

Poverty, Growth & Inequality in Lebanon

Executive Summary

October 2007

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CAPACITY BUILDING FOR POVERTY REDUCTION PROJECT

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FOREWORD

Poverty reduction cannot be done effectively without a strong statistical base, upon which a portrait of the living conditions of the population can be drawn and improvements in these conditions can be pursued and realised.

Since the early 1990s, the Ministry of Social Affairs, supported by the United Nations Development Programme and in partnership with the Central Administration of Statistics, has undertaken a number of seminal surveys and studies; these include:

"The Mapping of Living Conditions" (1998), which identified deprivation rates at the kada level, provided evidence of the geographic distribution and concentrations of poverty, and established that wide disparities exist between the peripheral and central regions of the country. The *"Comparative Mapping of Living Conditions between 1995 and 2004"* was produced in 2006, using the data generated by the *"National Survey of Household Living Conditions, 2004."* It analyzed the changes in the deprivation levels ten years after the publication of the first mapping study.

The current report, *"Poverty, Growth and Inequality in Lebanon,"* is the first of its kind in Lebanon. It draws a **profile of poverty** based on money metric poverty measurements and calculates a **national poverty line** based on household expenditures. Relying on the expenditure data from the 2004/05 *National Survey of Household Living Conditions*, the report provides a comprehensive overview of the characteristics of the poor and estimates the poverty gap and Gini Coefficient that is used to measure inequality.

This seminal study is directed towards decision-makers, forming a basis for considering and choosing from among development policy and investment options those which promote poverty reduction, inclusiveness, equity and regional balance. It also aims to spur further research and analyses, as well as to inform development practitioners.

The report is expected to directly contribute to the reform processes launched by the Government of Lebanon at the Paris III donor conference in January 2007. The Government's medium-term reform programme includes, for the first time, a Social Action Plan that places the objective of poverty reduction, social justice and equity at the heart of the reform process. The Social Action Plan focuses on pursuing a coordinated inter-ministerial approach to improving efficiency, cost effectiveness and coverage in the delivery of social services, including better targeted safety nets for the most deprived and vulnerable population groups. As importantly, it also calls for the elaboration of a comprehensive and longer-term Social Development Strategy that consolidates the inter-ministerial and cross-sectoral coherence needed for a concerted effort to achieve the targets set for reducing poverty and regional disparities as intrinsic and essential factors for attaining inclusive and sustained economic growth, social equity and social justice.

We hope that this report will constitute the first step towards establishing a mechanism for measuring poverty at regular intervals, as a means to both track progress towards poverty reduction targets and to make corrective policy adjustments accordingly. The calculation of money metric poverty indicators is only the beginning of a momentum that should not stop until the battle against poverty is won.

We would like to extend our gratitude to the Core Team who produced the study and to thank the members of the Advisory Team for their valuable guidance. We would also like to extend our appreciation to our partner, the Central Administration of Statistics, which undertook *"The National Survey of Household Living Conditions (2004/2005),"* under the supervision of its Director General, Dr. Maral Tutelian, and provided continuous technical support at all stages of producing the report.

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1. MAIN RESULTS AND FORECAST

EXPENDITURE AND INEQUALITY

1. The welfare measure used in the present study is household consumption¹. In 2004-2005 average per capita annual nominal consumption reached 3,975,000 LBP (approximately \$2,650). When taking regional price differentials into consideration, annual per capita real consumption is reduced slightly (by 1%) to 3,935,000 LBP (Table 1).

Table 1: Mean and Median Nominal and Real Per Capita Consumption by Governorate (2004-2005)
(in Thousand LBP)

Governorate	Nominal Per Capita Consumption		Consumption Adjusted for Regional Price Differences	
	Mean	Median	Mean	Median
Beirut	6514	5240	6141	4939
Mount Lebanon	4512	3661	4321	3506
Nabatieh	3924	3349	4075	3478
Bekaa	3385	2747	3558	2888
South	3007	2276	3151	2385
North	2532	1933	2671	2039
All Lebanon	3975	3101	3935	3073

Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

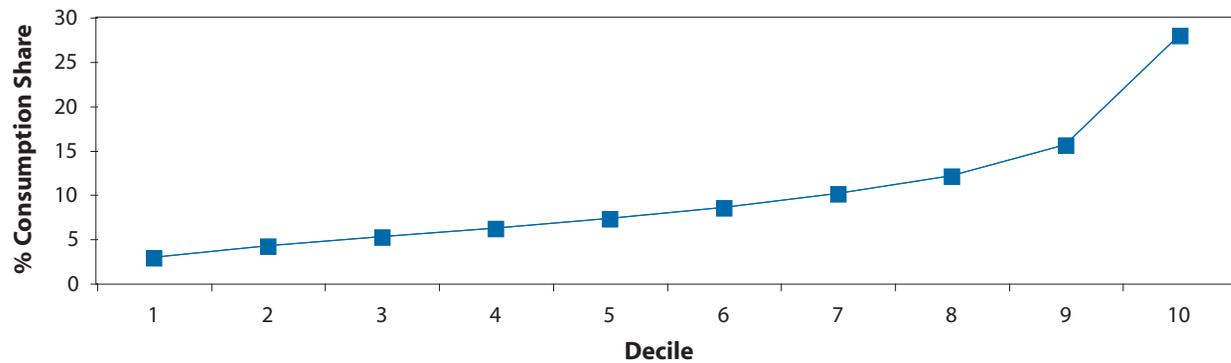
2. **Per capita consumption is highest in Beirut (more than one and half times the national average) and lowest in the North (three quarters of national average).** The North, South and Bekaa governorates have per capita real consumption below the national average. The median per capita consumption is always smaller than the mean indicating that most Lebanese consume less than average: The consumption expenditure of half of the Lebanese is approximately 20 percent the average consumption level.

3. **Expenditure distribution among the population was relatively unequal.** The bottom 20 per cent of the population consumed only 7 per cent of all consumption in Lebanon, and the richest 20 per cent consumed 43 per cent. However, inequality is comparable to other middle-income countries. Gini coefficient, a measure of inequality, is estimated at 0.37 for nominal consumption and 0.36 for real consumption. These levels of inequality are comparable to the average of MENA countries (average value of Gini of 0.37) and much lower than that of Latin American countries (0.55). Relatively equitable distribution up to the 5th decile (Figure 1) also implies high concentration of population around any

¹Taking into account household size, age, and gender composition, consumption estimates here include food and non-food consumption, imputed rents, imputed value of home grown food and in kind transfers received by households. However, due to data limitations, the flow of services from consumer durables is not taken into account, with one exception of services provided by means of transportation (cars, trucks, etc.). Actual consumption does not include gifts to other households of food and other commodities, advance payments and durable purchases.

consumption threshold – a factor which explains why in Lebanon 20% of the population are bunched between the lower (extreme) and upper (normal) poverty lines.

Figure 1: Consumption Shares, by Deciles



Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

4. Within-governorate inequality accounts for most of the inequality in Lebanon. About 92 per cent of aggregate inequality in consumption in Lebanon can be attributed to within-governorate inequality, while only 8 percent is due to inter-governorate inequality.

5. Although the **North has the lowest per capita expenditure, it exhibits the largest inequality compared to other governorates** (Gini coefficient amounted to 0.37). On the other hand, Nabatiyeh’s per capita consumption is ranked third in descending order, yet it has the lowest inequality (Gini Coefficient is 0.29).

POVERTY AND CROWTH: 1997-2007

6. Nearly 8 per cent of the Lebanese population in 2005 lived under conditions of extreme poverty (i.e., below the ‘lower’ poverty line). This implies that almost 300 thousand individuals in Lebanon are unable to meet their food and non food basic needs. The dollar equivalent of the lower poverty line (when converted at the current official exchange rate) is US\$2.4 per capita per day.

7. With a more ‘normal’ definition of the poverty line, namely what the World Bank refers to as the ‘upper’ poverty line, **overall headcount poverty reaches 28.5 per cent** (accounting for 1 million Lebanese). Consequently, the consumption levels for 20.5 per cent of the Lebanese population *fall between the lower and upper poverty lines*. At the current exchange rate, the upper poverty line translates into about US\$4 per capita per day.

Box A: DETERMINING POVERTY LINES IN LEBANON BASED ON HOUSEHOLD COMPOSITION

Most of the traditional methods for estimating poverty lines suffer from one or more of three problems: (i) They ignore significant differences in consumption patterns and prices that exist across regions in Lebanon; (ii) They do not account for the differing “basic needs” requirements of different household members – young versus old, male versus female; and (iii) They ignore the “economies of scale” within households – the fact that non-food items can be shared among household members (consider items such as electricity, or rent, which are “non-rival” within the household – one person using it does not decrease the consumption of another). Because of this, living in a larger household can result in lower per-person expenditures to maintain a given standard of living.

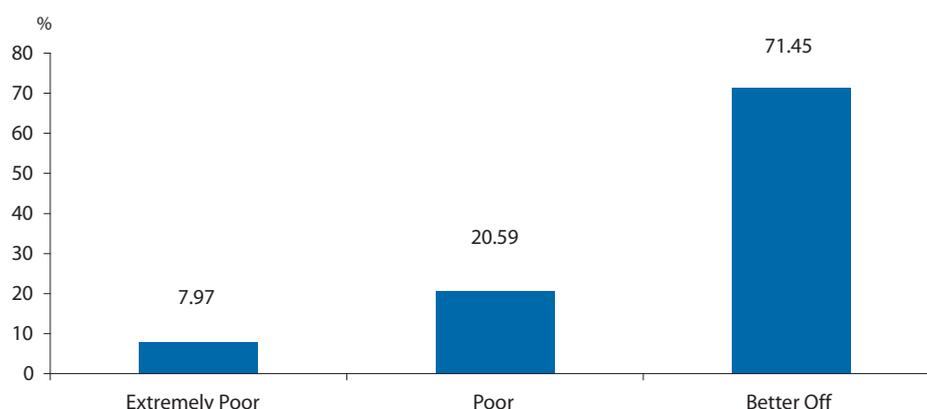
This study used a methodology that attempts to account for these problems. The estimated poverty lines ensure that regional differences in relative prices, activity levels, as well as the size and age composition of poor households are accounted for.

Using the raw data for 2004/05, the cost-of-basic-needs method was used to construct absolute poverty lines. The resulting poverty line is household-specific, and is the sum of a food poverty line and a non-food poverty line.

For each household in the sample, the study constructed its own food poverty line, which satisfied the household’s minimum nutritional requirements depending on its age, gender composition and location. To define this, a minimum food basket anchored to the minimum requirements of calories for individuals in different age brackets, gender, and activity levels were constructed (using tables from the World Health Organization). Then, food poverty lines were set at the cost of the required calories, by how they are actually obtained in the sample (on average) by the second quintile. This food basket of the second quintile is thus priced using the differing prices for the food in each region. Thus the relative quantities observed in the diet of the poor (here proxied by the second quintile), and the prices they face, were maintained in constructing the poverty line.

The share of non-food expenditure was obtained by fitting Engel’s curves of the food share to total expenditure. The food poverty line was augmented to yield two possible poverty lines. The “lower” poverty line adds, to the food poverty line, the estimated non-food share of those individuals whose total expenditures are equal to the food poverty line. The “upper” poverty line adds the estimated non-food share of those individuals whose food expenditures are equal to the food poverty line.

Figure 2: Distribution of Population between Poor and non-Poor Categories, 2004-05

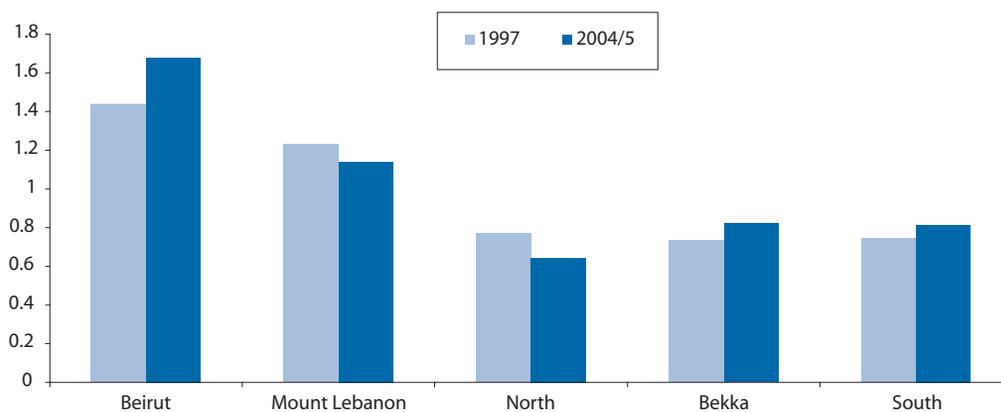


Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

8. For the extremely poor, the poverty gap index (P1 index), which measures the gap between the average income of poor households and the poverty line, was 1.5 percent in 2004-05. The poverty severity index (P2 index), which measures inequality among the poor was only 0.43 per cent. These are relatively low values by middle-income country standards. **However, when considering overall poverty,** the P1 index reached 8.1 per cent, implying that many of the poor were clustered far below the upper poverty line. Consumption is also relatively unequal among the entire poor population as the P2 index is 3.3 percent, which is relatively high in comparison to other Arab countries.

9. Two governorates; Mount Lebanon and the North, witnessed a relative decline in their mean per capita expenditure (compared to the overall average) from 1997 to 2004-5. **However the decline was far more significant for the North** (from 0.8 to 0.6). Consequently, the latter witnessed a major deterioration in its rank of mean per capita expenditure (from the third highest in 1997 to the lowest in 2004-5). Beirut, South and Bekaa governorates recorded significant improvements in their mean per capita expenditures relative to other governorates. (Figure 3)

Figure 3: Per capita Nominal Expenditure (Relative to Mean Per capita Expenditure) by Governorate in 1997 and 2004-2005



Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5) and Household Living Conditions Survey (1997)

Notes: The South and Nabatieh Governorates were merged under the South Governorate in this Figure for better data comparability.

10. National accounts data suggest that real per capita private consumption grew at 2.75 per cent annually since 1997. **Projections in the report indicate that the distribution of this growth across governorates was very uneven.** Beirut witnessed the highest growth rate in per capita consumption (5 per cent annually). This is not surprising given the large investment and job creation that took place in the city over the decade after 1997. In addition, the growth rates for the Nabatieh, Bekaa and South governorates recorded higher than average growth in consumption expenditure (approximately 4 per cent). However, this was not the case for the North, which witnessed insignificant growth in expenditure (only 0.14 per cent).

11. Economic and financial developments since 2003 have been shaped by major changes in the political landscape. GDP growth has stagnated since 2004. In 2005 it fell to 1 per cent and according to Government reports, the July War may have provoked an 11-point fall in GDP in 2006, from a projected 6% growth rate to a -5%². Notwithstanding the outcome of the Paris III Conference, the authorities also expect 2007 to be a very difficult year. The projected rebound of GDP growth in 2007 has been lowered from 4 to 1 per cent.³ These changes have no doubt affected poverty rates in the country.

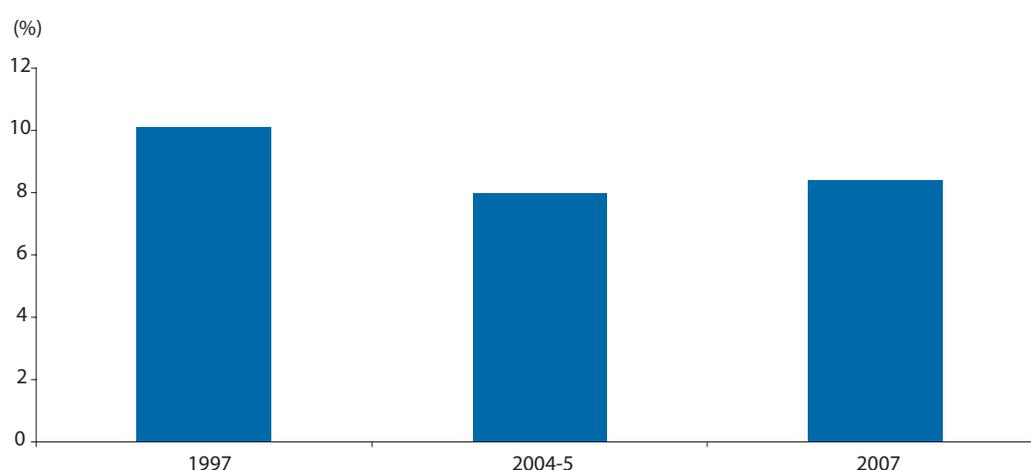
12. The lack of comparability between the 1997 and 2004-5 household surveys does not allow us to estimate precise changes in household consumption. However, the trends identified in figure 4 and the order of magnitude of changes in poverty can be supported by macroeconomic evidence as extreme

²Government's Paris III document.

³Use of Fund Resources Request for Emergency Post Conflict Assistance- IMF, 2007

headcount poverty is estimated to have declined from 10 per cent in 1997 to 8 per cent 2004-5 due to the growth in real per capita consumption described above. Likewise, extreme poverty is **expected to have increased by nearly 5 per cent since 2004 (reaching 8.4 per cent in 2007) mainly due to the contractionary effect of the July 2006 war on per capita household consumption, which is assumed to have dropped in line with the sluggish growth performance.**

Figure 4: Projected Evolution of Extreme Poverty in Lebanon (1997-2007)



Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5) and National Accounts Team within the Prime Minister Office for (1997-2004) national accounts data.

Notes: Models and assumptions are explained in detail in the main report. The main assumption for backward projection to 1997 is that the size of the Lebanese population remained constant over the period from 1997 to 2004-5. For 2007, the main assumption is that any shock to per capita private consumption was of the same order of magnitude forecasted for the GDP. In both cases, the assumption is that income distribution remained relatively constant.

FINANCING REQUIREMENTS FOR POVERTY REDUCTION

13. The report applies a simple macro-model to calculate the gross investment requirements for halving extreme poverty by 2015 taking into account three income distribution scenarios,⁴ population growth and the rate of depreciation. This investment requirement is compared with the country's projected saving rate which is assumed to follow its historical pattern. The difference between the two gives a shortfall, which must be filled by external development assistance or by borrowing. (Table 2)

⁴ Following Kakwani and Son (2005), the methodology used here takes account of changes in the growth elasticity of poverty over time for the head-count ratio. Economic growth may be called pro-poor (anti-poor), if it is accompanied by a decrease (increase) in inequality. Growth may be called distribution neutral if there is no change in inequality. Here we use a simple growth model which assumes that the output-capital ratio is constant. For Lebanon the ratio was estimated to be 1/4. The growth rate of capital per person here depends positively on the gross investment rate as a share of GDP (denoted as i) and negatively on the rate of population growth (n) and rate of depreciation of capital stock (d), which is assumed to be 1.5%, as shown in the following relationship: $i = 4(g + n + d)$.

Table 2: Estimated Investment and Resource Gap Required to Halve Extreme Poverty by 2015 under three different Growth Scenarios (% of GDP)

	Anti-poor Growth		Distribution-neutral Growth		Pro-poor Growth	
	Investment	Resource Gap	Investment	Resource Gap	Investment	Resource Gap
2005	21.5	8.5	17.2	4.2	15.4	2.4
2010	20.3	7.3	16.4	3.4	14.8	1.8
2015	19.2	6.2	15.6	2.6	14.1	1.1
Average	20.3	7.3	16.4	3.4	14.8	1.8

Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5) and National Accounts Team within the Prime Minister Office for (1997-2004) national accounts data

14. The financing gap per capita required to achieve investment and growth that would lead to the same reduction in the percentage of poverty will be significantly greater if growth favours less proportionally the poor than the non-poor. When growth is pro-poor only US\$ 108 per capita are required annually, whereas it increases to US\$ 213 and US\$ 485 in the “distribution neutral” and “anti-poor” growth scenarios respectively. This implies that, ceteris paribus, an additional US\$ 1.5 billion will be required to achieve the same rate of poverty reduction if growth is not pro-poor.

15. The cost of filling the average poverty gap for extreme poverty is low. The report estimates that it would cost only US\$12 per resident Lebanese per annum to lift all poor individuals out of extreme poverty. Filling the average poverty gap for all households under the upper poverty line will be significantly more costly, at US\$ 116 per resident Lebanese per annum.

16. The degree of fiscal space available to finance required growth and investment needed to achieve the MDG target of halving the proportion of the population living in extreme poverty by 2015, is a cause for concern. The question is particularly relevant in the aftermath of the significant economic impact of the July War, followed by political impasse, which are likely to constrain Lebanon well beyond 2006 given the time it will take for the economy to recover from these setbacks. However, at US\$ 12 per capita, **the annual cost of eradicating extreme poverty in Lebanon is relatively modest** and represents only a fraction of the country’s annual external debt obligations.

2. REGIONAL DISPARITIES

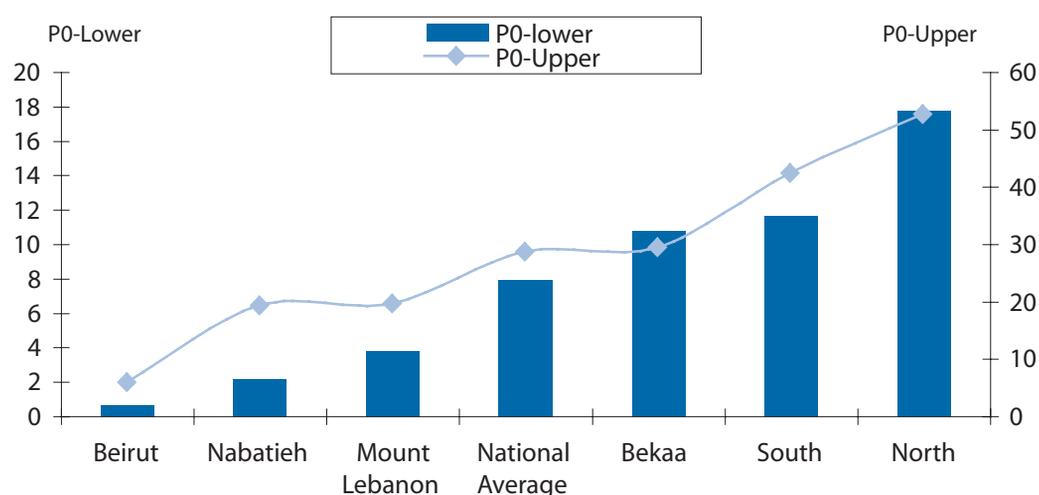
17. The distribution of extreme and overall poverty rates across governorates in 2004-5 is depicted in Table 3 and Figure 5. The main findings can be summarized as follows:

- Very low prevalence of extreme poverty (below 2%) and overall poverty (5% to 8%) in Beirut;
- Low prevalence of extreme poverty (2% to 5%) and below average prevalence of overall poverty (about 20%) in Nabatieh and Mount Lebanon;
- Higher than average prevalence of extreme poverty in Bekaa and South (10 to 12%), average prevalence of overall poverty in the Bekaa (29%) and higher than average prevalence of overall poverty in the South (42%).
- Very high prevalence of extreme and overall poverty in the North (17% and 52%, respectively).
- Although per capita consumption in Nabateih is very close to the national average, it is more equally distributed compared to other regions, as a result its poverty rate is far below the national average.
- Ranking of governorates remains unchanged for the other two poverty measures (P1 and P2). Thus, not only did poor households in the North governorate represent large proportions of their population, but also their expenditure levels, on average, were far below the poverty line, to the extent that their per capita poverty deficit was 2.4 times that of the overall for Lebanon (Table 3). Moreover, the share of North governorate to overall poverty is increasing for the distribution sensitive measures, reflecting the low standards of living of the poor in this region.

Table 3: Poverty Measures by Governorate;2004-05

Governorate	Extremely Poor			Entire Poor Population		
	P0	P1	P2	P0	P1	P2
<i>Beirut</i>	0.67	0.07	0.01	5.85	0.95	0.24
<i>Nabatieh</i>	2.18	0.21	0.05	19.19	3.97	1.26
<i>Mount Lebanon</i>	3.79	0.69	0.21	19.56	4.45	1.52
<i>Bekaa</i>	10.81	1.89	0.53	29.36	8.05	3.06
<i>South</i>	11.64	2.00	0.53	42.21	11.35	4.22
<i>North</i>	17.75	3.65	1.08	52.57	18.54	8.63
Total	7.97	1.50	0.43	28.55	8.15	3.32

Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

Figure 5: Extreme Poverty (P0-Lower) and Overall Poverty (P0-Upper) by Governorate in 2005

Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

18. The North has 20.7 per cent of Lebanon's population but 46 per cent of the extremely poor population and 38 per cent of the entire poor population. The extremely poor households are also overrepresented in South and Bekaa governorates compared to their population shares, whereas the poor households (households whose consumption lies between the upper and lower poverty lines) are overrepresented in the former. (Table 4)

Table 4: Distribution of Poverty Groups (%) across Governorates 2004-2005

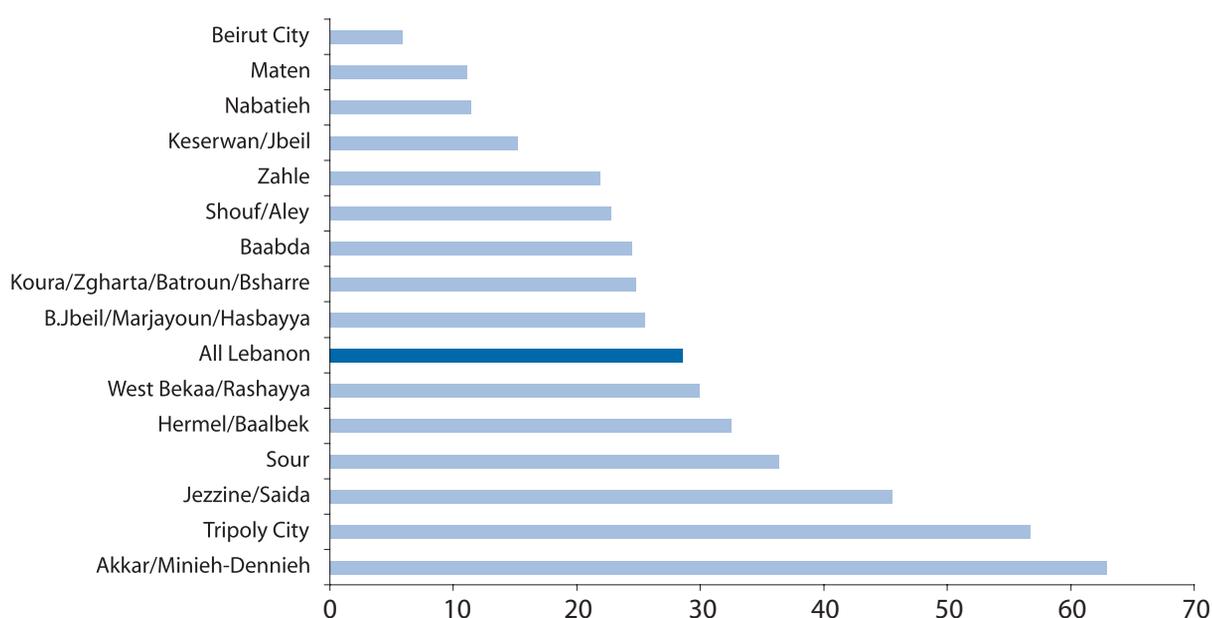
Governorate	Nominal Per Capita Consumption		Consumption Adjusted for Regional Price Differences	
	(1)	(2)	(12)	(% of total population)
Beirut	0.9	2.6	2.1	10.4
Mount Lebanon	18.9	30.5	27.3	39.9
North	46.0	34.9	38.0	20.7
Bekaa	17.2	11.4	13.0	12.7
South	15.4	15.6	15.6	10.5
Nabatieh	1.6	4.9	4.0	5.9
Total	100	100	100	100

Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

19. Figure 6 presents overall headcount poverty with each governorate. However, results presented here should be interpreted with caution as the Living Conditions and Household Budget Survey was not designed to capture poverty rates at the strata level. **The following findings thus serve primarily to enrich the analysis by indicating the order of magnitude of inter-governorate disparities, rather than aiming to provide an accurate measure of the poverty rates at the strata level per se:**

- There are significant differences in poverty within the North: Tripoli City and Akkar/Minieh-Dennieh strata have the highest percentages of extreme and overall poverty. On the other hand, “Koura/Zgharta/Batroun/Bsharre” strata (which are also located in the North governorate) has a relatively low poverty rate (4.5 per cent extreme poverty and 24.7 per cent overall poverty).
- The bulk of poverty is concentrated in four strata: Tripoli City, Akkar/Minieh-Dennieh, Jezzine/Saida and Hermel/Baalbek are home to two thirds of the extremely poor and half of the entire poor population despite the fact they make up less than one third of the Lebanese population.

Figure 6: Overall Headcount Poverty Rates (%) by Strata



Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

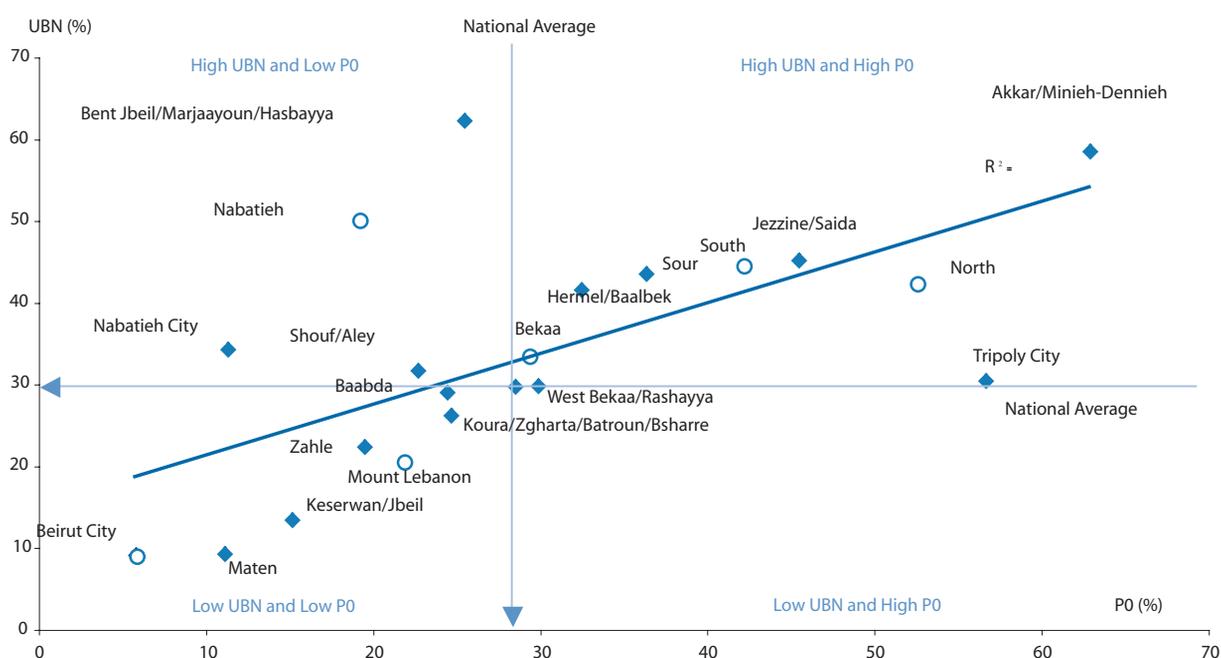
20. Figure 7 plots strata-level overall headcount poverty against the Unsatisfied Basic Needs (UBN) index, which measures deprivation in human living conditions and is also derived from the LCHBS.⁵ Thus it is easy to identify regions where human deprivation is more acute than headcount poverty and vice versa. The scatter diagram plots both measures at both strata and governorates levels (the latter are depicted by the blue circles in the Figure). The figure is split into four quadrants separated by the overall average UBN and headcount poverty for the country.

⁵ The UBN methodology gives each household 11 scores, corresponding to the 11 individual indicators. The household also obtains 4 scores corresponding to the 4 field indices. Finally, it obtains one composite score for the living conditions index; which is then used to classify households into five (or three) categories depending on the degree of satisfaction of the basic needs. The UBN index here includes the households that are at both a very low and low level of satisfaction.

Thus areas located in the upper right quadrant are in the worst position with a high headcount poverty rate and UBN score. Conversely, the lower left quadrant represents the best position. The graph leads to the following two conclusions:

- **First, the level of deprivation in living standards is generally commensurate to the level of headcount poverty** (as indicated by the slope of the regression line and the intersection of the national averages for the UBN and headcount poverty at approximately the same values).
- **Second, the correlation between both indicators becomes very significant once the Nabatieh governorate and its strata are excluded** (R^2 jumps from 0.4 to 0.8). The particularly low rate of income poverty observed for Nabatieh could be explained by a number of factors including the relatively low level of inequality and high incidence of external migration and remittances. However, this latter hypothesis remains to be validated by further social research.

Figure 7: UBN and Overall Headcount Poverty (% under upper poverty line) in 2004-5



Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

21. Governorates differ not only in their levels of per capita consumption, inequality measures and poverty measures, but also in how much any given growth rate can reduce poverty levels. The North governorate has the least elasticity with respect to mean consumption for both the headcount and poverty gap indices, implying that the impact of growth in expenditure or improvement in inequality will be smaller compared to other governorates, even with the same rates of growth.

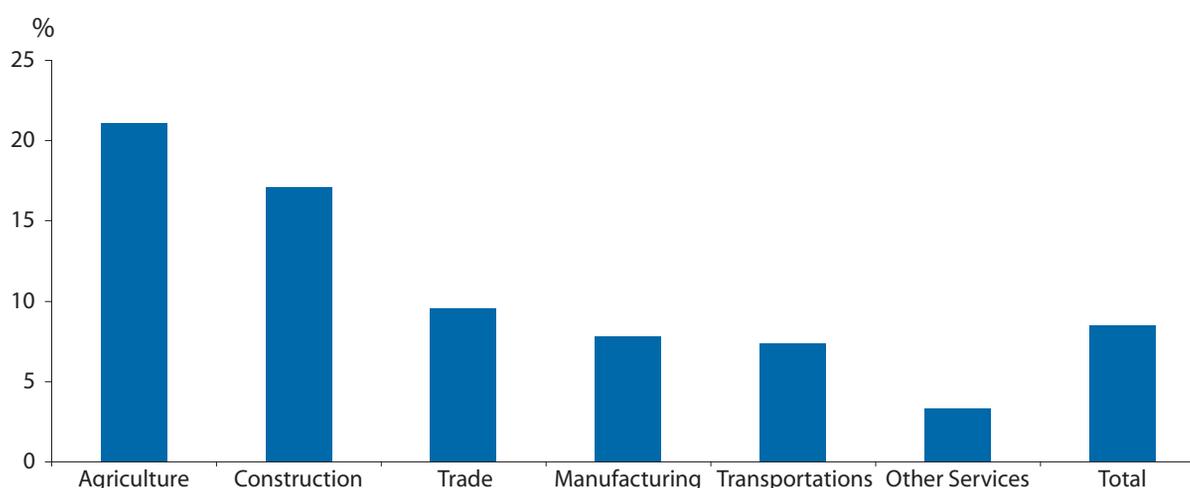
3. POVERTY CORRELATES

22. Unemployment rates in Lebanon are high among the poor and the majority of the poor are unskilled workers. Gender also affects unemployment rates; women in poor households are at a greater disadvantage. One quarter of the women in poor households are unemployed, with slightly higher unemployment rates in South and Mount Lebanon governorates (about one third of poor women).

23. Youth unemployment is aggravated by poverty; it is a cause that reproduces poverty and it is also a manifestation of poverty. Half of the extremely poor educated youth (aged 15-24) holding a secondary degree, are unemployed, one third of the extremely poor university graduates are unemployed (contrasted with one out of five for better off university graduates) and the unemployment rate for non-poor persons holding a secondary degree is half the rate for the extremely poor. It seems that even if a poor person was able to break from the vicious circle of education and poverty correlations, he/she cannot easily access job opportunities.

24. Households affected by a combination of risk factors face the highest risk of poverty and location interacts with the labor market profile to produce different welfare pictures among individuals. The salaried employment category dominates other employment categories for the non-poor group (53.7 percent for all Lebanon), while employees paid on a weekly, hourly or piece-rate basis are the dominant categories for the poor and constitute more than one third of the working poor. Another third of the working poor are self employed. The category of non-salaried employees has the highest risk of poverty, with one out of six workers in this category being poor. This is true for all governorates particularly in Bekaa and North governorates (the poverty rate among non-salaried employees is as high as 31 percent in Bekaa and 21 per cent in the North). Agriculture and construction sectors contain the poorest workers. (Figure 8)

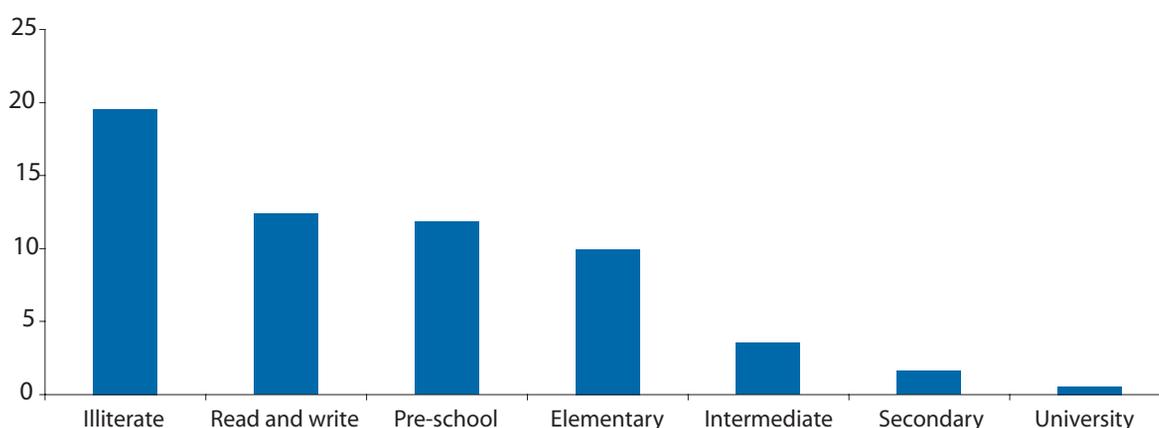
Figure 8: Extreme Poverty Rates by Economic Activity of the Head of Household (2004-5)



Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

25. Households headed by individuals who had less than elementary education constitute 45% of the poor. This suggests that the poorest households may be identified by the education level of the head of the household, and that programmes to improve educational facilities – particularly those providing technical training and to retain children in school – represent social investment programmes with potentially very high and long run returns. Moreover, the more developed a region, the stronger the impact of education on living standards. Beirut is the typical case, where the illiteracy rate of the poor is the highest (38 percent). On the other hand, North governorate exhibited a weaker relation between educational attainment and poverty, as agricultural activities are more dominant.

Figure 9: Extreme Poverty Rates by Educational Status of the Head of Household (2004-5)



Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5)

26. Poverty correlates strongly with school participation, with a lower likelihood of school enrolment, attendance and retention for poor children; and the gaps in enrollment rates increase from elementary to intermediate and secondary education. One poor child out of two was enrolled in intermediate schools and one poor child out of four is likely to join secondary schools. The corresponding ratios for the better off are three out of four for intermediate schools and one out of two for secondary education. The poor children in North governorate are the most disadvantaged where only one third of poor children aged 12-14 years are enrolled in intermediate schools. **Persistence of inequities in educational attainment at the higher stages calls for more effective public intervention to improve educational outcomes for the poor.**

27. Widows, as heads of households with children, are more likely to be poor. Households headed by widows with more than three children, are over-represented among the poor; their share among the poor is five times their population share and eight times the corresponding share among better-off households. Also households headed by widows with one to three children were over-represented among the poor, by 5 percentage points compared to the average level. The implication is that welfare level differs much among households, when the gender of the household head is combined with marital status and number of children. Widowed women with more than three children have the highest poverty ratio, making them the most vulnerable group. This criterion may be good for targeting. However, relying solely on this characteristic may entail a high under coverage error.

28. Multivariate analysis was used to assess, ceteris paribus, the impact of a change in poverty determinants on the probability of an individual being poor. There are three main results. First, changes in family size affects poverty. A newborn child increases the risk of falling into poverty. Second, changes in employment and health affect poverty. When a working household member loses his/her job and/or has a chronic disease, the probability of being poor is twice as large as the normal household. Third, Poverty is affected by the place of residence. **Households in the North are 4 times more likely to be poor compared to households with a similar set of characteristics that residing in Beirut.** The latter suggests the presence of significant regional effects (differences in economic returns) determining to a large extent differences in poverty rates across regions.

4. ELEMENTS OF A POVERTY REDUCTION STRATEGY

29. Lebanon can meet the MDG target of reducing by half the proportion of people living in extreme poverty by 2015. It can also make significant inroads to reduce regional and intra-regional disparities in poverty indicators.

30. Given the complex picture of poverty in Lebanon, a poverty reduction strategy for Lebanon will have to be comprehensive yet flexible. Though extreme poverty is shallow, the strategy will have to address the needs of 28% of the population who cannot satisfy their basic needs, of whom 8% cannot even meet their food requirements; the regional and intra-regional patterns of poverty, and the lack of opportunities generating growth in incomes. The strategy should also build the human capital of the population in order to equip them to achieve better welfare in the future.

31. The major findings of this report suggest a strategy whose preliminary form is along the following pillars:

- **Pro-poor growth:** Set the economic foundations for more sustainable growth in jobs, productivity and incomes in a way that includes the poorest groups. This will require further analyses and policies to ensure the fiscal space required to finance pro-poor growth. It should be emphasized that the **cost of filling the average poverty gap for extreme poverty is low**; it would cost only US\$12 per resident Lebanese per annum to lift all poor individuals out of extreme poverty, while filling the average poverty gap for all households under the upper poverty line is estimated at US\$ 116 per resident Lebanese per annum.
- **Education:** Ensure the poor enroll and stay on in schools and thus have better opportunities in the future, for both men and women.
- **Regional balance:** Ensure that growing regional disparities in incomes, opportunities and services are reversed. The fact that the intra- or within-regional component of inequality is more dominant does not mean that differences among regions should be neglected. Even a small share of regional differences in overall inequality may have far-reaching consequences for policies and for welfare.
- **Targeting:** The existence of sizable, but manageable, differences in living standards across strata within governorates implies that geographic-based targeting policies could play an active role in poverty reduction. **Narrow geographic-based targeting (at the level of the strata) is therefore the most effective tool to reduce both under-coverage and leakage errors.** Leakages from any such interventions can be reduced by prohibiting benefits to people whose incomes are known to be high, such as employers (the self-employed employing others) or by using a Proxy Means Test to identify eligible persons. As agricultural and construction workers, (casual and unskilled labour) represent 38 per cent of the poor, to the extent possible, they should also be factored into the targeting equation.
- **Monitoring:** Improve the quality and frequency of data collection and monitoring outcomes, especially at the regional level, to update and adapt the strategy. The next household budget survey should therefore be designed to more accurately capture household living conditions and expenditure at the strata level.

