Disaggregated Poverty Measures for the 2030 Agenda: Multidimensional Poverty Measurement (MPI)

Oxford Poverty & Human Development Initiative

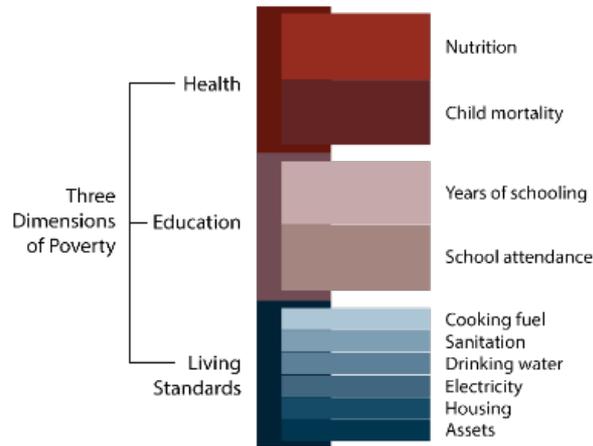4 December 2020

Multidimensional Poverty Index (MPI)

The MPI was developed by OPHI as a means of measuring poverty across many dimensions.

It shows both the **incidence** and **intensity** of poverty in a society, as well as the relative contributions of different indicators and across different subgroups.

The method is flexible to different contexts and can be tailored to reflect particular priorities.
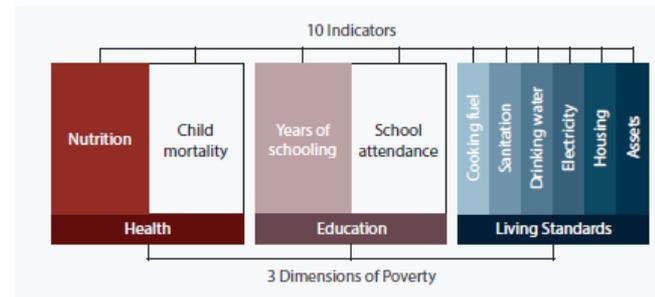
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Computing an MPI (Global MPI Example)

1. Choose priority indicators

2. Build a Deprivation Profile for each person or household

This deprivation score is $1/6 + 1/6 + 6(1/18) = \textbf{2/3}$

3. Identify Who is Poor Using a Poverty Cut-off (e.g., 1/3):

If deprivation score $\geq$ poverty cut-off, person is poor. Here, **2/3 $\geq$ 1/3**, so the person is identified as poor.

4. Compute MPI

$$MPI = H \times A$$

H "Incidence"= Headcount ratio of those identified as poor
A "Intensity"= Average deprivation score among all poor people

The Global MPI and National MPIs

There are two main types of MPIs used in the policy sphere:

- The **Global MPI** is an internationally comparable measure of multidimensional poverty in more than 100 countries. It is computed jointly with UNDP and published annually.

- **National MPIs** are tailored to different country contexts and reflect national priorities. They are official statistics that are used by policymakers to allocate budget, target programmes, track progress, and evaluate policies.

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Using an MPI to Report Towards SDG 1

SDG Target 1.2 calls to: "reduce at least by half the proportion of men, women and children of all ages **living in poverty in all its dimensions** according to national definitions"

Countries report this in two ways:

1) Towards SDG indicator 1.2.2 in the global indicator database

2) In their Voluntary National Reviews

Disaggregations with the MPI

One advantage of the MPI is that it is easily decomposable by different population sub-groups. The MPI is routinely disaggregated by:

- Subnational region
- Urban/rural areas
- Age groups

- Gender of household head
- Ethnicity
- Disability status

Armenia National MPI

Dimension: Basic needs	A household is deprived, if ...
Extreme poverty	not having access to minimum requirement of food (according to national poverty measurement methodology and FAO recommendations)
Life in dignity	not having funds to buy, when necessary, food and/or cloths
Humanitarian aid	being dependent on humanitarian assistance to ensure basic functioning of living
Remittance dependent	being dependent on remittances to ensure basic functioning of living or being in extreme (food) poverty

Dimension: Housing	A household is deprived, if ...
Satisfaction of housing conditions	not having access to adequate housing: housing conditions are evaluated as bad or very bad
Adequate housing	not having access to adequate housing: available housing requires major repairs, is dump, slum, or old; adequate flooring and adequate walls
Overcrowding	available housing floor space does not exceed 20 sq. meters per person adult equivalent
Healthy heating	household uses wood, carbon or other heating means as primary source for heating
Centralized water system	no access (use) to centralized water system
Centralized sanitation and garbage disposal	no access (use) to centralized sanitation or garbage disposal system
Hot running water	no access (use) of hot running water
Quality of paid public services	not satisfied in one third or more paid services (relative to all answered): water supply, sanitation, garbage collection, telephone, electric supply, post, banking, irrigation, public transportation
Access to transportation	not having access to opportunities: no or poor transportation and road networks (all- year road)

Dimension: Education	A household is deprived, if ...
No secondary education	present: all household member between the age of 15 years and 75 years have less than secondary education (vocational or professional)
Schooling enrollment rate	future: at least one child of compulsory schooling age between 6 and 17 years is not attending school
Access to education services	not having access to kindergarten, complete secondary school, primary (general) school in the neighborhood
Quality of education services	not satisfied with education services

Dimension: Labor	A household is deprived, if ...
Labor market participation	more than half of household members in the working age population do not participate in the labor market
Long term unemployment	at least one household member is not working due to long term unemployment (structural)
Decent jobs	not having access to decent jobs - employment status is own account worker
Underemployment	not having access to a full position in the labor market (underemployment, and seasonal/occasional employment for all members)

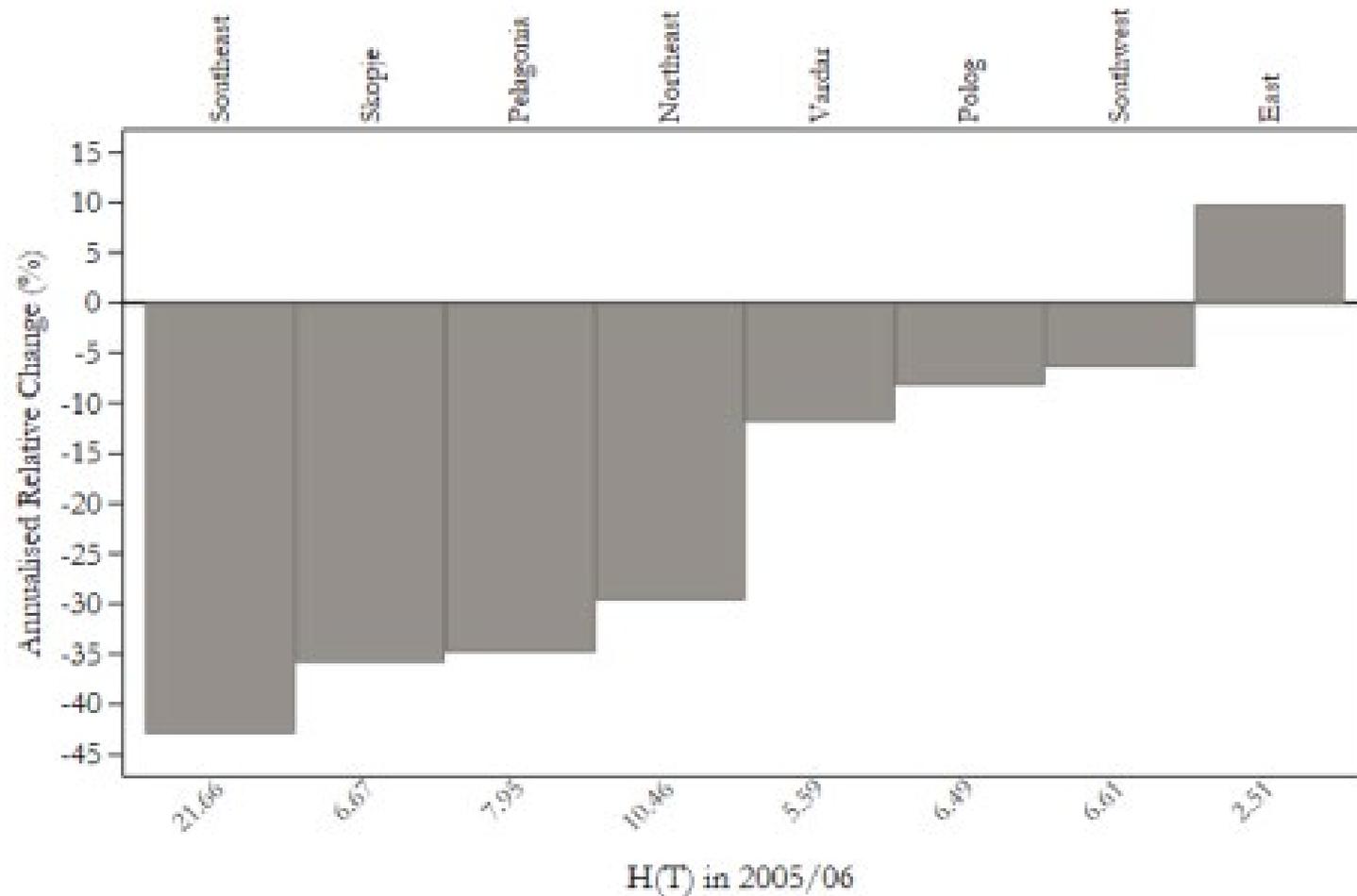| Dimension: Health	A household is deprived, if ...
Termination of usual activity	at least one household member did terminate usual activities because of illness, injury, or bad health.
Affordability of health services	not having funds to pay for required health services (excluding dentist) in a health care facility (in case of no or difficult access to free services), tests, examinations and procedures prescribed by a doctor
Access to health services	not having access to health care facility, emergency ambulance services, pharmacies in the neighborhood
Quality of health services	not satisfied with health services

Armenia National MPI

Table 3.19: Armenia. Share of individuals living in households which are considered multidimensionally poor, by location (as percentage of population)

	National level	Rural areas	Other urban areas	Yerevan
2010	41.2	52.8	37.2	32.6
2011	33.9	43.3	30.4	27.3
2012	31.3	38.3	30.1	25.1
2013	30.5	37.2	27.6	25.8
2014	31.9	35.2	31.6	28.5
2015	29.1	32.7	25.9	28.0

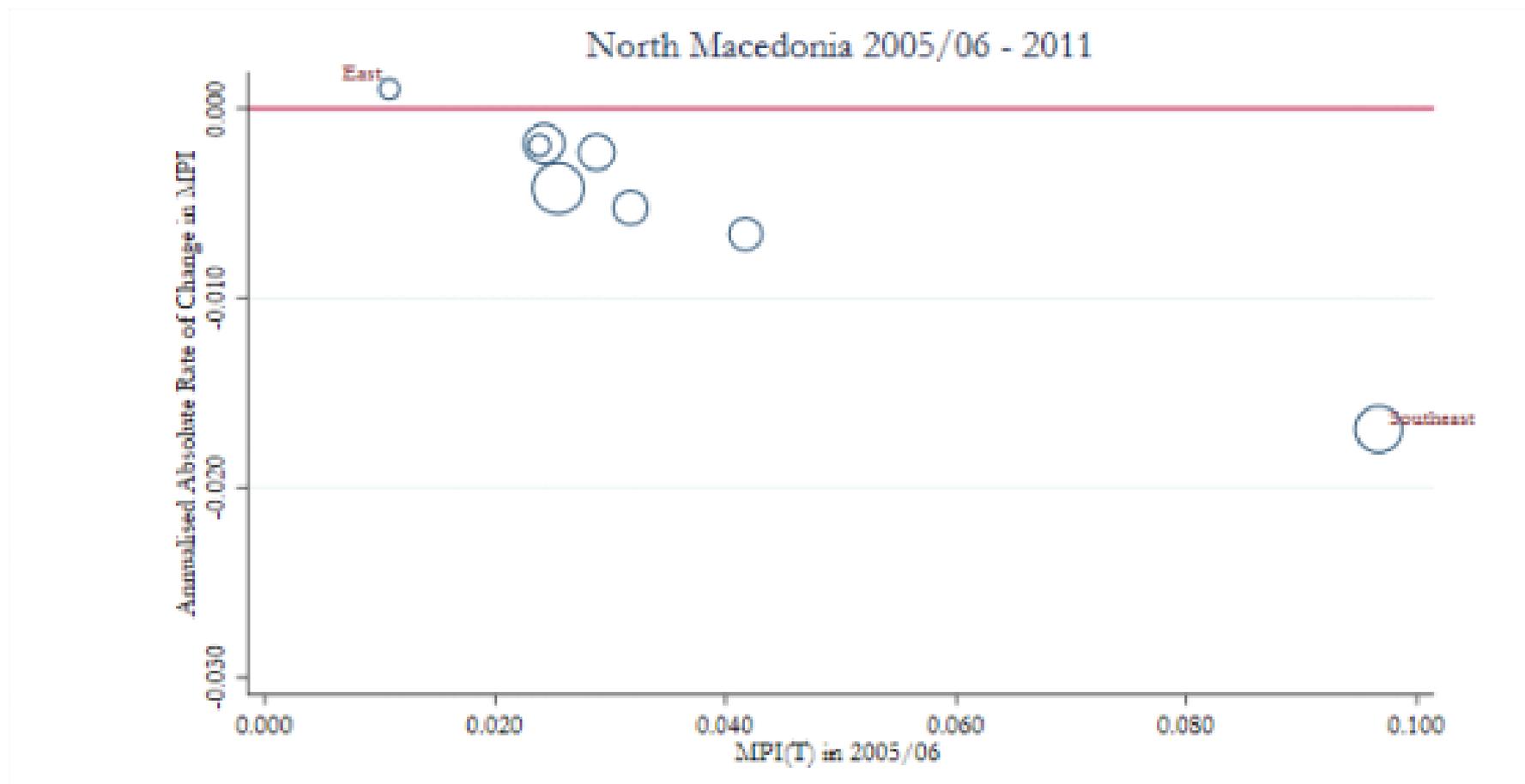Source: *Author's calculations based on ILCS 2010 to 2015*

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Figure 3. Changes in poverty headcount ratio (H) of subnational regions between 2005/06 and 2011
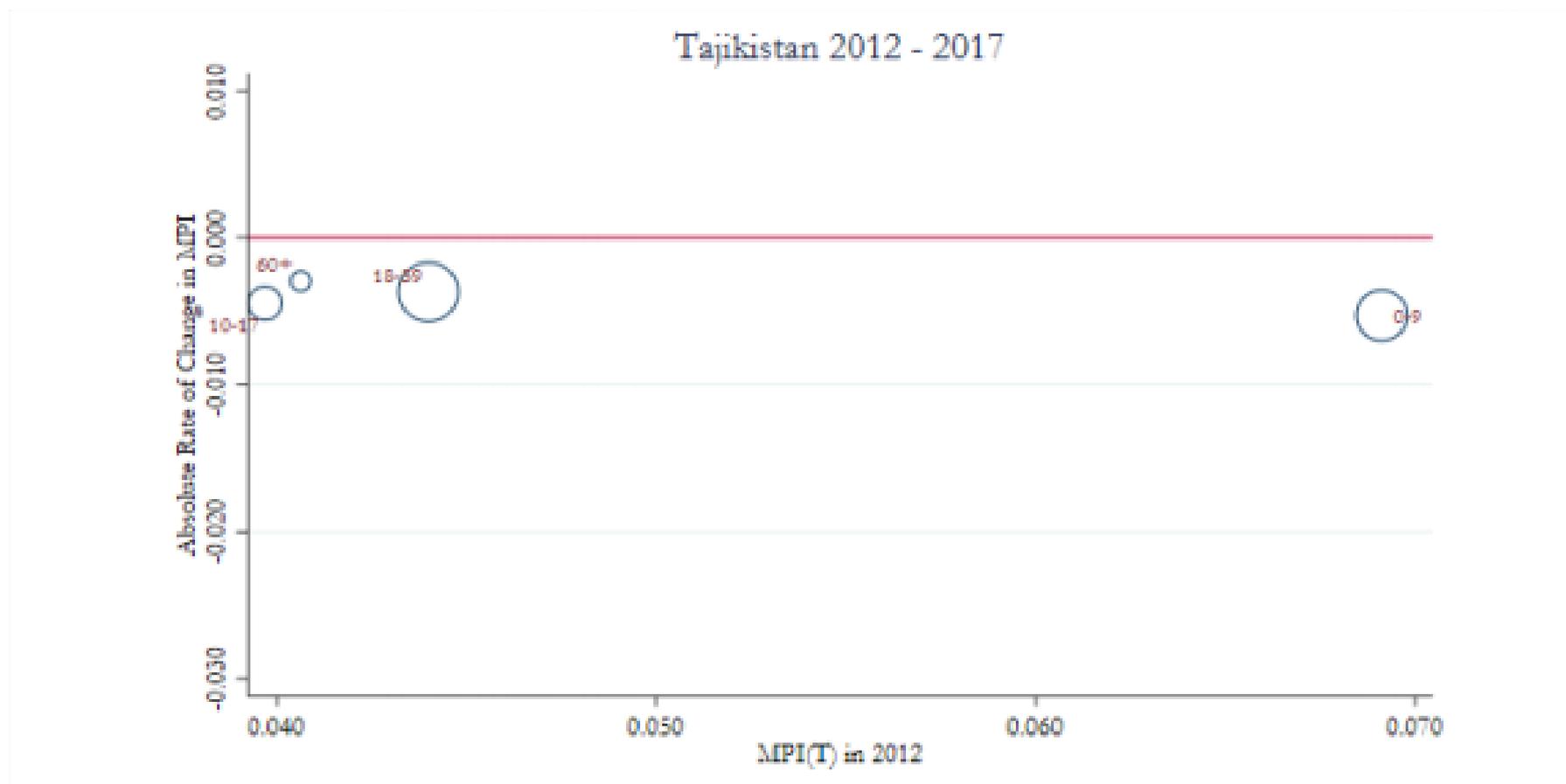

Example: **North Macedonia**, 2005/06-2011

Figure 4. Absolute reduction in MPI(T) across subnational regions between 2005/06 and 2011

North Macedonia 2005/06 - 2011

Note: the size of the bubble refers to the population size of the region.

Figure 5. Absolute reduction in MPI(T) among age groups between 2012 and 2017

Note: the size of the bubble refers to the population size of the age group.

THANK YOU