



Methodological Note and Analysis of Child Monetary Poverty for 2023

**Dushanbe
2025**

Child monetary poverty methodological note

The purpose of this methodological note is to provide detailed information on the definition, measurement and analysis of child poverty and reasons why it should be analysed and taken into consideration by policy makers. The note provides arguments on the rationale of the importance of measuring child poverty in the context of Tajikistan. The section on methodology provides a detailed review of methodology on measuring poverty updated recently by the World Bank and Agency on Statistics under the President of Tajikistan. The following section contains analysis of child monetary poverty trends and indicators by looking at the latest figures for 2021 and 2023, including socio-demographic, gender, and age analysis. The last part of the note provides key conclusions and a way forward.

Rationale: Why child poverty matters¹?

1. Because it matters to children and is a violation of their rights

Children² make up around a third of the population globally, and about 41.7% or 3.984 million in Tajikistan. The importance of poverty for children is enshrined in the Convention on the Rights of the Child, which articulates children's right to an adequate standard of living, and to be free from deprivations across crucial aspects of their lives including their health, education, nutrition, care and protection. Growing up in poverty is a direct violation of these rights.

2. Because child poverty has devastating effects that last a lifetime

Due to their particular life stage, poverty has especially devastating effects on children's development, often resulting in deficits that cannot be overcome later. Children living in income poverty and not adequately covered by social protection programmes are less well nourished, educated and have poorer health. Undernutrition can permanently impact a child's growth, resulting in stunting and reduced mental development, and can lead to life-long learning difficulties and poor health. In Tajikistan, every second poor child cannot afford eating fruits, vegetables and meat at least once a day³. A lack of education strongly impacts lifetime earnings. Every fifth poor child does not have a suitable place to do homework, 15% does not have books at home suitable for their age⁴. Early childhood education is shown as being crucial for school readiness and social-emotional development. Every third poor child does not have indoor games like educational baby toys, building blocks, board games, computer games, etc⁵. Poor health can have long-term consequences, and impacts children's ability to play and learn. Nationwide up to one third of poor children experience difficulties in the access to drinking water due to disruptions in water supply, 16% of households are still using unimproved sanitation facilities that can negatively affect children's health.

¹ <https://www.unicef.org/media/65161/file/Child-Poverty-SDG-Guide-EN.pdf>

² Children 0-17 years old. according to the Census 2020 in Tajikistan. <https://www.stat.tj/wp-content/uploads/2024/05/tablicza-1.-raspredelenie-postoyannogo-naseleniya-respubliki-i-oblastej-po-polu-i-vozrastu.pdf>

³ Listening to Tajikistan survey, 2024

⁴ ibid

⁵ ibid

Also, one in three children in Tajikistan (approximately 34%) live in severe child food poverty⁶, which is defined as consuming no more than two out of eight essential food groups during early childhood. This places Tajikistan 15th among 26 countries with high and severe levels of child food poverty. The analysis also shows that there has been no significant improvement in the prevalence of severe child food poverty in Tajikistan during the last decade. This is in contrast to the country's progress in reducing monetary poverty during the same period. This picture also indicates how important it is to analyse deprivations across multiple dimensions (going beyond monetary poverty measure) and adopt evidence-based, multi-sectoral, and integrated social protection strategies to support investments in children's early years.

3. Because ending child poverty is crucial in breaking the intergenerational cycle of poverty

Breaking the intergenerational cycle of poverty can only be achieved through priority attention to children in poverty. As children become poor adults and parents, poverty is then passed on to the next generation of children.

4. Because failure to end child poverty is one of the costly mistakes that society can make

The economic costs of child poverty in some developed countries reach up to 2-4% of GDP. Moreover, from a human capital development perspective, chronic poverty can destroy the future role of children in supporting the aging population through their contributions to social insurance schemes. Failing to invest in children now could result in a significant burden on countries to provide safety nets for larger populations in the future, particularly in nations with a high proportion of young people compared to those of working age.

Child monetary poverty in the SDGs⁷

Sustainable Development Goals (SDG) aims to eradicate poverty in all its forms, one of humanity's greatest challenges. Poverty forces individuals, families and children to make difficult choices and can result in poor quality of life outcomes including food insecurity, inadequate housing, poor health, lack of access to services, social exclusion, and other hardships. Child poverty requires particular attention as it destroys a country's future human capital. Therefore should be carefully analysed and monitored by governments.

SDGs - Goal 1: No poverty

Target 1.1: By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.

- Indicator 1.1.1: Proportion of the population below the international poverty line, by sex, age, employment status and geographical location (urban/rural).

⁶ <https://www.unicef.org/media/157906/file/ENGLISH-child-food-poverty-2024-brief.org>

⁷ A practical guide to monetary poverty analysis, UNICEF 2022

Target 1.2: By 2030, 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.

- Indicator 1.2.1: Proportion of the population living below the national poverty line, by sex and age.

Definition⁸:

Monetary poverty is defined at household level, rather than the individual level. A household is considered poor if its income or consumption falls below the established poverty line threshold.

Consequently, a child is considered monetary poor if they live in a monetary poor household.

Key poverty lines to be familiar with:

- **An absolute poverty line** is defined at a certain level where a household cannot meet basic needs such as adequate nutrition, shelter and other essentials. An absolute poverty line is most commonly used in low- and middle-income countries.
- **A relative poverty line** is defined in relation to the income or consumption distribution within a country. For example, a poverty line equal to 60 percent of the median income in the country, as used by the European Union (EU).
- **International poverty lines are based** on purchasing power parity (PPP) and differ from national poverty lines. They enable cross-country comparisons of poverty levels. Poverty line in TJK is based on the cost of a basket of goods and services to meet basic needs. According to the WB 2022, the national poverty line in Tajikistan is approximately TJS 258 per person per month for extreme or absolute poverty and TJS 673 per person per month for poverty.

Welfare measured by income or consumption:

Consumption is the preferred measure of poverty because it reflects the actual level of well-being people achieve, while income shows the potential level of welfare that people might achieve. There are well-established guidelines for calculating consumption aggregates.

Limitations: Not all children and adults have the same consumption needs, and monetary poverty measurements often do not reflect well those differences. This is particularly true for children and adults with disabilities, children living in remote and mountainous areas, elderly and persons with chronic illnesses. Due to barriers and lack of community support, people with disabilities and their families face extra costs to meet their basic needs. These include , additional transportation, assistive

⁸ A practical guide to monetary poverty analysis, UNICEF 2022

devices, rehabilitation services, home adaptation, etc., in addition to higher healthcare expenses. Monetary poverty measurements rarely take into account these disability-related costs which means they underestimate the real level of poverty and vulnerability faced by children with disabilities and their families. This underestimation makes it harder for policy makers to understand the actual situation of children with disabilities. As a result, there is a need for greater efforts to include disability-related costs in poverty measurement and social protection programmes.

Income aggregates are used in countries where there is not enough data on consumption. Income aggregates should capture disposable income.

Poverty can be dynamic as well as structural: while some households remain in **chronic poverty** across generations, others **move in and out of poverty**.

Poverty Measurement Methodology

Child poverty methodology builds on the general methodology for measuring monetary poverty, recently updated by the World Bank. Key aspects of this methodology are outlined below⁹. The methodological adjustments described here have improved the representativeness of the sample through broader geographic coverage and enhanced accuracy of consumption measurement.

- To **modernize the HBS**, a phased approach was applied to update the sampling methodology, questionnaires, and data collection methods. In 2022, as the final phase of the modernization process, the national poverty line was estimated using the data from the 2021 HBS.
 - **Survey Mode:** In 2020, TajStat transitioned from the paper-assisted personal interviewing (PAPI) to computer-assisted personal interviewing (CAPI), improving the efficiency and accuracy of data collection.
 - **Sampling update:** TajStat led the redesign of the HBS sampling frame based on the 2010 census and conducted a new household listing of 3000 households in 2016. The HBS has covered all 5 regions of Tajikistan with the following sample distribution¹⁰: Dushanbe (400 Households), Sogd (860 Households), Khatlon (900 Households), GBAO (240 Households), DRS (600 Households).
 - **Questionnaire revision:** the consumption module in the 2021 HBS shifted from a diary approach to a recall-based approach. Food consumption is now measured using a 7-day recall period, and non-food consumption is measured using a 30-day recall period, replacing the previous monthly period.
- **The welfare aggregate is household consumption** per adult male equivalence. Prices for valuing non-purchased food items are derived from unit values collected through HBS, which gathered data on 83 food items using a 7-day recall period. The non-food consumption components include spending on clothing, household services

⁹ Based on the WB's methodological note, 2024

¹⁰ The sampling distribution remains the same by 2012.

and utilities, furnishing and equipment, transportation, communication, recreation, hotels and restaurants, alcohol and tobacco, imputed service values of durables goods, health expenses (including home medication and hospital costs), and education (including tuition fees, school supplies and tutoring fees (See Table A1 for item-level details). This consumption aggregate excludes categories such as housing rent, capital transactions (e.g., acquisition of financial assets, debt payment, and interest), taxes, insurances, and irregular large expenses (e.g., costs related to weddings, dowries, births and funerals).

- To account for **spatial price differences**, the nominal consumption aggregate is adjusted using the Paasche price index, normalised to the weighted mean of the index. The Paasche index is first calculated for each household using HBS unit values, with the national average unit value as the base. These are then aggregated across all consumption categories and adjusted to the oblast, rayon urban level using median values for each quarter of the year.
- The quarterly Paasche index captures price fluctuation throughout the year. When the nominal consumption aggregate is adjusted by the Paasche index, **a temporal price adjustment is applied** at the same time. To avoid adjusting for inflation twice, we standardize the Paasche index to the fourth quarter of the year. Then, we use the average Consumer Price Index (CPI) for that quarter to adjust all figures to reflect prices as of January 2022.
- After adjusting for both time and regional price differences, the welfare level is further adjusted to reflect the size and structure of each household using what's called an adult-equivalent scale. This scale is based on FAO food (calorie) requirements (which account for the fact that children and adults have different nutritional needs).

Note: Using these equivalence scales usually results in lower child poverty rates compared to per capita poverty measurement. This is because children often live in larger households and are counted as full adults in per capita calculations. The equivalence method adjusts for their smaller needs, making monetary poverty appear lower, especially in households with many children. The use of equivalence scales has special implications for the analysis of children in poverty, as children are more likely to be found in larger households, and are treated as adults in the per capita application. Applying equivalence scales will therefore, relatively, lower monetary poverty especially among households with children.

However, there are limitations to this approach. As shown in Table 1, the equivalence scale has limited flexibility, since caloric needs do not change over time, while actual consumption patterns in society do evolve. Also, because the scale is based only on food needs, it does not include non-food expenses like education, clothing, healthcare, early childhood education or disability related costs, which can be significant, especially for children.

Table 1. Equivalence scale according to FAO caloric requirements

Age	FAO caloric requirements in Kcal		Tajikistan, relative to the official 2250 Kcal	
	Male	Female	Male	Female
0	653	604	0.29	0.27
1	950	850	0.42	0.38
2	1125	1050	0.50	0.47
3	1250	1150	0.56	0.51
4	1350	1250	0.60	0.56
5	1475	1325	0.66	0.59
6	1350	1225	0.60	0.54
7	1450	1325	0.64	0.59
8	1550	1450	0.69	0.64
9	1675	1575	0.74	0.70
10	1825	1700	0.81	0.76
11	2000	1825	0.89	0.81
12	2175	1925	0.97	0.86
13	2350	2025	1.04	0.90
14	2550	2075	1.13	0.92
15	2700	2125	1.20	0.94
16	2825	2125	1.26	0.94
17	2900	2125	1.29	0.94
18-29	2300	1650	1.02	0.73
30-59	2250	1750	1.00	0.78
60-110	1850	1550	0.82	0.69

- The poverty line¹¹

	National Poverty line (NPL)	Extreme Poverty line (EPL)
Minimum calorie requirement (A)	2250 Calories	2250 Calories
Reference group for consumption patterns used to estimate price per calorie	10th-30th percentile	10th-30th percentile
Food items covered		
Cost per calorie (B)	0.00451 Som/Calorie	0.00451 Som/Calorie
Food poverty line = AxB	10.159 Som/day	10.159 Som/day
Reference group for non-food poverty line	Whose food expenditure is just enough to meet basic food needs if they only buy food	N/A
Non-food share	32%	N/A
Poverty line	14.942 Som/day	10.159 Som/day

¹¹ Household Budget Survey, 2021-2023

- **How do the National Poverty Line (NPL) and Extreme Poverty Line (EPL) compare to the international poverty lines?**

As of November 2023 prices, the national poverty line in Tajikistan is TJS 16.02, while the extreme poverty line is TJS 10.90 per person per day. When adjusted using 2017 purchasing power parity (PPP), this equals approximately USD 4,19 per day for the NPL, and USD 2,85 per day for the EPL.

Child Poverty Indicators

Monetary poverty is most commonly measured using the Foster-Greer-Thorbecke indices (FGT). The three most widely used FGT indices are:

1. **The headcount index** (Incidence of poverty), which shows the share of children who are living in poverty. In other words, the percentage of the child population whose consumption falls below poverty line.
2. **Depth of poverty (poverty gap)** measures the average shortfalls between children living in poverty and the poverty line. It is calculated by adding up all the differences for all poor individuals (with non-poor group having a gap of zero) and dividing the total by the population. As such, the depth of poverty is also an estimate of the financial cost of bringing every child living in poverty up to the poverty line (assuming perfect targeting). The ability to cost the minimum funds needed to eradicate poverty is an advantage of monetary poverty analysis.
3. **Poverty severity** (squared poverty gap), which takes into account not only the distance separating those children living in poverty from the poverty line (the poverty gap), but also the inequality among those living in poverty. Therefore, a higher weight is placed on those households who are further away from the poverty line.

Application of Child Poverty Analysis

In many countries, official poverty lines play a key role in government policy and can serve as the basis for determining eligibility for government programmes.

Profiling the characteristics of children and their families living in poverty is therefore essential for informing policy debates and identifying effective solutions to reduce child poverty. A descriptive profile of child poverty is provided in the next section.

There are numerous analytical angles for examining child poverty that can inform policies and programmes, including:

- **Descriptive profiling** of those living in poverty, for example poverty by age groups; child poverty and household size; child poverty and parent's education.
- **Profiling through regression analysis** – to tease out which of the many correlates of child poverty are more dominant than others.

- **Risk of poverty and vulnerability** – monetary poverty can be expressed and analysed as the probability of being poor.
- **Sensitivity to different poverty lines** and adult equivalent scales.
- **Trends** – analysis of child poverty over time can be linked to policy changes and economic growth.
- The **overlap between monetary and multidimensional child poverty** can showcase different groups of children living in poverty, requiring different policy and programme approaches.

Monetary poverty links directly to vulnerability and allows for the measurement of the impact of social protection programmes on poverty.

UNICEF's social protection framework emphasizes not only addressing poverty but also tackling the economic and social vulnerabilities that lead to poverty.

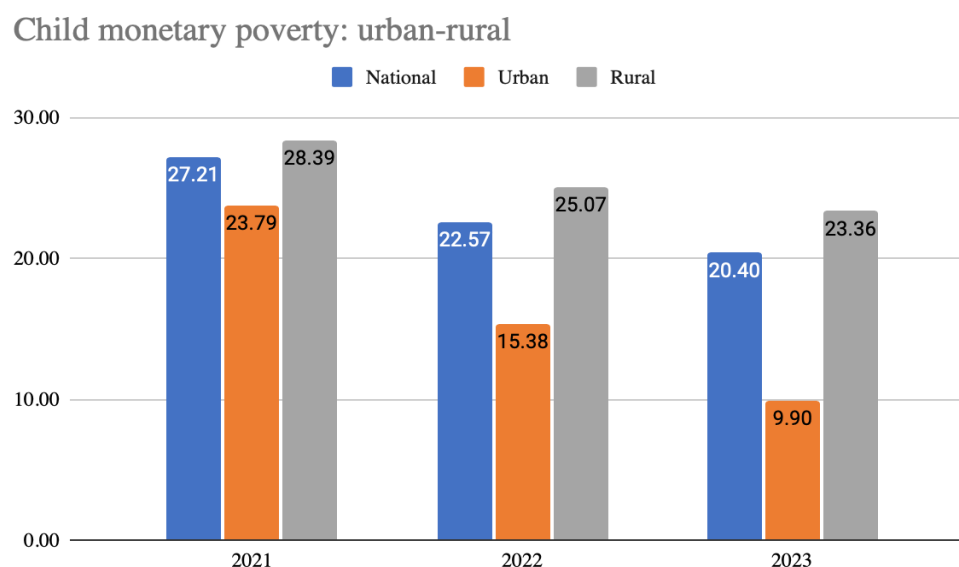
Robust monetary child poverty analysis can inform social protection policies and programmes. This analysis includes:

1. Descriptive analysis including coverage and distribution of benefits;
2. Beyond descriptive analysis: targeting and impact on poverty.
3. Programme design and overlaps; and
4. International comparison of social protection expenditures.

Child monetary poverty profile in Tajikistan

1. Child monetary poverty: urban-rural

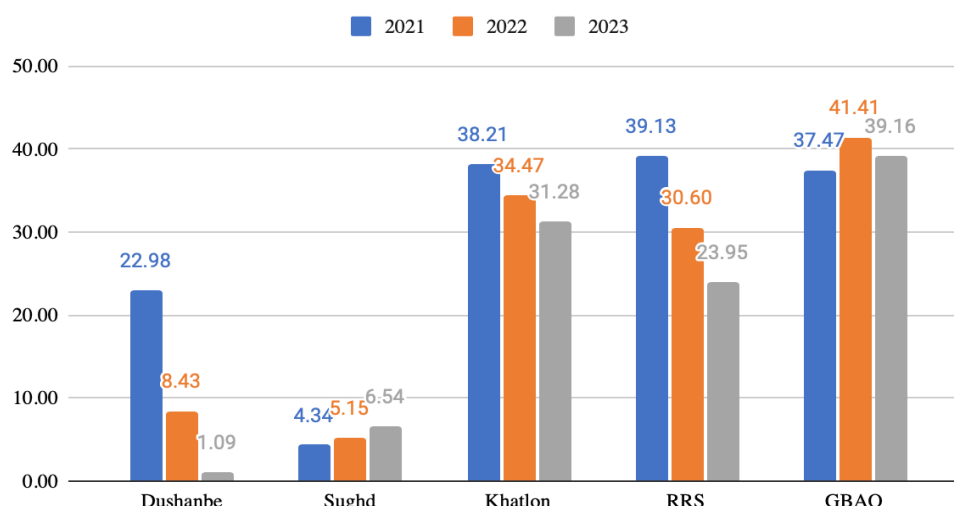
A downward trend in child poverty is observed between 2021 and 2023. During this period, the national child monetary poverty rate fell from 27.2% to 20.4%. One possible reason is post-pandemic economic recovery particularly in urban areas. In fact, the rate of child poverty reduction in cities was, on average, 2.8 times faster than in rural areas



The highest share of children living in monetary poverty is recorded in GBAO, where nearly 4 in 10 children are affected. In Khatlon, about one in every three children lives in poverty. Among the regions the highest share of monetary poor children lives in GBAO - almost four children out of ten, and in Khatlon - every third child lives in poverty. Moreover, Khatlon has the highest absolute number of children living in poverty due to the high number of children living there. Between 2021 and 2023, child monetary poverty levels decreased in all regions except Sughd. In Sughd, the trend was reversed with child poverty rising from 4.3% to 6.5%. The most encouraging progress is observed in Dushanbe, where child poverty dropped sharply from 23% in 2021 to 1% in 2023, nearly eradicating child poverty in the capital.

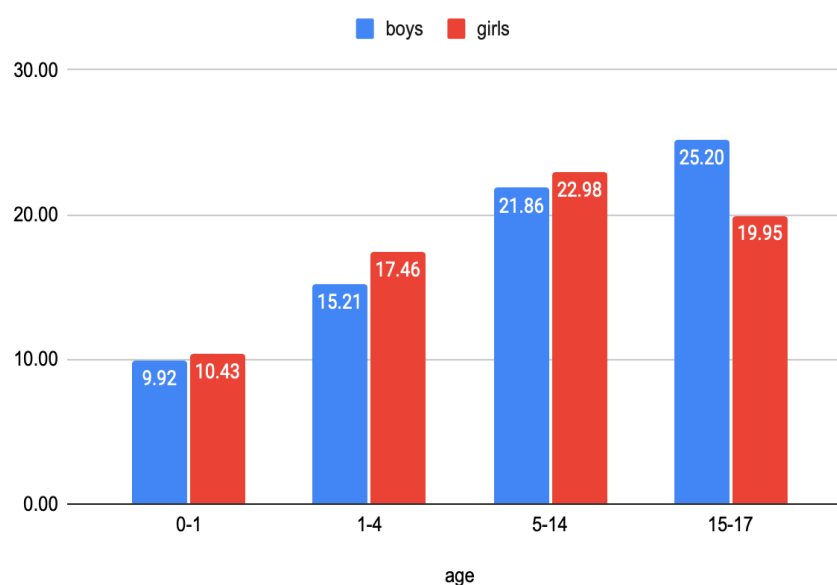
2. Child monetary poverty: regions

Child monetary poverty: regions



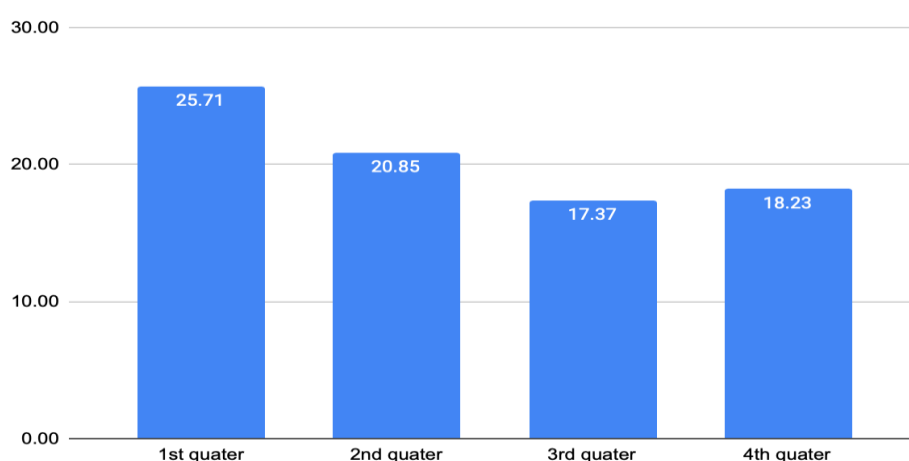
3. Child monetary poverty: age-gender

The poverty rate reaches up to 23% among children aged 5-14 and up to 25% among adolescents aged 15-17. This may be due to the increased needs and consumption of older children, combined with the growing financial strain on parents to meet these demands. Across all age groups, except adolescents aged 15-17, girls experience slightly higher poverty rates than boys, by about 1-2 percentage points. Girls often face additional economic and social barriers, including gender discrimination and the expectation to take on domestic responsibilities, which can limit their opportunities for education and work. The lower poverty rate among girls aged 15-17 could be linked to their earlier entry into paid or family-based work, which may offer some economic support. In contrast, boys in this age group are more likely to remain in school longer, potentially delaying their financial contribution to the household.



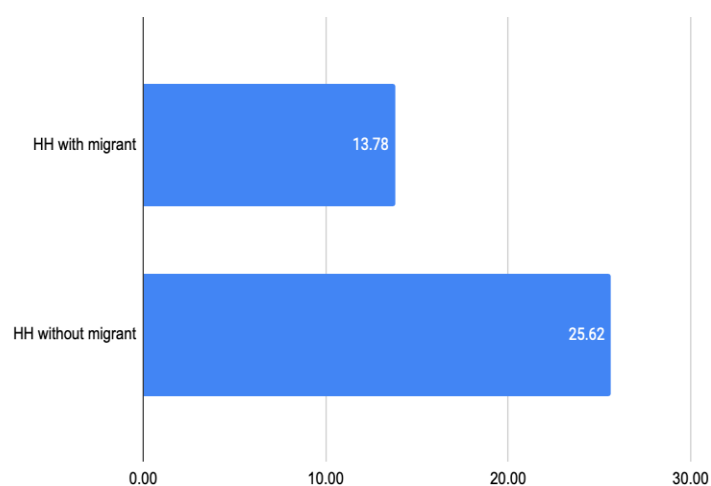
4. Child monetary poverty: seasonal trend

There is a significant seasonality in child monetary poverty. Thus, the most difficult situation is observed during the lean season when 20-25% of children in the country live in poverty. However, with the start of seasonal labour migration in the second quarter, child poverty rate begins decline. As migrant workers return home in early winter the poverty rate rises again, typically peaking in the first quarter of the year. Overall, it is estimated that more than 300,000 children in Tajikistan experience transitory poverty, moving in and out of poverty at different times of the year due to these seasonal economic shifts.



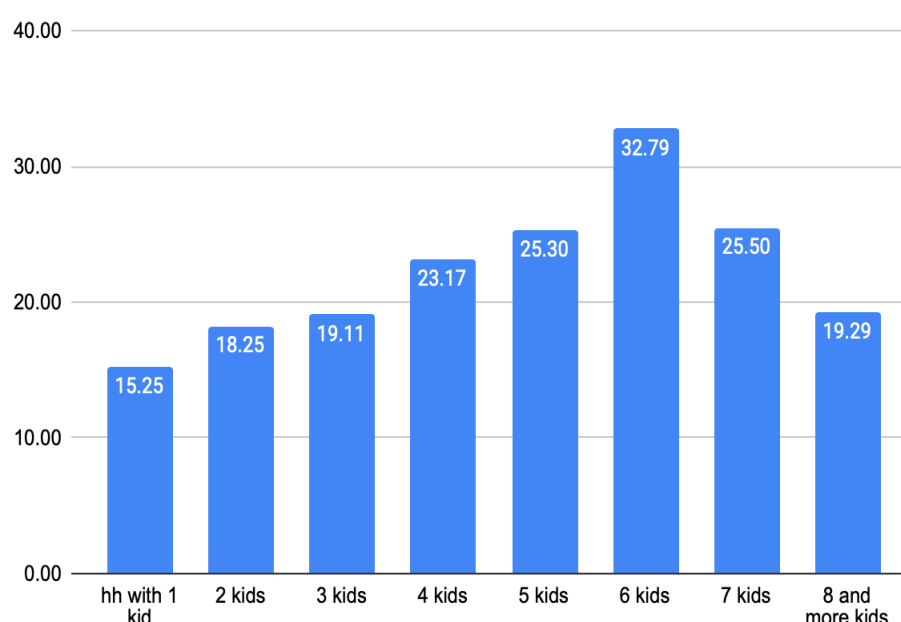
5. Child monetary poverty: households with and without migrants

Remittances play a significant role in reducing child poverty.. The child poverty rate in households without migrants is almost 12 percentage points higher than in those receiving remittances, highlighting the important impact of labour migration on household well-being.



6. Child monetary poverty: number of children in household

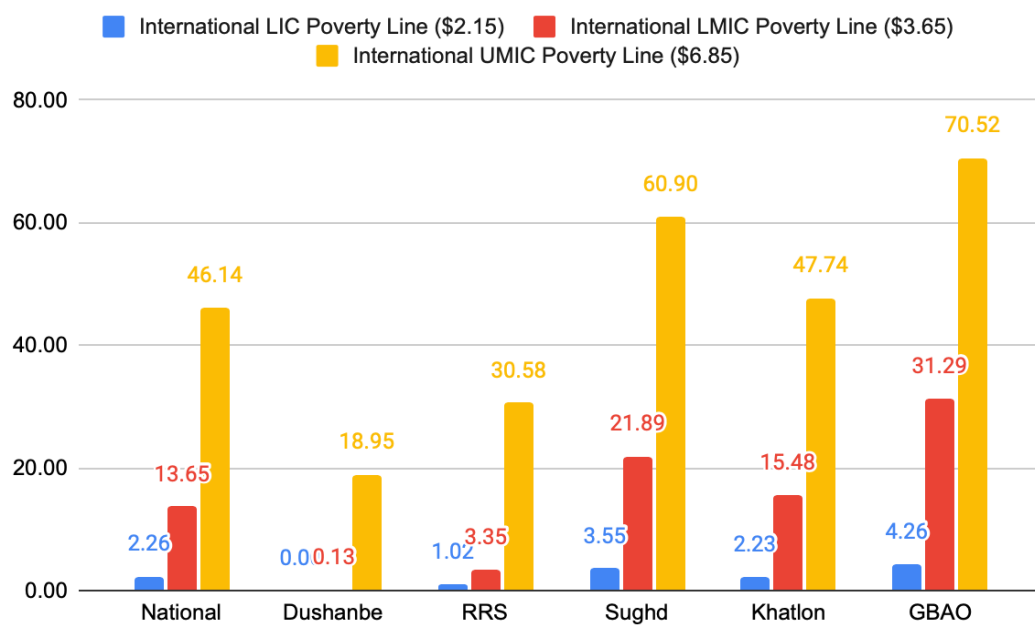
Child poverty is closely linked to the household size and number of children. Thus, the poverty rate among households with one child is almost two times lower than among households with five or more children. This strong correlation suggests that family size should be taken into account when designing targeting mechanisms for social protection programmes. A slight reduction in child poverty rates is observed in households with seven or more children, which may be due to older children entering the workforce and contributing financially, thereby increasing the household's overall income.



7. Child poverty rate using international poverty lines

The below graph provides a clear comparison of living standards and consumption levels in Tajikistan relative to those in low income, lower middle income and upper middle income country groups. While the country has nearly eliminated extreme poverty (measured at \$2.15 per capita per day) and has already achieved above-average consumption levels compared to other lower-middle-income countries (\$3.65), its economy still lags behind that of upper-middle-income countries.

When applying the \$6.65 per person per day poverty line, used for upper-middle income countries, nearly every second child in Tajikistan would be considered poor. In certain regions, such as GBAO and Sughd, the proportion rises to as much as 70%.



Conclusions

- Post-pandemic economic recovery has led to a significant reduction in child poverty in Tajikistan, with the national monetary child poverty rate falling from 27.2% to 20.4% between 2021 and 2023. The most notable decline was observed in urban areas.
- Regionally, the highest share of children living in poverty is found in GBAO, where nearly 4 in 10 children are affected, and in Khatlon, where every third child lives in poverty. Due to its large population of children, Khatlon also has the highest absolute number of children living in poverty.
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- School-age children (5–14 years) and adolescents (15–17 years) face the highest poverty rates, reaching 23% and 25%, respectively. This may be due to their growing needs and increased household spending. Interestingly, the poverty rate among girls aged 15–17 is lower than boys, potentially reflecting earlier entry into paid or family-based work, while boys may stay in school longer and start earning later.
- Child poverty shows strong seasonal variation. During lean periods, poverty rates spike, and over the course of the year, more than 300,000 children fall into and rise out of poverty, highlighting the prevalence of transitory poverty.
- Remittances play a key role in reducing child poverty. Households receiving remittances have a child poverty rate nearly 12 percentage points lower than those without migrants, underscoring the importance of labor migration for family welfare
- Household size and number of children are closely linked to child poverty.. Thus, the poverty rate among households with one child is almost twice as low as that observed in households with more than five children.

Recommendations

- Targeted Social Assistance (TSA) is one of the Government's key programmes to reduce child poverty. To make it more responsive and impactful, the TSA design could be strengthened by aligning it with current poverty trends and patterns:
 - The amount of TSA support could be tied to the poverty gap or the minimum subsistence level for children, ensuring that it helps meet their essential needs more effectively.
 - The programme could be horizontally expanded during the lean season to support children who fall into transitory poverty at certain times of the year.
 - Given the strong link between child poverty and household size, families with more children should be prioritized to ensure support reaches those most in need

- Additional coverage could be introduced in GBAO and Khatlon, where child poverty rates are highest. A more in-depth qualitative analysis could help identify the underlying causes of high poverty in these areas and guide tailored interventions.
- To alleviate the burden on poor families with school-age children, options such as subsidized school fees, free school meals beyond grades 1–4, and free transportation could be considered.
- Monetary poverty is only one dimension of child poverty. A multidimensional approach, including access to education, healthcare, clean water, proper housing, and protection from child labour, can give a more complete understanding of children's living conditions. Combining monetary and non-monetary data will allow for more effective and inclusive policies.