

## **Poverty Profile Trends in Egypt in the era of Revolution**

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### **Introduction**

The transition period that has followed the January 25th Revolution has seen a more challenging macroeconomic environment for Egypt with lower economic growth, weaker revenues and higher unemployment. Stagnant income and high inflation are always mentioned as the main reasons for deteriorating living conditions. Poverty rates also increased from 21.6 percent in 2008/2009 to 26.3 percent in 2012/2013 to 27.8 percent in 2015.

Aggregate, national level indicators often hide important differences between regions or areas. Large inequality in the standards of living between geographic areas and "pockets of deprivations" are common in all countries, rich and poor. The analysis of poverty and interventions aiming at reducing poverty face challenges of spatial heterogeneity of poverty in Egypt: poor people tend to be clustered in specific places.

Four Household Income, Expenditure and Consumption Surveys (HIECS) of 2009, 2010-2011, 2012-13 and 2015, conducted by the official statistical bureau, are used in this paper to provide a comprehensive picture on poverty trend analysis. The HIECS have been the only source for analyzing poverty and inequality at the national and regional levels in Egypt. It is conducted by the Central Agency for Statistics and Mobilization (CAPMAS), the official statistical agency in Egypt. The HIECS reports information on household income and consumption expenditures on more than 600 items of goods and services, and is therefore a good source of information on the distribution of welfare within society. The focus of this paper is on the period from 2009 to 2015.

## 1. What is an Appropriate Poverty Line for Egypt?

One way to measure poverty is to use a poverty line – that is a threshold below which a given household or individual will be classified as poor, thus separating the poor from the non-poor.

Absolute poverty lines allow focusing on those who are deprived of the most basic needs, rather than those who may be deprived relative to their better-off fellow citizens. It also allows determining trends over time and making comparisons across countries. To make such comparisons, this chapter relies on the national poverty line.

The basic needs without which individuals would be absolutely deprived are typically reflected in national poverty lines. These lines are often based on estimates of the cost of basic food needs (i.e., the cost a nutritional basket considered minimal for the healthy survival of a typical family), to which a provision is added for non-food needs.

Ultimately, the choice of a poverty line is arbitrary. In order to ensure wide understanding and wide acceptance of a poverty line, it is therefore important to ensure that the poverty line chosen does resonate with social norms (with the common understanding of what represents a minimum). For comparisons over time, the stability and consistency of the poverty line need to be ensured (Ravallion 1992, El-Laithy, Lokshin and Banerji (2003)).

### **Box 1: Estimating Poverty lines in 2015**

This paper adopts a well-established cost-of-basic-needs methodology that was used in previous poverty assessment reports for Egypt, joint reports of Ministry of Planning and the World Bank of 2002, 2007 and 2009. Accordingly, three national absolute poverty lines were estimated; food poverty line, lower and upper poverty lines.

#### **a) The Food Poverty Line (FPL) / Extreme Poverty Line.**

The first step is to choose a food bundle that reaches the predetermined calorie requirements, with a composition that is consistent with the consumption behaviour of the poor. This bundle was defined for individuals in different age brackets, gender, and activity levels (using tables from the World Health Organization). Then, FPLs were set at the cost of the required calories, generated by a reference basket that accord with food consumption pattern by the second quintile. The cost of the basket is evaluated at differing prices in each region and at each date. Thus the relative quantities observed in the diet of the poor (proxied by the second quintile), and the prices they face, were maintained in constructing the FPL for each household in the sample. Households whose expenditure is below the FPL are referred to as the "extreme poor".

**b) The Total Poverty Line (TPL).**

When the FPL is augmented by an allowance for expenditure on essential non-food goods, by choosing those households who have to forego food consumption to allow for non-food expenditures, deemed a minimum indispensable level of non-food requirements. The non-food allowance can be estimated by identifying the share of non-food expenditure for households whose total expenditure was equivalent to the food poverty line. Any household that spends less than the TPL is considered poor. Therefore, the extreme poor are just a sub group of the poor.

**c) The Upper Poverty Line (UPL)**

A more generous poverty line is also estimated. The non-food component of the poverty line can be larger if it is estimated instead as the non-food expenditure of households whose food expenditure equals the food poverty line. This yields an "upper" bound of the TPL that is then called the upper poverty line (UPL). The chapter refers to households whose expenditure lies between the TPL and the UPL as "near poor."

## 2. Estimating Income Poverty Lines

In 2015, the cost of basic food and non-food basic needs averaged at LE 5787 per person per year. Accordingly households are classified into poor or not depending on their consumption levels in comparison with poverty line. If per capita consumption of a household is less than poverty line, it is classified as poor. Table 1 presents regional poverty lines used for poverty estimates in both 2012/2013 and 2015.

Table 1: Poverty lines by region

	Average annual poverty lines in 2012/13, current prices		Average annual poverty lines in 2015, current prices	
	Food Poverty Line	Lower Poverty Line	Food Poverty Line	Lower Poverty Line
Metropolitan	2751.2	4317.8	3998.3	6140.8
Lower Urban	2480.1	3835.0	3747.6	5630.7
Lower Rural	2566.4	3854.4	3869.9	5674.7
Upper Urban	2562.4	3968.2	3792.2	5823.0
Upper Rural	2493.1	3760.1	3819.6	5694.4
Frontier Urban	2732.3	3990.2	4063.7	6247.3
Frontier Rural	2688.5	3978.5	3861.4	5787.9
All Egypt	2569.8	3920.8	3998.3	6140.8

Source: CAPMAS, 2012/2013 and 2015 HIECSs, Authors calculations

In 2015 overall poverty reached 27.8% indicating that approximately 25 million<sup>1</sup> persons could not obtain their basic food and non-food needs. In 1995/96, poverty stood at 19.4%, declining significantly to 16.7% in 1999/2000. The gains achieved in reducing poverty from 1995-2000 were offset by the increase in poverty from 2000-2004 back to 19.6%, increased further to 21.6% in 2008/2009, to 25.2% in 2010/2011 and 26.3% in 2012/13, see Table 2.

Table 2: Overall poverty measures; 2009-2015

	Head count ratio (% of the poor)					Poverty Gap Index				
	2015	2012/ 13	2010/ 11	2008/ 09	Change 2011- 2015	2015	2012/ 13	2010/ 11	2008/ 09	Change 2011- 2015
Urban	16.9	17.6	15.3	11.0	1.6	3.0	3.3	2.9	2.0	0.1
Rural	36.0	32.4	32.3	28.9	3.7	7.6	6.6	6.5	5.6	1.1
Total	27.8	26.3	25.2	21.6	2.6	5.6	5.2	5.0	4.1	0.6

Source: CAPMAS, 2008/2009, 2012/2013 and 2015 HIECSs, Authors calculations

Poverty increased in rural areas during 2011-2015 more than that occurred in urban areas<sup>2</sup>. During 2011-2015, urban areas experienced increases in poverty incidence, by a rate of 1.6 percentage points, and poverty in rural areas increased by 3.7 percentage point.

Poverty Gap followed similar trends, indicating that rural poor in 2015 became poorer. However, even though poverty seems to be deepening, poverty in Egypt is shallow, meaning that a large percentage of the poor are clustered just below the poverty line while many of the non-poor are found just above it. Therefore, any small change in household consumption can affect poverty and the consequent poverty rates.

Consumption inequality attained a moderate level where Gini coefficient reached 28.44 in 2015, it is the highest in Urban Governorates, and it is higher in urban areas of each region compared to its corresponding rural areas, see Table 3.

<sup>1</sup> Population projections (<http://www.capmas.gov.eg/pdf/Electronic%20Static%20Book2014//PDF/population/Untitled.pdf>)

<sup>2</sup> Poverty comparisons depend on different baskets for deriving poverty lines in 2011 and 2013. However, we believe that the corresponding baskets reflect inability of obtaining basic needs for the corresponding year and hence provide relevant comparisons in poverty status.

Table 3: Inequality in welfare distribution by urban and rural areas

		Urban Gov.	Lower Egypt	Upper Egypt	Frontier	All Egypt
Urban	2015	30.32	26.92	27.71	26.33	29.41
	2012/13	33.35	26.51	30.31	26.21	31.43
	2010/11	36.50	27.44	31.00	27.51	34.56
	2008/09	35.19	26.60	32.95	29.59	33.57
Rural	2015	..	23.25	22.97	21.30	24.70
	2012/13	..	21.82	22.72	24.19	23.85
	2010/11	..	21.73	21.97	23.60	23.38
	2008/09	..	19.87	22.70	22.66	22.40
All Egypt	2015	30.32	24.65	25.90	25.82	28.44
	2012/13	33.35	23.55	26.77	26.99	28.87
	2010/11	36.50	24.00	26.72	27.51	31.29
	2008/09	35.19	22.87	28.46	29.74	30.70

\* Welfare is measured as household consumption deflated by poverty line. Thus this measure takes into account households' differences in their sizes and age and gender composition as well as economies of scale.

Source: CAPMAS, 2008/2009, 2012/2013 and 2015 HIECSs, Authors calculations

In 2015, inequality reached its lowest level since 2008/09. Decline in inequality is driven mainly by decreases in inequality in urban areas where Gini coefficient declined from 36.5 in 2010/2011 to 30.32. It should be noted that improvement in inequality does not entail improvement in living standards. It merely reflects that relative deterioration in living standards of the well-off was larger than the poor.

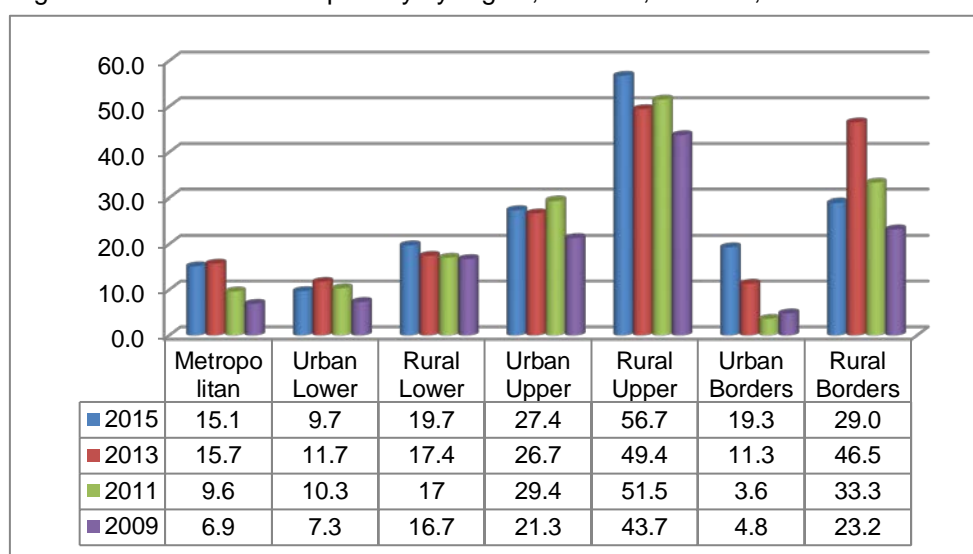
### 3. Spatial Dimension of Poverty

Poverty in Rural Upper Egypt remains the highest, while poverty in Metropolitan region is not any more the lowest. Overall poverty masks differences in welfare among regions and among governorates within the respective regions<sup>3</sup>. In general, rural areas in all regions have higher poverty measures than their urban counterparts; with a poverty incidence in rural areas double that of urban areas except Lower Egypt. Poverty incidence

<sup>3</sup> Geographically, Egypt is divided into seven regions: Metropolitan; including Cairo, Alexandria, Port Said and Suez governorates, Lower Urban and Lower Rural; which include urban and rural areas of Damietta, Dakahlia, Sharkia, Qualiobia, Kafr el-Sheikh, Garbeyya, Menoufia, Beheira, Ismailia governorates, Upper Urban and Upper Rural; which include urban and rural areas of Giza, Bani Suef, Fayoum, Menia, Assiut, Sohag, Qena, Aswan and Luxor governorates, and Border Urban and Border Rural; which include urban and rural areas of Red Sea, New Valley, Matrouh, North Sinai and South Sinai governorates.

in 2015 is highest in the Upper Rural region (56.7%), followed by Upper urban region (27.4%) and is the lowest in the Urban Lower region (9.7%) (Figure 1). Differences in poverty measures across regions are statistically significant, and the ranking of regions remains unchanged for other measures of poverty. This indicates that not only do poor households in the Upper rural region represent large proportions of their population, but that their expenditure level is far below the poverty line.

Figure 1: The incidence of poverty by region, 2008/09, 2010/11, 2012/13 and 2015

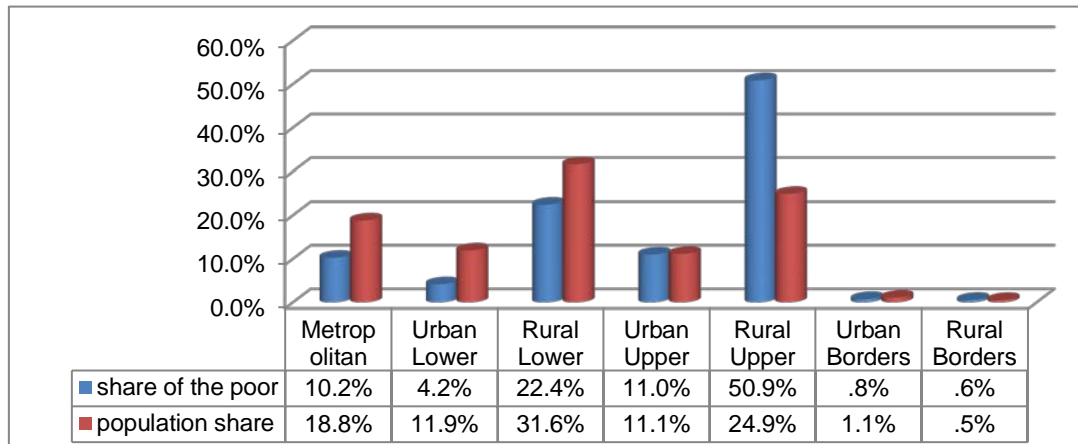


Source: CAPMAS, 2008/2009, 2012/2013 and 2015 HIECSs, Authors calculations

Moreover, as Figure 2 shows, the distribution of the poor is quite uneven across regions. Poverty is relatively low in urban areas where 42% of the population resides. In rural areas, the poor is mostly located in the Upper Rural region, which has the highest contribution to national poverty as demonstrated in Figure 2. Almost 50.9% of the poor in Egypt live in the Upper Rural region, yet its share in poverty far exceeds its population share of 24.9%.

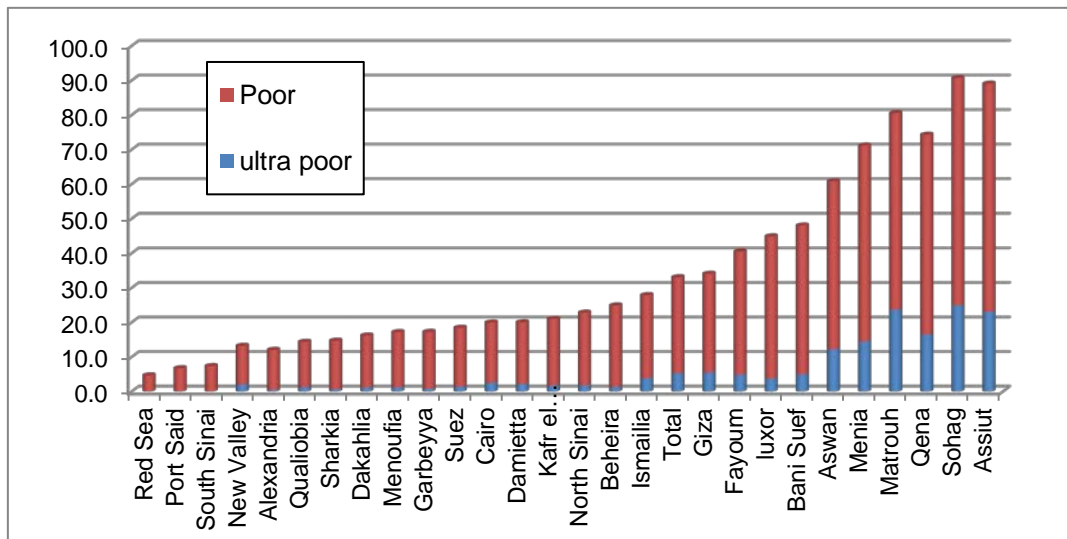
Regional poverty measures mask significant differences across governorates, and even well off governorates have pockets of poverty. The incidence, depth and severity of poverty vary considerably within each region. Figure 3 presents poverty measures (poor and extreme poor) for various governorates.

Figure 2: Distribution of the Poor and population Shares by Region, 2015



Source: CAPMAS, 2015 HIECS, Authors calculations

Figure 3: Prevalence of Poverty and Extreme Poverty by Governorate, %, 2015



Source: CAPMAS, 2015 HIECS, Authors calculations

As seen from Figure 3 and Table 4, poverty indices of all governorates in Upper Egypt exceed the corresponding indices at the national level. Poverty incidence is the highest in governorate of Assiut. Assiut is followed by Sohag and Qena governorates. Frontier governorates, Port Said and Alexandria have the lowest poverty rate.

Table 4: Poverty rates, distribution of poor and population according to governorates, 2015

	Poverty rate; % of the poor within governorate			Distribution of the poor among governorates (%)			Distribution of population among governorates (%)		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Cairo	17.48		17.48	27.0		7.1	26.1		11.2
Alexandria	11.62		11.62	10.0		2.6	14.5		6.2
Port Said	6.76		6.76	.7		.2	1.7		.7
Suez	17.11		17.11	1.5		.4	1.5		.6
Damietta	13.80	20.34	17.95	1.0	.9	.9	1.2	1.6	1.4
Dakahlia	6.24	18.76	15.14	1.6	4.3	3.6	4.4	8.2	6.6
Sharkia	10.07	15.28	14.13	2.3	4.4	3.9	3.9	10.4	7.6
Qualiobia	10.05	15.63	13.15	3.8	2.6	2.9	6.3	6.0	6.1
Kafr el Sheikh	8.83	22.22	19.37	.9	3.0	2.4	1.7	4.8	3.5
Garbeyya	9.90	19.11	16.51	2.1	3.7	3.3	3.6	7.0	5.5
Menoufia	8.94	17.72	15.99	1.1	3.3	2.7	2.2	6.7	4.8
Beheira	10.77	26.66	23.65	1.8	6.9	5.6	2.9	9.4	6.6
Ismailia	13.47	32.14	24.12	1.1	1.2	1.2	1.4	1.4	1.4
Giza	22.00	37.02	28.62	15.0	7.0	9.1	11.5	6.8	8.9
Bani Suef	25.34	48.28	43.06	2.4	5.4	4.6	1.6	4.0	3.0
Fayoum	22.67	39.34	35.69	2.4	5.4	4.6	1.8	4.9	3.6
Menia	23.84	63.27	56.72	3.1	14.7	11.7	2.2	8.4	5.7
Assiut	41.88	73.50	66.01	6.9	13.7	11.9	2.8	6.7	5.0
Sohag	49.47	70.39	65.82	4.4	8.0	7.1	1.5	4.1	3.0
Qena	29.27	64.02	57.80	2.5	9.0	7.3	1.5	5.1	3.5
Aswan	31.03	59.91	48.61	2.9	3.1	3.0	1.6	1.9	1.7
Luxor	27.43	49.41	41.16	2.4	2.5	2.5	1.5	1.8	1.7
Frontier Gov.	19.27	28.95	22.45	2.9	.8	1.3	2.5	.9	1.6
Total	16.90	35.95	27.76	100.0	100.0	100.0	100.0	100.0	100.0

Source: CAPMAS, 2015 HIECS, Authors calculations

Table 5 indicates that poverty is highly correlated with household size, where individuals living in large households are more likely to suffer from poverty. Prevalence of poverty is higher among households with uneducated heads, or with agriculture working heads and seasonal or occasional workers. Poverty rate for female headed households is lower than their male counterpart.



Table 5: Prevalence of Poverty by household heads characteristics, 2015, %

	Poverty rate of the poor within characteristic of household head	Distribution of the poor among characteristics of household heads	Distribution of population among characteristics of household heads
All Egypt	27.8	100.0	100.0
<b>Sex of Household head</b>			
Female	21.9	9.9	12.5
Male	28.6	90.1	87.5
<b>Household size categories</b>			
1-2 persons	1.9	.5	7.4
3-4 persons	12.6	13.4	29.7
5-6 persons	29.4	48.0	45.2
7-9 persons	57.9	32.2	15.4
10 persons or more	74.9	5.9	2.2
<b>Education of Household head</b>			
illiterate	46.5	42.3	25.2
read and write	35.3	18.2	14.3
basic education	27.7	14.4	14.5
secondary and above	18.9	22.1	32.4
university and above	6.2	3.0	13.6
<b>Employment status of Household head</b>			
wage earner	27.2	48.6	49.7
self-employed hiring others	31.6	20.4	18.0
self-employed working alone	31.3	12.3	10.9
unpaid worker	37.5	.3	.2
unemployed	15.6	.2	.4
out of labor force	24.2	18.2	20.9
<b>Job Stability of Household head</b>			
permanent	25.6	74.0	83.3
temporary	27.5	4.2	4.4
seasonal	49.5	1.2	.7
occasional	51.2	20.6	11.6
<b>Economic activity of Household head</b>			
Non agriculture	23.9	66.4	80.0
Agriculture	48.3	33.6	20.0
<b>Location</b>			
Urban	16.9	26.1	43.0
Rural	36.0	73.9	57.0

Source: CAPMAS, 2015 HIECS, Authors calculations

## **Conclusion**

Poverty increased steadily since 2000, from 16.9% in 1999/2000 to 27.8% in 2015. Poverty is always higher in rural areas than in urban areas and in Upper Egypt than in Lower Egypt,

Half of the poor live in Upper Rural Egypt, while its population share is 25%. Assuit followed by Sohag and Qena are the poorest governorates where two thirds of population in Assuit and Sohag are poor.

## **References**

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