

**HISTORY OF POVERTY
MEASUREMENT AND RECENT
STUDIES ON IMPROVEMENT
OF POVERTY MEASUREMENT
IN TURKEY**

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Poverty Studies

- The calculation of different poverty lines for different purposes, is extremely important in terms of better poverty analysis.
- For this reason, TurkStat has done detailed studies using different data sources and methodologies

Poverty Studies

- Results have been published since 2002 yearly
- Main indicators
 - Absolute poverty (food + non-food)
 - World Bank poverty thresholds (1 \$, 2.15 \$, 4.3 \$ a day by PPP)
 - Relative poverty
 - Persistent at Risk of Poverty
 - Material deprivation

Absolute Poverty

- Data Source: HBS
- Since 2002
- Estimation level: Turkey, urban and rural areas
- Profile variables:
 - Household size
 - Household type
 - Economical activity branches (sector) of individuals
 - Employment status of individuals
 - Educational status of individuals

Absolute Poverty

- The poverty study based on the previous methodology was used for the 2009 HBS data for the last time and the results were announced in January 2011.
- Afterwards; Turkish Statistical Institution has started evaluation studies in collaboration with local and international experts in order to reveal the socio-economical situation of Turkey and enable the international comparisons. Within this scope; studies on feasible data sources and new estimation methods and works on calculation of new indicators are ongoing.

Absolute Poverty

- Until the outcome of these studies, poverty rates in terms of \$2,15 and \$4,3 -a-day according to PPP, especially used in international comparisons, has been continued to be announced.

Absolute Poverty

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---------------------------------|------|------|------|------|------|------|------|------|
| TURKEY | | | | | | | | |
| Food poverty | 1,35 | 1,29 | 1,29 | 0,87 | 0,74 | 0,48 | 0,54 | 0,48 |
| Complete poverty (food+nonfood) | 27,0 | 28,1 | 25,6 | 20,5 | 17,8 | 17,8 | 17,1 | 18,1 |
| URBAN | | | | | | | | |
| Food poverty | 0,92 | 0,74 | 0,62 | 0,64 | 0,04 | 0,07 | 0,25 | 0,06 |
| Complete poverty (food+nonfood) | 22,0 | 22,3 | 16,6 | 12,8 | 9,3 | 10,4 | 9,4 | 8,9 |
| RURAL | | | | | | | | |
| Food poverty | 2,01 | 2,15 | 2,36 | 1,24 | 1,91 | 1,41 | 1,18 | 1,42 |
| Complete poverty (food+nonfood) | 34,5 | 37,1 | 40,0 | 33,0 | 32,0 | 34,8 | 34,6 | 38,7 |

Source: Results of 2009 Poverty Study Press Release, TURKSTAT

Absolute Poverty

The poverty rates according to poverty line methods

| Methods | Percentage of poor individuals (%) | | | | | | | | | |
|---|------------------------------------|-------|-------|-------|-------|---------|-------|-------|------|------|
| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007(*) | 2008 | 2009 | 2010 | 2011 |
| TURKEY | | | | | | | | | | |
| Below 2,15 \$ per capita per day ⁽¹⁾ | 3,04 | 2,39 | 2,49 | 1,55 | 1,41 | 0,52 | 0,47 | 0,22 | 0,21 | 0,14 |
| Below 4,3 \$ per capita per day ⁽¹⁾ | 30,30 | 23,75 | 20,89 | 16,36 | 13,33 | 8,41 | 6,83 | 4,35 | 3,66 | 2,79 |
| URBAN | | | | | | | | | | |
| Below 2,15 \$ per capita per day ⁽¹⁾ | 2,37 | 1,54 | 1,23 | 0,97 | 0,24 | 0,09 | 0,19 | 0,04 | 0,04 | 0,02 |
| Below 4,3 \$ per capita per day ⁽¹⁾ | 24,62 | 18,31 | 13,51 | 10,05 | 6,13 | 4,40 | 3,07 | 0,96 | 0,97 | 0,94 |
| RURAL | | | | | | | | | | |
| Below 2,15 \$ per capita per day ⁽¹⁾ | 4,06 | 3,71 | 4,51 | 2,49 | 3,36 | 1,49 | 1,11 | 0,63 | 0,57 | 0,42 |
| Below 4,3 \$ per capita per day ⁽¹⁾ | 38,82 | 32,18 | 32,62 | 26,59 | 25,35 | 17,59 | 15,33 | 11,92 | 9,61 | 6,83 |

(1) Here 618 281 TL, 732 480 TL, 780 121 TL and 0,830 TRY, 0,921 TRY, 0,926 TRY, 0,983 TRY, 0,917 TL, 0,990 TL and 1,004 TL which are the equivalents of 1 \$ purchasing power parity (PPP), are used for 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010 and 2011 respectively.

(*) New population projections are used since 2007.

Relative Poverty

- Data source: SILC
- Since 2006
- The methodology established by following the processes of EUROSTAT (EU-SILC),
- Two types of data are produced annually;
 - Cross-sectional data,
 - Longitudinal data (*2, 3 and 4 year panel data*).

Relative Poverty

- Estimation level;
 - For cross-sectional data (*) -> Turkey, Urban, Rural and NUTS 1 level (12 regions)
 - For panel data -> Turkey

- Poverty threshold: using certain ratio (40%, 50%, 60% and 70%) of national median equivalised disposable income.

() Estimation level of the cross-sectional component will be Nuts 2 (26 regions) with 2014 SILC.*

Relative Poverty

Poverty threshold, number of poor and poverty rate by poverty threshold methods, Turkey

| Methods | Poverty threshold (TL) | Number of poor (Thousand) | Poverty rate (%) |
|-------------|---------------------------|------------------------------|---------------------|
| 2006 | | | |
| 50% | 2 351 | 12 548 | 18,6 |
| 60% | 2 821 | 17 165 | 25,4 |
| 2007 | | | |
| 50% | 3 041 | 11 163 | 16,3 |
| 60% | 3 649 | 16 053 | 23,4 |
| 2008 | | | |
| 50% | 3 164 | 11 580 | 16,7 |
| 60% | 3 797 | 16 714 | 24,1 |
| 2009 | | | |
| 50% | 3 522 | 12 097 | 17,1 |
| 60% | 4 227 | 17 123 | 24,3 |
| 2010 | | | |
| 50% | 3 714 | 12 025 | 16,9 |
| 60% | 4 457 | 16 963 | 23,8 |
| 2011 | | | |
| 50% | 4 069 | 11 670 | 16,1 |
| 60% | 4 883 | 16 569 | 22,9 |
| 2012 | | | |
| 50% | 4 515 | 11 998 | 16,3 |
| 60% | 5 418 | 16 741 | 22,7 |

Persistent at Risk of Poverty Rate

- Data source: SILC
- Since 2009
- Using 4 year panel data
- It is defined as the population living in households where the equivalised disposable income was below the “at-risk-of-poverty threshold^(*)” for the current year (last year of the panel) and at least 2 out of the preceding 3 years.

() 60% of equivalised disposable median income is taken into account in calculating persistent-at-risk-of-poverty-rate.*

Persistent at Risk of Poverty Rate

In the following table, the situations of 1, 2, 3 and 4 refer to population persistent at risk of poverty.

| | T | T-1 | T-2 | T-3 |
|----|--------------------|-------------------------------|-------------------------------|-------------------------------|
| 1. | At risk of poverty | At risk of poverty | At risk of poverty | At risk of poverty |
| 2. | At risk of poverty | At risk of poverty | Not at risk of poverty | At risk of poverty |
| 3. | At risk of poverty | At risk of poverty | At risk of poverty | Not at risk of poverty |
| 4. | At risk of poverty | Not at risk of poverty | At risk of poverty | At risk of poverty |

| 2009 | 2010 | 2011 | 2012 |
|------|------|------|------|
| 17,3 | 18,5 | 16,0 | 16,0 |

Material Deprivation Rate

- Data source: SILC
- Since 2006
- Percentage of population with an enforced lack of at least four out of nine material deprivation items in the “economic strain and durables” dimension.

Material Deprivation Rate

The nine items considered are:

- 1) Unexpected financial expenses,
- 2) One week's annual holiday away from home,
- 3) Arrears on mortgage or rent payments, utility bills, hire purchase installments or other loan payments,
- 4) Meal with meat, chicken, fish (or vegetarian equivalent) every second day,
- 5) Keeping home adequately warm,
- 6) Washing machine,
- 7) Colour TV,
- 8) Telephone (including mobile phone),
- 9) Car.

| 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|------|------|------|------|------|------|------|
| 65,1 | 63,8 | 63,8 | 63,0 | 66,6 | 60,4 | 59,2 |

Need for revision

- **Assumptions used with regard to the previous methodology**
 - Significant differences due to the assumptions used,
 - Assumptions lose their validity within time,
 - Difficulty in construction of comparable series because of the assumptions in use,
 - Assumptions in use weren't decided by a committee
- **Inadequacy of sample size**
 - Number of persons under food poverty threshold
 - Socio-economic characteristics of the poor
 - Regional estimates

Improvement Studies

- TURKSTAT started studies in collaboration of local and international experts and institutions in order to update its poverty methodology in 2012.
- It is aimed to launch a better way of measuring poverty that reflect social conditions in Turkey, consider all aspects of poverty and enable to compare poverty lines over time and space.

Improvement Studies

- In the scope of improvement studies, a working group has been constructed by TURKSTAT consisting of academicians, representative from different national institutions and ministries, non-governmental organizations and unions:
- There are four sub-groups within working group and each one study on different aspects of poverty

Improvement Studies

- First sub-group focuses on recent methodologies and applications related poverty measurement
- Second sub-group makes research on how to improve monetary poverty measures.
- Equivalence scales and its effect on poverty figures are under responsibility of third sub-group.
- Last sub-group works on non-monetary poverty and factors affecting poverty in Turkey.

Joint Workshop with World Bank

Date: 19-20 March 2012, Ankara

Target: Examining and presenting recent approaches to poverty measurement in the world

Participants: International Academicians, Journalists, Representatives of Government Institutes, Confederations and Associations

Poverty Measurement Workshop, Antalya



Date: 4-5 November 2013, Antalya

Target: Discussing issues for determining the most appropriate poverty measurement methodology for Turkey

Participants: National Academicians, Journalists, Representatives of Government Institutes, , Confederations and Associations

Poverty Seminar, Geneva



Date: 2-4 December 2013, Geneva

Participation: TurkStat has made a presentation regarding the official poverty studies conducted in Turkey.

Meetings within TurkStat

Some decisions were made according to the results of the working group report and workshops

Video conference with World Bank and OPHI experts

Date: 28 February 2014

Target: Discussing on the decisions of Turkstat and getting recommendations from WB and OPHI experts

What Poverty Indicators will be calculated?

- Absolute poverty (national poverty line)
- Relative poverty
- Persistent at Risk of Poverty
- Material deprivation
- Multidimensional poverty

What will be done?

- Absolute poverty will be calculated with revised assumptions according to the recommendations of experts
- Relative poverty will be calculated as before (necessary for comparison with the EU)
- Persistent at Risk of Poverty will be calculated as before (necessary for comparison with the EU)
- Material deprivation will be calculated as before (necessary for comparison with the EU)
- Multidimensional poverty will be calculated

Improvement Studies on Multidimensional Poverty

- Recently, the most remarkable method of measuring multidimensional poverty is belonging to Alkire and Foster (2007) which has been widely applied recently by countries, institutions and researches.
- Mexico's official multidimensional poverty methodology, which is based on Alkire-Foster (2007) method, is one of the best practises of multidimensional methods.
- Having aimed to reflect all aspect poverty and being attracted by Mexico case, TURKSTAT has concentrated more on adopting a multidimensional poverty measures.

Need for Multidimensional Poverty

- Provides measurement of different dimensions of poverty
- Covering multiple aspects of life
 - Nutrition
 - Education
 - Health
 - Availability of life facilitators
- Monetary poverty often provides insufficient policy guidance about deprivations in other dimensions

Measurement of Multidimensional Poverty

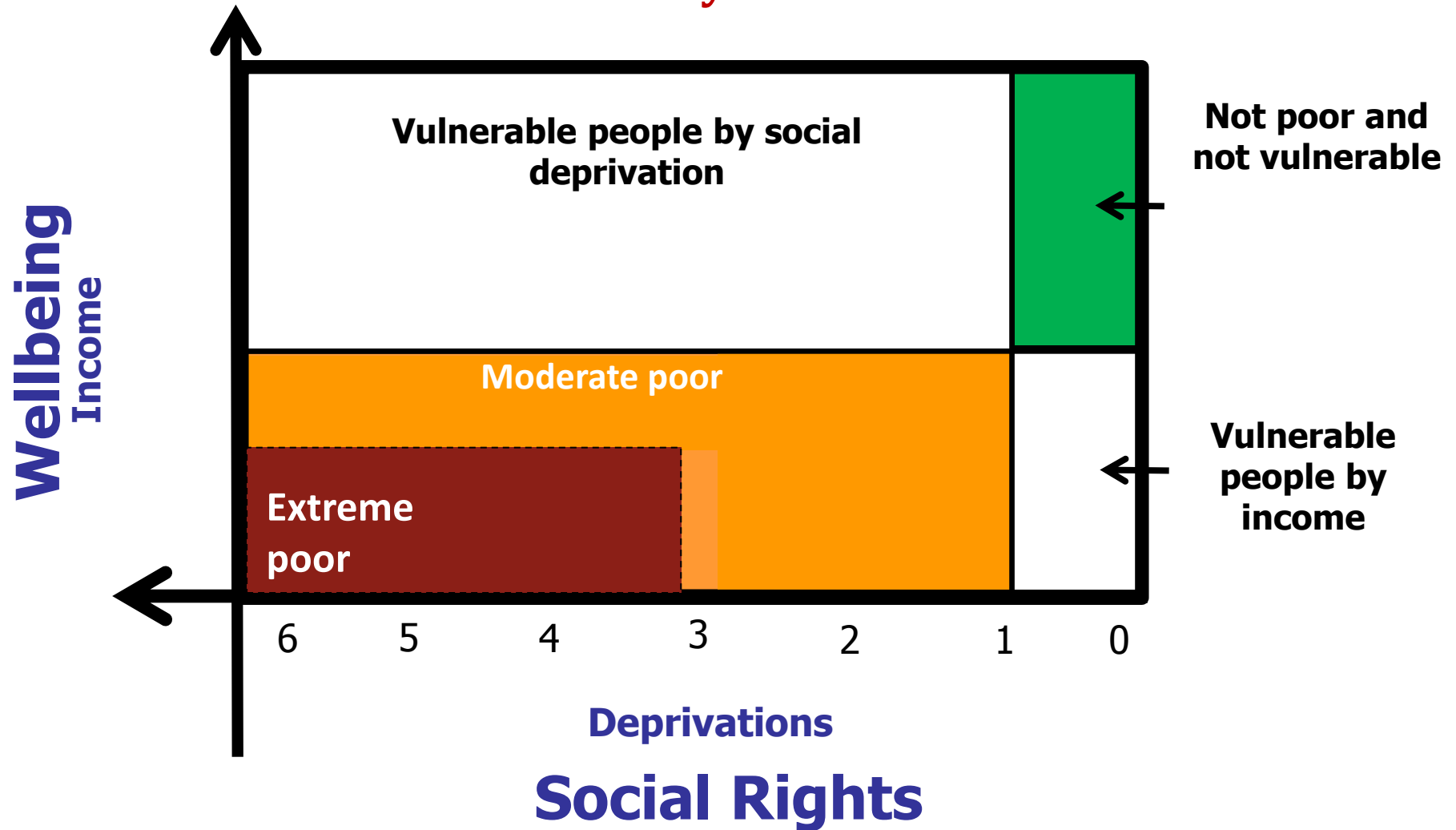
Decisions to be made on:

- Dimensions
- Indicators for dimensions
- Deprivation threshold for each indicator
- Weights of indicators
- Construction of poverty indicator for analysis units
- Poverty thresholds

Measurement of Multidimensional Poverty (OPHI)

| Dimension | Weight | Indicator/Variable | Weight |
|-------------------------|------------|-----------------------|--------|
| 1- Health | 1/3 | Nutrition | 1/6 |
| | | Child mortality | 1/6 |
| 2-Education | 1/3 | Duration of education | 1/6 |
| | | Education of children | 1/6 |
| 3-Life Standards | 1/3 | Electricity | 1/18 |
| | | Potable water | 1/18 |
| | | Sewage | 1/18 |
| | | Floor material | 1/18 |
| | | Fuel for cooking | 1/18 |
| | | Assets | 1/18 |

Multidimensional Poverty Measurement in Mexico



Thank you...