



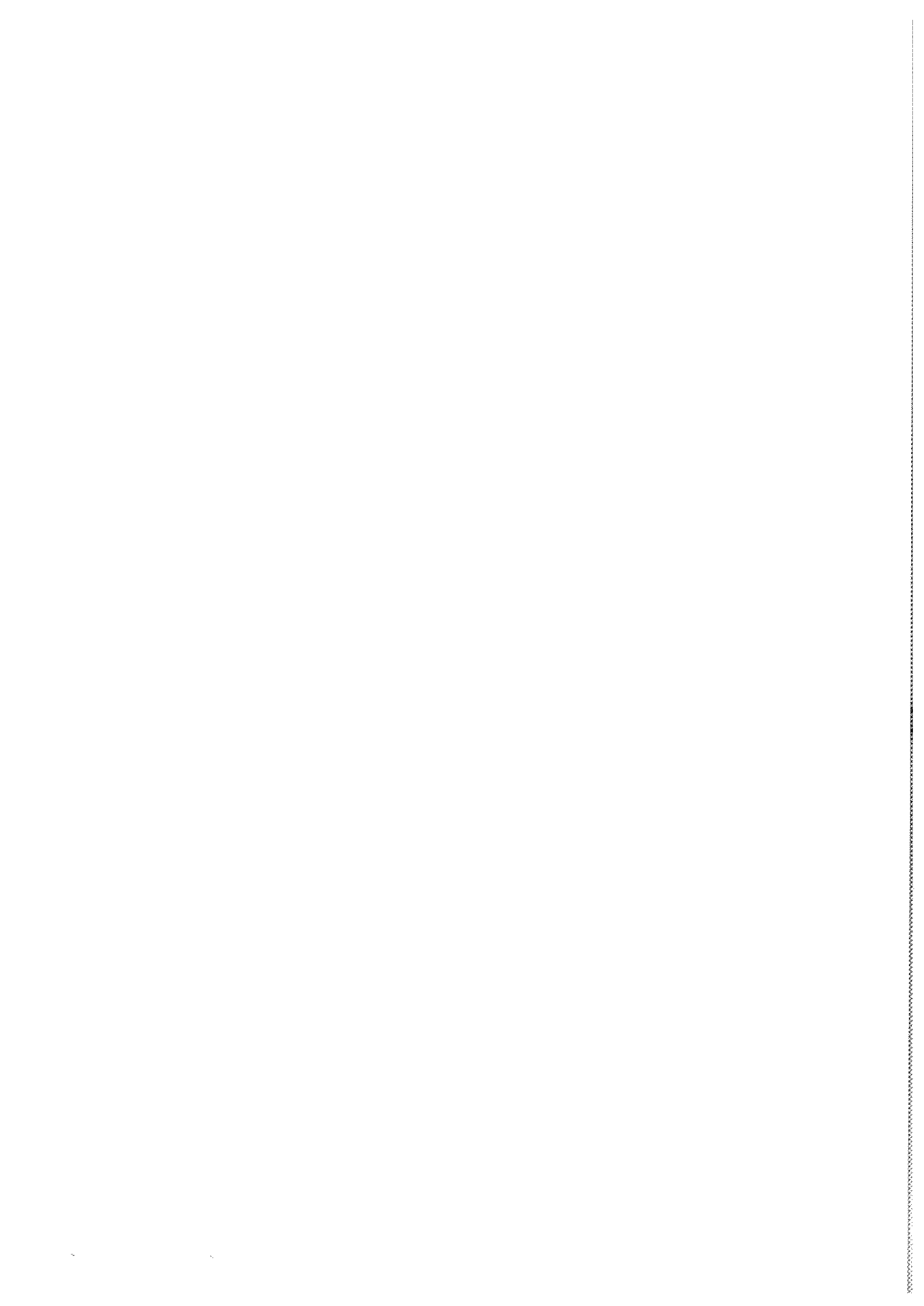
THE GOVERNMENT OF YEMEN, THE WORLD  
BANK, AND THE UNITED NATIONS  
DEVELOPMENT PROGRAM

# YEMEN POVERTY ASSESSMENT

(IN FOUR VOLUMES)

EXECUTIVE SUMMARY

NOVEMBER 2007



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## EXECUTIVE SUMMARY

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### I INTRODUCTION

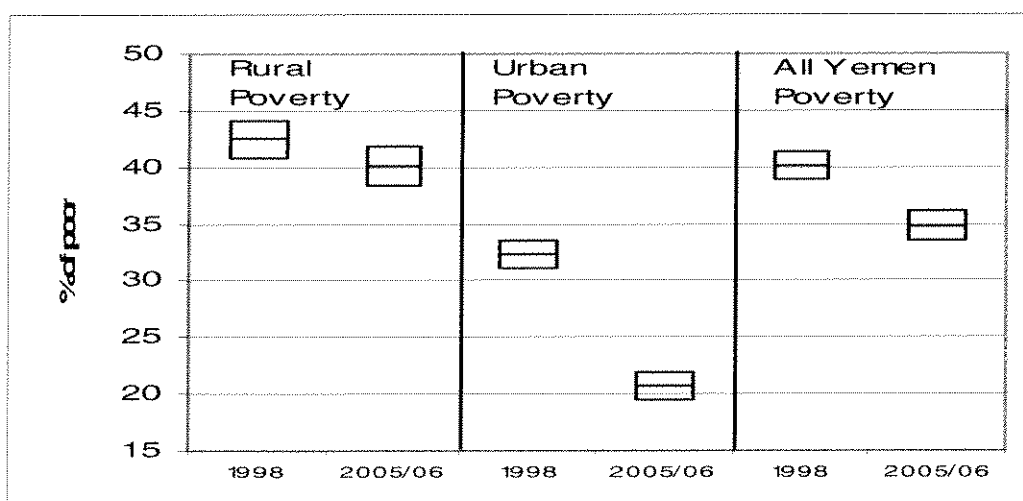
1. **From what was historically known as “Arabia Felix” – a land of prosperity and happiness – Yemen has become the most impoverished among the Arab countries.** The government of the united Yemen, formed in 1990, has launched so far three five-year economic reform plans with the goal of restoring Yemen’s prosperity. Have these efforts succeeded? What policies are needed to further reduce poverty? The Poverty Assessment report aims to answer these questions. This report measures poverty in Yemen in 2005/06, and evaluates the change in poverty compared to 1998, the two years for which comparable household budget surveys are available. The period between the two survey years (1998 and 2005/06), more or less overlaps the first two five-year economic plans and captures the effect of the economic reform programs launched since 1995.

2. **In addition to measuring poverty, this report has three objectives:** evaluating the role of growth and past reforms on poverty, identifying better ways to target the vulnerable poor through public action, and an assessment of the poverty monitoring system. By examining the effect of the key policies on poverty, such as the petroleum price reform and the government’s social protection mechanisms between 1998 and 2005/06, the study aims to equip policy makers and development partners with the knowledge needed to improve the effectiveness of their efforts to reduce poverty in Yemen.

### MAIN FINDINGS

### II EVOLUTION OF POVERTY

Figure E 1: Poverty declined between 1998 and 2005/06



Note: The boxes around mean show 95% confidence level of the estimates. Source: UNDP (2007).

3. **The main conclusion of the study is that poverty in Yemen declined.** Real GDP per capita grew, on average, by 2.1 percent per year between the two survey periods, while poverty (measured as the headcount ratio) declined by almost 2 percent on an annual basis. The percentage of poor declined from 40.1 percent in 1998 to 34.8 percent in 2005/06. The percentage of the poor declined in both urban and rural areas. However, due to continued high population growth, the absolute number of poor remained at around seven million, the same number as seven years ago. The pace of poverty reduction is modest compared to the MDG goal adopted by the government. The goal of reaching the first MDG (halving the percentage of poor) will require the quadrupling of the current one percent per year rate of growth in per-capita consumption achieved over the last seven years.

4. **The urban areas of Yemen witnessed a remarkable decline in poverty.** The urban areas benefited remarkably from the predominantly oil-led growth, which resulted in the rapid decline in the percentage of urban poor from 32.2 percent to 20.7 percent, despite an increase in urbanization. Although poverty declined in four of the seven urban regions, poverty did not change in the remaining three.

5. **The decline in national poverty for the rural areas is not robust to changes in poverty lines.** In rural Yemen, the percentage of poor declined from 42.4 percent in 1998 to 40.1 percent in 2005/06. However, unlike in the urban areas, this decline is not robust to alternative definitions of poverty line. If slightly higher poverty lines were used than the already chosen ones (higher by about 12 percent), the percentage of poor in the rural areas would have increased between 1998 and 2005/06. The decline in poverty as measured by the poverty gap and severity measures is also reversed at slightly higher poverty lines. However, examined at regional levels, the change in rural poverty becomes robust. In three of the seven rural regions where nearly 40 percent of the country's poor live (Central North, Central South and Eastern<sup>1</sup>), poverty unambiguously worsened by 10 to 15 percentage points.

6. **The distributionally sensitive measures of poverty show a greater decline in poverty.** During 1998 to 2005/06, the poverty gap index declined at a greater rate than the headcount index, and the severity of poverty index fell at an even greater rate. This indicates that the ultra poor benefited even more than the average poor.

7. **Despite the recent reduction, poverty in Yemen is deeper and more severe than in other MENA countries.** The poverty gap index is 8.9 percent, implying a monthly poverty deficit per capita of about YR 497. On average, a poor person should receive YR 1,431 per month to be lifted out of poverty<sup>2</sup> - about one-third of the mean consumption of the poor. Perfect targeting of the poor would require only about YR 124.4 billion per year (about 4 percent of GDP) to fill the gap between the actual spending of poor households and the poverty line, thus lifting everyone out of poverty. The severity of poverty index (which attaches greater weight to the poverty gaps of poorer families) at 3.3 percent is relatively high by MNA country standards (Figure E.2). The food poverty gap averages about YR 2,100 for the food-poor, some

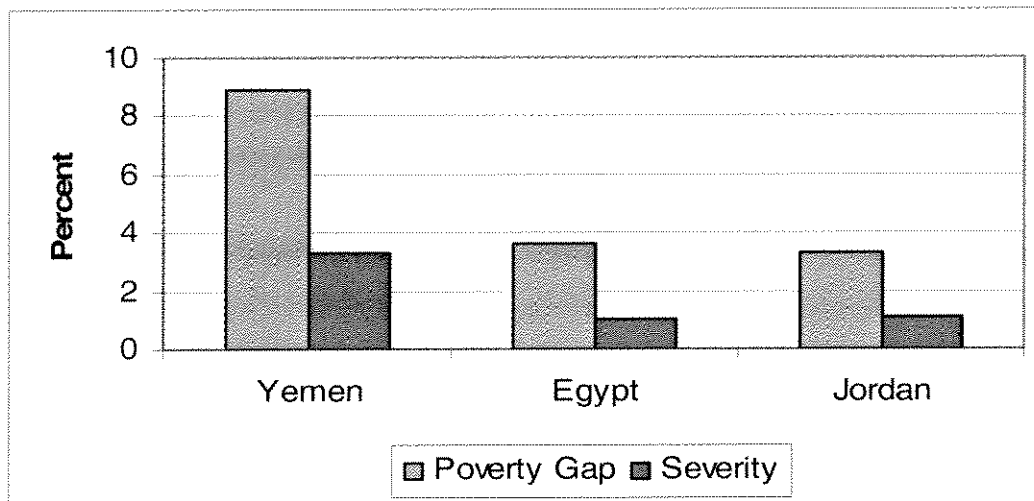
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<sup>1</sup> These three regions comprise 12 of the 21 governorates of Yemen. Central North: Sana'a - Sadah - Mareb - Aljouf-Amran and Rimah; Central South: Albaida - Lahj - Abyn and Aldaleh; Eastern: Shabwah - Hadhramaut and Al Maharah.

<sup>2</sup> The per-capita poverty deficit is calculated for the population as a whole. While the per capita deficit per month is YR 497, the average deficit per poor person is YR 1,431.

75 percent of the average consumption of the food-poor. Meanwhile the government's cash-transfer program which targets the food-poor (the Social Welfare Fund) is inadequate as it currently has a benefit ceiling of YR 2,000 per family.

**Figure E 2: Comparison of Depth and Severity of Poverty in Select MNA Countries**



Source: World Bank staff estimates.

Notes: Based on HBS for Yemen (2005/06), Egypt (2004/05), and Jordan (2002/03).

**8. Poverty differs considerably across regional dimensions.** For the first time for Yemen, utilizing the 2004 census data and the 2005/06 HBS, poverty at the district levels was projected with statistical precision. There are large intra-governorate differences in the incidence of poverty (Figure E.3). Poverty varied between 5.4 percent and 71 percent in 2005/06 among governorates. Poverty is highest in the rural part of the Amran governorate, where 71 percent of the population is poor. Amran is followed by Shabwah and Al-Baida (60 percent). The incidence of poverty is the lowest in the Al-Maharah and Sana'a City governorates. The ranking of governorates remains unchanged for other measures of poverty. Because of the faster reduction in urban poverty, regional differences in the rates of poverty have accentuated between 1998 and 2005/06.



10. **However, at a time of rapid surges in enrollment, poor children are falling behind.** The enrollment rates for children in the age group 6-14 in the poorest decile declined for both urban and rural areas by 5 percentage points, while the richest deciles increased enrollment by 1 percentage point in urban areas and by 21 percentage points in rural areas. Unavailability of schools and difficulty in commuting are the obstacles that keep children out of school. Other reasons given for non-enrollment include a lack of interest by the family, and/or having to work.

11. **Poor families spend less on health expenditure as a share of their total expenditure compared to the non-poor.** Inability to pay and difficulty of access may be discouraging them from utilizing medical care. Out-of-pocket payments for health services as a share of total expenditure has increased between 1998 and 2005/06<sup>3</sup>. Households in the poorest quintile spend about one-half what the richest quintile spends as a share of their total consumption expenditure. This distinct pattern suggests that the poor in Yemen may be discouraged from utilizing medical care since they cannot afford it. The inability to pay may contain demand for medical care among the poor.

12. **Children from poor families suffer more from malnutrition.** Child malnutrition remains a concern in Yemen, as nearly one-third of children between two and five years old are severely stunted<sup>4</sup>. Data on severe stunting shows a greater disparity between urban and rural children than other types of malnutrition (Table E.1). Poverty is clearly associated with the prevalence of severe stunting and underweight among Yemeni children<sup>5</sup>. Since the WHO guidelines for the international reference population changed, it was not possible to compare the prevalence of child malnutrition with the results of earlier health surveys. On the other hand, available data suggests that the prevalence of child malnutrition did not decline over the last few years.

**Table E.1: Prevalence of Severe Malnutrition (%)**

	National average	Poor	Non-poor	Urban	Rural	Boys	Girls
Severe stunting	27.5	31.7	26.0	23.5	33.2	29.2	25.7
Severe underweight	11.6	13.7	11.0	10.2	13.7	12.4	10.9
Severe wasting	10.2	9.6	10.4	10.0	10.5	11.0	9.4

*Source:* World Bank staff estimates from the 2005 HBS.

*Note:* Following the new WHO guidelines, prevalence of stunting and wasting was calculated for children between 2 to 5 years old. For underweight children, the relevant age group remained children under five years old.

<sup>3</sup> A simple comparison of the HBS 1998 and 2005/06 suggests nearly a three-fold increase in aggregate as well as by expenditure decile. This trend appears to be at odds with other evidence in the HBS, as discussed in more detail in Volume II, Annex 6.

<sup>4</sup> Height-for-age, <3SD from the international reference median value. On a population basis, high levels of stunting are associated with poor socioeconomic conditions and increased risk of frequent and early exposure to adverse conditions such as illness and/or inappropriate feeding practices.

<sup>5</sup> Height-for-age, <3SD from the international reference median value.

13. **More people are seeking medical treatment when sick, but the gap persists between the rich and poor.** In the 2005/06 HBS, the percentage of individuals who were ill during the preceding month of the survey and sought treatment ranged from 56.6 percent in the poorest quintile<sup>6</sup> to 79.7 percent in the richest quintile. Compared to the 1998 HBS, the 2005/06 HBS figures show that proportionately more of the poor population seeks medical care when ill; however, there still exists a persistent gap between the poor and the rich.

14. **High health cost is the single most important reason why the poor do not seek care when they are sick.** For the poor, inability to pay for medical care is the most significant reason for not seeking treatment. Unavailability of needed medical service and difficulty in physical access were the second and third reasons for not seeking the medical care by the poor<sup>7</sup>. Inability to pay for medical care and unavailability of care become less significant barriers as the expenditure level goes up. In the richest quintile, the major reason for not seeking care is that the illness was considered too minor to receive the medical attention.

15. **Using self-reported status, the poverty rate of female-headed households in Yemen is not significantly different from male-headed households.** Only 5 percent of the population in Yemen lives in households headed by a female. These households represent 8 percent of all households. While the mean poverty incidence for self-declared female-headed households is 32 percent versus 35 percent for male-headed, this difference is not statistically significant, as the sample of female-headed families produces a high standard error.

16. **Among female-headed households, there is heterogeneity in risk of poverty.** Poverty incidence is highest among those female-headed households which have a spouse residing in the same household. In most cases these husbands are physically or mentally disabled. Next in incidence are the households where the husbands are away. Widows and divorced women-headed households rank next in poverty risk. The lowest risk (7%) is for households headed by single women who have never married.

17. **Female-headed households allocate resources better than male-headed households.** Controlling for other factors in a typical demand system, the HBS data established that female-headed households (self-reported and de-facto) allocate resources better for current welfare *and* for the future. Households that are headed by women have lower shares of consumption on adult-consumption goods such as tobacco and qat, and spend more on education<sup>8</sup>. This applies both to households headed by single women, and households where the male head of the family is mostly absent. Having a female as head of household increases the share of expenditure on food by 1.2 percent, while the demand for non-essential goods such as tobacco and beverages declines by 10 percent.

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<sup>6</sup> Quintiles are defined by household expenditure divided by the total number of household members.

<sup>7</sup> The 2005/06 HBS did not assess how many minutes it takes to go to a nearby health facility.

<sup>8</sup> The positive effect on personal services (in which education is included) is not statistically significant. See Annex IV, Annex 11 on estimation of an AIDS demand system for Yemen using HBS 2005/06.

#### IV THE IMPACT OF GROWTH AND REFORMS ON POVERTY AND UNEMPLOYMENT

18. **The decline in poverty rates observed in Yemen between 1998 – 2005/06 was largely a result of oil-driven economic growth.** However the oil sector employs few Yemenis, and fewer if any from the poor population<sup>9</sup>. The spending impulse from government expenditure expands mostly the service sector based in urban areas.

19. **Oil-based growth does not benefit the poor, especially the rural poor.** Empirical evidence has shown that oil rents do not trickle down to most of the economy, in particular the poor. When income level is controlled, countries which have high levels of natural resource endowment tend to have higher rates of poverty and Gini coefficients than their non resource-rich peers<sup>10</sup>. The oil sector does not contribute to employment among the rural poor population, being a highly industrialized sector demanding skilled labor, which is mostly imported.

20. **The direct impact of tariff cuts has been minimal.** Trade liberalization is generally considered to be beneficial for economic development due to long-term efficiency gains, but when applied to import-competing sectors, it can have immediate adverse effects on the poor. During the structural reform periods of the 1990s, Yemen's unweighted average tariff decreased from 20 percent in 1996 to 12.6 percent in 2003<sup>11</sup>. However, as Yemen is without a strong initial industrial base, the country is unlikely to have been adversely affected by import tariff cuts.

21. **The devaluation has probably contributed the most to transitional adverse affects on the poor.** Between 1998 and 2005/06, the Yemeni Rial depreciated by 41 percent. International evidence points to an average pass-through coefficient of 0.7<sup>12</sup>, implying that up to one-third of the observed price increase of 89 percent over the period could be explained by depreciation. But devaluation improves the incentives in the export-oriented sectors, and the expansion of these sectors *could* benefit the poor. Partly in response to the depreciation, non-oil exports in Yemen expanded more than two-fold in nominal US\$ terms between 1998 and 2005.

22. **The partial removal of petroleum price subsidies between 1998 and 2005 may have resulted in a cost of living increase of around 21 percent.** Petroleum prices have been highly subsidized in Yemen, the highest in the MNA region, representing up to 9 percent of GDP. Faced with the prospect of dwindling oil reserves, and thus declining fiscal revenues, the authorities decided to reduce petroleum sector subsidies. Increased disbursements from the Social Welfare Fund were meant to mitigate any adverse effects.

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<sup>9</sup> In 2003 the oil sector employed only 21,000 Yemenis, while at the same time 190,000 job searchers entered the market (Development Policy Review, WB, 2006).

<sup>10</sup> "Economic Growth in the 1990's: Learning from a Decade of Reform", WB, 2005.

<sup>11</sup> World Bank Trade Department cited in "Economic Growth in the 1990's", World Bank, p. 137.

<sup>12</sup> Source of pass-through coefficient: Goldfajn and Werlang, "The Pass-Through from Depreciation to Inflation: A Panel Study", April 2000.

### *Unemployment Rises, Particularly Among the Poor*

23. **The increase in the labor force out-paced the growth in jobs during 1999 - 2004.** The labor force increased at a rate of 4.3 percent per year, while the number of jobs increased by 3.7% per year. The labor force participation rate increased slightly from 38.5% to 39.2% between the two reference years. Therefore the rate of unemployment increased slightly by 2.6 percentage points. Youth unemployment (ages 15 – 24) is considerably higher than the average general population, at 28.3%.

24. **Unemployment increased between 1999 and 2004.** Unemployment in Yemen (ages 15+) increased from 13.7 percent in 1999 to 16.3 percent in 2004, even though there was a significant decline in poverty (from 40 percent to 35 percent approximately)<sup>13</sup>. According to international evidence, there is no clear relation between poverty and unemployment. While micro-economic analysis may show a positive correlation between unemployment and poverty, from a macro-economic standpoint, poverty is a household phenomenon and unemployment is related to the individual. An unemployed individual may not be poor if there are other income earners in the household. Moreover, poor households cannot afford to be unemployed, but likely earn very low wages that perpetuates the cycle of poverty. Similarly, changes in policy can cause divergent outcomes for poverty and unemployment. For instance, a significant reduction in real wages may create more jobs, but lower incomes would create higher poverty.

25. **Unemployment rate among women has increased during 1999 - 2004.** This is in part because female labor force participation increased from 7.0 to 9.6 during 1999 - 2004. The female unemployment rate also increased from 25.4 to 39.5 percent in 2004. The high level of female unemployment is slightly more evident in the urban areas, where nearly half the female labor force is unemployed. In comparison, in rural areas, female unemployment is 33 percent. There is also a large difference between male and female unemployment rates. The ratio of male to female rate of unemployment is approximately 3:1, similar to that in Egypt (Figure 1.11).

## **V SOCIAL SPENDING AND POVERTY**

26. **Social spending in Yemen has decreased in the recent past to 7 percent of GDP.** Social spending, defined to exclude petroleum subsidies, has declined from 8.6 percent of GDP in 2003 to 7 percent in 2006. Health spending is only about 2 percent of GDP. In fact, petroleum subsidies alone equal or exceed total social spending.

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<sup>13</sup> A broad definition of unemployment (ages 15+) was used in Labor Force Survey of 1999 and the census of 2004 – the unemployed are those without work, seeking work, and among those not seeking, those who will accept work if offered. Based on this broad definition, the unemployment rate increased slightly from 13.7 percent in 1999 to 16.3 percent in 2004. It is possible to compare a narrow definition of unemployment – the unemployed are those without work but seeking work – between the censuses of 1994 and 2004. By this measure, the unemployment rate has slightly increased from 9 percent in 1994 to about 10 percent in 2006.

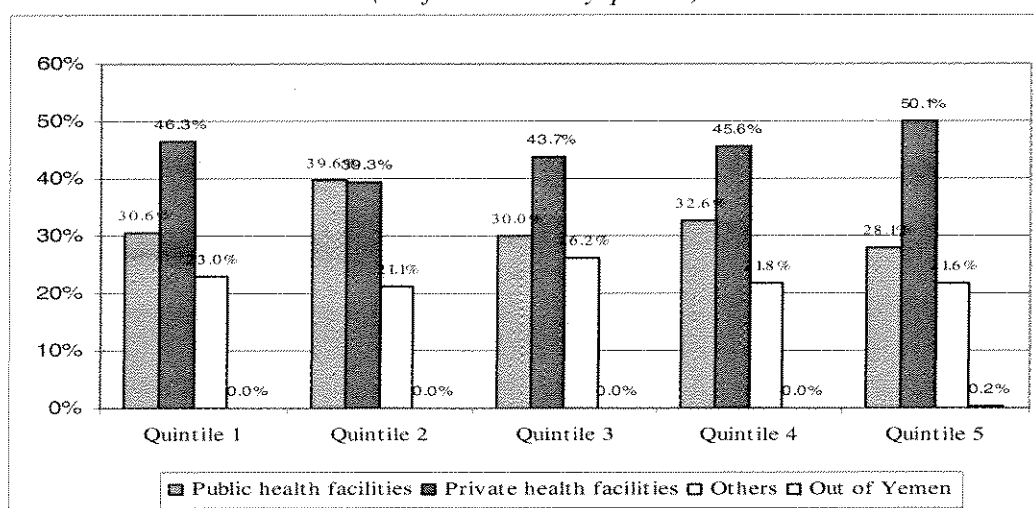
27. Although public recurrent education expenditure equally benefits all income deciles, the distribution is more unequal at higher educational levels. The top decile gains 30 percent of public expenditure share at the university level and 17 percent at the TEVT (Technical Education and Vocational Training) level.

28. Immunization coverage in Yemen has been improving over the last decade<sup>14</sup>. Nearly 100 percent coverage has been achieved for polio throughout different expenditure groups. No substantial disparity exists between the urban area and rural area, nor was gender disparity observed.

29. For measles immunization coverage - one of the MDG indicators - the national average rate was less than 80 percent. It appears that Yemen has a long way to go to achieve the MDG target. There was a 9 percentage point difference in measles immunization coverage between the richest quintile and poorest quintile. The gap between the urban and rural populations was further noticeable at 12 percentage points.

30. Government health care service is not targeting the poor. The National Health Accounts Study<sup>15</sup> found that government expenditure on health was 1.8% of Gross Domestic Product in 2003 and accounted for 32% of the total health expenditure of the country. Benefit Incidence Analysis shows that individuals in the poorest households do not necessarily receive their medical care from the public health facilities (Figure E.3). In the poorest quintile, more individuals sought care at private health facilities than public facilities. Private clinics were the most popular place to seek care when ill among the poor.

Figure E 3: Where Individuals Seek Medical Care – Public vs. Private  
(% of individuals by quintile)



Source: World Bank staff estimates from the 2005 HBS.

Note: Public health facilities include public health centers and public hospitals. Private health facilities include private clinic, private hospital, private doctor consultation, and private consultation with a certified

<sup>14</sup> WHO / UNICEF immunization coverage estimates.

<sup>15</sup> Yemen National Health Accounts: Estimate for 2003, National Health Accounts Team, Republic of Yemen, Partners for Health Reforms, June 2006.

health professional. "Other" includes pharmacy and traditional medicines. By disaggregating pharmacies between public and private, the percentage of the private facilities goes up.

### *Social Protection and the Poor*

**31. Transfers play an increasingly important role in poverty alleviation in Yemen.** Public and private transfers (without petroleum subsidies), as identified in Table E.2, account for nearly 9 percent of household expenditure. Without public and private transfers to households (including petroleum subsidies), the number of the poor in Yemen would swell by 1.6 million, or 8 percent of population.

**Table E.2: The Impact of Transfers on Poverty in Yemen, 2005**

	Poverty Rate	Poverty Gap	Share of Total Consumption (population) (%)	Share of Total Consumption (beneficiaries) (%)	Average Transfer per Beneficiary Rials per year	Share of Transfer going to the Poor (%)
Poverty Without Transfers	43.8	14.1				
Social Welfare Fund	-0.3	-0.2	0.3	4.0	2552	52
Other Public Transfers <sup>16</sup>	-1.5	-0.9	1.8	8.6	8199	49
Petroleum Subsidies (direct)	-2.5	-0.7	1.2	1.2	389	23
Remittances Within Yemen	-1.9	-1.2	2.6	8.2	6604	45
Remittances From Abroad	-2.7	-2.3	3.9	27.7	2831	16
Poverty HSBS 2005/06	34.8	8.9				

Source: World Bank Staff Estimates based on Household Budget Survey, 2005/06.

**32. Direct public transfers are as important as private transfers in reducing the current level of poverty.** Public transfers (including petroleum subsidies) reduced poverty by 4 percentage points. The petroleum subsidy is the most important of the public transfers in terms of impacting poverty, closely followed by diverse sector-oriented programs and pensions.

**33. Half of the transfers from public programs targeting poverty now leak to the non-poor.** While some cash-transfer programs, such as the Social Welfare Fund, are able to disburse half their total benefits to the poor, only one-fifth of the benefits of the large, untargeted petroleum subsidies program reaches the poor. In most public programs targeting current poverty, transfer per poor beneficiary is less than that for the rich. Moving towards better social protection mechanisms that use proxy means testing, as being piloted by the authorities, is critical.

<sup>16</sup> "Other Public Transfer" programs refer to transfers from seven different funds such as pension funds, income assistance from general authority for martyr's families, agriculture and fisheries production, etc.

34. **The government's efforts to reduce poverty in the future by community driven programs – the Social Fund for Development and Public Works Project - perform better at targeting the poor.** Nearly 70 percent of the SFD resources go to the poorest three deciles. Available evaluation of the PWP indicates that 60 percent of the job opportunities created were taken up by the unskilled and presumably poor workers.

35. **The rapid expansion of the Social Welfare Fund has come at a cost.** The Social Welfare Fund, the government's main cash transfer mechanism to alleviate poverty now, has expanded by nearly 9 times in as many years in terms of the number of beneficiaries, reaching nearly 1 million people in 2006. The program is currently able to reach 14 percent of the extremely poor (in 2005) and 13 percent of the poor. However at the same time, leakage to the non-poor increased. Over 45 percent of the beneficiaries were non-poor in 2005 compared to 40 percent in 1999. Non-poor beneficiaries absorbed 47 percent of all benefit payments. Despite the expansion, the SWF had negligible positive impact in poverty reduction because the amount it transfers per beneficiary has been constant since 2000 in nominal terms, now amounting to at best 4 percent of poverty line, while the average income deficit of the poor is 27 percent.

36. **The Social Welfare Fund has low coverage of the poor and most beneficiaries are the non-poor.** SWF transfers are collected by only 8 percent of those that satisfy its targeting criteria. Out of the population which receives transfers, 70 percent are not in the target group. Out of those untargeted beneficiaries, 75 percent are not poor. Overall, the program covers 8.4 percent of the population and 13 percent of the poor (Figures E.4 and E.5).

Figure E.4: SWF Targeting (1998 & 2006)

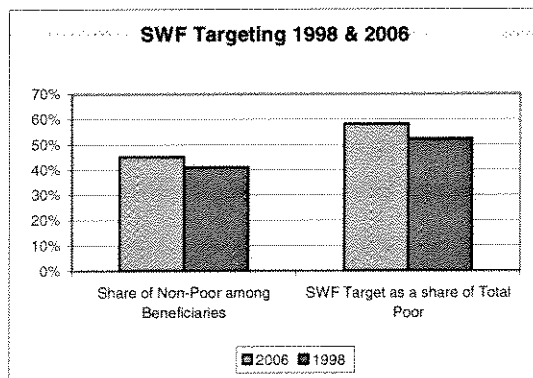
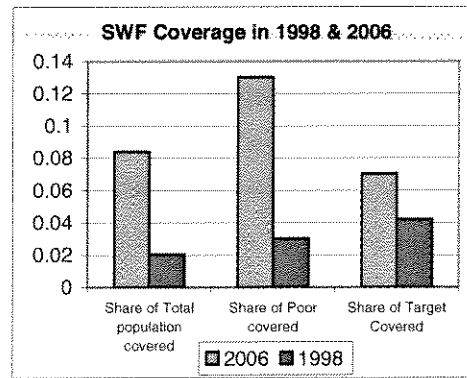


Figure E.5: SWF Coverage (1998 & 2006)



Source: World Bank Staff Estimates based on Household Budget Survey, 2005/06.

37. **Though petroleum subsidies reduce poverty, much of the subsidy leaks to the non-poor.** Without the current petroleum subsidy (only taking into account the price increase on gas, LPG and kerosene), the poverty rate would have been roughly 2.5 percentage points higher. Interestingly, the impact would have been higher for urban areas, where poverty would go up by 3.6 percentage points, versus 1.5 percentage points for rural areas. Subsidies represent a higher share of the consumption budget of poorer deciles. For instance, this rate for the lowest decile is 1.9 percent of total household consumption, versus 0.9 percent for the higher decile. Still, the share of the total subsidy received by households is regressive across all deciles, with

almost half of the total subsidies going to the top 3 deciles of the population, while the bottom three deciles receive a mere 14 percent. The share of subsidies going to the poor is 22.9 percent, versus 77.1 percent going to the non-poor.

**38. When taking into account indirect effects, the poverty impact of petroleum subsidies is even higher.** Petroleum subsidies have a spillover effect through keeping the price of other goods down. When this indirect effect of petroleum subsidies is accounted for, the poverty rate without subsidies would be 8.2 percentage points higher. The rates are 6.6 percentage points for the urban areas versus 8.9 percentage points for rural. Therefore, accounting for indirect effects, the impact of the current petroleum subsidy removal will be higher on rural areas than urban. Thus current petroleum subsidies are keeping roughly 1.5 million people from slipping into poverty.

## **VI POVERTY MONITORING**

**39. A coherent and functional poverty monitoring system does not currently exist in Yemen, despite multiple donor efforts.** Most monitoring and evaluation is done in response to varying donor agendas. Moreover, the information is not available publicly. Competing demands for information exist under the PRSP, TFYP, and MDG frameworks, leading to poor formulation of objectives and indicators. Past inefficiencies exist in the system, such as the lack of coordination and duplication of work at various levels of MOPIC, which have hampered growth and poverty alleviation programs. Even after three years of initiating M&E, monitoring systems are still not completely functional. Discussions regarding the list of most important indicators are still ongoing, and progress is very slow. In addition, there are also concerns regarding implementation capacity.

**40. But, improvements to the monitoring system are planned.** A successful strategy for M&E must focus on the essential aspects of poverty monitoring and capture primarily the level of outcomes, as well as scrutinize the input side (the budget, its execution, and medium-term financial planning). It should include surveys that can assess the effectiveness of policy measures on the ground. It should be built upon the existing administrative information systems in the sectors, but it should also critically examine and validate their results. The new Third Five Year Plan (TFYP) recognizes these deficiencies and prioritizes poverty monitoring as a major objective under the TFYP. Proposed restructuring of MOPIC and reassessing the role of all stakeholders, including line ministries and donors, should lead to improvements in the monitoring and evaluation processes.

**41. Greater civil society involvement is the key to success in monitoring.** The involvement of the parliaments and civil society in the discussion about the achievements and successes in implementation of the PRSPs is so poor, that in effect, neither accountability nor dialogue is possible amongst the governments, the parliaments and the citizens. Since the objectives of the poverty monitoring process include a qualitative change in the political culture and a more intense dialogue between governments and civil society, considerable efforts are necessary in order to maintain the dynamics of participation that emerged during the formulation of the PRSP.

## VII POLICY RECOMMENDATIONS

- i. ***Crafting a growth strategy that enables rural Yemen to also participate in prosperity is vital for the success of poverty reduction.*** A review of 14 countries, of which 8 were considered to be “successful” in implementing pro-poor growth strategies (Louis, 2007), reveals certain measures which are applicable across the board; including good economic policies, political stability and public investment in capital (both physical and human).
- ii. ***Besides, such a strategy needs to be tailored to suit the needs of Yemen’s special socio-economic context.*** Orienting development towards the rural areas and correcting policies such that the poor in rural areas are able to participate is essential. For example, innovations to connect the rural economy to vibrant sources of urban growth in the tourism sector could help greatly.
- iii. ***Managing well the transitional costs of reform on the poor is an important area of focus.*** Though economic reforms will eventually benefit all, the transitional costs on the poor are to be offset in careful ways. Elimination of petroleum subsidies will bring sizeable benefits to the economy. However, a good part of the subsidies saved must be earmarked for programs that compensate the poor for the loss of welfare. Ad-hoc methods attempted in the past, such as expanding the leaky cash-transfer scheme, or doubling the salaries of the lowest paid civil servants (though justified because of the very low pay for civil servants affecting their morale) would not necessarily be the most effective system. The reform of the Social Welfare Fund by increasing the amount of assistance while improving the targeting method will help in protecting the vulnerable poor. In this regard, rolling out to all Yemen the pilot proxy means testing method experimented in three governorates in a short time-frame could save resources.
- iv. ***Orienting social spending in education and health sectors more to the poor.*** Improving education and health outcomes of the poor will enable them to participate in the economic development that happens around them. The current backslide in the enrollment of the poor when public resources are successful in raising enrollment needs to be arrested. Though educational subsidies seem to be equally distributed across expenditure classes, the anti-poor bias of the subsidy for higher education needs to be corrected. Similarly, the gap in the access of the poor to public health needs to be closed. Without these corrections, pouring more resources into education and health alone will not help the rural poor.
- v. ***Redesigning the nearly non-functioning poverty reduction monitoring system towards best-practices will help.*** Reliance on household budget surveys at five year intervals are too infrequent and too costly ways to monitor poverty and re-orient development. Instituting panel surveys to track the improvements in the livelihoods of the poor on a frequent basis would serve as a constant reminder about the effectiveness of the overall development strategy. Changing the business culture of the monitoring institution (MOPIC) by re-engineering to reward capacity and results appears to be key, in addition to several improvements in the process of indicator identification, collection, and dissemination to the public.

42. **Sharper analysis will require greater investment in data and tools.** The current study has built new data and tools to aid in the analysis of the impact of reforms on poverty for the first time for Yemen. An input-output table was updated, a social accounting matrix was constructed, and a full demand system was estimated. However, the use of the HBS data to map the origin of income by sectors to households in rural and urban areas has been problematic. The sharp rural-urban divide in poverty alleviation is not replicated well in the model. One household can derive income from several sectors and an individual can have many jobs. The allocation of time and income between different sources of employment is not gathered in the survey, preventing the precise allocation of income from sectors to households. Moreover, the treatment of the oil and gas sector in the input-output table and the allocation of trade and transport margins need greater accuracy. In future work and surveys, these deficiencies have to be more carefully scrutinized, and methods devised to capture flow of funds more accurately.

