



# A Brief Overview on Poverty in Iran: Comparison With the World

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## Abstract

Poverty is a multi-dimensional problem and various researchers, based on their field, have investigated different aspects of poverty. Moreover, poverty, as a global problem, could be an interesting subject for both developed and developing countries. In recent decades, both international organizations and different countries have had some programs for reducing poverty. The evaluation of power and capacity of national economy for coping with poverty is the first essential step. In addition, in a long-term period, poverty would depend on economy development, but in the short-term, considering the proper concept of poverty with potential available financial resources is necessary. Then, calculation of poverty line and percentage of poor people using the appropriate methods is the next step. In recent decades, Iran's economy has had different problems such as rising inflation, unemployment, balance of payments deficit in macroeconomics and its effect on poverty and in equal income distribution in microeconomics. Effects of the price balancing on poverty is also an important subject that its evaluation is possible with the data acquired after subsidies policy. Another aspect is the picture of poverty in rural and urban communities in the last year and near to implementation of this policy. This article presented an overall picture of poverty in urban and rural communities of Iran as well as worldly defined indices in poverty literature.

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## Introduction

For investigation and evaluation of the economic situation of each country, there are many indices to compare different characteristics; among them, some indices are more common such as per capita income and gross domestic product (GDP).<sup>1</sup> Moreover, healthcare of each country can be investigated through evaluation of epidemiological statistics of diseases, child and mother mortality; however, most of the time, the relationship between economic situation and healthcare conditions is ignored.<sup>1</sup> Although some indices like portion of healthcare from GDP have been used to investigate this relationship, it would not be a reliable criteria, since the effect of cost on increasing the level of society healthcare and distribution of these services could not be accessible. However, when the changes of economic indices of countries are compared with health indices, it can be seen that there would be a meaningful relationship between these two cases which may have been an interesting issue for scientists in the last decade.<sup>1</sup> Generally, burden of disease in each country has a direct and stronger

relationship with the economic indices since poor people cannot have enough food, appropriate house and proper job because of insufficient income. Then they may have more disease and less access to health services which in turn would lead to a decrease in their income. This issue has been confirmed via a brief investigation in health situation of developed and developing countries.<sup>1</sup>

This article gave an overview on poverty including its definition, poverty line, poverty indices (poverty ranking index, poverty gap index, Foster, Greer and Thorbecke index), urban and rural household poverty. Then distribution of these indices in Iran and the comparison with the world was discussed.

## Definition of Poverty and the Indices

Poverty has many definitions and its concept has been changed several times because of the economic, politic, social and cultural developments across time. Poverty can be defined and categorized from different aspects such as substantial focus on the lack of sources for acquiring food, participation in activities and common

conditions of life.<sup>1</sup> In addition, poverty line and poverty indices could be explained depending on the absolute or relative concepts; in fact, there would be a threshold to determine the border between the poor and other people of communities which is called the poverty line.<sup>2</sup>

### Poverty Line

Depending on whether the concept of poverty is considered absolute or relative, a threshold is defined that clarifies the boundaries between the poor and other people in each community. This threshold is called the poverty line.<sup>2</sup>

### Poverty Indices

For better understanding of poverty in each community, some indices have been introduced in the economic literature which may present better recognition of poverty. The most common poverty indices include<sup>3</sup>:

1- *Headcount ratio index*: It was the most common index until 1970. This index is defined as the ratio of the poor number to the number of all people in the society.<sup>4</sup> Magnitude of this index varies between 0 (no poor in society) and 1 (when all people receive an income lower than poverty line).

2- *Poverty gap index*: This index is based on total distance of the poor from poverty line, that presents depth of poverty. If in two different societies, the count ratio indices were the same, based on the poverty gap index, poverty is higher in the society that has more members who have greater distance from the poverty line.<sup>3</sup>

3- *Foster, Greer and Thorbecke index*: This index is used as it presents the ratio of poor people and poverty depth in the society under study. This index has been proposed by Foster, Greer and Thorbecke. They considered the composition of the community as the important features of desired poverty index, so that they add up all poverty magnitude acquired from evaluating different subsets and reach to a unit magnitude of poverty in the society.<sup>2</sup>

### Indicators of Urban and Rural Household Poverty

To obtain total absolute poverty line, first absolute food poverty line can be calculated based on at least basic need and then at least nonfood need would be added. To determine absolute food poverty line, the proposed procedure of Iranian Food and Nutrition Institute is used. According to this procedure, proper nutrition must supply 2294 kcal energy for each person daily (Table 1). This magnitude of calories must be provided by different foodstuff including cereals, beans, meat, sugar, vegetable oil, dairy, vegetable, and fruit. The portion of each one is determined by a nutritionist. After obtaining values of each one in this list in desired year, and multiplying them in desired value, values of foodstuff are calculated and

food poverty line is obtained. To add at least nonfood need, following procedure is used<sup>5</sup>:

The absolute poverty line of the total per capita = Percentage food poverty line + 1/3(Percentage food poverty line).

The absolute poverty line of the whole household = The absolute poverty line of the total per capita \* Family size.

The index of the census ratio is calculated as follows:

$$P_0 = \frac{n}{N} \times 100$$

Where  $P$  is the census index,  $N$  is the total number of households and  $n$  is the number of poor households.

The following formula is used to calculate the poverty gap:

$$P_1 = \frac{1}{n} \sum_{i=1}^n \frac{(z - X_i)}{z} \times 100$$

Where  $n$  is the number of poor people,  $z$  is the poverty line and  $X_i$  is the income of the  $i$ -th person.

The statistical population included all households in rural and urban areas of the country. Sampling was also the sampling of the Iranian Center for Statistics, which is conducted annually for the whole country and by the provinces.<sup>5</sup>

To calculate the poverty indicators, the gross household, gross expenditure and poverty line calculations were used in the previous section. Then, poverty indicators, the poverty gap index and the Foster, Greer and Thorbecke indicators were calculated. Indicators of poverty in Iranian urban and rural areas are presented in Table 2.

Positive sign represents index decreasing (index improvement) and negative sign represents index increasing.<sup>5</sup>

**Table 1.** Weight of Food in Daily Food Intake

Foodstuffs	Food Needed Per Day	
	Weight(g)	Kilo Calories
Bread	250	689
Rice	100	360
Beans	30	106
Sugar	45	180
Oil	25	225
Red Meat	30	87.6
Chicken	25	73.2
Fish meat	20	25.7
Egg	25	40
Milk	100	64
Yogurt	100	83.7
Cheese	20	49
Vegetable	320	116.2
Fruit	350	195
Total		2994

**Table 2.** Poverty Indices in Iranian Rural and Urban Areas During 1989-2009

Year	Absolute Poverty Index				Poverty Gap Index			
	Absolute Poverty Percentage		Percentage of Changes in Last Year*		Percentage of Poverty Gap		Percentage of Changes in Last Year*	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
1989	36.73	45.5	-	-	40.7	43.5	-	-
1990	41.00	42.19	-11.6	7.3	42	46.1	3.2-	-6
1991	36.93	38.87	9.9	7.9	38	45.8	9.5	0.7
1992	36.27	36.26	1.8	6.7	37.2	45.2	2.1	1.3
1993	33.59	37.39	7.4	3.1-	35.6	44.6	4.3	1.3
1994	30.32	38.12	9.7	2-	34.2	41.3	3.9	7.4
1995	35.78	39.79	-18	4.4-	35.9	43.5	5-	-5.3
1996	32.15	40.19	10.1	1-	35.3	42.8	1.7	1.6
1997	28.6	44.22	11	-10	34.2	42.4	3.1	0.9
1998	25.63	41.68	10.4	5.7	34.2	42.9	0	1.2-
1999	25.09	38.23	2.1	8.3	34.2	40.7	0	5.1
2000	22.47	38.69	10.4	-1.2	33	40.8	3.5	0.2-
2001	21.13	37.36	6.0	3.4	32.6	40.3	1.2	1.2
2002	17.76	34.07	15.5	8.8	31.3	39.3	4	2.5
2003	13.29	22.47	25.6	34	30.8	35.3	1.6	10.2
2004	12.5	18.89	5.9	15.9	29.5	34.7	4.2	1.7
2005	11.27	24.77	9.8	31.1-	28.9	34.9	2	0.6-
2006	13.47	25.04	-19.5	1.1-	29.7	35.3	-2.8	1.1-
2007	12.74	23.75	5.4	5.2	30.5	35.2	2.7-	0.3
2008	13.45	27.06	5.6-	13.9-	30.4	36.2	0.3	2.8-
2009	15.9	27.33	18.2-	1-	32.1	35.8	5.6-	1.1
Average	23.76	34.32	2.7	0.9	43	33.4	1	0.8

### Indices' Changes in Rural and Urban Areas of Iran

As shown in Table 2, headcount ratio index (population under absolute poverty line) in urban areas fluctuated in some years but in average had downward trend. The number of people under poverty line in rural areas was variable and in average decreased. This index in urban areas was 40.7% in 1989 and decreased to 32.1% in 2009.<sup>5</sup>

Poverty index in rural areas decreased from 43.5% in 1989 to 35.8% in 2009. It means that during 21 years, the distance of poor people from poverty line was decreased about 18%. The greatest and the lowest amounts of this index were 46% and 35% in 1990 and 2004, respectively. It means that in 1990 for ending absolute poverty, rural poor income must have been increased about 46% whereas, in 2004, 35% increasing in income had been enough for absolute poverty ending. Average of this index was 40.3% in rural areas. It means that between the years 1989 and 2009 the poor villagers' distance from the poverty line was more than 40%.<sup>5</sup>

### The Poorest Cities and Villages in Iran

The poorest Iranian cities in 1995 were located in the northeast, north, northwest, southeast, and west, to such a degree that 77.69%, 45.49%, 43.65%, 41.93% and 41.54% of families living in these areas were below the poverty line, respectively. Cities that had the lowest number of poor families in the same year were Tehran and south of Iran with 24.92% and 27.73% of families

below the poverty line in these areas, respectively.<sup>4</sup> However, considering the changes of poverty between the years 1995 and 2004, poverty rates decreased in the cities of all areas of Iran, but still the greatest rate of poverty observed in the cities of northeast of Iran was about 34.33%. The poorest villages in 1995 were in the north, northeast, southeast, northwest and west with 61.76%, 54.29%, 43.65%, 49.73% and 41.99% of families living in these areas below the poverty line, respectively. Villages with the lowest number of poor families in the same year were Tehran and south of Iran with 30.43% and 35.93% below the poverty line in these areas, respectively.<sup>4</sup>

### Poverty Line Status in Europe

In 2010, 16.4% of inhabitants of 27 members of European Union (EU) suffered from poverty with the magnitude of their income as 60% of average national income below the poverty line.<sup>6</sup> The following sentences would demonstrate some information about EU countries.<sup>6</sup>

Austria: The percentage of people below the poverty line was 12.1% with the grade of 26th among EU countries. The poverty rate of Austria was 3.4% lower than the average value of EU.

England: In England around 17.1% of the population (i.e., 10.5 million persons) were poor, considering the fact that 2.7% decrease in poverty in England was from 2000

to 2010.

France: A total of 13.3% of France population were below the poverty line, in the grade 20th among EU countries, with a decrease of about 2.7% in the last decade.

Germany: Germany with 15.6% of population below the poverty line held the 15th grade of EU poverty. Germany, as the most successful economic country in Europe, had about 12.6 million poor people.

Italy: Poverty rate of Italy was 18.2% with about 10.9 million poor people out of 60 million.

Latvia: Latvia was the poorest country among EU countries with 21.3% of population below the poverty line.

Norway: In this country, 11.2% of population were below the poverty line, with the grade of 28th in EU countries. Norway had controlled the poverty with oil revenues.

Spain: Spain, the country with the highest rank in the economic crisis, had the third grade of poor EU countries with the rate of 20.7% below the poverty line, the same as Romania and Bulgaria.

Sweden: A number of 12.9% in this country were below the poverty line, the 23rd grade among EU countries. In fact, approximately, 1.2 million persons in this country were living with an income less than 60% of national average income.<sup>6</sup>

### Poverty Line Status in Asia

To recognize the poorest Asian countries in 2015, the estimation of per capita GDP (based on equality of purchasing power) was used by obtaining data from World Bank.<sup>7</sup> Based on this data, 15 poorest Asian countries in 2015 were:

Afghanistan: Annual GDP in this country was US\$1177. War in this country has had negative effect on the standards of living.

Myanmar: Annual GDP in this country was US\$1711.

Bangladesh: Annual GDP in this country was US\$2083.

Papua: Annual GDP in this country was equal to US\$2283 with about 40% poor population.

Nepal: Annual GDP in this country was US\$2310.

Yamen: Annual GDP in this country was equal to US\$2351. This country has the lowest humanistic development index (HDI) among Arabian countries.

Tajikistan: Annual GDP in this country was US\$2373 with 50% poor people.

Kyrgyzstan: Annual GDP in this country was US\$2380. Poverty and malnutrition are the most important issues of this country with about 50% of population below the poverty line.

Laos: Annual GDP in this country was US\$3100. More than one third of the population of this country were

below global line.

Pakistan: Annual GDP in this country was equal to US\$3144. In fact, 60.3% of its population are living with only 2\$ per day.

Vietnam: Annual GDP in this country was US\$4001.

Uzbekistan: Annual GDP in this country was US\$4038.

India: Annual GDP in this country was equal to US\$4307.

Philippine: Annual GDP of this country was US\$4682.

Indonesia: Annual GDP in this country was equal to US\$5214. This country is a developing one.<sup>7</sup>

### Global Rank of Iran

Global forum of economy announced that Iran rank in poverty among 82 countries was 58th and only 8% of Iranian with US\$2 income per day are poor.<sup>7</sup>

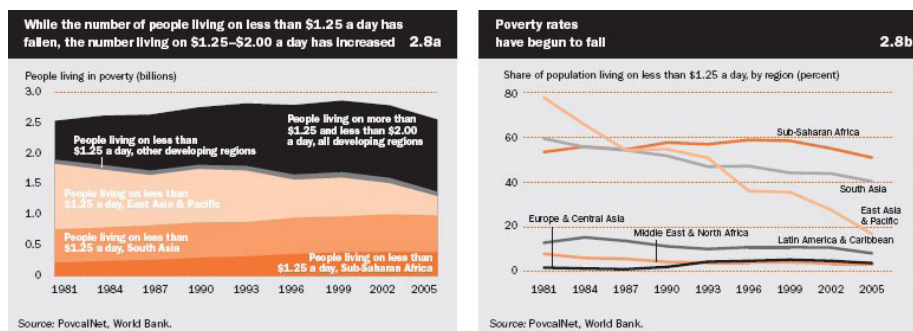
### World Poverty Status

Review of poverty status in the world during 1981 to 2005 showed that magnitude of poverty in different parts of the world was decreased with favorable slop.<sup>7</sup> In these years, the number of people who had daily income less than US\$1.25 has decreased and added to the number of people with daily income of US\$1.25 to 2. In this period, poverty incidence was decreased in western Asia and Oceania, from 80% to less than 20%. In Africa, poverty control programs were not successful; however, they resulted in decreasing poverty rates to 50%. In the Middle East, north of Africa and Latin America, poverty control programs were relatively successful but there is still 10% poor people.<sup>7</sup> People living in the severe poverty decreased from 1.9 billion in 1981 to 1.8 billion in 1990 and then to 1.4 billion in 2005. The most poverty decline was occurred in east of Asia and Oceania with a change from 78% in 1981 to 17% in 2005 including people with daily income below US\$1.25; it means, a number of 720 million persons. Moreover, people who may have been exited from severe poverty in previous years were also under severe pressure of economic standards of country with medium income. In addition, average poverty line in developing countries in 2005 was US\$ 2 per day. In this poverty line, magnitude of poverty in all developing countries was decreased from 70% in 1981 to 47% in 2005; however, there are still more than 2.5 billion persons in these countries with an income less than US\$2. Figure 1 shows this fact.<sup>7</sup>

### Conclusion

During 2 recent decades, poverty control programs have been taken into account either by countries or international organizations and World Bank. Investigating the poverty and measuring its related indices could be an introduction for policy makers against poverty problem. Calculation of





**Figure 1.** Comparison of Distribution of Population Living Under Poverty Lines by Year and Region.

different indices such as poverty line, percentage of poor people and poverty gap could play an important role in poverty control in national and international levels. The most important goal of this article was demonstrating a brief descriptive report of current poverty status and different aspects of this problem in Iran, EU, Asia and the world. Using investigation of poverty indices and income distribution changes, picture of poverty and development of humanistic approach could be obtained. As a result, determination of places where poor people live, range of their age, education and their occupation should be obtained. Based on related indices, absolute poverty in rural areas could be more than proportional poverty, and in urban areas, proportional poverty could be greater than absolute poverty maybe due to income distribution expansion in urban areas and lower income distances in rural societies.

Given the close relationship between poverty as one of the most important economic variables and health indicators, the goal of this paper was to clarify poverty; therefore, it can be better to measure the effectiveness of these variables.

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### Ethical Approval

Not applicable.

### Conflict of Interest Disclosures

None.

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