

Assessing Poverty and Related Factors in Turkey

Esra Saatci, Ersin Akpınar

Department of Family Medicine,
Cukurova University Faculty of
Medicine, Adana, Turkey

Poverty, a complex, multidimensional, and universal problem, has been conceptualized as income and material deprivation. In this article, we discuss poverty and related factors in Turkey. The absolute poverty line for Turkey was US \$4 per capita per day. Turkey was ranked 92nd out of 177 countries with moderate human development in the 2006 Human Development Report. The individual food poverty rate was 1.35% and the non-food poverty rate was 25.6%. The highest poverty rate was among primary school graduates (42.5%; 38.5% for women and 46.8% for men). The rate for this group was higher in urban than in rural areas. Among poor people, 57.2% were married. The highest poverty rate was among agricultural workers (46.6%) and in Eastern and Southeastern Anatolia. Factors related to poverty were crowded households, unemployment, immigration, working for a daily wage in the agricultural and construction sector, low educational status, female sex or married status, lacking social insurance, and living in rural areas or in Eastern and Southeastern Anatolia.

> Correspondence to:

Esra Saatci
Cukurova University Faculty of Medicine
Department of Family Medicine
Balcali 01330 Adana, Turkey
esaatci@cu.edu.tr

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Poverty is not a distinct episode or state; rather, it is an aggregate of conditions and events that create pervasive hardship and stress. Traditionally, poverty has been conceptualized as income and material deprivation, but it may be defined in various ways (1-4). Poverty involves much more than the restrictions imposed by a lack of income. It includes other elements of deprivation such as a lack of access to basic resources like food, housing, clothing, education, health care, access to drinking water and sanitation facilities, and social and cultural life (5,6). The income dimensions reflect living standards in relation to material deprivation; in monetary terms, a person living on US \$1 per day is generally considered poor (5). A complex, universal,

multidimensional problem, poverty has both income and non-income dimensions, entailing a lack of the basic capability to lead a full, creative life (3,7). Poverty can be linked to many factors such as race, gender, language, and place of residence, and is related to social, political, and psychological disempowerment (4).

In 1990 the World Bank first reported that there were 1.3 billion poor people out of 6.7 billion people in the world, 70% of them in rural areas (8). The international policy objective is to halve this number by 2030. The ratio between the richest 20% and the poorest 20% in the world, which was 30:1 in 1960, in 1994 reached 78:1 (8). The number of absolute poor is not expected to decline sufficiently by 2010. The absolute poverty line per person per day is US \$4 in Turkey, and US \$14.4 in developed countries (9).

In 2006, Turkey had a gross domestic product (GDP) of US \$302.8 billion and purchasing power parity (PPP) of US \$556.1 billion. GDP per capita was US \$4221, PPP per capita was US \$7753, and the GDP per capita annual growth rate in 1990-2004 was 1.6. Public spending for health in 2002-2004 was 5.4%. Turkey ranked 92nd out of 177 countries according to the 2006 Human Development Report (10).

Food poverty line is an estimate of the expenditure level necessary to purchase a minimum essential number of calories on the basis of a typical diet in a country or a region. This is usually considered a line for extreme poverty since non-food essentials are not included. For the total Turkish population, the individual food poverty rate was 1.35% (0.62% for urban population and 2.36% for rural population), with a US \$96 limit, whereas food and non-food poverty rate was 25.6% (16.57% for urban population and 39.97% for rural population). The relative poverty rate was 14.18% (8.34% for urban population and 23.48% for rural population). For neighboring countries, poverty rates were 20.9% for Greece, 23% for Bulgaria, 7.3% for Iran, 21% for Iraq, 35.8% for Syria, and 21.2% for Georgia (10-24) (Table 1)

According to the World Bank, the poverty rate for Turkey was 20% with US \$2.15 daily limit (25). However, if the daily poverty limit is accepted as US \$4.30, poverty rate will reach 58% of the population. The highest percentage (39%) of people living under US \$2.15 per day was in Southeastern Anatolia (18% in urban areas and 21% in rural areas). Another report of the World Bank stated that 17.2% of urban population in Turkey was in food pov-

Table 1. Indicators for Turkey compared with the neighboring countries for the year 2006 (10)

| | Country | | | | | | | |
|--|--------------------------------|--------|--------|--------|--------|----------|---------|---------|
| | Turkey | Greece | Syria | Iraq | Iran | Bulgaria | Armenia | Georgia |
| Population (million) | 67.803 | 10.623 | 16.728 | 23.331 | 66.128 | 7.707 | 3.336 | 4.989 |
| Life expectancy at birth (years) | 70.1* (68.9) | 78.59 | 68.77 | 66.95 | 69.95 | 71.2 | 66.49 | 64.57 |
| Men, life expectancy at birth (years) | 69.9 | 76.03 | 67.63 | 65.92 | 68.61 | 67.72 | 62.12 | 61.04 |
| Women, life expectancy at birth (years) | 74.9* | 81.32 | 69.98 | 68.03 | 71.37 | 74.89 | 71.08 | 68.28 |
| Adult literacy rate (%; age 15 and older) | 87.4* | 98 | 70.8 | 58 | 72.1 | 99 | 99.8 | 99.9 |
| Youth literacy rate (ages 15-24) | 95.6* | 98 | 95.2 | 41.0 | 86.3 | 99.7 | 99.8 | 89.0 |
| Infant mortality rate (per 1000) | 29* (43 and 16 [†]) | 6.38 | 33.8 | 60.05 | 29.04 | 14.65 | 41.27 | 52.37 |
| Under-five mortality rate (per 1000) | 37* (57 and 20 [†]) | 7 | 32 | 125 | 33 | 17 | 30 | 23 |
| Maternal mortality rate (per 100 000) | 49* (130 and 70 [†]) | 10 | 180 | 310 | 37 | 27 | 22 | 51 |
| Chronic malnutrition in under-5 group (%) | 15* | — | 7 | 23 | 11 | — | 4 | 3 |
| Total fertility rate (%) | 2.23* (2.5) | 1.35 | 3.31 | 4.07 | 2.53 | 1.39 | 1.34 | 1.42 |
| HIV prevalence (%; age 15-49) | <0.2 | 0.2 | — | — | 0.2 | <0.1 | 0.1 | 0.2 |
| 1-year-olds fully immunized against tuberculosis | 88 | 88 | 99 | 93 | 99 | 98 | 94 | 95 |
| Against measles | 81 | 88 | 98 | 90 | 94 | 96 | 94 | 92 |
| Infants with low birth weight | 16 | 8 | 6 | 15 | 7 | 10 | 7 | 7 |

*Turkey Demographic and Health Survey 2003.

†For the poorest 20% and richest 20%, respectively.

‡Reported and adjusted, respectively.

erty. Food and non-food poverty rate in urban areas was 56.1% (26).

Different Turkish authors have determined different limits and rates for poverty. Pamuk (27) identified the poverty rate as 14.8% per capita and 14.15% per household. Yardimci (28) found these rates to be 17.25% and 14.5%, respectively. Gursel (29) reported the poverty rate of 14.5% per capita, considering a relative poverty level of US \$1.6 per month.

If the limit is increased from 80 cents to US \$1.1, the poverty rate in Southeastern Anatolia will increase from 24% to 44%. Of people living in the Eastern and Southeastern Anatolia, 15% are poor, and 25% of these are extremely poor. Of total households, 43% were poor and more than 12% did not have adequate nutrition. Poor people require an increase of 30%-50% in their income to overcome poverty (30).

Turkey officially started the struggle against poverty in the 1990s. Five-year development plans had an aim to halve the number of people with incomes less than US \$1 daily by the year 2015 (31). In 2006, Turkey had a gross domestic product (GDP) of US \$302.8 billion

Gender and poverty

Investigation of living strategies of families in squatter areas in Istanbul showed that men were responsible for covering the living expenses and women for the housework (32). Also, in 71% of cases, decisions regarding unexpected family expenses, education, and job selection of children were made by men. A study conducted in the squatter area of Ankara found that women living in poor households were most exposed to the effects of poverty. In addition, the labor force participation rate and educational level of women were determined to be too low. It was also report-

ed that more than a half of the women were working outside their homes on low-skilled and low-wage jobs such as babysitting and housecleaning. Moreover, although women sometimes do not work on jobs which directly bring money, they play an indispensable role in the household by taking care of children and sick or elderly members of the family, as well as by taking part in the consumption arrangement (33). It was also indicated that in households experiencing the most severe poverty, the labor force participation rate of women was lower. In low income neighborhoods, some of the women's burden was alleviated by transferring it to daughters.

Educational level of women was lower than that of men, as well as the illiteracy rate (13.1% for women in general, as opposed to 5.9% for men) (34). These two were closely related with gender roles of women. People living in squatter areas, except in eastern and southeastern regions, mostly wanted their daughters to study far away from home. The reasons why women migrated from rural to urban areas were marriage or husband's job, while men mostly migrated because of searching for a job (34).

Education and poverty

In Turkey, poverty seems to be directly related to low educational status (30). There was 7.83% of school population older than six years who were identified as poor. In the general population, 26.9% of poor people were illiterate, 22.6% had rudimentary reading and writing skills, and 42.4% were primary school graduates (30). There were twice as many women as men who were illiterate in the poor group. In contrast, there were more illiterate men than women among people living in poverty but having rudimentary reading and writing skills. Girls had less chance for education than boys. Poor people in Turkey had lower educational status, were likely to be women,

lacked social and health insurance, and worked unregistered in the agricultural sector as family workers (30).

Marital status and poverty

The age of first marriage was approximately 18 for women and 22 for men among the poor, and these thresholds increased with the level of education (34). In general population mean age for the first marriage was 22.3 years for women and 26.2 for men in urban areas and 21.7 and 25.2 in rural areas (30). Married people were found to be poorer than single people (30). There was a large percentage of widows (81.9%), divorced women (80.7%), and separated women (78%) among people who lived in poverty. However, widows were better protected against poverty than divorced women in rural areas (30).

Income, occupation, and poverty

Among the poor in the general population, 18.9% were unemployed and 45.6% were housewives. Of the working poor, 85.1% lived in rural areas working as unpaid family workers. Of people working in the agricultural and forest sectors, 73.5% were poor. The primary occupations for poor people in urban areas were manufacturing (22.7%), construction (20.6%), and trade (19.9%). Economically active but poor people comprised 55.2% of the total population. Of people working in the agricultural sector, 65.6% were poor. Administrative personnel accounted for only 0.2% of those living in poverty. The percent of poor people among administrative personnel was 6.57% (30).

Household size and poverty

Mean household size was 4 persons (3.9 in urban population and 4.5 in rural population),

and it increased with poverty (35). As family size increased in rural areas, the number of people working without pay in the family increased (35). Among poor households, 17.3% had three and more children under age 14 (36). In 4 out of 10 poor households, there were fewer than four people, in one-fourth of households there were five, and in one-third, there were more than six people.

Rural and urban poverty

Rural and urban poverty are separate phenomena (3,25). Rural poverty stems mainly from a lack of access to land, human capital, financial assets, and social capital (37). Since 1980, Turkey has lost the characteristics of an agricultural country. Unemployment, seasonal work, and low wages have caused poverty to shift from rural to urban areas and inadequate industrialization caused poverty to intensify in urban areas. However, poverty is still very severe in rural areas. There were 15% of urban men and 13% of urban women who lived in better conditions than rural population (8). In 2003, the unemployment rate in rural areas was 6.5%, and 33.9% of the population worked in the agricultural sector, although this sector makes up only 12.6% of the GDP.

Half of the Turkish population lives in cities with moderate human development. These cities are located in the Central, Black Sea, and the Southeastern Anatolia. Almost 47% of the population lives in the cities with high human development located in Western Anatolia. Only 3% lives in the least-developed Eastern Anatolia cities (Bingol, Bitlis, Hakkari, Agri, Mus, and Sirnak). Only in the Marmara region (northwest of Turkey), all the cities are highly-developed (38). The number of highly developed cities is also quite high (74%) in the Aegean region (west of Turkey). However, this percentage is 40% in the Central Anatolia and 7% in the Black Sea region. None of the

cities in the Eastern and Southeastern Anatolia are well-developed (38). Marmara region is characterized by many inequalities. Although the cities in this region are among the most developed, there are still 61.2% of the residents of this area who belong to the poorest 20% of the Turkish population, as opposed to 4.3% who belong to the richest 20%.

Among people living in poverty, 62.9% resided in rural areas and 37.0% in urban areas. The rural poor over 12 years of age made up 73.1% of the total poor (73.1% for women and 73.2% for men). Among those living in poverty, 51.5% in urban areas were women. Poverty rate for those 15 to 64 years old was 48.5% (72.7% for rural areas and 27.3% for urban areas). Rural areas experienced a greater problem with poverty than urban areas, primarily in the Eastern and Southeastern Anatolia (30,31,39,40) (Table 2).

Table 2. Poverty in different geographical regions of Turkey (%)

| Region | Rural | | Urban | | Total | |
|------------------------------------|-----------|--------|-----------|--------|-----------|--------|
| | household | person | household | person | household | person |
| Aegean-armara (west and northwest) | 5.43 | 4.36 | 0.00 | 0.00 | 3.74 | 3.01 |
| Mediterranean (south) | 22.27 | 21.03 | 14.36 | 13.00 | 19.80 | 18.55 |
| Central Anatolia | 29.14 | 23.33 | 38.33 | 32.94 | 32.01 | 26.30 |
| Black Sea (north) | 11.28 | 8.76 | 8.75 | 7.41 | 10.49 | 8.34 |
| Eastern and Southeastern | 31.88 | 42.53 | 38.57 | 46.64 | 33.97 | 43.80 |

Regional income disparities show another dimension of income inequality. Aegean and Marmara regions have 39.1% of households but 54.9% of income. The greatest disparity between income and household number was in the Black Sea and Eastern and Southeastern Anatolia regions. The Black Sea region has 12.5% of the total households and 9.0% of the total income. The Eastern and Southeastern Anatolia regions have 18.3% of households and 8.6% of income (41). The disparity can also be observed in expenditures. The mean monthly expenditure was US \$800 for families

living in Istanbul (the biggest city in Turkey, located in the Marmara region) in 2004 (42). It was US \$320 for Mardin, Batman, Sirnak, and Siirt (cities in the Eastern and Southeastern Anatolia). There are also disparities within Istanbul city (43). In Istanbul, 29% of income goes to the richest 1% of population (18 000 households). The monthly income of the richest 1% citizens of Istanbul is 322 times higher than that of the poorest 1%. This income is higher than total income of three developed Turkish cities (Izmir, Ankara, and Bursa) and almost equal to the total income of the Black Sea region. The lowest income group in Istanbul (25% of population) has only 5.9% of the total income. This serious income disparity in the cities deepens poverty, social polarization, and isolation.

Immigration and poverty

Turkey has problems with both internal and external immigration. External immigration takes place primarily from Iran, Iraq, Bosnia and Herzegovina, and the former Soviet Union, and internal immigration primarily takes place from east and southeast to the western cities of Turkey. Economically induced immigration could increase the rate of people living in poverty in areas with increased number of immigrants. The increase in urban poverty and decrease in rural poverty may also be due to immigration. In fact, when people living in poverty change their residence with no change in income, there will be no increase in the overall poverty, but may be a change in the type and severity of poverty (30). These changes might arise from difficulties with access to employment, accommodations, and schooling in the new place of settlement (30). The squatter areas are transitory places for people who change their status from villagers to citizens and from agricultural workers to employees (30).

Health and poverty

Poverty and illness are intertwined. The relationship between poor health and poverty is well-established (44). In every society, morbidity and mortality are higher among the poor (45). Poverty creates an environment for less-favorable health outcomes, resulting in higher usage rates and costs in health services delivery systems (45). One of the most important consequences of poverty is the increase in infant and child mortality rates. Poverty and mortality interaction arises from malnutrition, infectious diseases, problems with access to safe water sources and sanitation, crowded households, and negative housing conditions such as smoking and accidents.

In Turkey, 27.7% (5.6 million) children under age 15 live in poverty, with this rate in rural areas being 40.6%. Chronic malnutrition in under-5 age group was 15%; there were 17% of children with low height-for-age among the poorest 20% and 3% among the richest 20% of the population. Among the poor, the rate of children with low weight-for-age was 4% and the rate of children with low birth weight was 16% as opposed to 3% in the richest 20% of the population. In Eastern Anatolia, the prevalence of malnutrition was 25% and of chronic malnutrition in under-5 age group 30%. The rate of births attended by skilled health personnel was 41% among the poorest 20% and 98% among the richest 20%. The rate of women without any antenatal care was 62% in Eastern Anatolia and 13.9% in the more developed Western Anatolia. The contraceptive prevalence rate was 64% for married women aged 15-49, with 21% being in the lowest 20% income level group and 45.5% being in the highest 20% income level group. Tuberculosis prevalence was 45 per 100 000, while smoking prevalence was 18% for adult women and 49% for adult men. Twenty percent of 1-year-olds were fully immunized among the poorest

20% and 53% among the richest 20%. Among children, 17% among the poorest 20% and 3% among the richest 20% were underheight for age (10).

A study in Diyarbakir showed that 80% of children had no access to health care because of economical constraints (46). The percentage of the population with social security in Eastern Anatolia and among squatters in large cities (such as Istanbul, Ankara and Izmir) is less than 50%, although approximately 85% of the Turkish population has social and health insurance.

Turkey, along with Mexico, is among 14 countries with the same income that allocates least to health (47).

The data presented in this review show that people in Turkey who are defined as poor are more likely to have a lower educational status, to be unemployed, to have several children, and to live in Eastern or Southeastern Anatolia. Rural poverty is related to geographic and socioeconomic conditions. The geographic conditions such as high altitudes, rough climate, and unfruitful soil are hard to change and make improvement difficult in Eastern or Southeastern Anatolia. However, the Southeastern Anatolian Project (GAP) is taking the challenge. It is a multi-sectoral and integrated regional developmental project based on the concept of sustainable development. Its basic aim is to eliminate regional development disparities by raising people's income level and standard of living, and to contribute to national development targets such as social stability and economic growth by enhancing the productive and employment generating capacity of the rural sector. The project area covers 75 000 km² and 9 provinces in the Euphrates (Firat)-Tigris (Dicle) basins and Upper Mesopotamia plains (Adiyaman, Batman, Diyarbakir, Gaziantep, Kilis, Mardin, Siirt, Sanliurfa, and Sirnak). The GAP region has a share of about 10% in both the total population

and geographical area of Turkey. Around 20% of the total irrigable land in the country is in this region, and the region represents 28% of Turkey's total hydraulic potential. The original initiative emerged from irrigation and hydroelectric energy production projects on the Euphrates and Tigris rivers. This program covers the sectors of irrigation, hydraulic energy production, agriculture, urban and rural infrastructure, forestry, education, and health. Its water resources program envisages the construction of 22 dams and 19 power plants and irrigation schemes on an area extending over 1.7 million hectares. The total cost of the project is US \$32 billion (48).

For the socioeconomic barriers, the best solution is the improvement of "services." The main economic activity in Eastern and South-eastern Anatolia is agriculture and stock-raising. Increased debts are a burden that causes limitations in the provision of essential services. Today, Turkey is 111 times richer than it was in 1923, 14 times more so than in 1960, and 3.5 times richer than it was in 1980, yet there is more concern about poverty (47).

Several national studies stated that crowded households, unemployment, immigration, working for a daily wage in the agricultural and construction sectors, low educational status, being female, being married, lacking social insurance coverage, and living in rural areas or in the Eastern or Southeastern Anatolia were poverty related factors. Future research will expand our knowledge about people in poverty (49). An intensive and committed research agenda can indeed be the critical first step in understanding the phenomenon and in informing anti-poverty strategies (50). The reduction and eventual eradication of poverty require major transformations within countries and between countries due to the unequal economic, social, and political relationships in the global system (51). Global trends should be observed, and new threats to human health

should be forecasted. Each country should have proper health policies (52).

References

- 1 Young A. Poverty, hunger and population policy: linking Cairo with Johannesburg. *Geogr J*. 2005;171:83-95.
- 2 Bowen GA. The challenges of poverty and social welfare in the Caribbean. *Int J Soc Welf*. 2007;16:150-8.
- 3 Underlid K. Poverty and experiences of insecurity. A qualitative interview study of 25 long-standing recipients of social security. *Journal of Social Welfare*. 2007;16:65-74.
- 4 United Nations Development Programme 2004. Human development report 2004 – cultural liberty in today's diverse world. New York: Oxford University Press; 2004. Available from: <http://hdr.undp.org/reports/global/2004/?CFID=5998135&CFTOKEN=38c4381890438e2e-7A4985D3-1321-0B50-3530C.ABB95C75D2F&sessionid=e63052a4ecb03b15177b>. Accessed: September 10, 2007.
- 5 World Bank. The world development report 2004: making services work for poor people. Available from: <http://www.worldbank.org/html/extpb/2004/>. Accessed: September 10, 2007.
- 6 United Nations Development Programme 1997. Available from: <http://hdr.undp.org/reports/global/1997/en/>. Accessed: September 10, 2007.
- 7 Bowen GA. Community capacity for social development: examining social fund projects in Latin America and the Caribbean. *Soc Dev Issues*. 2004;26:71-89.
- 8 World Bank annual report 1990. Available from: <http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/EXTARCHIVES/0,contentMDK:21105406~pagePK:36726~piPK:437378~theSitePK:29506,00.html>. Accessed: September 10, 2007.
- 9 Duclos JY, Sahn DE, Younger SD. Robust multidimensional poverty comparisons. *Econ J*. 2006;116:943-68.
- 10 The 2006 human development report. Available from: <http://hdr.undp.org/hdr2006/>. Accessed: September 11, 2007.
- 11 Kikilias E, Gazon E. Regional aspects of poverty in Greece. *Social Cohesion Bulletin* 2005;1:1-19. Available from: <http://www.ekke.gr/files/Bulletin.pdf>. Accessed: September 11, 2007.
- 12 UNICEF. At a glance: Greece statistics. Available from: http://www.unicef.org/infobycountry/greece_statistics.html. Accessed: September 11, 2007.
- 13 UNICEF. At a glance: Syrian Arab Republic-Statistics. Available from: http://www.unicef.org/infobycountry/syria_statistics.html. Accessed: September 11, 2007.
- 14 El Laithy H, Abu-Ismael K. Poverty in Syria: 1996-2004. New York: United Nations Development Programme; 2005.
- 15 UNICEF. At a glance: Iraq Statistics. Available from: http://www.unicef.org/infobycountry/iraq_statistics.html. Accessed: September 11, 2007.
- 16 El-Guindi T, Al Mahdy H, McHarris J. The extent and geographic distribution of chronic poverty in Iraq's Center/South Region. United Nations World Food Programme. May 2003. Available from: <http://www.eldis.org/go/display/?id=13511&type=Document>. Accessed: September 11, 2007.
- 17 UNICEF. At a glance: Iran (Islamic Republic of) statistics. Available from: http://www.unicef.org/infobycountry/iran_statistics.html. Accessed: September 11, 2007.

- 18 UNICEF. At a glance: Bulgaria statistics. Available from: http://www.unicef.org/infobycountry/bulgaria_statistics.html. Accessed: September 11, 2007.
- 19 Department for International Development. Country profiles: Europe: Bulgaria. Available from: <http://www.dfid.gov.uk/pubs/files/cspbulgaria.pdf>. Accessed: September 25, 2007.
- 20 Noncheva T. Poverty in Bulgaria: researches and debates. Available from: <http://www.warwick.ac.uk/fac/soc/complabstuds/russia/BGREP.DOC>. Accessed: September 11, 2007.
- 21 Jrbashyan N. Human poverty and MDGs indicators in Armenia's Marzes. Available from: http://www.gov.am/enversion/programms_9/abrc/abrc_mshtakan_gorc_9_3.htm. Accessed: September 11, 2007.
- 22 UNICEF. At a glance: Armenia statistics. Available from: http://www.unicef.org/infobycountry/armenia_statistics.html. Accessed: September 11, 2007.
- 23 UNICEF. At a glance: Georgia statistics. Available from: http://www.unicef.org/infobycountry/georgia_statistics.html. Accessed: September 11, 2007.
- 24 Poverty reduction and economic growth program of Georgia. Government's Statement. Tbilisi, November 2000. Available from: <http://www.imf.org/external/NP/prsp/2000/geo/01/INDEX.HTM>. Accessed: September 11, 2007.
- 25 World Bank. Growth, poverty and inequality Eastern Europe and the Former Soviet Union. Available from: <http://siteresources.worldbank.org/INTECA/Resources/completeca-poverty.pdf>. Accessed: September 11, 2007.
- 26 World Bank. Turkey: poverty and coping after crises. Report No. 24185-TR, 2003. Available from: http://www-wds.worldbank.org/servert/WDSContentServer/IW3P/IB/2003/08/20/000160016_20030820130639/Rendered/PDF/241850TROS.R.pdf. Accessed: September 11, 2007.
- 27 Pamuk M. Poverty in rural area, State Statistic Institute Analysis for manpower market 1999 [in Turkish]. Ankara: State Statistic Institute; 2000.
- 28 Yardimci Y. Poverty profile of rural households in Turkey [in Turkish]. Ankara: State Statistic Institute; 2003.
- 29 Gursel S. Individual income distribution and poverty in Turkey, comparison with the European Union [in Turkish]. Istanbul: TÜSİYAD; 2000.
- 30 Dansuk E. Measuring poverty in Turkey and the relationship with socioeconomic structures [dissertation in Turkish]. State Planning Organization; 1997.
- 31 State Statistic Institute report on household income and expenditure questionnaire [in Turkish]. Available from: <http://www.tuik.gov.tr/VeriBilgi.do> Accessed: September 25, 2007.
- 32 Sencer Y. Urbanization in Turkey: social and cultural change process [in Turkish]. Ankara: The Ministry of Culture Publications; 1979.
- 33 The Middle East Technical University. The Department of Urban Policy Planning and Local Governments. Urban poverty and survival strategies – Ankara sample (1999 studio study) [in Turkish]. Ankara: METU Faculty of Architecture Publications; 1999.
- 34 Gokce B. Transformation of traditional interfamily support in squatter regions to modern organizations [in Turkish]. Ankara: Republic of Turkey Prime Ministry Women and Social Services Undersecretary; 1993.
- 35 Turkey Demographic and Health Survey 2003. Institute of population studies, Hacettepe University, Ankara, Turkey. Available from: <http://www.hips.hacettepe.edu.tr/tmsa2003eng/index.htm>. Accessed: September 11, 2007.
- 36 United Nations Development Programme. Human development report 1998 – consumption for human development. New York: Oxford University Press; 1998.
- 37 The Asian Development Bank 2005 report. Available from: http://www.adb.org/Documents/Reports/Annual_Report/2005/ADB-AR2005-06-Pacific.pdf. Accessed: September 11, 2007.
- 38 State Planning Organization. VIII. Five year development plan. Report of the subcommission for poverty struggle [in Turkish]. Available from: <http://plan8.dpt.gov.tr/>. Accessed: September 25, 2007.
- 39 World Bank. Poverty and unemployment in an oil-based economy. Report 14382-TR. Washington, DC: World Bank; 2004.
- 40 Organisation for economic co-operation and development. Income distribution and poverty in OECD countries in the second half of the 1990s. Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=671783. Accessed: September 25, 2007.
- 41 Kepenek Y, Yenturk N. Turkey's economy [in Turkish]. Istanbul: Remzi Bookstore; 2005.
- 42 Turkey Statistics Institution. Poverty survey 2004 [in Turkish]. News Bulletin. 2006;27. Available from: <http://www.tuik.gov.tr/OncekiHB.do>. Accessed: September 25, 2007.
- 43 Sonmez M. Income gap: in the world and in Turkey. In: Ozdek Y, editor. Poverty, violence, and human rights [in Turkish]. Ankara: Turkey Middle East Public Administration Institute, The Center for Human Rights Research and Review; 2002. p. 93-4.
- 44 Meessen B, Zhenzhong Z, Van Damme W, Devadasan N, Criel B, Bloom G. Iatrogenic poverty. Trop Med Int Health. 2003;8:581-4. [Medline:12828538](#)
- 45 Gwatkin DR, Guillot M. The burden of disease among the global poor: current situation, future trends and implications for strategy. Global Forum on Health Research Working Paper. Washington, D.C.: The World Bank; 1999.
- 46 Poverty and its effects on children [in Turkish]. Available from: http://www.0-18.org/sayilar/035_yoksulluk_ve_cocuklar_uzerine_etkileri_2.htm. Accessed: September 25, 2007.
- 47 Ozbudun S. A global poverty culture: poverty, violence and human rights [in Turkish]. Ankara: TODA; 2002. Available from: <http://www.sendika.org/arsiv/anametin-2006-11-07.pdf>. Accessed: September 12, 2007.
- 48 GAP (Southeastern Anatolian Project). Available from: <http://www.allaboutturkey.com/gap.htm>. Accessed: September 12, 2007.
- 49 Roosa MW, Deng GS, Nair RL, Lockhart Burrell G. Measures for studying poverty in family and child research. J Marriage Fam. 2005;67:971-88.
- 50 Secombe K. Families in poverty in the 1990s: trends, causes, consequences and lessons learned. J Marriage Fam. 2000;62:1094-113.
- 51 Kay C. Rural poverty and development strategies in Latin America. Journal of Agrarian Change. 2006;6:455-508.
- 52 Susilowati D, Karyadi D. Malnutrition and poverty alleviation. Asia Pac J Clin Nutr. 2002;11 Suppl:S323-30.