Accelerating global actions for a world without poverty: Egypt Experiences

By

Dina M. Armanious

Professor of Statistics, Faculty of Economics and Political Science,

Cairo University, Egypt¹

Darmanious@feps.edu.eg

Abstract:

Purpose – With 99 million inhabitants in 2019, Egypt is the most populous country in North Africa and the Arab world. Despite being classified as a middle-income country, Egypt faces a set of long-standing development challenges. HIECS data has shown that income poverty in Egypt increased from 27.8% in 2015 to 32.5% in 2018, leaving 32 million people below the national income poverty line in 2018. On the other hand, the growth rates in Egypt reached 4.4% in 2015 and increased to 5.3% in 2018. Additionally, the high incidence of informality in Egypt means that many workers are not insured against important risks, such as unemployment, illness, and old-age poverty. Informal workers do not only include the poor, but highly skilled workers in undeclared self-employment and informal wage work as well. Thus the objective of this paper is to explain the increase in poverty rates in light of increase in growth rates and the employment conditions of Egyptian workers. Additionally, food consumption and coping strategies adopted by households for insufficient food is examined, and finally, the study presents the policy implications to be followed in order to ensure the decline of poverty rates in the future in Egypt.

Findings - Results of the study show that 32.5% of people in Egypt are poor in 2018 (32 million people) and there is a steady increase in Income Poverty Rates from 1999 to 2018. Higher Increase in Prices led to mask any increase in income between the end of 2015 and mid-2018, which results a decline in the real income and increase in poverty. Additionally, rapid growth of informal sector (Working outside establishment, Temporary Jobs and employed with no Employment Contract) and low coverage of Social Insurance help in increasing Poverty. On the other hand, Cash transfer directed to poor people, food and energy subsidies, in addition to other programs launched by the government effectively contributing to decrease poverty in Egypt.

Originality and value - General government revenues and dedicated taxes can generate adequate public resources to finance social protection programs in Egypt. Encourage larger informal firms to regularize their status by increasing the benefits of formality and combine all social protection programs (to include

¹ I would like to express my special thanks to Professor Heba El-Laithy, Professor of Statistics at Cairo University, Faculty of Economics and Political Science for her comprehensive advice in doing this paper and providing all poverty and subsidy indicators and for her supporting role in writing the policy implications. Additionally, I would like to thank Professor Sherine El Shawarby, Dean of Faculty of Economics and political science, Future University for her help in designing the structure of the study.

informal workers) and pool them into a single system for beneficiaries. Extending the coverage of Cash Transfer programs are required. And finally, financial sustainability of the social protection system is necessary, where the role of government, private sector, civil society, and the poor themselves must be integrated to achieve the desired poverty impact.

I- Introduction

Egypt is the most populous country in North Africa and the Arab world with a population of 99 million in 2019. Despite being classified as a middle-income country, Egypt faces a set of long-standing development challenges.

Egypt witnessed a series of successive shocks since January 2011. The first phase of the transition period 2011-2013, was marked by volatile economic circumstances associated with increasing levels of uncertainty, a drop in private investments, and a deterioration in economic growth (GDP growth averaged 2%) that was not sufficiently ameliorated by social protection measures to shield the poorest and most vulnerable from further socioeconomic challenges during that period. While there are multiple reasons for the economic slowdown and increasing vulnerability to poverty and food insecurity during this phase, political instability, protest movements and the gap in expectations between the government and the rest of the society were factors that clearly contributed to this slowdown.

The Government of Egypt (GoE) is fully aware of the critical need to address the root causes of poverty, food insecurity and social injustice in Egypt. The Strategic Development Strategy "SDS 2030" that was launched in 2015 is aligned with the global SDG agenda and focuses not only on rapid economic growth but also on improving social justice. The national investment plan has therefore increased its focus on investment in social services like education, health, water and sanitation.

This paper attempts to provide a brief of poverty and food security status in Egypt, to guide the Country Strategic Review and ensure that the GoE and other stakeholders- is addressing the priority needs of the most vulnerable population and that it's effectively contributing to decrease poverty in Egypt.

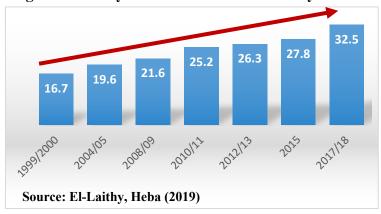
II- Data

The analysis below relies mainly on data from the nationally representative Household Income, Expenditure and Consumption Survey that ended in September 2018 (HIECS 2018), carried out by the Central Agency for Public Mobilization and Statistics (CAPMAS). HIECS 2015 is also used to do some trends in the analysis. The 'money metric' measure of poverty is used, where households are considered poor if they cannot afford to consume minimum acceptable basic needs (Poverty line). Extreme poor households are defined as those who cannot satisfy their basic needs of food.

III- Results:

3.1- Current Situation of Income Poverty in Egypt

Figure 1: Steady Increase in Income Poverty Rates from 1999-2018



Income poverty increased from 27.8% in 2015, up to 32.5% at 2018, leaving 32 million people below the national income poverty line. Figure (1) tracks the steady increase in the poverty rate between 1999 and 2018. Additionally, extreme poverty is estimated to have reached 6.2% by 2018, indicating that about 6 million of the population cannot satisfy their basic needs of food and thus they suffer from food insecurity.

Trends of Poverty by Regions

Poverty rates are generally higher in Egypt's rural areas in all years. Between 2015 and 2018, poverty in urban areas increases significantly (from 16.9% to 24.6%), while small increase of poverty was experienced by residents in rural areas. Accordingly, because of the large increase in the percentage of poor in urban areas more than that in rural areas, the poverty gap between rural and urban areas has

decreased.

Table 1: Poverty Rates in 2015-2018 and change in percentage points

Regions	2015	2018/2017	Change
Total Egypt	.278	32.5	4.7
Metropolitan	15.1	26.7	11.6
Urban Lower	.97	14.3	4.6
Rural Lower	19.7	27.3	7.6
Urban Upper	27.4	30.0	2.6
Rural Upper	56.7	51.9	-4.8

Source: El-Laithy, Heba (2019)

Change in poverty between 2015 and 2018 among regions is shown in Table (1). The table shows that the percentage of poor increased in all regions, except for rural Upper Egypt.

For the first time, the rural area of Upper Egypt witnessed a decrease in poverty indicators, and the difference was 4.8 percentage points. Although poverty decrease in rural Upper Egypt, it is still has the highest percentage of poor in both 2015 and 2018 (El-Laithy, 2019).

Rural Upper Egypt accounts for only 25% of the population, however, it is home for

40% of the whole poor population in Egypt (12.6 million people), which makes it a priority region for Government of Egypt (GoE) assistance programmes.

Poverty gap is the average difference between consumption of poor and poverty line relative to poverty line. Poverty gap increased between 2015 and 2018, which means consumption of the poor moved further from the poverty line and becomes deeper.

> Poverty Map for better targeting

Poverty Map is essential for selecting and designing interventions and better targeting mechanisms.

Aggregated level of poverty on region or governorate level mask sub-governorate variation of poverty because poverty-reduction interventions face challenges of spatial heterogeneity of poverty in Egypt. Drawing Poverty Maps becomes an essential component to design efficient programs to eradicate poverty. Accordingly, Poverty Map is essential to highlighting geographic variations, understanding poverty determinants, selecting and designing interventions, better targeting mechanisms and monitoring progress.

3.2 How to explain increase in poverty rates during 2015-2018?

Egypt experienced high GDP growth reached 5.6% in 2019, up from 5.3% in 2018. Data show that this pickup is driven by net exports and private investment. The Government of Egypt successfully implemented a first wave of macro-economic and structural reforms that successfully helped to stabilize the economy, sustain growth and lay for more dynamic private sector participation in the economy. On the sectoral side, gas extractives, tourism, wholesale and retail trade, real estate and construction have been the main drivers of growth. Additionally, Unemployment decreased to 7.5% in 2018/19 (from 9.9% a year earlier), although accompanied by shrinking labor force participation².

Although all these successful structural reform and high growth rate, poverty increased in 2018 to reach 32.5%. The following parts explain the reasons of increasing poverty rates during 2015-2018.

3.2.1 Decline in Real Income and Consumption

Higher increase in prices decreases real income of households. Higher Increase in Prices led to mask any increase in income between the end of 2015 and mid-2018. Figure 2 shows that the increase in annual income of households between 2015 and 2018 reached 33%, while in the same time prices increased by 59%. The higher increase in prices affects negatively on the real income of households that makes it decline and damaged the living standards of the poor. Similar results are observed for urban and rural areas, where increase in prices are higher than the increase in incomes in all regions that result on declining the real incomes³.

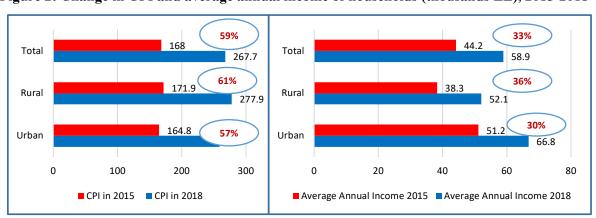


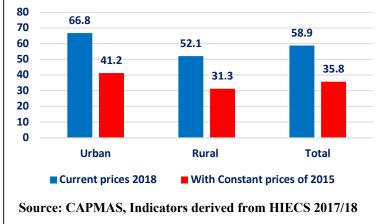
Figure 2: Change in CPI and average annual income of households (thousands LE), 2015-2018

Source: Presentation by Al-Shawarby, Sherine and El-laithy, Heba to Ministry of planning, (unpublished), 2019

² https://www.worldbank.org/en/country/egypt/publication/economic-update-october-2019

³ Presentation by Al-Shawarby, Sherine and El-laithy, Heba to Ministry of planning, (unpublished), 2019

Figure 3: Average Annual Income of households in 2018 (using 2018 and 2015 prices) (by thousands Egyptian pounds)



Real income decreased using constant prices of 2015. The average annual net income of household in 2017-2018 was 58.9 thousand Egyptian pounds, however, using prices of 2015, this income decreased to reach only 35.8 thousand pounds as shown in Figure (3). The impact of inflation on real income

among urban areas is higher than that in

rural areas as shown in the figure. This confirms the negative impact of higher

increase in prices on the living standards of people.

Regarding the real consumption, the results show that the real per capita consumption decreased between 2015 and 2018 by 5.1% using 2015 prices. Decreases of real consumption in urban areas greater than in rural areas. Rural Upper Egypt is the only region that real consumption increased, however, it is still has the highest percentage of poor (52% are poor in rural Upper Egypt in 2018).

3.2.2 Poor Conditions of Employed People

Changes in employment structure and its productivity can influence both determinants of change in poverty (growth and distribution components). Growth in employment and its productivity can improve the growth rate of the economy (El-Laithy, 2011). Although the unemployment rate decreased from 12.7% in 2015 to 7.5% in 2018⁴, poverty rate as well as poverty gap increased during the same period. Unemployment rate may decrease because people stop looking for work and thus they are excluded from the labour force.

The majority of employed people in Egypt are wage worker. Data of HIECS 2015 and 2018 show that the majority of employed people in Egypt are wage worker, and the percentage of wage workers increased from 2015 to 2018. Almost 69% of employed people in Egypt in 2018 are wage worker, 13% are employer and 12% are self-employed. As expected, the incidence of wage worker was higher in urban areas than in rural areas (76% in urban areas versus 63% in rural areas). The question raised is why people still poor while they are wage workers?

Most of the poor depends on the only asset they have; labour. Even when a poverty reduction strategy improves the access of the poor to other resources - e.g., land and capital, physical, financial, infrastructural and human - the process of poverty reduction does not depend on the creation of an entitlement to rent or annuity for the poor but on the enhancement of opportunities to be employed more intensively and productively (El-Laithy, 2011).

Almost 60% of wage worker are with no employment contract and thus with no social insurance. Data of HIECS 2018 shows that 55% of wage workers do not have any employment contract in addition to

⁴ https://www.worldbank.org/en/country/egypt/publication/economic-update-october-2019

5% have temporary contract (60% are in informal work). The percentage of unavailability of employment contract increased from 2015 to 2018 by 3 percentage points.

More than three quarters of poor workers with no employment contract. The relationship between poverty and informal work (no employment contract) is supported by the fact that the majority of wage worker poor people work in informal jobs. Almost 77% of poor wage worker work with no employment contract, compared to only 52% for the non-poor.

Additionally, in rural areas, unpaid labour represented about 10.4% of employed people as opposed to only 2.5% in urban areas.

Almost 32% of employed people in Egypt are working outside establishment. Additionally, higher rates of poverty could be a consequence of sector of employment and stability of work of poor people. Data of HIECS 2018 shows that almost one third of employed people work outside establishment, with 45% among the poor and only 27% among non-poor workers.

One quarter of employed people work in temporary jobs. Regarding stability of work, the data shows that at the national level, 26% of employed individuals have temporary jobs, seasonal, or have casual jobs. Of the poor, this figure reached 38% compared to 21% of non-poor individuals in 2018.

Characteristically, temporary workers are more likely to be poor as they do not benefit of any social insurance and accordingly they are more likely to face economic shocks with any increase in prices or any personal factors.

Increase in poverty rate among government workers. Overall, there are only 22% of employed people are working in the government sector. The comparison between 2015 and 2018 shows that the percentage of poor among workers in government or public business increased from 13% in 2015 to 19% in 2018. The increase in poverty rate could be interpreted by that the increase in income is less than the increase in prices during the same period, and thus, real income decreased and their living standard are also decreased⁵.

Accordingly, unemployment rate may fall, or stop rising, even though there has been no underlying improvement in the labour market, while people stop looking for work and thus they are excluded from the labour force.

3.2.3 Non-Participation in Social Insurance

Participation or benefit from social insurance is the first line of defense for social protection and the ability to overcome shocks that may result from personal factors such as disability, old age or death. Thus, participants or beneficiaries of social insurance are less likely to become poor if they face one of these risks. The problem is that all those who work with no employment contract or outside establishment do not benefit of Social Insurance and thus do not have any social protection.

6

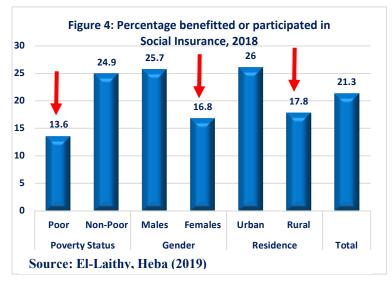
⁵ Presentation by Al-Shawarby, Sherine and El-laithy, Heba to Ministry of planning, (unpublished), 2019

Overall, Only 21% of population in 2018 benefitted or participated in social insurance. Poor people,

females and those in rural areas (who deserve social insurance) are less likely to participate or benefit from social insurance.

The data shows that only 14% of the poor benefitted or participated in Social Insurance, compared to 25% among the non-poor.

Moreover, 18% of people in rural areas benefitted or participated in social insurance, compared to 26% among population in urban areas as shown in Figure (4).



3.3 Government interventions that help in declining poverty

The Government of Egypt has established a rather comprehensive set of social protection programmes ranging from cash transfer schemes to subsidies, tax exemptions and social services (El-Laithy, Heba and Armanious, Dina, 2019). Ministry of Social Solidarity (MOSS) has a core role in Egypt's social protection framework. It administers several cash transfers for poor and vulnerable categories of individuals and households.

Egypt operates a variety of subsidies that help to shield the poor and vulnerable from high and volatile prices of basic commodities, such as food, housing and fuel. However, energy subsidies have been progressively removed since 2012. In addition, some substantial tax reductions or exemptions are in place, also with a view to protecting low-income households.

3.3.1 Social Protection through Financial Aids (Cash Transfer)

In 2015 the Government of Egypt (GoE) (supported by World Bank) introduced a national targeted safety net programme "Takaful & Karama" based on cash transfers for the poorest and most vulnerable population in Egypt, targeting 2 million households in FY 2018.

These programs cover all the 27 governorates of Egypt. Takaful is a family income support conditional cash transfer (CT) program aimed at reducing poverty. Takaful is conditioned on being poor and to send children under 18 years of age to schools. Mothers or female guardians are the designated beneficiaries of payments (not necessary to be the head of the household). A maximum of three children from each household are covered as beneficiaries under the program's conditionality monitoring.

Karama is a CT that supports social inclusion, which is conditioned on being below the poverty line and meeting one of the two following conditions: Person with Severe disability that prevents a person from working or being an Elderly (above the age of 65 years).

Overall, Figure 5 shows that 10.5% of population with children in Egypt are benefitting from Takaful cash transfer. Rural Egypt exhibited the largest percentage of beneficiaries, representing 14% of the population living in households with children.

Cash transfer benefits are well targeted but the coverage is too small. Disaggregating by poverty status,

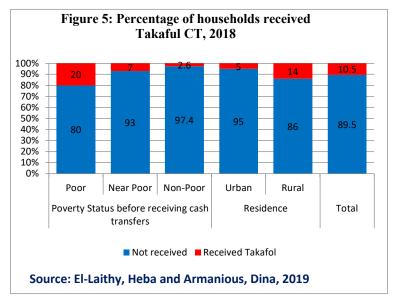


Figure 5 shows that only 20% of poor individuals living in households with children less than 18 years are receiving Takaful and 2.6% of non-poor Takaful. receiving However, the distribution of beneficiaries by poverty status shows that 73% of beneficiaries are poor and 18.2% are near poor, thus 8.7% of program benefits leaked to the non-Additionally, poor. 63% beneficiaries are from rural Upper Egypt, while they represent only 25% of all population. Although rural Upper Egypt is the poorest region, it is the only region where poverty rates have decreased, and

this explains the impact of CT (as one of the interventions) in this region that supports poverty decline. Accordingly, cash transfer benefits are well targeted but the coverage is too small. Thus extending the coverage of cash transfer programs are required.

Regarding Karama CT, overall, the data shows that only 1.7% of individuals received the Karama cash transfer. Only 3.5% of poor individuals who are elderly or disabled received Karama and this percentage reached 1.2% and 0.7% among near poor and non-poor respectively.

Takaful transfers markedly affect the situation of beneficiaries. Looking at the impact of Takaful CT on Takaful beneficiaries only, data presented in Table (2) shows the great impact of this cash transfer program on poverty status of those people. About 10% of Takaful beneficiaries moved from being poor to near poor and 3.7% moved from near poor to non-poor after receiving the Takaful cash transfer. On the other hand, the percentage of the non-poor increased significantly from 9.7% to 13.4% after benefitting from Takaful transfer.

Table 2. Distribution of individuals receiving Takaful according to Poverty Status before and after receiving Takaful

Poverty after receiving	Poverty without Takaful			Total		
Takaful	Poor	Near Poor	Non-Poor			
Poor	62.2			62.2		
Near Poor	9.6	14.9		24.5		
Non-Poor		3.7	9.7	13.4		
Total	71.8	18.6	9.7	100.0		
Source: El-Laithy, Heba and Armanious, Dina, (2019),						

3.3.2 Targeting and Egypt's subsidies

Social safety nets (SSN) are a crucial component of a well-functioning economy. SSN are non-contributory transfer programs seeking to prevent the poor or those vulnerable to shocks and poverty from falling below a certain poverty level (Grosh et. al., 2008). They play an important role in sustaining social cohesion and promoting a more equitable development in all modern day welfare states. Egypt spends large amounts on untargeted subsidy programs, with little resources allocated for a number of other fragmented SSN programs. Effectiveness of these programs in managing household risks and reducing poverty has proved to be limited. In Egypt, the public safety net comprises basically in-kind subsidies (energy and food).

Subsidies Programs have impact on declining Poverty Rates. Data of HIECS 2018 shows that the coverage of food subsidy reached 88.5% of households, with 80.2% among households in urban areas and 95.5% among households in rural areas.

Assuming zero food subsidy effect, i.e.; 100% removal of food subsidy system is likely to have a direct impact on income poverty and hence on food insecurity. Figure (6) shows that income poverty is expected to rise under this scenario by 5.4 percentage points, up to 37.9% of the population. Similar results are observed regarding the LPG and electricity subsidies. Accordingly, Subsidies Programs are well targeted in Egypt and have impact on Poverty Rates.

5.2 percentage points percentage 4.7 percentage points points 37.9 37.7 37.2 40 32.5 32.5 35 30 25 20 15 10 5 **Food Subsidy LPG Subsidy Electricity Subsidy** ■ Without Subsidy
■ With all Subsidies

Figure 6: Percentage of poor people without receiving the subsidies and with receiving all subsidies, 2018

Source: Presentation by Heba El-laithy, on HIECS 2017/18, CAPMAS, July 2019, unpublished

3.4 Food Security and Poverty

Poverty is a cause and consequence of food security. Reducing poverty is a key element in a policy for food security, poor people spend a large share of their incomes on food, leaving them vulnerable to high food prices. Additionally, insufficient food has a great impact on poverty, where people adopt coping strategies that increases their poverty status.

3.4.1 Adequacy of Food Consumption & Coping Strategies

As part of the 2018 HIECS questionnaire, households were asked about the adequacy of food consumption during the last 30 days. In response, 24.6% percent of households reported that they could barely meet their basic food needs, and 4.7 percent reported insufficient access to food, with no difference between 2015 and 2018. Among poor population: 41% reporting that they do not consume adequate food, compared to 25.6% among non-poor

Households adopted various consumption and stress strategies to cope with inadequate food. The coping strategies adopted by households can be grouped into 4 main categories: consumption strategies (such as eating cheaper foods and reducing number of meals), stress strategies (such as borrowing food or borrowing money to buy food), crises strategies (such as reducing expenditure on health and education and sending children to work) and emergency strategies (Begging, such as rely on assistance from family and friends and Seek for donations).

Overall, 40% of households reported that they could barely meet their basic food needs or reported insufficient access to food relied on consumption strategies (eating cheaper foods), 31% adopted emergency strategies (Begging or seek for donation) and 13% depends on crisis strategies (reducing expenditure on health and education or sending children to work). Poor households and those in rural areas depend more on emergency and crises strategies (begging, reduced spending on health and education and taking children out of schools and sending them to work).

3.4.2 Quantity and Quality of Consumed Food & Poverty

Food Security in Egypt measured by two ways; Quantity of consumed food measured by deficiency in caloric intake (consumed calories are less than required calories) and Quality of consumed food measured by Dietary Diversity. Deficiency in micronutrients and vitamins that arises from poor dietary diversity can compromise energy levels, growth and eventually the ability to survive. Dietary Diversity means that the household consumed different types of food (by different weights); Cereals, Root and tubers, Pulses, Vegetables, Fruit, Meat and fish, Milk, Sugar and Oil.

Regarding deficiency in caloric intake, results of HIECS 2018 show that 17% of the population suffer caloric deficiency. Poor people are more likely to suffer caloric deficiency than non-poor (33% and 9% respectively). Similar result is observed among people in rural areas, where 21% of the population in rural areas suffer caloric deficiency compared to only 12% among those in urban areas. As expected, prevalence of caloric deficiency increased with household size and with illiterate heads or less educated heads.

Concerning dietary diversity, the data shows that 21.4% of people suffer poor food diversification (poor Quality of food). Marked difference is observed between Poor and non-poor people in dietary diversity, where 36% of poor people consumed poor food diets compared to only 14% among non-poor people.

3.5 Policy Recommendations

1. Because of liquidity constraints, social insurance systems require redistributive arrangements that can operate in two ways: by subsidizing contributions (either in the form of subsidized premiums or topping-up savings), or by subsidizing benefits (for instance, by guaranteeing a universal minimum pension level) (World Bank, 2017).

- 2. Additionally, financing is a key aspect of any social insurance system. In addition to individual and employer contributions, general government revenues and dedicated taxes can generate adequate public resources to finance social protection programs (Winkler et al., 2017).
- 3. Social protection is linked with improved education, health, and nutrition outcomes. Expanding access to social protection programs can help limit the 'use of negative coping mechanisms', such as consumption rationing (i.e. eating less or spending less on education and health) or child labor.
- 4. Encourage larger informal firms to regularize their status by increasing the benefits of formality, including by offering tax breaks and reducing employer contributions to social insurance. This could lower the cost of formalizing workers and also reduce the costs to firms of hiring formal workers. Furthermore, extend pensions to informal workers through other means: membership in trade unions, non-governmental organizations, or a public-private partnership.
- 5. Combine all social protection programs (to include informal workers) and pool them into a single system for beneficiaries across the income spectrum. This is integral to the creation of enough decent jobs (with written employment contracts) that guarantee adequate income levels.
- 6. Extending the coverage of Cash Transfer programs are required. Better protect the most vulnerable in society, especially those who are unable to obtain sufficient incomes through the labor market. Although targeting mechanisms for cash transfer program has been improved, increase the size and coverage and adjust the level for increases in the cost of living of the existing government transfers are needed. Financial sustainability of the social protection system is necessary. The role of government, private sector, civil society, and the poor themselves must be integrated to achieve the desired poverty impact (El-Laithy, Heba & Armanious, Dina, 2020).

References

- 1. CAPMAS, Indicators derived from HIECS 2017/18, https://www.capmas.gov.eg/Pages/StaticPages.aspx?page_id=7183
- 2. El-Laithy, Heba (2011), "Poverty in Egypt, 2009", UNDP, Arab Development Challenges Report, Background Paper 2011
- 3. El-Laithy, Heba, (2019), "Analysis of poverty indicators based on HIECS, ECES, SEPT 2019", http://www.eces.org.eg/cms/NewsUploads/Pdf/2019_12_3-17_17_22ECES%20presentation%20edit%20%2022%20Sept%20-%20Dr.%20Heba%20El-Laithy.pdf
- 4. El-Laithy, Heba, Armanious, Dina, (2019), "Costing a Social Protection Floor and Finding Fiscal Space, 2019", Draft ILO report (to be published)".
- 5. El-Laithy, Heba, Armanious, Dina, (2020), "Social protection in Egypt; Coverage and Inequality", The Egyptian Center for Economic Studies, 2020 (to be published)
- 6. Foster, J., Greer, J., Thorbecke, E.1984: A class of decomposable poverty measures. Econometrica 52, 761–776.
- 7. Glewwe, p. and John Gibson:" Chapter Viii. Analysis of Poverty Dynamics", https://unstats.un.org/unsd/methods/poverty/pdf/Chapter-8.pdf, accessed Feb 2017.
- 8. Grosh, M., Ninno, C., Tesliuc, E., and Ouerghi, A., (2008), "For Protection & Promotion: The Design and Implementation of Effective Safety Nets", World Bank
- 9. Haughton, J and Shahid Khandker, 2009: 'Poverty and Inequality Handbook,' Chapter 11, World Bank.
- 10. Heise, David. 1969. .Separating Reliability and Stability in Test-Retest Correlation.
- 11. Marotta, D, Ruslan Yemtsov, Heba El-Laithy, Hala Abou-Ali and Sherine Al-Shawarby (2010)," Was Growth in Egypt Between 2005 and 2008 Pro-Poor" policy Research Working Paper, # 5589, World Bank.

- 12. WFP (2013)" The Status of Poverty and Food Security in Egypt: Analysis and Policy Recommendations" World Food Program report.
- 13. Winkler, H., Bulmer, E. R., & Mote, H. (2017). "Expanding social insurance coverage to informal workers" (Jobs Working Paper No. 6). World Bank.
- 14. World Bank (2017), "Expanding Social Insurance Coverage to Informal Workers", WORKING PAPER Issue No. 6