

REPUBLIC OF YEMEN:
Comprehensive Development Review, PHASE I
Poverty and Social Safety Nets Building Block

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Middle East and North Africa Region
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This paper was prepared as part of a stock taking phase of the Comprehensive Development Review (CDR). It focuses on consolidating existing information rather than on analysis of issues and recommended policy changes. It is assumed that this later work is to be done in partnership with the government during the next stage of the CDR and during the process of integrating the various building blocks.

The first section summarizes the characteristics of the poor in Yemen in 1992 and proceeds to look at preliminary evidence of the trends in poverty from 1992 to 1998. These quantitative measures are then augmented with a description of the coping strategies of the poor. The second section classifies and describes the major social safety nets in Yemen. To the extent feasible, it then considers the efficacy of this safety net. The third section looks at (non-financial market) aspects of the pension system in greater detail. The fourth section considers some of the causes of poverty in Yemen. PREM indicators are provided in the annex. This building block does not tackle issues related to the incidence of public expenditures on the poor (an unresearched area), nor the impact of government policies and programs on poverty alleviation (this is presumably the eventual outcome of all the sectoral building blocks). Finally, this draft does not summarize the experiences and impact of donor projects focused on poverty alleviation.

It is worth mentioning up front the various initiatives in which the Government of Yemen is involved that relate to the formulation of a poverty strategy. A sampling includes:

Government initiatives:

- Five-year plan for the years 2001-2006 (constitutionally mandated)
- Vision 2020 paper (MOPD initiative)

Donor supported initiatives:

- Comprehensive Development Review (World Bank)
- National Human Development Strategy (UNDP supported)
- National Action Plan for Poverty Eradication (UNDP supported)

Donor required initiatives:

- Copenhagen Summit on Social Development, June 2001 (UN)
- Programme of Action, Third UN Conference on Least Developed Countries (UN)
- Poverty Strategy Reduction Paper (World Bank/International Monetary Fund)

Ensuring that these activities are well integrated and result in a single, coherent poverty reduction strategy is no small task for a government that is already stretched to its institutional capacity.

In particular, the National Action Plan for Poverty Eradication (NAPPE) for which the UNDP is providing assistance to the government aims to “provide a blueprint for concrete anti-poverty actions and measures of intervention, and also raise public awareness and political commitment about the poverty challenges Yemen faces.”¹ The targets of the NAPPE are to:

¹ Al-Saquor, M. *The Role of the National Action Plan for Poverty Eradication in Tackling the Poverty Problem in Yemen*, National Poverty Alleviation and Employment Generation Programme, UNDP, October, 1999.

- eradicate food poverty (ultra-poor), affecting about 17 percent of the population,² in the short term;
- reduce by 25 to 50 percent the incidence of poverty in Yemen in the medium term (5-10 years); and
- tackle the structural causes of poverty in the long term (10-15 years).

I. Poverty

A. Poverty in 1992

The World Bank's *Poverty Assessment* (1996) used data from the 1992 Household Budget Survey (HBS-92). This was the first systematic look at poverty in Yemen, and it has been used as the benchmark by other studies. The following summarizes the characteristics of the poor in 1992 as described in the *Poverty Assessment*.

Extent and Depth. In 1992, an estimated 19 percent of the population lived in poverty; 2.6 million people had insufficient resources to meet their basic food and non-food requirements. The share of the population in absolute poverty – with total expenditures insufficient to meet their basic foods needs – was 9 percent. The average upper poverty line was 9,134 YR per year per capita (US\$203 at the exchange rates prevailing at that time). The lower poverty line was 6,341 YR (US\$142) per capita.³

Though the poor comprised almost one-fifth of the population, they consumed only 6 percent of the total private expenditures in Yemen. The richest 20 percent of the population consumed almost half of all expenditures. Inequality in Yemen was average for a low income country and for the Middle East and North Africa region as measured by its Gini coefficient of 0.39.

Sectoral and Regional Comparison of Poverty. In 1992, poverty was primarily a rural phenomenon – 81 percent of all poor and 83 percent of the absolute poor lived in rural locations. The rural poor's average expenditure per capita was 31 percent below the rural poverty line compared to the urban poor's average expenditure which was 27 percent below the urban poverty line. About 43 percent of all poor lived in three governorates (Sana'a governorate, Taiz, and Ibb which had 40 percent of the population) and an additional 28 percent lived in Dhamar, Hodeida, and Hadramout (22 percent of the population).

Looking at measures of the concentration of poverty within governorates (rather than the distribution across governorates), the headcount index measure the number of

² No source or reference was provided for the citation of 17 percent of the population as food poor. This would be an enormous increase over the 9 percent food poor in 1992; and a far larger share of the total poor that were below the food poverty line (67 percent based on this figure for 1998 v. 47 percent in 1992).

³ The lower (food) poverty line is equivalent to the amount of money needed to purchase 2200 calories. The upper poverty line is the lower poverty line plus a nonfood component. The equation used for calculating the higher poverty line was $UPL = LPL * (2 - x)$ where x is the share of food in total expenditures of individuals with total mean expenditures equal to the lower poverty line. For more details on the data and method of calculations, refer to the *Poverty Assessment*, 1996, Annex 1.

people in a particular areas with expenditures equal to or below the poverty line. In Yemen, the highest concentration of poverty as measured by the headcount index was in the rural area in the governorates of Dhamar, Al-Beida, and Mahwit, where almost one-third of the population was poor. The governorates which border Saudi Arabia, such as Al-Jawf, Saada and Shabwa had the lowest concentration of poverty at less than 7 percent of the population living in poverty.

The headcount index does not measure the depth of poverty. A person with expenditures slightly below the poverty line is weighted equally with a person with much lower expenditures. The poverty gap index measures the depth of poverty. It is the additional money that the average poor person would have to spend to reach the poverty line, expresses as a percentage of the poverty line. For example, a poverty gap of 10 percent indicates that the average poor person's expenditures are 90 percent of the poverty line. This indicator shows that poverty was more severe in rural areas and in the governorates of Dhamar, Al-Mahwit and Sana'a.⁴ The squared poverty gap index measure the severity of poverty as well. This index shows that poverty is most severe in rural areas and in the governorates of Dhamar, Al-Mahwit, and Hadramout (see table 1).

Table 1: Regional Poverty Indicators, 1992

<i>Governorate</i>	<i>% of Pop</i>	<i>Distribution of poor (%)</i>	<i>Avg Exp of the poor yr/person/yr</i>	<i>Headcount Index (%)</i>	<i>Poverty Gap Index (%)</i>	<i>Squared Poverty Gap Index (%)</i>
Ibb	12.1	12.2	5,969	19.1	5.0	2.0
Abyan	2.6	2.0	6,718	14.7	3.5	1.4
Sana'a City	6.5	3.7	8,745	10.9	2.6	1.1
Al-Beida	3.2	5.6	9,169	33.2	7.5	2.6
Taiz	14.0	13.5	6,608	18.4	5.7	2.5
Al-Jawf	1.1	<.1	9,439	0.3	0.1	0.0
Hajjah	8.5	4.4	8,125	10.0	2.2	0.7
Hodeidah	10.7	10.1	6,319	18.0	4.4	1.7
Hadramout	4.9	5.7	5,582	21.9	8.1	4.5
Dhamar	6.8	11.9	5,350	33.6	13.0	7.0
Shabwa	2.4	0.9	7,560	7.1	1.3	0.3
Saadah	3.3	0.6	7,726	3.8	0.4	0.1
Sana'a Gov	12.7	17.5	5,784	26.2	8.7	3.9
Aden	3.0	2.8	5,628	17.8	6.0	2.9
Lahej	4.1	3.7	7,179	17.2	5.1	2.3
Marib	1.1	0.7	7,832	12.5	3.6	1.2
Al-Mahwit	2.6	4.3	5,607	32.0	11.3	5.8
Al-Mahara	0.4	0.4	11,508	17.9	3.4	0.9
Yemen	100.0	100.0	6,435	19.1	5.7	2.6

Source: Poverty Assessment

Education. Poor persons were less likely to be literate than the nonpoor in Yemen. Sixty-six percent of the poor were illiterate compared to 59 percent of the nonpoor.

⁴ The poverty gap index presented in the Poverty Assessment seems inconsistent with the tables provided and the statement that average expenditures of the poor in rural and urban areas were 31 percent and 27 percent below the poverty line. The calculation of this 1992 index should be verified. However, this paper assumes its accuracy.

However, the correlation between education and poverty was much weaker than between education and sex. For example, illiteracy among poor and nonpoor adult women was in excess of 80 percent, whereas among poor and nonpoor males the shares were 44 percent and 34 percent respectively.

Labor Force Issues. The labor force participation rate for both poor and nonpoor males was 53 percent.⁵ Labor force participation rates did differ among the poor and the nonpoor during youth and at older ages. Poor men join the labor force sooner and had higher participation rates in later years. Women's participation rates were low for both poor and nonpoor at 18 percent.

In 1992, the unemployment rate among 18 to 60 year olds was 7 percent, of which slightly over one-third were first time job seekers. An estimated 9 percent of the poor were unemployed compared to 7 percent of the nonpoor. The unemployment rate among the nonpoor young adults exceeded that of the poor, which may indicated that the nonpoor could afford to search longer for jobs they felt were appropriate.

Household Characteristics. Of a variety of household characteristics, those which differed significantly by expenditure group were: (i) literacy of female spouses and male heads of household; (ii) average household size; and (iii) average number of under-18 years olds in the household. The poor had on average, 8.5 persons per household with the nonpoor having only 6.9. In poor households, 5.2 members were under age 18 while in nonpoor families only 4.2. Literacy rates for male heads of households in nonpoor families was 57 percent; for the poor this rate was only 44 percent. Similarly 11 percent of the nonpoor female spouses were literate while only 6 percent of the poor.

On the other hand, the poor and nonpoor had about the same number of average income earners in the household (1.6) and the same share of 6-16 years olds employed (3 percent). There were no significant differences in the share of total expenditures on food (59 percent), the share of total expenditures on qat and tobacco (12 percent), or the share of children aged 6 to 18 in school (25 percent for girls, 55 percent for boys).

B. Trends 1992-1998

A household budget survey was conducted in 1998 (HBS-98) with the assistance of a Japanese Grant supervised by the World Bank.⁶ UNDP is also involved through assistance to a "Poverty Information Monitoring System" (PIMS) located within the Central Statistics Office.⁷ The World Bank has yet to obtain access to the full database. However, a number of reports and publications have summarized the data (see references). This section is based on these publications. Full access to the data will

⁵ Labor force is defined as the share of the population between the ages of 18 and 60 who are either employed or unemployed and seeking a job.

⁶ The survey was conducted over four rounds with 3,780 households in each round. Details on the sampling framework are found in *Summary of Final Results HH Budget Survey*, CSO, 1998.

⁷ The name, however, is somewhat deceptive. Till now, the PIMS unit seems to focus on the collection and analysis of survey data (e.g., the household survey) rather than on assessment and monitoring of the impact of various government programs and policies designed to have an anti-poverty impact.

allow a more systemic review and ensure comparability of the inter-temporal poverty results. Until then, information in this section should be viewed as provisional.

Trends in the Headcount Poverty Index

Using HBS-98 data, table 2 summarizes poverty trends using four different methods. The first two methods are based on CPI updates of the poverty line used in the World Bank *Poverty Assessment*. The first method uses the same CPI for urban and rural areas; the second uses the different urban and rural CPIs. The second method is consistent with that used by the PIMS unit.⁸ However, it may overestimate rural housing costs and thus rural poverty.⁹ To attempt to account for overestimates of rural housing costs, the third method uses different urban and rural CPIs but excludes imputed housing costs. The fourth method uses a social norm poverty line. This line was derived from asking the poor during a participative poverty survey (see Section D: Coping Strategies of the Poor) about their own estimates of what they need to survive. This poverty line reflects what the poorest income-decile think they need to survive. It has the advantage of avoiding outside judgments of what the poor need to survive.

Table 2: Poverty Head Count in Yemen 1992 & 1998

<i>Data source</i>	<i>Urban (%)</i>	<i>Rural (%)</i>	<i>Total (%)</i>
HBS-1992; WB Poverty Assessment	18.6	19.2	19.1
HBS- 1998			
(1) CPI Updated Line 1992	21.8	23.2	22.4
(2) Poverty Information Monitoring Study (different urban and rural CPIs)	20.3	26.9	25.4
(3) PIMS method with adjusted housing costs		24.7	23.8
(4) Social norm poverty line	21.3	25.1	24.8
Increase in Poverty from 1992 to 1998	1.7 to 3.2	4.0 to 7.7	3.3 to 6.3
Increase in Poverty from 1992 to 1998 (based on average of a-d)	+ 2.5	+ 5.8	+ 5.0

Source: derived from Mitchell (1999b)

Despite the variations in results among different methods the overall trend is a sharp increase in poverty. With a population estimated at just over 17 million in 1998, this means that a total of somewhere in the order of 3.8 million to 4.3 million people in Yemen live in poverty. The increased poverty headcount, combined with the very rapid population growth, results in an increase in the absolute number of people living in poverty in 1998 of somewhere between 44 percent and 63 percent compared to the 2.6 million poor people in 1992.

Trends in Inequality

Similarly to 1992, in 1998 the poorest 20 percent of the population consumed about 6 percent of the total private expenditures in Yemen, and the richest 20 percent of the

⁸ The PIMS per person poverty line for 1998 was 2,500 per month per capita, about \$220 per year at the then prevailing exchange rates, compared to the upper poverty line in 1992 of \$203.

⁹ Rural housing costs are likely to be overstated since the rural housing market in Yemen is very thin and probably at the upper end. On the other hand, the estimated urban poverty is lower than the estimate from a straight CPI adjustment of the 1992 poverty line.

population consumed almost half of all expenditures. Nonetheless, the Gini coefficient increased from 0.39 in 1992 to 0.43 in 1998. This is consistent with common perception that there has been a contraction in the size of the middle class in Yemen.

A definitive look at trends in poverty and the current characteristics of the poor will require a full analysis of the complete HBS-98. Such analysis could also prove useful to test some of the hypotheses that have been put forward (often as facts) in a variety of reports and studies but that generally have not been substantiated. Some of these statements include:

- Government sector employees have higher incidence of poverty than private sector employees. In 1992, the public sector employed a significant 26 percent of the labor force. Thirteen percent of all public sector employees fell below the poverty line, as compared to 19 percent of private sector employees. This proportion, however, is certainly to have increased with the sharp decline in real wages of 69 percent during 1991-1994.
- There continues to be a weak correlation between poverty and unemployment which indicates that poverty may be more from low wages than from unemployment.

[ADD OTHER STATEMENTS FOUND IN DIFFERENT REPORTS]

C. International Comparisons

Poverty in Yemen is higher than in other Middle East and North African countries. [UPDATE: For example, the share of the population living in poverty in Egypt and Iran is 6 percent and 9 percent for 1990. Algeria, Tunisia and Morocco each had less than 3 percent of their population living in poverty.¹⁰] In Jordan, using its official poverty line for 1997, just less than 12 percent of the population was poor. Looking at regional averages, Yemen has a higher portion of its population living in poverty than countries in East Asia and the Pacific and Latin American and the Caribbean. It had a lower level of poverty than South Asia and Sub-Saharan Africa (see table 3).

Table 3: International Comparisons Headcount Index

<i>Regions</i>	<i>% of pop covered by at least one survey</i>	<i>Headcount Index % Poverty Line US\$ 1/day</i>				
		<i>1987</i>	<i>1990</i>	<i>1993</i>	<i>1996</i>	<i>1998 e</i>
East Asia and the Pacific	90.8	26.6	27.6	25.2	14.9	15.3
E Europe and Central Asia	81.7	0.2	1.6	4.0	5.1	5.1
LAC	88.0	15.3	16.8	15.3	15.6	15.6
South Asia	97.9	44.9	44.0	42.4	42.3	40.0
Sub-Saharan Africa	72.9	46.6	47.7	49.7	48.5	46.3
YEMEN				19.1		24.1

For detailed methodology, see Chen and Ravallion (forthcoming) "Global Poverty Measures 1987-1998 and Projections for the Future". Washington D.C. World Bank. Yemen data for 1998 is mean number of the Headcount Index provided in table 2, and figure in 1993 column is for 1992.

¹⁰ Using a \$1 per capita per day in 1985 purchasing power parity for the countries mentioned other than Yemen.

Inequality is slightly higher than average for the Middle East and North Africa Region, and it is slightly lower than for its low-income comparator countries (see tables 4 and 5).

Table 4: International Comparisons Share of Income of Poorest and Richest 20 % of the population

<i>Country</i>	<i>Lowest 20%</i>	<i>Highest 20%</i>	<i>Country</i>	<i>Lowest 20%</i>	<i>Highest 20%</i>
High Inequality			Comparators		
Brazil	2.5	64.2	Bangladesh	9.4	37.9
Colombia	3.1	61.5	Burundi	5.5	55.0
Guatemala	2.1	63.0	Ethiopia	7.1	47.7
Panama	2.3	60.4	Guinea-Bissau	2.1	58.9
Paraguay	2.3	62.4	Kenya	5.0	50.2
Avg.	2.46	62.3	Madagascar	5.1	52.1
Low Inequality			Mali	4.6	56.2
Austria	10.4	33.3	Nepal	7.6	44.8
Czech Republic	10.5	37.4	Niger	2.6	53.3
Finland	10.0	35.8	Nigeria	4.0	49.4
Norway	10.0	35.3	Rwanda	9.7	39.1
Slovak Republic	11.9	31.4	Sierra Leone	1.1	63.4
Avg.	10.6	34.6	Uganda	6.6	46.1
MENA			Yemen 98	6.0	48.8
Algeria	7.0	42.6	Zambia	4.2	54.8
Egypt	8.7	41.1	Avg.	5.4	50.5
Jordan	5.9	50.1			
Morocco	6.6	46.3	Yemen HBS-92	6.1	46.1
Tunisia	5.9	46.3	Yemen HBS-98	6.0	48.8
Yemen - 98	6.0	48.8			
Avg.	6.7	45.9			

Comparator countries are those identified in the Country Assistance Review for which data are available.
Source: Latest available survey year. Source: World Bank, World Development Indicators, 1999.

Table 5: International Comparisons, Gini Index

<i>Country</i>	<i>Gini</i>	<i>Country</i>	<i>Gini</i>
High Inequality		Comparators	
Brazil	60.1	Bangladesh	28.3
Colombia	57.2	Burundi	48.2
Guatemala	59.6	Ethiopia	40.0
Panama	57.1	Guinea-Bissau	56.2
Paraguay	59.1	Kenya	44.5
Avg.	58.6	Madagascar	46.0
Low Inequality		Mali	50.5
Austria	23.1	Nepal	36.7
Czech Republic	26.6	Niger	50.5
Finland	25.6	Nigeria	45.0
Norway	25.2	Rwanda	28.9
Slovak Republic	29.2	Sierra Leone	62.9
Avg.	25.9	Uganda	39.2
MENA		Yemen 98	43.0
Algeria	35.3	Zambia	49.8
Egypt	32.0	Avg.	44.6
Jordan	43.4		
Morocco	39.2	Yemen HBS-92	39.5
Tunisia	40.2	Yemen HBS-98	43.0
Yemen 98	43.0		
Avg.	38.9		

Source: World Bank, World Development Indicators, 1999.

D. Coping Strategies of the Poor

A participative poverty survey was carried out in May to June 1998 to better understand the coping strategies of the poor.¹¹ The survey of 500 households covered all but two of Yemen's governorates (Shabwa and Al-Jawf were excluded). Reflecting Yemen's urban-rural breakdown, 30 percent of the sample was drawn from urban areas with the remaining 70 percent from rural areas. The target population was households with one or more of the following characteristics:

- head of household unemployed or underemployed;
- households either landless or with small holdings with low potential;
- households with more than seven members ; and/or
- monthly household income less than 5,000 YR per month.

To place the last criteria in perspective, the PIMS unit uses a poverty line of 2,500 YR per month per household member. Thus, for a reference family of three adults and four children, the poverty line would be about 20,000 YR. The target population for this survey was surviving at levels significantly below the poverty line. This was verified by survey results – when the households were asked what they would do with 5,000 YR additional per month, 85 percent indicated that they would spend the entire additional amount on food.

The mean household size of the sample was 12.7 (12.5 in urban areas and 12.8 in rural areas), and almost 29 percent of households had over 15 members. Thirteen percent of the households had no employed member while 80 percent of households had one employed member.

Households were asked to estimate their immediate income requirements for the month. Almost 60 percent indicated they needed 20,000 YR a month to survive, a figure close to the PIMS poverty line.¹² With this large gap between actual incomes and the immediate income requirements of these households, the obvious question is how do these families survive. To answer this, the survey collected information on cash and non-cash sources of assistance.

The Role of Charitable Assistance

Only about 20 percent of the households indicated that they received non-cash and/or non-repayable assistance. This means that of the poor that were sampled (a sample at the lowest income level), 80 percent did not benefit from the government's formal safety net program nor from assistance provided by various charitable associations. Only eight percent of those sampled benefited from Ministry of Social

¹¹ This was part of the package of activities including the household survey and the pension reform work that was supported by a Japanese Grant.

¹² This information on the own estimates by the poor of what they need to survive was used to construct the Social Norm Poverty line discussed in the previous section.

Affairs programs. An almost equal number (seven percent) benefited from assistance provided by private charitable organizations. Just over four percent of those surveyed participated in a “savings club;” consequently, the majority lacked any organized group support mechanisms. As summarized in table 6, the other forms on non-cash/non-repayable income came from retailers, relatives and neighbors, private contributions (zakat and sataqa), sheiks, and begging.

Table 6: Sources of Non-Cash or Non-Repayable Assistance

<i>Source of Assistance</i>	<i>% of Males</i>	<i>% of Female</i>	<i>% of Total</i>
Retail traders	60.9	29.1	36.3
Relatives and Neighbors	4.3	36.7	29.4
MOSA programs	13.0	6.3	7.8
Private Charitable Associations	13.0	5.1	6.9
Good-will (*)	4.3	6.3	5.9
Sheiks	4.3	3.8	3.9
Begging	0.0	12.7	9.8
Total	100.0	100.0	100.0

(*) People providing assistance on an *ad hoc* basis or during religious occasions.

Total number of respondents receiving assistance: 23 men and 79 women.

Source: Khuri-Tubbeh, 1999.

The Role of Consumption Credit

With so few relying on non-cash/non-repayable assistance, attention now turns to loans. Almost half the participants indicated that they were in debt. The debt levels ranged from less than 20,000 YR (60 percent) to over 100,000 YR (9 percent) (see table 7). Gender differences in borrowing were evident. Women tended to borrow more often and for smaller amounts (1,000 to 1,800 YR per month to buy food and other essentials). Men tended to borrow for micro-investments.

Table 7: Debt Levels of Poor Families

<i>Amount borrowed</i>	<i>% of Males</i>	<i>% of Females</i>	<i>% of Total</i>
Less than 20,000	39.6	71.2	59.1
20,000 - 40,000	16.8	11.0	13.3
40,000 - 60,000	10.9	5.5	7.6
60,000 - 80,000	3.0	3.1	3.0
80,000 - 100,000	10.9	6.1	8.0
More than 100,000	18.8	3.1	9.1
Total	100.0	100.0	100.0

Number of respondents 101 men, 163 women, 264 total

Source: Mitchell (1999b)

Not surprising, with 40 percent of those who borrow carrying debts more than four times their household’s monthly income, these resource constrained households had limited capacity to repay debt. Only about 20 percent of those that have borrowed have fully repaid their debts; an additional 15 percent have partially repaid.

Focus group discussions revealed that unpaid or partly paid debts were generally part of a running line of credit to retail traders. Debts to family and neighbors were usually smaller and tended to be re-paid quickly. Table 8 summarizes the different sources of borrowing. Field work suggests that as an increasing number of families in rural communities have moved into poverty, and their debts to traders have mounted. This may be placing considerable pressure on the ability of traders to continue their intermediate role (neither formal nor informal) in credit provision in Yemen.

Table 8: Sources of Borrowing by Poor Families

<i>Source of borrowing</i>	<i>% of Males</i>	<i>% of Females</i>	<i>% of Total</i>
Relatives & neighbors	40.0	52.4	47.6
Retail/traders	41.0	42.3	41.8
Bank	13.3	2.4	6.6
Employer	4.8	1.2	2.6
Sheikh	1.0	1.8	1.5
Total	100.0	100.0	100.0

Number of respondents 105 men, 168 women, 273 total

Source: Mitchell (1999b)

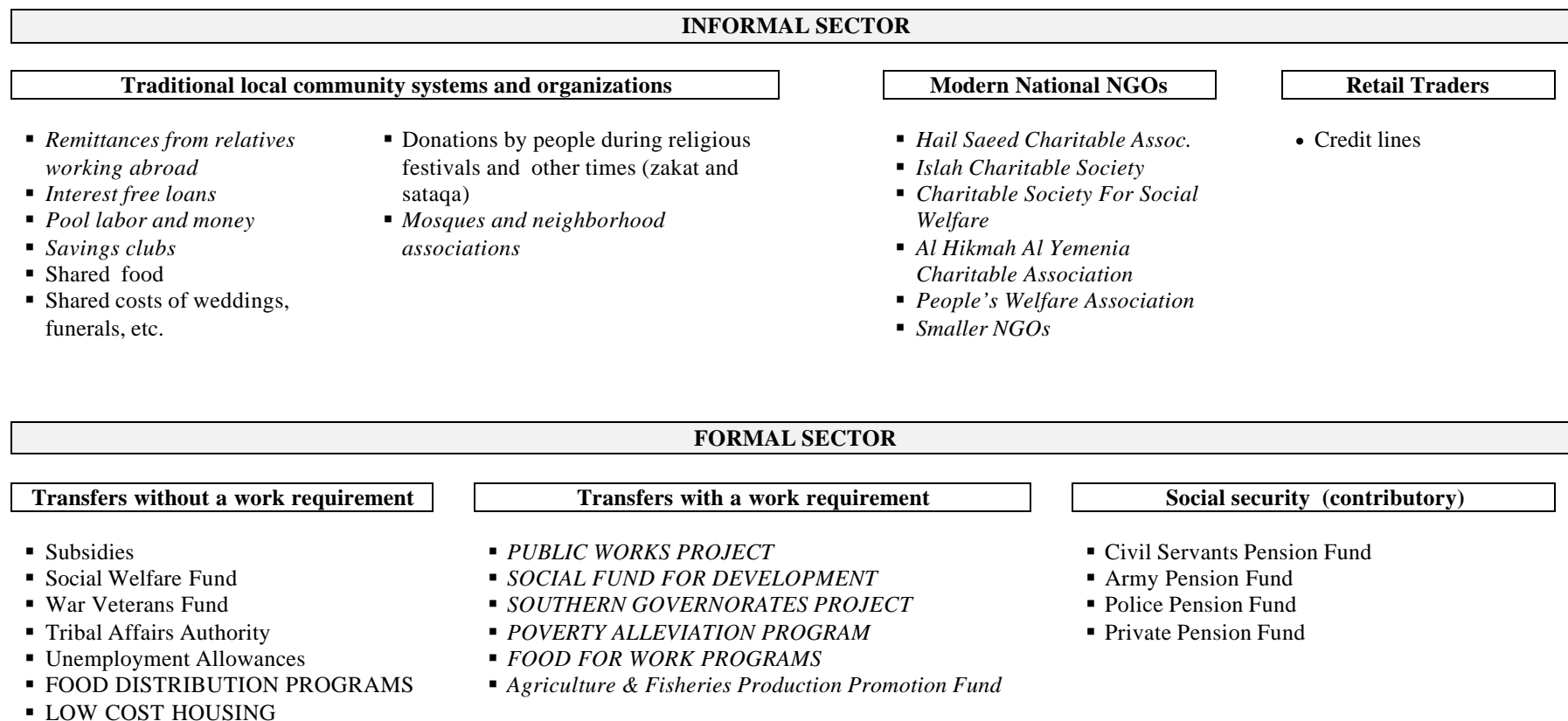
II. Social Safety Nets

Building on the descriptions provided in the participative poverty survey, this section first provides a classification of Yemen's social safety net. To the extent that information is available, it then provides a preliminary assessment of the impact and reach of some of the main elements. Later stages of the CDR exercise should examine each aspect of the safety net, examine its reach and effectiveness, determine areas of overlap, and identify unreached groups. It should also integrate information on donor supported projects into the framework.

A. Categorization of the Safety Net

Figure 1 depicts the prevailing formal and informal social safety net system in Yemen. A variety of informal sharing arrangements within and between households exist. These combine with charitable associations, community organizations, and traders offering credit to form the informal safety net (for more information, see the Civil Society Building Block). The formal safety net is classified in three categories: transfers without a work requirement, transfers with a work requirement, and the social security program for formal sector workers. Annex A provides a summary description of the elements presented in the figure 1.

Figure 1: Structure of the Social Safety Net



[table to be augmented with additional elements]

CAPITAL LETTERS: DONOR SUPPORTED PROJECTS

Italics: In addition to being part of the immediate safety net, also supports medium-term development activities

B. Reach of the Social Safety Net

Assessing the impact of Yemen's safety net is difficult due to a lack of data. Further, many of the administering offices do not collect information on beneficiary profiles. So even when information on the magnitude of transfers is available, it is difficult to assess their distributional impact. However, details on some of the major programs are provided below.

Informal Safety Net

While the importance and reach of Yemen's informal safety net could not be quantified for this report, when the HBS-98 data become available it should be possible to assess some of its major components. At the country-wide level, the average family receives about 1,330 YR per month from cash transfers from abroad. Cash transfers from relatives, neighbors and other local sources increase the income of the average family by about 775 YR per month, while gifts in kind are valued at 735 YR per month. Zakat increases family income, on average, by 150 YR per month. To put this in perspective, the average income from pensions is 236 YR per month per family – most likely because the coverage of the pension system is much more limited (formal sector and age) than the informal networks which touch most of the population. There are differences in the importance of these transfers in urban and rural areas. Urban families, on average, received 4.1 more times from pensions and 2.5 more from zakat. The difference was less pronounced for cash transfers from abroad, from neighbors and families, and from in-kind gifts, where urban families received 1.5, 1.3, and 1.1 times more, respectively, than rural families (see table 9).

Table 9: Average Monthly Income from Key Components of the Informal Safety Net

<i>Income sources</i>	YR per month per family, 1998			
	<i>Urban</i>	<i>Rural</i>	<i>Countrywide</i>	<i>Urban:Rural Ratio</i>
<i>Pensions – formal sector</i>	568	137	236	4.1
Cash transfers (abroad)	1,588	1,258	1,334	1.3
Cash transfers (local)	1,049	693	775	1.5
Gifts in-kind	808	713	735	1.1
Zakat	278	112	150	2.5
Inheritance	219	107	133	2.0
Dowry	113	184	168	0.6
<i>Total income all sources</i>	36,988	26,654	29,035	1.4

Source: HBS-98

When HBS-98 data are available, it should be possible to gauge the level of support these informal channels provide to the poor and near-poor, and to judge the extent to which these sources of income are key to survival. The current aggregate figures provide only a broad sense that in absolute terms the magnitude of these transfers is significant. For example, in aggregate, cash transfers from abroad increased family income by 38

billion YR;¹³ cash transfers from domestic sources amounted to an additional 22 billion YR, and gifts in kind were valued at over 21 billion YR. This compares to total budget for the Social Welfare Fund in 1998 of only 2.4 billion YR (7.7 billion YR in 2000).

Charitable Associations. There is no systematic information available about the reach of charitable associations. During Ramadan this year, Islah Charitable Society (ICS) provided assistance to over 155,000 families (over 1 million people) for a total of 214.2 million YR (about 1,375 YR per family). As a broad estimate, assuming that half of the assistance from Charitable Associations is delivered during Ramadan, and that ICS delivers about one-sixth of this assistance, the contribution through this channel would amount to around 2.5 billion YR. This is about equivalent to the amount channeled through the government's SWF in 1998, or one-third of the amount that the government expects to channel through the SWF in 2000.¹⁴ Although these estimates are extremely rough, it does indicate that charitable associations play an important role in transferring resources. Further, given that they tend to be closer to the community than government agencies, they may also be more effective in reaching the poor.

Formal Safety Net

Subsidies. During much of the 1990s, a universal food subsidy on wheat and wheat flour was the principal component of the government's social safety net. There were also significant subsidies on petroleum products. These subsidies were costly at 7.9 percent of GDP for wheat and flour and 5.3 percent of GDP for petroleum products in 1996. This was very high compared to other food subsidies in the MENA region (see table 10). However, as described in table 11, subsidies have been phased out. In May 1999, the last subsidies on food products were removed. In terms of petroleum products, there are still small subsidies on kerosene and mazot (expected to be removed in the first quarter of this year) and gas. The subsidy on diesel remains large (priced at about 60 percent of world prices), but it is cross-subsidized by petrol.

Table 10: Food Subsidy Expenditure in MENA as a % of GDP during 1989-99

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 _p
Algeria ¹	2.9	4.3	4.7	3.3	1.8	2.1	0.9	0.0	0.0	0.0	0.0
Egypt ²	3.7	4.4	4.4	5.1	2.0	1.5	1.3	n.a.	1.7	n.a.	n.a.
Iran ²							2.9	n.a.	n.a.	n.a.	n.a.
Jordan ¹		3.4	1.7	1.5	1.2	1.2	1.4	1.2	1.0	0.7	0.3
Morocco			1.3	1.3	1.3	1.5	1.7	1.8	1.6	1.7	1.7
Tunisia	2.8	2.4	1.9	1.9	1.9	1.8	2.1	2.3	1.8	1.5	1.2
Yemen ³				3.7	4.8	5.1	4.9	7.9	5.2	3.6	0.3

1/ Algeria and Jordan began eliminating food subsidies gradually in 1993 and 1994 respectively.

2/ Egypt and Iran data are reported for fiscal years ending March 20.

3/ Implicit costs of Yemen's subsidy were 36% of budget and 10.6% of GDP in 1995. However since 1998 they have been reduced to 3.6% of GDP and in 1999 there are expected to reach only about 0.3% of GDP.

Source: *Regional Consumer Food Subsidy Report*

¹³ National accounts show approximately 175 billion YR of private remittances and transfers in 1998.

¹⁴ These estimates are *ad hoc* and tentative. Additional information needs to be collected to refine the estimates. See also the Civil Society Building Block for more information on Charitable Associations.

Table 11: Removal of Subsidies

	Food Products			Petroleum and Gas Products				
	<i>Wheat</i> 50 kg sack	<i>Flour</i> 50 kg sack	<i>Other Food</i>	<i>Petroleum</i> <i>Liter</i>	<i>Diesel</i> <i>Liter</i>	<i>Kerosene</i> <i>Liter</i>	<i>Mazot</i> <i>Liter</i>	<i>LPG</i> <i>Bottle</i>
Mar 1995 to Dec 1995			Eliminate all subsidies on rice, milk, sugar, medicine	100% increase 6 to 12 YR		For planes – to int'l price at exchange rate of 50 YR/\$	73% increase 1.73 to 3 YR	60% increase 50 to 80 YR
Jan 1996 to Jun 1997				58% increase 12 to 19 YR	100% increase 3 to 6 YR	133% increase 3 to 7 YR	133% increase 3 to 7 YR	20% increase 100 to 120 YR
	Exchange rate 30 YR/\$ and gradually floated to market rate over the next year			Unified Exchange Rate (except wheat and flour) at 100 YR/\$				
Jul 1997 to May 1998	15% increase 670 to 770 YR	11% increase 890 to 900 YR		32% increase 19 to 25 YR		86% increase 7 to 13 YR	36% increase 7 to 11 YR	
Jun 1998 to Dec 1998	30% increase 770 to 1000 YR	28% increase 900 to 1150 YR		40% increase 25 to 35 YR		15% increase 13 to 15 YR		67% increase 120 to 200 YR
Jan 1999 to Dec 1999	25% increase 1000 to 1250 YR	17% increase 1150 to 1350 YR						
Current Situation	As of May 1999, no remaining subsidies. Still paying accumulated arrears to importers			Cross subsidy on diesel	About 60% of international price	Subsidy to be removed in Q1 2000	Subsidy to be removed in Q1 2000	Small subsidy

Despite the cost, the wheat and flour subsidy scheme failed to target the poor effectively. Based on World Bank estimates, only one-third of total subsidies actually reached consumers in 1996. The border price differentials for wheat in neighboring countries provides incentives for smuggling; moreover, the complex and multi-stage distribution process subject to price-regulation generated multiple opportunities for traders to earn profits on diverted official wheat supplies. Further, because of universal coverage, greater consumption of wheat and flour by higher income groups translated into a subsidy incidence that favored the rich in absolute terms. The poorest 20 percent of the population accounted for only 6.4 percent of total aggregate household expenditure on wheat and flour while the richest 10 percent accounted for 30.7 percent (see table 12).

Table 12: HH Expenditures and Benefits from Wheat and Flour Subsidies By Income Group, 1992

Share of Total Expenditure (%)				
<i>Decile</i>	<i>Wheat Expenditure</i>	<i>Flour Expenditure</i>	<i>Wheat and Flour Expenditure</i>	<i>% of HH Exp. on wheat and flour</i>
Poorest	2.5	2.4	4.9	2.5
Second	3.0	2.9	5.9	4.2
Third	1.9	3.2	5.1	5.0
Fourth	3.3	2.6	6.0	6.0
Fifth	2.9	3.0	5.9	7.2
Sixth	2.9	3.0	5.9	8.2
Seventh	2.8	2.7	5.5	9.6
Eighth	2.7	2.2	5.0	11.9
Ninth	3.0	2.5	5.5	14.7
Richest	3.0	2.0	4.9	30.7

Source: HBS-92.

Furthermore, in view of the enormous leakages to non-poor income groups, at best the subsidies only marginally targeted to the poor in relative terms. The poorest households spent a slightly higher share of total household expenditure on wheat and flour compared to higher income groups (see table 12). For each income decile, about five to six percent of expenditures were on wheat and flour. However, it is important to note that total spending on wheat and flour did not perfectly reflect a benefit from the subsidy since only about one-fifth of the domestic wheat supply was being sold at subsidized prices. Given relatively easier distribution in urban areas, it is likely that there was an urban bias, with few of the rural poor benefiting.

Social Welfare Fund. The Social Welfare Fund (SWF) is now the government's primary safety net. It provides a cash transfer of 700 YR per month to a one-member household, increasing by 200 YR per month for each additional household member up to a maximum of 1,500 per month. The target population consists of: (i) the disabled (defined to include the handicapped and elderly, men over 60 and women over 55); (ii) orphans; (iii) unsustained women (widowed, divorced, unsupported spinsters over 30); (iv) households whose head has disappeared; (v) households whose head is in prison or recently released; and (vi) the poor and indigent. For eligible categories, the law adds a clear income test, restricting aid only to households with permanent income no greater than the level of fund assistance. There is also an asset test that disqualifies households with income-generating properties.

The SWF has expanded over the past couple of years. It increased its case load from 290,000 families in 1998 by over 20 percent to 350,000 cases in 1999. In 2000 it is seeking a further increase of close to 30 percent to 450,000 families. Assuming: (i) an average of seven household members for each case; (ii) an estimated headcount index of 24.1 percent; and (iii) perfect targeting (everyone who benefits is poor); the SWF in 2000 would provide benefits to over 70 percent of the poor. Assessing the amount of resources being transferred against some hypothetically optimal poverty reduction program (the amount needed to provide every individual with a cash transfer exactly equal to the amount needed to bring that individual to the poverty line, assuming no administrative costs), the SWF plans to transfer over 90 percent of the resources needed to close the poverty gap (see table 13). To close the gap completely in 2000, a hypothetically optimal poverty reduction program would need about 8.4 billion YR, less than one percent of GDP.

Table 13: Reach of the Social Welfare Fund Relative to the Number of Poor

<i>Year</i>	<i>Headcount Index</i> ¹	<i>Population (000s)</i>	<i># of Poor (000s)</i>	<i>Poverty Line YR/month</i> ²	<i>Poverty Gap</i> ³	<i>Resources to Fill Gap (YR m)</i> ⁴
1998	24.1%	17,071	4,114	2,500	5.7%	7,035
1999	24.1%	17,676	4,260	2,625	5.7%	7,649
2000	24.1%	18,298	4,410	2,782	5.7%	8,393

<i>Year</i>	<i>SWF # Cases</i>	<i>SWF # Benefiting</i> ⁵ <i>(000s)</i>	<i>% of Poor Benefiting</i> ⁶	<i>SWF Total Transfers</i>	<i>Transfers as % of Resources</i> ⁷
1998	290,000	2,030	49.3%	2,382	33.9%
1999	350,000	2,450	57.5%	5,180	67.7%
2000	450,000	3,150	71.4%	7,670	91.4%

1/ Average of the different headcount indices calculated from the HBS-98 in table 2.

2/ PIMS poverty line from 1998, increasing with inflation rate for 1999 and 2000.

3/ Assumes same poverty gap as 1992; more recent information is not yet available.

4/ Calculated as the amount of money needed to provide each poor person with the exact amount to raise his income to the poverty line.

5/ Assumes 7 persons per family.

6/ Number benefiting/Number of Poor.

7/ SWF transfers/Resources to Fill Gap.

Source: SWF data, staff calculations, population census

However, the SWF is not the optimal poverty alleviation program. And the above figures are likely to far over-estimate the actual impact of the SWF. A rapid assessment of the SWF was carried out by the World Bank in 1998. It pointed to a number of operational problems:

- Geographic coverage of the SWF did not match either population distribution nor the distribution of the poor. Remote rural village were often left out. Urban centers, which have better transportation and access to information had better coverage. The SWF did not seem to reach to the poorest and most vulnerable. This is consistent with the participative poverty survey which found that in 1998, among the very low income group sampled, less than 10 percent received benefits.
- The method of selecting beneficiaries did not allow SWF staff to develop much knowledge of the applicants; hence it is quite feasible for persons to be included that do not fit the criteria but that obtain the necessary certificates from local sheiks.

- The application process was centralized, long and cumbersome. In 1998, from the time a governorate office submitted an application for a person they believe qualified, the first payment to that beneficiary would typically take between six months to one year.
- The level of cash assistance is very small for a family with limited other sources of income. Compare a poverty line for a family of seven of over 20,000 YR per month to the benefit of 1,500 Y per month. Further, since payments must be collected at the SWF office, distant beneficiaries often pay a middle-man to collect their entitlements.
- The cost of identifying and monitoring a beneficiary, which can total 1,400 YR in the first year in rural areas, is quite large in relation to the benefit payment.
- There is little follow-up once a beneficiary is on the roster as to whether or not s/he remains eligible and is actually receiving the benefit.

Overall, however, operating costs have been kept very low – in large part because there are a limited number of staff outside of Sana’a. In 1999, operating costs were only 4.5 percent. In 2000, they are expected to rise to 5.5 percent because of additional costs associated with identifying a large number of new beneficiaries.

The rapid assessment made a number of recommendations that focused on institutional capacity building. It also recommended piloting the involvement of charitable associations in the identification of beneficiaries and in supervision activities. However, it did not address the fundamental question of whether or not the SWF is the most effective use of government resources for poverty reduction. As the Government develops its poverty reduction strategy, it should consider the cost and benefits of the SWF relative to other anti-poverty interventions.

Social Security. There are three public pension funds and one private fund. The public funds cover civil servants and public enterprise employees, police, and military personnel. These funds all provide a minimum pension that serves as a safety net. They also provide disability and accidental death coverage. The private fund does not provide a minimum pension. Although participation is compulsory, the largest category of private sector workers in Yemen are self-employed, and their participation is negligible. Even among employees, participation rates are only about 30 percent. Further, many private employers do not make contributions for disability and accidental death coverage, and hence the employees are not eligible for these benefits. A more detailed discussion of the pension system is provided in the next section.

Summary of Assistance

Table 14 provides a summary of main elements of Yemen’s social safety net program. This table should be viewed with the following references numbers in mind: (i) poverty line of around 2,500 YR per month; and (ii) total resources needed for a hypothetically optimal poverty alleviation program to close the poverty gap about 8,400 million YR.

Table 14: Summary of Social Assistance and Social Security Programs

<i>Allowance, Grant</i>	<i>Beneficiaries (cases/families)</i>		<i>YR million</i>		
	<i>Number Est for 2000</i>	<i>RY/Mth</i>	<i>1998</i>	<i>1999</i>	<i>2000 budget</i>
Government Programs					
Social Welfare Fund	450,000	1,300 ¹	2,382	5,180	7,670
War Veterans Fund	29,000 ²	1,500	522	783	821
Tribal Commission Affairs	9,400 ²	6,000	564	644	683
Unemployment					147
Subsidies					
Basic Food Products	Non-targeted		20,200 ³	2,325 ³	0 ³
Oil Products	Non-targeted			2,964 ⁴	2,750 ⁴
Social Security Programs					
Payments to Beneficiaries					
Army Pension Fund	50,200 ⁵	10,000	3,706	5,048	6,020
Civil Service Pension Fund	37,902 ⁶	8,900 ⁷	3,854	4,060	4,538
Police Pension Fund	4,400 ⁵	10,000	458	503	522
Private Pension Fund	1,008 ⁸	4,600 ⁹	10 ¹⁰	56	163
Donor Supported Programs					
Public Works Project					
Social Fund for Development					
Southern Governorates					
Other Donor Projects					
General Welfare Societies					
Estimated total contributions					2,500 ¹¹
Informal Transfers HBS-98					
Cash from abroad			38,352		
Cash transfers			22,236		
Gifts in kind			21,216		
Dowry			4,896		
Zakat			4,284		
Inheritance			3,876		

1/ Minimum 700 YR per month, increasing by 200 YR for each additional family member up to 1,500 YR/ month.

2/ Government estimate of the number of beneficiaries.

3/ Not including payments to settle arrears to importers (about 11.1 billion YR in 1999 and 11 billion YR in 2000).

4/ Estimated net subsidy on petroleum products, taking into account the cross-subsidy on diesel from petroleum.

Diesel subsidy amounted to 15.75 billion YR in 1999 and 11.8 billion YR in 2000. There are also subsidies on gas, kerosene and mazot.

5/ For lack of any information, this estimate was based on assumption of an average pension of 10,000 YR per month, slightly above the civil service level.

6/ Number of beneficiaries in 1999.

7/ Minimum pension is 3,000 YR per month increased to 7,000 YR per month starting in January 2000.

8/ In 1999, 702 retirees also received lump sum buy-outs totaling 45 million YR.

9/ Forty-five percent of beneficiaries receive less than 2,000 YR per month.

10/ Prior to 1999, the private pension fund and the civil service pension fund were under one entity.

11/ Based on assumptions discussed in text; *ad hoc* estimation.

III. Pension Systems

Yemen has four main pension schemes for: (i) public sector employees (civil servants and public enterprise employees), (ii) the police, (iii) the armed forces, and (iv) private sector employees. All four pensions are pay-as-you go, defined contribution plans. Except for the private fund, the others provide a safety net component by setting a minimum pension. Because of Yemen's demographic and economic structure, all four schemes are characterized by a low rate of dependency (ratio of retirees to contributors) and large accumulated reserves.¹⁵ However, as discussed in a 1996 IMF analysis, these pension schemes face a number of problems:

- there are compliance problems;
- the base for determining contributions and determining benefits is narrow;
- the benefit structure which bases pension benefits on the last year of earnings provides incentives for employers to promote an employee prior to retirement;
- survivor benefits to future generations are extremely costly;
- investment strategies yield relatively low rates of return; and
- operating expenses are high.

Seeking to overcome some of these difficulties, in 1997 the public (civil service) and private pension funds were merged in an attempt to realize economies of scale and reduced overheads. Investments were gradually shifted to higher yielding Treasury Bills. And a team was set-up to draft a new pension law that would pay close attention to the benefits formula, coverage of dependents and the components of wages and salary included in the contributions base.

After two years of merged operation, administrative savings were not realized, and the financial affairs of the two funds, which were to remain separate, were not always kept at arms length. In May 1999, a decision was taken to split again the two pension funds. Although there have been three years of discussion, to date, no new pension law has been presented to Parliament. Versions that have been discussed at the technical level continue to present benefit structures that would be fiscally unsustainable.

A. Objectives and Parameters

Public sector scheme. All civil servants, public enterprise employees, and their administrative units are required to contribute to the public sector pension fund. The contribution is calculated on the basic salary of the employee, with the employee contributing six percent of their wage and the administrative unit contributing an

¹⁵ For the most part, the rest of the discussion on pensions refers to the civil service pension fund and the private pension fund. Very limited information is available on either the army or police pension funds. This is an area where additional research would be needed, but accessing the requisite information is likely to prove sensitive.

additional six percent plus one percent for accident insurance. In return for these mandated savings, the government provides the following benefits:

- a minimum (or safety net) pension for contributors of 15 years, currently valued at 4,000YR per month;¹⁶
- a defined benefit calculated on the basis of final basic salary and number of years of service; and
- disability/life insurance for employees and/or their survivors who have completed at least one month of employment in the form of a pension equal to the greater of the minimum pension or the defined benefit.

These basic parameters reflect two underlying policy aims: (i) to ensure a minimum income for retirees, the disabled or survivors; and (ii) to provide income replacement for longer term contributors.

Income replacement rates refer to the relationship between the wage at retirement and the level of pension which "replaces" the earned wage. This is usually expressed as a percentage of the retirement wage and varies with the length of service of the wage-earner. In Yemen, the replacement rate of the pension varies from 43 percent for the minimum eligible period of 15 years service up to 100 percent after 35 years of service (see table 15). These rates are high, even compared to industrialized economies.¹⁷

Table 15: Pension System Income Replaced Rates

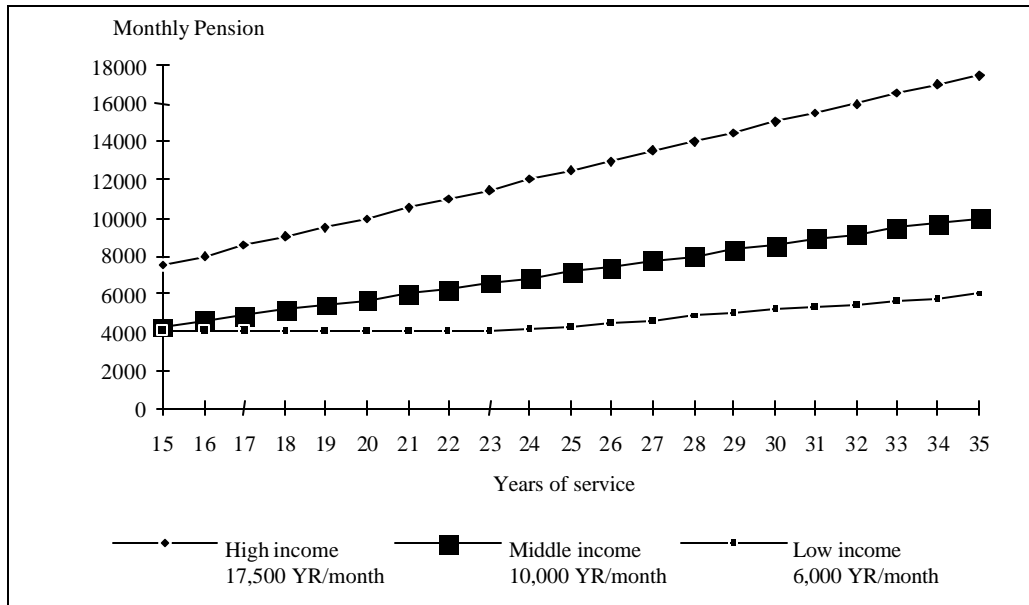
<i>Years of service</i>	<i>Replacement Rate (%)</i>	<i>Years of service</i>	<i>Replacement rate (%)</i>
<15	lump sum	25	71
15	43	26	74
16	46	27	77
17	49	28	80
18	51	29	83
19	54	30	86
20	57	31	89
21	60	32	91
22	63	33	94
23	66	34	97
24	69	35	100

¹⁶ In mid-January 2000, in an attempt to clear overdue retirees from the payroll, the minimum pension level was increased from 4,000 to 7,000 YR, and the definition of both the contributions and benefits base was changed to include some (yet unspecified) allowances. The minimum replacement rate has also been increased to 50 percent. The fiscal costs of these decisions has not analyzed and the rest of this section presents information according to the old benefit structure.

¹⁷ Replacement of actual income is much lower, since such a larger fraction of wages comes from allowances (see PSM building block). However, replacement rates are based on the contribution base.

Pensions also vary according to the last year's wage. Figure 2 shows the level of monthly pension received by wage-earners of different levels according to the years of service. The minimum pension rate of YR4,000 per month means that pensions received by employees on low wages are not differentiated whether they serve for 15 or 23 years. Even though middle income earners have contributed around 7,200 YR per year more than low income earners, after 20 years service this yields a pension which is only YR1,700 per month higher than low income earners.¹⁸

Figure 2: Indicative pensions by years of service, at different wage rates



Another aspect that effects the long-term viability of the pension fund is the extended coverage provided to the widow(s) and other dependents of the contributor. In the event of the decease of the retiree, these dependents continue to receive the pension entitlement until the spouse is deceased (or remarries) and, in the case of dependent children, until they have left education or become independent. Thus, rather than the period of entitlement covering some ten to fifteen years beyond the retirement age (as in the industrial economies), a contributor's pension may continue to be paid to the survivors for a further ten years or more. The implications of this are enormous. As described in box 1, under realistic assumptions, for a middle income earner, contributions will be exhausted in only nine years. Hence, extended survivor's benefits rapidly exacerbate the deficit position of the fund.

¹⁸ Again, with the change in the minimum pension, and the change in the base to include some (still undefined allowances), these figures will need to be recalculated.

Box 1: Case study of the pension of an average employee in the public sector.

A middle level civil servant in Yemen currently earns a base wage of about 120,000 YR per year. His annual contributions amount to: 7,200 YR own contribution and 10,800 YR employee contribution for a total of 18,000 YR. After 35 years of service, he can expect a pension equivalent to 100 percent of his last base salary.

How long does the employee's contributions cover their pension? This depends on the real investment return realized by the fund. The following presents three different scenarios, all assuming constant prices.

1% return. "Worst case" reflecting returns during the first half of the 1990s.

Employee contributions will amount to 750,000 YR. After 7 years, contributions are exhausted. After 10 years the deficit on the fund is 435,000 YR; after 20 years 1.7 million YR.

2.5% return. Close to the current situation in Yemen.

Employee contributions will amount to 990,000 YR. After 9 years, contributions are exhausted. After 15 years the deficit on the fund is 753,000 YR; and after 20 years 1.5 million YR.

5% return. "Best case" that the investment board should aim for over the long term.

Employee contributions will amount to 1.63 million YR. It takes 22 years of retirement, before the savings of the contributor are exhausted.

The final aspect of the fund's regulations that has a substantive impact on its effective functioning is the use of the final salary as the basis for calculating the pension. This aspect of the current defined benefit system results in pay-out levels which bear little relation to the accumulated contributions of the individual contributor. It also encourages adverse behavior by public sector managers who promote imminent retirees in order to boost their pension payment. To illustrate the impact of such behavior, table 16 shows the difference in the total contributions paid by two individuals and the number of years of pension which these contributions cover. In this example, employee "A" was at the lowest level, earning 72,000 YR per year. Contributions made by that employee and his employing agency totaled 10,800 YR per year. In the last year of employment, he is promoted to a middle wage position earning 120,000 YR per year. His contribution rises to 18,000 YR for that one year. By contrast, employee "B" has been employed at a middle wage for all of his working life, with annual contributions to the pension authority of 18,000 YR.

Table 16: A comparison of contributions and pension coverage

(1% interest rate, at constant prices)

<i>Years of Service</i>	<i>Annual Pension</i>	<i>Contributions</i>		<i>Years covered</i>	
		<i>Employee A</i>	<i>Employee B</i>	<i>Employee A</i>	<i>Employee B</i>
15	51,432	181,350	289,951	3.6	5.7
25	85,716	312,543	568,606	3.7	6.1
35	120,000	457,462	750,137	3.8	6.6

When these employees retire, they receive an identical pension. Apart from the inequitable outcome of the pension saving effort of these two employees, the actuarial impact on the pension fund is substantial. For example, assuming 35 years of service,

contributions by employee "A" will cover 3.8 years of retirement; contributions by employee B will cover 6.6 years of retirement.

Private sector fund. The basic parameters of the public sector scheme described above also apply to the private sector, with three major exceptions:

- the employee's contribution amounts to 6 percent of their wage and the employer's contribution amounts to 9 percent of the wage;
- there is no entitlement to a minimum (safety net) pension; and
- the disability/insurance component of the employer's contribution is often not paid and therefore some private sector employees are not covered in the event of disablement/decease.

B. Financial Position¹⁹

In the past short run flows have masked long run imbalances and the need for reform. However, finances are rapidly deteriorating and restructuring of the system is essential. Analysis by the IMF concluded that the bottom line for sustainability is that benefits will have to be cut; contributions can not be raised enough to finance existing benefits.²⁰ The public sector fund, which was expected to move into a deficit situation in 1999, avoided doing so largely because of a delay in public sector retrenchment plans and improved investment returns resulting from an increase in the proportion of Treasury Bills within the fund's portfolio mix. Nevertheless, these are temporary measures that will hold off the deficit position of the fund for only another year. Assuming public sector retrenchment plans commence in 2000, the fund's liabilities will exceed its income and investment earnings by 2004.

The private sector fund seems financially healthier with current cash surpluses averaging around 700 million YR per annum over the next few years and rising to 1,400 million YR per annum by 2006. The private fund is healthier because: (i) unlike the public fund, the private fund does not provide a minimum safety net for contributors; (ii) a sizeable proportion of small contributors are not claiming benefits to which they are entitled, hence the fund has substantial unclaimed reserves; and (iii) contributions are calculated on the full salary of the employee.

¹⁹ This section is based on an update (Mitchell 1999b) of the 1996 IMF report which made estimates of the current and future liabilities for both funds; projected contributions; and investment returns. These estimates do not reflect revisions to the salary base and the minimum pension that were introduced mid-January 2000. The Ministry of Civil Service is currently undertaking a study to calculate the cost of the amendments, and the IMF will be providing actuarial assistance to the Pension Authority for several months starting in late January 2000.

²⁰ The recent increase in minimum pension benefits and widening the base is not necessarily inconsistent. However, to be sustainable, this needs to be combined with measures to limit the benefit period and – in the case of the expanded base – budgetary financing to the pension authority to cover the costs of those who will now receive a pension on a wider base despite the fact that their contributions were largely on a narrow base. Budgetary financing is also needed because: (i) prior to 1982, in North Yemen there were no contributions paid to the pension authority, and (ii) contributions paid in the south prior to unification have not been appropriately attributed to the assets of the pension authority.

C. Investment Decisions

The investment portfolios of both the private and public sector funds have yielded low returns for most of this decade. The real rate of return on assets in both funds has, at best, averaged a little over six percent since the early 1990s. The high inflation levels experienced between 1992 and 1996, averaging just over 55 percent per year, led to negative growth in the funds returns up to 1997. As the mix of fund investment has shifted toward Treasury Bills, this situation is beginning to show improvement. However, the losses sustained over the first half of the 1990s will continue to have a significant impact on the public sector fund reserves well into this decade.

D. Compliance Issues

Public sector scheme. In the current system, a single payment is made by each administrative unit to the pension authority to cover its contributions for all employees on the payroll. Revenue collection from government ministries and agencies is currently affected by three related problems:

- inability of the pension authority to identify individual contributors
- perceived non-compliance of Ministries/Agencies in transferring the appropriate amount to the pension authority; and
- transferring these funds in a timely fashion.

MOCSAR, based on its employee database, is undertaking a study now to determine the magnitude of underpayment to the pension authority.

Private sector scheme. Less than 30 percent of eligible private sector employees are contributors, and this excludes the self-employed who are the largest single component of the private sector work force. This low level of membership can be attributed to a number of factors:

- Low levels of education and literacy among employees poses considerable difficulties in conveying the reasons for, and advantages of, a pension scheme. Especially in the absence of a guaranteed minimum pension.
- For the employee, often on low wages and with a large family to support, the incentive to contribute is weak: cash in hand now to support a young family far outweighs an ill-defined future benefit.
- The fund is held in low esteem based on word-of-mouth experiences.

Even among members, contributions compliance is weak:

- For the employers, the avoidance of contributions is prompted both by the administrative costs of compliance and payroll savings.
- Many employers genuinely believe that they are doing the best for their employees by not deducting their contributions from their wages and, in the case of death or disablement of an employee, take seriously their social obligation to support the

employee's family through *waqf*. This is one of the reasons why very few employers pay the additional disability insurance contribution.

- There is a widely held view among employers that the investment returns to the scheme are poor and that it is better for their employees to receive “cash in hand” now, rather than what they and their employees consider to be a derisory pension on retirement.
- Trade unions do not strongly support the pension scheme into which they have no input on investment decisions and which seems to offer very little benefit to their members.

IV. Categories of Poor

There has been a clear upward trend in poverty from 1992 to 1998. The upward trend is more pronounced in rural areas but is consistent across the country. The increase is not surprising and must be seen in the context of various external shocks happening to the economy such as the return of almost a million Yemenis working in Saudi Arabia during the Gulf war.²¹ The other concurrent shocks to the economy were a civil conflict in 1994 and the drop in foreign assistance as a result of the end of the Cold War.²² These concurrent external shocks were aggravated by a macro-economic crisis characterized by high inflation that reduced the purchasing power of the poor. The government embarked on a macroeconomic stabilization and structural reform program in the mid-1995s. Attempts to mitigate the short-term impact on the poor of this reform program on the poor included the expansion of the government's Social Welfare Fund and a number of donor supported initiatives such as the Public Works Project and the Social Fund for Development.

Economic growth is an essential condition for poverty reduction but growth alone will not reduce poverty unless the more disadvantaged sections of the population have the tools to access the benefits of growth. Yemenis live in a highly vulnerable environment. The bulk of the population lives from rain-fed agriculture and livestock production. Even those with access to ground water irrigation face the risk of rapidly depleting aquifers. In addition, in rural Yemen, education levels are low reducing the chances to move to another less risky profession. Health conditions are poor and health facilities in rural areas when they exist are generally non-functional. Even in areas such as livestock raising where Yemen has a comparative advantage and exports to the region – the poorer farmers are constrained by access to capital.

Working with the government, later stages of the Bank support should seek to use the HBS-98 data, as well as input from other first stage building blocks, to identify main

²¹ The return actually occurred during 1990 and 1991 but the impact on the Yemeni economy was fully felt latter as the returnees ran through their savings and remittances from Saudi Arabia slowed down.

²² Yemen was on the cold-war borderline. Before unification the North received considerable assistance from the West and its allies while the South received assistance from the former Soviet Union and its allies. Assistance dried up rapidly following the end of the cold war and the problem was compounded by the Gulf war and its after effects.

causes of poverty, and – along with assessment of the impact of existing programs – determine an appropriate poverty reduction strategy.

Some preliminary work has been done in this direction. For example, a UNDP report identifies some “causes” of poverty in Yemen:²³

- High support burden ratio – the income earned by one household worker is used to support five or six persons on average.
- High population growth.
- Large family size.
- Low labor force participation rates.
- Low women’s participation rates.
- Low productivity rates.
- Unemployment.
- Inadequate access to assets and credit.
- Inadequate access to main social services.
- Lack of empowerment of the poor.
- Qat consumption.

However, to contribute meaningfully to the policy debate, more comprehensive analysis of the HBS-98 could help to determine which of these causal relations are most critical. This would permit a more informed, focused debate on the underlying factors and possible policy prescriptions.

Furthermore, it would be useful for the government to consider the different types of poor, and how different policies may be required to alleviate poverty among these different groups. Stratifying the poor into meaningful groups, assessing the impact of existing safety net programs to each group, and designing targeted interventions to benefit the special needs of each group would be a worthwhile exercise as part of the government’s efforts to develop a poverty alleviation strategy.

One useful classification of poor communities in Yemen emerged from the participative poverty survey. Three different “groups” of communities were identified. Each group has certain common characteristics regarding access to currently available forms of assistance, the degree and forms of assistance required, and appropriate vehicles for assistance and time frames over which the assistance is needed.

“Destitute” Communities. Urban fringe communities comprised of returned workers displaced by the Gulf War; families from rural areas who have moved to urban areas looking for work; akhdam communities.

- Extended family networks and/or long-standing neighbors are not present to be drawn on for informal borrowing.
- Rely largely on non-cash forms of social assistance delivered through religious and charitable institutions and NGOs.
- Missing basic services and have no access to formal social services.

²³ *Poverty Policy Framework for Yemen Strategic Paper*, discussion draft, April 1999.

- Programs such as micro-finance are not appropriate at present as they do not have basic skills to capitalize on the advantages offered by such schemes.
- Communities themselves identify increased access and improvements to basic services such as education, health and water as their priorities.

“Precarious” Communities. Rural communities which are very close to lapsing into extreme poverty, where some intensive short-term intervention can prevent them from falling into the category of the ‘destitute’. These would be communities where some agricultural production, fishing resources can be exploited and where there are some basic skills within the community.

- Good informal supports; ability to borrow from neighbors or traders
- Poor to fair formal provision of basic services e.g.: schools or health.
- Might benefit from micro-finance, linked to training in specific small scale enterprises and marketing.
- Need medium term support that is intensive to start with, and monitored follow-ups.
- Some urban communities partly fit this role, where training could allow members of the community to earn cash in the regular economy.

“Almost Making it” Communities. Mostly rural communities which have agricultural/fishing/other production skills and need assistance from the Social Development Fund or better targeted agricultural extension services to sort out their land shortages, water supply etc.

- Many in these communities wish to learn some rudimentary manufacturing and/or marketing skills, so that they can earn supplementary income in nearby regional centers.
- Access to credit with traders and/or strong culture of neighborly/family borrowing and with good repayment rate.
- Poor to fair formal government services: school and/or nearby health center.

In another classification, the Central Statistics Office categorizes the poor as follows:

The unemployed poor (35.1 percent of the poor).

The unemployable poor (33.8 percent of the poor). This the elderly, disabled, female heads of households, and orphans.

The employed poor (xx percent of the poor). This group of low-skilled workers have jobs but at very low wages. It includes the self-employed, youth and women workers, and casual employees. CSO also includes pensioners in this category.

The rural poor (xx percent of the poor). Marginal small farmers and fishermen, nomads, rural workers, and those disposed of land when it was returned to pre-revolutionary owners..

Refugees and Akhdam (xx percent of the poor). Refugees coming from Somali and the ethnic group of Akhdam who occupy the lowest strata of the Yemeni community and are among the ultra poor of Yemen.

ANNEX A: SUMMARY DESCRIPTION OF SAFETY NET COMPONENTS

Informal safety net

Remittances from relatives working abroad comprise both cash and gifts. These are usually transferred during visits or through friends rather than through official channels.

Interest free loans are common among relatives and friends. These loans help cover exceptional costs such as health treatment or building a house. The expectation is that loans will be repaid as soon as possible, but this can take up to ten years. Forgiveness of debt is frequent if the lender can so afford.

Pooled cash and labor provide assistance to community members in times of need such repairing or rebuilding after natural disasters; providing assistance to victims of such disasters; sowing and harvesting of a sick or elderly persons crops; undertaking irrigation projects; or helping in times of misfortune.

Saving clubs are a more organized method for people to receive (relatively) large lump sums of cash on an occasional basis. These clubs, with membership between 15 to 50 people, are often formed among very close friends and relatives. Each member makes a monthly payment (usually 500 to 1000 YR) to an elected person. There are several ways which these contributions are share. Some groups decide to make monthly disbursements. The money collected each month is paid, on a rotating basis, to one of the member. Other groups decide to periodically (generally every two-five years) split the savings among the group members. During the interim, savings are invested or they can be loaned without interest to one of the members if he has an emergency need.

Cooperation during weddings take the form of gifts and cash and kind to the newlyweds for setting up a new household. This particularly benefits poor families. Contributions of food for the festival is also often contributed by relatives, neighbors and friend, similarly to funerals.

Mosques and neighborhood associations are common but tend to be active only during Ramadan and Eid festivals (during elections there is also increased activity). Mosques collect money during Friday prayers. Neighborhood associations collect money from members, buy food commodities, and distribute them to poor families.

Zakat and Sataqa are religiously specified charitable contributions. Zakat (five percent) is mandatory during Ramada. Sataqa is voluntary contribution of food, money, clothes to the poor throughout the year.

General Welfare Associations are large charitable associations. They tend to provide assistance to the poor, orphans and handicapped; distribute food during Ramadan; provide support to income generating activities; and construct schools, religious institutions, health centers, water tanks, roads, and houses for the poor. Among the prominent national organizations are:

- Hail Saeed Charitable Association (established 1970). This association is financed from a percentage of the profits from the Hail Saeed group, one of Yemen's largest business conglomerates. This organization has had a particularly large impact in the Taiz region, although it does have broad geographical coverage.
- Islah Charitable Society (established 1990). Associated with the Islah Party, this wide-reaching society provides assistance without regard to political affiliation. It is financed by members, and it is also authorized to collect donations in mosques during Friday prayers.
- Charitable Society For Social Welfare (established 1990). One of the more far reaching groups, it operates in every governorates. It receives financing from members, which includes a large number of wealthy individuals.
- Al Hikmah Al Yemenia Charitable Association (established 1990). As with the other groups, it supports students, orphans, and the needy.
- People's Welfare Association (PWA) (established 1995). Affiliated with the GPC, its focus is more on providing training to the poor rather than on providing direct food or non-food commodities. It also provides health services.

There are also numerous small NGOs providing assistance.

Retail Traders. As discussed previously, lines-of-credit provided by retail traders seem to be a significant safety-net for the poor in Yemen.

Formal Transfers

Transfers without work.

Non-targeted subsidies (food and petroleum products) were in the past the main pillar of Yemen's safety net. These generalized subsidies had a huge cost on the budget (7.9 percent of GDP for wheat and flour and 5.3 percent of GDP for petroleum products in 1996), yet they had limited reach to the poor. These subsidies have been gradually phased out. The last subsidies on food products were removed in May, 1999. Only diesel continues to be heavily subsidized.

The Social Welfare Fund is now the government's primary safety net. It provides a cash transfer of 700 YR per month to a one-member household, increasing by an 200 YR per month for each additional household member up to a maximum of 1,500 per month. The target population consists of: (i) the disabled (defined to include the handicapped and elderly, men over 60 and women over 55); (ii) orphans; (iii) unsustained women (widowed, divorced, unsupported spinsters over 30); (iv) households whose head has disappeared; (v) households whose head is in prison or recently released; and (vi) the poor and indigent. For eligible categories, the law adds a clear income test, restricting aid only to households with permanent income no greater than the level of fund assistance. There is also an assets test that disqualifies households with income-generating properties.

Unemployment allowances are discretionary resources available to senior public sector managers to respond to ad hoc requests from unemployed persons for charitable assistance.

The Tribal Affairs Authority provides payments to tribal members. Targeting, decisions on who is eligible, and actual information on the number of beneficiaries is sketchy.

The War Veteran's Fund makes payments to veterans and their families, families of war martrys, and patriots. Targeting, decisions on who is eligible, and actual information on the number of beneficiaries is sketchy.

Donor supported programs. The World Bank does not support any programs under this category. Later stages of the CDR should enumerate the full complement of donor programs in this category. For example, several donors have small food distribution schemes.

Transfers with a work requirement.

Most donor assistance directed to the safety net falls in this category. The largest programs are the Social Fund for Development and the Public Works Project. This stage of the CDR highlights the IDA supported programs; later stages should expand coverage to the activities of other donor's including, for example, UNDP's Poverty Alleviation Program that includes support for five pilot area based development schemes.

The Social Fund for Development was established in 1997. Its aim is to mobilize communities to help themselves and support income generation micro-enterprise programs.

The Public Works Project was established in 1996 to create employment though labor intensive works. Simultaneously, it provides the infrastructure needed to improve services and environmental conditions.

The Southern Governorates Project was designed as a poverty reduction program targeted to farmers in southern Yemen who were dispossessed of their land when it was returned to pre-Revolutionary owners. It provides support through land allocation or rehabilitation, as well as support for social, and off-farm income development activities.

Social Security System

There are four different pension funds for: (i) civil servants and public enterprise employees; (ii) police; (iii) military; and (iv) private employees. All also contain insurance coverage for disability and accidental death. The first three funds guarantee a minimum pension; the private sector fund does not. These funds are discussed in greater detail in section III.

ANNEX B: PREM INDICATORS

Poverty & Employment				
	Value	Refer.	Rating	Change
Population below nat. pov. line (%)	19.1	34.5	A	..
Population below \$1 a day (%)	..	24.5	..	..
Population below \$2 a day (%)	..	51.9	..	..
Poverty gap (%)	..	24.4	..	..
Gini index	39.5	40.3	B	..
% Population with access to health care	..	59.1	..	..
Child malnutrition (%)	30.0	32.7	B	..
Under-5 mortality rate	130.0	137.9	B	I
Access to safe water (% pop.)	52.0	48.7	B	..
Access to sanitation (% pop.)	51.0	34.4	A	..
Adult illiteracy rate, male	..	38.1	..	..
Adult illiteracy rate, female	..	59.4	..	..
Gross primary enrollment ratio	70.0	79.3	B	D
% of cohort reaching grade 4 - male	..	85.4	..	..
% of cohort reaching grade 4 - female	..	85.0	..	..
Child labor (% of 10-14 years group)	19.6	26.9	B	I

Latest year available since 1990.

Rating: A = High outlier, B = Medium, C = Low outlier (shaded cell).

Change : I = Improvement, S = Stationary, D = Deterioration. For most indicators, current data compared with the previous

Poverty & Employment

Population below the national poverty line (%)	Mean for all borrowers
Population below \$1 a day (%)	Mean for all borrowers
Population below \$2 a day (%)	Mean for all borrowers
Poverty gap (%)	Mean for all borrowers
Gini index	Mean for all borrowers
% Population with access to health care	Predicted value from regression
Prevalence of child malnutrition (% of children under 5)	Predicted value from regression
Under-5 mortality rate (per 1000)	Predicted value from regression
Access to safe water (% of population)	Predicted value from regression
Access to sanitation (% of population)	Predicted value from regression
Adult illiteracy rate : Male	Predicted value from regression
Adult illiteracy rate : Female	Predicted value from regression
Gross primary enrollment ratio	Predicted value from regression
% of cohort reaching grade 4 - male	Mean for all borrowers
% of cohort reaching grade 4 - female	Mean for all borrowers
Child labor (% of 10-14 years age group in labor force)	Predicted value from regression

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