

**UNITED NATIONS
ECONOMIC COMMISSION FOR EUROPE
CONFERENCE OF EUROPEAN STATISTICIANS**

Seminar on poverty measurement
5-6 May 2015, Geneva, Switzerland
Agenda item 5: Multidimensional poverty

MULTIDIMENSIONAL POVERTY IN TURKEY

Prepared by the Turkish Statistical Institution¹

Abstract

This article is about the current poverty measurements and multidimensional poverty (MP) measurement in progress of Turkey. MP is a new and widely spoken measure designed to reveal the severe deprivations that people faced with. MP gives the opportunity to see both the impact and the density of poverty where density means the number of deprivations people are exposed to at the same time. This measure not only provides to get a detailed picture of poor people but also allows the comparisons between countries, regions, ethnic groups as well as other household and society characteristics. This article first introduces the poverty measurements announced by Turkish Statistical Institute (TURKSTAT). Then focuses on the main features of the MP studies of TURKSTAT has been ongoing for almost two years. The methodology of this study results of which have not been published yet is based on Alkire and Foster method. The dimensions have been discussed with many local and foreign academics, some government institutions and non-governmental organizations in several meetings and workshops. As a result of all these meetings, income was decided to be used as a dimension as well as the other four dimensions: education, health, dwelling and labour force. A nested weighted structure intended to be used, where each dimension is equally weighted, as each indicator within each dimension.

¹ Zeynep GÜRSOY. The authors' views expressed in this publication do not necessarily reflect the views of Turkish Statistical Institute

1. INTRODUCTION

Defined as the inability to provide basic human needs for oneself, poverty is one of the oldest problems faced by mankind and has been a major issue to the present day. As the basic needs in question have evolved across the course of human civilization, and may also differ depending on the geography and social conditions involved, the exact criteria for poverty have changed substantially over time.

The Turkish Statistical Institute (TURKSTAT) has started its studies regarding the quantification of poverty in Turkey in 2002. Household Budget Survey (HBS) data have been used to based on consumption of measure absolute and monetary poverties since 2002, while Income and Living Conditions Survey (SILC) data have been used based on income of relative poverty since 2006. In addition to relative poverty, poverty gap, persistent poverty and material deprivation have been published in Turkey.

Rather than utilizing a single measurement, TURKSTAT aims to combine multiple factors to evaluate every aspect of poverty, and has been consulting both national and international specialists to create a multidimensional poverty based on the principles set by Alkire and Foster (2011).

The present study first outlines the consumption and income based poverty studies published by TURKSTAT. Then we give information about multidimensional poverty analysis and the studies that have been done about multidimensional poverty for Turkey by TURKSTAT. Finally we introduce dimensions and indicators determined but not definite by a poverty research group formed by TURKSTAT and specialists/academicians of the various institutions.

2. POVERTY STATISTICS RELEASED BY TURKSTAT

2.1. Poverty statistics based on consumption

The absolute poverty is the situation in which a household or an individual can not reach the welfare sufficient to continue their lives. TURKSTAT has been implemented annual HBS regularly since 2002 and done poverty analysis by using this data.

In determining the food basket constituting the base of the food poverty, the data from 2003 HBS has been used. The 3rd and the 4th %10 quintile classified according to food expenditures were taken as a reference groups and 80 items having the largest share in the food consumption of the households were determined as the food basket. The amount ensuring an individual to receive 2100 calories per day was formed with these 80 items. The cost of this basket was deemed to be the food poverty line. The rate of food poverty was calculated as the consumption expenditures per equivalent individual and the ratio of the households below this food poverty line to the total population.

Only take into consideration the food expenditure for defining poverty line will be a lack of calculation because the individuals have some needs in additions to food. In order to consider these needs, it is necessary to add the share of non-food goods and services to the food poverty line. In order to determine this poverty line, the yearly non-food expenditures shares of the households whose total consumption was just above the food poverty line in the total expenditure was based upon. These proportions are estimated by using HBS data yearly. According to this, the poverty line covering food and non-food goods and services was determined. As for the food and non-food poverty rate, the consumption expenditures per

equivalent individual and the ratio of the population formed by the households below the food and non-food poverty line to the total population were calculated.

Besides food and non-food poverty, there is an expenditure based on relative poverty using the HBS data. In poverty studies by using HBS data %50 of the median value of the consumption expenditures per equivalent individual was defined as relative poverty line. The relative poverty rate was calculated as the consumption expenditures per equivalent individual and the ratio of the population formed by the households below the relative poverty line to the total population.²

The rate of Turkish individuals under food poverty was 1.35% in 2002, which has decreased to 0.48% in 2009. Food and non-food poverty rates were 27% in 2002 and 18.1% in 2009. In 2009, the rate of food poverty in the urban areas³ of Turkey was 0.06%, while this ratio was 1.42% in rural area. A similar trend is observed in food and non-food poverty rates. In addition, individual poverty rates were 8.9% in urban and 38.7% in rural regions.

Table 1. The poverty rates according to poverty line methods (%), 2002-2009

Methods	2002	2003	2004	2005	2006	2007	2008	2009
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

TurkStat, Poverty Study, 2013

From the results of the survey, absolute poverty line and relative poverty rates were published between 2002 and 2009. Due to the need for methodological revision over time, the production of poverty indicators from HBS was suspended in 2011.

One of the main factors for the revision is assumption used. The methodology was based on assumption to some extent and assumptions lose validity over years. Experimental studies resulted significant differences for different assumptions considered.

In order to observe effects of these assumptions on absolute poverty figures, seven different scenarios, created by changing by some assumptions of official methodology, were applied to HBS data over the period of 2003-2009.

Estimates of poverty rates based on different scenarios are given in Figure 1. In all case, poverty rates show significant decrease over time. In S1 where food basket re-constructed each year, poverty rates shows apparent fluctuations over time.

Comparing S2 and S3, where only difference is reference groups for composition of food basket, shows that using second quintile instead of first quintile as a reference group cause 3 points increase in poverty rate in average but trend in poverty rate does not change.

² http://www.tuik.gov.tr/PreTablo.do?alt_id=1013

³ Urban Areas: Settlements that have population equal to or above 20 001, Rural Areas: Settlements that have population equal to or below 20 000

Comparing S2 and S4, where only difference is reference groups for pricing food basket, provides that using whole data instead of first quintile as a reference group cause 1.5 points increase in poverty rate in average. Trend remains same.

Turkey has made considerable progress in economic development and improved social indicators during the last decade. Using current food share reflects effect of these improvements and increase poverty line in terms of “welfare level” over time. Comparing S5 and S6 provide us to see effects of using current food-share instead of constant one. As seen on Figure 3, constant food share gives lower poverty rate estimates after 2005 compared to S5 because of ignoring progress in economic development over times.

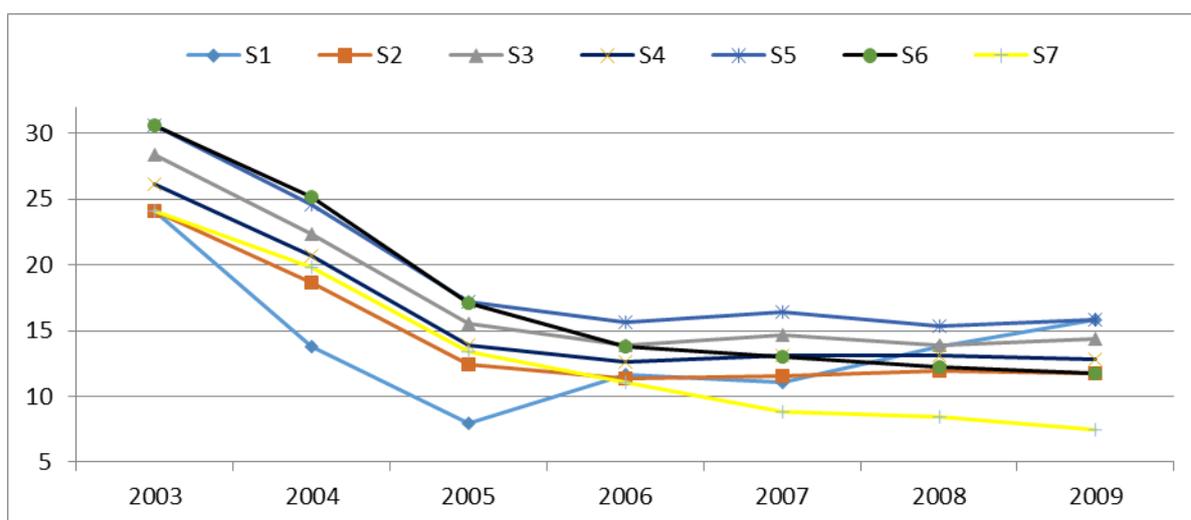
Lastly, S7, which define same welfare level as a poverty line over time because of updating poverty line by inflation, indicates significant decrease in poverty rate from 24.1% in 2003 to 7.5% in 2009. (Karadag⁴,2014)

Table 2. Assumptions made for different scenarios

Scenario	Food Basket	Reference group for composition of food basket (items and quantities)	Reference group for pricing food basket	Non-food Allowance
S1	Re-constructed each year using each year HBS	First Income Quintile	First quintile	current non-food ratio is used to derive non-food allowance
S2	Food basket constructed for 2003 is used for all years.	First Income Quintile	First quintile	current non-food ratio is used to derive non-food allowance
S3	Food basket constructed for 2003 is used for all years.	Second Income Quintile	First quintile	current non-food ratio is used to derive non-food allowance
S4	Food basket constructed for 2003 is used for all years.	First Income Quintile	whole data	current non-food ratio is used to derive non-food allowance
S5	Food basket constructed for 2003 is used for all years.	Second Income Quintile	whole data	current non-food ratio is used to derive non-food allowance
S6	Food basket constructed for 2003 is used for all years.	Second Income Quintile	whole data	constant non-food ratio (computed in 2003) is used for all years to derive non-food allowance
S7	Food basket constructed for 2003 is used for all years.	First Income Quintile	First quintile	Non-food Allowance in 2003 is calculated by using non-food share. Then this value is inflated by CPI to derive non-food allowance for following years.

⁴ Karadag, M. A.(2014),Recent Developments in Poverty Measurement in Turkey

Figure 1. Poverty rates of Turkey based on different scenarios (%)



Because of the loss of validity of the assumptions by the time, the inability of the sampling population to adequately represent the socio-economic dynamics of poverty, insufficiencies regarding the prediction of regional fluctuations have also contributed to the cessation of poverty analysis efforts, the publication of data for these measures has been subsequently stopped for the revision of analytical methodology.

2.2. Poverty statistics based on income

Another data source is published poverty statistics are based on income by TURKSTAT. Since 2006, TURKSTAT, in compliance with the European Union, has published the SILC survey which EU countries with comparable income distribution, social exclusion, poverty and living conditions to produce indicators. Through this survey, income-based relative poverty, international organizations such as OECD, Eurostat also preferred in the cross-country comparison, has been calculated. In addition to income-based relative poverty, poverty gap, persistent poverty and material deprivation indicators are published each year.

SILC, under a certain limit according to the general population with income individuals or households are considered poor relative sense. Depending on their income depends on the relative median income calculated in poverty research. Therefore, the "relative" is considered. Depending on changes in income and poverty rates indicate the change.

The households having incomes below a specified line compared to the general population shall be defined to be the poor in a relative meaning. Four different relative poverty thresholds are calculated by equalized household disposable median income:

- 40 % of median income,
- 50 % of median income,
- 60 % of median income,
- 70 % of median income.

International organizations such as Eurostat, generally based on the relative poverty threshold of 60% of median income is determined. After the poverty line is determined, equivalent

household disposable income of households and individuals that are below these lines are defined as poor. Poverty rate is also defined as the proportion of the poor within the total population.

In Turkey, it is observed that poverty rate is gradually reduced. By comparison with 2012 and 2013; in spite of the increase of poverty threshold by 10%, decline of poverty rate indicates that the increase of average income level in Turkey. Under a relative poverty threshold of 60% (a standard commonly used in comparisons of international poverty rates), the poverty rate in Turkey is determined as 25.4% in 2006, decreasing to 23.8% in 2010 and 22.4% in 2013.

Table 3. Poverty rate by relative poverty thresholds based on income, 2006-2013

Risk of poverty	2006	2007	2008	2009	2010	2011	2012	2013
40%	12.8	9.9	10.1	10.6	10.3	10.1	10.0	9.1
50%	18.6	16.3	16.7	17.1	16.9	16.1	16.3	15.0
60%	25.4	23.4	24.1	24.3	23.8	22.9	22.7	22.4
70%	32.0	30.1	30.9	31.1	30.6	30.0	30.2	29.5

Income and Living Conditions Survey, 2006-2013

In addition to the relative poverty rate based on income, each year, using SILC data, poverty gap ratio, persistent-risk of poverty and material deprivation is also published by TURKSTAT.

This measure reflects the depth of poverty as well as its incidence. Poverty gap is the mean shortfall of the total population from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. Poverty gap ratio index is calculated by this formula:

Poverty gap ratio index=

$((\text{Poverty threshold} - \text{Equivalentized median income per individuals of poors}) / \text{Poverty threshold}) * 100$

It is defined as the population living in households where the equivalentized disposable income was below the “at risk of poverty threshold” for the current year and at least 2 out of the preceding 3 years. 60% of equivalentized household disposable median income is taken into account in calculating at-persistent-risk-of-poverty-rate.⁵

Using a relative poverty threshold of 60% of median equivalentized disposable household income, generally Turkey’s rate of poverty is greater than that of European Union members. The average rate of poverty was 22.4% in 2013 in Turkey, while this value was 16.6% in European Union countries.

Low poverty gap indicates the decreasing of the poverty. In Turkey, by comparison with 2012 and 2013; remaining of poverty rate at about the same level and decreasing off poverty gap show that an increase in income of the poor. Under the 60% of relative poverty threshold criteria, the poverty gap values of Turkey and European Union members (27 countries) were

⁵ http://www.turkstat.gov.tr/PreTablo.do?alt_id=1013

29.6% and 22.2% in 2009, while these values were 26.7% for Turkey and 23.7% for European Union members in 2013.

Table 4. At risk of poverty rate and povert gap (60% of median equivalent household disposable income) (%)

		2009	2010	2011	2012	2013
Poverty Rate	Turkey	24.3	23.8	22.9	22.7	22.4
	EU(27 ülke)	16.4	16.4	16.8	16.8	16.6
Poverty Gap	Turkey	29.6	28.7	29.2	29.2	26.7
	EU(27 ülke)	22.2	22.7	22.9	23.2	23.7

The decline of persistent at risk of poverty rate indicates the increase of get away the population from poverty. In Turkey, it is observed that persistent at risk of poverty rate is gradually reduced. 17.3% of the Turkey population was under the risk of persistent poverty in 2009, while this value was 13% for 2013. In the European Union, 9.1% of the population experienced sustained poverty in 2009, while this value increased to 10.2% in 2012.

Table 5. Persistent at risk of poverty rate (%)

	2009	2010	2011	2012	2013
Turkey	17.3	18.5	16.0	16.0	13.0
EU(27 ülke)	9.1	9.9	9.6	10.2	:

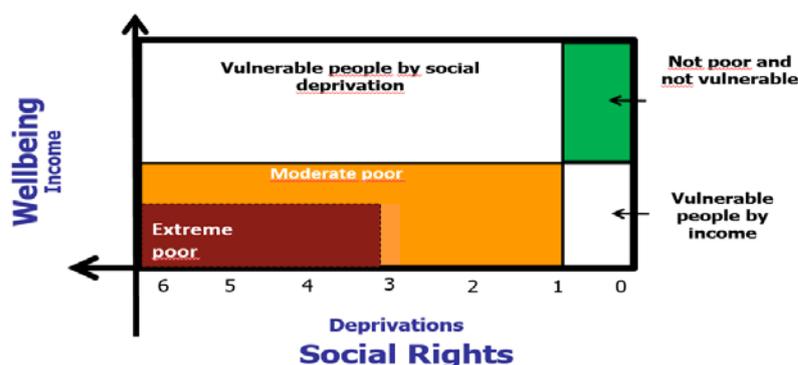
3. MULTIDIMENSIONAL POVERTY IN TURKEY

In order to produce policies that would alleviate poverty, studies on poverty measurement are important. Due to the country's socio-economic conditions which usually undergo changes, merely measuring income and consumption expenditure is not enough to determine the poverty levels of countries. The concept of multidimensional poverty has emerged in the literature based on the idea that the assessment of poverty by means of a single criterion may not be accurate.

Previously, the food expenditure required to sustain life was the only consideration when defining poverty; however, in subsequent studies, the failure to meet non-food needs such as the access to basic education and health services, clothing and shelter were also taken into consideration in the definition of poverty. The most comprehensive definition of poverty was proposed by Amartya Sen, who introduced the concept of capabilities, which is defined as the ability to avoid situations like hunger, ill health, illiteracy, poor housing conditions (i.e., conditions that every human being will want to definitely avoid).

In 2007, Prof James Foster and Sabina Alkire, the director of the Oxford Poverty and Human Development Initiative (OPHI), and have started to work on the measurement of multidimensional poverty. By Alkire and Foster's method, also named as the AF method, progress has been made in measuring multidimensional poverty. Alkire and Foster, who was inspired by Sen's idea that poverty should also be considered independently of the monetary indicators including income and consumption expenditures, emphasized that "there should be an absence of more than one dimension to be considered as a poor person."

Figure 2. Multidimensional Poverty Measurement in Mexico



The AF method offers a wide range of possibilities in the measurement of multidimensional poverty. With this method, researchers are able to decide the dimensions, indicators, weights and limits concerning poverty themselves based on the purpose of their studies as can be seen multidimensional poverty measurement in Mexico in Figure 2. Also, another advantage of this method is that the dimensions and the indicators of the dimensions can be separated; thus, the contributions of each dimensions/groups can be measured separately.

In recent years, this method, which considers poverty as multidimensional rather than one-dimensional, are frequently used both in the official statistics of the national statistical offices and also in academic studies. In 2009, Mexico has published their official multidimensional indicators according to the AF method. After Mexico, Colombia, Bhutan and South African countries have also used the AF method in their official poverty indicators. But it is seen that this application differs from country. For example; while Mexico decided to take notice income as a dimension, Colombia did not add it to calculations in the multidimensional poverty measurement. It is seen that the different poverty lines are selected by the countries using monetary poverty line. Mexico uses two different poverty lines, one of them is welfare poverty line (food + non-food) and the other one is minimum welfare poverty line (food) as monetary poverty line in multidimensional poverty calculations.

As a consequence of conducting a literature review on the measurement of poverty, TURKSTAT has formed the view that the implementation of multidimensional poverty measurement will be useful for the identification of people living multidimensional poverty in Turkey and the determination of the poverty they live at the same time. As a result of the measurement of multidimensional poverty, a poverty measure that reflects multiple local indicators and data for Turkey will be calculated. These indicators will help the decision makers or politicians to implement policies aimed at reducing poverty.

As a result of research and evaluation, we examined countries applying the AF method before, decided that this method is suitable for Turkey to calculate multidimensional poverty. TURKSTAT has been continued the studies on multidimensional poverty measurement by consulting with working groups which contain public institutions/organizations, non-governmental organizations, academics to have a methodology accepted by all parties since 2012. As well as working group studies, we have participated in national and international meetings on the multiple dimensional poverty. The main purpose of the multidimensional poverty measurement is to make poverty measurement reflect monetary conditions as well as living conditions in Turkey with appropriate way.

It is planned to use two separate sources in study on multidimensional poverty. SILC is the first data source of study on multidimensional poverty. SILC has been started to apply in the frame of European Union Compliance Programme since 2006. SILC has the characteristics of

important source for compiling information on income distribution, the level and composition of poverty and living conditions and social exclusion in country. SILC data has been planned to use for multidimensional poverty measurement especially calculation of monetary and social indicators due to it has estimation basis on Level 2 as of 2015 and has rich information about living conditions. The survey was carried out with 22.830 household and 60.744 individuals in 2014.

HBS is the second data source that is used in the study on multidimensional poverty. TURKSTAT has applied HBS on the purpose of consumption expenditure and income level of the individuals and their households by socio-economic sections and regions. Monetary poverty line to be used for multidimensional poverty study is obtained from this survey.

Turkey is planned to use two thresholds in The Turkey Multidimensional Poverty (TMP) Studies. One of them is welfare poverty line, the other one is social dimension poverty line. TURKSTAT has planned to adjust the inter-regional differences via Regional Purchasing Power Parity by using single monetary poverty line (welfare poverty line) in the calculation of TMP.

“Cost of Basic Needs” that is used by many countries is adopted as the method in calculation of poverty line. In the used method, a reference group is determined within the scope of cost of basic needs while specifying food basket and non-food proportion. In the context of vision that the reference group should be neither the poorest nor the richest group, the households in the second income quintile are envisaged as reference. Considering the family structure in Turkey, it is decided that the reference household type consist of 2 adults and 2 children. Since therefore equivalence scale allows to opportunity for the comparisons between households in different sizes and different compositions, national equivalence scale are calculated for Turkey by using suggestion of national and international experts and academicians. According to the used equivalence scale; coefficient “1” is used for the first adult individual, “0,65” for the other adults and 0,35 for children under the age of 13.⁶ While constituting food basket, the most accurate calorie calculation is tried to make for necessary calorie requirement by the help of data belonging to Hacettepe University and the Ministry of Health. Accordingly; child calorie need is identified as 1740, adult calorie need is as 2330. In addition, 8140 calorie is identified for the caloric requirement of the reference household type consisting of 2 adults and 2 children.

In the framework of the calculations mentioned above, monetary poverty line (welfare poverty line) is calculated by adding food proportion besides non-food proportion in studies on the multidimensional poverty for Turkey. According to this threshold, people below this line are defined as population who are living in monetary poverty.

Deprivation of individual in relation to any dimension varies according to number of indicator in each dimension. Required minimum deprivation thresholds are identified for to be deprived to relating indicator. Relating information will be given at dimensions and indicators section.

3.1. Dimensions and Indicators

While selecting dimensions and indicators to be used for measuring of multidimensional poverty, Turkey’s economical situation, social and demographic structure has been taken into consideration and discussed with national and international institutions and academicians. Our

⁶ More detailed in Gianni Betti, Mehmet Ali Karadag, Ozlem Sarica and Baris Ucar, How to reduce the impact of equivalence scales on poverty: evidence from Turkey

discussions has been continuing for select indicators, but some variable that is thought to reflect the multidimensional poverty in Turkey has been decided to be added to 2015 SILC questionnaire.

While some processes are carrying out in Turkey, two workshops were organized in relevant issue. The subject to receive an income as a dimension or not is brought to agenda in the workshops. Common idea of institutions and academicians; income is significant parameter to describe of quality of life and it will be useful on determined policies. With the thought that these idea income should be covered as a dimension in calculation. At the end of discussions about selection of social dimensions as well as income dimension, it was decided to use four dimensions. These are education, labour force, health and housing. Total thirteen non-monetary indicators is located under four dimensions.

Basic subsystems (family, law, politics, education, et al.) that constitute a society need to think as a whole. But education has great importance among them. Because education is on the basis of other subsystems. Education heads all of them. For this, there is a need to detect those in educational deprivation. In order to get rid of poverty, a variety of new and original adult education methods and applications are needed. First of all, individuals and sections who can not benefit from educational must be determined properly. Therefore education dimension is planned to get the multidimensional poverty studies to be calculated for Turkey. In education dimensions, compulsory education and attendance situation to school are taken part as an indicator whereas literacy is taken as an indicator for the persons above 50 years of age. On the other hand we had some adjustments according to ages by considering the changes in education system in Turkey.

Non-registered employment rate in Turkey is quite high with %35 in total employment, while it is 22.3% in non-agricultural sector and 82.3% in agricultural sector in 2014. For this reason in the scope of multidimensional poverty, labour dimension was selected as a second dimension in order to determine the people that lack of labour dimension in Turkey. While assessing the size of the labour dimension in Turkey, long-term unemployment is considered in measurement of social exclusion and also there are studies about problems with unemployed for more than 12 months to return into the labour market. Thus it was considered to take long-term unemployment as an indicator. In addition, due to the unregistered employment is an important problem in Turkey, unregistered employment indicator has been involved in the labour dimension.

Health is an important indicator of the country's level of development was chosen as the third dimension. In Turkey, important policies about health systems have been developed. The general health insurance system currently being implemented in Turkey, even of any uninsured citizens and their families benefit from health services. In this context, because there are not any individuals under the umbrella of health insurance in Turkey, are considered two indicator based on subjective answer of individuals. The first one is financial problems (inability to consult a doctor, can't get drug/medical supplies) and the second is other reasons inability to consult a doctor (the waiting queue is long, to be away from the health care provider). In case of failure to provide at least one of these two indicators, person is considered to be lack of health dimension.

Housing dimension as a fourth dimension has been decided in the calculation of TMP ratio. In Turkey, housing, social, economic and physical content of a concept. In Turkey, 8.8% of non-institutional population do not have toilet in the house, 2.7% of non-institutional population do not have a bath, and 16.3% of non-institutional population do not have the hot water

system in 2013. Six indicators are listed below that considered to take place in the housing dimension.

- If there is no toilet in the house
- If there is no bathroom in the house
- If there is no hot water systems in the house (Central hot water, e.g.)
- If there are problems in the house such as leaking roofs, damp walls/floors/foundation, rot in window frames or floor.
- If there is no heating system that heats all rooms in house.
- The number of people per room in the dwelling is high 1.3.

4. RESULT

An accurate measurement of poverty is important in order to transmit social transfers to the right persons to increase their living standards. Therefore; TURKSTAT has calculated different poverty indicators using HBS data since 2002 and SILC data since 2006.

TURKSTAT has decided to introduce a new poverty calculation method which is perceptible, consistent and up-to-date considering the fact that determining factors of poverty are multi-dimensional. This new method also meets national needs to a great extent and enables to develop suitable measures to combat poverty. A working group has been established for this purpose including related institution and academics. Benefiting the related national and international documents and methods mentioned in different meetings, workshops etc. it has been decided to calculate multidimensional poverty for Turkey. However, studies in the form of meetings and workshops have still continued mainly on dimensions, border and weights and it is probable to become changes either on methodology or on indicators.

TURKSTAT has planned to make multidimensional poverty calculation depending monetary and nonmonetary poverty indicators which could extensively reflect the country situation. There exist many different approaches on multidimensional poverty calculations. AF method has been selected since it is found appropriate to measure national poverty since it provides a large framework on multidimensional poverty and researchers are free on their selections.

In multidimensional poverty estimations planned to be calculated for Turkey, it has been projected to prepare a poverty matrix in which individuals are coded as “1” if they lack related dimension and as “0” if they don’t. (All individuals need to take one of these two codes). However fuzzy set approach enables to define individuals according to their degree of poverty by giving those values between 0 and 1 different from the classical approach classifying them as “0” or “1”. This method could provide individuals as close to be poor or about to be dropped out from poverty instead of classifying those as poor or not poor with precise lines.

TURKSTAT has planned to complete methodological studies, calculate multidimensional poverty and publish in a short while. Multidimensional poverty studies need to be done for Turkey because this will let to determine the effect of every dimension to the poverty and reflect the national profile.

REFERENCES

Alkire, S. (2007) "Choosing Dimensions: The Capability Approach and Multidimensional Poverty," OPHI Working Paper 88.

Alkire, S. and Foster, J. (2007) "Counting and Multidimensional Poverty Measurement," OPHI Working Paper 7.

Alkire, S. and Seth S. (2008) "Measuring Multidimensional Poverty in India: A New Proposal," OPHI Working Paper 15.

Alkire, S. and Santos, M.E. (2010) "Multidimensional Poverty Index," OPHI Brief, July 2010.

Alkire, S. and Santos, M.E. (2010) "Acute Multidimensional Poverty: A New Index for Developing Countries," UNDP, Human Development Research Paper 2010/11.

Alkire, S. and Foster, J. (2011a) "Counting and Multidimensional Poverty Measurement," *Journal of Public Economics*. August 2011.

Alkire, S. and Foster, J. (2011b) "Understandings and Misunderstandings of Multidimensional Poverty Measurements," OPHI Working Paper 43.

Gianni Betti, Mehmet Ali Karadag, Ozlem Sarica and Baris Ucar, How to reduce the impact of equivalence scales on poverty: Evidence from Turkey (unpublished yet)

http://www.turkstat.gov.tr/PreTablo.do?alt_id=1013, 10.03.2014

James E. Foster (2010), A report on Mexican Multidimensional Poverty Measurement, OPHI Working Paper 40.

Karadağ M. A., (2014), Recent Developments in Poverty Measurement in Turkey

Salazar, R.C.A, Beatriz, B. Y, Pinzón, R., P (2013) "Counting Multidimensional Poverty Index in Public Policy Context: the case of Colombia", OPHI Working Paper 62.

Santos, M. E, Ura K. (2008) "Multidimensional Poverty in Bhutan: Estimates and Policy Implications", OPHI Working Paper 14.

Sen, A., (1976), 'Poverty: An Ordinal Approach to Measurement', *Econometrica*, 46: 437-446.

Turkish Statistical Institute, (2011), 'Press Release: Results of Income and Living Conditions Survey'.

Turkish Statistical Institute, (2011), 'Press Release: Results of Poverty Study'.

Turkish Statistical Institute and World Bank, (2005), 'Turkey: Joint Poverty Assessment Report', Report No: 29619-TU

World Bank, (2005), Introduction to Poverty Analysis, The World Bank Institute, available: <http://siteresources.worldbank.org/PGLP/Resources/PovertyManual.pdf>