling	School Attendance	Child Mortality	Nutrition	Electricity	Sanitation	Drinking Water	Floor	Cooking fuel	Assets	people (H)[1].[A
Total	33.5	37.5	5.2	43.0	14.9	40.4	21.2	45.4	49.0	24.1	47.4
District											
Badin	63.4	63.1	11.1	56.0	55.2	85.4	34.9	82.6	87.0	47.4	82.3
Dadu	58.6	46.3	5.0	54.7	13.3	39.1	9.2	77.3	71.2	37.1	67.4
Hyderabad	22.5	26.2	6.2	41.7	3.7	13.0	8.9	17.9	25.3	15.8	28.5
Jamshoro	47.9	50.9	2.3	53.7	17.2	34.4	43.1	56.3	55.9	34.5	62.3
Matiari	50.6	50.9	0.0	47.8	12.6	59.7	6.5	63.7	70.1	38.8	63.4
Sujawal	79.4	67.9	2.1	51.2	56.3	89.4	19.3	87.9	89.0	85.0	85.4
Tando Allahyar	35.1	41.3	5.2	55.2	13.6	60.4	8.2	55.3	50.3	32.0	48.5
Tando Muhmmad Khan	55.7	50.5	14.2	56.5	45.7	73.2	21.1	74.2	76.8	57.9	76.0
Thatta	75.5	69.3	15.6	66.2	38.4	78.8	43.1	72.9	76.7	33.2	86.3
Karachi Central	9.0	11.3	4.5	14.6	0.0	0.7	26.1	1.1	0.0	3.4	10.5
Karachi East	25.5	28.1	2.8	16.4	0.7	2.3	23.5	2.7	3.0	4.4	23.3
Karachi West	19.8	25.0	1.6	27.9	0.5	6.2	48.6	8.6	1.1	6.2	17.7
Karachi South	9.3	6.7	6.5	21.7	0.0	4.1	20.5	0.2	1.0	7.2	10.9
Korangi	10.8	16.6	1.3	19.9	0.0	0.8	24.1	1.2	0.0	3.6	7.6
Malir	22.8	15.8	0.0	21.1	2.2	16.3	15.8	9.8	9.9	9.6	17.7
Jacobabad	62.3	64.1	5.6	66.1	16.1	83.5	23.1	83.2	77.7	46.8	81.0
Kambar Shahdadkot	36.7	46.4	4.1	54.0	4.2	57.1	42.9	82.5	82.1	40.3	70.9
Kashmore	42.2	67.7	12.2	59.0	15.7	78.6	1.7	83.9	84.0	25.9	83.5
Larkana	23.8	33.5	0.6	48.6	10.4	51.9	0.8	46.4	39.3	22.3	41.0
Shikarpur	51.4	52.8	4.8	59.5	6.6	82.5	0.0	69.1	73.8	35.8	71.6
Mirpur Khas	35.1	41.0	7.6	59.9	31.4	54.6	22.1	61.8	77.6	20.5	59.9
Tharparkar	33.9	48.6	4.8	50.3	61.6	66.1	53.4	85.1	99.2	78.2	78.5
Umer kot	42.3	50.1	0.0	67.9	57.3	67.8	52.9	87.6	90.2	47.2	75.3
Naushahro Feroze	29.4	47.0	2.6	52.4	2.9	41.5	0.0	55.1	66.5	28.4	58.0
Sanghar	45.0	41.9	2.8	42.4	27.4	54.6	13.2	68.8	80.8	26.6	59.8
Shaheed Benazir Abad	35.9	37.1	8.3	57.5	9.6	42.8	1.9	62.7	64.9	23.8	51.0
Ghotki	35.0	49.5	10.4	54.8	17.2	67.4	3.8	52.0	79.3	13.2	64.5
Khairpur	24.3	28.8	9.9	48.7	10.0	52.6	2.1	61.2	72.9	18.5	46.1
Sukkur	33.0	42.9	7.6	47.8	4.3	38.1	19.8	43.3	57.3	11.0	51.6

### Table# 3: District-wise MPI scores Sindh – MICS 2018-19

A Household members are identified as poor if the household is deprived in at least one third of the weighted indicators listed. The proportion of the population that is po <sup>8</sup> The MPI is the product of H, calculated is this table, and A, presented in Table EQ.5.2.

<sup>c</sup> Household members that live in households deprived in one fifth to one third of the weighted indicators are considered vulnerable to poverty

<sup>9</sup> Household members that live in households deprived in at least half of the weighted indicators are considered in severe poverty.

Source: MICS 2018-19 -SBoS

# Using MPI as a Planning Tool

Since the MPI points out the areas and extent of deprivation that people in a certain geography face (in this case, Sindh), it also sets an indicative benchmark for where most funds are needed. If the government of Sindh uses the novel approach of an outcome-based or result-based budgeting system and introduces it for its future budgetary allocations, then it may perhaps be the first provincial government in Pakistan to move away from the incremental system. The government of Sindh could make the Multidimensional Poverty Index one of its important statistical bases by which it can annually plan how much money it will allocate to the required sectors.

The Government of Sindh has certain funds allocated to social protection, meaning the protection of those segments of society that are the most vulnerable. Sindh's Social Protection initiatives included the establishment of the Inter-sectoral Nutrition Strategy for Sindh, or the 'INSS' in 2013, with support from the United Nations and the World Bank, which in turn includes the Accelerated Action Plan. The multi-sectoral Accelerated Action Plan is being undertaken across the 23 prioritized districts of Sindh with >40% stunting prevalence. From 2012-2017, the Government of Sindh kept the field 'Social Protection' in its 'Priority Expenditure' list as shown in the Budget Analysis of 2018-2019 (pg. 41), alluding to how important the provincial government of Sindh held 'Social Protection' to be, at least on paper.

For 2012-2013, the Sindh Government spent 4,213 million rupees on social protection; for 2013-2014, this amount was 1,923 million rupees, for 2014-2015 it was 1,865 million rupees, then 5,290 million rupees for 2015-2016, and 6,526 million rupees for 2016-2017 (Finance Department 2018-2019, pg. 41). From its published budget for 2018-2019, the Government of Sindh had projected to allocate 5981.578 million rupees for the duration of 2020-2021, and 2295.000 million rupees for 2021-2022 (Finance Department, Budget 2019-2020, pg. 5). The purpose of stating these figures here is to point out the possibility that the allocation of these funds to the field of 'Social Protection' may not be evidence or outcome-based, and may simply be based on an incremental allocation among other factors.

According to the Multiple Indicator Cluster Survey for 2018-2019, the literacy rate of the age group 15-24 in the province of Sindh was 54.7 Percentage. This is not a very encouraging statistic and does not show any significant change in Sindh's potential for increasing its literacy rate. In 2019, the gender-gap in literacy levels for the age group 6-15 was on an increasing trend in urban areas in the whole of Pakistan (ASER National-Urban Report 2019, pg. 49). This same report also mentions that 72 Percentage of children enrolled in grade 5 of private schools in the urban areas of Pakistan were able to read at least to the level of a story, either in Sindhi, or in Urdu, or in Pashto. However, this figure for the same population demographic was 67 Percentage in government schools (pg. 49). The difference of 5 percentage points here between the public sector and private sector schools illustrates a key finding that highlights disparity along the theme of 'Learning Levels by School Types'. In the year 2019, in Sindh's district Sukkur, 13.4 Percentage of children were in none of the educational institutes, be they public or private. This figure was 7.8 Percentage in Larkana, 2.3 Percentage in Korangi, 2.6 Percentage in Karachi-South, 4.3 Percentage in Karachi-East, 1 Percentage in Central Karachi, and 5.3 Percentage in Hyderabad, bringing the total proportion of children out of school in Sindh's urban areas for 2019 to 36.7 Percentage (ASER National-Urban, pgs. 81-101). Keeping in mind that Sindh is Pakistan's second-most populous province, it can be safely inferred that 36.7 Percentage of the total number of children in Sindh is a very large number. The Budget Estimate during the financial year of 2018-2019 spent by the provincial government on education was 165.117 billion rupees (Budget Analysis 2018-2019, pg 43, Finance Department), while it was 230.189 billion rupees for 2019-2020 (Budget 2019-2020, Finance Department, pg. 27). This increase of almost 39.41 Percentage in the funding of a department/sector i.e. education within a year cannot be unequivocally substantiated with credible evidence. Surveys/indices such as the Multidimensional Poverty Index should be made the basis of budgetary allocations, especially for the sectors covered by MPI, in the province of Sindh, to help the government allocate funds according to specified targets and achievable goals. Optimal allocations using evidence should be the benchmark to make the most of scarce financial resources for the betterment of the people of the province.

For earmarking resources towards developmental projects in Pakistan, there may be no particularly calculated or methodological/systematic rationale for the allocation of money. Juxtaposing health sector allocations and outcomes also demonstrates that the incremental approach to budgeting is not yielding the intended results or outcomes. For example, the Annual Development Programme's allocation for the health sector in Sindh was Rupees 15.7 billion in the financial year of 2014-15 which was increased by more than Rs. 3 billion to Rs.18.8 billion in the financial year of 2017-18. However, comparisons of the Multiple Indicator Cluster Surveys of 2014-

15 with those of 2018-19 show that nutrition outcomes have not improved, and, in fact, have even worsened for some indicators. The example of stunting prevalence can be seen, which increased from 48 Percentage in 2014-15 to 50.2 Percentage in 2018-19. The prevalence of wasting witnessed only a marginal decrease from 15.4 Percentage in 2014-15 to 14.8 Percentage in 2018-19. In the absence of sector plans or costed implementation plans, it is incomprehensible to have accurate goals or achievable development targets in consideration while planning the Annual Development Programme. This is another reason why the Multidimensional Poverty Index and other indices must be utilized as a planning tool to help with budget allocation. Depending on the granularity of data, it may show specific sub-indicators within a deprived dimension (such as, child mortality within the broader category of 'healthcare') that need improvement or increased funding.

# Conclusion

The incremental approach towards budgeting must be replaced with an 'evidence-based' approach for better use of existing resources. As part of this evidence-base, the Planning & Development Department of the Government of Sindh could mandate 'returns on investment' in the planning system by incorporating 'Rol' indicators as a mandatory condition for all PC-I proposals submitted by administrative departments or executing agencies.

Strengthening of evidence-generating organizations like the Sindh Bureau of Statistics, the SBoS, is imperative, informed decision-making for the formulation of the Annual Development Programme for the province. This would ensure that the proposed schemes/projects are not duplicating efforts and are addressing the actual quantifiable needs of the province. With limited resources, optimized sectoral and departmental allocations must be ascertained beforehand in order to identify areas of investments to achieve intended outcomes. Relevant development indicators and indices, like the Multidimensional Poverty Index, must be developed and adopted to cover key performance indicators that are aligned with the policy imperatives of government. The dimensions of MPI can be adapted to the local context. For example, the 'food security' dimension can be addeed with indicators covering food availability, access to food, utilization of food, and stability of food. Similarly, other dimensions deemed to be interconnected with poverty in local context can be incorporated so that such areas are prioritized to address multi-dimensional poverty at provincial and even district level.

### MULTIDIMENSIONAL POVERTY INDEX (A Planning Tool for Sindh)

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