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Executive Summary and Synthesis Report

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ABBREVIATIONS AND ACRONYMS

DFID	UK Department for International Development
GDP	Gross Domestic Product
GoK	Government of Kenya
ICA	Investment Climate Assessment
KNBS	Kenya National Bureau of Statistics
MDGs	Millennium Development Goals
MoE	Ministry of Education
MoF	Ministry of Finance
MoH	Ministry of Health
MTEF	Medium-Term Expenditure Framework
NFE	Non-Formal Education
PETS	Public Expenditure Tracking Surveys
PTR	Pupil-Teacher Ratio
SSA	Sub-Saharan Africa
TFP	Total Factor Productivity
TIVET	Tertiary, Industrial, and Vocational Education and Training
UNDP	United Nation Development Program
WDI	World Development Indicator
WHO	World Health Organization

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TABLE OF CONTENTS

LIST OF BOXES

LIST OF FIGURES

LIST OF MAPS

LIST OF TABLES

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This report has been underpinned by a phased process. In 2005, an initial concept note was discussed in 2005, in anticipation of the Kenya Integrated Household Budget Survey and Participatory Poverty Assessment. Over the period 2005 through 2008, technical support was provided to the Kenyan National Bureau of Statistics, from DFID, USAID, GTZ as well as the World Bank and others. This included training on poverty measurement and different types of analysis. The actual analysis underpinning the KPIA began in March 2008, following the release of KIHBS data to the World Bank.

Several areas of work were carried out jointly with local partners and experts including insights from urban slums, with African Population and Health Research Institute (APHRC) and on understanding dynamics, with Tegemeo Institute, for whose cooperation we are grateful. A full list of background papers and authors follows on the next page. Generous support from GTZ and DFID helped to facilitate the work.

This report benefits from discussions and substantive comments received during discussions with the Government of Kenya in early July, including from HE the Prime Minister and his office, Ministry of Planning, Ministry of Finance, members of the National Economic and Social Commission, and several line agencies.

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EXECUTIVE SUMMARY

1. **This assessment of poverty and inequality comes at an important juncture for Kenya.** The December 2007 elections and subsequent pronouncements of the newly formed Grand Coalition have underlined the salience of these issues to ordinary Kenyans, and for policy makers. The violence in early 2008 highlighted the importance of addressing poverty and inequality as major goals in their own right, but also for instrumental reasons —as major goals in their own right, the persistent inequalities spark conflict, which is welfare reducing, and this conflict in turn will harm prospects for growth. The onset of the global credit crunch has also shown how poverty and public service delivery related vulnerabilities could be exacerbated by external shocks. Cumulatively, these factors underline the value of appropriate diagnostics about the patterns of poverty and inequality in informing public debates, strategies and actions to overcome exclusion from the benefits of growth and development in Kenya as well as designing policies to minimize the impact of the current global crisis.

2. **The Medium Term Plan, which sets out the government's policy and program framework within the context of Vision 2030, is a major opportunity to take this agenda forward.** The stated focus is on poverty and inequality—and the related themes of provincial variation, youth and gender—as laid out in the President's foreword and the Minister's statement. This is welcome, but will need to be carried through to the actual program. The draft plan is presently under revision. It is expected that this assessment should help provide guidance as stakeholders and policymakers proceed to review the plan more fully, and prioritize the actions therein. The draft plan is also expected to include policy measures to mitigate the effects of economic slowdown due to the global downturn and considerably higher inflation than in 2007/08 and could benefit from the findings of this report.

3. **The KPIA attempts to address several broad policy-motivated questions with a focus on new findings which deepen and extend our knowledge base.** What has happened to poverty and inequality over time and what are the major dimensions of poverty and inequality? Have the opportunities generated by economic growth broadly or narrowly shared, with major population groups largely excluded, and who manages to escape from poverty, and why? And what is the pattern of public investments and services, and how do these interact with poverty? The report closes with some policy directions that warrant consideration in light of the diagnostic.

4. The KPIA builds on published results, in particular the Basic Report on the Kenya Household Budget Survey, and a rich range of sources, including those associated with leading local think tanks and qualitative data. A series of World Bank reports—most notably on growth, the investment climate and rural development—have just been finalized, to which the KPIA should be seen as a companion report.

5. Selected findings are highlighted in the Executive Summary: first, the scale of the challenges; second, drivers of poverty and inequality; third, the budget as an instrument for addressing poverty and inequality objectives; and fourth, specific disadvantaged groups. It does not attempt to capture all the report's analyzes, which are extensive and should be of interest to a wide audience. Rather the purpose here is to briefly present the most salient messages for policy-makers. The focus is on the medium term, but framed by immediate post-crisis needs and priorities. The interested stakeholder is strongly encouraged to read much more of the report.

SCALE OF THE POVERTY AND INEQUALITY CHALLENGES

6. **There are major underlying structural inequalities in Kenya,** which have their roots in colonial times and have persisted in different ways since independence. Kenya needs to address these disparities in order to enable inclusive growth and development, otherwise the vicious circles of elite capture, skewed distribution, social exclusion and poverty will persist.

7. The scale of the challenges can be summarized as follows:

- In 2005/6, almost 47 percent—or 17 million—Kenyans were unable to meet the cost of buying the amount of calories sufficient to meet their recommended daily nutritional requirements and minimal non-food needs.[1]
- Many Kenyans are very poor—indeed almost one out of every five could not meet the cost of this minimal food bundle even if their entire budget is spent on food.
- The vast majority of the poor—14 million—live in rural areas.
- Over the long term, little inroads have been made in reducing poverty—the officially estimated poverty rate was 48 percent in 1981. This disappointing record is not surprising in light of the weak growth performance over the long term, and high levels of inequality. Alternative sources are used to triangulate the results, and confirm the direction of change.
- The acceleration of economic growth after 2003 likely reduced poverty; although national data is not available to confirm this, Tegemeo shows reductions in rural poverty continuing through 2007 (Nyoro et al 2008).
- Inequality in household consumption is high. In 2005/6, the ratio of consumption between the top and bottom 10 percent stood at 20:1 and 12:1 in urban and rural areas, respectively. This compares to 5:1 in Tanzania and 3.3:1 in Ethiopia, for example. There are also significant horizontal differences, across groups, in particular provinces.
- Shocks are a fact of life for many households, and are especially frequent for the poorest. The most common shocks over the period 2000-2005 were, in order of importance, food price inflation, droughts and floods, illness, and death in the family.

8. **The available data pre-dates two major events in 2008: the post election crisis and the acceleration in inflation**. E-Box 1 outlines how these may have affected the

[1] The official monthly threshold was KSh 1,562 and 2,913 per adult equivalent in rural and urban areas respectively in 2005/6.

headline figures. The crisis also underlined the fact that the economic recovery which began in 2003 remains vulnerable to political and other risks. The KPIA draws attention to some potentially damaging longer term repercussions of the crisis. In particular, prior to the crisis migration was an important strategy used by households to improve their well-being. The feasibility of this strategy has been affected by the risk of conflict. One policy implication is thus the need to help ensure against barriers to mobility, including social tensions, which requires further analysis of the sources of such tension, especially in densely populated rural areas. It is critical that the recent violence and the extensive displacement that occurred not be a harbinger for ongoing curtailment of voluntary labour movement around the country. A shutting down of mobility in response to job and other opportunities not only negatively affects individual households directly, by restricting their options, but would likely also have more general adverse effects on growth and economic activity.

E-Box 1: Impacts of the Crisis and Inflation, 2008

The costs associated with the post election violence were large, including about one thousand deaths and about 300,000 displaced. In the short term, public services in some areas were disrupted; markets have responded through, among other things, layoffs and increased prices; and civil and social capital and networks were damaged. In the absence of data post-dating the conflict, the 2005/06 KIHBS is used for heroic first attempts at quantification. These estimates abstract from second round and equilibrium effects and adjustments at the household level, and ignore any changes in nominal wages and incomes that could have happened. With these caveats, initial effects relate to:

* Increased unemployment – if unemployment rose, say from 12.5 to 15 percent, given the poverty risk of households with an unemployed member, this would increase the poverty rate significantly, of the order of 9 percent.

* Inflation—as reported by the KNBS, prices have been rising rapidly since January. Food and non-alcoholic drinks make up over half the index. The data also suggest significant increases in the relative prices of food and transport over the first half of 2008. Our analysis of the KIHBS shows that the food share of the poor is 70 percent and of the poorest quintile it is 77 percent.

Because many Kenyans have consumption levels just above the poverty line (about 10 percent of the population are within 10 percent of the line, and 20 percent within 22 percent), and spend a significant share of their budget on food, cost of living increases without corresponding increases in wages and incomes mean that significant numbers of Kenyans would fall below the threshold.

The impacts of food price increases depend on the distribution of net buyers and sellers of grain. Tegemeo analysis shows that the bottom deciles typically purchase grain for more than three months every year, compared to a single month for the top decile. Only 20 percent of the bottom decile sell grain most years, compared to 60 percent of the top decile (Nyoro et al 2008). This suggests that impacts of maize price rises would tend to be negative for the poor.

While overly simplistic, these parameters suggest that the first round impacts on poverty were significant, both for those who were already poor, as well as large numbers of "new poor." This would be offset to the extent that nominal incomes also rose, and to the extent that consumption patterns can adjust in the face of relative price changes.

Patterns and Drivers of Poverty and Inequality over Time

9. **The KPIA looks at well-being and inequality in multiple dimensions, in outcomes, like consumption and human development, and in access to income earning opportunities.** Trends in the level and distribution of access to productive assets like land and capital (credit) are investigated, as is access to basic services, using a

range of data sources. A cross cutting theme is provincial and district variation, for which an initial snapshot is provided. In addition to spatial disparities, the analysis also identifies several significantly poor groups, including, for example, urban households headed by widows. Youth and slum residents, represent particularly large (and vocal) groups of the poor, with more immediate as well as longer term structural policy implications, are addressed in the final section of this summary.

Trends in Poverty, 1997 – 2005/6

10. **The resumption of economic growth after 2003 likely brought benefits in terms of poverty reduction.** However because our national baseline predates the recovery by several years, we cannot assess how the payoffs were distributed across households. For poverty, we have two data points, 1997 and 2005/6, but this does not provide a linear trend over the intervening period, which included several years of stagnation and recession, and only two years of economic growth.

11. **Levels of inequality in Kenya were already high when the economic recovery began in 2003.** Inequality matters because different types of inequality tend to be inter-connected and reinforcing, and mean that some groups have inferior opportunities (World Bank 2007). International evidence also suggests that high levels of inequality damage prospects for sustained growth, and serious horizontal inequalities across groups are associated with conflict (Stewart 2002, 2008).

12. **Average welfare gains over the period 1997—2005/6 were very much concentrated**—in particular amongst the wealthiest quintiles, urban residents, and, in terms of provinces (E-Table 1). For many other groups, the aggregate improvement over the period was very limited and practically stagnant. Most striking are the findings that the poorest quintile lost out in absolute terms while gains for the second bottom quintile were only about one percent annually. Even for the middle quintile, growth in consumption was below average.

E-Table 1: Inequality in Distribution of Consumption Gains, 1997 – 2005/06

	1997	2005/06	% change
Area			
Urban	4,436.59	5,493.96	23.8
Rural	1,962.94	1,993.21	1.5
Quintile			
Poorest	708.07	702.99	-0.7
2	1,159.83	1,268.59	9.4
3	1,680.82	1,846.75	9.9
4	2,439.84	2,778.18	13.9
Wealthiest	5,758.93	6,895.72	19.7
National	**2,349.36**	**2,698.12**	**14.8**

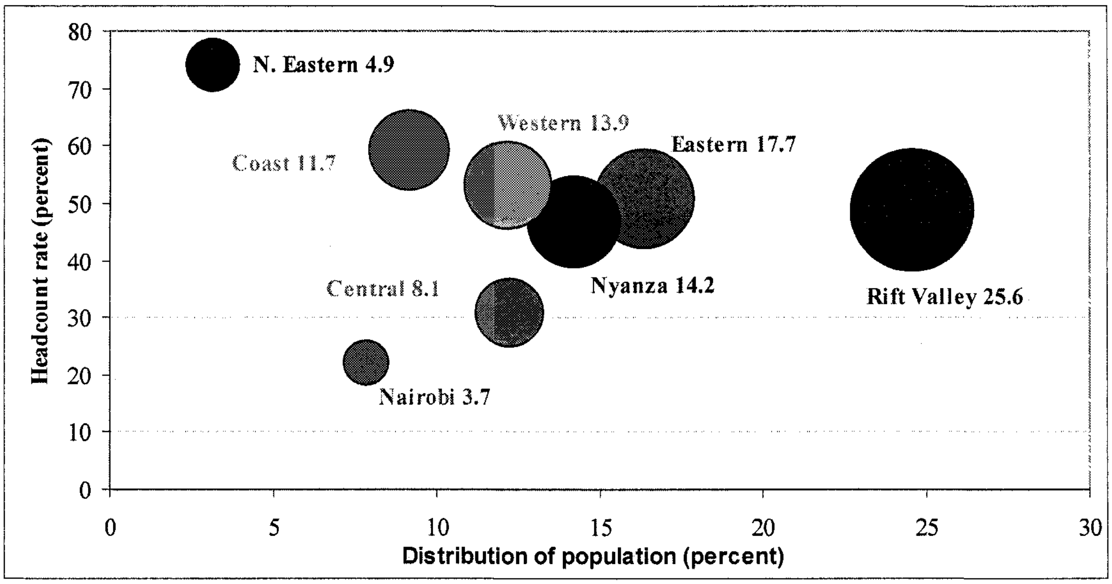
Source: Staff estimates based on KIHBS (2005/06), WMS (1997).
Notes: Mean adult equivalent per capita expenditures. 1997 is adjusted to 2005/06 values using the ratios of the urban and rural poverty lines.

Spatial Disparities are Significant

13. **There is striking provincial variation in incomes, poverty and human development, as well as disparities in access to services.** E-Figure 1 shows the provincial differences in poverty incidence, which is highest in North-Eastern, while Coast, Western and Eastern are all above average. Central and Nairobi have rates of poverty below the national average. Shares in total poverty differ, given variable population size, with the largest absolute contributions coming from Rift Valley, followed by Eastern. The map illustrates the considerable district level variation in poverty incidence in 2005/6. There is also considerable variation in poverty *within* districts.

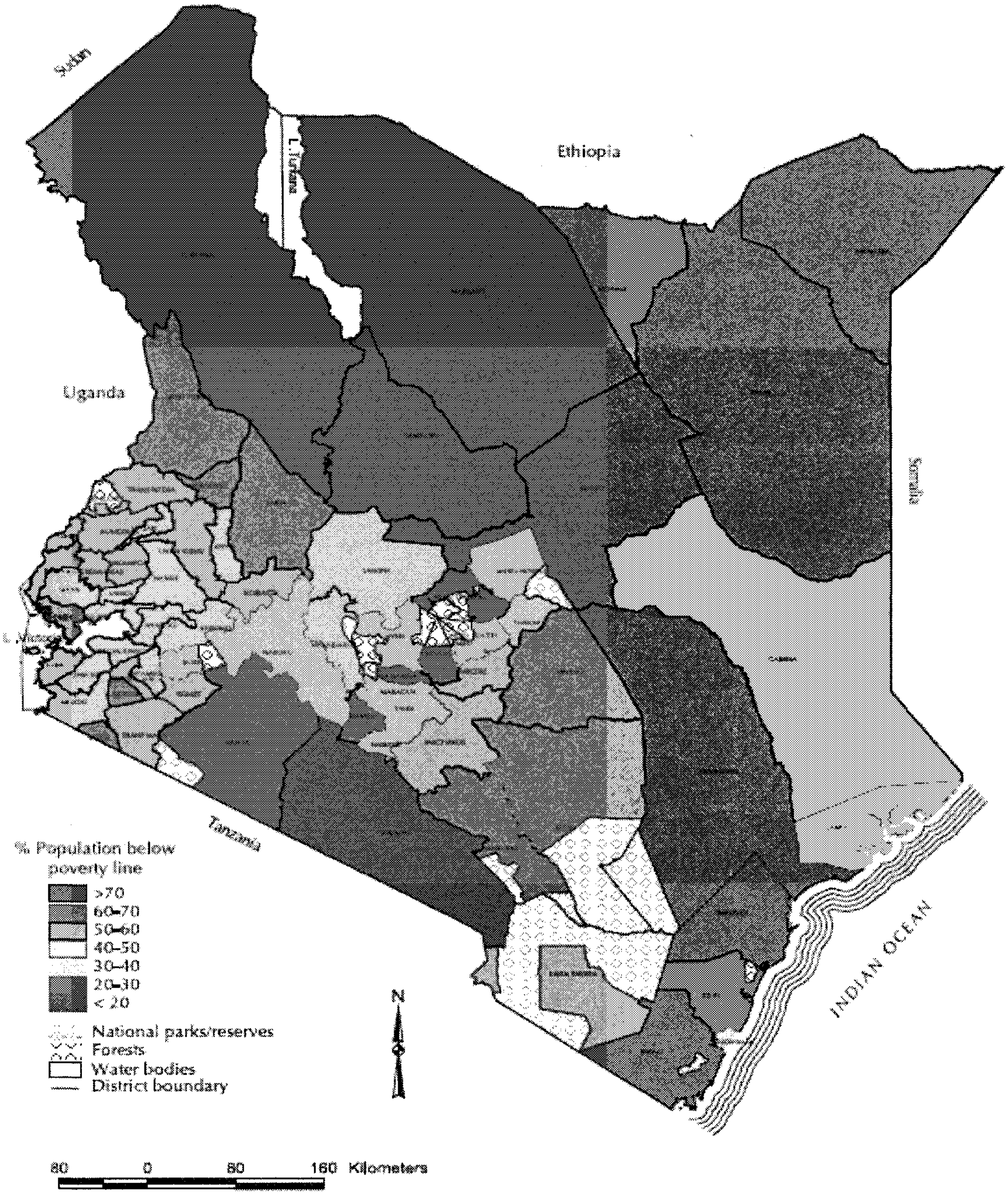
E-Figure 1: Poverty by Province, 2005/6

(Size of the Bubble shows Contribution to Total Poverty)



14. **These spatial disparities in poverty arise for a range of reasons.** Naturally, there are climatic and agro-ecological differences, but there are also different levels of access to services. Moreover, estimated rates of return to household characteristics like education or employment differ significantly by province. Average household characteristics vary between provinces, which can either reinforce or offset these differences in returns. For example, average household size is higher in Western than in Central province; and the likelihood of owning land also differs. Our regression models do not tell us *why* the returns are different. However, the results do show that location is a powerful predictor of living conditions and poverty.

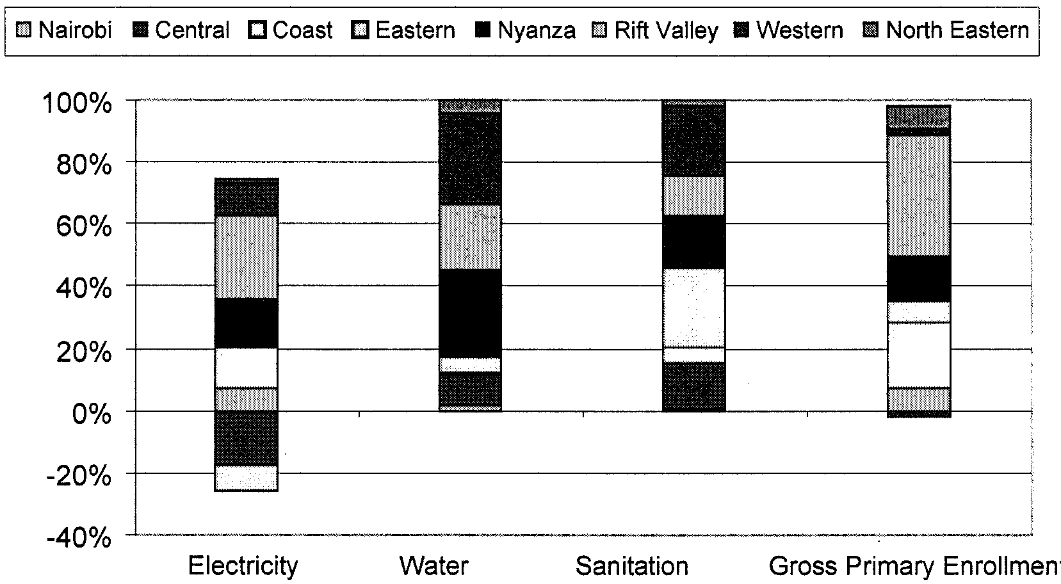
E-Map 1: District Estimates of Poverty, 2005/6



15. **The KPIA looks at two major dimensions of disparity—by province, and by quintile**—in access to various services over the decade to 2003, and 2003-05/6. For the earlier period, there was stagnation and deterioration of access for poor groups. For example, access to safe water stagnated nationally in the decade to 2003. For education, province-level differences were not as stark as for water and sanitation but Coast and North Eastern provinces still lagged far behind the national average.

16. **Service gains were distributed more broadly during the more recent—2003—2005/6—period for which data is available** (E-Figure 2). Rift Valley, Nyanza and Western all saw large increases in household electrification, relative to the low levels reported in 2003. Water and sanitation access increased. Gross primary education has increased in all provinces, although given the size of Rift Valley province, the gains therein are most substantial in absolute terms while the relative increase was largest in North-Eastern, which had been far behind.

E-Figure 2: Provincial Distribution of Service Gains, 2003-2005/6



ACCESS TO INCOME EARNING OPPORTUNITIES

17. **The labour market is the primary transmission mechanism of economic growth to household incomes**, through the quantity, quality and distribution of income earning opportunities. Since labour is the most abundant asset of the poor, a major determinant of the poverty reduction impact of economic growth is its effect on work opportunities. When growth enhances earning opportunities for the poor, its benefits are widely shared and poverty tends to decline. The KPIA builds on the recent analysis by UNDP and others to examine drivers in the Kenyan labour market, and examines the evolution of rural income earning opportunities more deeply, utilizing panel analysis.

18. **The aggregate jobs performance in Kenya over the past decade suggests some good news as well as a series of major challenges**. Comparing the national cross-sectional survey results of 1998 and 2005/6, the broad storyline is that:

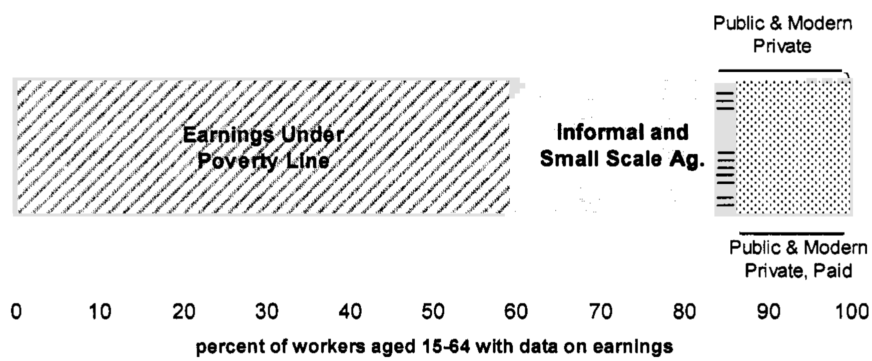
- There was net job creation. Rural employment grew from 8.4 to 9.4 million—about 1.5 percent **annually**—although this was largely small scale subsistence and informal work—paid employment hardly grew in rural areas.
- Unemployment fell from almost 15 to 12.5 percent. However, the urban rate rose from 18.5 to 20.6 percent and the share of youth (15-29 years of age) among the **unemployed** rose markedly, from 60 to 72 percent.

- Inactivity increased rapidly, from 22.4 to 30 percent of the working age population, due mostly to full-time study, but also a jump in those reported as discouraged (i.e., not working nor actively seeking a job).
- Female unemployment is significantly higher than male rates, in both absolute numbers and **relative** terms (14 versus 11 percent), and three quarters of unemployed women are youth. There is also a large gender wage gap, especially at lower levels of education.

19. **Having a job in Kenya is no guarantee against poverty, of course**. The bulk of workers—about two-thirds of the total—are either on their own account and unpaid family workers. The minimal share of private modern employment, a mere 6 percent of the labour force, is striking. About 41 percent were located in urban areas, and two thirds were male.

20. **Amongst those Kenyans who reported earnings in the KIHBS, only about 41 percent (3.3 million) had jobs in 2005/06** with earnings over the poverty line.[2] We can call these good quality jobs, while recognizing that having such a job does not necessarily enable an individual with dependents to live above the poverty line (E-Figure 3). Almost 6 out of 10 workers who reported earnings had jobs with earnings *below* the poverty line, or working poor, some of whom were also working less than 40 hours a week.

E-Figure 3: Individual Earnings Relative to the Poverty Line, 2005/6



21. Earnings inequality is high in Kenya, with a gini index of 0.693. [3] Earnings in agriculture are systematically lower for all types of employment, especially for those working on their own account or in the family.

22. What is driving observed trends in income earning opportunities, and how do these link to poverty and inequality? The KPIA uses Tegemeo's panel data—which tracked the same rural households at four points in time over the decade to 2007—to investigate drivers out of and into poverty (Nyoro et al 2008). While this picture obviously excludes urban developments, the predominance of rural poverty in Kenya means that understanding these trends is central to understanding the majority of poverty in Kenya. There are several significant factors associated with escaping rural poverty,

[2] Earnings are missing for 31 percent of workers in the KIHBS sample, mainly own account and unpaid family workers.
[3] Gini coefficient varies between zero (perfect equality) and one (perfect inequality).

some of which are related to overall market development, others to public investment and other programs:

- The most notable correlate of moving out of poverty is income **diversification,** both on and off farm, which in practice are mainly additional crops being grown and/or informal business opportunities.
- Changes in education (beyond primary school) are important.
- Distances to markets and infrastructure matter, in particular distance to the closest fertilizer seller and the distance to piped water. Distance to the nearest fertilizer seller can be seen as a proxy for market access (Suri 2007), though it matters more for farming households. It also captures, at least in part, the costs of using improved methods (fertilizer and seed). That fertilizer access is significantly correlated with off farm diversification may be due to its correlation with access to technology and markets, as well as possibly enabling adults to produce crops more efficiently and spend more time working off-farm.

23. The Participatory Poverty Assessment (PPA) captured some interesting stories which reflect some important factors which were mentioned by communities in recalling escapes from poverty. E-Box 2 presents one such example.

E-Box 2: Philip Lagat—Escaped Poverty through Diversification in Farming

Philip is a 46 years old farmer in Chepkongony village, Nandi district. He never went far with his education because he came from a poor background. In 1990 he was working as a casual laborer in the tea farms of well to do villagers. He used to earn a paltry Ksh 200 per month from casual work. He saved and bought a local cow for about Ksh 800 in 1992; he then stopped working as a casual labourer to take care of his family farm and the cow. In 1995, he got a job in a prominent tea farmer's farm as a casual with a slightly better pay of Ksh 300. In the same year, he set up a tea seedling nursery in his farm. From this nursery, he transplanted up to 3000 tea seedlings into his farm. In 1997, he started harvesting his own tea. His cow was also providing some milk. His total earnings per month from tea and milk increased to Ksh 4,000. He stopped working as a casual labourer and decided to concentrate in farming. By the year 2000, he had bought a Friesian dairy cow. He also diversified into growing coffee. He joined South Nandi Coffee Cooperative Society which helped in marketing his berries. By the time we visited him (2006), Philip was earning up to Ksh 40,000 per month from sales of his tea, coffee, and milk combined. "My family is not doing very well but we are comfortable."

Source: Mango et al (2007).

24. **For sustained improvements in well-being, the PPA also underlines that poor households need to avoid or at least minimize the impacts of shocks.** This can be addressed, at least to some extent, through appropriate economic management (to combat inflation), broader policies to encourage economic growth (and reduce the incidence of job loss) and improved governance and economic conditions more generally (to alleviate crime and security problems). The most common household responses to shocks are, in order of importance, spend cash savings, sell assets (animals), work longer hours, reduce food consumption and receive help from family and friends. Government assistance was very rare. This points to the absence of, but also the potential for, publicly supported safety nets, especially when shocks affect entire districts or provinces. This would need to ensure appropriate targeting and accountability mechanisms, and should be considered in the context of reallocations of spending away from the sizeable items in the budget which do not support growth and poverty reduction (see below).

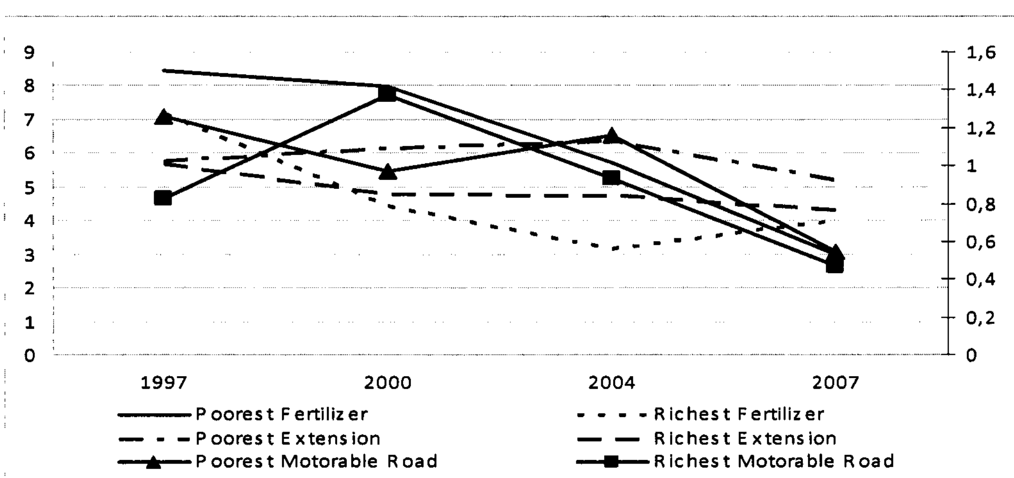
25. **High underlying levels of inequality are a drag on poverty reduction, although there is some positive momentum in narrowing the gaps in access to some key services and opportunities.** The rural panel data show that the differences between the rich and poor that existed in 1997—including in market access through improved infrastructure, and extent of diversification of farm and off-farm activities—had tended to narrow by 2005/6. Among the good news is that the gaps between the better off and poor rural households in accessing off-farm employment have converged over the past decade. A similar pattern of both overall improvements in access and equity is seen with respect to different modes of infrastructure, including distance from a motorable road and distance to piped water.

26. **Some unevenness in the pattern of development is inevitable**, as not everyone is able to take advantage of opportunities to the same extent. Indeed Tegemeo analysis suggests that rising off farm income, in particular salaries and remittances, tend to be associated with worsening inequality, although other sources of income tend to offset inequality.

<u>Infrastructure</u>

27. **Improved infrastructure access has been associated with movements out of poverty**. One reason why infrastructure variables are important is that households that are closer to a fertilizer seller, a motorable road and/or piped water grow more crops (in absolute number) and are more likely to diversify. E-Figure 4 below presents the good news that access to all these key services improved over the decade, and more rapidly for the poor. The initially observed gaps in access had significantly narrowed by the end of the period. This likely reflects the significant increase in public investment in infrastructure, described below.

E-Figure 4: Reduced Distances to Various Infrastructure, 1997-2007



Source: Nyoro et al 2008

Diversification

28. **There has been a very strong upward trend in diversification of economic activities among rural households over the decade**. Given the importance of this strategy as a positive driver out of poverty, it is critical to identify which factors are associated with rural households pursuing this route. Tegemeo's diversification regressions show that the key determinants of the participation of households in off-farm activities are driven by availability of credit, education and access to roads. There are also large differences across provinces, in that households in Eastern appeared to diversify much more frequently than those in Nyanza and Western. Age-sex composition of the household also matters, in that households with young adults are more likely to be involved in off-farm activities.

29. **On-farm diversification is also important**. The number of crops planted in the main season has increased dramatically over time—the extent of increase ranged from doubling over the decade in Eastern and Central, and close to tripling in Nyanza and Western. The number of crops per field in the main season evidenced dramatic increases, doubling in Western, and increasing by about half elsewhere. In terms of determinants, on the negative side, the number of crops tends to be fewer among households with more uneducated adults, and those with less land.

Access to Credit

30. **One robust finding of the rural panel analysis is the importance of access to credit as a correlate of escaping from poverty**. However, most (70 percent of) Kenyans do not have access to any form of credit, with even lower rates of access in arid lands. For those who do access loans, there is significant disparity in average amounts—with non-poor households borrowing 42 percent above the average amount, and poor households 77 percent below; the advantage for urban households is even larger, whereas female headed are way below average.

31. **At the same time, the financial services sector in Kenya is increasingly dynamic**. There is evidence of significant innovation and expansion over the past several years, including in group-based mechanisms and the use of mobile phones. Thus for example, while youth, like most Kenyans have very limited access to financial services, microfinance institutions tend to be more constrained by the lack of business support services for start-up businesses than by liquidity, suggesting the need for greater attention on that front.

32. **While access to credit is important, the traditional Development Finance Institutions in Kenya have not promoted access in ways that are either pro-poor or sustainable**. The more promising routes appear to be grounded in the continued expansion of group-based lending approaches.

Inequality in Land Ownership

33. **Only 20 percent of the land is classified as medium to high potential, but this is where about three out of four Kenyans live**. Given the rising population size and the largely rural nature of income earning activities, pressure on land is growing. Land is

also a high profile issue, in part because of the well-documented illegal appropriations of public land in the late 1980s and throughout the 1990s.

34. **The KPIA focuses on levels and trends in land inequality, but does not attempt to fully deal with land questions.** Land inequality as measured by the gini coefficient was 0.61, based on reported size of ownership in 1997. Nationally, there was a 36 percent increase in the gini over the period 1997-2005/6, to about 0.83 for the entire population. The worsening was especially marked in Coast and Nyanza provinces, while levels of inequality are remarkably high not only in Nairobi, but also the Rift Valley. Even among landholders only, it is notable that the reported levels of inequality are much higher than the estimated consumption ginis, and high also by international standards.

35. **Rates of poverty among landless agricultural laborers are very high, although the evidence also shows that landlessness and poverty should not be equated in Kenya.** Approximately equal shares of the poor have, and have no, land, and many of the non-poor do not have land—and hence landlessness *per se* is not a good proxy for poverty.

36. The increase in land inequality in most parts of the country over the past decade has been at a rate that suggests that this issue is rapidly becoming more serious in objective terms as well as in terms of political salience. There is a well-established policy agenda and hopefully now improved momentum to address this challenge. It is recommended that the accountability of the relevant institutions as well as the issues of taxation of unused arable land be addressed in the upcoming discussion of the land agenda. There is a need to update policy proposals to reflect recent events, especially displacement and prospective returns.

37. In sum, the analysis of drivers of poverty and inequality underline the importance of economic growth, as well as the need for attention to the distribution of opportunities. The rural agenda highlights importance of ongoing improvements to infrastructure, especially motorable roads, to improve access to markets, and the potential for extension services to enable diversification—both factors are associated with off-farm activities, and escapes out of poverty.

TRENDS IN HUMAN CAPITAL AND ACCESS TO SERVICES

38. **On the role of human capital in poverty trends in Kenya, the KPIA finds contrasting patterns**. On the positive side, since 2003, we see the expansion of basic education and the steady decline in the share of firms reporting inadequate skills as a major or severe constraint to growth. On the other hand, maintaining quality in schooling is a major challenge, as is the expansion of the system at the secondary and upper levels as primary education alone is not necessarily a route out of poverty. And there are major health challenges, most prominently malaria and HIV, but also other causes of morbidity and mortality which adversely affect, among other things, labour productivity, and thus individual and household earnings prospects.

39. **In 2003, both the level and trends in most Millennium Development Goals were dire in Kenya** (E-Table 2). Over the preceding decade, there had been general regress, and in particular, access of the poorest quintile worsened on several fronts, including water, sanitation, telephones and schooling. Rates of access for the bottom

quintile, which were far below average, deteriorated further. Significant provincial level variations were evident. For example, the risk of infant death in Nyanza and North Eastern Provinces are over six times that in central province.

E-Table 2: Access to Selected Services by Quintile, 1993 -- 2005/6

	All				Bottom				Second				Third				Fourth				Top			
	93	98	03	05	93	98	03	05	93	98	03	05	93	98	03	05	93	98	03	05	93	98	03	05
Electricity	11	15	16	16	0	0	0	0	0	0	0	2	0	0	0	8	1	2	4	20	47	60	57	53
Net Primary Enrollment	75	85	79	81	71	76	61	73	74	85	80	80	72	88	84	84	76	90	88	86	81	90	86	89
Gross Primary Enrollment	102	112	111	119	100	101	91	118	103	113	116	125	100	119	120	119	103	119	125	118	106	110	106	109
Net Secondary Enrollment	7	10	13	18	4	4	4	6	6	5	7	12	5	9	12	21	6	12	16	30	17	22	29	52
Gross Secondary Enrollment	19	23	23	40	14	9	9	16	13	18	19	34	15	21	22	50	15	23	29	59	37	44	41	84

Source: DHS, 1993, 1998, 2003, and KIHBS 2005/6.

* DHS analysis uses asset indices, KIHBS uses a consumption per-capita index.

40. **However, important gains began to emerge in the 2003—2005/6—period**. As is well known, the introduction of free primary education in 2003 was associated with significant increases in enrollment. This has happened across all provinces, and, for example, the surveys show a 50 percent increase in gross primary enrollment in traditionally lagging North Eastern. Tegemeo's rural analysis shows that over the decade to 2007, the fraction of adults in rural households with no education had fallen, and more rapidly for the poor. Although only 70 percent of children in the poorest quintile were enrolled in primary school in 2006/6, the prognosis for broad based improvements in labour quality in Kenya appears to be good, and trends in the distribution of education appear to be an equalizing force.

41. **The data clearly suggests that more schooling is associated with better jobs and thus a greater likelihood of not being poor**. Kenyans with higher education tend to find jobs in the formal sector. In the KIHBS, about three-quarters of undergraduates and 81 percent of post graduates has formal sector jobs, as opposed to 14 percent of those with secondary education and 5 percent of those with primary education. Also, the crude risk of unemployment decreases as education attainment increased. Likewise, for urban wages, there appears to be a significant premium for higher education, especially for men. On the demand side of the labor market, there has been a marked decline in the share of firms reporting inadequate skills as a major or severe constraint to growth.

42. It remains the case that lack of education is associated with poverty, and to this extent, the Government and families' strategy of getting children into school makes economic sense, as well as having other justifications. At the same time, an important finding from the diagnostic of drivers of poverty over time is that more than primary education is needed for individuals and households to move out of poverty, especially in urban areas. This underlines the pressures on post. Indeed those with completed primary education earn only about half the average. Hence it is not surprising that the increased

number of primary graduates is putting great pressure on the limited secondary school places available. In recent years, the transition rate for children from primary to public secondary schools has risen to 51 percent; although the enrolment rate for children in the bottom two quintiles is much lower than average (see below). Moreover, maintaining quality in schooling is also a major challenge, which the government has recognized and is seeking to address through new hiring and training of teachers.

43. Looking ahead continued efforts are needed to raise enrolments among the poorest, for whom the net primary enrolment rate is still only 70 percent. It is particularly low in Coast, Rift Valley and North Eastern provinces, where the policy could be focused. Impact evaluation studies have shown that targeted support to poor households, for example through the provision of school uniforms, and actions to improve health (for example de-worming) does raise school attendance.

44. **Access to other services has also expanded**. Looking by province at household electrification, for example, Rift Valley, Nyanza and Western all saw large increases relative to the low levels reported in 2003. Water and sanitation access increased across all provinces in the 2003-2005/6 period. Still, about half of Kenyans do not have access to water and sanitation services meeting minimal standards of quality. Access is even lower in rural areas, and significantly lower among the poor, with significant regional variation.

45. **Major health challenges remain.** Most prominent are malaria and HIV, but also other causes of morbidity and mortality which adversely affect, among other things, labour productivity, and thus individual and household earnings prospects. Health outcomes in Kenya are weak, especially for the poor. This is associated with poverty, lack of access to improved water, and low access to, and usage of, preventive services. Major health shocks (including death) are common and are causally related to falling into poverty. In the next section we highlight the extent to which public health services are reaching the poor.

THE ROLE OF INSTITUTIONS: FOCUS ON THE BUDGET

46. **Institutions—including those related to the public sector—play a key role in mediating the effects of inequality onto outcomes**. The design and especially the implementation of government policies and programs will affect the distribution of benefits.

47. **The KPIA looks at various aspects of governance, including corruption, since this is an obstacle to poverty reduction in Kenya**. Most public discussion in Kenya about corruption makes unequivocal connections to poverty and inequality. Corruption is especially associated with inequality—in particular, upward social mobility and accumulation of wealth. While robust empirical evidence has been lacking on the poverty links, the KPIA brings together some relevant evidence, focusing on petty corruption. The culprits are typically frontline service providers, that is, those with whom people are most likely to interact, e.g., police officers.

48. **Household surveys suggest that corruption at lower levels of government is pervasive in Kenya, and the urban poor are especially vulnerable to bribery encounters**. According to Transparency International's annual survey, in 2006 Kenyans

encountered bribery in one out of every two official transactions, and paid, on average, 2.5 bribes annually. This is common across all socio-economic groups, although the incidence is significantly higher among urban residents, because they deal with officialdom more often. The good news is that the 2007 TI Bribery Index shows that reforming agencies were reducing corruption significantly.[4]

49. Progress in combating corruption is important for the poor. The recent National Corruption Perception Survey found an inverse relation between the burden of bribery and level of household income (Kenya Anti-Corruption Commission, 2006). Indeed the burden of bribes is comparable to the share of household spending on water, for example. A companion report (ICA 2008) shows that corruption is also a heavy burden for informal operators, which is a major source of employment for the poor.

The Budget

50. **The budget is a major potential instrument to improve the pro-poor orientation of public policy.** The poverty diagnostics suggest that market access, through improved infrastructure, and education can be important drivers out of poverty, although we also saw large provincial differences in access to basic services, and outcomes. In this context, we examine trends in the sectoral allocation of the budget over the period 1999/00 to 2006/7 (E-Figure 5). Analysis is constrained by the lack of functional budget classifications and the absence of provincially disaggregated fiscal data, but the highlights are as follows:

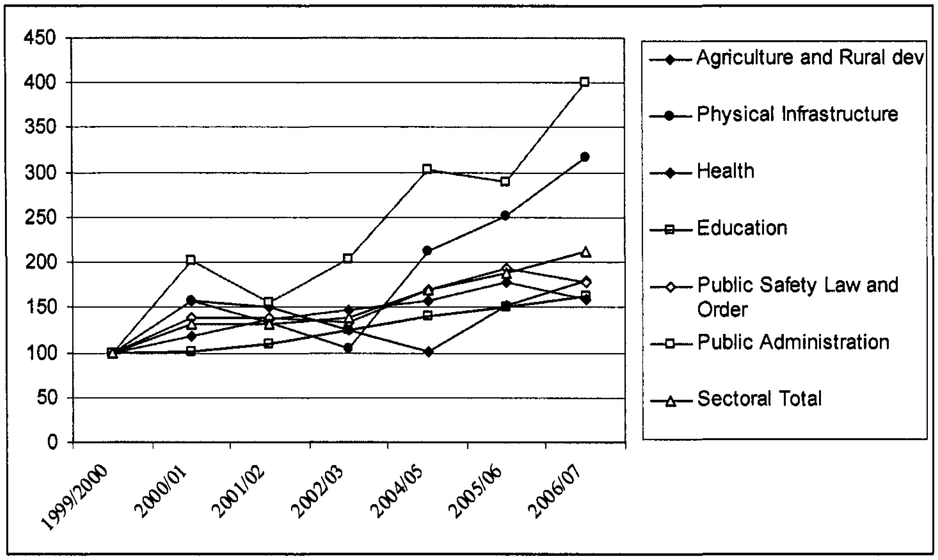
- There was a significant increase in real spending levels, in a context of increased revenue efforts and progress in improving the debt financing mix. Total sectoral spending rose from less than 14 to about 20 percent of GDP. Given high economic growth, this meant that the budget more than doubled in real terms.
- Overall spending on priority sectors—defined as agriculture and rural development, infrastructure, and health and education—retained a steady share at about 58 percent of the sectoral budget.
- Allocations for infrastructure rose relatively fast, which is welcome, and started to redress the depreciation of the 1990s.
- Less welcome is the very rapid rise in public administration, quadrupling over the period.

51. The Kenyan budget has become increasingly decentralized, with a series of extra-budgetary funds—including the Constituency Development Fund (CDF) and Local Authority Transfer Fund (LATF)—and allocations to the district level via line ministries. The spatial allocation of these budgets is of prime interest given the spatial disparities in poverty outcomes and access to services. Unfortunately, however the available fiscal data do not allow one to gain a comprehensive picture of provincial budget allocations. Preliminary analysis suggests that the existing allocations, analyzed on a per capita basis, have not tended to favor the poorer provinces. The key recommendations which emerge

[4] See http://www.tikenya.org/viewdocument.asp?ID=269.

relate to the need to improve the transparency and comprehensiveness of information about decentralized spending, and to review existing formula in light of explicit objectives for growth and poverty reduction.

E-Figure 5: Index of Real Trends in Sectoral Spending, 1999/2000—2006/7 (1999=100)



52. **Core Poverty Programs were introduced in 2002 as a novel way to improve the pro-poor focus of spending but have not been very successful.** The criteria are not clearly specified and the rationale for minimum spending targets is not obvious. In practice this has not mattered, since the objective of ensuring full disbursement of CPP spending has not been met. However, the approach warrants reconsideration, in context of more comprehensive efforts to improve transparency and the coherence of pro-poor spending efforts.

53. **More generally, the analysis shows significant scope for more pro-poor and pro-growth budget allocations, across both spatial and functional dimensions.** Increased allocations for agriculture-related public goods (such as extension), in the context of ongoing efforts to improve the relevance and accountability of services appears, from the diagnostics, to have important payoffs at the farm level.

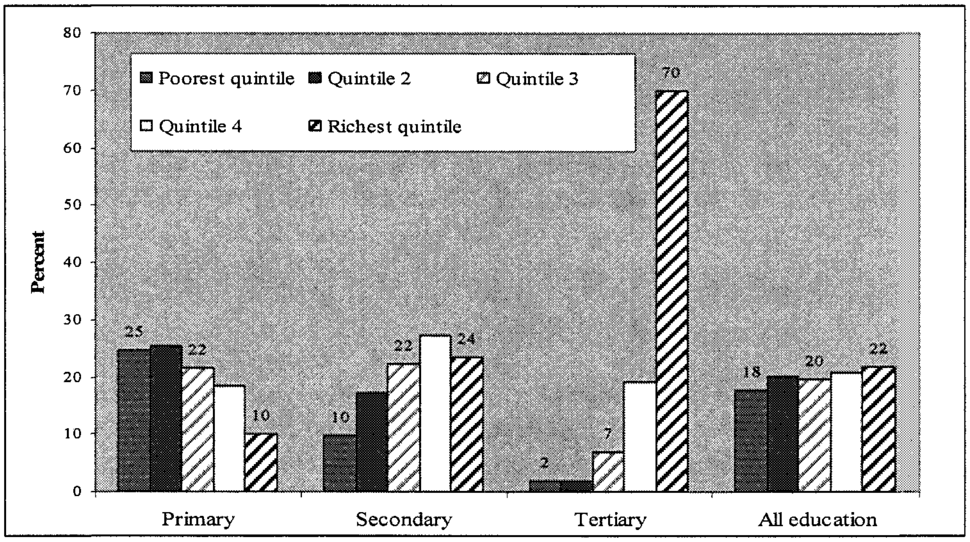
54. **Major improvements are needed in fiscal management—in particular in the comprehensiveness and transparency of the budget information, to enable more informed discussions about the budget, and improved monitoring.** At present it is virtually impossible to gain a consolidated account of spending by province, for example. This stands in sharp contrast to Ethiopia, which is much larger, and much more decentralized, but which also manages to generate quarterly out-turns, by woreda and region, with minimal lags.

55. **The large and persistent deviation of actual spending from plans approved by parliament, especially for development budgets, is a major issue.** This significantly reduces the credibility of the budget as a policy instrument and indicator of government intentions. This underlines the need for further progress in improving the budget planning process, but also to the importance of increasing the capacity of key

actors to improve scrutiny of the budget, in particular the relevant parliamentary committees.

56. **The financing and provision of education is a major element of the Government's development and poverty reduction strategy**. Education absorbs about 30 percent of sectoral spending. Public spending on primary education in Kenya is generally progressive, that is, the benefits poorer households receive relative to their income are far greater than those received by the better-off (E-Figure 6). From a gender perspective, the record of girls attending school has been fairly good over time.

E-Figure 6: Benefit Incidence of Government Education Spending by Level and Quintile, 2005/06 (percent)

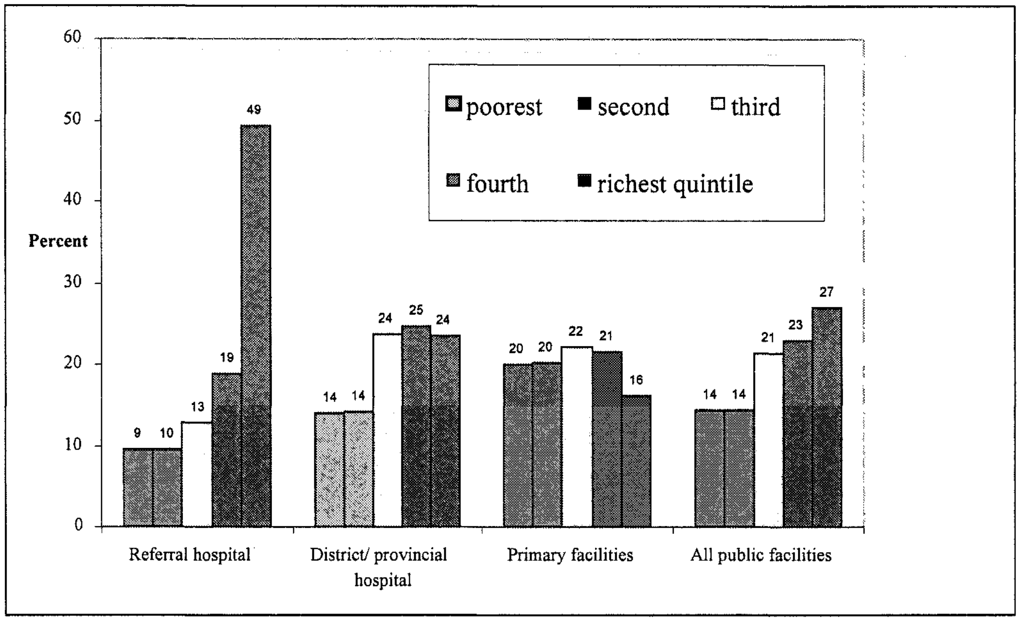


57. **At present, the bottom quintile benefits significantly from primary education, but relatively less from secondary school spending and hardly at all from tertiary spending**. To frame appropriate interventions, research is needed on the main constraints facing poor families in enrolling children in secondary school. Candidate factors include poor educational attainment at primary level, costs of schooling, distance and perceptions about returns to secondary schooling, as well as health-related factors. The relatively sparse distribution of secondary schools makes access difficult and costly to poorer rural Kenyans. The government recently announced free secondary education, and bursaries have potential to make access affordable. However recent evaluations suggest that implementation should be made more transparent and actions taken to ensure that poorer households are included, especially since that is now the explicit aim of the scheme.

58. **Analysis of health spending from the perspective of poverty and inequality suggests that poor people tend to use lower levels of services**. Yet the share of the budget allocated to higher levels of care has remained large, with front line rural services relatively neglected. Overall health spending is regressive, in that the bottom quintiles get less than proportional benefits from total public health spending (E-Figure 7). Half of the spending on referral hospitals goes to the top quintile, and less than 10 percent to the bottom quintile. The bottom quintile's benefits from spending on primary facilities are

proportional (20 percent). Alongside this pattern, analysis of private spending on health show very significant disparities. Public subsidies do little to offset this.

E-Figure 7: Benefit Incidence of Government Health Spending by Level and Quintile, 2005/06 (percent)



Source: staff estimates based on budget data and KIHBS 2005/06.

59. The key health spending challenges relate to the inadequate quality of care at the primary level, and enabling access to district and provincial hospitals. The latter in turn would call for two types of intervention, to improve access to district and provincial hospitals—better all-year roads, and to improve the implementation of fee exemptions, which do not function well. Weak budget management capacity of the line ministry, evident in the low disbursement rates, clearly needs to be addressed.

Monitoring and Evaluation

60. **It is crucial to underline the importance of progress in public sector performance and in particular capacity for monitoring and evaluation**. The government has introduced several reforms aimed at strengthening monitoring, including the new statistics legislation and the creation of an autonomous KNBS. However, performance in general has been weak, and it is recommended that the government, through its medium term plan and related initiatives, move more actively to strengthen underlying capacity and to help promote more evidence-based approaches. It is also noted with concern that the draft Medium Term Plan, 2008-2012 neglected the topic of monitoring and evaluation altogether.

61. Among the policy options outlined in the KPIA are short term, crisis-related initiatives, as well as long overdue measures to improve access and dissemination, and measures to enhance the role of non-state actors. Among others, we flag the needs to finalize the preparation of data dissemination and access policy for official data, and release to the public micro-data files of all household surveys (including the 2005/06 KIHBS), so that policy makers can benefit from broader analysis. We also recommend

increased involvement of non-state actors in designing and administering surveys. This is important because the KNBS has often been overwhelmed in dealing with the demand for surveys from development partners, researchers, and others, which can lead to delays in data collection and processing, and quality problems.

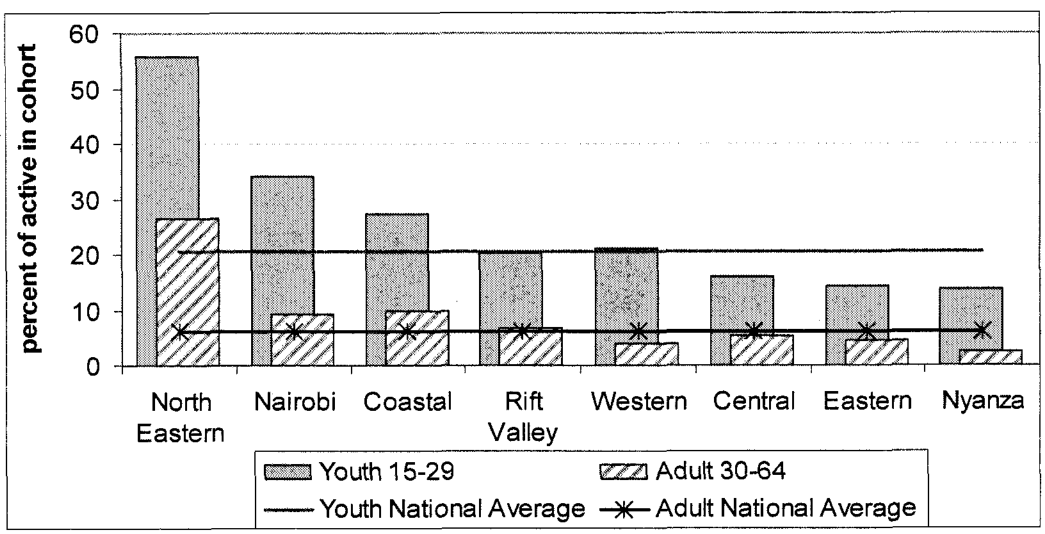
DISADVANTAGED GROUPS

62. A better understanding of the profile of disadvantage can inform ongoing public and policy debates. The Executive Summary presents brief highlights and policy implications related to two groups—namely unemployed youth and the slums. These groups are obviously not the sum total of those who tend to have been excluded from the benefits of development in Kenya, which importantly includes pastoralists (on whom much analysis is available) and some groups of women, urban widows, for example. At the same time, unemployed youth and slum residents represent particularly poor and large groups, and given the high profile nature of their situation a selective focus is justified at this point. We highlight needs for strategic approaches and targeted programs, informed by the diagnostic. In general, the directions suggested here are merely indicative, and more work is needed to develop concrete options.

Youth Unemployment and Joblessness

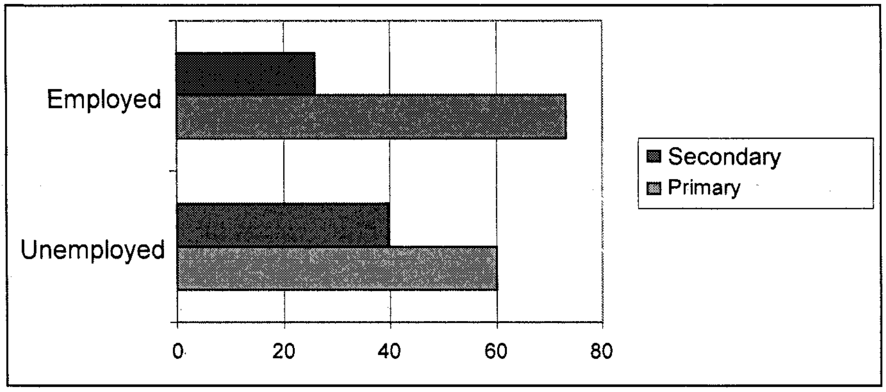
63. **The overall unemployment rates for youth are very high, double the adult average, at about 21 percent** (E-Figure 8). Youth fare the worst in comparison to adults in Western and Nyanza, where the youth unemployment rate is about triple the adult rate respectively; North Eastern province has the smallest ratio (1.5). As noted above, three quarters of unemployed women are youth. Thus youth unemployment is clearly a generalized issue in Kenya, and not restricted to young males in larger towns.

E-Figure 8: Unemployment Rate, Youth Versus Adult, by Province (percent of active in cohort)



64. While the incidence of poverty is higher among households with unemployed youth, youth who are unemployed tend to be better educated than employed youth, suggesting that there may be an element of search and/or frictional unemployment. Moreover, the relatively good levels of education may limit take-up of public works schemes (E-Figure 9).

E-Figure 9: Level of Education Completed (percentage of cohort), 2005/6



65. Looking at joblessness—i.e., individuals who do not have a job, excluding students—suggests that the magnitude of the problem is even larger for youth. If we aggregate the rates of reported unemployment and inactivity, the magnitude is such that 38 percent of youth—almost two out of five young Kenyans—are neither in school nor work. Indeed it is notable that the jobless number exceeds that in paid work. The provincial picture worsens for Central if we look at inactivity as well as unemployment, while Western and Nyanza remain the worst.

66. The recent crisis has prompted the government to renew its commitment to addressing youth issues, considering the potential impact that would accrue from engaging them in public works schemes. International experience suggests that the success of these programs depends on several factors, which need to be carefully considered in the Kenyan context. For example, the wage should be set at lower than the prevailing market rate for unskilled workers to allow for self-selection. A low wage would ensure that only the unemployed would participate, thus achieving better targeting by the program. However, especially for youth, this level would be very low in Kenya. Lessons should also be drawn from existing public works programs, such as "Roads 2000," "Trees for Jobs" and possibly others to inform the design of a scale up.

67. Public works are, at best, a temporary measure which can help alleviate the crisis, and make some inroads into the large numbers of jobless youth. However the empirical findings of the KPIA underline that there are no simple solutions to youth unemployment, and suggest the need for further analysis, drawing on regional and international experience. In order to effectively consider longer term structural issues, existing skills development and microfinance initiatives aimed at unemployed youth need to be reviewed. Firms in Kenya have rated workers' skills as a much lower constraint to their growth compared to tax and regulation, infrastructure services, corruption and cost of finance (see ICA 2008). While new market entrants are increasingly well educated, the incidence of unemployment among youth is high. Further data and analysis—quantitative and qualitative—is needed to inform appropriate policy and programmatic responses.

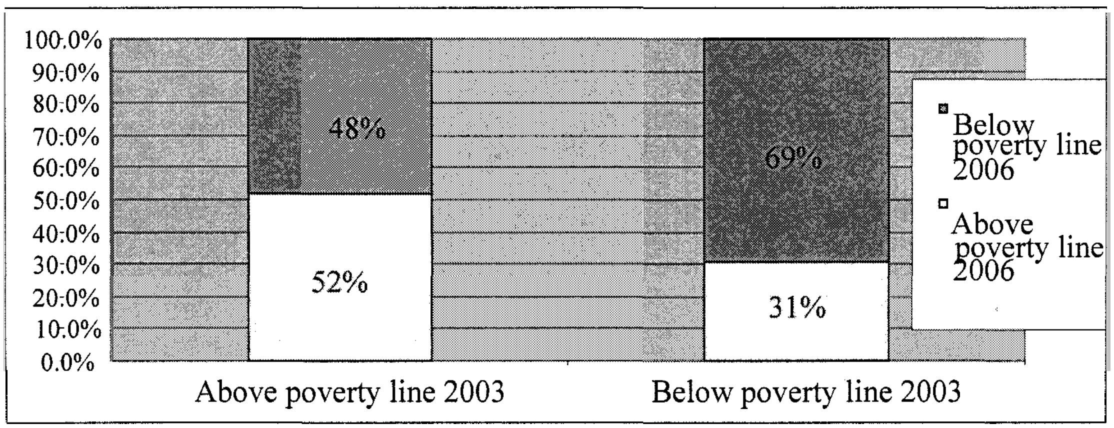
The Slums

68. Analyzes of informal settlements in Nairobi underlines that poverty incidence is high—63 percent of Nairobi's slum residents fall below the poverty line in 2006. At the same time, working with APHRC, we report significant heterogeneity within and across slums - within Korogocho, for example, the difference in the poverty rate between the poorest and wealthiest village is 31 percentage points.

69. Slum residents score poorly on non-income measures of poverty as well—unemployment levels are high (26 percent), only a minority have secondary level education or more (24 percent), and living conditions are appalling with only 3 percent of households living in housing with a permanent wall, access to piped water, and an electricity connection. There is very significant mobility into and out of the slums, with about half the sample moving out every year.

70. Among slum residents who did not exit, we find considerable number of transitions, both into and out of poverty. In particular, despite the overall decline in the headcount, among the minority who had been non-poor in 2003, only about half were still above the poverty line in 2006. Conversely, almost a third (31 percent) of those poor in 2003 were no longer below the poverty line in 2006 (E-Figure 10).

E-Figure 10: Poverty Transitions in the Nairobi Slums, 2003 – 2006



71. What are appropriate policy options in this context? Clearly poverty rates are very high, and enabling access to better income earning opportunities is a priority, including consideration of public works types programs, targeted at specific groups, in particular youth. At the same time, amenities in slums warrant attention. Garbage disposal seems to be an obvious candidate. But why are living conditions so bad? Recent research points to the lack of home ownership and a high turnover rate—about 85 percent of Nairobi's slum residents are tenants and the average resident stays in a home for about five years. By comparison, in Dakar, only a quarter is tenants and the turnover rate is low, with residents having stayed in the same home for an average of 19 years. Strikingly, living conditions in Nairobi's slums are far worse than those in Dakar, even though they are poorer and worse educated than their Kenyan counterparts.

72. The diagnostic suggests that innovative approaches are needed in Nairobi. For instance, the widely-used approach of upgrading infrastructure in the slums, without dealing with the tenure issue, is arguably unlikely to work—if improvements in

infrastructure are likely to raise rents and benefit the "shack owners" but displace many of the current tenants. In this sense, the large scale Kenya Slum Upgrading Program (KENSUP) launched in 2004 may warrant strategic review to assess the scope for greater innovation.

CONCLUSIONS

73. The KPIA examines the most recently available evidence to inform current debates about the nature of poverty and inequality in Kenya, and appropriate policy directions. We seek to add value to existing knowledge by focusing on and drivers of poverty, by exploiting panel data collected over time. We confirm that there has been some improvement in poverty overall since 1997, but poverty is still very pervasive, especially in rural areas. Inequality is large and appears to have risen over time. The main correlates of poverty resonate with those found in earlier studies—including family size, lack of education and frequency of shocks. The analysis does not reveal significant poverty reducing momentum in the labour market, at least through 2005/6. The picture that is emerging presents major policy challenges. There was little growth in employment in modern sectors, which remain a relatively small share of the economy. Earnings were low, especially in agriculture, and the level of inequality in earnings was large.

74. On the policy front, there is some good news—for example the expansion of infrastructure appears to be bringing benefits to the poor, by increasing their access to markets and services. The continuing emphasis on education is also bringing dividends. There appears to be some momentum in terms of diversification, both on and off farm, at least in non-pastoral areas.

75. Yet there are major challenges for policymakers. As the authorities proceed to finalize the Medium Term Plan, one clear implication from the analysis is that the poverty and inequality agenda is cross-cutting, and there is scope for innovation of traditional approaches. Among the topics warranting further consideration are appropriate and coherent responses to the very large regional variation, and the present exclusion of large groups, including many youth, as well as slum residents, from the benefits of growth and development.

76. Among the major challenges warranting further consideration are those of land inequality. Corruption is by now also a well-established issue, but continued progress is critical. There are also important messages related to budget allocations—the scope for greater pro-poor allocations, but also the need for much better information and transparency to facilitate analysis, in particular to get a better handle on spatial dimensions. The more general need for improved access to relevant data access is underlined, to inform policy making and to enable strengthened monitoring and evaluation.

1. CONTEXT

INTRODUCTION AND OBJECTIVES

1.1 This assessment of poverty and inequality comes at an important juncture for Kenya. The recent elections and pronouncements of the newly formed Grand Coalition have underlined the salience of these issues to ordinary Kenyans, and for policy makers. The violence in January-March, 2008 highlighted the importance of addressing poverty and inequality as major goals in their own right, but also for instrumental reasons—since growth is unlikely to be sustained in the presence of severe inequalities which increase the risk of conflict. The global slowdown that began to affect Kenya after August 2008 has also shown how external shocks can exacerbate poverty and public service delivery related vulnerabilities. Cumulatively, these factors underline the value of appropriate diagnostics about the patterns of poverty and inequality in informing public debates, strategies and actions to overcome exclusion and to design policies to minimize the impact of the current crisis. Considerably slower economic growth, projected at around 2.3 percent for 2008, and higher inflation at 25 percent, have implications for poverty requiring new ways to tackle the problem.

1.2 In this context, the KPIA attempts to address four broad policy-motivated questions of major relevance to Kenya. First, what has happened to poverty and inequality over time, with a focus on new findings which deepen and extend our knowledge base; and second, what are the major dimensions of poverty and inequality. These first two questions are addressed in Part II. The third broad issue revolves around such questions as whether the opportunities generated by economic growth were broadly or narrowly shared, with major population groups largely excluded, and who manages to escape from poverty, and why? These are addressed in Part III, on drivers of observed trends. And fourth, what is the pattern of public investments and services, and how do these interact with poverty? This is tackled in Part IV, alongside selected policy implications of the diagnostic.

1.3 This part is designed to set the stage for the analysis, and begins with an overview of Kenya's demographic, social, economic and spatial characteristics, reviewing longer term and recent trends in the economy and labour market. Those familiar with Kenya may wish to move directly to Part II.

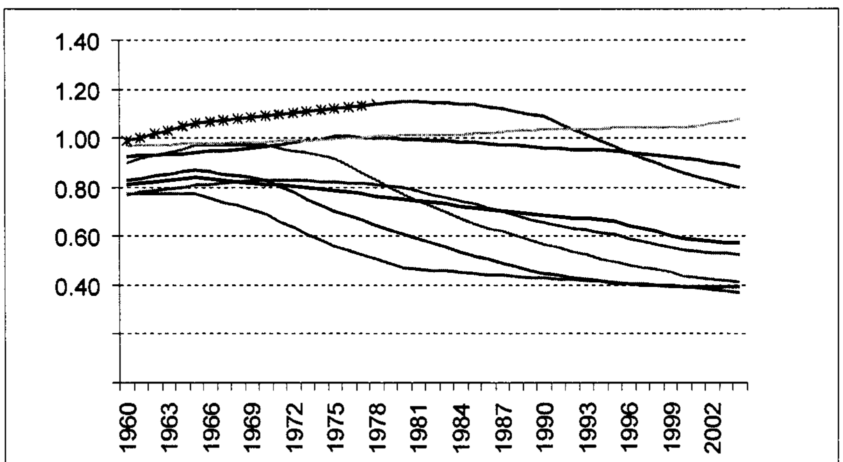
LAND, PEOPLE AND SPACE: AN OVERVIEW

1.4 Kenya has an area of almost 58 million hectares. Only 20 percent of the land is classified, on the basis of rainfall, as medium to high potential, and the rest is mainly arid and semi-arid lands (ASALs). About three out of four Kenyans lives within the relatively scarce medium to high potential areas. At the same time, while Kenya's urban population has grown steadily in recent decades, reflecting internal migration, by 2005, about 80 percent of Kenyans still lived in rural areas. So high rural population density, rather than large urban shares, characterize the current picture, although of course this is evolving over time.

1.5 The spatial distribution of the medium and high potential lands is uneven. For example, while nearly all of Nyanza and Western provinces, and 85 percent of Central Province, are classified as medium to high potential, less than 25 percent of land in the remaining provinces is classified as such. North Eastern province is entirely low potential.

1.6 On the population front, the rate of growth has decelerated, but remains an issue, especially for the poor. The rate averaged 2.6 percent annually in recent years. It is expected to decelerate to 1.9 percent by 2030, with the fertility rate falling from 5 in 2005 to 3.2, and life expectancy at birth rising from about 54 in 2005 to 61 in 2030. The increase in the working age (15-64 years) share and reduced fertility will reduce the age dependency ratio which had been among the highest in the world—from 0.83 in 2005 to 0.63 in 2030 (Figure 1-1).

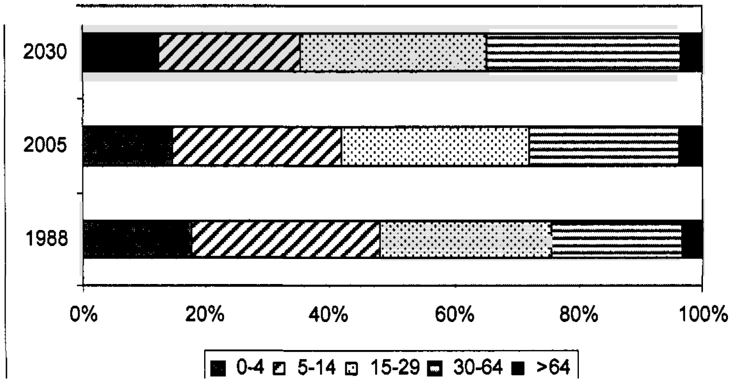
Figure 1-1: Kenya and Selected Comparator Countries: Age Dependency Ratio



Source: Staff calculations based on World Bank, WDI.

1.7 The share of youth (15-29 years) has risen slightly in the last two decades and is expected to remain around 30 percent. The infant (0-4) and child (5-14) ratio to total population fell between 1988 and 2005, and is expected to fall further (Figure 1-2).

Figure 1-2: Age Structure of Population, Selected Cohorts, 1988, 2005 and 2030



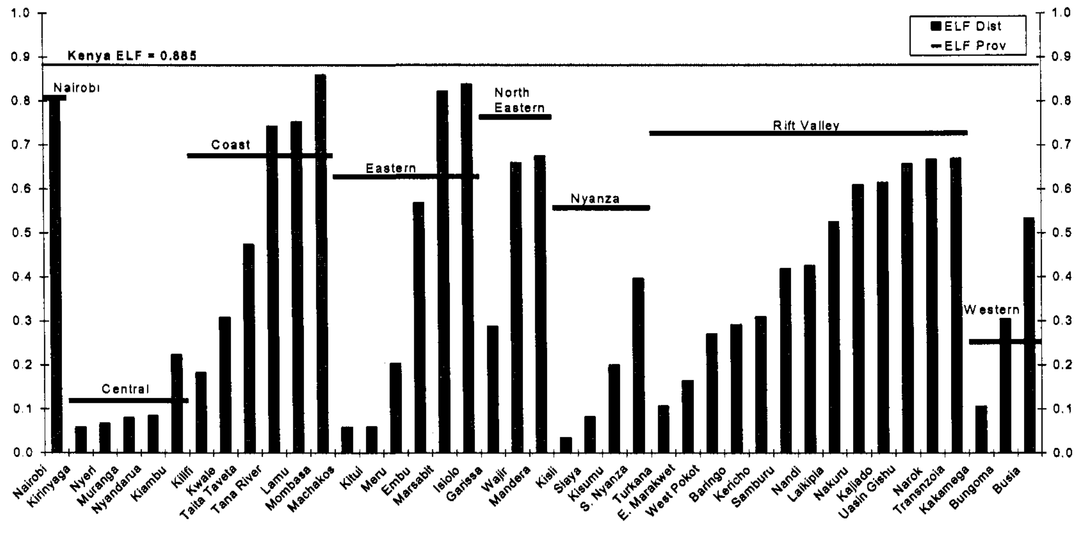
Source: Kenya Population Census, 1988; KIHBS'05 and Staff Estimations.

1.8 Together with other Sub-Saharan African countries, such as Uganda, Chad, Liberia, Cameroon, Zaire, the Republic of Congo and Madagascar, Kenya tops the rankings of ethnic, linguistic and religious fractionalization. More than 40 ethnic groups have been identified in Kenya, with the two largest tribes, Kikuyu and Luo, representing only slightly more than one third of total population.

1.9 A well-established measure of ethnic diversity is the so-called ethno-linguistic fractionalization index, or ELF.[5] The lower ELF is, the higher the probability that two randomly selected people are from the same group/tribe. So the larger the geographical area, the higher we expect ELF to be. And for Kenya, the national and provincial ELF's are typically higher than the district ones. Where this is not the case, it points to more heterogeneity—e.g., the ELF for Kiambu in Central Province is higher than the homogeneous other Central Province districts (and province overall) because of Kiambu's proximity to Nairobi and the number of migrants who have settled there to work in Nairobi. Figure 1-3 shows the results nationally, and by province and district. Kenya's overall ELF is 0.885.

[5] The estimates presented here for Kenya are staff calculations based on census data (1989).

Figure 1-3: Ethno Linguistic Fractionalization Index



Source: Staff calculations based on Kenya Population Census, 1989.

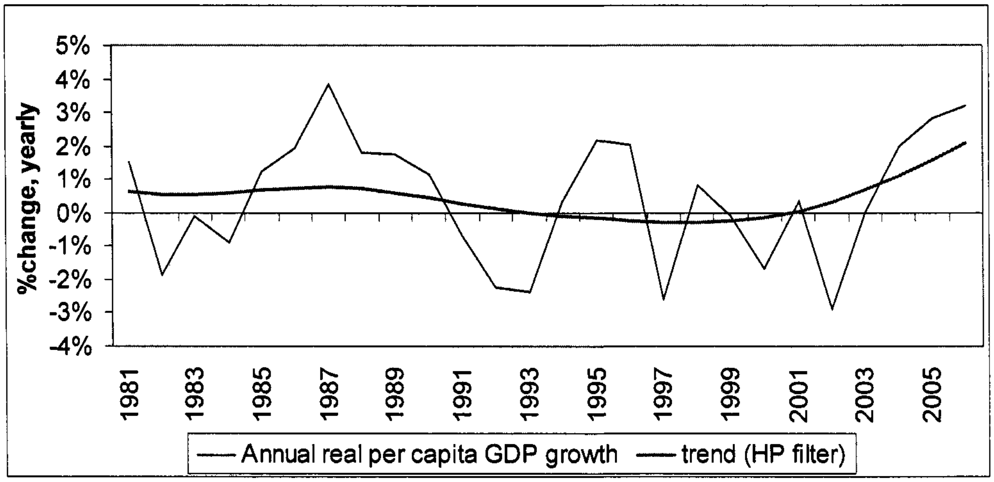
ECONOMIC TRENDS

1.10 The Kenyan post independence story began with vigorous economic growth in the 1960s (averaging over 2 percent per capita) and the 1970s (3 percent). However, during the 1980s average growth slowed to 0.4 percent, and the economy actually shrank in the 1990s. Over the past 25 years, rates of growth have been at best uneven, in the absence of any period of sustained high, or even moderate, growth,[6] as depicted in Figure 1-4. Alongside rapid population growth, income per capita by 2000, in purchasing power parity terms, had fallen to levels registered at the end of 1970s!

1.11 Overall, during the years in focus in this assessment, 1997—2006, real annual growth per capita was close to zero—only about 0.2 percent. However, given the earlier years of recession, this average conceals the economic recovery which began in 2003, driven by horticulture, electricity and communications in the primary, secondary and tertiary sectors, respectively.

[6] See Mwega and Ndung'u (2002); N'Dulu, Benno and Stephen O'Connell (2000); World Bank (2003); Economic Survey (various years); Kumar (2006).

Figure 1-4: Annual Real GDP per Capita Growth, 1981 – 2006



Source: Economic Survey, CBS.

1.12 A recent report on growth (World Bank 2008a) decomposed the sources of growth, by sub-period, into changes in physical investment, changes in human capital (years of schooling and returns thereto), and a residual, called "total factor productivity" (TFP).[7] Over the long term, 1960-2006, physical capital accumulation contributed about one-third of per capita growth, while human capital accumulation explained about half.

1.13 For the period 1997-2006, there was some positive contribution to growth from human capital, but physical investment per capita did not rise and TFP was negative. Per capita growth had recovered more recently—2003 to 2006 - reflecting both increased investment in capital, and TFP improvements. The latter likely partly reflected increased utilization of existing capacity. This trend is consistent with the Investment Climate Assessment (World Bank 2008b, ICA 2008 hereafter). Based on firm level surveys in 2003 and 2007, the ICA found significant improvement in labor productivity and use of capital inputs, as well in TFP, and capacity utilization improved significantly. On average, firms tended to increase employment without a commensurate increase in physical capital.

Table 1-1: Decomposition of Sources of Economic Growth, Selected Sub-periods, 1997-2006, Annual Percentage Rates of Change

Period	GDP Per capita	Physical capital Per capita	Human capital Per capita	Total Factor Productivity Growth
1997-2003	-0.7	-0.2	0.6	0.1
2003-2006	2.6	0.8	0.1	1.8
1997-2006	0.1	0.0	0.4	-0.3

Source: Staff calculations.

[7] See World Bank (2008a).

1.14 The extent of structural change in the Kenyan economy has been surprisingly limited over the long term through the more recent period. The tertiary sector—that is, services—account for about half of total value added in the Kenyan economy, followed by primary activities, at about 30 percent (Table 1-2). The growth performance of the secondary sector has been remarkably weak. Indeed, while there was evidence of recent TFP improvements at the firm level, there is no clear sign of productivity improvements resulting from reallocation of labor and capital across sectors to uses that are more productive.

Table 1-2: Sectoral Shares in Value-Added GDP, and Contribution to Growth, 1997-2006, Percent

	Share in Value Added GDP (% points)			Total Growth	Contribution of Activity to Value Added GDP Growth Rate (% points)		
	Primary	Secondary	Tertiary	(% points)	Primary	Secondary	Tertiary
1996	29.1	19.5	51.4				
1997	27.8	19.5	52.7	-1.0	-1.5	-0.2	0.8
1998	28.9	18.7	52.3	3.3	2.0	-0.1	1.4
1999	29.8	17.8	52.4	2.1	1.5	-0.5	1.1
2000	29.5	17.7	52.8	0.4	-0.2	-0.1	0.7
2001	30.9	17.0	52.1	4.2	2.7	0.1	1.4
2002	29.7	17.3	53.0	0.6	-1.1	0.4	1.2
2003	29.5	17.8	52.7	3.0	0.7	1.0	1.3
2004	28.9	17.8	53.3	3.8	0.5	0.7	2.6
2005	29.4	17.7	52.9	5.0	1.9	0.8	2.3
2006	29.2	17.7	53.1	5.7	1.5	0.9	3.2

Source: Staff Calculations Based on Economic Survey.

1.15 Agriculture remains a critical sector in Kenya, for growth as well as poverty reduction. It accounts for a disproportionately large share of total employment—about 60 percent—double its share of GDP, which immediately suggests that agricultural productivity and incomes are low. Four out of five Kenyans reside in rural areas, and most rely directly or indirectly on agriculture for their livelihoods. As we will see below, most of the poor still live in rural areas, and most people in rural areas are poor.

1.16 Finally, by way of introduction to broad economic developments, the employment elasticity of growth is relevant. Per capita growth is decomposed into several components, viz output per worker, employment rate, participation rates and the age dependency ratio for the period 1997-2005. The resulting estimate employment elasticity of growth is just 0.54 percent. This begins to provide some clues about underlying challenges that we explore further below.

SELECTED ASPECTS OF POLITICAL ECONOMY AND GOVERNANCE

1.17 Kenya has enjoyed decades of relative peace compared to most of her neighbors. At the same time, the aftermath of the disputed 2007 Presidential elections indicated deep-seated underlying tensions and the risks of future conflict. It is far beyond the scope of the KPIA to fully understand the deep roots and proximate causes of the crisis in early 2008. However, we attempt to frame the analysis in a context which explicitly recognizes major elements in the history, political economy and governance which have affected patterns of development in Kenya.

1.18 At the outset, it is important to recognize that the Kenyan people do have a strong sense of nation. According to Afrobarometer Survey Round III (2005), 44 percent of Kenyans think that they are as much Kenyan as they are members of their respective ethnic communities. Only 6 percent think ethnic first, whereas 24 percent put nation first. On the other hand, commentators have noted major economic and political cleavages in Kenya and that government policies over time, by favoring specific groups or coalitions thereof, tended to exacerbate these differences. [8] One example is the promotion of local vernacular, rather than the national language, with indigenous languages occupying prominent roles in the school curriculum.[9] Another is the pattern of public investment and services (Box 1-1). [10]

1.19 Administratively Kenya is divided into nine provinces which, except Nairobi, also broadly coincide with the patterns of ethnic residence. In terms of location, Kenya's larger ethnic communities tend to be associated with particular provinces, as summarized in Table 1-3.[11]

Table 1-3: Provincial Location of Different Groups (Percentage Shares)

Group	Share of Total Population		Major Location	Share of 'Major Location' Population		Share of Nairobi Population	Share of Rift Valley Population	
	1969	2003		1969	2003	2003	1969	2003
Kikuyu	20.1	24.2	Central	96	91.8	34.2	15	21.2
Luhya	13.3	15	Western	88	83.8	1.3	7	11.2
Luo	13.9	10.4	Nyanza	63	53.4	2.5	NA	2.3
Kalenjin	10.9	7.9	Rift Valley	51	41.4	2.5	51	41.4

Source: Kanyinga (2007), taken from Nellis (1974), cited in Stewart (2008). 1969 figures from census, 2003 from DHS.

1.20 As shown below, Kenya is characterized by sharp inequalities across some key socioeconomic dimensions. A useful way to think about these is as horizontal inequalities across groups, which can be defined in different ways, including class, livelihood, ethnicity and location (Stewart 2002). Of course groups are constructed in the sense that these reflect prevailing norms and attitudes, institutions and structures, and the boundaries between groups are fluid, not fixed. At the same time, analysis along "horizontal" lines can provide insights, and for Kenya, a salient and measurable group dimension is provincial location.

1.21 The KPIA looks at various differences across provinces, which are often significant, even controlling for other factors. Horizontal inequalities are important both

[8] Early commentators included Rothchild (1969); Nellis (1974). For more recent discussions on land issues see: Kariuki, S. (2004).
[9] For a thorough discussion on ethnicity and nation building in Kenya see Miguel (2004).
[10] For a valuable review of regional differences in the provision of services see: Society for International Development (SID). Pulling Apart: Facts and Figures on Inequality in Kenya. Nairobi: SID, 2004, p.21.
[11] Langer, A., A. Mustapha and F.Stewart (2007).

for economic reasons—the effects on growth and poverty—and the effects on perceptions and political stability. There is also increasing international evidence that horizontal inequality is related to conflict—e.g., Rwanda, Northern Ireland, Sudan and Nepal (Stewart 2008).

Colonial Legacy and post independence bargains underline Inequalities

1.22 British colonial settlement from the late nineteenth century through 1965 had two distinct outcomes in Kenya. First, infrastructure development was unbalanced. Areas inhabited by the settlers tended to have better access to education, roads, and so on, as well as potential for commerce. Thus at independence, Central province had better access to education, health services and transport. Second, colonial settlement in these areas led to the emergence of a class society based largely on land ownership. These two outcomes continue to characterize Kenya's patterns of development. Subsequent horizontal inequalities were based on these initial advantages as well as relative representation in the public and private sector in the post independence regime. This is true despite the neglect of Central province during much of the Moi period. Provincial imbalances were exacerbated by personal rivalries and created a tendency toward ethno-regional rivalry that continues to pervade politics in Kenya (Cohen, 1995; Muhula 2008).

1.23 Since independence, political bargaining and coalition formation has largely assumed regional dimensions. Several studies have underlined the existence and potential dangers inherent in these patterns. Rothchild (1969) and Nellis (1974) documented distinct imbalances in the pattern of Cabinet and Public Service appointments in the immediate post independence years. These were updated by Barkan and Chege (1989), SID (2004) and Kanyinga (2006), who also pointed to their long-term implications for economic growth and political stability.

1.24 Perceptions of political inequality are evident. The 2005 Afrobarometer found that almost four in ten Kenyans felt that their ethnic community had less, or much less, political power than other communities. There is notable regional variation in the magnitude of this perception. In Rift Valley, 42 percent of respondents felt that their ethnic community had less political power than other groups in the country, as did 38 percent of those in Nyanza and 72 percent in Coast, whereas only 7 percent in Central Kenya felt that way. While these data were collected during a period of heightened political activity (the referendum), they are nevertheless of interest.

An Overview of Governance Structures and Patterns

1.25 The Kenyan constitution provides for a strong executive, relative to the parliament and the judiciary. The system is also very centralized. Whereas at independence, the majority of public service delivery was undertaken by local authorities, revenue reforms in the 1970s increased local dependence on the central government. Responsibility for important public services was transferred to central line ministries.

1.26 The Kenyan constitution also confers vast powers to the President. These include allocation of ministerial positions, and appointments to such key offices as Court of Appeal and High Court Justices, top military commanders and Ambassadors without reference to parliament. Successive Presidents have tended to seek to entrench their rule through assignation of strategic administrative positions, and directing resources to provinces aligned with the ruling group. There appears to have been a recurring pattern whereby regime insularity, and exclusion of non-aligned regional elites, increases over the tenure of the regime. Thus between 1963 and 1978, and 2003 to 2007 Central province was disproportionately represented in Cabinet, Military, Diplomacy, and Public Service. A similar pattern was evident between 1979 and 2002, with Rift Valley dominating. These periods also coincided with the deliberate exclusion of specific provinces whose political elite were considered disloyal to the ruling group. For example, the record shows that the proportion of principal secretary appointments from Nyanza and Eastern provinces fell during 1969-1972.[12] A similar pattern can be observed more recently, when differences within the National Alliance Rainbow Coalition emerged. As a result, perceptions of Central province hegemony escalated, and became manifest during the divisive referendum in 2005, the 2007 election and the events thereafter.

Box 1-1: Provincial Bias in the Historical Pattern of Public Good Provision

The historical data suggest that the distribution of public goods such as education facilities, health, water and physical infrastructure in Kenya have tended to follow patterns of access to political power. Under Kenyatta, Central had better access to public services compared to other provinces. Similarly, under Moi, Rift Valley province received disproportionate share of government investment in public service delivery. In 1969 about two thirds of primary school aged children in Central Province were enrolled in school, but less than one-third in Nyanza and Rift Valley. During the Kenyatta regime, Central Kenya had the highest percentage of professionally qualified teachers, other than Nairobi. However this advantage was eroded during the 1990s when, for example, Central had the highest pupil-teacher ratio (34), compared to 28 for Rift Valley. Similarly, for health care, Central province was favored during the Kenyatta regime, then the Moi era brought similar advantages for Rift Valley province. By 2002 Rift valley province had about 6,000 people per health facility-the least of any province. Nyanza had about 9,000 while Western had 11,000 and sparsely populated North-Eastern province about 14,000 people per health facility. In Part II and IV below, we examine more recent evidence to see whether these historical patterns have persisted.

Source: Central Bureau of Statistics, Kenya, 1994. Cited in Alwy, Alwiya and Susanne Schech.

1.27 The performance of the national parliament has been mixed. Important oversight organs like the Public Investment Committee and the Parliamentary Accounts Committee do exist but have not fulfilled their potential.[13] The fact that parliament does not control its own calendar and can be prorogued and dissolved by the president undermines its independence. Parliament has little scrutiny of the budget, and members only encounter the budget bill on the day it is presented by the Minister for Finance. Annual reports of the Controller and Auditor-General routinely reveal politically

[12] Nellis, J (2004), p. 14-15; Kanyinga (2006), p. 274-275. This coincided with a rift between Central and Nyanza province's elites, leading to a new opposition party, and the alleged involvement of military officers from Eastern in the 1971 mutiny. A similar pattern occurred between 1985 and 2002, with Rift Valley securing more representation, Central share in Cabinet dropping from 20 to 4 percent, while the Nyanza's from 16 to 4 percent over the same period.

[13] Global Integrity Report (2007) indicates that Kenya scored only 25 out of 100 on the question of whether government acts on the findings of supreme audit agencies such as the Controller and Auditor General. Government tends to ignore recommendations of PAC and PIC for prosecution of major offences. See Global Integrity Report on the web: http://report.globalintegrity.org/Kenya/2007/scorecard/75.

motivated and economically unviable projects, while recommendations of the Public Accounts Committee are rarely implemented. On the other hand, the fact that Kenyan MPs are the best paid on the continent and their continued agitation for additional benefits tends to erode their moral authority. It is perhaps not surprising that a recent study on the strength of legislatures worldwide ranked the Kenyan parliament at 126 out of 158.[14]

Box 1-2: Youth and Politics

Youth aged 15-29 years comprise over 30 percent of the Kenyan population. They are a rapidly growing and increasingly vocal group, and an important political constituency in their own right. Surveys point to a politically active as well as a highly volatile demographic. About 68 percent of youth indicate that they were very interested in public affairs, while 62 percent indicated that they discuss political matters frequently (Afro-barometer). Several factors account for the political salience of this group, including its relative mobility, levels of education and, as we see below, high of unemployment and joblessness. Indeed they may well be the most frustrated and disaffected group of Kenyans, and therefore the most vulnerable to political mobilization.

An emerging phenomenon in Kenyan politics is the rise of youth militias. Some of these militias have been known to work for individual politicians. The rise of the Mungiki in Nairobi, Nakuru and parts of Central province, as well as the emergence of the Land Defense Force in Western province and parts of Rift Valley could be attributed to the socio-economic and political exclusion of the youth. High unemployment and, poverty, and a manipulative and predatory political environment collectively heighten perceptions of exclusion.

1.28 Youth engagement in politics has rarely assumed organized forms in terms of agenda setting. Traditionally, the youth have been used as party agents and as party "foot soldiers", including during the post election violence in 2008. At the same time, and despite the high number of young people registering as candidates for parliamentary nominations, there was no organized articulation of a unified youth agenda.

1.29 The post election violence in 2007 demonstrated how violently engaged youth were in the conflict. According to Youth Agenda, a local NGO, while the youth were responsible for the planning of only about 7 percent of the violence, they were responsible for the execution of about 55 percent of election related violence.[15] The same source reported similar trends in the funding for violence. About 60 percent of funding for violence was sourced from non-youth sponsors, while youth sponsorship of violent activity accounted for only 7 percent. These figures are circumstantial evidence of a chain in which youth tend to act as conduits or agents (Muhula 2008).

1.30 To the extent that Kenya's ruling elites continue to use political power as a source of patronage, group based advantages could be expected to be promoted. This in turn would imply that horizontal inequality would remain a persistent feature of socio-economic and political structures in Kenya, reflected in unequal access to services and economic opportunities. These issues could be addressed and policies to address to do are the focus of the final part of the report.

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[14] Fish and Koenig study on strength of legislatures.

[15] Youth Agenda, 2008, p.25.

2. THE EXTENT AND NATURE OF POVERTY AND INEQUALITY

INTRODUCTION

2.1 This report examines the most recently available evidence about the extent and nature of poverty and inequality in Kenya. Inequality has been increasingly recognized not only in mainstream development debates (WDR 2006), but also in the specific context of Kenya.

2.2 The basic results do not reveal major surprises. We see some improvement in poverty overall since 1997, poverty is still very pervasive, especially in rural areas. Inequality is large and growing. The main correlates of poverty resonate with those found in earlier studies—including family size, lack of education and frequency of shocks. We seek to add value to existing knowledge by focusing on regional variation, youth, the slums and drivers of poverty, by exploiting panel data collected over time.

2.3 This assessment adopts a multi-dimensional approach. Alongside the most common methods used to measure poverty, based on consumption and incomes levels, we seek to measure other aspects of well-being and deprivation. We have assembled comparable indicators for education, health and access to basic services, as well as measures of vulnerability. Participatory approaches are exploited to better capture the nature of poverty, and risks as well as opportunities perceived by the poor.

2.4 A range of data sources, both quantitative and qualitative, are drawn upon. The recently released Kenya Integrated Household Budget Survey (KIHBS 2005-2006), and the basic official report on poverty (KNBS, 2007a and 2007b) is complemented by a range of other household and firm surveys, and census datasets. In particular, we draw on a rich panel data set that is representative of rural Kenya (with the exception of the pastoralist areas which are about 5 percent of the population), which is associated with the Tegemeo Institute. And given the heightened importance of understanding disadvantaged groups in urban areas, we also exploit a series of local censuses that have been carried out for several years in two large Nairobi slums, by the Africa Population Health and Research Center (APHRC). To complement the quantitative analysis, the Kenya National Bureau of Statistics (KNBS's) Fourth Participatory Poverty Assessment (PPA-IV), which gathered more qualitative information on how communities perceived their living standards, is exploited to provide deeper insights. Box 2-1 summarizes the main data sources used.

Box 2-1: Data Sets Used in the KPIA

Poverty and inequality are complex and multidimensional country-specific problems. Developing a better understanding of the scope, cause and possible solutions to these problems requires drawing on a multitude of different information sources. The following datasets are used in this report:

Data set	Collection Period	Sample Size (households)	Representativeness
Kenya Integrated Household Budget Survey (KIHBS)	2005-2006	13,158	Nationally at the District level
Kenya Demographic and Health Survey (DHS)	1993, 1998, 2003	8,561	Nationally at the Province level
Population and Housing Census (PHC)	1999		Entire population
Labor Force Survey (LFS)	1998	12,814	Nationally at the Province level
Welfare Monitoring Survey (WMS)	1997	10,874	Nationally at the District level (excluding North Eastern province)
Tegemeo	1997, 2000, 2004, 2007	1500	Nationally, of rural non pastoralist population
APHRC	2002-2007	13 – 15,000	Two of Nairobi's main informal settlements, Viwandani and Korogocho
NISS	2004	1817	Random sample in Viwandani and Korogocho of households whose head had ever married.
FinAccess	2006	4070 individuals	Nationally

2.5 This part begins with a national snapshot of consumption poverty and inequality in 2005/6, using the KIHBS. These results are complemented by a focus on geographic variation and inequality. While almost half of Kenya's population lives in poverty, this population is heterogeneous facing diverse problems and living conditions. To build a multi-faceted poverty profile, we distill salient characteristics of poor households including demographic composition, gender dimensions, education levels, migration status, health and nutrition, asset ownership, access to key services and infrastructure. We then turn to focus on three major themes: provincial variation and the slums and youth. Finally but not least, we explore expected impacts of the recent conflict on the levels and profile of poverty and inequality in Kenya.

A National Snapshot: The 2005-2006 KIHBS

2.6 The national snapshot uses the KIHBS and adopts the official KNBS method, where household consumption is compared against the official poverty lines (Annex 1). The overall rural and urban poverty lines are, respectively, 1,562 and 2,913 Kenya Shillings (KSh) per month per person (in adult equivalent terms, which at the time was approximately US$0.75 and US$1.40 a day per person) and include minimum provisions for both food and non-food expenditures. The lower food poverty lines—KSh 988 in rural and KSh 1,474 in urban areas—correspond to the average expenditure needed in 2005-2006 to attain the minimum recommended daily intake of 2,250 kilocalories.

Almost Half the Population Lives in Poverty and mostly in Rural Areas

2.7 The KIHBS suggests that in 2005/6 almost half of the population (47 percent) lived in poverty, of which 85 percent were in rural areas (Table 1.1). Poverty incidence was significantly lower in urban than rural areas (one third versus one half). This is true regardless of the poverty line or measure. The rural expenditure distribution is also much steeper around the poverty threshold, which suggests that a marginal increase in the cost of meeting the basic needs basket of goods would result in a relatively larger rural share falling into poverty. The sensitivity of poverty measures to price and other changes is addressed in detail later in this chapter, in the context of crisis impacts and food inflation.

2.8 *Food poverty* was widespread in 2005/6, with over 16 million Kenyans unable to meet the cost of buying the amount of calories sufficient to meet recommended daily calorie requirements. Indeed, almost one out of every five Kenyans was in *severe poverty*, in that they could not meet the cost of a basic food bundle even if they spent their entire budget on food (Table 2-1). The *poverty gap* captures the average expenditure shortfall of the poor relative to the poverty line, which in this case was about 17 percent.

2.9 The official data suggest a decline in poverty over time—from an estimated 51 percent in 1997, to 47 percent in 2005/6.[16] While higher poverty headcount figures for 2000 are sometimes reported, which would in turn suggest a more rapid decline, these are not reliable, and do not refer to these in the present report. Poverty in Kenya during 2005-2006 was estimated at 46.6 percent from the KIHBS data. The 1997 WMS is the most immediately preceding national household survey designed to estimate poverty levels. Alas, these poverty estimates are not strictly comparable over time because of modifications in instrument design as well as differences in the measurement approach used.

Table 2-1: Poverty Estimates (2005-2006)

	Poverty Measure	Headcount (%)	Number of Poor (million)	Poverty Gap (%)
National	Overall	46.60	16.60	16.60
	Food	45.80	16.30	
	Severe	19.50	6.90	
Urban	Overall	34.40	2.50	11.70
	Food	40.40	2.90	13.00
	Severe	8.30	0.60	2.50
Rural	Overall	49.70	14.10	17.80
	Food	47.20	13.40	16.20
	Severe	22.30	6.30	6.90

Source: KNBS (2007) and staff estimates based on the KIHBS.

Triangulation

2.10 It is important to assess alternative sources of data and methods, to see whether the overall officially reported trends are robust. We have reviewed against three such

[16] This is statistically significant: the 95 percent confidence intervals around the 1997 figure are 50.7 and 53.6, and around the 2005 estimate, 45.4 and 47.9 percent.

sources—Tegemeo panel, APHRC urban slums, and household asset-based predictions—and conclude that the trends are broadly consistent.

2.11 First, the Tegemeo panel, which is representative of non-pastoral rural Kenya, collects data on incomes that allow estimation of poverty headcounts. This sample is not designed to be nationally representative, and the results should not be taken as such. Over the period 1997-2007, poverty measured in terms of income fell from 51 to 36 percent. The Tegemeo sample also evidences household assets (livestock, bike, radio, other). Unlike the WMS / KIHBS comparisons, Tegemeo has information for four points in time, viz 1997, 2000, 2004 and 2007, from the same panel of households, and is able to identify sub-periods of growth and poverty reduction, which is investigated in Part III.

2.12 Second, APHRC has undertaken extensive demographic, social and economic analysis of trends in two slums in Nairobi. Data on livelihood for two points 2003 and 2006 show a marked decline in poverty—albeit from very high rates, to levels that are still almost double above the national urban average, that is from 73 to 62 percent over the three year period (de Laat et al 2008). This is investigated further below.

2.13 Third, household assets-based predictions, following Stifel and Christensen (2007), suggest that nationally, the predicted poverty rate fell from 51 to 47 percent over the period 1997 – 2005/6.[17] This method uses an economically intuitive and inexpensive methodology which has been used in the absence of regular collection of household consumption data (Stifel and Christensen, 2007), and in cases where comparisons of household survey monetary based results could be valuable (Kijima, Y. and Lanjouw, P. (2003) *Poverty in India during the 1990s: A Regional Perspective*, Policy Research Working Paper No. 3141, DECRG, The World Bank and Christiaensen, L., Lanjouw, P., Luto, J., and Stifel, D. (2008) *Estimating Poverty Across Non-Comparable Surveys: Evidence from Vietnam, Russia and Kenya,* draft, forthcoming). Estimates using the asset data from the 1997 WMS, earlier DHSs and KIHBS suggest overall improvements.

2.14 It thus seems that the direction of the officially reported trend of decline in poverty is robust, and, given the Tegemeo results, that this trend continued through 2007. However all the estimates are based on data that was generated prior to the recent election crisis and food price rises. We return to both of those major issues in the final section of this part. It is also important to underline more general caveats that qualify the trend of improvements, most notably the significant provincial variation and rising inequality. Much of this assessment tries to better understand these underlying concerns.

[17] Thanks are due to David Stifel, Assistant Professor, at Lafayette College, for re-estimating earlier results using KIHBS data, and to Luc Christiansen and Peter Lanjouw for support and advice on this point.

Box 2-2: Defining Poverty in Kenya

Broadly speaking, measures of poverty can be either objective (based on observed or reported income, expenditure or assets) or subjective. Much of this report relies on the former, while also drawing extensively on qualitative information. The latter approach recognizes that Kenyans' individual, community and social perceptions about poverty fundamentally matter. There have been several studies in Kenya which attempt to combine quantitative techniques of poverty analysis with more participatory approaches, the latter bringing the perspective of poor people themselves and their communities. Back in 1994 Narayan and Nyamwaya (1996) found that the community perceptions of poverty led to estimates similar to those obtained from quantitative surveys. Since then a rich literature has unfolded offering deeper insights into the synergies and potential contradictions between these two empirical approaches (Krishna et al, 2004, Ade Freeman et al, 2005, Lay et al, 2007, Place et al, 2007, Mango et al, 2007, Republic of Kenya, 2007, and World Bank, 2006, 2007). The qualitative work helps to highlight what are the most important indicators to be tracking, and that differences across places are key.

The KNBS's Fourth Participatory Poverty Assessment (PPA-IV) gathered qualitative information from communities. By conducting this exercise on a sub-sample of the KIHBS, the KNBS opened up potential for a mixed analysis of the poverty situation, combining structured and participatory approaches, with a broad geographical coverage which sets it apart from other recent studies. The PPA-IV covered 71 clusters in 18 districts in both rural and urban Kenya.

In general, the PPA-IV teams found a consensus among the community groups on what it means to be poor. For both rural and urban communities, extreme poverty is closely linked to food consumption. This confirms the intuition of the approach taken in defining a nutrition-anchored poverty line in the analysis of the KIHBS data. Non-food consumption emphasized by the communities consisted of mostly of clothing and primary schooling costs (like uniforms) of children. The majority described poor people as those who are never sure of their next meal, who depend on others for survival, have dilapidated housing, are poorly dressed and cannot even afford second-hand clothes. Poor people do not own property (such as land) and generally work on other household's farms to earn some living. Most poor people were said to be always in bad health and unable to afford to educate their children.

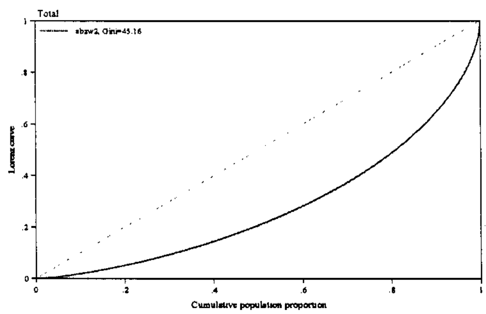
The PPA-IV found a surprising uniformity across locations in these perceptions, though some dimensions were community-specific. In Kilifi, for example, the communities considered the lack of legal title deed (for farm land) as a manifestation of poverty. Pastoralists, such as Wajir, placed more emphasis on livestock ownership. In urban Nairobi and Mombasa communities identified poverty in terms of low wages and unemployment. These findings of the PPA-IV are strikingly similar to the conclusions of that conducted a decade earlier (Narayan and Nyamwaya, 1996).

Inequality in Kenya is High, especially in Rural Areas

2.15 The fact that the national consumption decile ratio (richest to poorest) rose from 13 to 19 between 1997 and 2005/6 indicates large and growing inequality. Here we take a broader brush view of inequality to complement the foregoing picture of spatial concentration of poverty. We look initially at measures of vertical inequality, that is across individuals and households, as opposed to horizontal inequality across groups (see Part I and further below, when we examine provincial differentiation).

2.16 Different measures can be used to capture inequality, including Lorenz curves/ Gini coefficients and decile-type ratios (Ferreira and Ravallion, 2008). Figure 2-1 provides some international comparisons of the Gini co-efficient which illustrate that inequality in Kenya is markedly higher compared to countries with similar internationally comparable dollar a day poverty rates such as Ethiopia and Malawi. And as we show below, rates of inequality are even higher for reported earnings, and such key assets as land. However the gini misses the large differences at the top and bottom of the distribution, which are better reflected in decile ratios. The levels of measured income inequality in the Tegemeo analysis are far higher than in the KIHBS measures, which may derive in part from the differences between income and consumption.

Figure 2-1: Lorenze Curve in Kenya and Some Comparisons (2005-2006)



	Year	Population below $1 a day	Gini
Kenya	05-6	NA	45.2
Ethiopia	99-00	23	30
Malawi	04-05	20.8	39
Rwanda	2000	60.3	46.8
Tanzani	00-01	57.8	34.6
Uganda	2002	NA.	45.7

Source: Staff estimates based on the KIHBS 2005-2006 data and WDI 2007.

2.17 Comparing the average expenditure of the top and bottom deciles further underscores the relative inequalities within rural and urban areas. Average expenditure of the bottom rural decile is only 8 percent of the top rural decile; the ratio in urban areas is much larger—close to 1:20!

Table 2-2: Average Rural and Urban Expenditure by Decile, 2005--6

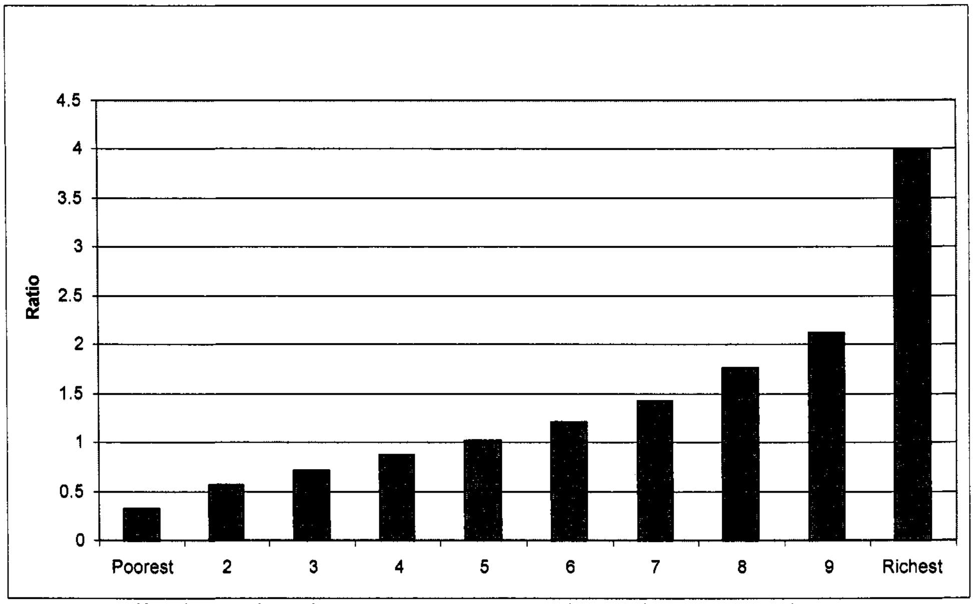
	2005-2006		1997	
Decile	**Rural**	**Urban**	**Rural**	**Urban**
Poorest	466	1,110	444	1,009
2	813	1,888	609	1,525
3	1,038	2,404	755	1,809
4	1,244	2,955	914	2,123
5	1,458	3,578	1,088	2,455
6	1,719	4,288	1,283	2,869
7	2,039	5,009	1,531	3,502
8	2,473	6,058	1,862	4,469
9	3,147	8,202	2,402	6,422
Richest	5,741	22,823	4,589	13,756
Total	2,331	6,673	1,558	4,033
Decile Ratio (1/10)	0.08	0.05	0.10	0.07

Source: Staff estimates based on KIHBS 2005-2006 data and WMS 1997 data.

Note: Deflated per adult equivalent consumption.

2.18 Figure 2-2 shows the dramatic difference in consumption relative to the poverty line across expenditure deciles. The richest households (top decile) spend about four times the poverty line.

Figure 2-2: Ratio of Consumption Per Capita to the Poverty Line by Decile



Source: Staff estimates based on KIHBS 2005-2006 data and WMS 1997 data.

2.19 **It is interesting to view inequality levels and trends in a broader international and regional perspective.** Table 2-3 shows that both the gini and decile ratio in Kenya are not as high as levels observed in Latin America, where inequality is renowned for its entrenched nature, and damaging effects on social cohesion and growth (World Bank, World Development Report, 2006). Levels of inequality in Kenya are, not surprisingly, much higher than in formerly socialist and neighboring Ethiopia and Tanzania, and also the levels reported in East Asia, and the US and Australia, for example. It is also worth highlighting that national statistics show a widening of inequality between 1997 and 2005/6. The pace of this change may be an issue of concern for Kenyans and policymakers.

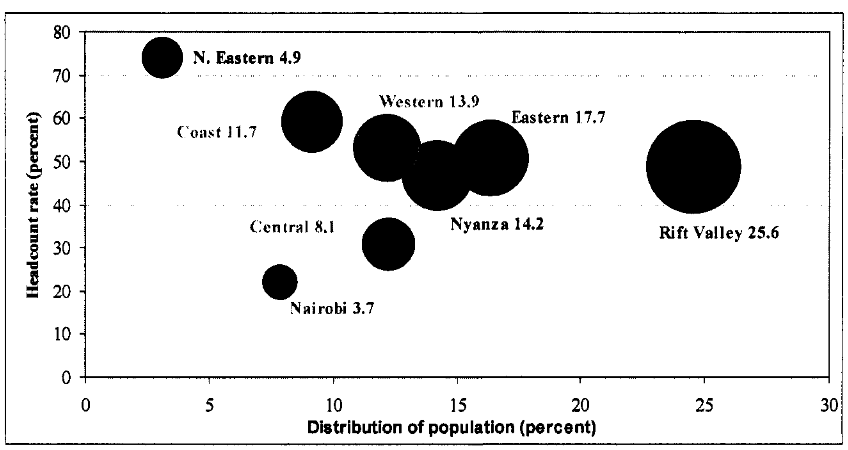
Table 2-3: Inequality Measures, Kenya and Selected Comparators

	Year	Gini	Decile Ratio
Latin American and Caribbean			
Brazil	2004	57	49.8
Honduras	2003	53.8	35.2
Bolivia	2002	60.1	157.3
Mexico	2004	46.1	24.6
Sub Saharan Africa			
South Africa	2000	57.8	31.9
Ghana	1998-1999	40.8	14.3
Tanzania	2000-2001	34.6	9.3
Ethiopia	1999-2000	30	6.5
East Asia and Pacific			
Vietnam	2004	34.4	6.9
Indonesia	2002	34.3	7.9
Thailand	2002	42	12.4
OECD			
Australia	1994	35.2	12.7
United States	2000	40.8	15.7
United Kingdom	1999	36	13.6
Kenya	**1997**	**42.5**	**13.6**
Kenya	**2005-2006**	**45.2**	**14.0**

Variation in Poverty incidence among Provinces and Districts

2.20 Kenya's development has been historically characterized by significant spatial variation. Not surprisingly then, in 2005/6, poverty incidence in Nairobi and Central was way below the national average, and only 12 percent of the total poor reside in these two provinces. Conversely, poverty incidence is higher in Coast and Western provinces, which together account for a quarter of the poor in Kenya. Poverty incidence is most pronounced in the sparsely populated North Eastern province. Figure 2-3 provides a provincial breakdown of the population and the numbers of poor, based on the KIHBS.

Figure 2-3: Population and Poverty by Province, 2005-2006



Source: Staff estimates based on KIHBS. Size of bubble represents province's share of total poverty

2.21 Spatial disparities are pronounced at the district level—poverty incidence varies from 93 percent in Turkana to 12 percent in Kajiado district. Indeed, a quarter of the poor population are concentrated in just seven districts,[18] half of the poor live in just under a third of all districts, and three quarters of the poor nationwide reside in half of Kenya's districts. Variations in the depth of poverty are also significant: the poverty gap in Turkana is 70 percent compared to 2 percent in Kajiado (KNBS, 2007b). We examine spatial variation further below.

2.22 Returning to the qualitative data, the PPA-IV defined five livelihood groups, described in Box 2-3 (Republic of Kenya, 2007). Perceived poverty incidence and its dynamics differed systematically across these groups. In both pastoralist and "mixed marginal farming" with livestock districts, about 60 percent were considered poor. Poverty was perceived to be lowest among the mixed farming communities (Groups 1 and 2), where about two fifths of households are considered poor. The PPA-IV underlines high poverty incidence in districts characterized by certain kinds of livelihood. Pastoralists in particular have been faring badly.

Box 2-3: Livelihood Groups Distinguished in the PPA-IV

Livelihood group 1: mixed farming, high potential. The mixed farming high potential districts were mainly characterized by food and cash crop (tea, coffee and sugarcane) farming as well as livestock rearing. They also had mixed farming in the marginal areas where food crops and livestock rearing dominated. These districts included Nyeri, Kirinyaga, Kisii Central, Nandi and Butere/Mumias.
Livelihood group 2: mixed marginal (low potential) farming with fishing. The predominant activities were mixed farming of food crops, some cash crops and livestock. They also had fishing and some cash cropping activities in the low potential areas. This group of districts included Kisumu, Migori and Busia.
Livelihood group 3: mixed marginal farming with livestock. Large portions of these districts were marginal areas characterized by mixed farming of food crops, cash crops (palm, coffee and pyrethrum) and livestock farming. Some of them were also occasioned by casual wages derived from large ranches. These districts included Makueni, Kilifi, Tharaka, Marakwet and Laikipia.
Livelihood group 4: pastoral. These districts were largely characterized by pastoralism with some pockets of agro-pastoralism and mixed farming (food crops) in some areas. They included Tana River, Marsabit and Wajir districts.
Livelihood group 5: Urban districts. Nairobi and Mombasa.

Variation in Poverty Incidence *within* Districts

2.23 A poverty map can combine population census information with household survey data to estimate poverty and inequality at finer levels of geographic detail than what is feasible with the survey data alone.[19] For Kenya, the 1999 population census and the 1997 WMS were used to estimate poverty incidence at the location level, which averaged 12,000 inhabitants. These suggest considerable variation in poverty *within*

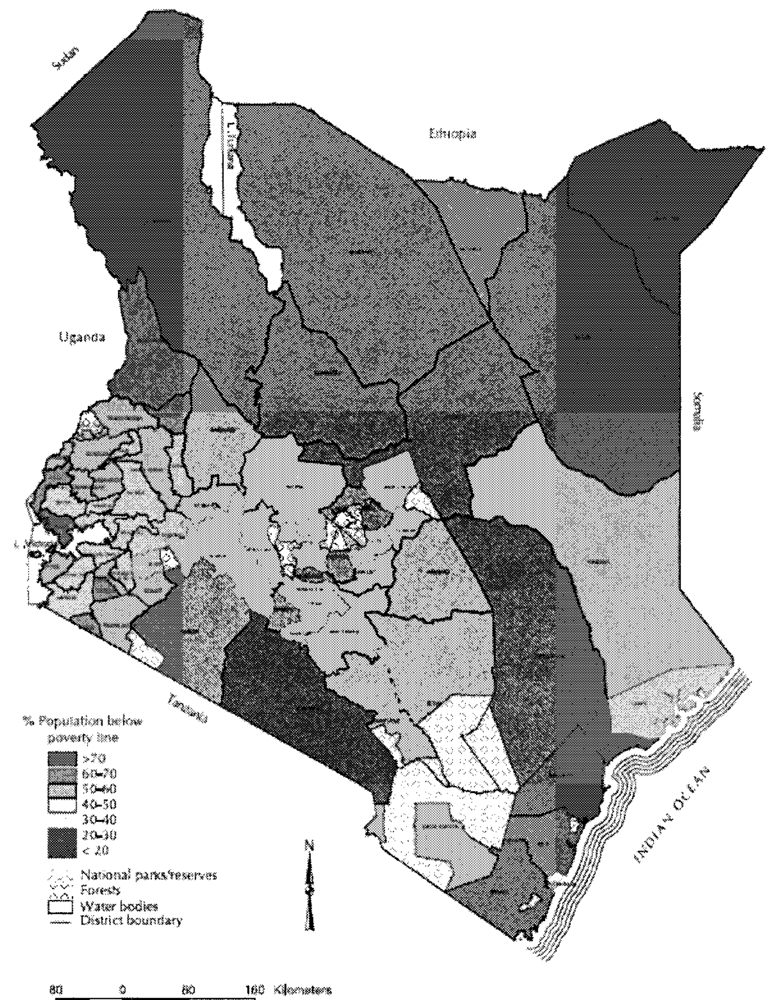
[18] In 2005/6, the districts with the largest number of poor people were: Machakos, Makueni, Nairobi, Bungoma, Nakuru, Kwale and Turkana. The seven districts with the highest poverty rates are Turkana, Marsabit, Mandera, Wajir, Samburu, Tana River and Kwale.

[19] Small area poverty maps were prepared by KNBS based on the 1999 Population and Housing Census and the 1997 WMS.

districts—as well as concentration of poverty—in 1997, two thirds of the rural poor were concentrated in one third of Kenya's 2,070 locations. Poverty estimates in over 60 percent of urban locations were significantly different from their corresponding district level averages. This indicates substantial within district variation - i.e. poor people in better off districts, and vice versa. The slum areas in Nairobi, for instance, are home to the bulk of the poor in the country's capital. Analysis below based on complementary date sources (APHRC) suggests that poverty levels are high in the slums but also that there is very significant village level variation within the slums (see below).

2.24 Map 2-1 presents the 2006 District level estimates obtained from the KIHBS which illustrates the considerable geographic variation in poverty incidence at that time. It is not possible to compute 2006 location level poverty estimates because the KIHBS and 1999 population census data are too far apart in time. [20]

Map 2-1: District Estimates of Poverty, 2005/6



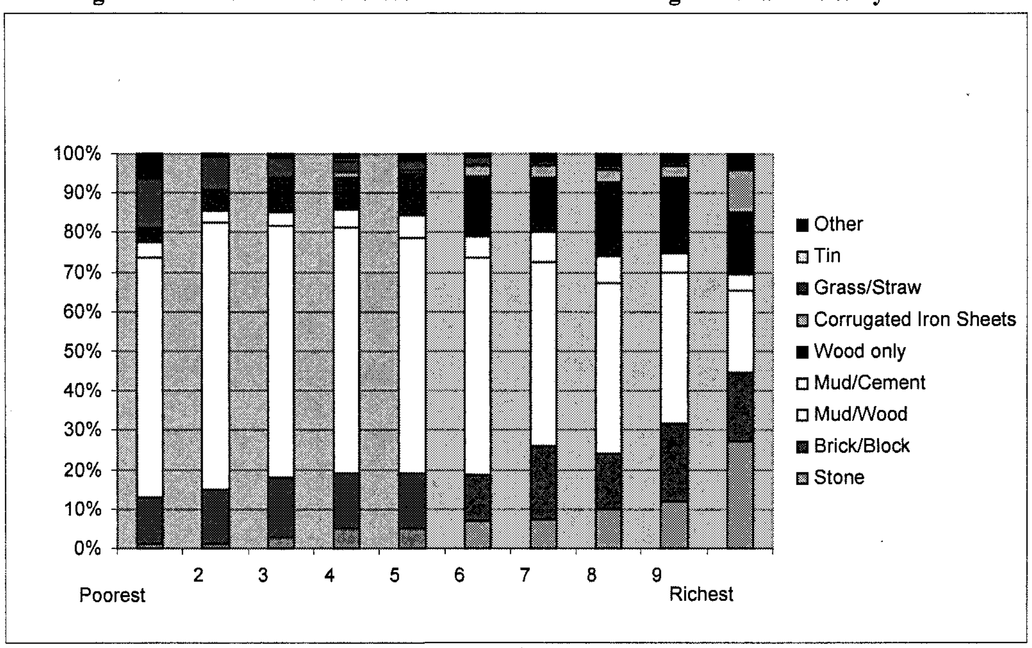
[20] The KNBS report "Geographic Dimensions of Well-Being in Kenya: Where are the Poor? From Districts to Locations, Volume 1, (2003) shows these patterns as well.

NON-MONETARY ASPECTS OF WELL-BEING

2.25 Critical dimensions of individual and family well-being are not captured in monetary measures. In this section we examine access and outcome indicators relating to education, water and health services of Kenyans, drawing largely on Demographic and Health Surveys and the KIHBS. Kenya's aggregate levels of human development are high relative to countries at similar levels of income. However, the progress has neither been linear over time, nor equitably distributed. In particular, for some key indicators including access to primary education, there was major regress in the 1990s. Deterioration in some important indicators, like child nutrition, was most severe for worst off groups. Mirroring the inequality in the distribution of monetary measures, there are also significant disparities in the distribution of access and outcomes. National averages typically mask key provincial and/or wealth differences for social services, water and sanitation, and utilities such as electricity and telephones.

2.26 We begin by giving a sense of housing conditions. KIHBS includes data on materials used in each part of the housing structure (roof, walls and floor). Conditions are very poor for much of the population. There is also significant variance in quality across expenditure deciles in rural areas (Figure 2-4), which is starker in urban areas. Poor households and rural households are much more likely to use firewood, and richer (and urban) households tend to use charcoal. Most households use paraffin as a fuel for light. Electricity is far more prominent in urban areas, especially amongst the upper deciles. Similar findings are obtained by Tegemeo: the rural poor have worse housing (roofs, walls, floors), and poorer households have worse sources of water during both the wet and dry seasons and worse sources of lighting.

Figure 2-4: Material of the Walls of the Main Dwelling in Rural Areas by Decile



Source: Staff calculations based on KIHBS, 2005/6

2.27 Trends in key aspects of non-monetary wellbeing can be summarized using selected MDGs. These show recent improvements in education, a good record on gender equity in schooling, but worsening child mortality rates.

- During the 1990s through 2003, primary enrolment fluctuated and secondary school enrolment remained low. The late 1990s was a period of regress for education, when the large educational gains for younger ages earlier in the decade had been eroded by half by 2003. In 2003, less than 40 percent of children aged 15 to 19 years had attained at least the eight grades required to complete their primary education. As investigated below, there have been large gains since 2003 with the adoption of free primary education (FPE). At the same time, the latest available (2005/6) figures suggest that retention of primary students remains a barrier to meeting the education MDG.
- Gender equality in primary school has recovered to high levels, while youth literacy gender parity is almost at the MDG target.
- The proportion of one-year olds vaccinated against measles has fallen substantially since 1993. On current trends, the likelihood of meeting this MDG by 2015 seems low. Other antigen coverage rates (Polio, DPT1, DPT2, DPT3, and BCG) all show similar declines.
- Infant and child mortality have concomitantly risen since 1993; so that the target of reducing the 1990-levels by two-thirds is receding further.
- Maternal mortality improved across the two available data points, though at a rate which implies that the likelihood of reaching the MDG target is remote.

2.28 Available data shows that there has not been a substantial change in the prevalence of underweight, stunting or wasting during the last 15 years. A Composite Index of Anthropometric Failure (CIAF) calculated using the 2003 DHS indicated that 35.5 percent of children were either stunted, underweight or wasted and the CIAF ranged from 22 percent in Nairobi to 46 percent in North Eastern Province.[21] About 55 percent of pregnant women, 48 percent of women of reproductive age (15- 49 years) and 73 percent of children under 5 years are anaemic, and 76 percent of children under five years suffer from Vitamin A deficiency.[22] Research indicates that malnutrition is an underlying factor that contributes to about half of all child and infant deaths in Kenya. A substantial number of deaths could be prevented, particularly in Western Kenya and Nyanza, by improving children's nutritional status (UNICEF 2008).

2.29 The decade to 2005/6 involved stagnation and decline in the health status of Kenyans. This is in turn can be traced back to the lack of economic growth described in Part I, and extensive poverty. High population growth rates, poor access to basic health services and high prevalence of HIV, also contributed to poor health status in Kenya. Available data suggest major deterioration between 1990 and 2003: life expectancy dropped by about five years, the infant mortality rate increased from 60 to 77 per 1000

[21] Nutrition situation analysis, UNICEF, June 2008

[22] United Nations Demographic Projections (2006), 1999 Census, Iodine Status Survey 2006, KIHBS 05/06, DHS, 2003; Anemia, Vitamin A, and Zinc status survey, 1999.

live births, and the child mortality rate from 100 to 115. There are at least 1.2 million Kenyans now living with HIV/AIDS, and the TB incidence rate is estimated to be 620 per 100,000 - one of the highest rates in the world. Kenya was clearly not on track to meeting the health MDGs.

Table 2-4: Trends in Selected MDG Indicators, Relative to 2015 and Medium Term Plan Targets

	1993	1998	2003	2005	2015 MDG
MDG 2: Education					
Net primary enrolment rate	75	85	79	81	100
Primary completion rate, %	19	20	19	35	100
Youth literacy rate (% ages 15-24)	92	93	87	92	100
MDG 3: Gender Equality					
Ratio girls to boys in Primary Ed (%)	99	95	91	98	100
Ratio literate females to males (% ages 15-24)	92	94	95	99	100
MDG 4: Child Mortality					
Under-5 mortality rate (per 1,000)	96	112	115	*	32
Infant mortality rate (per 1,000 live births)	62	74	77	*	21
One-yr-olds immunized against measles (%)	84	79	73	*	100
MDG 5: Maternal Mortality					
Maternal mortality ratio (/100,000 live births)	*	590	414	*	91†
Births attended by skilled health staff (%)	54	53	69	*	90††

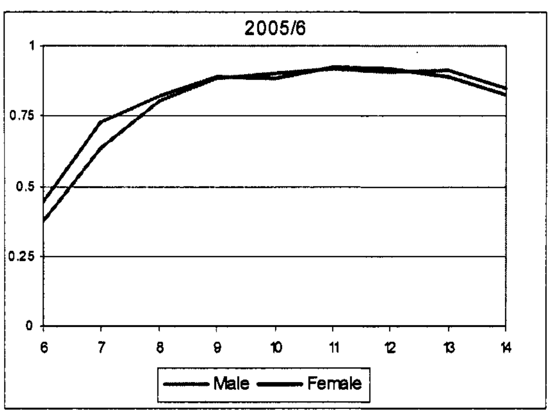
Source: 1993, 1998, 2003 DHS & 2005/6 KIHBS.

** Denotes Data not available.* † *HMIS Annual Report 2003 – 2004.*

† The target that 90 percent of births should be attended by skilled staff by 2015 was adopted at a special session of the United Nations General Assembly in 1999.

2.30 One positive aspect of Kenya's record is the general achievement of gender parity in access to many basic services. In the case of education, for example, consistently over time, there are no substantive gender differences in school enrollment between ages 6 and 14 (Figure 2-5). According to Table 2-4, this dipped and came back—but interestingly, the literacy rate has been increasing over time, suggesting that girls are now getting more out of school, which could reflect better attendance.

Figure 2-5: Proportion of Enrolled Students by Gender, Ages 6-14: 2005/6



Source: KIHBS 2005/6

Inequalities in Access to Services and Outcomes

2.31 There are very large differences among Kenyans in terms of outcomes and in access to basic services. For example, the risk of infant death in Nyanza is over 6 times greater than an infant in Central Province. The relative risks of dying of a child aged 1-5 years in Nyanza, Western and North Eastern Provinces are 7-8 times greater than for child of the same age in Central. Here we look at two major dimensions of disparity in access to service – by province, and by quintile.

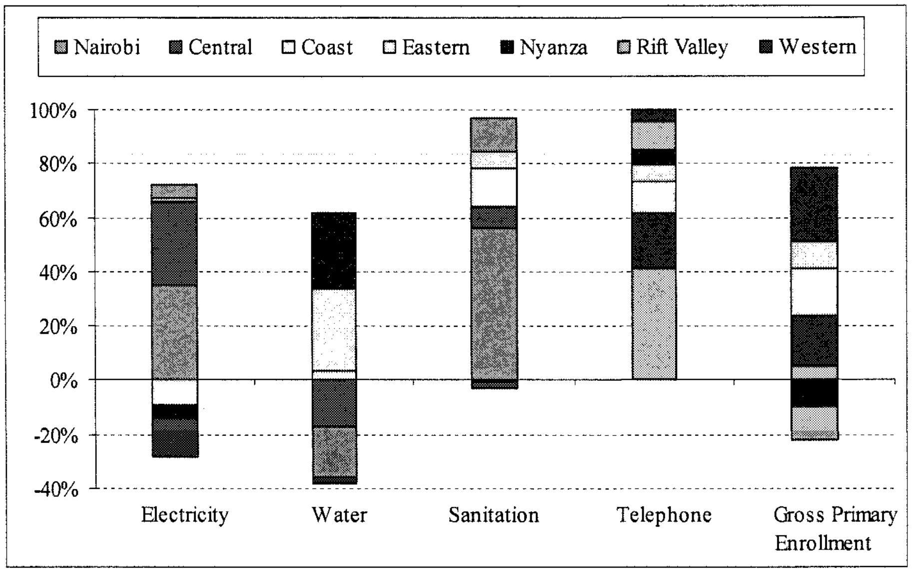
2.32 Figure 2-6 shows how service gains and losses during 1998-2003 were distributed across provinces. Overall improvements were skewed towards Nairobi and Central provinces. Gains were concentrated in Nairobi for electricity, sanitation and telephone ownership. There were similar gains for Central province across the same three services, plus water, while Eastern and Nyanza provinces had gains in access to safe water. Deteriorations are most marked for Western and Rift Valley for water. The highlights for human development related indicators are as follows:

- Nationally, access to safe water stagnated in the decade to 2003. Western province has experienced a halving in access.
- While all provinces have seen improvements in household sanitation, the national gains have been mostly driven by improvements in the capital and Coast province.
- For education, province-level differences are not as stark as the water or sanitation numbers but Coast and North Eastern provinces still lag the national average.
- While secondary enrollments have shown solid growth across the decade, the provinces do display wide differences, especially because Nairobi has a net secondary enrollment which is more than double the national average.

2.33 For other aspects of well-being and connectedness, we see that:

- Electrification across the country increased by 50 per cent between 1993 and 2003, though levels remain very low especially in rural areas. Western and Nyanza Provinces have experienced drops in coverage rates across the decade, while the gaps between the capital and the rest of the provinces have remained stark. 2005/6 data show marginal gains in electrification, which were positive in all provinces.
- Mobile telephony has touched all provinces, with the largest gains in Nyanza, Central and Eastern Province. The KIHBS did not collect data on telephone ownership, though recent trends suggest that telephone ownership, across individuals not households, may be approaching one-third.

Figure 2-6: Provincial Distribution of Service Gains, 1998-2003

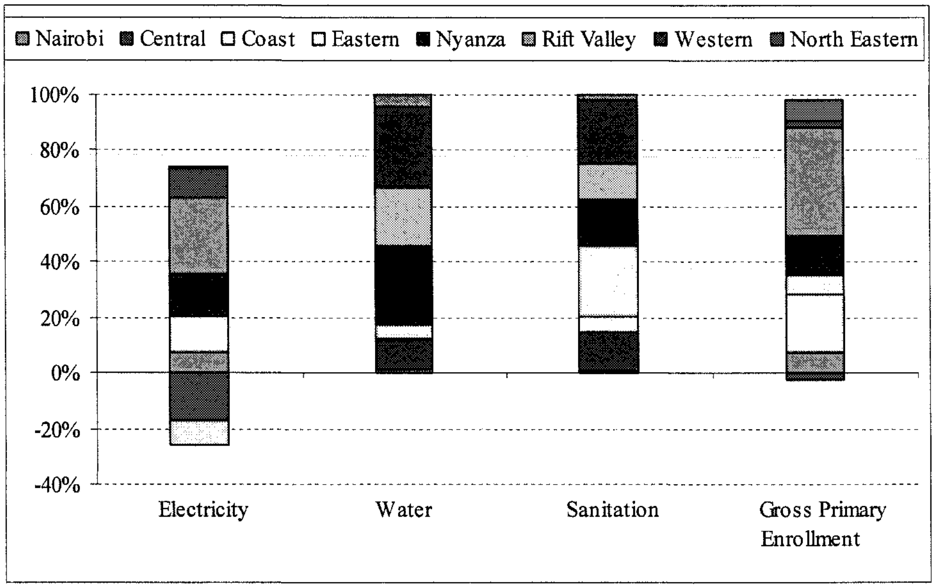


Source 1998 and 2003 DHS. North Eastern Province omitted, since data not collected in 1998. Safe water sources include 'Piped into dwelling', 'Piped into compound', 'Public tap', 'Covered Wells' and 'Bottled water'. Improved sanitation facilities include 'Flush toilets' and 'Ventilated improved pit latrines'. Telephone ownership is at the household level and includes mobiles in 2003.

2.34 Figure 2-7 below shows how the service gains were distributed across the more recent 2003-2005/6 period, compared the most recent DHs to the KIHBS. Rift Valley, Nyanza and Western all saw large increases in household electrification, relative to the low levels reported in 2003. The doubling of access in Western Province to 4 percent represented a large contribution to the overall gain. Water and sanitation numbers all increased across the 2003-2005/6 period.

2.35 Gross primary education has increased in all provinces. However, given the size of Rift Valley province, the gains therein are most substantial in absolute terms. Comparison of the surveys suggests that North Eastern province has seen a 50 percent increase in gross primary enrollment.

Figure 2-7: Provincial Distribution of Service Gains, 2003-2005/6



2.36 Following common practice (Filmer and Pritchett, 1998), household wealth indices provide further insights into trends in disparities in human development. Higher quintiles of course have better access to basic utilities by construction, and comparisons of the 2005/6 consumption quintiles against the DHS asset-based quintiles suggests that the asset based distribution has some bias when we look at utilities. It is nonetheless notable that the gains in improved sanitation facilities, electricity access and telephone ownership were restricted entirely to the wealthier quintiles. Here we look at the overall patterns, and then at specific services.

2.37 A striking overall finding for the decade to 2003 is that access of the poorest quintile to education worsened. Rates of access for the bottom quintile, which were already way below average, and far behind the top quintile, worsened further. By way of contrast, the period after 2003 was a welcome reversal—in that there were large gains in access to improved water and schooling.

Table 2-5: Access to Selected Services by Quintile between 1993 and 2005/6

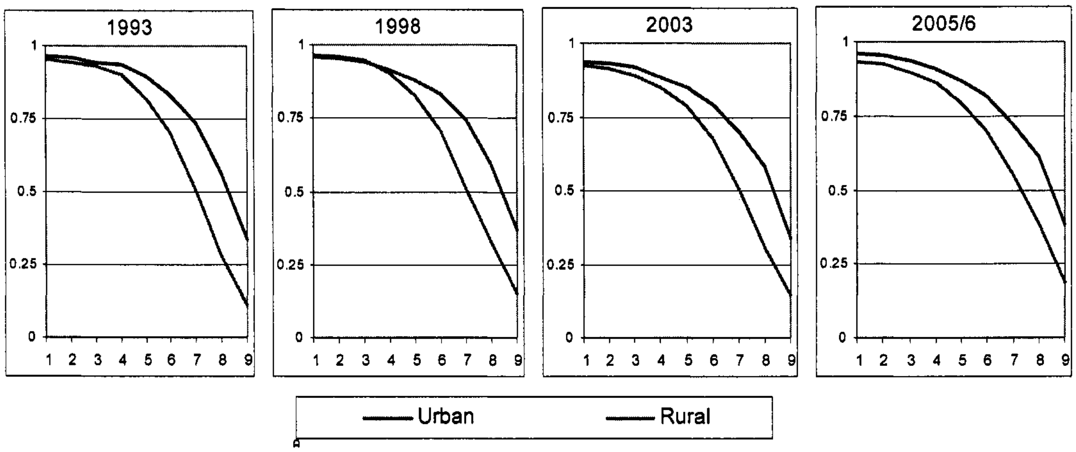
	All				Bottom				Second				Third				Fourth				Top			
	93	98	03	05	93	98	03	05	93	98	03	05	93	98	03	05	93	98	03	05	93	98	03	05
Electricity	11	15	16	16	0	0	0	0	0	0	0	2	0	0	0	8	1	2	4	20	47	60	57	53
Net Primary Enrollment	75	85	79	81	71	76	61	73	74	85	80	80	72	88	84	84	76	90	88	86	81	90	86	89
Gross Primary Enrollment	102	112	111	119	100	101	91	118	103	113	116	125	100	119	120	119	103	119	125	118	106	110	106	109
Net Secondary Enrollment	7	10	13	18	4	4	4	6	6	5	7	12	5	9	12	21	6	12	16	30	17	22	29	52
Gross Secondary Enrollment	19	23	23	40	14	9	9	16	13	18	19	34	15	21	22	50	15	23	29	59	37	44	41	84

Source: DHS, 1993, 1998, 2003, and KIHBS 2005/6.
* Denotes missing data. DHS analysis uses asset indices, KIHBS uses a consumption per-capita index.

Disparities in Education: Rural-Urban, Provincial and by Quintile

2.38 Rural–urban disparities are shown in the number of years of education attained by youth, in this case teenagers aged 15-19 years (Figure 2-8). These emerged after the late 1990s, and persisted through 2005/6.

Figure 2-8: Grade Attainment Profile, Rural-Urban, Ages 15-19: Kenya 1993-2005/6

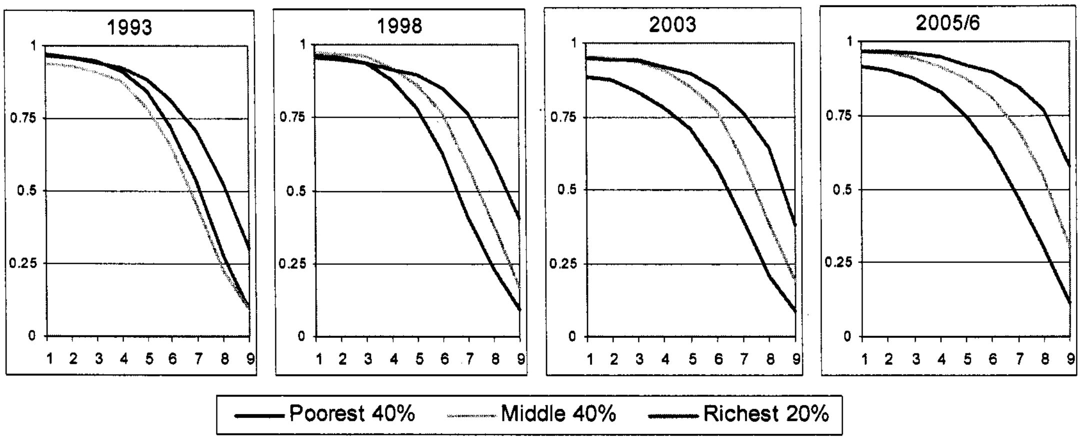


Source: DHS 1993-2003, KIHBS 2005/6.

2.39 Education gains over the decade to 2003 bypassed the bottom quintile. In 2003, their net primary enrollment rate lagged the average by a massive 18 percentage points, compared to 6 points in Mozambique and Uganda 10 points. The alarming trend between 1998 and 2003, when primary enrollment rates fell, was most severe for the lowest quintile. By 2005/6 the difference had narrowed to 7 percent, which suggests that FPE was enabling larger gains for poorer households (see Part IV).

2.40 Despite fluctuations in enrollment since 1993, overall educational attainment for 15-19 year olds changed little, either way. However the average hides important changes across groups. Figure 2-9 divides the population into three groups – bottom 40 percent, middle 40, and top 20 percent. Over time, we see large improvements in the attainment across the board 1993 and 1998, but after 1998 the position of the poorest 40 percent was eroded and the richest quintile widened their lead. Hence, there are stark differences between grade eight completion rates of the poorest versus the wealthiest, 20 versus 60 percent. Urban versus rural differences are also substantial. But, as with enrolment, gender biases are muted with girls showing marginally higher attainment rates.

Figure 2-9: Grade Attainment Profile by Quintile, Ages 15-19; 1993-2005/6

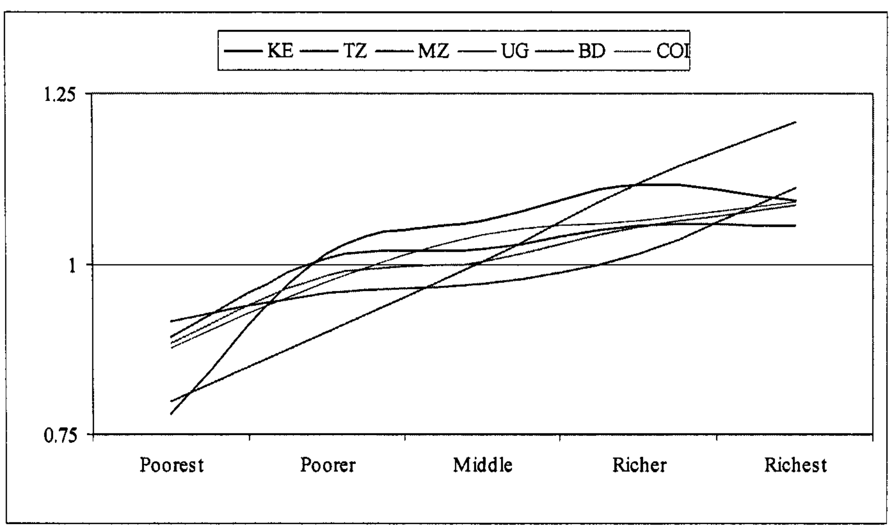


Source: DHS 1993-2003, KIHBS 2005/6.

2.41 The differences in attainment by quintile can likely be traced, at least in part, to constraints at the household level. Careful evaluations have found, for example, that the costs of school uniforms are a major barrier to poor families enrolling their children, even in the absence of tuition fees (Evans, Kremer etc). Private spending on education averages about 6 percent of mean monthly consumption in the KIHBS. We return to the burden of private spending in Part IV below, on policy implications.

2.42 Finally, these patterns of education access are put in cross-country context (Figure 2-10). Inequality in Kenya appears to be relatively high (second to Tanzania) in 2003, though there has been some improvement in the more recent period.

Figure 2-10: Distribution of Net Enrollment Rates by Quintile – Selected Countries



Source: DHS 2002-2005

Access to Improved Water

2.43 About half the population in Kenya does not have improved access to water and sanitation services meeting minimal standards of quality. In this section, we analyze patterns in access to water, which is much lower in rural areas, and significantly lower among the poor. There is significant regional variation.

2.44 Overall, access to improved water sources in Kenya is 56.5 percent, with 82 percent coverage in urban areas and 50 percent in rural areas.[23] Coverage is characterized by relatively high service levels. Of those with access to improved water sources—28 percent has access to piped water—public and private—at the national level, 17 percent of the rural population has access to piped water and 73 percent of the urban has access to this service level.

2.45 The provision of water is organized around Water Service Boards (WSBs). There are large geographical variations at this level, especially in the quality of services. Rural coverage varies from 63 percent in Lake Victoria North to 40 percent in Northern. In urban areas, significantly higher service levels are provided in Athi and Tana where 70 percent of households have access to private piped water, compared to about 25 percent in Lake Victoria South and Lake Victoria North.

Table 2-6: Water Service Levels by WSB – Rural Areas

	Athi	Tana	Coast	Northern	Rift Valley	Lake Vic. South	Lake Vic. North	All
Private piped	15.0	21.7	4.2	7.0	11.0	7.1	2.8	10.2
Public piped	9.1	8.7	37.8	5.1	3.05	4.3	3.3	7.8
Other improved	35.1	16.7	20.5	28.2	30.4	35.6	56.7	34.2
Not improved	40.8	53.0	37.5	59.8	55.6	53.0	37.3	47.8
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

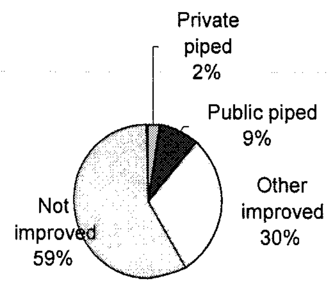
Note: Population weights.

2.46 In both rural and urban areas those in the poorest quintiles have lower access to private piped water. It is notable that people in the poorest quintiles in urban areas have almost as good access of as those in the richest quintiles in rural areas.

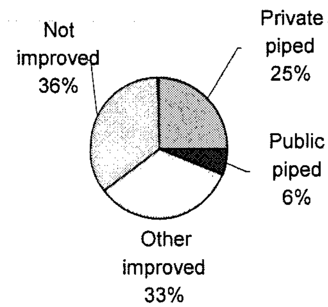
[23]This coverage figure does not consider minimum quantity which according JMP should be at least 20 liters per person per day.

Figure 2-11: Water Service Access, Rural and Urban, Top and Bottom Quintiles

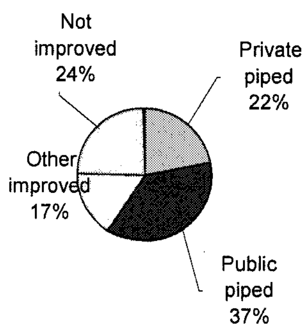
Rural Areas – Poorest Quintile



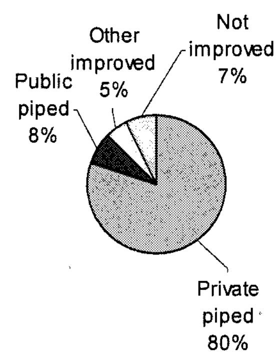
Rural Areas – Richest Quintile



Urban Areas – Poorest Quintile



Urban Areas – Richest Quintile



2.47 To examine whether women are systematically discriminated against on this front, access to different service levels of water was examined by gender of the household head and by the majority gender in the household. Although female headed household appear to have somewhat lower access to private piped water in rural and urban areas, the effects are not very strong and are probably caused by lower household wealth.

2.48 Kenyan households spend significant amounts of time collecting water. Water collection times per trip (back and forth) are substantial with average collection time around 50 minutes in rural areas and 20 minutes in urban.

Table 2-7: Water Collection Time by Water Service Board – Rural

	Walking time		Queue time		Total time	
WSB	**Mean**	**Median**	**Mean**	**Median**	**Mean**	**Median**
Athi	30.6	20.0	34.8	10.0	65.5	40.0
Tana	39.2	20.0	12.9	2.0	52.1	30.0
Coast	30.4	20.0	15.2	10.0	45.6	30.0
Northern	43.9	20.0	11.3	4.0	55.2	30.0
Rift Valley	52.4	30.0	21.3	0.0	73.6	40.0
Lake Vic. Sth	28.9	20.0	10.0	1.0	38.9	28.0
L. Vic. North	25.8	20.0	9.7	1.0	35.5	22.0
All	34.3	20.0	15.4	2.0	49.7	30.0

Note: Household weights. There are a few very high outliers on the collection time variables. Therefore medians are included along with means.
Source: Staff analysis based on KIHBS.

2.49 Among households who pay for water, the poor spend a larger share of their budget on water than the better off. The unit cost of water is higher for households using low quality services than for those using services of higher quality.

2.50 Regression analysis suggests that most of the variation in access to water services is explained by community fixed effects. On the other hand, intra-community variation in economic status only explains a small part of the intra-community variation in access. This suggests that targeting efforts could focus on targeting poor communities, rather than on targeting the poor within a given community: once a service reaches a community, it is likely to reach most inhabitants, regardless of their economic status. Similar conclusions seem to hold for sanitation services, although the results are not as strong as for water.

Health

2.51 We have already outlined concerns around the trends in health indicators; moreover, health disparities remain high. As noted above, in the context of the MDG record, national vaccination coverage rates of one-year-olds fell markedly in Kenya in the decade to 2003.[24] If disaggregated by quintile and gender, the deterioration is actually worst for the poorest groups, both relative to their starting point and relative to richer quintiles. In terms of gender, the declines appear to be slightly worse for boys. Malaria continues to be the leading cause of morbidity and mortality in Kenya. Other major causes include acute respiratory infection, malnutrition, diarrhea disease, HIV/AIDS, and tuberculosis (TB).

2.52 Maternal mortality also remains very high at 414 per 100,000 live births. Although the relatively long history of population programs in Kenya has led to a number of successes, the total fertility rate is still high at 5.5 lifetime births per woman. This report does not investigate the reasons behind levels and patterns of outcomes, though it

[24] Part of this decline can be traced to the fact that NE province, which has low coverage, was excluded from the baseline.

is noted that cultural norms in some areas, including North-Eastern and Coast, affect the demand for medical care. This in turn points to the need for, for example, more female staff in health facilities.

2.53 Health outcomes vary significantly by gender, quintile and location. For example, in 2003:

- HIV prevalence among women 15 to 49 years old is almost twice that of men in the same ages, and the HIV infection rate of girls 15 to 19 years old is six times higher than that of boys in the same age;
- infant and under-five mortality rates among the lowest socio-economic quintile was 50 percent higher than in the richest quintile; and
- the incidence of moderate and severe malnutrition was almost four times greater in the bottom versus the top quintile.

2.54 Table 2-8 shows trends in access by quintile and province for vaccinations, using the series of DHSs. Between 1993 and 1998 the coverage rates for one-year-olds decreased for all antigens; with Polio3 experiencing a 12 percent drop. By 2003 the coverage rates dropped further, averaging 7 percent less across all antigens. These national drops were most severally felt for quintiles one and two; on average coverage rates reduced by a massive one-third across DPT3, Polio3 and Measles for the bottom quintile. MoH administrative data report more recent improvements, noted below.

Table 2-8: Vaccination Coverage Rates of One-year-olds by Wealth Quintile and Gender, 1993-2003

		Wealth Quintiles							
Antigen	**Year**	**1st**	**2nd**	**3rd**	**4th**	**5th**	**F**	**M**	**Total**
	1993	94.1	94.9	95.6	97.8	99.1	95.9	96.6	96.2
	1998	93.5	92.7	98.3	97.4	99.0	96.7	95.0	95.9
BCG	2003	70.0	88.7	93.2	95.7	96.2	88.2	86.6	87.4
	1993	93.0	95.1	95.8	97.0	98.2	95.4	96.0	95.7
	1998	92.6	94.7	96.6	97.2	98.1	95.6	95.6	95.6
DPT1	2003	73.6	93.1	93.5	95.8	95.2	89.8	88.5	89.1
	1993	82.4	91.1	82.5	86.8	93.0	87.1	87.0	87.0
	1998	68.1	78.2	86.3	84.2	84.2	78.1	80.1	79.5
DPT3	2003	57.4	71.1	86.3	82.1	74.1	74.1	71.9	73.0
	1993	81.2	88.3	81.7	86.5	93.0	85.7	86.4	86.0
	1998	66.2	74.5	82.6	76.9	74.0	73.0	76.0	74.4
Polio3	2003	55.7	69.2	75.7	73.3	67.1	68.5	66.2	67.4
	1993	80.6	82.4	82.4	86.1	88.2	84.7	83.1	83.9
	1998	64.3	79.6	84.7	83.8	88.7	96.7	95.0	79.2
Measles	2003	54.8	68.1	79.3	80.3	88.0	72.1	73.2	72.7

2.55 As noted above, HIV prevalence is a major issue, and is higher among women across all provinces, and for all age groups up to 45 years. Interestingly, reported prevalence rates are higher for the better off.

Table 2-9: HIV Prevalence Rates across Regions and Wealth

		Women	Men	Total
Region	Nairobi	11.9	8	9.9
	Central	7.6	2.1	4.8
	Coast	6.6	4.5	5.6
	Eastern	6.1	1.6	3.9
	Nyanza	18.3	12.3	15.4
	Rift Valley	6.9	3.4	5.2
	Western	5.8	3.6	4.8
	North Eastern	0	0	0
Wealth Quintile	Poorest	3.9	3.9	3.9
	Second	8.5	4	6.3
	Third	7.1	2.5	4.9
	Fourth	9.7	4.1	6.9
	Richest	12.2	7.3	9.7
	Total	**8.7**	**4.6**	**6.7**

Source: DHS, 2003.

2.56 According to official data reported in the recent health sector program,[25] there are signs of improvements in some important health indicators in the last few years. For example, HIV prevalence among adults had reportedly fallen, although the data about to be released on this front would need to be reviewed in order to be confident about ongoing trends. Based on MoH data, there were several positive trends in access indicators between 2004/5 and 2005/6 including rising share of women of reproductive age receiving family planning commodities from 32 to 43 percent; rising share of infants fully immunized, from 58 to 80 percent and increased BCG vaccination rate for newborns, from 84 percent to 96 percent.

2.57 There are also reportedly signs of a decrease in malaria morbidity due to increased coverage and usage of insecticide treated nets (ITNs) by pregnant mothers and children, and more effective diagnosis and treatment. Over the past five years, 13.5 million ITNs have been distributed, with the percentage of children sleeping under them rising rapidly to 52 percent in 2006, from 5 percent in 2003. The proportion of pregnant mothers using ITNs has risen from 4 percent to 44 percent. It has been estimated that seven children have been saved for every 1,000 mosquito nets used, and scaling up of malaria control interventions has reduced child deaths due to malaria by 44 percent in the areas of highest malaria risk.

[25] Health Sector Support Project, World Bank Report No.: 40610-KE, November 15, 2007.

PROFILE OF MONETARY POVERTY

2.58 We now turn to look at the profile of poverty in greater depth, exploiting the insights from both the cross-tabulations and regression analysis. Many of the findings echo those which have been found in the past, though there are some surprises, as we show below. The cross-tabulations provide important insights, but potentially miss complex associations between multiple factors by only considering the correlation between poverty and any household characteristic one at a time. To isolate the effect of a specific variable on poverty—holding all other influences constant—multivariate regression techniques can help.

2.59 In this section we use various sources to illustrate and explain the observed patterns of monetary poverty—in particular the KIHBS, Tegemeo and APHRC. The KIHBS data, for example, is used to seek to explain variations in household consumption (or more specifically, the logarithm of household consumption per adult equivalent).[26] Our selection of the explanatory variables is based on the poverty profile, economic theory and factors that have tended to be associated with consumption and poverty in Kenya and other countries. Previous work in Kenya using multivariate methods (Geda et. al, 2001 and Okwi et. al, 2006) has found that poverty is closely related to three main groups of factors: household characteristics (especially household size, female headship and educational attainment); the employment profile of the household; and the characteristics of the location of the household (soil quality, length of growing period, distance to tarmac road).

2.60 Cross-sectional analysis cannot determine causality as this would require that all the explanatory variables are truly exogenous. However, the findings do reveal major correlates, and are indicative for the discussion in the next part where we seek to identify the drivers of poverty. In the national analysis using KIHBS, we allow for structural differences between urban and rural areas by running separate regressions for these areas. The overall regression fit is higher in urban than in rural areas, indicating that the KIHBS rural regressions still lack important variables, probably relating to land quality, rainfall and livestock holdings.[27]

2.61 The variables which emerge as statistically significant in our regression analysis using the KIHBS are illustrated graphically in Figure 2-12. The model uses observed variables to explain household consumption, relative to reference categories. The reference categories, which mainly relate to the head, are: Christian, no religion or not specified, married or cohabiting with spouse present, raised in current place of living, head is not working, February to April (season of survey) and Western (province).

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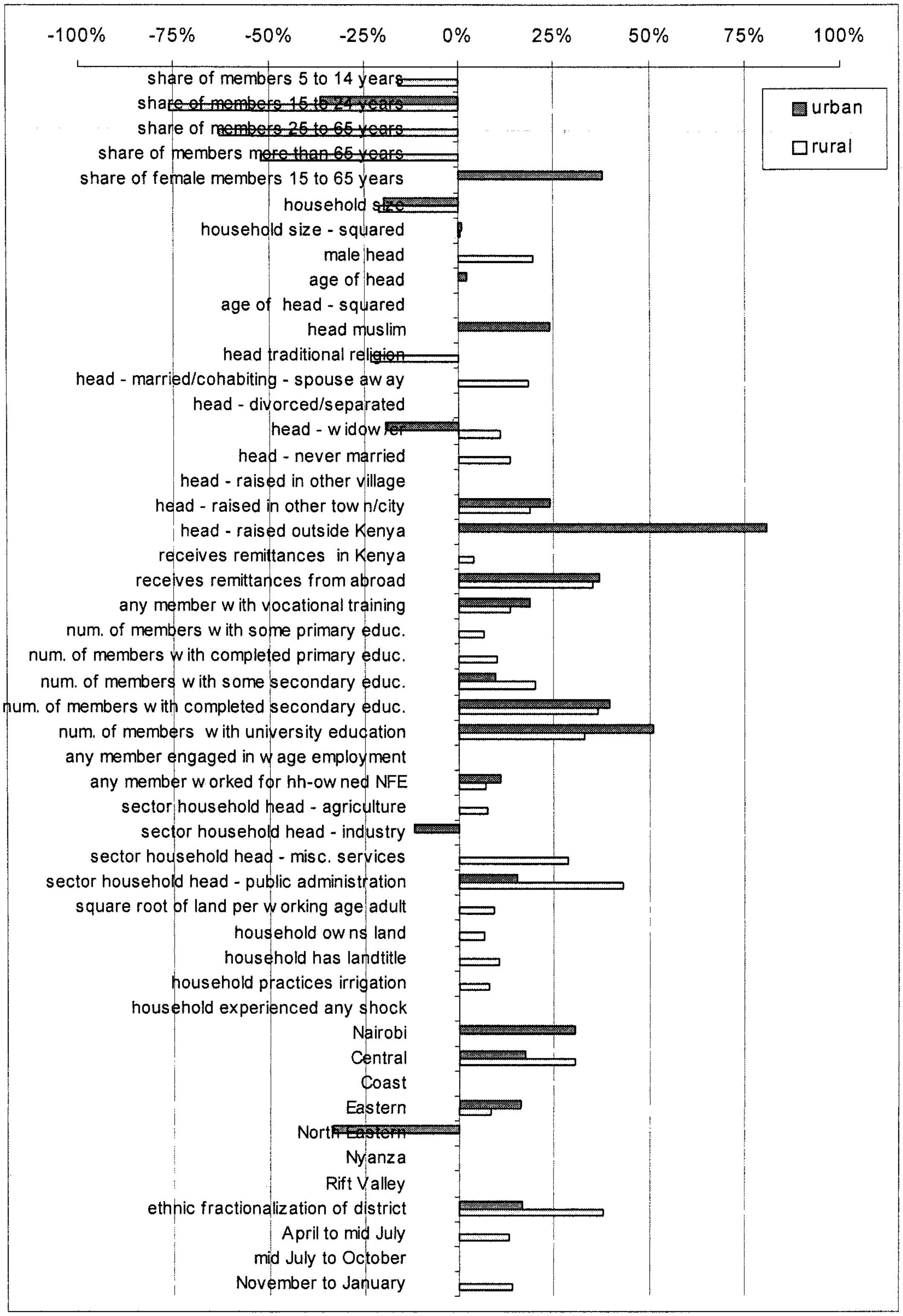
[26] The regression is a semilogarithmic specification, the estimated coefficient of a continuous variable, can be interpreted as the percentage effect of a unit-change in the exogenous variable on consumption. However, Halvorsen and Palmquist (2001) show that the coefficients of dummies need to be transformed in order to obtain exact percentage effects. We present exact effects here, and the regression table in the annex shows the underlying coefficients and standard errors.

[27] In the text, significant refers to 5 percent and marginally significant to 10 percent.

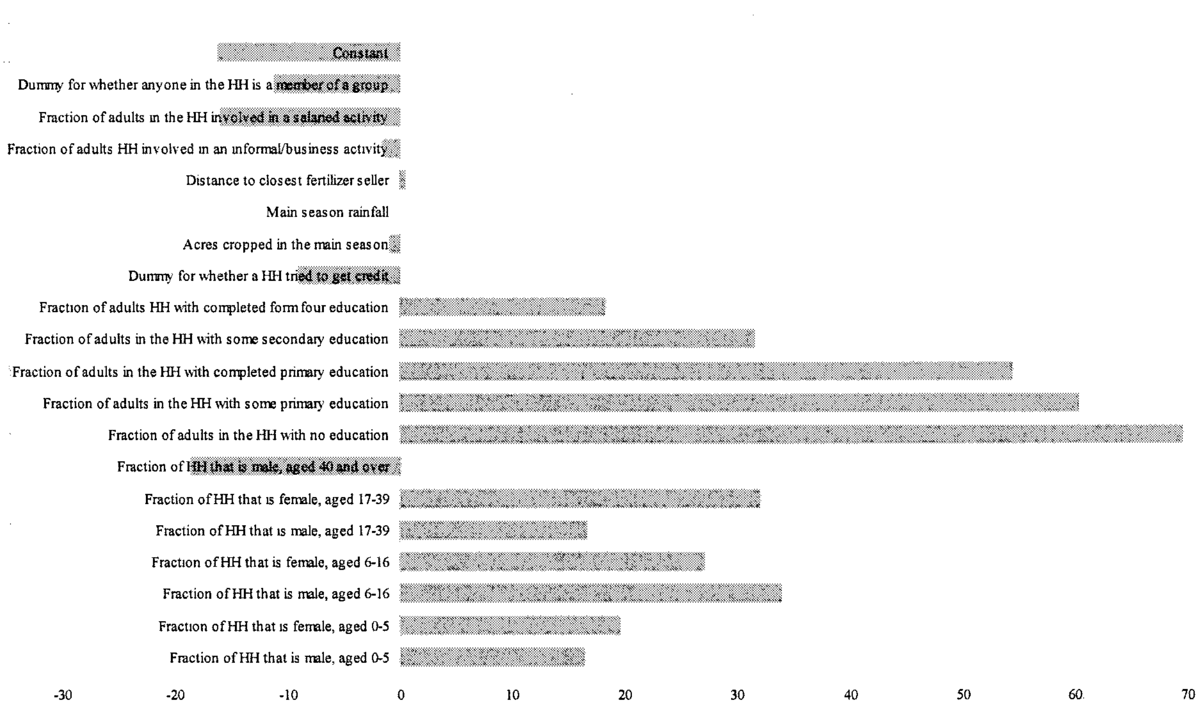
Figure 2-12: Determinants of Household Consumption, Rural and Urban 2005/6



2.62 To elaborate upon and update the national picture emerging from the KIHBS, a series of regression were estimated in a step-wise fashion to measure the most significant correlates of poverty status (Nyoro et al 2008). The results, which are representative of rural non-pastoral Kenya in 2007, broadly confirm the KIHBS findings, and add some important nuances related to rainfall and infrastructure which are not available in the KIHBS. The most important observed factors are as follows (Figure 2-13):

- Age-sex composition and education of household members.
- Access to credit, land acreage (wealth) and main season rainfall.
- Group membership.
- Salaried and business/informal activities.
- Province dummies, even after controlling for rainfall.
- When access to market type variables are added, distance to fertilizer and to motorable road are most important.
- Finally, diversification measures (not available for 1997 data) are included. These show that the number of crops per field matters as does the fraction of income derived from salaries and remittances.

Figure 2-13: Tegemeo OLS Regression on Poverty



Source: Nyoro et al (2008)

2.63 We turn now to explore these different aspects in turn, utilizing both the multivariate results as well as cross-tabulations, and reflect on their overall significance in the population as a whole. These lead to a focus on horizontal inequality, in terms of provincial variation.

Demographics: Age and Size Matters

2.64 There are several striking demographic features of poverty in Kenya, which echo those which have been found earlier in Kenya, and elsewhere. Specifically, as laid out in Table 2-10, and explored further below:

- While only 18 percent of Kenyans live in households that include three or more young children (under six years), almost two thirds of these live in poverty.
- Households are often large, and size matters—almost half the population lives in households with at least seven members, and about 60 percent of these are poor. Poverty incidence monotonically declines with household size—only about 14 percent of the poor live in households with fewer than 5 members (Figure 2-14). The finding from Tegemeo panel analysis over the decade to 2007, that household size was decreasing over time for the non-poor and increasing for the poor, raises concerns.
- Females seem to be running much bigger households—with correspondingly higher poverty rates, as one would expect.
- Poverty incidence increases with the age of the household head. Compared to the national average, households headed by someone aged over 44 are significantly more likely to be poor; 57 percent of the poor live in such households. However the negative association between the head's age and consumption does not hold in multivariate analysis of KIHBS.
- The presence of youth raises the probability of the household being poor.

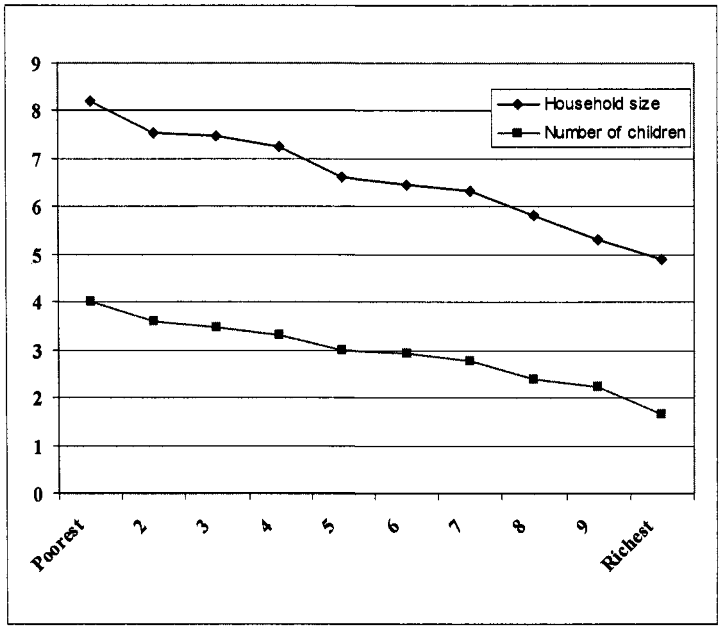
Table 2-10: Poverty and Household Size, and Number of Children

	Poverty Headcount (%)	Distribution of the Poor (%)	Population share (%)
Number of children under 6			
None	37.7	23.6	29.2
1	43.2	25.3	27.3
2	48.7	26.7	25.6
3 or more children	63.4	24.4	18.0
Household size			
1	10.8	0.4	1.9
2	22.6	1.7	3.4
3	25.9	3.8	6.8
4	30.3	7.8	11.9
5	38.1	11.8	14.4
6	46.6	15.0	15.0
7 or more	59.8	59.6	46.5
Total	46.6	100.0	100.0

Source: WB estimates based on KIHBS 2005-2006 data.

2.65 Poverty in Kenya has a predominantly young face. The population pyramid is such that over half the population is aged under 20 years, and they account for two thirds of the poor in Kenya.

Figure 2-14: Average Household Size and Number of Children per Household, by Decile



Source: WB estimates based on KIHBS 2005-2006 data.

2.66 The multivariate analysis confirms that household demographics are strongly linked to poverty, although some of the effects require further investigation. The following appear to be important:

- *Household size and composition*: Adding household members has a negative effect on consumption per adult equivalent, confirming that large households are more likely to be poor. However, the effect is non-linear and the marginal effect declines as households size increases. Surprisingly, a higher share of female adult members is linked to higher consumption levels in urban areas, holding all other factors constant. This contradicts the view often expressed in the PPA-IV that a high proportion of women in the household increase the likelihood of being poor.

- *Age of the household's head*: While poverty overall increases with age, once we control for other factors, such as size and education, age *per se* has a positive impact on consumption in urban areas. This probably reflects earning premiums based on work experience.

Households with More Education and Vocational Skills are Less Likely to be Poor

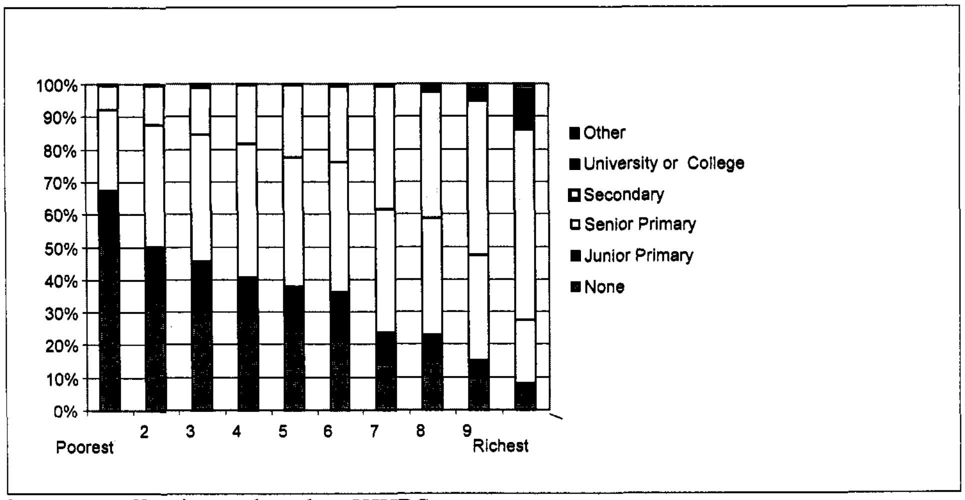
2.67 The human capital profile of the household has strong positive effects on consumption. Returns to education increase with the level attained. The pattern differs between urban and rural areas in expected, but notable, ways:

- In rural areas, even *some* primary education of household members has positive and significant returns.

- In urban areas, significant positive returns to education manifest only from *some* secondary education onwards.
- Returns to university education are higher in urban than in rural areas, mirroring higher-skilled employment opportunities in cities and towns.

2.68 Figure 2-15 shows the education of household head by decile, and reflects that the vast majority do have primary education. However, the patterns do vary dramatically. Over half of heads in the poorest decile report no education at all and a further 40 percent have only primary education. Likewise, Tegemeo analysis shows that the more educated is the household head, the lower the poverty rate.

Figure 2-15: Education of Household Head by Decile



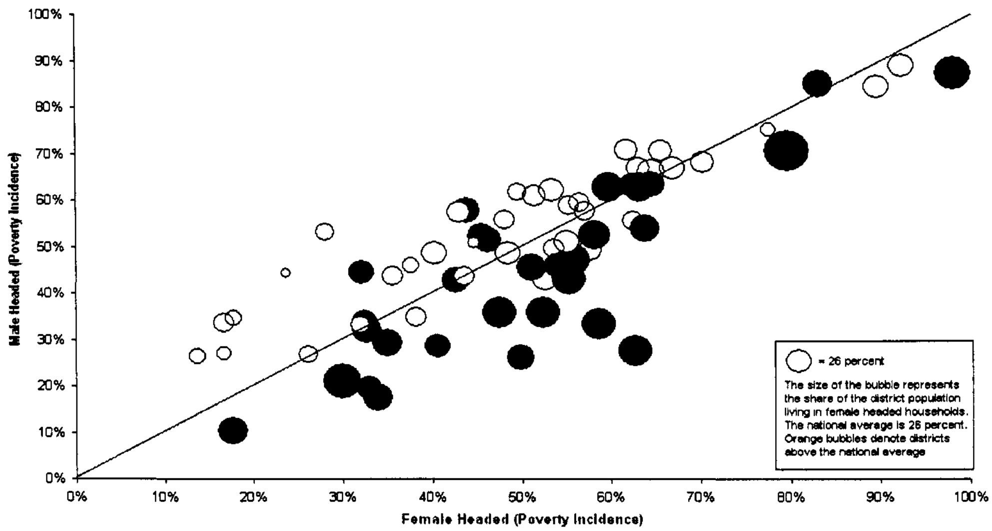
Source: Staff estimates based on KIHBS

2.69 Interestingly also, having a household member with vocational training increases consumption by 14 percent in rural and by 19 percent in urban areas. We examine the importance of education further below, in the context of youth.

Poverty Incidence is higher among Female-headed Households

2.70 One fourth of all households in Kenya are headed by a woman. Female headed households tend to be significantly larger in size, especially among women who are divorced, never married or whose husbands are away. Compared to male headed households, their poverty incidence averages 5 percentage points higher. In urban areas, poverty incidence among female headed households is 48 percent, compared to 31 percent among male headed. Female-headed poverty incidence is worse in districts that have a higher proportion of female headed households (Figure 2-16), though we did not identify the reasons for this pattern.

Figure 2-16: Poverty Incidence and Gender of the Household Head, District Level



2.71 Our analysis suggests that the reason for female headship matters. Specifically, as shown in the results in Table 2-11 and by some complementary analysis:

- The subgroup with the highest poverty incidence (69 percent) is that of married female household heads. In one third of these cases, the husband is chronically ill or disabled, and they are disproportionately poorer when the household size exceeds three. Another third are cases where the husband has been away from the household for only a few months. This may arise because recent migrants are initially unable to send significant remittances home, since poverty incidence among married female headed households whose working (and remittance sending) husbands have been away for longer periods is not above the national average.
- While households where the spouse has died constitute a substantial number (13 percent of the total population), poverty incidence among this group is only marginally higher than the national average.
- For households headed by widows, poverty incidence is significantly higher (54 percent) and especially in urban areas where 2 out of every 3 of these households are poor, compared to 52 percent in rural areas. About 14 percent of all Kenya's poor live in households headed by widows, in which the children are known as Orphans and Vulnerable Children.
- Poverty is much lower (28 percent) among households headed by a woman who has never been married.

Table 2-11: Poverty and Female Headship – Selected highlights

	Population Living in Female Headed Households	Population Living in Poor Female Headed Households	Share of the Population Living in Female Headed Households	Poverty Incidence (%)
Married Monogamous	2,721,081	1,293,992	29	48
Husband Home	560,355	366,506	6	65
Husband Away	2,160,726	927,486	23	43
Married Polygamous	944,199	552,405	10	59
Husband Home	231,051	193,781	2	84
Husband Away	713,147	358,624	8	50
Living Together	34,137	12,154	0	36
Separated	486,450	249,482	5	51
Divorced	319,128	156,083	3	49
Widow	4,207,061	2,262,827	45	54
Never Married	597,654	169,119	6	28
Missing	43,445	16,568	0	38
Total	9,353,155	4,712,630	100	50

Source: Staff estimates based on KNBS (2007) and KIHBS 2005-2006.

2.72 Regression analysis shows that controlling for a range of other factors, male-headed households have on average 19 percent higher consumption than female-headed households in rural areas, but there is no significant difference in urban areas. The factors at work here will have to be investigated further.

2.73 The regression results show that widow(er)s have significantly lower consumption levels in urban areas but higher consumption in rural areas. What is behind the high poverty rates of urban widow headed households? Additional investigations found that:

- The hypothesis is that urban widows are poor rural migrants does not hold. However, while urban widows who are household heads are much more likely to be migrants than rural widows overall, there is no large difference by poverty status: 46 percent of poor urban widows come from the district in which they now reside compared to 42 percent of non-poor widows.
- Poverty among urban widow-headed households is especially high when the head is young or elderly.
- In terms of outside financial support, the average transfers (including official sources and family friends) are higher for urban widows than for rural widows. However, the median transfer for urban widows is zero, while it is 1000 KSh for rural widows, which suggests that at least half of urban widows get no transfers whatsoever. Poor rural widow-headed households also have an asset endowment in that they are more likely to own land than non-widow headed households and are more likely to have a title.

These results provide some clues, but further analysis is needed to understand the relatively high poverty of some sub-groups of widow headed households.

2.74 While female headship is not uncommon, the majority of Kenyans do not live in households headed by a woman. In an effort to get at a broader picture, we examined the effect of a larger share of female adults in the average household through our consumption regression. The coefficient on this variable, 0.38 is positive and significant in the urban sample, and particularly strong for Nairobi.[28] One attempt to put this in context is to consider the following example: imagine a household with three adult members, two men and one woman. If the household instead had two women and one man, predicted consumption per capita would be around 12.5 percent higher. This result, and its concentration in urban areas, also bears further investigation.

Migrant Households tend to be better off

2.75 There is significant mobility within Kenya: at the time of the KIHBS, almost one third of household heads lived in a district other than the one they were raised, and 20 percent lived in a different province. Nairobi and Rift Valley Province are home to the bulk of migrants that were born in another province.

2.76 Migration appears to be a good strategy in terms of household well-being: poverty incidence among migrant households is only 28 percent, although they also could have migrated because they were wealthier in the first place. Compared to non-migrant households, poverty incidence among migrant households is lower in all Provinces, except for Nairobi, where there is no significant difference. Poverty is also lower among migrants who were born in Central Province. Coast and North-Eastern Province are characterized by the largest gap in poverty incidence between migrant and non-migrant households, where the latter are more than twice as likely to be poor.

2.77 These broad patterns hold in our regression analysis, which is more suggestive, though not conclusive, about the direction of causality. Controlling for education, sector of employment and a whole host of factors associated with poverty status, households that have migrated from an urban area within Kenya have higher consumption than non-migrant households. However, rural households which migrated from another rural area do not have significantly higher consumption, controlling for other observable factors. More detailed analysis elsewhere controlling for possible selection bias and other econometric problems, has found a positive impact of internal migration on household welfare and poverty reduction (see Giles, various on China, MacKenzie on Mexico). One issue not investigated here is whether in migration, especially in land-scarce areas, poses pressures on host communities, and for example, on unskilled wages.

2.78 For the much smaller number of households that have returned to urban Kenya from abroad are substantially better off (81 percent higher consumption per capita).

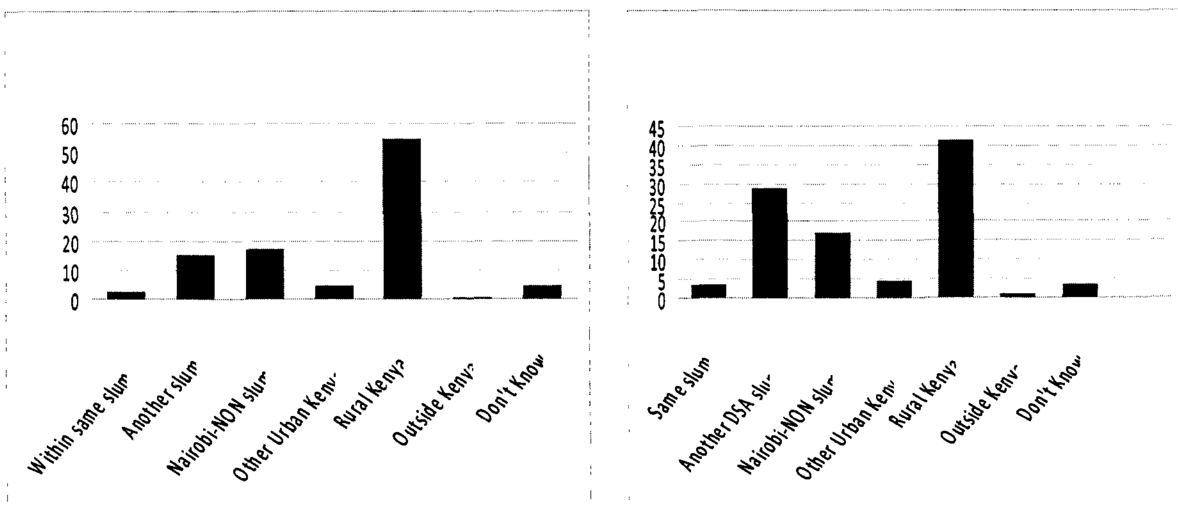
[28] In addition to all of the control variables that have already been discussed, it is important to keep in mind that these regressions include controls for the gender of the head.

Receiving transfers from abroad increases consumption by more than one-third, while remittances from within Kenya are only marginally significant in rural areas (4 percent).

2.79 In the regression analysis, ethnic fractionalization at the district level—as approximated from the 1989 census—is in both urban and rural areas positively related to consumption. This probably mirrors the attraction of relatively prosperous districts to migrants from other parts of Kenya. It also suggests that migration and ethnic diversity are conducive to economic development.

2.80 Nairobi's slums are characterized by significant mobility of individuals and households, in and out. The APHRC analysis (detailed below) shows that, for the 120,000 individuals in the two slums, consistently, over the 13 rounds of data collection between 2002 and 2006, about half of the sample left the slum each round. In terms of inflow, over half came from rural Kenya, but notably, about half came from urban areas that were not slums. Among those exiting, about 40 percent went back to rural Kenya, and almost 20 percent moved out of slums altogether.

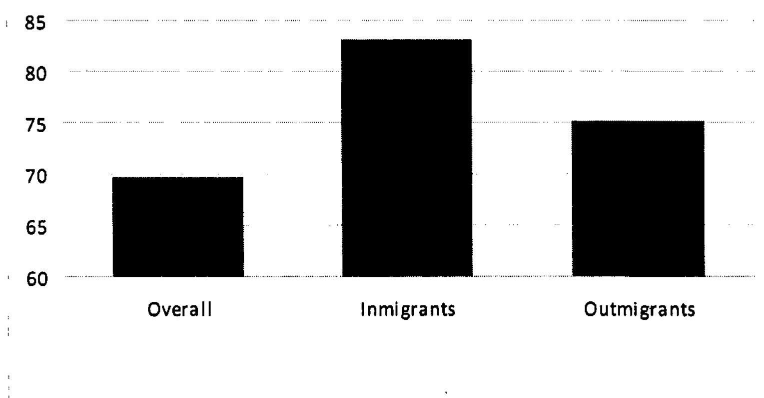
Figure 2-17: Where Migrants Come from and Go to, Nairobi Slums



Source: de Laat et al, 2008

2.81 Poverty rates are far above the slum average for in-migrants—which suggests that well-being likely improves over time for those in the slums, although out migrants also have above average rates of poverty—which may also motivate/necessitate their departure.

Figure 2-18: Poverty Rates by Migration Status



Source: de Laat et al, 2008.

2.82 Since the time of the KIHBS, the recent crisis has created a large number of migrants—many of whom were involuntary—known as internally displaced people, or IDPs. As of April 4, 2008, there were 168,094 IDPs in 181 camps. This figure had fallen by more than half since mid January. However, the numbers were rising again in April, and are evidently not stable.[29] In addition to the IDPs living in camps, many Kenyans displaced by violence have sought shelter with relatives, or through other means (e.g. renting), and are termed 'integrated' IDPs. It is obviously very difficult to precisely estimate the size of this group. However, by comparing the numbers of persons counted in the initial waves of displacement (typically to local police stations) with those in the camps, KRC estimates that there are 150,000 such people, which is likely a lower bound estimate. The profile of these involuntary migrants is likely very different from that which we observe in the earlier household surveys.

Table 2-12: IDPs in Kenya, as of April 2008

Number of IDP Camps	181
Current number of IDPs in camps	168,094
Maximum no. of IDPs in camps during crisis	310,000
Estimated number of 'integrated' IDPs:	150,000

Source: Kenya Red Cross.

The Economic Activities of the Household Significantly Affect Consumption

2.83 *Employment profile:* Not surprisingly, employment status and activity are correlated with consumption. Rural households whose head is engaged in agriculture have about 7 percent higher consumption levels than households whose head is not working, though the statistical significance is marginal. Premiums in the service sector are high in rural areas, amounting to 29 (miscellaneous services) or even 43 (public administration) percent. However, only a small part of the rural population is employed

[29] Figures courtesy of the Kenya Red Cross, who manage the camps, and produce a daily count of registered residents.

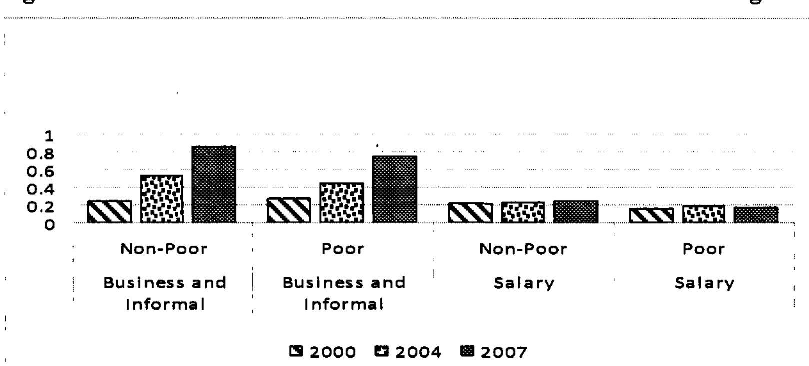
in the service sector. Counter-intuitively, employment in industrial activity in urban areas is negatively linked to consumption levels. This result merits some further scrutiny. We examine employment and unemployment patterns further below.

2.84 Diversification of incomes appears to be important, confirming the results of earlier work, including Lay, M'Mukaria and Mahmoud. (2007). Households with at least one member working for a household-owned non-farm enterprise have about 11 percent higher consumption in urban areas, in rural areas the effect is smaller (7 percent) but still significant. This confirms that non-agricultural self employment is an important livelihood and can be a pathway out of poverty (see Mango 2008, World Bank 1995), a proposition that we discuss below.

2.85 The picture on income diversification among the poor provides some important clues for the analysis of dynamics in Part III. Tegemeo's findings are clear, and confirm expected patterns. The highlights for the decade to 2007, which are explored further below, are as follows:

- Crop income is very important—for the non-poor, it constitutes 38 to 49 percent of total income, and for the poor even more significant, from 47 to 87 percent.
- The share of income derived from off farm activities is high and rising for the poor, but falling for non-poor households (whose income share from salaries is rising).
- Poorer households have much lower fractions of adults involved in businesses or in salaried activities. The fraction of adults in a household involved in business activities has been rising fast over time, which is welcome. Even more notable is that the rate of increase has been fastest among the poorer households.
- On average, the fraction of adults in a household involved in salaried activities has been rising over time, but mostly only for the non-poor households.

Figure 2-19: Fraction of Adults Involved in Off Farm Activities: Tegemeo



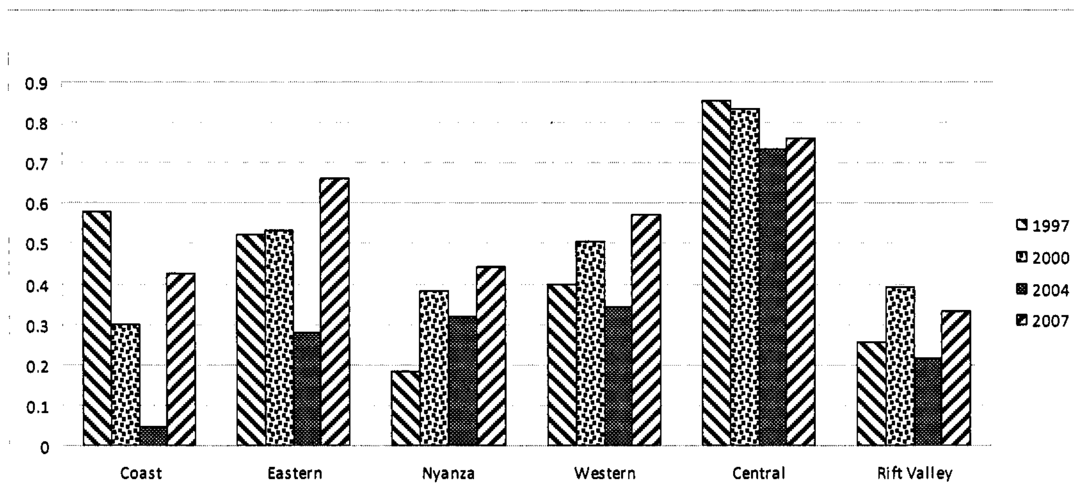
Source: Nyoro et al (2008).

2.86 *Agricultural practice and landholding:* Tegemeo analysis shows that both land holdings and land cropped actually fell over the decade to 2007, and more rapidly for the poor. This is consistent with evidence from the PPA about demographic and land pressures. The issue of land, and in particular land inequality, is discussed further below. In terms of improved practices, Nyoro et al (2008) found that poor households are less likely to practice zero tillage, composting and on farm feed preservation.

2.87 The multivariate analysis of KIHBS confirms that land- and agriculture-related factors are linked to consumption in rural areas but the effects are smaller in magnitude than expected. An increase in land holding size per working age adult from one acre to four acre increases consumption by about 9 percent in rural areas. Mean holdings are 2.4 acres per household in rural areas (including landless households), and the standard deviation is 9.3. Having ownership rights for land holdings increases consumption by about 7 percent, which is a smaller measured effect than having land titles (11 percent). Households practicing irrigation have on average 8 percent higher consumption levels. We investigate these patterns further below in Part III. Not surprisingly, the regressions show that there are seasonal patterns of consumption, though the effects are only significant for rural areas: average consumption levels appear to be lowest between February and April, just before the onset of long rains.

2.88 Tegemeo analysis shows that there are big differences in poverty rates across those who tried to get credit and those who did not (noting that the correlation between those who applied and those who received credit is very high). The importance of the credit variables appears to have increased over time, with some divergence across the distribution as access increased more rapidly for the highest quintile. Figure 2-20 shows the trends by province. Interestingly, Tegemeo analysis shows that poor households are much less likely to be group members. Overall, the sample shows group membership decreasing over time, more rapidly for the non-poor.

Figure 2-20: Credit by Province: Tegemeo



Source: Nyoro et al (2008)

Household Location Matters

2.89 We have already noted the large differences in poverty rates and inequality between rural and urban areas. Moreover, several province fixed effects are significant, which implies that all other factors being equal, households in different parts of the country enjoy very different consumption levels, specifically: [30]

- Households living in Nairobi have 31 percent higher consumption levels than urban households in Western province, which serves as reference category. Urban areas in Central and Eastern province also appear to be better off, whereas urban households in North Eastern province have 33 percent lower consumption levels than those in Western province.
- In rural areas, households in Central province enjoy 31 percent higher consumption levels than those in Western province (other observed factors being equal).

2.90 Of course, these provincial fixed effects capture a myriad of regional factors, ranging from differences in institutions, public services and infrastructure to agro-ecological variations. To understand how marginal effects vary between different parts of the country, we interact each of the non-geographic independent variables with each of the provincial dummy variables. This is done separately for rural and urban areas. A Wald test is used to test the joint significance of interaction effects for each province and to test for equality of interaction parameters for each pair of provinces. The results indicate that inter-provincial differences in the way the explanatory variables affect consumption are important—location matters a lot.[31]

2.91 To set the stage for the analysis by province, Table 2-13 summarizes key characteristics in terms of natural endowments, human capital and economic structure.

[30] The regressions control for many factors that impact on welfare and poverty. Hence, province fixed effects do not merely mirror the differences in the characteristics associated with welfare and poverty levels observed in the different provinces.

[31] Thus the null hypotheses of no inter-provincial differences in marginal effects can always be rejected at the five percent level.

Table 2-13: An Overview of Provincial Differences, percent, 2005/6

	Nairobi	Central	Coast	Eastern	North Eastern	Nyanza	Rift Valley	Western
Urban share	100	10	37	6	17	14	12	8
Share of medium and high potential land	Na	69	5	3	-	97	18	90
Average consumption (1)	7,355	2,931	2,456	2,109	1,450	2,280	2,361	1,909
Decile ratio	0.05	0.08	0.06	0.08	0.09	0.09	0.05	0.11
Poverty rate	22	31	59	50	74	47	49	53
Unemployment rate	21	10	17	9	40	7	13	12
Net Secondary school enrolment rate	38	30	11	15	7	19	18	13
Land Gini (value)	0.99	0.74	0.87	0.73	-	0.82	0.87	0.77

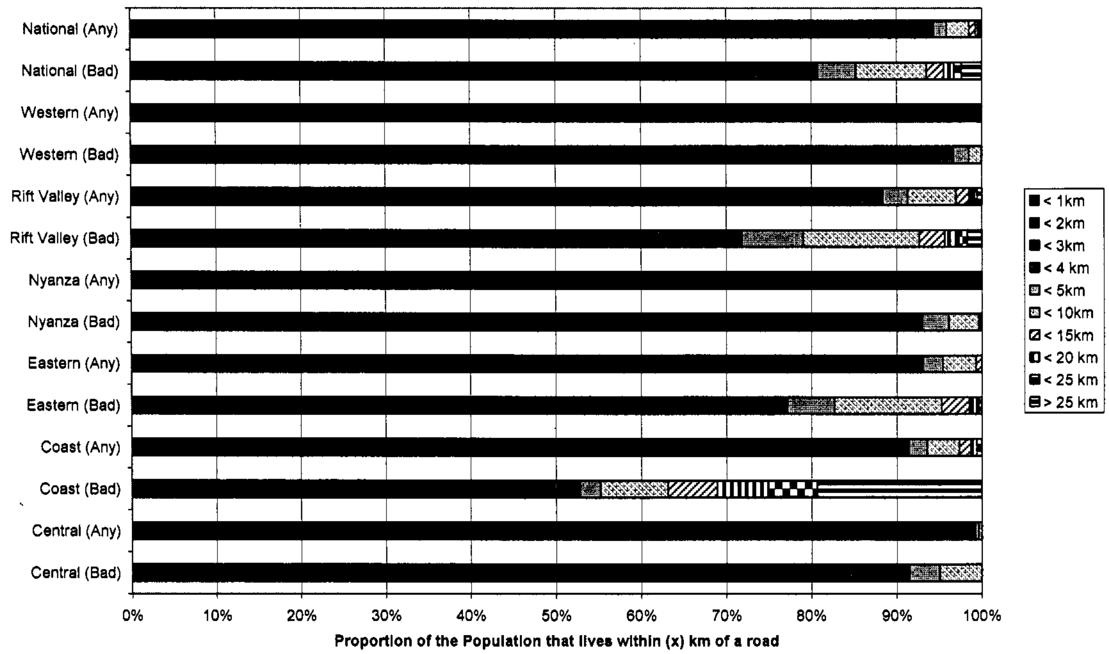
Source: (1) and (2) World Bank staff estimates based on KIHBS 2005-2006 data.
Notes: based on deflated monthly per adult equivalent terms.

2.92 Figure 2-21 compares access to roads for the population, both nationally and in each province. The data, from 2004, pre-date the more recent scale up in roads investment, but do provide a sense of the pattern of access at that point. The figures were computed using GIS data on the roads network and the population in each sub-location in Kenya. The analysis was conducted on two sets of roads data for 2004: (a) nearest distance to any road; and (b) nearest distance to a bad road (defined as roads with earth or non-graded surfaces).

2.93 The results show that overall, with over 90 percent of the population living within 3 km of any road, access in Kenya is high. However, there is substantial variation among provinces with lower rates of access in Coast, Eastern and Rift Valley Provinces. At the same time it is recognized that parts of Rift Valley (Turkana, West Pokot, parts of Baringo, Samburu), Coast (Tana River) and Eastern (Marsabit, Moyale, parts of Isiolo). Provinces include vast areas with low population densities because of the harsh climate and terrain and communities that migrate regularly to search for pasture. In this sense it is not surprising that road density is relatively low compared with other regions.

2.94 Moreover, analysis by type of road surface shows that "access" is largely to roads with earth or non-graded surfaces, which can be classified as bad roads. Nationally, about half of the access is to bad roads—with relatively high proportions of bad roads in Western, Nyanza and Eastern.

Figure 2-21: Patterns in Roads Access by Province, 2004



Province by Province

2.95 To explore provincial variations further, regressions were estimated separately for Kenyan's eight provinces.[32] This section gives a short profile of each province bringing together evidence from various data sources and types of analysis. We utilize KIHBS, and the rich analysis of trends at the provincial level undertaken by Tegemeo—which are representative of rural, non-pastoralist areas. The rates of poverty were shown in Figure 2-3 above.

2.96 Before beginning with the province-by-province overview, we draw attention to large province level differences in household access to infrastructure that emerge from the analysis of Tegemeo data:

- Coast and Rift Valley do poorly on distance to fertilizer seller, while Rift Valley is very heterogeneous.
- Nyanza starts off worst on motorable roads in 1997, but ends up better than Coast and Rift Valley in 2007. Central is the best throughout.

2.97 The area surrounding the modern capital and regional business center of ***Nairobi*** hosts more than two-thirds of enterprises accounting for 44 percent of formal employment (see World Bank, 2005). Nairobi is a major centre for East Africa, in terms

[32] Econometrically, there is no difference between running the regressions by province or interacting all non-geographic explanatory variables with provincial dummies. However, the specification using interaction effects is convenient for econometric testing while running the regressions by province eases the interpretation of coefficients.

of transport, multi-lateral organizations and commercial activity. Between 1997 and 2005/06, households in Nairobi enjoyed the most rapid consumption growth, totaling about 45 percent. This was associated with a strong decline in monetary poverty, from 50 to 22 percent comparing the WMS 1997 and KIHBS.

2.98 However, the Kenyan capital is also characterized by massive inequalities in income and wealth distribution. Expenditures of the richest decile are almost 20 times higher than those of the poorest decile, the gini index for Nairobi is 0.46. Unemployment among youth aged 15 to 24 years stands at 42 percent, with many of them living in Africa's largest slums. Living conditions in Nairobi's informal settlements are appalling, characterized by widespread poverty and limited or non-existent public services. Housing units in the slums are shabby and crowded, yet rents are high, absorbing a sizeable fraction of household budget (see World Bank, 2006). Recent data from two large informal settlements (Korogocho and Viwandani) show that less than 3 percent of households living in these areas had access to a private latrine, only 10 percent to garbage disposal services. As a result, open spaces and drains are flooded with human excreta and waste, leaving slum dwellers vulnerable to poor hygiene and illnesses. Over and above, lack of safety is a serious problem and most slum households feel insecure and at risk to crime (World Bank, 2006).

2.99 Alongside such striking inequities, the overall vitality of the private sector in Nairobi attracts the highest-skilled segment of the labor force. Around 55 percent of adults living in the Kenyan capital have at least some secondary schooling, and another 7 percent have benefitted from university education. Stifel and Christensen (2006) have shown that in 1997 more than primary education was necessary to make a positive difference to consumption among households in Nairobi. The results from our regression analysis confirm this finding, as only tertiary education has significantly positive returns in Nairobi. Nairobi also shows highest returns to work experience, as approximated by the age of the household head.

2.100 ***Central Province*** borders Nairobi is the traditional homeland of the Kikuyu. As noted in Part I, infrastructure development benefitted from colonial rule, and the post independence regime. The province has poverty estimates far below the national average —with a headcount index of 31 percent. However, there was no significant poverty reduction between 1997 and 2005/06 indicating that even lower levels of poverty will be much harder to achieve. According to Tegemeo's panel analysis, over the decade to 2007, average incomes rose in Central, but inequality also tended to rise.

2.101 Non-monetary poverty indicators and correlates are favorable in central province. Central province has high primary and secondary enrollment rates, infant and child mortality rates are the lowest in the country and fertility is markedly lower than in most other parts of Kenya. These are all good for lowering poverty, since the regressions show that there is a strong negative link between household size and consumption. Despite the fact that the province is fairly homogenous ethnically, there is a positive relationship between ethnic fractionalization and consumption, showing that districts with mixed population tend to be more prosperous.

2.102 From a geographic perspective, Central Province benefits from its proximity to Nairobi and the mild climate of the central highlands. A fair share of the land is high-potential, with tea, coffee and horticulture being important cash crops alongside the dairy industry. Financial services are relatively advanced and particularly the semi-formal financial sector, through a prominent role of SACCOS, which reduces financial exclusion rates (relative to Nairobi). About 70 percent of the adult population are economically active, which is more than in any other provinces. The results of the regression analysis are in line with the notion that Central province is strategically positioned. Urban areas show significant positive returns to non-farm household enterprise and wage employment, while rural areas reflect positive returns to human capital even at the primary level. There are also high premiums to employment in public administration.

2.103 ***Coast Province*** is home to the Mijkenda and other smaller, predominantly Muslim, groups. Urbanization is high, with 37 percent of the population living in cities and towns. Mombasa, Kenya's second largest city and chief port, serves as the main gateway for cargo traffic into the interior of East Africa, particularly the inlands of Kenya, Uganda, Rwanda and Northern Congo. Prior to the 2008 election crisis, Mombasa also welcomed more than one million tourists each year. However, despite significant beach tourism and the hotel industry along the Indian Ocean, the province is characterized by high and rising levels of poverty, with headcount poverty having increased from 55 percent in 1997 to 59 percent in 2005/06. Small area estimates of poverty and welfare show that gains from the tourism sector are largely confined to the areas directly surrounding the main hotel complexes and do not trickle down to the hinterland. Unemployment is high, as 17 percent of adult population and 26 percent of youth population are without a job.

2.104 The region also lags behind in non-monetary poverty indicators, particularly in those related to education: almost two thirds (63 percent) of adult population has not completed primary education. Primary and secondary enrollment rates are among the lowest in the country, only the impoverished areas of North Eastern Province fare worse. In addition, there are significant gender disparities, as the ratio of boys to girls in primary school stands at 10 to 9 (gross enrollment). On the positive side, access to basic public services and amenities, particularly water and electricity, is comparatively high, mainly because a large share of the population lives in urbanized settings.

2.105 Together with Eastern and North-Eastern Province, Coast has the smallest proportion of arable land. Only 5 percent of the land is classed as high potential for crop production and much of the inland areas are agro-pastoralist. Coast Province also has a high fraction of Government land that has not been allocated (see SID, 2006). Perhaps due to its relatively poor quality, land is not an important determinant of consumption in this province as none of the land-related variables comes out significant.

2.106 According to the Tegemeo rural analysis, average incomes in Coast province actually deteriorated between 1997 and 2004, then recovered through 2007. In this sample, trends in inequality were uneven over time, with an initial improvement followed by worsening, then improvement again.

2.107 ***North-Eastern (NE) Province***, sparsely populated and bordering Ethiopia to the north and Somalia to the east, is the most impoverished region in Kenya. Almost three quarters of the population are estimated to be poor, and the high values of the poverty depth and severity indices indicate a sizeable consumption shortfall of poor households relative to the poverty line. The province receives very little rainfall, and its arid and semi arid lands are inhabited mainly by nomadic pastoralists from the Somali ethnic group. The fertility rate stands at 7 children per women, about twice as much as in Central Province.

2.108 Due to its relatively isolated location and dispersed population, the region has long been disadvantaged in public service and infrastructure provision (see World Bank, 1995). This has manifested in a very low asset and endowment base. Only 4 percent of the population use electricity, less than one third has access to safe water. A massive 88 percent of adults have not completed primary education. Despite the introduction of free primary education, only half of the children are enrolled in primary school and only 7 percent receive secondary education. At the same time, there may be little incentive to enroll: the KIHBS regressions also indicate that there are hardly any returns to education in rural NE.[33] Gender disparities are well pronounced, as the boy-girl-ratio in primary school is 100 to 61.

2.109 Pastoralism is the predominant livelihood in North-Eastern Province, but economic inactivity rates reported in the KIHBS are the highest in the country. The province also suffers from chronic food insecurity. A fair share of the population depends on food aid, especially when livestock is lost after periods of prolonged drought. Cattle rustling, poaching and banditry are pervasive. Along the Kenya-Somali border, there are several refugee camps to shelter for people displaced by the civil war in Somalia. People living in these camps are vulnerable to attacks by Somali fighters and local bandits.

2.110 ***Eastern Province*** is the second largest administrative area, stretching from Lake Turkana at the northern border to Ethiopia down to the south. It is also the least urbanized province, with almost 94 percent of population living in rural areas. The area is inhabited mainly by the Kamba and Meru, as well as various pastoralist groups. The regressions show that households following traditional beliefs are significantly worse off. Between 1997 and 2005/06 Eastern Province experienced seen a decline in poverty, but still more than half of the population falls below the poverty line.

2.111 Eastern Province has the second highest life expectancy in the country (after Central), but other non-monetary poverty indicators are not so favorable. Almost 60 percent of adults have not completed primary education, only 15 percent of children are currently enrolled in secondary school. Infant and child mortality rates are below the national average but considerably higher than in Central Province.

2.112 Most of the land in Eastern Province is low potential, though there are some pockets of arable land around Embu, Makueni and Mbeere (see SID 2006). In the regressions investigating province level effects, and ownership increases consumption by

[33] Though the small sample size makes it difficult to precisely estimate coefficients.

around 16 percent and land titling adds another 13 percent in the province. However, land holding size is not significantly correlated with consumption in Eastern.

2.113 In terms of trends, Tegemeo's panel analysis found that Eastern's average incomes rose through 2004, but worsened from then onwards. Trends in inequality varied over the decade to 2007, worsening initially and again more recently.

2.114 ***Rift Valley***, the largest and most populous province, covers almost 30 percent of Kenya's total land area. The Great Rift is the traditional homeland of the Kalenjin, but it is a very diverse province, and there are significant numbers of Kikuyu, Samburu and Maasai living in this area. The province is characterized by an unequal distribution of income and land, with a consumption gini of 0.42 and a land gini of 0.87. Inter-ethnic clashes and land conflicts are frequent in this part of Kenya.

2.115 As noted in Part I, Rift Valley was politically favored under the second Kenyan President Daniel Arap Moi (1978 – 2003), a Kalenjin from Baringo district. Yet poverty in Rift Valley Province remained remarkably stable over the past decade, with a headcount index of around 49 percent. Rift Valley has the third highest poverty severity index (after Coast and North Eastern) showing that many poor households are far away from the poverty line.

2.116 The province is characterized by significant geographical variations. The volcanic soils of the Great Rift are amongst the most fertile in the country, Central Rift Valley is the leading producer of maize and wheat, the highland area around Kericho is the center of Kenya's tea industry. However, much of the land in the northern and southern districts is agriculturally unproductive and dominated by livestock rearing. In the regression analysis, Rift Valley Province has the highest returns to land holding size. Land titling has an additional positive correlation with consumption, while land ownership does not come out significant. As in Central Province, rural areas benefit from positive returns to education from the primary level and there is a positive effect of non-farm enterprise employment on consumption.

2.117 In terms of trends, the Tegemeo rural analysis suggests positive directions in Rift Valley, where we see the combination of rising incomes and slowly falling inequality. This stands in contrast to the WMS-KIHBS findings of somewhat rising rural inequality.

2.118 The densely populated area of ***Nyanza Province*** surrounds Lake Victoria in the south-western corner of Kenya. The Luo are the dominant ethnic group, followed by the Kisii. The province experienced a strong decline in monetary poverty between 1997 and 2005/6, with headcount poverty falling from 62 to 47 percent. The decline is most pronounced for urban Nyanza, where poverty fell by 22 percentage points over this period, from 63 to 41 percent.

2.119 About 90 percent of Nyanza's land is high potential but high population density and high fertility rates imply that average plot sizes are small and declining (see World Bank, 1995). Agriculture is dominated by maize and sugar production. The informal financial sector plays a crucial role in providing access to financial services. Overall unemployment rates are the lowest in the country although, as shown below, youth unemployment is a major issue. As expected, the regressions show that returns to land holdings are positive, though smaller than in Rift Valley. Non-farm self-employment is extensive in rural areas, and in the regression analysis this is related to higher consumption. At the same time, urban areas suffer from low returns to education compared to most other provinces.

2.120 Tegemeo's panel analysis shows that the reported incomes of rural households in Nyanza are the lowest of all the provinces, but rose over time, while the gini increased till 2004 and then moderated. Levels of livestock ownership are lowest in Nyanza. It is also notable that average land size was falling rapidly, to become lowest across all the provinces by 2007. In terms of trying to get credit and receiving credit, Nyanza starts off the worst and ends up second worst, just ahead of Rift Valley in 2007.

2.121 The decline in monetary poverty contrasts against daunting health indicators. Nyanza has the highest HIV/AIDS prevalence rate among all Kenyan provinces and this, coupled with endemic malaria and water-borne diseases, inflicts a devastating toll on the population. Average life expectancy in Nyanza Province is 16 years less and under-five mortality four times higher, than in Central Province. One child out of five born in Nyanza does not live to see his/her fifth birthday (see UNDP 2006 and SID 2006).

2.122 ***Western Province*** lies at the border to Uganda and is inhabited mainly by the Luhya ethnic group. The area, which includes Kakamega rainforest, receives strong rainfall throughout the year and has a low degree of urbanization. Despite fertile lands, Western Province is among the poorest in Kenya and has experienced only slow progress over the last decade. Between 1997 and 2005/06, the headcount index fell from 57 to 53 percent. The Tegemeo analysis suggests that Western province's growth performance was uneven, with some recovery after 2004, and inequality generally improving.

Box 2-4: Location Matters

To illustrate the importance of inter-provincial inequality, consider the following example: Our reference household is Patrick (34 years old), his wife Mary (28 years old) and their three children (7 years, 5 years and 4 years). Patrick has completed primary education, while Mary did not complete primary education. The family owns a small plot of 2.5 acres—but does not have a title—in a rural village and is mainly involved in subsistence agriculture. However, Mary also works a few hours per week for a small non-farm enterprise (see Annex for a full list of reference characteristics).

What resources would Patrick and his family require to meet the poverty line? The monthly rural poverty line is 1562.18 KSH per adult equivalent to meet the cost of purchasing 2250 calories and basic non-food necessities. Patrick and his family would be considered 3.54 adult equivalents, as the children are assumed to cost less. Hence, the above household would need 5530 KSH per month to meet the poverty line.

What consumption levels would our regression models predict for Central and Western provinces?

Let us assume first that Patrick lives with his family in Central province. Our regression model for Central province predicts that this household would have total consumption of 9455 KSH per month. Hence, Patrick and his family would be able to spend each month an amount of around 3925 KSH beyond of the poverty line.

Now assume that the family resides in Western province. Our regression model for Western province predicts that the same household would have total consumption of only 5501 KSh per month. Since the poverty line would remain the same, Patrick and his family would now be just below the poverty line and hence classified as poor.

In this example, the difference in outcomes (despite same characteristics) is driven by the following factors. Central province has a much more favorable 'province effect' (the intercept in our regression model), which captures unobserved factors associated with location, such as climate, rainfall, soil quality, average distance to roads and markets, local institutions, etc. Second, the positive relationship between ethnic fractionalization and consumption is much larger in Central than in Western province (our reference household is considered to live in a district with moderate ethnic fractionalization, elf = 0.304). Third, Central Province has considerably higher returns to education, even at the primary level. On the other side of the coin, Central province is strongly disadvantaged with respect to household demographics, which offsets the above mentioned effect to a large extent.

Of course, this is an artificial example and there are a few things to bear in mind. First, the effect is not uniform across households but depends on the underlying household characteristics. Second, average household characteristics do also vary between provinces—and these effects can either reinforce or offset the effects illustrated above. For example, average household size is higher in Western than in Central province, hence Patrick would be more likely having to provide for another dependant if living in Western Province; on the other hand, Patrick would be less likely to own land if he lives in Central Province. Third, our regression models do not tell us why the returns are different. This could be related, again, to agro-ecological variations, differences in infrastructure or public services, institutional factors, and hence forth. However, the results do show that inter-provincial variations in returns to household characteristics are important and that location is a powerful predictor of living conditions and poverty.

2.123 Agriculture in Western Province is dominated by subsistence farming and maize is the preferred staple crop, often intercropped with beans. Commercial farming in Kakamega and Busia districts centers around sugar cane, which is processed either in the large sugar factories in the area or in smallholder mills. Vihiga district has tea plantations, and fishing is important in Busia at Lake Victoria. However, average productivity is low due to high population growth, land fragmentation and resulting small farm sizes. The regressions show that land holding size is positively related to consumption, but there is no separate effect of land ownership or land titling. Irrigation increases consumption by about 20 percent, which is about the same magnitude as in Nyanza. There are significant premiums on employment in the service sector.

2.124 Health indicators in Western are worse than the national average, though not as poor as in Nyanza. Western Province also lacks behind in infrastructure access. Only 4 percent of the population has access to electricity, while around 6 percent use piped water.

Focus on the Slums

2.125 Nairobi, growing at an estimated annual rate of about seven percent, is one of the fastest growing cities in Africa. Most of the growth of the city of Nairobi is a result of rural-urban migration (APHRC, 2002), and many migrants move into one of the city's informal settlement (slum) areas. A 2002 UN conference defined a slum household as a group of individuals living under the same roof lacking *one or more* of these conditions: (1) access to improved water; (2) access to improved sanitation facilities; (3) sufficient-living area, not overcrowded; (4) structural quality/durability of dwellings; and (5) security of tenure. Under this definition, the UN estimates that a large majority, more than 70 percent of people living in Nairobi reside in slums (UN Habitat, 2004). Using a more stringent definition, the Central Bureau of Statistics estimated that about 30 percent of the city's population lives in slums (Gulyani and Talukdar, 2008). In this section we use the terms "slum" and "informal settlement" interchangeably.

2.126 Nairobi, on average, is much better off than Kenya in general, on virtually all indicators of well being. However, this average is misleading, since Nairobi is highly unequal. Many of the wealthiest Kenyans live in the capital, and yet there are large pockets of relative and absolute deprivation. In this section we focus on the latter and provide an overview of some of the most salient aspects of poverty and livelihoods in the slums. The primary data source is the Demographic Surveillance Survey collected by APHRC since 2002 on the well-being of the 13,000-15,000 households (44,000 individuals) that live at any one point in time in two of Nairobi's main informal settlements Viwandani and Korogocho.[34] In particular, we exploit the rounds undertaken in 2003 and 2006 which collected information on livelihoods. This data source is complemented by the Nairobi Cross-sectional Slum Survey (NCSS) carried out in 2000 by APHRC on a representative sample of 4,564 slum households, and the Nairobi Informal Settlement Survey (NISS) carried out in 2004 on a random sub sample of 1,817 households in Viwandani and Korogocho whose household head was ever married.[35]

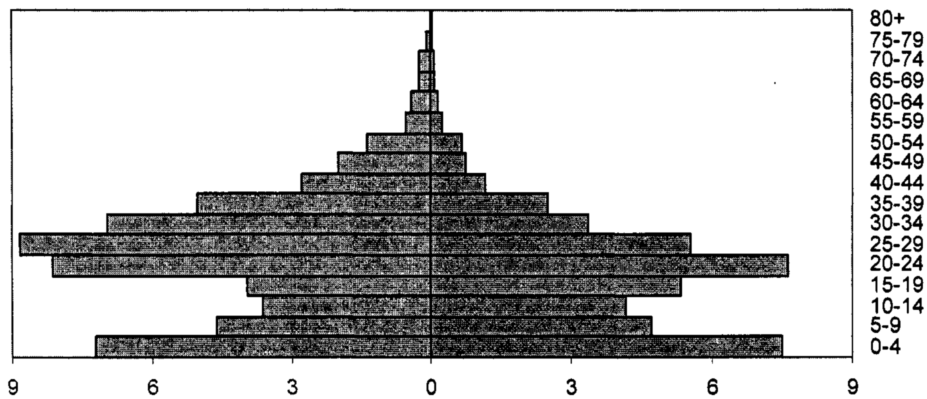
2.127 The 2000 NCSS showed that unlike the usual pyramid shape of the population found elsewhere in Kenya, there are more men than women (56 versus 44 percent) in

[34] This is in part based on *Poverty Dynamics and Mobility in Nairobi's Informal Settlements*, APHRC Working Paper (2008) by de Laat, J., O. Faye, T. Suri, and E. Zulu.

[35] This survey was collected by Joost de Laat, in collaboration with APHRC.

Nairobi's informal settlements, particularly of child bearing ages (20-34 years). Children, especially those of primary school ages, are relatively few.

Figure 2-22: Age-Sex Composition of Nairobi, Kenya, Informal Settlement Populations Male—Female



Source: APHRC, 2002 (representative sample of all informal settlements)

2.128 Amenities in the slums are very poor. As we explore further in Part IV, improving the state of amenities and public services is arguably one of the biggest challenges to improving the quality of life of people living in the informal settlements.

- *Water.* According to the DSS 2006 data, less than 6 percent of households had access to piped water in their homes. 2 percent relied primarily on a water tank (rain harvesting), and 92 percent received their water from open taps where they purchase water. Recent focus group discussions conducted with women and girls that the cost and availability of water emerged as a major concern in both Korogocho and Viwandani.[36] Slum-dwellers pay approximately eight times more for water than their non-slum counterparts in Nairobi as the latter pay a standard rate of 120 shillings for up to 10,000 liters of water. Discussants in both communities also provided numerous accurate examples of illnesses that might be provoked by water problems, such as cholera, typhoid, and diarrhea. And despite this, participants voiced their powerlessness to take the necessary actions to avert or alleviate these conditions.
- *Toilets.* Less than 3 percent of households had a private latrine. Instead, the majority (53 percent) relies on pit latrines shared with other households, or shared 'other' latrines (e.g. public pit latrines and 'flying-toilets'; see below). Maps for both slums show that water points and toilet facilities tend to be clustered in certain areas whilst other areas are completely un-serviced with these facilities. Many people have to pay to access the toilet and water facilities. As noted by Nyamwange (2007) in major Nairobi slums like Kibera, Mathare Korogocho,

[36] Undie, C., John-Langba, J., Kimani, E. (2006). "The Place of Cool Waters': Women and Water in the Slums of Nairobi, Kenya", *Wagadu: A Journal of Transnational Women's and Gender Studies,* vol. 3

Kangemi and Mukuru, 'toilet facilities are more expensive than food. A research on poverty eradication in Kibera last year showed that toilet facilities cost KSh5 (8US cents) per visit per family member, regardless of the nature of the call. It costs a slum dweller dearly to cater for a child with a running stomach!' Since some slum dwellers cannot afford to pay for these services to meet their daily needs, they use what are normally known as 'flying' toilets where they defecate into plastic bags and throw the plastics on roof tops or in rivers. Poor drainage and the rainy season can cause floods in residential areas, becoming an environmental hazard.[37]

- *Lighting.* Access to electricity is improving in the slums. In 2006, 32 percent had access to electricity. The remainder households continue to rely on kerosene for lighting.
- *Garbage Disposal.* Most areas of the informal settlements continue to suffer from incredible amounts of litter and waste in open areas and proper garbage disposal remains a huge challenge. In fact, less than 10 percent of households reports relying on garbage disposal services, and less than 20 percent disposes of garbage in pits/dumps. The remaining 71 percent of households either disposes of garbage in public open spaces (30 percent) or in the river (41 percent).

2.129 The 2000 NCSS also revealed that morbidity risks for all major illnesses (fever, cough, diarrhea) are higher for children in the slums compared to children elsewhere in Kenya. They also have less access to healthcare, including immunization, and subsequently face higher mortality rates than even their rural counterparts. For instance, infant, child, and under 5 mortality rates were about 20, 65, and 35 percent, respectively, which are high compared to rural Kenya. Figure 2-23 based on the NISS 2004 shows that children born to a migrant household head living in the Nairobi slums are much more likely to be sick if they also live in the informal settlement (40 percent were sick in the month prior) as opposed to living in the rural area of origin (less than 30 percent).[38]

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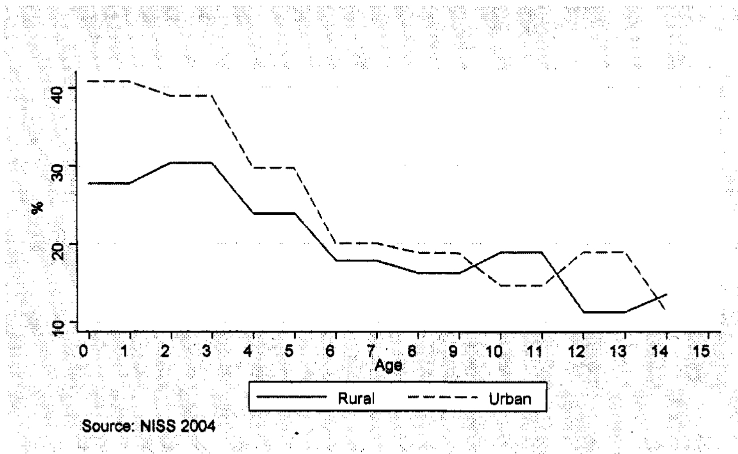
[37] *See Mudege, N. and E. Zulu (2007),* "Discourses of illegality and exclusion: When water access matters", *unpublished manuscript APHRC*), and Nyamwange, John (2007) "Nairobi Slums - like Kibera and Mathare, where toilet facilities, are more expensive than food", http://www.rio10.dk (Accessed 27 November 2007).

[38] See Konseiga, A. Family migration: a vehicle of child morbidity in the informal settlements of Nairobi city, Kenya? 2005 mimeo

Figure 2-23: Proportion Children Sick Last Month
(2-year intervals)

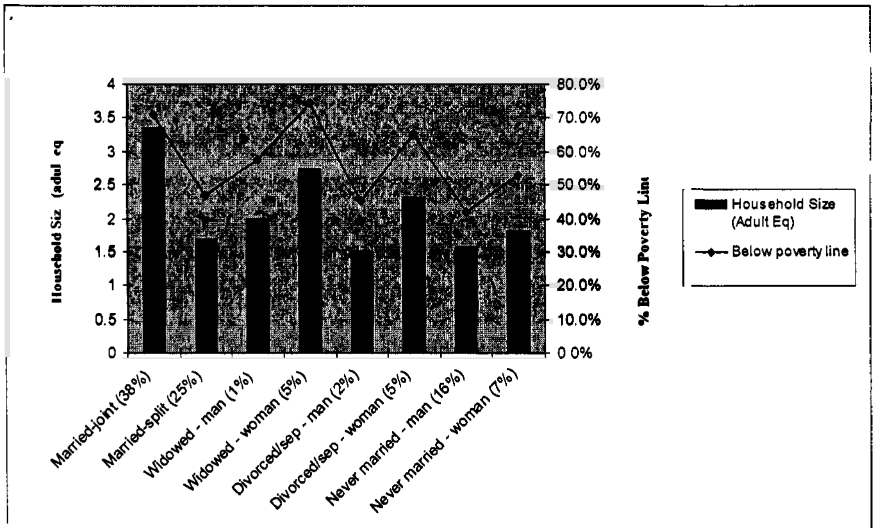


Source: de Laat et al 2008

2.130 In 2006, 62 percent of households in the two slums had incomes below the official poverty line (per adult equivalent) with substantial variation across household types (Figure 2-24). There are various ways to examine the of poverty profile in the slums, but a relevant typology appears to be family type, since there are significant differences depending on marital status and whether the partner is alive or present, or not. At the same time, however, we need to bear in mind that household composition may also reflect survival strategies—in particular split migrant households, but we do not have information to observe those who remain in rural or other areas.

2.131 Looking at patterns of poverty by family type, poverty incidence is highest (74 percent) among households headed by widows, who make up 5 percent of the population. Families in which there is both a husband and wife, make up 38 percent of the total population and their poverty incidence is also high (71 percent). Having both parents present apparently does not compensate the household more than proportionally for the extra expenditures required. Households headed by divorced women also have above average poverty incidence. At the opposite end are members of households headed by never married men, whose poverty incidence stands at 42 percent, divorced men (45 percent), and 'married-split' (47 percent). However, since these latter households, which make up 25 percent of the population, are married men whose wife and most of their dependent children live in rural areas, this measured poverty incidence likely underestimates their poverty level, given dependents to support elsewhere. Figure 2-24 also shows a broad correlation between household size and the likelihood of being poor.

Figure 2-24: Population Breakdown and Poverty Level by Household Type, 2006



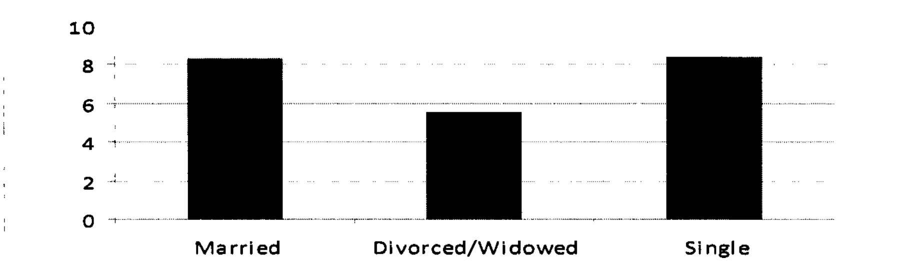
Source: de Laat et al 2008.

2.132 Not only are poverty levels high, the poverty gap is also substantial. Although there is less variation across family types in the size of poverty gap than there is in poverty incidence, female headed households living below the poverty line have expenditures that are particularly low, 43 percent shortfall for widows and 41 percent for divorcees.

2.133 There is surprisingly significant inequality: the wealthiest decile in either of the two slums had expenditures (per adult equivalent) 14 times higher than the bottom. The gini coefficient in 2006 was 0.39.

2.134 The pattern of poverty rates is correlated with variation in the education levels of household heads. Widows, for example, have on average only 3.9 years of education compared with 6.0 years for widowers. Interestingly, education hardly differs between married couples who live together as 'married-joint' versus separately, or 'married-split'.

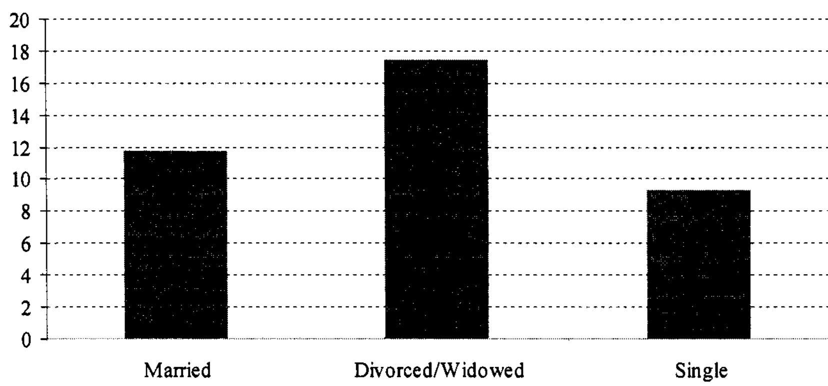
Figure 2-25: Years of Education of Household Head, by Household Type, 2006



Source: de Laat et al 2008.

2.135 There is substantial variation in the duration that household heads of the different types of households have stayed in the Nairobi slums. At one extreme, are widowed men and women with average durations of more than 20 years and divorced men and women with durations of around 15 years. At the other end, never married men have stayed on average less than nine years in the slum.

Figure 2-26: Years Household Head has Stayed in Informal Settlements, 2006 (by family type)



Source: de Laat et al 2008.

2.136 Lastly, expenditure data collected in 2003 suggests that food expenses absorb the largest share of household expenses, both for those under (56 percent) and above (48 percent) the poverty line. Energy follows after food (15 percent and 11 percent), followed by rent (13 percent and 9 percent). There is also variation across household types. For example, households headed by a widowed man spend as much as 11 percent on alcohol.

Determinants of Poverty Levels in the Slums

2.137 To explore more closely the correlates of poverty in the informal settlements, probity estimations are used to identify predictors of whether a household lives below the poverty line. These suggest that:

- There are surprisingly few significant differences in poverty levels between households of different ethnicities. Without controlling for individual/household characteristics such as age, education, duration and so on, only the Somali community is significantly poorer. However, once controlling for these, Somali households are significantly less likely to be poor. The differences across ethnic groups appear to arise mainly because of the correlation with family size.
- There is significant variation in poverty levels across villages within the same informal settlement. The difference in the poverty rate between the poorest and wealthiest villages within Korogocho is more than 31 percentage points.

Controlling for individual/household characteristics, this gap grows to 36 percentage points. The village differences are smaller in Viwandani—11 percentage points between the wealthiest and poorest, which increases to 14 percentage points once controlling for individual/household characteristics.

2.138 When looking at individual/household characteristics associated with poverty, we see that:

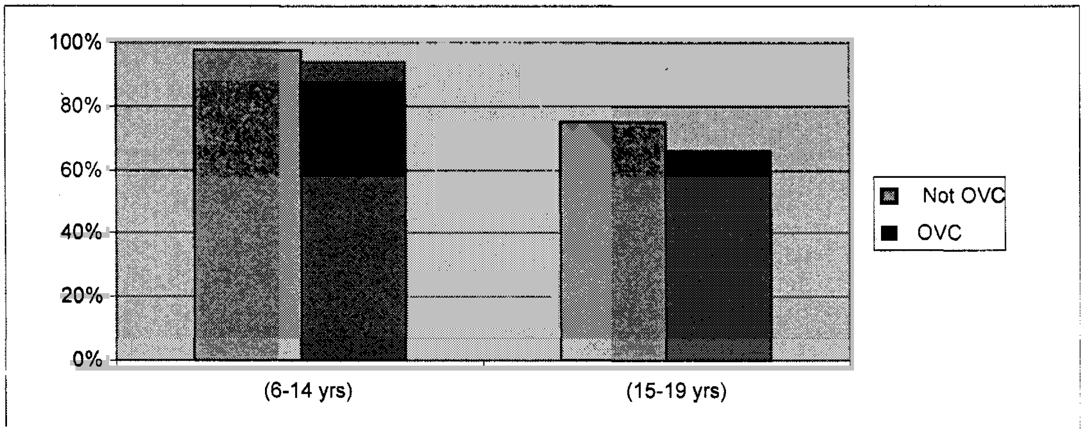
- Poverty is inversely correlated with age and duration of residence in the settlement.
- Married joint households—where husband and wife jointly live in the informal settlement—are significantly worse off than households whose head is never married or split families (where the wife lives in the rural area).
- In all cases, the presence of children of all ages, but particularly teenagers, makes households more likely to be poor. More surprisingly, each additional adult increase poverty risk by more than 22 percentage points.
- Higher levels of education reduce poverty risk by more than 23 percentage points for those with more than secondary, relative to those heads who never attended school. However, the effect of some secondary is much smaller, only a reduction of 7.5 percentage points. And there is no significant difference between those with some primary and those who have never attended school.
- Lastly, the experience of household shocks such as theft or robbery is negatively correlated with poverty, which has the obvious explanation that wealthier households are more attractive targets.

Children and Teenage Youth in the Slums

2.139 Primary enrollment levels in the slums are high with little variation across household types. On average, 93 percent of children 5-14 years were enrolled in school in 2006. Unlike most other places in Kenya, however, a substantial proportion of these are not in public schools. According to the NISS 2004, about one-third of children enrolled were attending a private or non-formal school. Although slightly more expensive in terms of fees, these schools offer benefits, such as not needing to buy a school uniform. Teachers frequently lack the official training of public school teachers, most are locals working on contract basis. In informal interviews, parents comment on how private school teachers are frequently more motivated.

2.140 The share of youth aged 15-19 in the slums still enrolled is high relative to other areas of Kenya, 73 percent. There is substantial variation across family types. For example, only 56 percent of these living with a never-married man are at school, compared to 78 percent of youth in a 'married-joint' family. It is notable that 83 percent of 15-19 year olds living with a widower and 74 percent living with a divorced woman are attending school, despite their high poverty levels. It appears that these households invest relatively more in the education of their children. Finally, enrollment of OVC (children without one or both parents) is lower than non-OVCs, especially among 15-19 year olds, 66 percent versus 75 percent.

Figure 2-27: Enrollment by OVCs (By One or Both Parents)



Source: de Laat et al 2008.

Focus on Youth

2.141 Kenya's youth are living in a rapidly changing society, and in some respects they enjoy greater opportunities than their parents did. Indeed for some, the recent period has been a boom -- unprecedented levels of access to education, new job opportunities in services, cell phones and so on. But for many, for varied reasons, this has not been the case. Youth also face serious challenges, including high rates of unemployment and underemployment, HIV/AIDS and other health risks, gender discrimination and, for some, the risks of violent conflict (see World Bank Youth Assessment 2006).

2.142 In the current political, social and economic climate of Kenya, concern for youth is important. Without this and policies and programs to help address the problems that youth face, there is a risk the social fabric will fray and undermine the country's development prospects. Thus the well-being and prospects for youth have emerged as a central challenge for Kenya. While there have been some encouraging trends—in terms of skills, for example—the youth unemployment rate is about double that of adults and joblessness is very high.

2.143 There are more youth (in absolute and relative terms) than ever before in Kenya, signaling a major demographic shift in the labor force, which particularly affects the prospects of young people as well as having broader implications. Almost one third Kenyans (30 percent) is between 15 and 29 years, and the total number reaches almost 11 million people (compared to 8.5 million in 1999). The current generation of Kenyan youth has growing levels of human capital and exposure to the world, and thus different career expectations and potential than their predecessors; yet job creation has not kept pace in quantitative or qualitative terms. The Country Social Assessment found that youth unemployment, especially among males, is a major contributor to frustration and tension in urban areas. Youth represent a politically as well as demographically significant group that will have a key role in shaping the country's development path and democratic transition. A young workforce has the potential to accelerate productivity growth and spur better governance, but without adequate opportunity to contribute productively, youth can turn to risky behavior with possible implications for the incidence of crime, drug use, and HIV/AIDS, for example (World Bank 2005d).

2.144 Becoming economically independent is one of the hallmarks of the transition to adulthood. Indeed, finding a decent job offers the surest hope for millions of young Kenyans to lift themselves out of poverty, and to break the cycle of intergenerational transmission of poverty. Hence in this section we focus on youth in the labour market. We begin with a recap of levels and trends on the human development side, before reviewing the picture with respect to activity, jobs and joblessness in 2005/6. It seems valuable to categorize the youth—by age, location, level of education/socio-economic background—to be able to unbundle the issues and work out where to focus. Getting a handle on trends and prospects facing youth, and differentiation among youth, has important policy and program implications. The latter are addressed in Part IV.

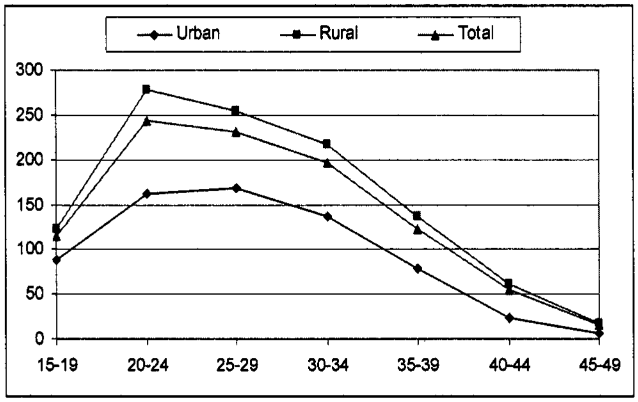
2.145 The analysis draws heavily on quantitative data that is available for 2005/6. Several indicators are used to cast light on different aspects of the school to work transition (WDR 2006). We look at education participation and the incidence of child labor, as well as health related indicators. Labor force participation and unemployment rates are examples of indicators that capture the ease/difficulty facing young people in the transition. The quality of employment (formal vs. informal, family work vs. paid work, etc.), earnings and returns to education are examples of indicators to measure the success of the transition. Of course, these different aspects are closely related. But analyzing these different indicators helps clarify the obstacles in the transition and could provide guidance to identify the issues and develop appropriate policy responses.

Human Development

2.146 The 2003 DHS shows that youth, on average, enjoy the best health of any age group, as might be expected. However, high fertility rates and reproductive health challenges put young women at risk, and young people are disproportionately likely to contract HIV/AIDS. Fertility is high among 15-24 year olds, with about 25 percent of 15-19 year old women already having a child or being pregnant (the likelihood of this is the same in rural and urban areas). Given that international evidence shows that 15-19 year old girls have double the risk of maternal mortality that 20-24 year olds face, this poses a major threat to young women (ICRW 2005). At the same time, only 40 percent of demand for family planning methods is satisfied among 15-19 year olds is satisfied, and 49 percent among 20-24 year olds, relative to 60 to 75 percent for other age groups (national figures, for which age breakdowns are not available show that in urban areas, overall met demand is 74 percent, versus 60 percent in rural areas).

2.147 Fertility is considerably higher in rural than urban areas –for every age group, but most evident for 20-24 year olds. Indeed, their fertility rate is almost double the corresponding urban rate, which is striking, especially given the similar levels for 15-19 year olds.

Figure 2-28: Age-Specific Fertility Rates, 2003

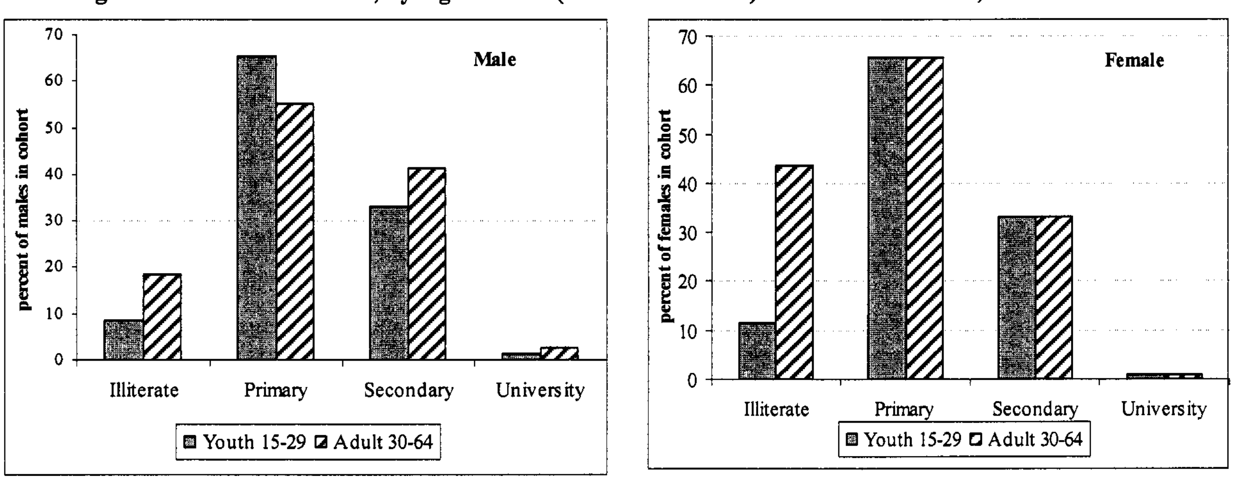


Source: DHS.

2.148 Many Kenyan youth—two out of five—are in full time education. Almost 60 percent of teenagers 15 and over (54 percent for females), and about 18 percent of all 20-24 year olds are full-time students.

2.149 The skills profile of the labor force does not suggest significant advantages for youth, as yet. Certainly, as shown in Figure 2-29, the literacy rate among male and female youth and primary education attainment are higher than those of adults; but the latter cohort maintains higher equal attainment in secondary and university education among males and quite similar attainments among females. However, the highest current (2005/6) ratio of full-time students to total people in cohort among both, the youth and children, compared to that in 1998 indicates an expected increased in attainment among the youth, closing the current gap with adults aged over 30. The share of youth who are full time students rose from 24 to 31 percent between 1998 and 2005/6. Similarly, the share of children (5-14) in full time education 74.5 percent in 2005/6 compared with 70 percent in 1998.

Figure 2-29: Skills Profiles, by Age Cohort (Youth vs. Adults) Males and Females, 2005



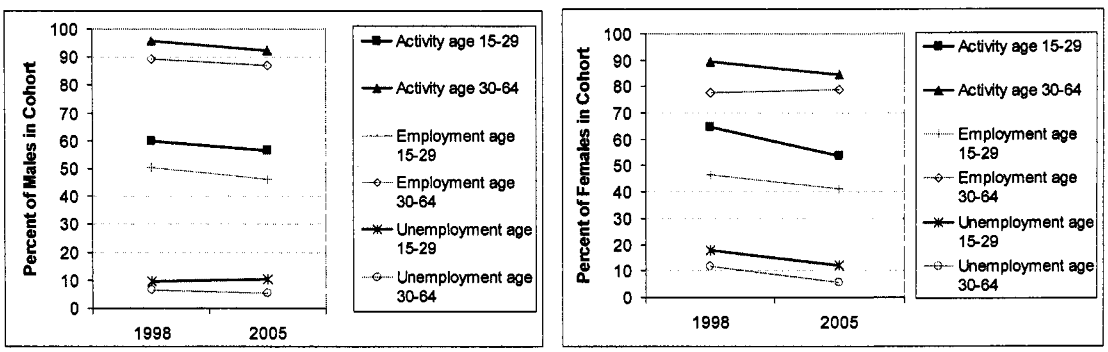
Source: Staff calculations based on KIHBS '05.

2.150 At the same time, very few youth are entering the labour market now without any education. Kenya's forthcoming ICA finds that the importance of skills constraints to firms has fallen significantly: only about 8 percent of manufacturing firms report the shortage of skills as a major or severe impediment to growth and between 2003 and 2007, the share has fallen significantly.

Youth have Distinct Labor Market Participation and Employment Patterns

2.151 Labour market rates vary by age and gender (Figure 2-30), although there have not been very significant changes since 1998. Activity rates decreased somewhat across the board, more so for young women.[39] Unemployment rates remained roughly constant for males but fell for all female cohorts, young and adult, mainly due to reduced participation.

Figure 2-30: Key Labor Market Indicators for Different Age Groups, by Gender (percent)



Source: Staff calculations based on ILFS 1998 & KIHBS 2005/6.

2.152 While the overall employment rates are hugely different between adults and youth (88 versus 55 percent), the type of employment does not differs markedly by age. About the same percentage of youth and adults are in paid employment. Not surprisingly, few youth (in fact a negligible number) are business owners, and a larger share than adults are apprentices. Both adult and young women are more likely to be working on their own account, and much less likely to be in paid employment.

Table 2-14: Employment Status by Age, 2005/6

	Age 15-29			Age 30-64		
	Male	Female	Total	Male	Female	Total
Employed (share of cohort)	46.2	41.4	43.8	87.1	79.0	83.0
As Share of total employed:						
Paid employment	40.7	26.4	34.3	42.0	19.2	31.4
Business Owner	1.0	1.1	1.1	3.2	1.5	2.4
Own Account Worker / Unpaid Family Worker	57.2	71.6	63.7	53.9	78.5	65.4
Apprentice	0.2	0.3	0.3	0.1	0.0	0.0
Other	0.8	0.6	0.7	0.8	0.8	0.8
missing	3.9	20.6	11.4	4.9	15.6	9.9

Source: Staff calculations based on KIHBS 2005.

[39] However this may be partly due to survey differences: some of those classed as employed "for family gain" in 1998 may have been (more correctly) classed as inactive in 2005/6.

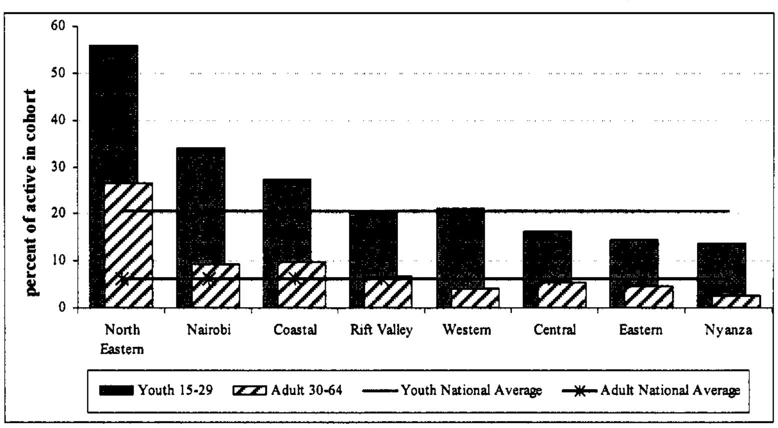
2.153 At the same time, examining the labour market using such crude indicators as participation and unemployment has limitations, especially in low income countries. This is even more so for youth because their labor market attachment is weaker and schooling options are larger. Hence in addition to unemployment, we estimate a jobless rate (the share of young people not employed and not in school), as a complementary measure that could be of interest in debates about Kenya's poverty and inequality challenges.

Youth Unemployment is high, and Joblessness is even Higher, Especially for Males

2.154 Consistent with Kenya's economic growth recovery since 2003, as noted above, the aggregate unemployment rate had fallen in recent years—as did the rate for youth. However the situation still presents very major challenges. Most obviously, the overall unemployment rates for youth remain high, far above average, at about 21 percent. Of additional concern is the sizeable share of youth—about 25 percent—whom are neither in school nor work. Indeed it is notable that the number inactive and not at school exceeds that in paid work. The proportion is lower for males (9 percent), possibly because some part of the 18 percent of females recorded as "inactive, non full time students" are engaged in child-rearing.

2.155 Figure 2-31 illustrates the divergence between youth and adult rates of unemployment, by province. The worst rates overall are in North-Eastern, and the lowest adult rates in Nyanza. We look at the differences in term of ratios to adults, and include a measure of joblessness (neither in school nor work). Overall, Kenya's youth unemployment rate is about double that for those aged 30-64 years, though the differential varies by province Table 2-15. Youth fare the worst in comparison to adults in Western and Nyanza, where the youth unemployment rate is about triple the adult rate; North Eastern province has the smallest ratio (50 percent higher). Interestingly however, the picture worsens for Central if we look at inactivity as well as unemployment, while Western and Nyanza remain the worst.

Figure 2-31: Unemployment Rate, Youth versus Adult, by Province (percent of active in cohort)



Source: Staff calculations based on KIHBS 05/06.

2.156 Thus, looking at joblessness—i.e. the percentage of young people who do not have a job, excluding students—suggests that the magnitude of the labour market problems is large. If we aggregate the rates of reported unemployment and inactivity, 38 percent of youth—almost two out of five young Kenyans, are neither in school nor work. The rates of youth joblessness relative to adult rates are presented in the right hand column of the table below.

Table 2-15: Ratio of Youth to Adult Unemployment Rate by Province and Gender, 2005/06

Provinces	Unemployment			Unemployment plus Inactivity		
	Male	Female	Total	Male	Female	Total
Nairobi	3.47	2.11	2.70	3.48	1.74	2.38
Central	2.06	1.98	2.01	3.90	4.17	4.05
Coastal	1.72	1.76	1.73	3.60	1.92	2.47
Eastern	1.75	2.03	1.88	4.00	3.23	3.53
North Eastern	1.38	1.65	1.49	2.32	1.06	1.41
Nyanza	2.35	3.80	3.15	6.32	4.94	5.46
Rift Valley	2.01	1.72	1.83	4.44	2.80	3.42
Western	2.13	4.22	3.01	5.01	4.29	4.60
All Provinces	**1.98**	**2.18**	**2.09**	**4.16**	**2.80**	**3.30**

Source: Staff calculations based on KIHBS 05/06.

2.157 Young women have a higher likelihood of unemployment than their male counterparts. This presents somewhat of a puzzle since in most African countries, male youth unemployment rates tend to be higher (Denu, Tekeste, and van der Deijl 2005).

2.158 Table 2-16 compares youth time use and joblessness in Kenya to other African countries; in general, Kenyan youth seem to be in the middle of the spectrum on the various indicators. However, the share of youth neither in school nor employed in 2005/06 was much higher than in Uganda and Ethiopia, but lower than in several other countries, including for example Mozambique and Zambia.

Table 2-16: Youth Time use in Urban Areas, Selected African Countries (percent of Youth)

	Only in School	Only Working	Unemployed	Inactive	Jobless (unemployed + inactive)
Burkina Faso	34.8	36.6	14.5	13.2	27.8
Burundi	58.6	14.8	11.6	15.0	26.6
Cameroon	48.3	20.1	18.5	11.2	29.7
Côte d'Ivoire	34.8	28.3	14.4	22.6	37.0
Ethiopia	46.1	26.4	13.5	14.1	27.6
The Gambia	37.0	16.9	2.3	43.3	45.5
Kenya	*40.6*	*34.8*	*23.8*	*13.6*	*36.5*
Madagascar	39.6	37.1	16.1	5.4	21.4
Malawi	55.1	14.8	2.8	26.4	29.1
Mozambique	29.8	20.2	36.1	12.8	48.9
Uganda	40.6	31.7	2.3	21.9	24.2
Zambia	35.8	16.6	19.8	27.4	47.3

Source: World Bank (2006b), and KIHBS 2005/6.

2.159 The extent of unemployment and inactivity among youth prompts questions about the appropriate diagnosis of the problem. If unemployment is concentrated among the better-off who are supported by their families and can afford to allow time searching for an attractive job, it may not be a pressing issue from a poverty reduction perspective. On the other hand, if unemployment is high among the very poor, and if inactivity actually reflects disguised unemployment (i.e. discouraged workers who have given up searching for a job or cannot afford to do so), it has different policy implications. Another possibility is that the jobless who say that they are available to work but are not actively searching for a job could be engaged in some productive activities, such as helping with a family business.

2.160 We looked at the poverty status of households with unemployed youth. A simple cross-tabulation shows the poverty headcount in all households in comparison to those which have youth and unemployed youth in the household. Households with at least one youth member are poorer than the national average. There is an additional effect seen for households with at least one unemployed youth—with the poverty incidence rising to 55 percent.

Table 2-17: Relative Poverty Incidence in Households with Unemployed/ Inactive Youth, 2005/6 (percent)

All households	46.7
All households with at least one youth	49.5
Households with at least one unemployed youth	54.9
Households with at least one unemployed or 'other inactive' youth	51.6
Urban households with at least one unemployed or 'other inactive' youth	36.5

Source: Staff calculations based on KIHBS, 2005/6.

2.161 At the same time, the crude correlations between education and unemployment, and employment, suggests that the unemployed youth indeed do have higher average levels of schooling: about 40 percent had completed secondary school, compared to 26 percent of the employed. The difference is most marked for unemployed female youth. This could imply that secondary educated youth are waiting for jobs they perceive as commensurate with their skills and aspirations.

Table 2-18: Level of Education Completed (percentage of cohort), 2005/6

	Unemployed			Employed		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
None	0.0	0.0	0.0	0.1	0.2	0.1
Primary	63.6	57.5	60.1	72.7	74.0	73.3
Secondary	36.0	42.1	39.5	26.9	25.3	26.1
University	0.4	0.4	0.4	0.3	0.6	0.4
Post graduate	0.0	0.0	0.0	0.0	0.0	0.0

Source: Staff Calculations based on KIHBS '05.

Box 2-5 : Youth Unemployment – Selected International Experience

More than 18 million young people in Sub-Saharan Africa—all youth (15–24)—were unemployed in 2003 (Garcia and Fares, 2008). This rate of youth unemployment exceeds that of all regions in the World, except the Middle East and North Africa.

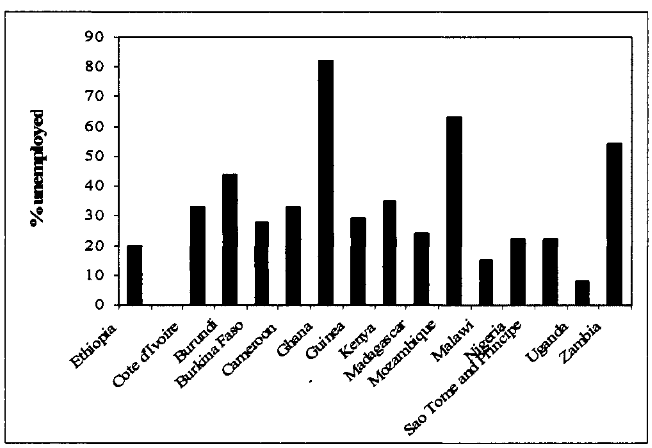
The unemployment rate for youth exceeds that of adults in all countries except Burundi and The Gambia. Young workers are particularly disadvantaged in Cameroon and São Tomé and Principe, where the youth unemployment rate is more than five times that of adults. The situation on the continent suggests that even with fast improvements in average educational attainment supply-side measures alone are insufficient to facilitate adequate job creation, particularly in the face of major demographic pressures.

International experience suggests that youth unemployment is a pervasive problem, and even those youth who do acquire formal education frequently experience great difficulty when entering the labor market. The youth unemployment rate in developing countries tends to be substantially higher than that of adults. Based on data from 60 developing countries around the world, Fares, Montenegro, and Orazem (2006) found that the typical youth spends about 1.4 years in unemployment or temporary jobs before settling into stable work. And employment alone does not necessarily signal a positive outcome, since many youth are unpaid (for example a family business) or low-paying jobs with limited prospects, and frequently in unhealthy or unsafe conditions (Denu, Tekeste, and van der Deijl 2005). In Sub-Saharan Africa the total estimated transition duration for school leavers ranges from one to seven years.

Cross-country analysis shows that the youth unemployment rate tends to increase as the share of youth in the labor force increases (Fares, Montenegro, and Orazem 2006). Downturns in overall economic demand also affect youth prospects. A deterioration in adult employment prospects tends to be associated with disproportionately worse outcomes for young people—and again, this particularly affects those with the least education (World Bank 2006a).

2.162 The situations in Ethiopia and Tanzania provide contrasts. About 40 percent of young adults in Dar es Salaam are jobless (Kondylis and Manacorda 2006), outstripping the rate in Addis Ababa (34 percent)—but the adult male unemployment rate in Dar es Salaam is negligible, yet high in Addis. This suggests that while youth unemployment in some countries, including Tanzania, may be a transitory phenomenon, in Ethiopia it is a structural issue that disproportionately impacts youth.

Figure 2-32: Urban Youth Unemployment Rates in Selected African Countries (Year Varies)



Source: Leibbrandt and Mlatsheni (2004), except Ethiopia, UBEUS 2004, own calculations; "youth" defined as ages 15-24.

Youth Earn much less than Adults

2.163 Youth everywhere generally earn lower wages than adults, which may be explained by their limited work experience: in Kenya, monthly youth wages, for teenagers, averaged about 20 percent of that of adults. However the ratio increases significantly in favor of youth for 20—24 years olds, to about 50 percent.[40] This also helps explain why most youth continue to live with their families.

2.164 There are some interesting distinctions around this average, in particular:

- The gap is much larger in rural areas—where youth earn 15 and 41 percent of adults for teenagers and 20-24 year old respectively—compared to urban areas, where the corresponding figures are 32 and 56 percent.
- Well educated youth tend to fare much better, especially for women, and university educated youth.
- For teenagers, the gaps are much larger for males, relative to females, for most groups. On the other hand, some 20-24 year old men do appear to be doing relatively well, including those working on their own account and apprentices, relative to adult males in the same types of jobs.

Table 2-19: Youth Earnings as Percentage of Average Earnings, Non Agricultural, by Sex

	15-19 years			**20 – 24 years**		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Youth	20.1	24.4	20.8	44.3	59.8	48.6
-In Paid Employment	19.9	21.8	20.0	31.6	43.0	35.2
-Own account worker / business owner	22.2	40.5	28.2	92.0	111.1	93.8
-Apprentice / Unpaid Family	14.2	18.3	14.5	99.5	42.9	61.1
-Other	17.2	26.0	19.2	32.9	30.9	26.2
Urban	*32.7*	*37.0*	*31.9*	*47.0*	*77.3*	*56.3*
Rural	*14.7*	*15.5*	*14.6*	*41.7*	*41.2*	*40.9*
No Education	--	--	--	18.5	9.9	12.1
Primary	21.9	22.2	21.0	41.5	47.9	42.8
Secondary	26.5	36.0	28.7	46.7	77.1	56.1
University	--	--	--	31.9	259.1	143.6

Source: Staff Calculations, based on KIHBS '05.

Youth Employment in the Slums[41]

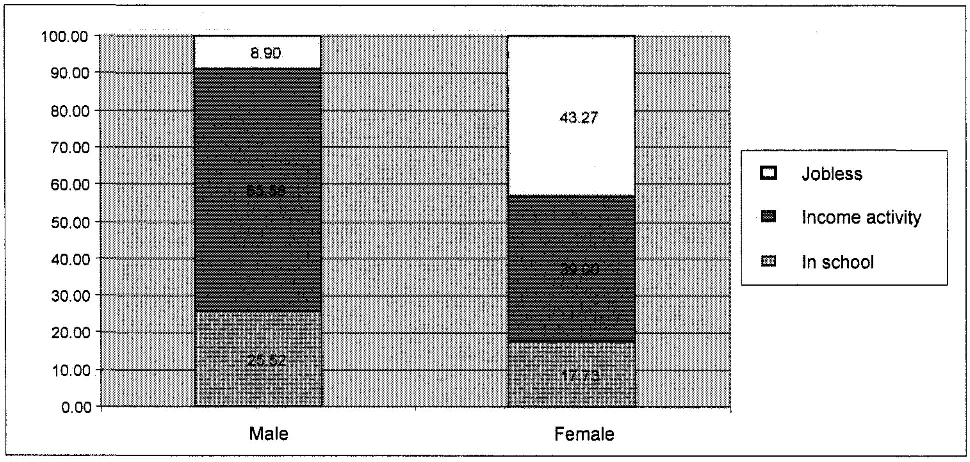
2.165 Most residents in Nairobi's slums are engaged in economic activities. Among adults aged 30 and above, 95 percent of men and 73 percent of women were reported to have engaged in some income generating activity in the month prior to the survey. The figures for youth are lower, especially among females, 66 and 39 percent respectively for

[40] Because these wages are not adjusted for time worked, they do not allow for an exact comparison of hourly wages.

[41] The above mentioned NISS 2004 survey collected detailed information on employment. Recall that this is a random sample in Nairobi's slums that excludes households whose heads have never married.

males and females. About 9 percent of male youth are neither still in school nor engaged in an income activity compared to 43 percent of female youth.

Figure 2-33: Youth (15-29 years) Activities in Nairobi Slums, 2004 (NISS 2004)



2.166 Besides formal schooling, a common source of training in the slums is informal vocational training, or apprenticeships. Among youth, 37 percent of men and 27 percent of women have received at least 3 months of this kind of informal vocational training. Higher formal education is associated with increased likelihood of informal vocational training.

2.167 More education is associated with better employment prospects. Of those with less than a primary education, 35 percent were engaged in an employment activity the previous month compared with 50 percent and 58 percent, respectively, for those with completed primary and more than primary education. Interestingly, informal vocational training is associated with even greater increases in employment. Among women of all formal education levels, only 31 percent of those without informal vocational training were employed, compared with 54 percent of those with informal vocational training. The gain among men is similar, 54 percent versus 79 percent, respectively.

2.168 Among men, more than a fifth work as casual/factory workers, which is generally unskilled without benefits or security. More lucrative is skilled vocational work by mechanics, masons, welders, carpenters, and electrician, and one in six is employed in this category. The highest earnings go to drivers more than double that of casual workers. Security guards also earn relatively high salaries, but this must compensate for long work shifts (generally 12 hours), only one day off per week off, frequent night shifts, and increased risk. More than 1 in 11 men, aged over 30 living in the slums, works as a security guard, reflecting the generally insecure situation in Nairobi.

Table 2-20: Top Ten Jobs for Male Youth, 2004

Male Youth: 15-29 years	% of total	Monthly Earnings (Ksh)	Avg Years Education
1 casual/factory worker	22.5	4,869.1	9.6
2 mechanic/mason/welder/carpenter/electrician	15.3	5,655.5	9.1
3 business person	10.5	4,656.1	9.2
4 selling (hawker, kiosk etc)	8.4	4,827.8	8.9
5 machine operator	5.3	6,797.6	10.1
6 jua kali	4.7	3,454.2	8.1
7 tailor	3.4	5,373.4	9.7
8 security guard	3.3	6,185.6	9.6
9 driver	3.1	10,411.8	10.0
10 construction worker	2.1	3,055.6	8.2
Total employment share	**78.64**		

Source: de Laat et al (2008).

2.169 Female youth earn much less than male youth—although the difference is smallest in casual/factory work—and are generally employed in very different jobs apart from retail and casual work. Note that the two highest paying jobs are being a teacher (and women working in this profession have the highest years of education, 12 years on average) and brewing/selling alcohol (which is done by women with the lowest average years of education).

Table 2-21: Top Ten Jobs for Female Youth in Slums

Female Youth: 15-29 years	% of total	Monthly Earnings (Ksh)	Avg Years Education
1 business person	20.3	3,443.7	9.1
2 selling (hawker, kiosk etc)	19.8	2,870.9	8.7
3 casual worker	14.5	4,303.9	9.5
4 hair dresser	8.2	3,922.9	9.0
5 tailor	7.7	2,709.6	9.2
6 helps family (business)	4.0	1,437.5	7.0
7 house maid	3.4	1,261.5	6.2
8 hotel/restaurant worker	3.2	3,204.5	7.7
9 teacher	2.6	5,300.0	11.8
10 brewing/selling alcohol	1.9	6,183.3	5.8
Total employment share	**85.47**		

Source: de Laat et al (2008).

2.170 The government is increasingly focusing on the needs of the growing youth cohort, evidenced for example by the new "Marshall Plan" for youth to ensure that issues affecting young people are approached in a coordinated, multi-sectoral manner. Alongside broad-based economic growth, which offers the most important route to sustainable job creation, other interventions can improve employment opportunities.

These include measures to enhance access to education, credit, and information, as well as second-chance programs like basic skills and literacy training.

2.171 Empowering young women will also be central—although the gender gap is shrinking, young women are still less likely than young men to be employed (and also less likely to be in school). Job quality also tends to be very low; about 35 percent of employed young women are engaged as domestic workers. Another 20 percent are own account workers. The two groups combine for a total of over 1.3 million women. Increasing opportunities for women by raising their human capital and by ensuring a favorable policy environment will have major payoffs for growth and poverty reduction.

2.172 From a policy perspective, among the highlights that have emerged from this analysis of youth are the following:

- It is important to separate at least by five year cohort, and gender.
- Unemployment is especially high for teenage women.
- While far fewer youth are in employment, compared to adult employment rates, those working have a broadly similar pattern in terms of types of employment.
- For the younger group of those working in non-agricultural activities, earnings are way below average—and very low also relative to poverty line—even for those with secondary education. This is consistent with returns to experience, but could be associated with frustration and drop out.
- The vast majority of youth appear to be living at home—very few are household heads and few reported having kids.

2.173 In sum, youth are a large group with some distinct challenges as well as advantages. We return to this theme in Part IV below.

IMPACTS OF THE POLITICAL CRISIS ON POVERTY AND INEQUALITY

2.174 All of the analysis so far has been based on data which preceded the crisis in early 2008. This section attempts to map out what might have been the effects of the crisis, although there are no post-crisis household survey data available to measure these effects ex post.

2.175 It is useful to think about the poverty impacts of the conflict in a systematic way. International experience suggests that conflict reallocates public resources away from basic services, and leads to the loss of income opportunities and livelihoods, all of which tend to increase poverty. Cross-country econometric analyzes suggest that the income and poverty effects are large—that, relative to the absence of war, incomes are 15 percent lower and absolute poverty 30 percent higher (Collier, 2006). In the case of Kenya, the duration of the conflict is obviously far less than the typical civil war (which averages seven years), but the short term disruptions were large, and there is some risk of medium and longer term effects associated with hysterics and impacts on confidence.

2.176 A typology of effects, building on Stewart (1997), can help construct a more integrated approach. This includes direct, short term as well as medium term dimensions, across several aspects of well-being, viz. access to basic services, income earning opportunities and empowerment. The crisis has had direct impacts on several dimensions that are relevant to poverty and well being. In the short term, public services in some areas have been disrupted; markets have responded through, among other things, layoffs and increased prices; and civil and social capital and networks have been adversely affected. These have affected the poor, and also caused many families who were not previously poor to fall below subsistence levels of consumption. There is also the impact of rapid price increases that has been observed since January and these have been large and they have had immediate effects on the welfare of Kenyan's as further discussed below. Box 2-6 provides a summary.

2.177 There are several points and caveats to underline at this point:

- For many of the direct, as well as indirect impacts, there will be disparities between war-affected and other regions, and among ethnic groups.
- The magnitude of the medium and longer term effects is largely unknown at this point, and it seems appropriate to develop two scenarios—one based on an early cessation to unrest, and the other, where some uncertainty persists.
- Given the lack of capacity of the poor and near-poor to smooth consumption over time, there is a real risk that even short term effects could have longer term negative repercussions—e.g. if the household's only asset is sold.
- It is well-established in the literature that short term shocks can also have irreversible effects, including for human capital formation (e.g. if kids are pulled out of school, babies not immunized, HIV-positive people go off their ARVs).
- Finally, some effects may not be linear. Some may dissipate, whereas the ill-effects of others compound over time—e.g. the effect of rent-seeking and patronage on economic efficiency.

Box 2-6: The Impact of Conflict on Poverty in Kenya

	Public Services	Markets	Civil / Social	New Forms of Inequality
Direct Impacts	Reduced provision of and access to basic services Lack of access to ARVs Breakdown of public order → increased crime and insecurity	Destruction of private capital (shops and factories) and local markets Redundancies due to reduced economic activity; estimated 400,000 (KAM) Displacement of 350,000 affected; 150,000 of whom are	Destruction of social capital (institutions, values, networks) through violence and population displacement	Direct appropriation of assets, land, sources of livelihood (business premises) Mass displacement – up to 350,000 IDPs

		Public Services	Markets	Civil / Social	New Forms of Inequality
			working age Sharp price increases for essential goods		
Medium/ long term impacts and risks	*Macro*	Reduced revenue due to disrupted economic activity and reduced state legitimacy Crowding out of development spending due to reduced revenue and increased security spending	Stagnant or falling economic activity Agricultural output affected by disruption to planting season Depreciation Capital flight Unfavorable business climate, drop in long term investments	Exclusion and heightened competition at local levels family and community links severed, social capital damaged – loosens the constraints on opportunistic and criminal behavior, weakens support networks for small businesses	Rent-seeking by those with access to patronage
	Household and community level	Diminished access to public services: health, education, policing etc Increased gender Violence	Inflation Unemployment. Reduced farm output	Local communities weakened or destroyed Existing safety nets and coping mechanisms insufficient or breakdown.	

2.178 In the absence of data post-dating the conflict, we can use the 2005/06 KIHBS to present some first attempts at quantification for those short term aspects amenable to monetization. At this point, the approach is very narrow: viz the loss of jobs due to redundancy and displacement, and the price shocks which have increased the cost of living. Moreover, we only estimate aggregate impacts, abstracting from regional and group differences in effects, which are likely to be large. These estimates are analogous to micro-simulations, and totally abstract from second round and equilibrium effects and adjustments at the household level. We also totally exclude any nominal adjustments on the wage or income side, which will offset the price inflation to at least some extent.

- First, looking at the increase in unemployment, even if temporary, the KAM estimates of layoffs and the extent of internal displacement, suggest that unemployment at the individual level rose by the equivalent of 25 percent. This means individual unemployment after the crisis of 14.6 percent and the fraction of households with at least 1 unemployed member will then be 26 percent. The initial (pre crisis) incidence of poverty in these households with at least 1 unemployed member is 54.2 percent and in the other households', poverty incidence is 44 percent. Given the poverty incidence in households with at least one unemployed member and the increase in the share of households with at least 1 unemployed member, there would be a rise in poverty of 9 percent.

- Second, we can estimate the price impacts on poverty. As is reported by the KNBS prices have been rising rapidly since January and by May, the CPI on a year on year basis has increased by some 30 percent. While there are some technical problems with the CPI and the methodology suffers from upward drift, especially when there is volatility in the series, it is nevertheless the case that inflation has accelerated since January. Food and non-alcoholic drinks make up little over half of the index and it is clear that price inflation of these items, as well as others, will have a direct and immediate impact on poverty. It also appears that the relative prices of both food and transport have risen, which would tend to adversely affect lower income groups.

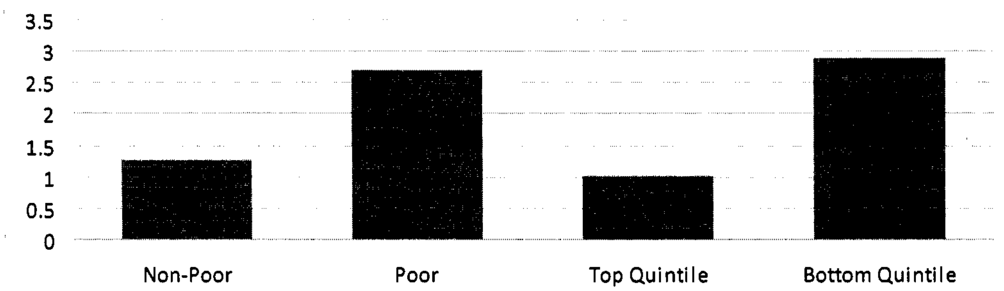
Table 2-22: One Month and Twelve Months Change in Price Indices

Broad Item Group	% Weights	% Change on Previous month (May 08/Apr 08)	% Change on Previous year (May 08/May 07)
Food & Non-alcoholic drink	50.50	4.6	44.2
Alcohol & Tobacco	2.97	-0.2	13.0
Clothing & Footwear	9.00	1.1	5.2
Housing Costs	11.74	0.6	6.5
Fuel & Power	4.18	3.1	17.9
Household Goods & Services	5.82	1.4	8.4
Medical Goods and Services	1.59	1.0	8.3
Transport & Communication	5.75	0.7	20.3
Recreation & Education	6.02	1.1	6.8
Personal Goods	2.45	1.2	6.9
Average all Groups	100.00	3.5	31.5

Source KNBS.

2.179 According to the KIHBS, food represents about 70 percent of households spending of the poor, and 77 percent for the bottom quintile. It is of course relevant whether or not the poor are net sellers or consumers of food, in understanding the distributional impacts of food price increases. We can look at the case of grain for several years, using Tegemeo data (Nyoro 2008). This shows that the poor and the bottom decile in particular are much more likely to be net purchasers of food—only 25 percent of the poor said that they sell maize most years, compared to 50 percent of the non-poor. Likewise, the lower income groups relied on purchased staples for a larger part of the year in 2007 (Figure 2-34).

Figure 2-34: Average Number of Months Household Relied on Purchased Staples, 2007



Source: Nyoro et al (2008).

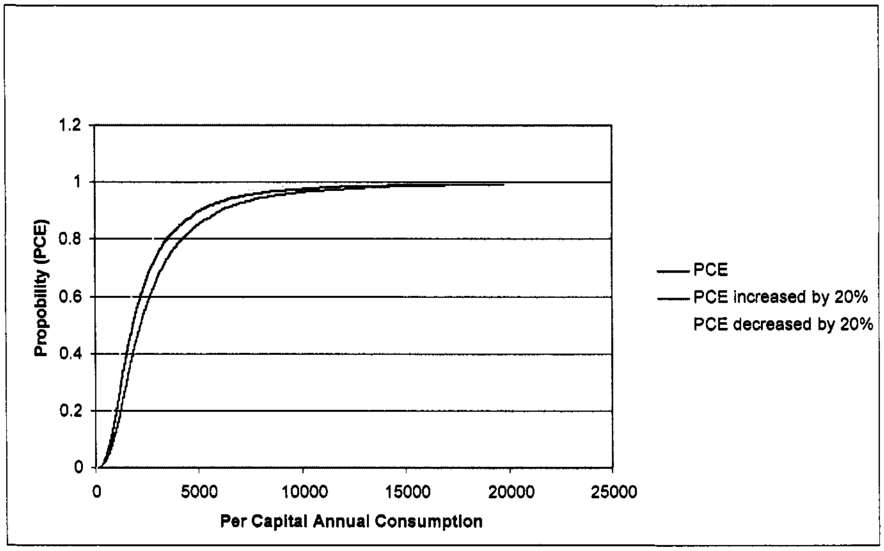
2.180 Given this situation and the fact that there are technical problems related to the CPI, meaning that the reported CPI overstates inflation, we run some simulations assuming certain rates of inflation. If, for example, the cost of living has increased by say 20 percent, all those families who were living within 20 percent of the poverty line would fall into poverty. We estimate that the poverty headcount would have risen by 22 percent. The depth of poverty also worsens for the already poor—by about 35 percent. Poverty severity gives greater weight to those farthest below the line, and shows an even more significant increase. The impacts corresponding to a smaller price shock are also estimated—with a 10 percent increase in prices, the effects on the various poverty measures are about half as large. Of course, this totally abstracts from any adjustments in nominal incomes or second round effects which may offset or worsen direct impacts. These simple extrapolations do not include any behavioral changes or dynamic effects.

Table 2-23: Impacts of Price Shocks on Poverty Measures

	Initial status	**Price shock of 10 %**	**Percentage increases with 10% shock**	***Price shock of 20%***	***Percentage increases with 20% shock***
Incidence	**46.7**	51.5	10.3	*56.9*	*21.8*
Depth	**0.166**	0.196	18.1	*0.224*	*34.9*
Severity	**0.085**	0.097	20.7	*0.117*	*37.6*

2.181 Another way of illustrating the situation is to view the cumulative density for the basic per capita expenditure in KIHBS. It also shows two distribution neutral shifts of this per capita expenditure: one where every household has 20 percent lower consumption and one where every household has 20 percent higher consumption. Under the increased consumption, the poverty rate would be 35.4 percent and under the decreased consumption the poverty rate would be 59.6 percent.

Figure 2-35: Changes Cumulative Density Function of Consumption Per Capita



2.182 The foregoing, while overly simplistic, suggests that the short term impacts on poverty could be very large, both for those who were already poor, as well as large numbers of "new poor." If we simply add the effects on poverty attributable to increased unemployment and increased prices, the rise is of the order of 30 percent. This would effectively erode the gains of growth over the preceding period, and obviously put many households into a crisis situation due to their loss of livelihoods and opportunities, and difficulty in sustaining themselves at a minimum threshold of subsistence.

2.183 Putting these figures into absolute numbers, the total increases simply from these two effects, and abstracting entirely from the loss of life, assets and livelihoods, and worsening hardship among the already poor, could be of the order of five million Kenyans falling into poverty. Of course these effects will have been distributed unevenly across different districts and province, as well as across groups.

2.184 We now turn to explaining drivers of change over time.

3. DRIVERS OF OBSERVED TRENDS

3.1 So far, this assessment described the levels and profile of disadvantage in Kenya. The analysis emphasized the importance of the location where people live in explaining observed outcomes, as well as the systematic disadvantage that faces major groups. Certain groups, including, for example, urban widows and pastoralists, seem to have been largely excluded from sharing in the fruits of development in Kenya. It appears that many of these factors have persisted over time, and some may even have worsened.

3.2 Like in many African economies, another important issue in Kenya is the frequency and magnitude of shocks, due to weather (e.g. drought), health (e.g. catastrophic illness or death in the family) and other major events. We examine the profile of vulnerability to shocks, household coping mechanisms and, using panel data, interactions with households' prospects.

3.3 This part attempts to explain trends in poverty and inequality in Kenya over the past decade. We are especially interested in income earning opportunities, as the labour market is the primary mechanism by which growth in the economy is shared. Inequality in both opportunities and outcomes (see WDR 2006) plays a significant role. How did initial conditions affect trends in poverty and inequality? And how did trends in the distribution of private assets, and access to public services, like education, health and water, affect observed outcomes?

3.4 In this part, first, some insights are drawn from qualitative surveys. Secondly, we present results of analysis which decomposes the contributions of changes in the average and distribution of consumption to aggregate trends in poverty over the period 1997–2005/6. Third, we review trends in the level and structure of employment and earnings. Fourth, we will look at the distribution of private assets, including the access to land, capital (credit) and skills (education). Fifthly, we will look more closely at trends in rural sector, drawing in particular on the results from the Tegemeo panel survey. Sixthly, we will focus on shocks and how this affects households' potential to move out of poverty. The seventh section looks in detail at the distribution of public expenditure including schools, hospitals and roads. The final section reviews evidence on how corruption affected poverty and inequality in Kenya. This leads to the final part of the report which discusses the implications for policy.

3.5 The best source of data for understanding trends over time comes from panel data, that is, surveys which track the same people and households over time. Through partnership with the Tegemeo Institute and the APHRC this type of data was made available. These cast significant light on drivers in rural areas in the case of Tegemeo's panel, and large urban slums in the case of APHRC. We also use national household data from the late 1990s and 2005/6, which provide nationally representative cross-sections. Now, some qualitative finding will be presented.

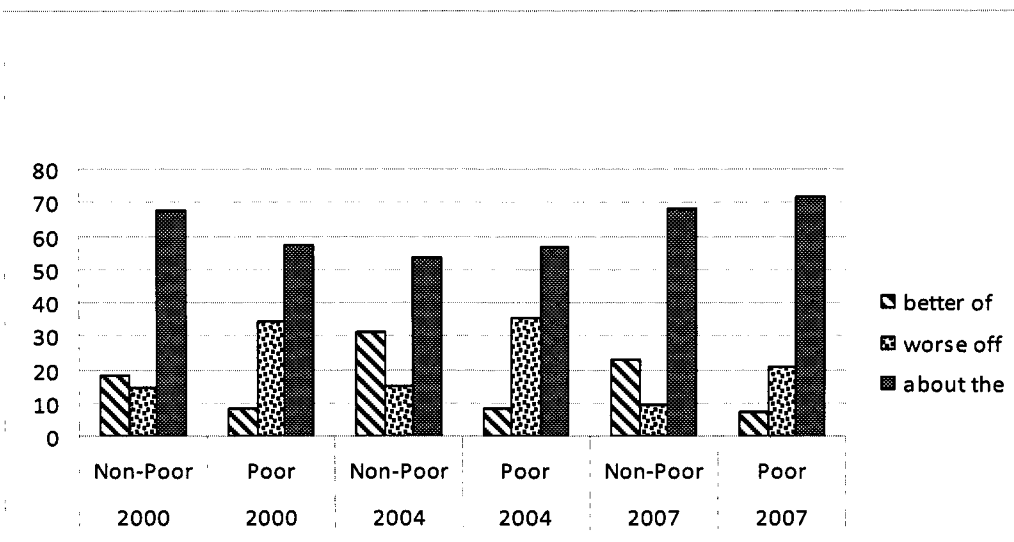
QUALITATIVE FINDINGS

3.6 In a country as complex and diverse as Kenya, it is very important to consider "the numbers" within a fuller sense of the context. We are able to access some useful recent surveys that indicate the extent of dynamics and associated drivers as perceived by various groups of Kenyans which are reviewed here to set the stage for a broader review of trends and underlying factors. We begin with Tegemeo's rural analysis of levels and trends in subjective measures, results from the survey commission in seven districts for the World Bank's Country Social Assessment (2007) and the PPA-IV collected by KNBS.

3.7 The Tegemeo sample collects qualitative information as well as comprehensive data on incomes and economic activities. Recall that this is a panel, so we can look at both measures for the same households over time. Several interesting points emerge from the analysis (Nyoro et al 2008).

3.8 The subjective ratings tend to correlate closely with the monetary measures. Individual families were asked to rate their position relative to other households in the area—whether they are better off, worse off, about the same. The results show that the poor regard themselves as worse off. As poverty decreases the fraction that say they are poor decreases. And the non-poor are far more likely to say they are better off. Thus if we cross the family's rating with income, the people who say they are worse off have about a third of the income of people who say they are better off. This holds across the years 2000, 2004 and 2007 (Figure 3-1).

Figure 3-1: Comparisons of Subjective Well-Being, 2000-07: Tegemeo



Source: Nyoro et al 2008.

3.9 The poor were much less likely to report improvements over time, although interestingly, the gap between poor and non-poor closes over time. In 2000, the poor were more likely to say it has worsened, whereas in 2007 they switched to saying it has stayed the same. If we cross general well being in the area with income, those who report being the same or worse off have very similar incomes. Those who report that conditions have improved have incomes about 20 percent above the average. This is consistent with income growth rates: those who report a worsening experienced the lowest growth rates (and in two of the three periods, negative growth rates).

3.10 Tegemeo's findings thus suggest consistency between subjective/relative and absolute measures of well-being, and point to the value of further combined analysis.

3.11 An analysis of six rural districts in a World Bank Country Social Assessment (2007a) sought to understand the major drivers of rural welfare, coping responses of the communities, and associated social impacts. The major poverty drivers were identified as:

- declining natural resources (land fragmentation and degradation, and loss of assets such as livestock);
- health shocks, particularly the onset of the HIV AIDS epidemic; and
- institutional weaknesses—widespread corruption (including throughout the judicial system), deteriorating government services, inefficient marketing institutions, and weak local government capacity.

3.12 Households responded to these adverse developments by diversifying their economic activities off the farm and increasing reliance on community organizations. The CSA also found sharp increases in domestic violence associated with gender and inter-generational conflicts, and, in the wider society, increasing crime and ethnic tension. These major concerns are not fully explored in this report.

3.13 The PPA-IV, described above, uses a "stages of progress" approach to ascertain benchmarks from the poorest through to relative wealth—these begin with purchasing food, and range up through aspects of housing and education. There was general consensus in each village on what constituted the successive stages of households' progress. Correlates of progress perceived by rural households include asset accumulation, livestock purchase, repairs to housing and water storage. Urban communities had slightly different perceptions of the stages of progress, tending to emphasize housing conditions, small-scale enterprises, and schooling, as well as asset accumulation.

3.14 The PPA-IV sought to identify the extent of, and reasons for transitions across the progress benchmarks. The data, though not representative of the population as a whole, offers insights, which can be reviewed in terms of the principal livelihood or main economic activity, in the district (following Mango et al 2007). Five broad groups were identified: (1) mixed farming (cash and food crop, livestock) in high potential areas; (2) mixed farming and fishing in low potential areas; (3) mixed farming and livestock in low potential areas; (4) pastoral districts; and (5) urban districts of Nairobi and Mombasa.

3.15 The sampled communities perceived a worsening in poverty over the past eight years, and this is most evident among pastoral communities. While these results should be treated with caution, we can learn a lot about the dynamics of poverty.[42] Out of the group of households considered to be poor in 2005/06, 70 percent were also poor in 1997, which shows significant persistence of poverty. Taking 1990 as the reference, 30 percent of households were considered chronically poor (Mango et al, 2007).

3.16 The extent of chronic poverty varies by livelihood group, and is worst amongst marginal farmers, pastoralists and urban dwellers. For these groups, a significant minority of households is trapped in persistent poverty. The pastoralists in particular are in a dismal situation: very few (only 3 percent) reported having escaped from poverty over the past eight years, while more than 20 percent fell into poverty (Table 3-1).

Table 3-1: Poverty Transitions in PPA-IV Households by Livelihood Group 1997 – 2005/6

(Percent of households)

Livelihood group	Remained poor	Escaped poverty	Became poor	Remained non-poor	Percent poor at the beginning	Percent poor at the end	Percentage point change in poverty
Mix farm, high	31	10	11	48	41	42	1
Farm/fish, low	24	7	14	55	31	38	7
Farm/livestock, low	43	11	13	33	54	56	2
Pastoral	38	3	22	36	42	61	19
Urban	42	14	15	29	56	57	1
Average	35	9	14	42	44	50	5

Source: Mango, et al (2007).

3.17 There is some 'churning' in the PPA sample with households moving in and out of poverty. Yet very few experienced two poverty transitions over the past 15 years: only 2 percent of all households became poor and then escaped poverty, and 2 percent escaped poverty and then became poor (Mango et al, 2007).

3.18 PPA-IV investigated the causes of poverty transitions, interviewing 2,161 rural and 204 urban households, were prompted to recall the *sequence of events* associated with falling into or moving out of poverty, or staying poor. Starting with households who were persistently poor throughout the past 15 years (632 households), the broad factors that were typically identified were:

- *Limited employment opportunities*: This cause of persistence of poverty was reported most frequently, especially among the urban poor (73 percent of whom identified this as a key factor), and to a lesser extent for other livelihood groups. Only pastoralists did not see this as an important reason for persistence of poverty.

[42] This is a qualitative survey conducted at one point in time, and for detailed poverty comparisons we need to use panels to uncover the deeper dynamics of poverty at the household level, as we will below.

- *Health factors*: Poor health conditions in general and death of the main income earner in particular (including burial costs) were seen as important factors leading to persistent poverty, especially in high potential areas.
- *Demographic and land pressures:* All groups noted high dependency ratios in the household as a factor. Crop farming communities felt that land subdivision and exhaustion trapped households in poverty. This echoes the views of Narayan and Nyamwaya (1996: p 3), who consider poverty to be an intergenerational phenomenon associated with land subdivision and soil erosion.
- *Other unanticipated shocks*: For pastoralist communities, drought was a major factor behind persistent poverty. Theft and loss of property was important in the recent histories of households in the farming/fishing livelihood group (Box 3-1).

Box 3-1: Joseph Mbauni Nderitu—Remained Poor due to land Fragmentation, Reliance on Casual Employment and Ill-health

Joseph was born in Karigu-ini village in 1959, one of six brothers. His parents could not afford to continue with his education beyond primary school. They had a small piece of land which they subdivided amongst the sons. Because he has a very small piece of land, he spends most of his time selling his labour. 'Poverty is part and parcel of my life' he said. As a casual labourer, his status has always been uncertain. His wife is also a casual worker. In 1996, he fell from a building and broke his leg. He never received proper medication due to lack of money and since then his leg has been weak. He therefore cannot do hard physical work. In 1998 his wife gave birth to a third child who requires drugs and monthly clinic visits. He has two children attending school and he benefits from free primary education. However, the children are a big burden. Since their land is very small, whatever little proceeds they get from harvest is consumed within three months. They then resort to buying food from the market using earnings from local work. At the time of interview, the family's only livestock were three chickens.

3.19 Those households who had become poor emphasized the following (Table 3-2):

- *Health factors*: As with the chronic poor, those who fell into poverty mentioned poor health conditions and death of the main income earner as causative events. Crop farming households in particular pointed to this cause, which was less commonly cited by pastoralists.
- *High dependency*: This was emphasized by most groups, except pastoralists. Life cycle events, such as family formation and ageing, when associated with growing dependency, were seen to cause economic hardship and poverty.
- *Group specific factors*: Pastoralists recalled drought, theft and other livestock problems as causal events. One third of urban households emphasized loss of employment.

Table 3-2: Major Reasons for Falling into Poverty by Livelihood Group (% Households)

Group	Mix farm, high	Farm/fish low	Farm/livestock, low	Pastoral	Urban	Overall
Many dependants	47	44	49	21	51	41
Ill health	45	65	42	20	31	40
Death	44	73	25	23	9	37
Drought	0	0	21	67	0	24
Unexpected loss	0	11	24	57	0	24
Land	37	11	29	0	0	20
Livestock related	0	0	19	40	0	17
Loss of employment	12	8	12	0	34	16
Crop related losses	12	0	0	21	0	11
Alcoholism/drug	19	0	14	0	0	11
Marriage expenses	10	0	13	11	0	9
Lack of inheritance	10	0	0	0	0	6
N	*168*	*80*	*136*	*148*	*35*	*567*

Source: Mango, et al (2007).
* Numbers do not add up to 100 percent because more than one reason could be cited.

3.20 In escaping poverty, the following factors were mentioned most frequently (Table 3-3):

- *Diversification of income sources—off farm*: Developing a small local business was the most important single factor cited, including petty trading, kiosk retailing, operating taxis and running local hotels and bars, reaffirming earlier findings (see e.g., Lay et al, 2007).
- *Diversification of farm incomes*: Many farmers had diversified their crops and believed this contributed to their transition out of poverty. Similarly, about a third of the pastoralists also had become better off attributed their welfare improvement to diversifying their livestock.
- *Improvement in farming practices:* About a quarter of crop farmers cited crop commercialization as a favorable change. Expanding land under cultivation was also important.
- *Social support:* About a quarter of households in most groups cited help from relatives and friends as important drivers out of poverty, although we do not know whether this was to enable investments (e.g., pay for schooling costs) or to cope with shocks (Box 3-2).

Box 3-2: Philip Lagat—Escaped Poverty through Diversification in Farming

Philip is a 46 years old farmer in Chepkongony village, Nandi district. He never went far with his education because he came from a poor background. In 1990 he was working as a casual labourer in the tea farms of well to do villagers. He used to earn a paltry Ksh 200 per month from casual work. He saved and bought a local cow for about Ksh 800 in 1992; he then stopped working as a casual labourer to take care of his family farm and the cow. In 1995, he got a job in a prominent tea farmer's farm as a casual with a slightly better pay of Ksh 300. In the same year, he set up a tea seedling nursery in his farm. From this nursery, he transplanted up to 3,000 tea seedlings into his farm. In 1997, he started harvesting his own tea. His cow was also providing some milk. His total earnings per month from tea and milk increased to Ksh 4,000. He stopped working as a casual labourer and decided to concentrate in farming. By the year 2000, he had bought a Friesian dairy cow. He also diversified into growing coffee. He joined South Nandi Coffee Cooperative Society which helped in marketing his berries. By the time we visited him (2006), Philip was earning up to Ksh 40,000 per month from sales of his tea, coffee, and milk combined. "My family is not doing very well but we are comfortable" he said.

Source: Mango et al (2007).

Table 3-3: Major Reasons for Escaping Poverty by Livelihood Group (percent households)

Group	Mix farm, high	Farm/fish low	Farm/livestock, low	Pastoral	Urban	Overall
Business: rural/community based enterprises	44	72	47	50	62	51
Business: small city-based enterprises	6	0	8	14	14	8
Regular employment in private/public sector	18	26	22	47	62	28
Crop diversification	30	50	20	12	19	26
Crop intensification	11	0	0	0	0	6
Crop commercialization	26	24	27	17	0	23
Increased land under cultivation	29	0	36	0	0	23
Livestock diversification	18	13	12	29	0	15
Livestock commercialization	0	9	20	21	21	12
Increased herd size	0	24	0	0	0	10
Few dependants	22	13	20	0	14	18
Help from friends and relatives in country	20	30	25	31	24	25
Inherited property	20	0	33	10	8	20
	142	*46*	*121*	*42*	*37*	*388*

* Numbers do not add up to 100 percent because more than one reason could be cited.
Source: Mango, et al (2007).

3.21 In the rich context provided by these various Kenyan communities, we now turn to examine more quantitative evidence, to get a better understanding of the significance of different drivers. We look both at transitions out of poverty, through, for example, job opportunities and income diversification, as well as on negative shocks, like poor health.

DISTRIBUTION OF WELFARE IMPROVEMENTS, 1997-2005/6

3.22 It is always useful to look at the distribution of improvements in well-being over time. However in the case of Kenya, as emphasized above, the nationally representative snapshots that are available cover several years of economic stagnation and recession, and a recovery only in the two years prior to 2005. This means that average changes over the period cannot be interpreted as ongoing trends, certainly not with respect to growth, nor necessarily with respect to distribution. In addition, as discussed in Part II of this report, differences in survey methodology, particularly with respect to the measurement of household expenditure and earnings, raise comparability issue across the two national household survey rounds. We are simply unable to tell from the data that is available. Nonetheless, looking at the changes over time provides an illustrative starting point, which is complemented by the results of urban slum and rural panels.

3.23 With these caveats firmly in mind, the distribution of changes in consumption between the two official surveys is examined.[43] Table 3-4 compares monthly adult equivalent expenditures per capita for 1997 and 2005-2006 for various sub-groups of the population.

3.24 Average growth was 15 percent but this did not benefit the whole society: The poorest quintile lost out in absolute terms and gains for the second bottom quintile were only about one percent annually. Also for the middle quintile, growth in expenditure was below average.

3.25 Average welfare gains were very much concentrated, in particular amongst the wealthiest quintiles, urban residents, and, in terms of provinces, Nairobi (especially), and Nyanza and Eastern. For many other groups, the aggregate improvement over the period was very limited and practically stagnant. Since the period covered is almost nine years, an aggregate change of less than about five percent arguably amounts to stagnation—and this applies on average to rural residents, and those in Central, Coast and the Rift Valley (Table 3-4).

[43] The 1997 expenditures are adjusted using the ratio of poverty lines. The earlier cautions about the comparability of the consumption aggregates over time should also be borne in mind.

Table 3-4: Inequality in Distribution of Consumption Gains, 1997 – 2005/06

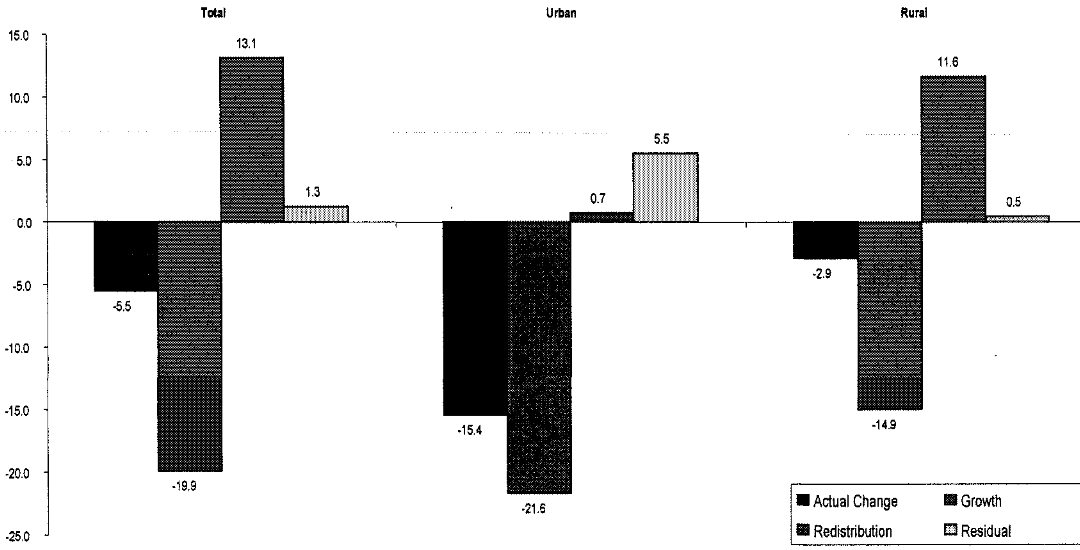
	1997	2005/06	% change
Area			
Urban	4,436.59	5,493.96	23.8
Rural	1,962.94	1,993.21	1.5
Province			
Nairobi	5,065.96	7,355.14	45.1
Central	2,841.20	2,930.62	3.2
Coast	2,509.92	2,455.78	-2.2
Eastern	1,831.41	2,108.69	15.1
Nyanza	1,734.40	2,280.12	31.5
Rift Valley	2,269.36	2,360.56	4.0
Western	1,727.91	1,909.32	10.5
Quintile			
Poorest	708.07	702.99	-0.7
2	1,159.83	1,268.59	9.4
3	1,680.82	1,846.75	9.9
4	2,439.84	2,778.18	13.9
Wealthiest	5,758.93	6,895.72	19.7
National	**2,349.36**	**2,698.12**	**14.8**

Source: WB estimates based on KIHBS (2005/06), WMS (1997).
Notes: Mean adult equivalent per capita expenditures are used and 1997 is adjusted to 2005/06 values using the ratios of the urban and rural poverty lines.

3.26 Further analysis of the impact of inequality on the record of poverty reduction over the period, 1997-2005/6 uses a method associated with Datt and Ravallion (1997). The observed poverty reduction is decomposed into changes in the average and changes in its distribution. These results are based on keeping the poverty line constant in real terms (again using the ratio of poverty lines as the deflator). The "growth" effect is the simulated impact of the increase in mean per capita expenditures on the headcount (with distribution constant) and the distribution effect is the simulated impact on the headcount of a change in the distribution (keeping mean expenditures constant).

3.27 These results suggest that, between 1997 and 2005/6, average consumption increased, but so did inequality. If inequality had not worsened, poverty could have fallen by almost 20 percent nationally, instead of 5.5 percent that resulted in practice. The drag imposed by rising inequality was even larger in rural areas: if inequality had not risen, the headcount would have fallen by 15 instead of 3 percent. This is consistent with the foregoing results which showed that the per capita expenditures of the richest 40 percent of the population grew much faster than average, whereas the lower quintiles did not experience much, if any, improvement. The same decomposition was estimated by province and suggested that the extent to which inequality was a drag on poverty reduction varied by province. It was most pronounced within Western and Rift Valley.

Figure 3-2: Contributions of Changes in Average Consumption, and Changes in Inequality to Poverty Trends, 1997-2005/6



Source: Staff estimates based on WMS and KIHBS.

Note: Mean per capita equivalent adult expenditure.

3.28 This decomposition is suggestive, and underlines that inequality is a major issue not only in its own right, but in terms of its impacts on poverty reduction. However, it is important to recall that it cannot be concluded from the national data that the growth recovery increased or decreased inequality, since we cannot distinguish the sub-period after 2003.

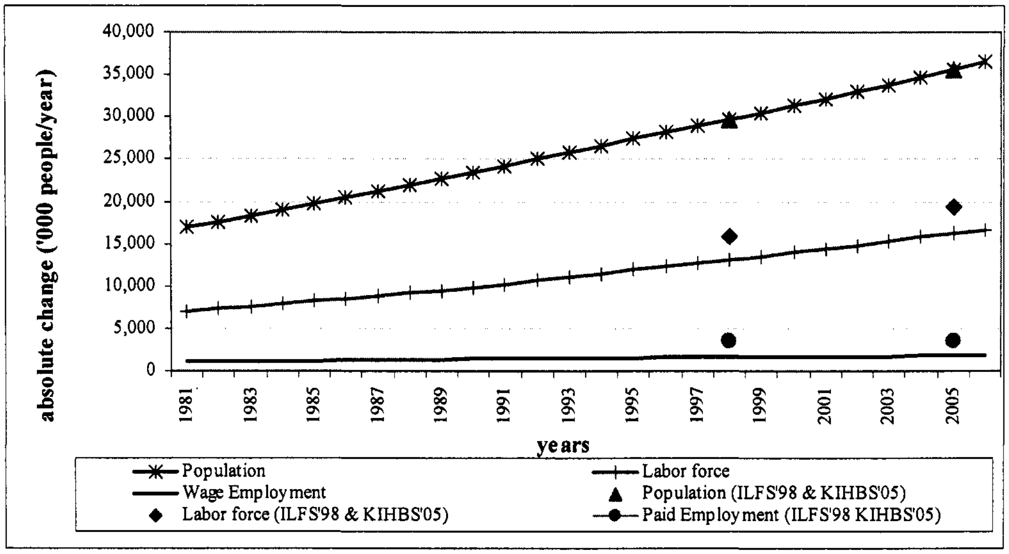
LABOUR MARKET TRENDS

3.29 The labour market is the primary transmission mechanism of economic growth to household incomes. Since labour is the most abundant asset of the poor, a major determinant of the poverty reduction impact of economic growth is its effect on the quantity, quality and distribution of employment opportunities. When growth enhances earning opportunities for the poor, its benefits are widely shared and poverty tends to decline. In Kenya, as in many other developing and industrial countries, jobs are at the heart of lively economic and political debates. Major policy documents since independence have stressed this theme, most recently in the 'Vision 2030' and the Medium Term Plan (2008-2012). Recent studies on the topic include the UNDP sponsored investigation of the 2005/6 KIHBS, published as 'An Employment Targeted Economic Program for Kenya'. This section introduces some basic labour market trends to help set the stage for analysis which follows. There is a general caveat that conventional labour market concepts are difficult to apply in Kenya, as in other developing countries.[44]

[44] The most obvious constraint is that almost half of the working-aged population is self-employed in agriculture, where it is difficult to measure net earnings. Recorded unemployment excludes those Kenyans who cannot afford to be unemployed. Measuring labor force participation as a discrete condition is fraught with difficulties, especially for women, and also because this is often not measured consistently across

3.30 Figure 3-3 presents the labour challenge in very simple and stark terms, for both the stock and flow showing population and job force against the number of jobs as reported in the official Economic Surveys and for two points in time, Labour Force Survey and KIHBS. The flow rates diverge, with the population increasing by nearly one million every year, and the labour force by close to half that number, compared to a growth in wage employment annually which has hovered at levels well below 100,000. Thus, in absolute terms, the implied gaps are enormous, and growing. The urban labour force grew relatively faster, reflecting rural-urban migration and entry of women into the labour market, which dominated the effects of individuals delaying entry due to continuing schooling.

Figure 3-3: Total Population, Labor Force and Wage Employment ('000 People). 1981-2006



Source: Staff Calculations Based on Economic Survey, ILFS'98 and KIHBS '05/06.

3.31 The overall record of jobs performance in Kenya over the past decade suggests some good news as well as a series of major challenges. In terms of identifying trends, and the labour intensity of growth, we are handicapped by the fact that between the survey points there were several years of stagnant or declining economic activity as well as recovery. For the analysis however we only have the endpoints. Comparing the cross-sectional survey results of 1998 to 2005/6, the broad storyline is that:

- There was net job creation in both rural and urban areas. Rural employment grew from 8.4 to 9.4 million between 1998 and 2005/06 (1.5 percent annually). Urban employment rose from 2.1 to 2.4 million during the period (2.1 percent annually).
- Unemployment fell from almost 15 to 12.5 percent. The total number of unemployed fell almost by 150,000 people, from 1.83 to 1.68 million, despite

surveys. For example, recent analysis of Tanzanian data suggests that an observed decline in "activity" can be traced at least in part to differences in how the relevant question was asked.

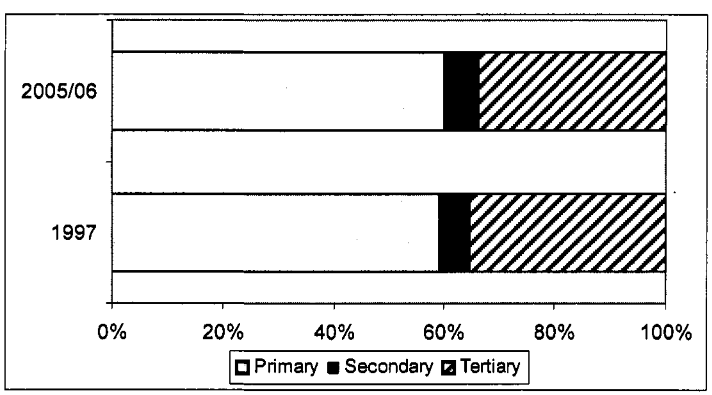
a rise of 150,000 in urban areas. Improvements were concentrated in rural areas where the rate fell from almost 14 to 10 percent, whereas the urban rate rose from 18.5 to 20.6 percent. The share of youth (15-29 years of age) among the unemployed rose markedly, from 60 to 72 percent.

- In urban areas, the observation that both unemployment rate and the number of jobs rose reflects that the economically active population increased at a higher rate (2.4 percent annually) than the number of jobs created (2 percent).
- The share of the working age population recorded as inactive (those at work, nor actively looking for work) increased rapidly, from 22.4 to 30 percent of working age population. This is mostly due to the cohort share classified as full-time students, which rose from 11 to 18 percent between 1998 and 2005/06. There was also a jump in those reported as discouraged (i.e., not working nor actively seeking a job), from 0.5 percent of the working age population to almost 3 percent in 2005/06.

3.32 Female unemployment is higher in both absolute numbers and relative terms than male unemployment (13.8 versus 11.2 percent). The female unemployment rate did nonetheless fall significantly between 1998 and 2005/6, since the level had stood at almost 20 percent. The decline was partly explained by the slower annual increase of female labour force participation (0.9 percent, compared to 1.6 percent per year for males) as relatively more women decided to continue their full time studies. The data also register a higher increase in the number of discouraged females. It is notable that three out of four unemployed women are youth aged 15-29. In addition, about one quarter of employed women were underemployed, in the sense that they worked, on average, less than 28 hours per week.

3.33 Trends in employment shares between 1997 and 2006 suggest lack of structural change in the economy. Almost seven million Kenyans worked in agriculture in 2005/6, roughly one million more than in 1997. Employment in secondary activities was around 750,000, of which about 440,000 were in manufacturing, rising slightly as a share, from 5.5 to 6.3 percent.

Figure 3-4: Broad Sectoral Shares of Employment, 1997 – 2005/6



Source: Staff calculations based on WMS and KIHBS.

3.34 Looking at the sectoral composition of employment over 1997—2005/6, we see that the share of primary activities—viz agriculture, fishing and so on—rose almost 1.3 percentage points. Secondary employment—mainly manufacturing, and other activities, like construction—remained roughly constant at about 6 percent. Tertiary employment (i.e. in services) shrank. The phenomenon can be traced in part to the reduction of public employment which was not fully compensated by private sector expansion (Table 3-5).

Table 3-5: Trends in the Composition of Employment by Main Sectors, Urban, Rural and Total (percent), 1997 and 2005/6

	1997			2005/6		
	Rural	**Urban**	**Total**	**Rural**	**Urban**	**Total**
Primary	71.9	12.2	58.4	73.1	7.8	59.7
Secondary	4	13.1	6.1	4.2	13.2	6.1
Tertiary	24	74.6	35.5	22.6	79	34.2

Source: Staff calculations based on WMS'97 and KIHBS'05/06.

3.35 Looking behind these broad categories, there has been some sectoral variation (Table 3-6). Agriculture maintained its share of employment. Employment in manufacturing increased. Mining, and transportation, storage and communication also rose, but from a much lower base. The shares of several important sectors decreased. This reduction is most pronounced in construction and community, social and personal services. As noted above, the last is associated with trends in public employment.

Table 3-6: Distribution of the Employed by Economic Sector, Shares and Changes, 1997 – 2005/6

	1997	2005/06	% Change
Agriculture, Hunting, Forestry & Fishing	59.5	59.4	0.0
Mining & Quarrying	0.2	0.6	175.2
Manufacturing, Electricity, Gas and Water	2.6	3.8	47.5
Construction	3	2.5	-18.4
Trade, Restaurants, Hotels, Financial, Other Services	32.4	30.3	-6.5
Transportation, Storage, Communications	2.3	3.3	46.9

Source: Staff calculations based on WMS'97 & KIHBS'05/06.

3.36 A Shapley decomposition can be used to break down per capita GDP growth into three components: output per worker, level of employment and inter-sectoral shifts of labor (see PREMPR 2007). The method is counterfactual, isolating changes under *ceteris paribus* assumptions. For instance, the contribution of changes in output per worker on per capita GDP is estimated in the absence of changes in the level of employment or sectoral shifts of employment.

3.37 The decomposition results suggest some good news, as well as possible causes for concern, which we investigate further below:

- Most welcome are the significant annual increases in labour productivity in the private sector;
- However, the inter-sectoral shifts in employment almost totally offset sectoral productivity improvements—in that secondary private sector employment

shrank, with the net effect that per capita improvements in output were negligible;

- Public sector employment shrank (Manda (2004); Bigsten and Kimuyu (2002); Soderbom et al (2004);
- Changes in the capital-labour ratio were negative; and
- Labour force participation declined, due to increased schooling.

Table 3-7: Decomposition of Changes in Per Capita Value Added GDP* (Percentage Points per Year), 1997 – 2005/6

	Contributions from changes in:			
	Output per worker	Employment	Sectoral composition of employment	Total
Change in Per Capita GDP:				**0.24**
Sectoral Contribution	**1.8**	**0.4**	**-0.5**	**1.6**
Public sector	1.2	-0.6	-0.6	0.0
Private Sector	0.6	1.0	0.0	1.6
Primary	0.4	0.5	-0.2	0.8
Secondary	-0.1	0.1	0.1	0.0
Tertiary	0.3	0.4	0.1	0.8
Participation rate				**-1.5**
Working Age Population/Population				**0.1**
Decomposition of change in output per worker, due to:				**1.8**
Changes in Total Factor Productivity				2.5
Changes in Capital Labor Ratio				-0.8

(*) Value Added GDP is the sum of GDP by activity, without deducting imputed financial services and net subsidies used in overall GDP calculations.

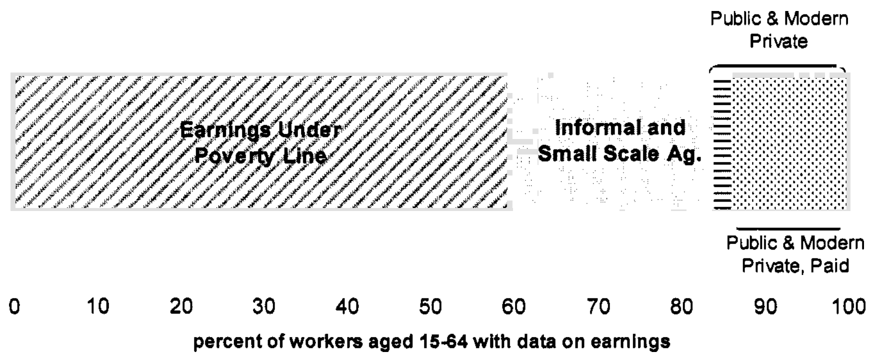
3.38 This picture is broadly consistent with developments on the policy side. A series of economic reforms in the 1990s opened up the economy and curtailed the size of the state sector and its engagement in direct production (see World Bank 2008a for details). The structural reforms intended to improve the efficiency of the Kenyan economy were associated with significant retrenchment of workers from both public and private enterprises. There was significant loss of jobs in the formal private sector, mainly in manufacturing firms that were unable to compete without subsidies, especially textiles and agricultural processing firms (Manda 2004). So the net employment effect reflects a smaller but more productive secondary sector.

3.39 Amongst those Kenyans who reported earnings, about 41 percent (3.3 million) had jobs in 2005/06 with earnings over the poverty line.[45] We can call these good quality jobs, while recognizing that having such a job does not necessarily enable an individual with dependents to live above the poverty line (Figure 3-5). Almost 6 out of 10 workers who reported earnings had jobs with earnings *below* the poverty line, whom we can call working poor. Underemployment, those working less than 28 hours a week, affects about

[45] Earnings data is missing for 31 percent of workers in the sample, mainly own account and unpaid family workers.

21 percent of workers, of whom about 40 percent are youth. The share of working poor and those underemployed likely overlap to some extent (Figure 3-6).

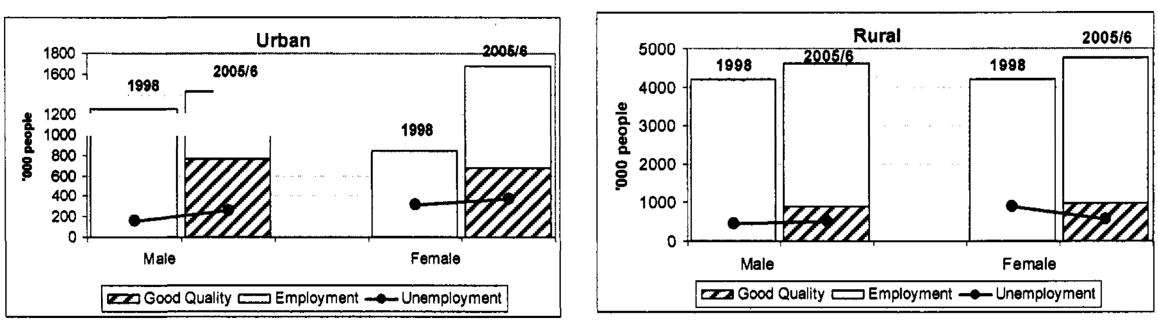
Figure 3-5: Extent of Good and Bad Quality Jobs, Earnings Relative to the Poverty Line



Source: Staff calculations, based on KIHBS '05.

3.40 Figure 3-6 show that there is a higher share of working poor in rural areas—indeed only about 20 percent had earnings above the rural poverty line in 2005/6. In urban areas, a higher share of women is low paid.

Figure 3-6: Trends in Employment and Unemployment. 1998-2005/06 by Gender, Urban / Rural, and Good Quality Jobs in 200506



Source: Staff calculations, based on KIHBS '05.

3.41 Looking by province, Western and Coast registered the fastest annual average increases in employment, at 5.4 and 3 percent. Rift Valley accounts for almost one quarter of total employment. Central and Eastern provinces registered highest rates of increase in the number of unemployed (7.8 and 4 percent, respectively). Nairobi provided by far the highest fraction of good quality jobs (60.5 percent of total employment in the province). This presents some contrasts and puzzles vis a vis the provincial distribution of consumption gains that was presented above. Coast had employment growth but stagnant consumption per capita, which may reflect rapid population growth and/or a predominance of 'bad quality' jobs. Eastern was a relative gainer in average consumption, but increases in unemployment were marked also, while Central also experienced rising unemployment. More work is needed to bring together the regional poverty and labour market stories.

3.42 About 50 percent of workers in paid employment had "good quality jobs" compared to almost 62 percent for business owners for which earning data was available. Among both own account workers and unpaid family workers, the share with good quality jobs as defined here is much lower, possibly about 20 percent.[46]

3.43 Earnings in agriculture are systematically lower for all types of employment, and lowest for those working on their own account or in the family. Levels of inequality in earnings are generally high in Kenya, with an overall measured gini index of 0.693. Within categories, inequality is higher among agricultural workers (gini of 0.71) than amongst non agricultural workers (gini of 0.62). Compared to neighbors and other regions, the extent of inequality in Kenya is very high. Interestingly in Kenya, inequality is sharpest in rural areas and, overall, among those with lower levels of education. It is also high among those working in trade and services (Table 3-8).

Table 3-8: Individual Monthly Earnings: Median and Gini- Coefficient, 2005/6

(In nominal KSh./month)	Non -Agriculture	Agriculture
Paid Employee		
Median	4,114.9	1,371.6
Gini	60.1	51.3
Working Employer		
Median	12,344.6	1,714.5
Gini	59.0	66.1
Own Account/Unpaid Family Worker		
Median	4,509.2	685.8
Gini	63.6	77.1
TOTAL		
Median	5,066.7	1,200.0
Gini	62.4	71.0

Source: Staff calculations, based on KIHBS'05 using ADePT Labour.

3.44 Not surprisingly, relatively educated workers are more likely to work in the public and modern private sectors. At the same time, more than one quarter of those working in agriculture finished secondary school (Table 3-9).

Table 3-9: Composition of Employment by Education Completed (percent), 2005/6

	Public	Modern Private	Informal Sector	Agric & Other
None	0	0	0.2	0.1
Primary	17.2	38.7	62.8	72.6
Secondary	74.6	54.9	36.1	26.7
University	6.6	4.9	0.7	0.5
Post Graduate	1.7	1.5	0.2	0.1
Total	100.1	100	100	100

Source: Staff calculations, based on KIHBS 2005/6.

[46] This may partly reflect that, not surprisingly, many workers in the "unpaid family" category were not paid in cash, and the in kind nature of earnings also of small scale farmers.

Structure of Employment

3.45 In 2005/06, most workers (58 percent) were small scale farmers, in pastoralist activities and other primary employment. Recently published analysis of the KIHBS by UNDP and others has extensively investigated the profile of employment in 2005/6. Here we look at the structure of employment in terms of both "status"—that is whether the individual is a paid employee, business owner, working on own account, or unpaid in the family—and sector of the economy. Beginning with trends in employment status we see that:[47]

- Paid employment in rural areas stagnated between 1998 and 2005/06 at around 2 million workers whereas urban paid employment rose in absolute terms, by over 170,000 or an annual rate of 1.8 percent.
- As defined by the surveys, business owners represented fewer than 2 percent of total workers in 2005/06. At the same time, there appears to have been significant growth, albeit from a very small base, from 46,000 in 1998 to over 200,000, which is both notable and welcome.
- Own account and unpaid family workers, together, fell slightly as a share, but at seven million in 2005/06 still represents about two-thirds of employed Kenyans.

3.46 About 927,000 people worked in the public sector (central government, public sector owned firms, parastatals, publicly employed teachers and other public activities). There are indications that public employment shrank between 1998 and 2005/06. Economic survey data shows a decrease in public employment from over 711,000 in 1998 to about 650,000 in 2005/06.[48] About 73 percent of the public employees are male.

3.47 The minimal share of private modern employment in 2005/06 data, a mere 6 percent of the labour force (671,647 people), is striking. About 41 percent of these modern formal workers were located in urban areas. Two thirds were male.

3.48 The term informal sector includes a diversity of activities from the very small scale, with low returns and prospects, to much more lucrative pursuits. Survey data indicates the existence of a two-tier informal sector in Kenya, with significant differences in both the capital used to start activity and the average earnings per worker.

3.49 Informal sector absorbed 3.3 million of workers in 2005/06, of which 1.4 million (44 percent) were located in urban areas. It was evenly divided by gender. The sectoral distribution of informal activities, as shown in Figure 3-7 below, reveals that

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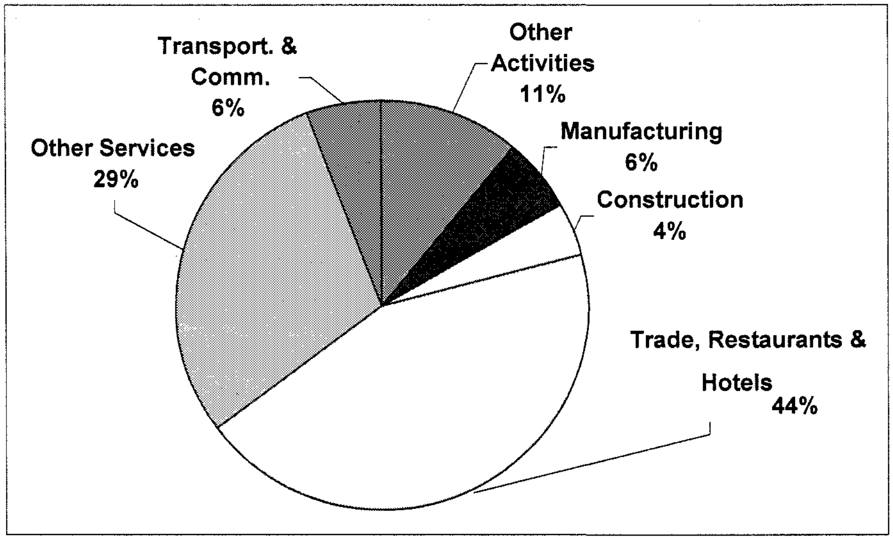
[47] Changes in employment by status represent a minimum estimate of variation, since for 2005/6 we are unable to allocate employment status of almost 10 percent of workers (compared with a negligible number of missing data of employment by status in 1998).

[48] The Economic Survey is more accurate in estimating public employment than in estimating private and informal employment and wages.

services accounts for the highest share, followed by manufacturing. Informal sector jobs tend to be associated with lower educational attainment. Average earnings of informal workers average only about one third of earnings in the modern private sector.

Figure 3-7: Distribution of Employment in the Informal Sector



Source: Staff calculations based on KIHBS 2005/6.

3.50 To sum up, the data do not reveal significant poverty reducing momentum in the labour market, at least through 2005/6. The picture emerging presents major policy challenges. There was little growth in employment in modern sectors, which remain a relatively small share of the economy. Earnings were low, especially in agriculture, and the level of inequality in earnings was large.

CHANGES IN THE DISTRIBUTION OF ASSETS: HUMAN CAPITAL, LAND AND ACCESS TO CREDIT

Human Capital: focus on Education and HIV

3.51 Since 2003, there have been important gains in primary and secondary enrolment. The prognosis for broad based improvements in labour quality in Kenya appears to be good, and trends in the distribution of education is an equalizing force.

3.52 In recent years, the transition rate for children from primary to public secondary schools has risen to 51 percent. The gross enrolment rate at the secondary level is about 30 percent, and 79 percent of those who enter secondary school complete all four years. The increased number of primary graduates is putting great pressure on the limited secondary school places available.

3.53 Tegemeo's rural analysis shows that over the decade to 2007, the fraction of adults in rural households with no education had fallen, and more rapidly for the poor. However large differences in levels of education between upper and lower income quintiles were still observable in 2007. Further analysis is presented below about the role of education as a driver out of poverty.

3.54 The data clearly suggests that more schooling is associated with better jobs and thus a greater likelihood of not being poor. Kenyans with higher education tend to find jobs in the formal sector. In the KIHBS, about three-quarters of undergraduates and 81 percent of post graduates has formal jobs, as opposed to 14 percent of those with secondary education and 5 percent of those with primary education. Also, the crude risk of unemployment decreases as education attainment increased. Likewise, for urban wages, there a significant premium for higher education, especially for men.

3.55 At the same time, we need to raise the caution that as education has expanded in Kenya, completion of primary schooling is enough to escape from poverty. Indeed, those with completed primary education earn only about half the average. Also notable is the crude gender wage gap, which is marked especially at lower levels of education (Table 3-10).

Table 3-10: Urban Real Wages by Education Levels 2005/6 as Percentage of Average

(percent unless otherwise specified)	Male	Female	Total
No Education	18.2	7.9	11
Primary	59.4	42.6	52.8
Secondary	124.5	98.9	115.1
University	343.1	328.6	338.9
Post graduate	453.8	435	450.1
Average urban earnings *(KSh./Month)*	**18,475**	**13,525**	**16,552**

Source: Staff calculations based on KIHBS 2005/6.

3.56 Likewise, worker-level data for formal sector firms suggests that the Kenyan force is relatively well-educated (ICA 2008). The typical worker in the modal firm in Kenya's ICA sample has between 7 and 12 years of schooling. While this is lower than South Africa, it is higher than the other African comparators. In Kenya, 85 percent of firms report typical education levels of more than seven years, compared to 65 percent in Tanzania and 63 percent in Uganda (World Bank, 2008c).

3.57 Shortage of skilled workers is the *least* important constraint in Kenya's investment climate (World Bank 2008b). Over the past three years, the proportion of firms reporting skills shortages as a major or severe impediment to growth has dropped from 28 to 8 percent,[49] and is now only half the share of neighboring Tanzania. However, there are some differences across firms: those in manufacturing are twice as likely as retail firms and more than six times as likely as service firms to report skills shortages as a constraint. Larger, foreign-owned and exporting firms in the manufacturing sector are more likely to report that lack of skills is a major or severe impediment than other firms.

[49] Similar results are obtained if the panel portion of the sample is used.

3.58 The ICA notes that three hypotheses could explain why firms do not have immediate concerns with the formal education of the workforce, either that firms have made the necessary input-mix adjustments that are compatible with a low skills workforce; that firm-based training can substitute for poor formal education, and/or that other constraints in the business environment dominate skills issues. It is difficult to empirically validate any of these possibilities, though it is noted that about 41 percent of firms in the sample provided training to their workers. In those firms, nearly two-thirds of skilled workers and about half of unskilled workers received training.

Health

3.59 As outlined in Part II, many of Kenya's health indicators are poor and health disparities remain high. Malaria continues to be the leading cause of morbidity and mortality in Kenya. Other major causes include acute respiratory infection, malnutrition, diarrhea disease, HIV/AIDS and among the highest estimated TB incidence rates in the world. Health inequalities are also an extremely serious concern, as health outcomes vary significantly in different gender, socio-economic and geographical groups.

3.60 There have been signs of improvement. For example, HIV prevalence among adults fell from over 10 percent in the late 1990s to 5.1 percent in 2006, and there are signs of reduced malaria morbidity due to increased coverage and usage of insecticide treated nets (ITNs) by pregnant mothers and children, and more effective diagnosis and treatment. While still low, TB control has also improved with the case detection and treatment success rates improving (Table 3-11).

Table 3-11: Trends in Selected Health Indicators

	1993	1998	2003	Latest	MDG Target
HIV prevalence among 15-24 year old pregnant women	7.4	11.9	10.6	5.1	<4.5
Malaria prevalence age >5 (% children with fever)	41.8	42.3	41.6	-	-
TB treatment completion rate	-	-	80	85	90

Source: DHS and MoH.

3.61 There are now at least 1.2 million Kenyans living with HV/AIDS. The negative impacts of untreated HIV/AIDS on individuals and households in Sub-Saharan Africa have been documented in a range of settings and countries (see e.g., Beegle, 2005). Research has documented the decline in work performance associated with untreated HIV/AIDS in the case of tea pluckers in Kenya (Fox, Rosen et al. 2004), and declining labour supply in rural areas around Eldoret (Thirumurthy, Graff Zivin and Goldstein, 2005). Given the medical effectiveness of antiretroviral therapy (ART) in restoring immune function and extending survival, and with over 160,000 Kenyans receiving ART in 2007, attention has turned to evaluating various socio-economic impacts of ART on individuals, households, and private sector companies.

3.62 One important issue is the degree to which ART restores physical functioning so that an individual can continue with or return to her normal daily activities after initiating therapy (Larson et al, 2008). Returning to normal activities includes reducing both absenteeism and "impaired presenteeism," the term used for the loss of productivity when an ill or disabled individual shows up for work but accomplishes less. Recent careful investigations in Kenya using a detailed panel data set (Larson et al 2008) compared tea plantation workers receiving ART through their company hospital and a matched comparison population of employees in the general workforce. They examine the pattern of impaired presenteeism over time pre and post-ART, the month of treatment initiation, and 12 months post-ART. They find substantial impaired presenteeism, mainly through women shifting to less strenuous assignments during the year prior to ART. Men returned to a nearly similar work pattern as the general male workforce after three months on ART through the end of the study. Women however continued to spend fewer days plucking tea but more days on other tasks than the general female workforce throughout the first year on ART.

3.63 A similar rural study near Eldoret in Western province finds a sharp labour supply response to ARV treatment (Thirumurthy, Graff Zivin, and Goldstein, 2005). Using a sample of patients at a rural health centre and a random sample of households in the catchment area as controls, labour supply of patients was found to decline sharply in the months before treatment, but returning to close to normal levels of labour supply within six months of the initiation of treatment. This, and a related study (Graff Zivin, Thirumurthy and Goldstein, 2006) also show strong intergenerational effects of treatment. First, as adult patients return to work, their children, especially boys, reduce the amount of time they spend working in the labour market. Second, in the same time period as increased parental labour supply, children of patients increase their school attendance by over 20 percent. Finally, the nutritional status of children of patients also increases sharply, particularly for children who were the most malnourished.

3.64 These results suggest that there are important productivity gains and intergenerational human capital effects associated with ARTs. It also suggests that the estimated one million Kenyans who are HIV positive and not on ARTs are likely less productive than normal, with potentially serious impacts on the next generation as well.

3.65 To sum up the role of human capital in Kenya, we see contrasting trends. On the positive side, we see the expansion of basic education and the steady decline in the share of firms reporting inadequate skills as a major or severe constraint to growth. On the other hand, maintaining quality in schooling is a major challenge, as is the expansion of the system at the secondary and upper levels as primary education alone is not necessarily a route out of poverty. And there are major health challenges, most prominently malaria and HIV, but also other causes of morbidity and mortality which adversely affect, among other things, labour productivity, and thus individual and household earnings prospects. We examine ill-health impacts further below in the context of shocks.

Land as a Driver of Poverty and Inequality

3.66 Land is central to our assessment of poverty and inequality in Kenya—both for its role in determining the pattern of development, and its significance to social and political stability. To quote the recent Ndung'u report:

> *Land retains a focal point in Kenya's history. It was the basis upon which the struggle for independence was waged. It has traditionally dictated the pulse of our nationhood. It continues to command a pivotal position in the country's social, economic, political and legal relations.*

3.67 The land question in Kenya needs to be considered in the context of history and governance. Some salient historical factors were highlighted in Part I, here we recall some basic facts on land: that during colonial times, land was appropriated by settlers across the country; the earlier communal land system was blocked into trust, crown and private lands, and a cash economy was introduced. At least since the 1980s, land administration and management, in particular injustices and favors in land allocation and corruption in land related institutions, have become major issues in public debates.

3.68 As noted at the outset, whereas only 20 percent of the land is classified as medium to high potential, about three out of four Kenyans are concentrated therein, with the rest living in vast areas of the arid and semi arid lands (ASALs). Given the rising population size and the continuing largely rural nature of income earning activities, access to land is critical to popular perceptions about well-being. The illegal appropriation of public land has been an especially visible crime which has excited huge passion, not least because, as the Ndung'u Commission found, the practice of illegal allocations of land increased dramatically during the late 1980s and throughout the 1990s.[50]

3.69 Average landholding size for smallholders is defined by the KNBS (2001) as landholdings between 0.2 - 12 ha, is 1.2 ha while for large farms, it is 700 ha (CEM 2003). The contribution of smallholders to marketed production has risen over time, to an estimated 70 percent in 2003. Very little (only about 1.2 percent) of the cropped land is irrigated.

3.70 The KPIA does not attempt to fully deal with the land question. Our scope is limited to examining levels and trends in land inequality in Kenya. This is useful because disparities in access to land loom large in current debates, and a robust empirical base has been absent. However, the long list of land issues, with which we do not deal here, includes controversies around internally displaced peoples (IDPs), past and present; resettlement schemes (as in the Rift Valley); squatters and land fragmentation; slum settlements, insecure tenure/overlapping rights by individuals/communities; disinheritance by women and other vulnerable groups; environmental degradation; destruction of forests and desertification; and allocation of public land to individuals

[50] Southall, Roger (2005), The Ndung'u Report: Land & Graft in Kenya, Review of African Political Economy, 103, March 2005, pp.142-51.

(land grabbing). Much of this agenda is being pursued in related work by the Land Reform Transformation Unit of the Ministry of Lands and Housing which is managing the completion of the National Land Policy and preparation for its implementation, and is actively engaged in by national NGOs, like the Kenya Land Alliance and various development partners.

3.71 There is a rich international literature on land inequality, much of which has been motivated by the high levels of land inequality in Latin America, and the associations with access to credit (Binswanger 1986) and education (Mariscal and Sololoff 2000). Previous work (e.g. Deinenger and Squire 1998) has focused on inequality among land holders. However this misses important inequalities vis a vis the landless. Erickson and Vollarht (2004) give a stark example to show the pitfalls: suppose that only two people in a country of a hundred people own all the land, and share it equally. The gini among landholders would be zero—perfect equality—yet 2 percent of the population own all the land! In the KPIA, we present measures of inequality both for the whole sample— including those without land and those who did not engage in farming over the preceding year—and restricted to the land holding group. We would ideally adjust for security of tenure, but the data at our disposal does not allow.

3.72 We provide the summary results for the whole sample, by province and over time, and for the sub-sample of landowners, drawing on the WMS and KIHBS for 1997 and 2005/6 respectively.[51] In principle, especially given the relative scarcity of medium and high potential land in Kenya, we should want to adjust for quality. This can be done at various degrees of sophistication. Ravallion and van de Walle (2008) for example look at Vietnam's evolving land distribution and calculate an "irrigated-equivalent" measure of land. No adjustment has been done in the present case, though we would note that the analysis excludes North-Eastern province, which is largely arid, and only one percent of the land is irrigated.

3.73 The overall increase in inequality based on reported size of ownership is striking: nationally, there was a 36 percent increase over the period, to about .83 when we look at landholding in the entire population (Table 3-12). The worsening was especially striking in the Coast and Nyanza provinces. Levels of inequality in the latter year are remarkably high not only in Nairobi, but also the Rift Valley and Coast. The Nairobi figure is very high—perhaps partly reflecting the very high rates of tenancy (see Gulyani 2007).

3.74 We do not investigate the causes of increasing land equality, although it is noted that an underlying factor is population pressure and diminishing land size. Smallholder farms are being subdivided while medium and large farms tend to remain intact.

[51] We do not separately report North Eastern, because of the very limited number of observations (122 compared to more than 1000 for each of other provinces).

Table 3-12: Changes in Land Inequality over Time, all Households, by Province and Nationally, Gini Coefficient, 1996 – 2005/6

	1997	2005/6	Percentage change
National	0.612	0.832	35.9%
Nairobi	0.757	0.993	31.1%
Central	0.546	0.744	36.4%
Coast	0.500	0.865	73.1%
Eastern	0.601	0.731	21.6%
Nyanza	0.475	0.815	71.8%
Rift Valley	0.642	0.870	35.4%
Western	0.579	0.769	32.7%

3.75 We also estimated inequality only among those who own land, in part because of the importance of off-land activities in the economy, and also to enable international comparability. This measure excludes both the landless agricultural workers and those whose primary occupation is not farming.

3.76 Measures of inequality are lower, though still high, when restricted to landowners only (Table 3-13), and the extent of increase in land inequality over the period is large, but less than when we looked at the whole sample. Interestingly, this sample shows a decline in inequality in Nairobi, possibly because we are excluding renters. However, similar to what we observed for the overall sample, there was a significant worsening in Nyanza and Coast, and very high levels of inequality in the Rift Province, with an estimated land gini of close to .77, which is very high by international, as well as Kenyan, standards.

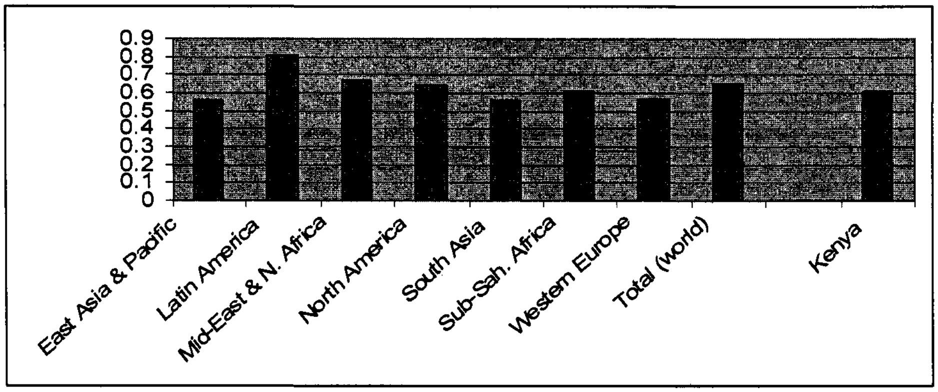
Table 3-13: Changes in Land Inequality Over Time, Landholders only, by Province and Nationally, 1997 – 2005/6

	1997	2004	Percentage change
National	0.612	0.711	16.1%
Nairobi	0.757	0.642	-15.2%
Central	0.546	0.610	11.9%
Coast	0.500	0.686	37.3%
Eastern	0.601	0.606	0.8%
Nyanza	0.475	0.737	55.2%
Rift Valley	0.642	0.769	19.7%
Western	0.579	0.695	19.9%

3.77 Even among landholders only, it is notable that the reported levels of inequality are much higher than the estimated consumption ginis. Our estimated ginis for earnings are of similar orders of magnitude.

3.78 Putting the landholding results in regional and international perspective, Kenya's rates of land inequality were significantly higher than South and East Asia for example, but close to Sub-Saharan and North African averages. The more recent estimates for Kenya bring the country closer to levels similar to those observed in the region which is most renowned for land inequality, Latin America.

Figure 3-8: Land Inequality, Regional Averages, 1986-1990, and Kenya 1997



Source: WDI, and staff estimates for Kenya.

3.79 Table 3-14 presents some individual country comparators, and suggests that levels of land inequality in Kenya are approaching those in Latin America, e.g., Bolivia, and are much higher than neighboring Uganda, for example, though lower than that reported for Tanzania.

Table 3-14: Land Gini coefficients, Selected Latin American and African Countries (year varies)

Argentina	.856
Bolivia	.768
Colombia	.829
Madagascar	.804
Tanzania	.790
Uganda	.549
Venezuela	.917
Kenya	**.711**

Source: WDI, and staff estimates.

3.80 One important question is whether the general presumption that landless rural households are particularly poor holds true in Kenya. In India, the landless would typically comprise both the ultra poor casual agricultural wage laborers, but also those who might be involved in non-agricultural livelihoods, and who might not necessarily be poor. In fact among the poor, about half are landless, but half are not. Interestingly, a higher share (close to two-thirds) of the *non*-poor is landless. This shows that landlessness *per se* is not a good proxy for poverty in Kenya. It would be useful to distinguish gender of the household head—given the issue of female disinheritance, although this would not pick up widows who are disinherited and move to the towns.

3.81 In 2005/6, average net earnings of those employed in small scale agricultural activities (including those raising livestock) was only about one-quarter of employees working in other activities (public, private sector and informal non agricultural workers). Disparities were observed also within farmers—in particular landless versus those with land. The average net earnings of landless farmers was almost 30 percent below of that of land holders and more than 40 percent less than that of land holders who claimed to have land titles. A regression of rural net earnings of agricultural workers on standard variables (gender, experience, education, etc.) shows a highly significant, positive impact of holding land, and the size of the land. Everything else constant, holding land increases net earnings 340 percent over that of the landless. Initial investigations found land texture and land slope coefficients to have expected signs, but their impact is not significant.

3.82 The analysis of land inequality thus highlights some key messages. First, levels of land inequality are high, indeed higher than observed inequality in consumption and earnings for example, and high also by international standards. Second, that there has been a rapid worsening in land inequality in most parts of the country over the past decade—at a rate of change that suggests that land inequality is rapidly becoming more serious in objective terms as well as in terms of political salience. The size of smallholdings is becoming a productivity issue. Third, however, the evidence also shows that landlessness and poverty should not be equated—approximately equal shares of the poor have, and have no, land, and many of the non-poor do not have land—and hence landlessness per se is not a good proxy for poverty, although there are very high rates of poverty among landless agricultural laborers.

Access to Financial Services

3.83 As we shall see below, using longitudinal data, access to credit is key lever for rural households to escape from poverty. In this section we provide a sense of the dimensions of access to financial credit, using the KIHBS, and financial services more generally, using the 2006 FinAccess survey.[52]

3.84 The key patterns observed for access to credit in 2005/6 using the KIHBS are:

- Most Kenyans do not have access to any form of credit, with much lower rates of access in arid lands in particular.
- Levels of access across poor/non poor and female/male headed households are similar—close to 30 percent for all groups. The differences which exist are as expected—e.g., non-poor access is about 12 percent higher than non poor.
- There is significant disparity in average loan amounts—with non-poor households 42 percent above the average, and poor 77 percent below; the advantage for urban households is even larger, whereas female headed are way below average (Table 3-15). The differences between the top and bottom decile are more remarkable, viz more than 2.5 times the average, versus less than half the average amount. This is a simple cross-tabulation without any controls, but the patterns are clear.

[52] The FinAccess dataset includes 4070 adult respondents, of which 450 are from urban districts, 2651 from rural, 577 semi-arid, and 392 from arid districts.

Table 3-15: Credit Access and Average Loan-Sum, Previous 12 Month

	Percent of Households Accessing Credit	Average Loan-Sum (all Loans Combined) * (KSh 000)	Relative to Mean
All households	31%	36.8	1.00
Non-poor	32%	52.1	1.42
Poor	28%	8.6	0.23
Rural	31%	22.1	0.60
Urban	29%	84.2	2.29
Female-headed	30%	16.3	0.44
Poorest quintile	27%	4.0	0.11
Richest quintile	33%	94.9	2.58

Source: KIHBS * Note: Includes all sources of credit (formal and informal).

3.85 The patterns in access and amounts may in turn be traced back to the sources of credit. We see that formal sources (like banks) are relatively unimportant across all groups. Micro-finance lenders and SACCOs are accessed by about 20 percent on average (but only 9 percent for the poor). We see that poor households rely disproportionately on personal relations and their horizontal links are likely to be to others who are not well off either. A similar pattern appears for female headed households. We separate out friends and money lenders—since there are likely to be very different rates of interest—and see that the poorest are more likely to turn to moneylenders. For total amounts by source (not shown), personal relations remain the largest single source, and especially for those at the bottom of the distribution. Since most households borrow from only one source, this picture is not so different from access by source (Table 3-16).

Table 3-16: Share of Households Accessing Credit from Various Sources (percent)*

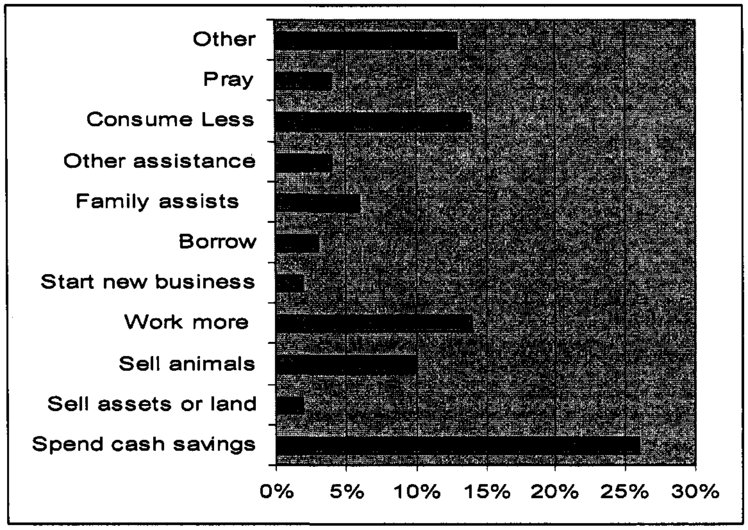
	Commercial banks	Micro-finance	Building societies	Insurance companies	SACCOS	Other financial institutions	Neighbors/friends	Groceries/ local merchants	Money lender	Employer	Religious institutions	NGO	Self-help groups	Other
All households	4.8	4.5	0.3	0.1	13.9	1.6	48.3	13.1	2.2	3.2	1.7	0.2	13.3	3.7
Non-poor	6.7	5.6	0.4	0.1	18.4	1.9	44.5	9.0	2.1	4.0	1.7	0.2	13.9	3.5
Poor	1.4	2.7	0.1	0.1	5.6	0.9	55.5	20.7	2.6	1.8	1.6	0.1	12.3	4.0
Rural	3.9	4.1	0.3	0.0	11.5	1.5	50.8	14.6	2.0	1.6	1.8	0.2	14.4	3.8
Urban	7.8	6.1	0.4	0.3	21.9	2.0	40.3	8.1	3.0	8.4	1.2	0.3	9.8	3.0
Female-headed	3.2	3.1	0.0	0.1	8.3	1.9	54.2	13.9	1.4	1.1	2.1	0.2	16.6	4.4
Poorest quintile	0.3	2.2	0.0	0.0	1.9	0.5	58.7	24.9	4.0	1.0	2.3	0.0	7.3	5.0
Top quintile	10.2	6.6	0.3	0.1	26.9	2.1	36.4	5.0	2.6	6.4	1.0	0.3	12.2	3.2

Source: Staff estimates based on KIHBS. Note: Figures do not add to 100 because of multiple responses.

3.86 Not surprisingly in this context, very few households are able to borrow in the face of shocks, particularly shocks that affect their friends and neighbors as well. This is explored further below, but suffice here to note that borrowing can be an appropriate strategy in the face of temporary shocks, but not to permanent cuts in income.

3.87 Figure 3-9 shows the most common first response is to run down savings and sell assets, including livestock, and many cut consumption as a first response. Only 3 percent borrowed, which is lower than the share that resorted to prayer. At the same time, there is a complementary need to address the underlying risks (e.g. price and weather) in order to improve access and cost of credit.

Figure 3-9: First Response to Major Shocks (Among Households Reporting Shocks)



Source: KIHBS, 2005/6.

3.88 Further analysis has been undertaken using the 2006 Financial Access Survey (FinAccess), which collects more detailed information about financial services, not only credit. In fact, a higher share of the sample saves than borrow. It shows that informal financial services—ROSCAs and ASCAs, plus friends and family, and local shops—are the most common mechanisms through which Kenyans access credit (Box 3-3).

Box 3-3: Informal Financial Services

Many Kenyans belong to informal groups, which can help serve their savings and credit needs. These include:

-- welfare or clan groups that assist each other, for example, in times of sickness or to pay for funerals;
-- rotating credit associations and individual savings and lending groups, and a similar structure in which an outside manager is retained; and,
-- investment clubs that invest money for a group in shares or in fixed assets such as land or houses.

The use of informal groups is highest amongst business owners in rural and semi-arid districts, which suggests that these are a substitute for the financial services that urban entrepreneurs tend to obtain from formal providers.

3.89 FinAccess confirms several important points about access to financial services:

(a) A large proportion of the Kenyan population has no access to financial services, whether formal or informal;
(b) The share of the population that uses no financial services is much higher in arid districts;
(c) Within areas, access is further differentiated by source of income and poverty proxies (see below); and,
(d) Although the population share that is served is similar in urban, rural, and semi-arid districts, the mix of services is different. In urban areas, respondents rely more heavily on services from banks and semi-formal sources (SACCOs and MFIs) while in rural and semi-arid districts, there is greater reliance on services provided via informal groups (Table 3-17).

Table 3-17: Financial Service Access Strands (percent)

Service Provider	Total	Urban	Rural Other	Semi-Arid	Arid
Formal: Bank, post office	18.5	43.8	18.1	15.8	8.7
Semi formal: SACCO/MFI	8.1	22.7	17.2	10.2	4.1
Informal: ROSCAs/ ASCAs	35	39.1	54.5	58.1	31.1
Excluded	38.3	36.9	34.4	34.1	64.3

3.90 Most Kenyans—*regardless of where they live*—have no access to any type of financial services. However, when access to credit is considered, the picture is even bleaker. Only wage earners have even limited access to formal sources of credit and although there is evidence of declining access to credit as one goes from urban to arid areas, it is the low levels of credit for every district type that is most striking. Even for those who have access to financial services in some form, these services are limited to savings and payments products.

3.91 More detailed analysis of financial exclusion in Kenya (Johnson and Nino-Zarazua, 2007) used multi-variate analysis, and found:

- Type of employment is important—in particular formal, and especially public, sector employees.
- Those who are older, better educated and male are more likely to use formal services.
- Women are more likely to use informal services—viz ROSCAs, MFIs and group based mechanisms.
- Some wealth variables, like owning a radio or a bicycle, are correlated with a lower likelihood of exclusion from both formal and informal financial services.
- There are provincial patterns in usage, and SACCOs and group based mechanisms in some provinces (Western, Rift, Coast and NE) reduce the risk of overall financial exclusion.

3.92 While the extent of exclusion from financial services, and in particular credit, is quite striking, it is important to bear in mind however is that the financial services sector in Kenya is very dynamic. There is evidence of significant innovation and expansion over the past several years, including group-based mechanisms and mobile phones. In Part IV we explore some policy implications of the foregoing.

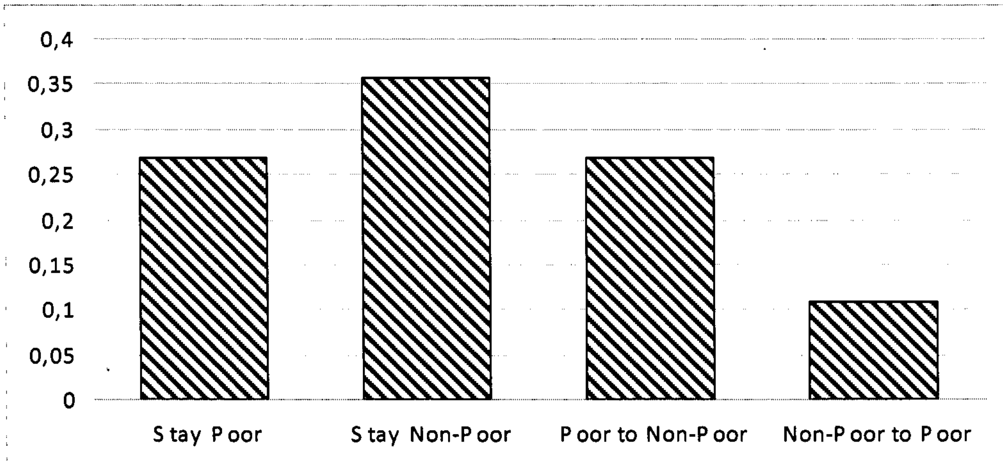
RURAL DYNAMICS: INSIGHTS FROM THE TEGEMEO PANEL

3.93 Rural dynamics are critical to understanding trends in poverty and inequality in Kenya. About three in four Kenyans live in rural areas and agriculture and primary activities account for about 60 percent of employment, though only about 30 percent of GDP. Part II has shown that in rural areas, rates of poverty are much higher, levels of inequality are high, and access to various basic services and human development outcomes tend to be lower. Earlier work has drawn attention to factors tending to depress rural productivity and growth in Kenya, in a combination of exogenous and policy related reasons (World Bank 2003; Ndulu and O'Connell, 2000; Tegemeo X) including the weather, land pressures, poor access to credit, weak infrastructure, and reduced effectiveness of extension services. In Part IV we look at the current status of key policy related factors.

3.94 The incidence of rural income poverty (albeit importantly excluding pastoralists) fell over the past decade—the Tegemeo data indicate a fall in the headcount from 54 percent in 1997 to 38 percent in 2007. This section aims to better understand the dynamics associated with this picture, and the underlying drivers. As outlined above, the Tegemeo panel provides a unique opportunity to investigate the importance of both initial conditions and changes over time. In this section we review overall trends in income and poverty, and then hone in on poverty dynamics and, in particular, drivers.

3.95 Even in a context of overall growth and poverty reduction, Tegemeo's panel suggests that most (55 percent of) rural households experienced poverty at least once between 2000 and 2007 (75 percent over the decade to 2007) (Figure 3-10). Likewise, PPA found that some 60 percent had experienced poverty between 1997 and 2005. In the Tegemeo sample, about 25 percent of households escaped poverty over the period 2000-2007. About one fourth stayed poor and about one in ten became poor, indicating both poverty persistence and additional vulnerability to falling into poverty during a period of overall improvements.

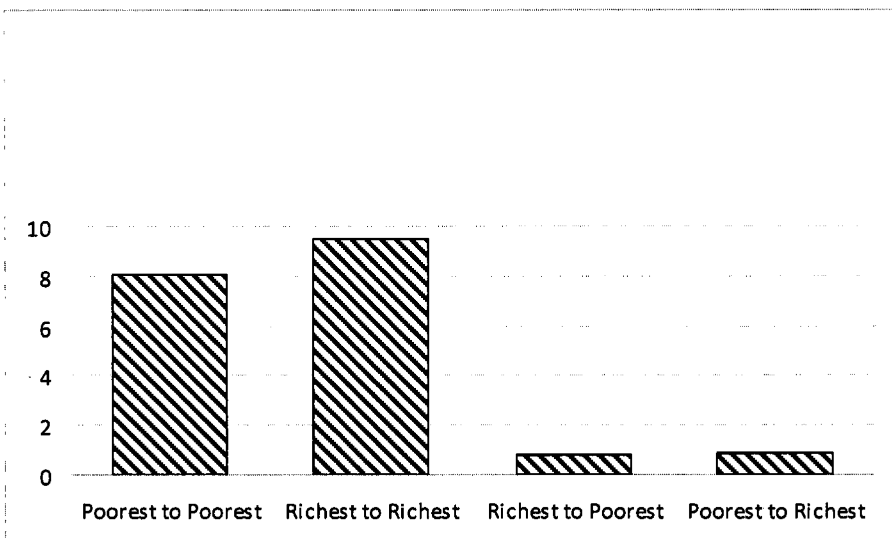
Figure 3-10: Rural Poverty Transitions, 1997-2007



Source: Nyoro et al 2008.

3.96 Were rural households able to significantly increase their incomes as opposed to moving around the poverty threshold? The Tegemeo study examined whether a household is able to transit from the bottom to the top quintile over the decade to 2007. Perhaps not surprisingly, Figure 3-11 shows that only a negligible share of the poorest households are able to make this transition, and likewise, in the opposite way, from the top to the bottom quintile. Yet this also shows that there is significant movement, in that only a small minority of those who started in the bottom and top quintiles (8 and 9 percent respectively) stay in their baseline quintile.

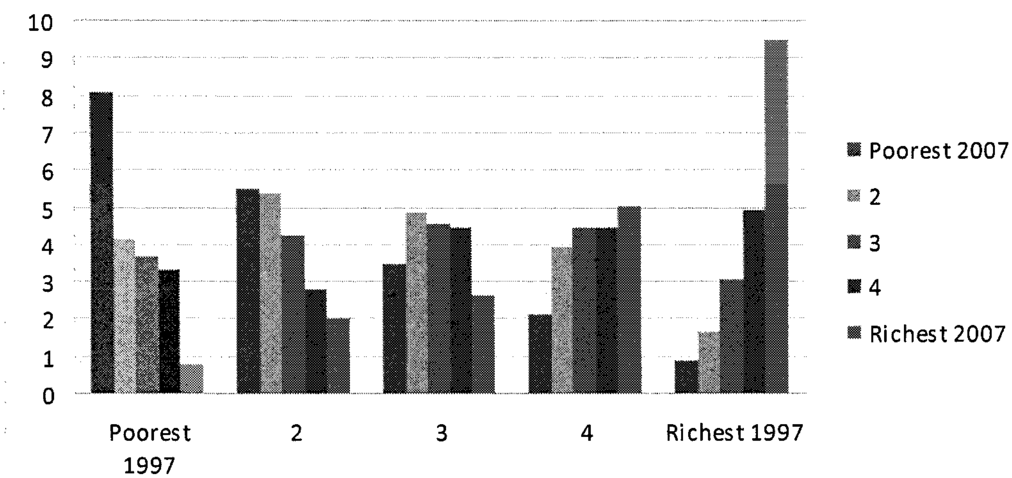
Figure 3-11: Rural Transitions and Persistence, Top and Bottom Quintiles, (percent) 2000-2007



Source: Nyoro et al 2008.

3.97 A final depiction of transitions is used to give a broader sense of the extent of movement across quintiles over the decade. Figure 3-12 shows transitions across income quintiles and in effect summarizes the transition matrix across quintiles. It shows that the poorest quintile was most likely to stay in the same quintile, and if there was movement, most likely to move the second quintile, then most likely to move to the third, and so on. This pattern emerges quite clearly across quintiles.

Figure 3-12: Transitions across Income Quintiles



3.98 A series of regressions were estimated to test which factors are most significant in explaining both transitions into and out of poverty, and the persistence of poverty (Nyoro et al 2008). Regressions which control for various observed, household and community level characteristics are used. Fixed effects control for unobserved factors at the household level and show the effects of changes in the variables on changes in poverty.[53]

3.99 A step-wise procedure was adopted so as to examine the role of specific factors. For all the regressions, versions were estimated with province dummies, but for models including the infrastructure variables, province dummies were excluded because there was not always enough variation in the infrastructure variables within province. Interestingly, province dummies do not affect the results much—which means that the province effects explain the dependent variable (in this case poverty transitions), but do not correlate as much with the observed variables used on the right hand side. This suggests underlying factors are at work at the provincial level.

[53] A step-wise procedure was adopted so as to examine the role of specific factors. For all the regressions, versions were estimated with province dummies, but for models including the infrastructure variables, province dummies were excluded because there was not always enough variation in the infrastructure variables within province. Interestingly, province dummies do not affect the results much—which means that the province effects explain the dependent variable (in this case poverty transitions), but do not correlate as much with the observed variables used on the right hand side. This suggests underlying factors are at work at the provincial level.

3.100 The results are similar to those for the profile of poverty—in particular education and credit matter (though the importance of the latter varies across specifications), as do changes off farm income. In terms of off farm income, variables related to the fractions of adults involved in business/informal activities and in salaried activities are important, as is the number of crops per field. For some of the variables (like distances), however, there is not enough variation for a given household over time for this to show statistical significance—only the dummy for whether a household is close to a motorable road is significant.

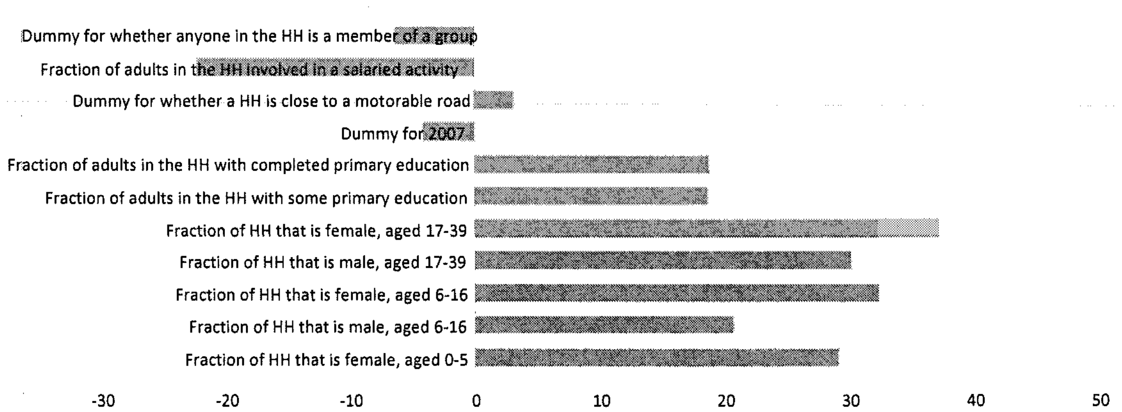
3.101 As we saw above, there is significant churning, that is movements in and out of poverty. Which factors determine whether a households transit? Tegemeo regression analysis on transitions used initial conditions in 1997.[54]

3.102 A full set of changes were estimated, as well as province dummies (Figure 3-13 summarizes). The results confirm the story in Part II, but help to isolate the most significant and robust drivers over the decade:

- From a policy point of view, the factors associated with households emerging out of poverty are of special interest. The regression analysis shows that education, wealth (land) and access to extension matter, as well as income diversification off farm—both business and salaried activities.
- Among those households who suffered poverty throughout the period, initial conditions were key, in particular lack of access to credit, lack of access to infrastructure and less land. Often bad weather was additionally correlated with the persistence of poverty over time.
- On the other hand, for those who managed to stay out of poverty throughout the decade, the key factors were education, diversification, land, credit, and infrastructure. In particular, the distance to an extension agent is a significant correlate. In terms of the initial conditions in 2000, all the infrastructure variables (fertilizer, piped water, extension, motorable road) and business activities are important. There are also some significant province differences.

[54] Results using just the post 2000 data and initial conditions for the year 2000 are similar, except that the measure of diversification appears to have become more important over time.

Figure 3-13: Summary of effects of changes in key variables over time, on poverty (fixed effects)

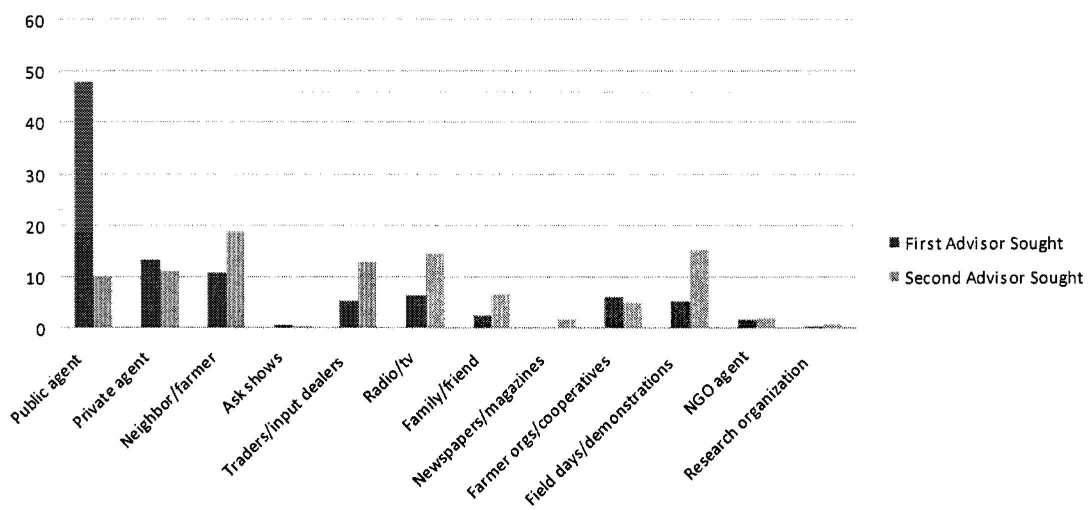


3.103 Another way of looking at transitions is to ask the question what, conditional on being poor in 2000, affects the probability that a rural Kenyan household would have escaped poverty in 2007? For this sub-sample (538 households), few changes are significant, because there is not enough change over time that varies much across households. For this reason, many of the variables that are significant in other specifications lose explanatory power. For those who escaped poverty, we do see:

- Initially higher levels of diversification and good weather are important (or the converse for being poor in 2007).
- Changes in education and distances to markets and infrastructure matter, in particular distance to the closest fertilizer seller and the distance to piped water. Distance to the nearest fertilizer seller can be seen as a proxy for market access (Suri 2007), though it matters more for agricultural households. It also captures, at least in part, the costs of using improved methods (fertilizer and seed).

3.104 How does distance to extension services affect usage, and what is source of advice? Tegemeo analysis shows a positive correlation between proximity and seeking advice: about three-quarters of the quintile of households that are closest in distance to extension agents sought advice in 2007, compared to about half of the quintile that are furthest away. Figure 3-14 shows that conditional on seeking extension, it was most frequently public agents whom were asked for advice—about half of cases of those who sought advice went to public agents, and about 10 percent went to private agents or neighbors.

Figure 3-14: Conditional on Seeking Extension, Who Was Asked for Advice, 2007

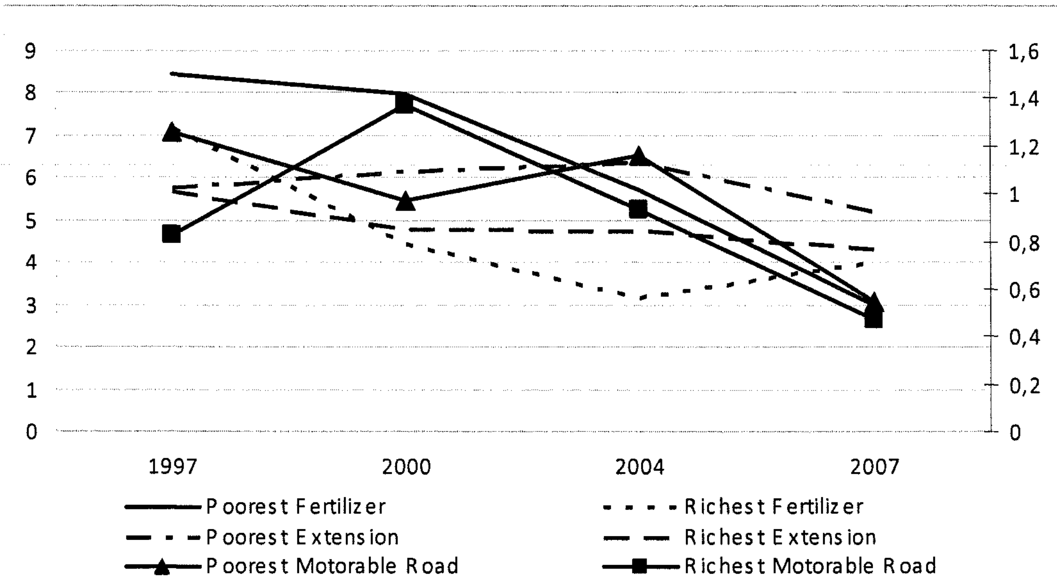


Source: Nyoro et al 2008.

3.105 We see a very strong upward trend in diversification over the decade. Which factors are associated with rural households successfully being able to diversify their sources of income? The key determinants of households' participation in off-farm activities are availability of credit, education and access to roads (Nyoro et al 2008). Age-sex composition of the household also matters, in that households with more adults in the age range 17-39 are more likely to be involved in off-farm activities. There are also large differences across provinces, in that households in Eastern appear to diversify much more frequently than those in Nyanza and Western.

3.106 Infrastructure variables are important – in that households that are closer to a fertilizer seller, closer to a motorable road, closer to piped water grow more crops (in absolute number) are more likely to diversify. That fertilizer access is driving off farm diversification may be associated with its correlation with access to technology and markets, as well as possibly enabling adults to produce crops more efficiently and spend more time working off-farm. The good news is that access to all these key services improved over the decade, and more rapidly for the poor. The initially observed gaps in access had closed by the end of the period Figure 3-15.

Figure 3-15: Reduced Distances to Various Infrastructure, 1997 - 2007



Source: Nyoro et al 2008.

3.107 Looking more specifically at trends in crop diversification, we see that the number of crops planted in the main season by province has increased dramatically over time—the extent of increase ranged from doubling over the decade in Eastern and Central, and close to tripling in Nyanza and Western. The number of crops per field in the main season dramatically increased, doubling in Western, and increasing by about half elsewhere. In terms of determinants, on the negative side, the number of crops tends to be fewer among households with more uneducated adults, and those with less land.

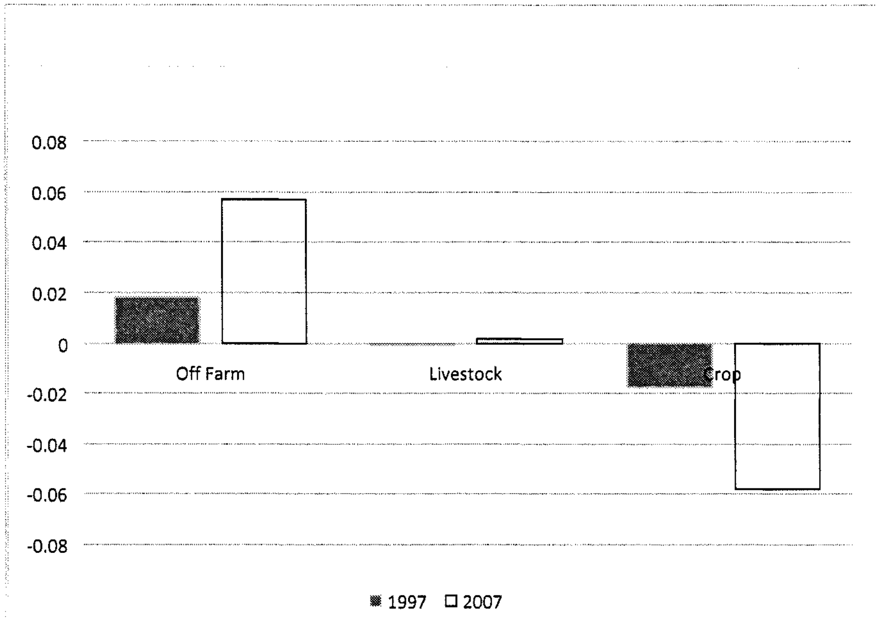
3.108 Finally, but not least, the Tegemeo panel is utilized to examine sources of change in inequality. By looking at the marginal effects of various sources of income on the income gini, we can also identify sources of increased inequality over time. Estimates suggest that a 1 percent increase in off-farm income increases the gini by 0.0325, whereas livestock and crop income have effects which are smaller in magnitude but which tend to reduce inequality (-0.01 and -0.02, respectively).

3.109 Interestingly, the disequalising effect of off-farm income tended to increase over the decade to 2007. Specifically, the marginal effect of off-farm income on the gini rises from 0.039 to 0.058, for livestock income changes from -0.013 to -0.001 and for crop income changes from -0.0255 to -0.057. This suggests that rising off farm income would tend to be associated with worsening inequality, whereas other sources of income tend to offset inequality. Livestock income is not very important, but crop income is an important driver.

3.110 For off-farm income, it is useful to distinguish between salaries (and remittances), versus informal business activities (note we can only do this from 2000 onwards). Salary and remittances have a large disequalising marginal effect (0.0487 in

2007), informal income a much lower positive effect (0.0088) and livestock and crop income similar to earlier (-0.0006 and -0.0570, respectively) (Figure 3-16).

Figure 3-16: Effect of Marginal Changes in Selected Sources of Income on Inequality



Source: Nyoro et al 2008

3.111 These marginal effects are interesting, although caution is needed in interpreting causality. It may not be the off-farm effect per se, but rather the underlying (unobserved) factors that facilitate the households participation in off-farm activities that are associated with inequality. It should also be underlined that some variation in the distribution of opportunities will tend to characterize any development process—the issue is more about how to broaden the distribution of opportunities, rather than curtail in order to equalize.

3.112 To conclude, the analysis of rural dynamics suggests some good news and some evidence of positive effects of government programs. But it is important to underline that there remain a large group of chronically poor, for whom initial conditions are still important—viz, if poor at the outset, much more likely to be poor a decade later. Those who stay poor are characterized by low education and lack of access to basic infrastructure.

TRENDS IN THE URBAN SLUMS – INSIGHTS FROM VIWANDANI AND KOROGOCHO

3.113 Part II provided an overview of poverty levels, inequality, and living conditions in the Nairobi slums. It painted a picture of a poor working population that is relatively educated, whose children are schooling at relatively high levels, but that lacks access to basic sanitation services such as garbage disposal and toilets. Not surprisingly, child under 5 morbidity and mortality outcomes are among the worst in the country. Still, there have been some improvements between 2003 and 2006, which are explored in this section, along with the drivers of changes in poverty and exit out of the informal slums.[55]

3.114 The incidence of poverty fell from 73 to 62 percent over the three year period, and this improvement appears to have benefited a broad range of household types. This was also associated with an increase in various household assets. For example, ownership of radios increased from 70 to 82 percent, of televisions from 11 to 24 percent, and of (mobile) phones from 9 to 47 percent. Adolescents aged 15-19 years in the slums also witnessed a very large increase in enrolment from 44 percent in 2003 to 77 percent in 2006. However, the poverty gap remained large—at 36 percent.

3.115 While the level of amenities continued to be very poor through 2006, there were some improvements after 2003. For example, households having access to garbage disposal services increased from 2 to 10 percent, access to electricity from 11 to 32 percent, and the 20 percent of households having access to improved (shared) toilet facilities in 2006 constituted an increase from 8 percent in 2003. Lastly, the level of crime also seems to have dropped sharply. In 2006, less than 3 percent of household reported having experienced a mugging in the year prior, compared with 9 percent in the past 4 months in 2003.[56] Theft similarly dropped from 9 to 7 percent.

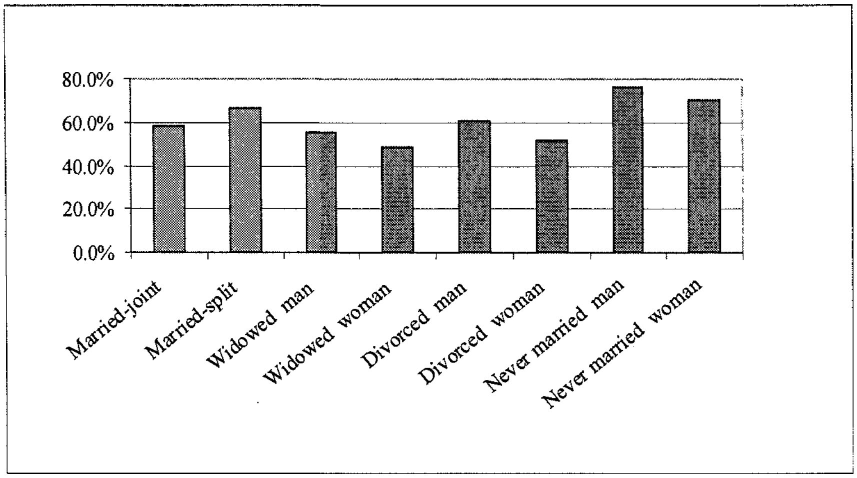
3.116 Exit rates from the slums are very high. On average across household types, 62 percent of members observed in 2003 were not observed 3 years later (i.e., exited the slum). The same proportion holds when looking just at the household head. Not surprisingly, mobility is the greatest among single male and female adults (76 and 71 percent, respectively). Mobility is the lowest among members of households headed by widowed and divorced women (49 and 51 percent, respectively), which is likely a reflection of their lower economic opportunities in Nairobi as well as limited access to land among this group in the rural areas.

[55] This is based on *Poverty Dynamics and Mobility in Nairobi's Informal Settlements*, APHRC Working Paper (2008) by de Laat, J., O. Faye, T. Suri, and E. Zulu.

[56] The change of time frame may have led to some confusion among respondents. However, note that the 2006 timeframe (with lower reported crime) had a *shorter* recall window.

Figure 3-17: Proportion of Slum Residents Observed in 2003 but not in 2006

(By household head type)

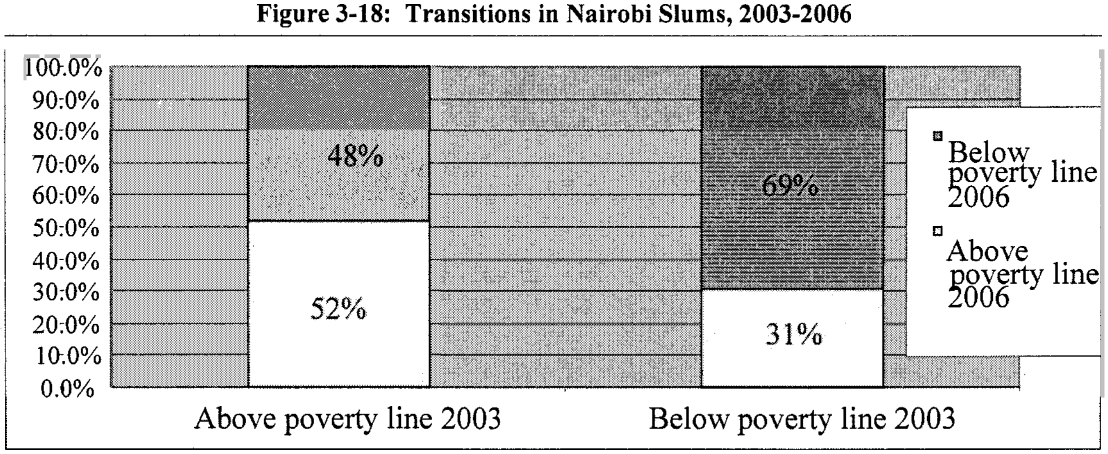


Source: de Laat et al (2008).

3.117 The poverty incidence in 2003 among those who were observed in both rounds was higher than those who exited; 77 percent of stayers versus 71 percent of those who exited. Similarly, poverty incidence in 2006 among those who stayed was also higher than those who were observed in 2006 but not in 2003 (entry): 64 versus 58 percent. This is consistent with the observation that there is a poor group of households, such as those headed by widowed or divorced women, who are less mobile Figure 3-17

3.118 Even among slum residents who did not exit, we find considerable number of transitions, both into and out of poverty. In particular, despite the overall decline in the headcount, among the minority who had been non-poor in 2003, only about half were still above the poverty line in 2006. Conversely, almost a third (31 percent) of those poor in 2003 was no longer below the poverty line in 2006 (Figure 3-18).

Figure 3-18: Transitions in Nairobi Slums, 2003-2006



Source: de Laat et al (2008).

3.119 To identify the correlates of poverty dynamics in these informal settlements, controls include household composition and head characteristics, based on 2003 values. The results show:

- Households that were poor in 2003 were only 8 percentage points more likely to still be below the poverty line in 2006, confirming that there is substantial income mobility.
- Among the households that were poor in 2003, several initial conditions are significant predictors of whether the household is below the poverty line in 2006, namely:
    - age and duration in slum of the head reduce the likelihood that the household will be poor three years later—which suggests that longer duration in the slum is not an obstacle to moving out of poverty;
    - households with infants (0-4 years) present in 2003 or children (up through age 17) are more likely to be in poverty three years later; and
    - interestingly, relative to households whose head was married joint in 2003, divorced/separated household heads in 2003 are 10 percentage points less likely to be in poverty in 2006.

3.120 Somewhat surprisingly, human capital variables in 2003 are not significant predictors of poverty in 2006 (again conditional on being below the poverty line or not in 2003). Nor does the death of a household member over the period increase the likelihood of being in poverty.

3.121 Finally, econometric results showing determinants of exit are reviewed. It is recalled that about 80 percent of residents in these slums are individual tenants. The results suggest:

- surprisingly, poverty status in 2003 is not a significant predictor of whether a household was likely to have exited by 2006;
- the ethnicity fixed effects show hardly variation across ethnic groups in terms of who exits;
- there is, however, substantial variation across villages within the slums;
- household heads who were older in 2003 and who had in the slum longer were less likely to exit; whereas, relative to joint households, household heads who were never married, or married but not living with their spouse, were more likely to have exited by 2006;
- importantly, the presence of children of all ages makes households less likely to exit whereas the presence of adults does not. Coupled with the fact that the presence of children makes households more prone to poverty, this suggests that households with children may not have the resources to leave the informal settlement and move to locations with better amenities;
- household shocks such as mugging and robbery that happened the year prior to 2003 are not correlated with exit in the 2003 to 2006 period;
- household heads are much more likely (27 percentage points) more likely to exit if a household member aged 5 or older died in this period; and

- none of the human capital variables are significant predictors of exit.

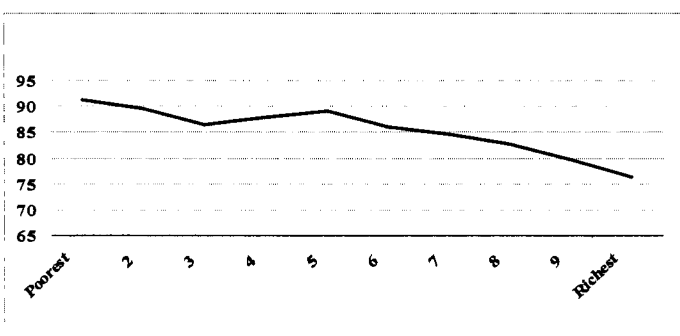
3.122 Exit from the slum seems very sensitive to access to amenities *at the village* level. For example, while households with a private toilet in 2003 were 11 percent less likely to have exited, they would be 76 percent less likely if everyone in the village had a private toilet. Similarly, while household access to garbage disposal services or electricity in 2003 is not associated with changes in exit by the household, an increase in the share of households within the same village having access to electricity by 10 percentage points makes the household head 12 percent less likely to exit. With every 10 point increase in the proportion of households within the village who do not need to dispose their garbage in a public space or the river, the household head is 10 percent less likely to exit. dispose their garbage in public between 2003 and 2006 reduced exit rates by 7 percent.

VULNERABILITY

3.123 The foregoing analysis has highlighted the significant churning in and out of poverty in Kenya. Over the decade to 2007, overall rural income poverty fell, but more than half of households experienced poverty at some point. Shocks may be an important driver of households falling into poverty, or deeper into existing poverty. This emerged as an important theme in the PPA IV. Such shocks can arise from many sources, which are examined below, and can affect households' monetary wellbeing through loss of productivity and/or increased costs of living. Households hit by shocks may respond in ways that affect future wellbeing (e.g., if assets are sold or children taken out of school). In this section we examine the prevalence and profile of shocks, using the KIHBS, which is complemented by reporting on findings of more detailed analysis of the extent of insurance to shocks. However, we should underline that the data presented was collected prior to the crisis in early 2008, which itself created a major shock for many families. In Part IV, we review social protection interventions in the Kenyan context.

3.124 In the KIHBS, 85 percent of households had reported at least one major shock, of any type, over the preceding five years, of whom about half had experienced three shocks. The overall frequency of shocks is evidently higher for the lower deciles. More than nine out of ten households in the bottom decile experienced at least one shock (Figure 3-19).

Figure 3-19: Percentage of Households that Reported at Least One Shock, by Decile, 2005/6



3.125 The most common shocks over the period 2000-2005 were, in order of importance, food price inflation, droughts/floods, illness, and death in the family, followed by the death of livestock (Table 3-18). Examined by quintile, weather related shocks are by far the most frequent, followed by food price effects, then health. HIV shocks are reportedly few, and more often in the higher expenditure quintiles, although it is possible that these are included under deaths, which affect lower quintiles more.

Table 3-18: Types of Shock in the Past five Years, Percent of Households Reporting Any Shock

	Expenditure Quintile					
Type of shock	Poorest	2	3	4	Richest	All
Drought or Floods	41.2	29.9	23.7	18.4	11.4	24.9
Crop disease or pests	6.3	5.0	6.2	5.5	3.9	5.4
Livestock died / stolen	26.4	23.6	18.3	17.1	9.8	19.0
Business failure	5.5	7.2	7.5	8.3	10.0	7.7
Loss of job or salary	4.5	4.4	5.7	7.7	10.5	6.6
End of assistance or remittances	3.5	1.7	2.4	1.7	2.2	2.3
Large fall in crop selling price	5.7	8.6	8.5	7.6	4.5	7.0
Large rise in price of food	32.8	30.7	33.5	29.2	28.8	31.0
Agricultural input prices	8.3	11.6	12.2	11.5	7.4	10.2
Chronic/severe illness or accident	25.2	25.3	28.8	26.3	20.6	25.2
Birth	3.5	3.3	2.9	2.2	1.5	2.7
Death of household head	4.7	3.8	4.5	4.3	2.4	3.9
Death of working adult	2.5	1.6	2.3	2.0	1.5	1.9
Death of other family member	20.6	20.7	23.8	23.4	24.8	22.7
Break-up of the household	2.1	2.2	2.0	2.2	2.1	2.1
Carjacking/Robbery/burglary/assault	2.6	3.9	4.1	3.8	8.7	4.6
Jailed	2.5	1.8	3.1	1.8	2.0	2.2
Fire	1.6	2.7	1.4	2.5	0.9	1.8
Dwelling damaged, destroyed	2.3	2.5	2.4	1.6	0.6	1.9
HIV/AIDS	0.4	0.7	0.6	1.1	1.7	0.9
Severe water shortage	13.2	10.0	8.4	7.7	8.1	9.5
Other shocks	4.3	4.3	5.0	5.4	6.4	5.1

Source: Staff calculations based on KIHBS.

3.126 Are there provincial patterns in shocks? Crime is more of an issue in Nairobi and Western. Events that would be expected to negatively affect agriculture—droughts/floods and water shortages—especially affect households in Coast, Eastern, North-Eastern and Rif Valley, and in Coast and Western, crop disease also shows up. Nyanza was especially affected by high rates of chronic illness, whereas households in North-Eastern reported to be adversely affected by the withdrawal of regular assistance (including relief). Food price inflation was an important issue everywhere, with only Nairobi reporting rates below 23 percent (Table 3-19).

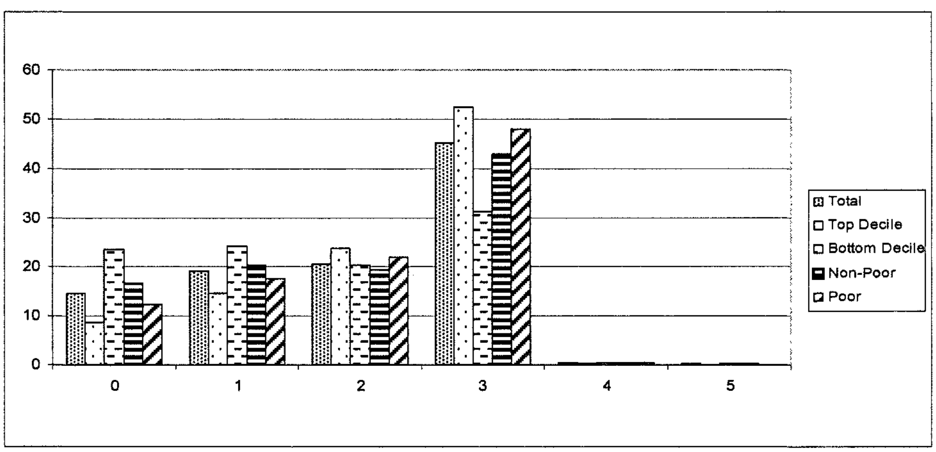
Table 3-19: Percentage of Overall Households (Unweighted) Severely Negatively affected by Specific Shocks, 2000-2005

	Nairobi	Central	Coast	Eastern	North Eastern	Nyanza	Rift Valley	Western
HIV / AIDS	1%	1%	0%	1%	0%	1%	1%	1%
Dwelling damaged	0%	1%	2%	1%	2%	2%	1%	3%
Fire	1%	1%	2%	1%	1%	3%	1%	3%
End of regular assistance	2%	2%	2%	2%	9%	4%	2%	2%
Crop disease/pests	1%	5%	7%	5%	2%	2%	5%	7%
Crime victim	10%	5%	4%	3%	0%	6%	4%	9%
Other	4%	4%	2%	7%	3%	6%	5%	5%
Job loss	13%	9%	6%	5%	1%	7%	4%	5%
Crop price fall	0%	8%	5%	4%	1%	1%	11%	5%
Ag input price rise	0%	12%	3%	4%	1%	4%	14%	10%
Business failure	6%	8%	5%	6%	3%	13%	7%	10%
Water shortage	4%	6%	16%	19%	15%	5%	10%	5%
Livestock died/stolen	1%	10%	14%	19%	45%	20%	24%	16%
Illness / accident	15%	21%	14%	21%	4%	38%	20%	30%
Drought/Floods	1%	13%	28%	42%	43%	14%	29%	12%
Food prices	13%	35%	46%	29%	39%	30%	35%	23%

Source: Staff calculations based on KIHBS.

3.127 To complement the foregoing, we show the frequency of severe shocks for the sample as well as rural-urban, poor-non poor and top versus bottom decile. This reveals some interesting patterns: first, that almost half of households experienced three shocks in the preceding five years; second that the frequency of shocks is much higher in rural areas; and third, the richest also experience a large number of shocks. About one fifth of the poor experienced three shocks—and less than 10 percent did not report any (Figure 3-20).

Figure 3-20: Number of Different Shocks in the Preceding Five Years, 2005/6



Source: Staff calculations based on KIHBS.

3.128 To simplify the analysis, we adopt a rough typology of shocks that are common in Kenya, namely:

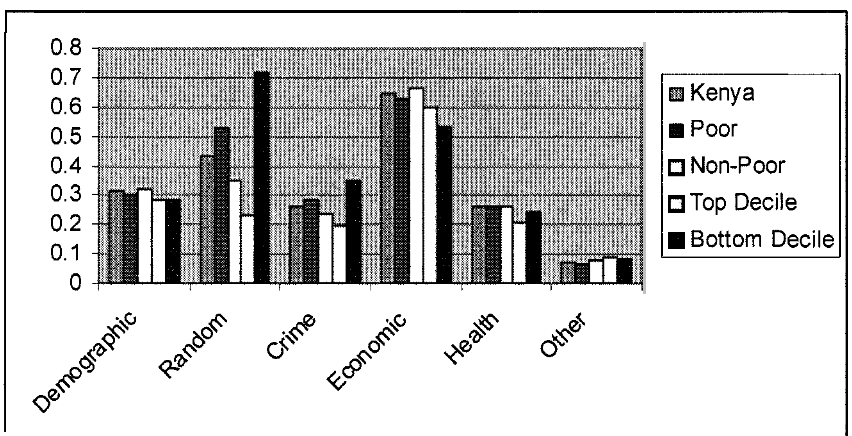
- *Economic – these are mainly related to job loss, or increased prices.*

- Random events, related to adverse weather, can cause crop failure and death of livestock among the direct effects. Eastern and North Eastern provinces are heavily affected by these shocks.
- *Health-related* risks, such as chronic disease, injuries and death of family member (due to e.g. TB, malaria or AIDS. Health shocks impact households through both decreased labour-supply and sometimes significant out of pocket medical expenses. The long-term effects of such shocks, as a result for example of reduced schooling for children in households where a caregiver is chronically sick, can be significant. Graff Zivin, et al. 2006 found decreased school attendance associated with aids morbidity, though mortality, as they receive ARVs.
- *Risks related to crime, violence and human security* was of growing concern to Kenyan communities and households even before the December elections. Statistics from 2006 showed that Kenya ranks among the most crime-prone countries in Africa, with this increasingly being a rural as well as an urban phenomenon. Crime and violence has not only a direct economic impact on poor households, but can also create psychological trauma.

3.129 The distinction between idiosyncratic and covariate shocks is important to note. An example of the former would be illness in the family, and examples of covariate shocks would be the post-election violence, an economic downturn and food inflation, as well as, typically, droughts and floods.

3.130 Looking at the share of households reporting shocks in the past five years, economic shocks are by far most common, followed by random or weather related events. This is true for the whole population, as well as for the poor, and the bottom decile (Figure 3-21).

Figure 3-21: Average Number of Shocks over the Past Five Fears, by Decile and Poverty Status,



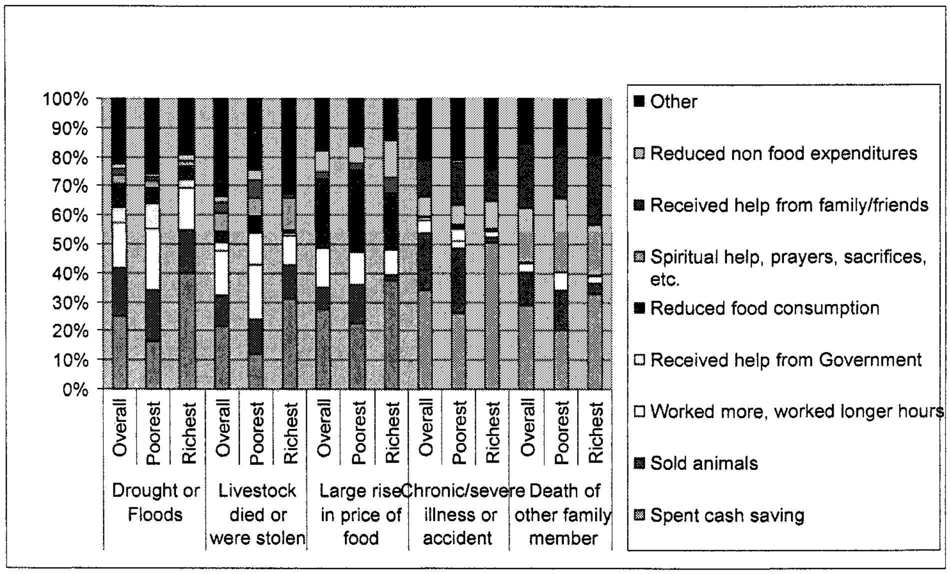
Source: Staff calculations based on KIHBS.

3.131 Finally, the first response to a shock is examined for the five most frequent shocks in the sample, namely food inflation, illness, droughts/floods, death in the family and livestock loss (Figure 3-22). The most common responses are similar and can be listed in order of importance as:

> * spend cash saving; *sell assets (animals); * work longer hours; * reduce food consumption; and * receive help from family and friends.

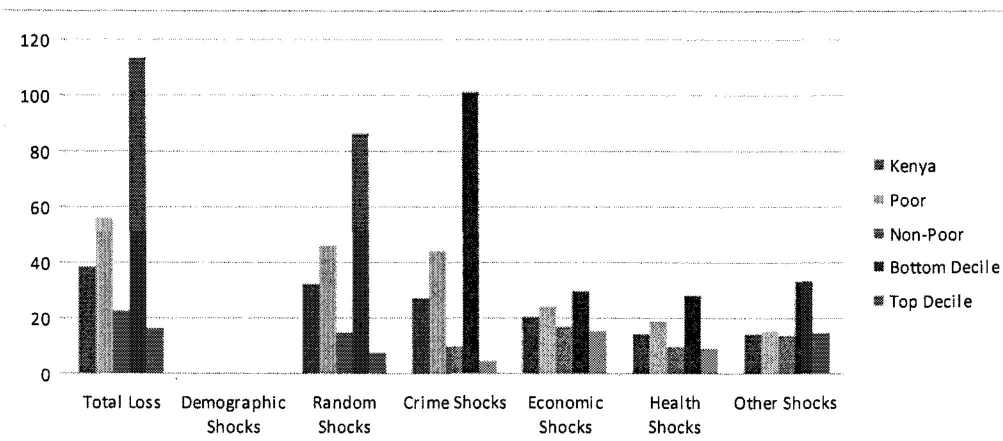
3.132 The relative importance of each mechanism varies by the type of shock—for example, family and friends help out most at the death of a family member and cash saving is used most if a household member has a chronic illness or an accident. Very few households borrow in the faces of shocks—about 3 percent reported accessing credit in the face of a shock. Government assistance was also very rare.

Figure 3-22: First Response to a Major Shock, Among Households Reporting a Shock (percent)



Source: Staff calculations based on KIHBS.

Figure 3-23: Reported Severity of Shocks, as Percentage of Monthly Poverty Line, 2005/6

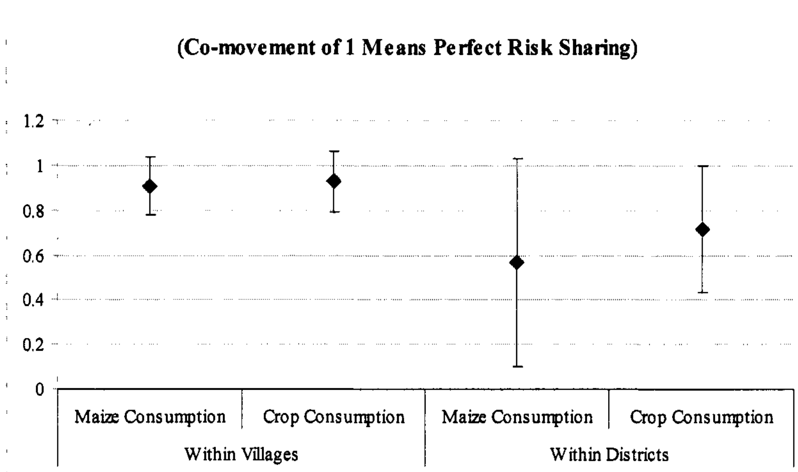


Source: Staff estimates based on KIHBS.

3.133 The foregoing results provide a sense of magnitudes, but are merely illustrative in that we are simply presenting cross-tabulations for a single point in time, using retrospective reporting. More detailed analysis has been undertaken by Suri (2008) for Kenyan rural households to investigate whether or not households are able to smooth their food consumption over time in the face of shocks. The government generally does not assist families affected by shocks. Does this matter or can households smooth consumption without public assistance?

3.134 There are many studies which have sought to measure the extent of risk-sharing in a developing economy, indeed the literature on this topic is vast (see Morduch, 1995) for an overview) —perfect risk sharing implies that all individual shocks can be smoothed, away, but aggregate shocks cannot. Suri (2008) finds, based on analysis of the Tegemeo panel and data on rainfall shocks for the period 1997 - 2004 that for maize consumption and crop consumption, there is close to perfect risk-sharing for idiosyncratic shocks. It also seems that households manage to smooth risk well within villages. Villages, on the other hand, are rather far from perfectly insured, even if there is evidence of some risk-sharing between villages. Figure 3-24 shows the extent to which individual households were able to smooth maize and food consumption over time in the face of shocks. The regressions used household consumption in logs and control for individual fixed effects, to focus on co-movement of changes in household consumption with changes in group (village or district) consumption. The figure shows the standard error bands, which indicate that the confidence intervals are much wider at the district level.

Figure 3-24: Extent of Consumption Smoothing, Within Villages and Across Villages within Districts, 1997-2004



Source: Suri, 2008.

3.135 Hence we finish up this section by underlining that shocks are a fact of life in Kenya, for many households. It is of course a concern that the poorest are affected so frequently by shocks. Several of the shocks that were highlighted can be addressed, at least to some extent, through economic management (re inflation), broader policies to encourage growth (and reduce the incidence of job loss) and improved governance and economic conditions more generally (to reduce crime and security problems). For weather related shocks, which are frequent, the evidence suggests that rural, non-pastoral households in Kenya are able to smooth food consumption extremely well; however, once these shocks become generalized—that is, beyond the village, to the district or province, smoothing does not take place through inter- household transfers or self insurance. This points to the role of publicly supported safety nets when shocks are large enough that they are aggregate to districts or provinces. We return to this theme in the next Part, under social protection.

CORRUPTION AS A DRIVER OF POVERTY[57]

3.136 There is a vocal consensus that combating corruption is one of Kenya's most critical governance and development challenges. International assessments continue to rank Kenya as one of the most corrupt countries in the world. Kenyans themselves put corruption an issue of foremost concern.

3.137 Much public discussion in Kenya about corruption makes unequivocal connections to poverty. Corruption is especially associated with inequality—in that upward social mobility and accumulation of wealth. While robust empirical evidence of these seemingly obvious links has been lacking, we do have results which are at least indicative, as described below.

3.138 The use of public office for private gain is the most widely accepted definition of corruption. This definition admits a broad range of abuse of power, ranging from bribery to embezzlement and fraud, to subversion of policy, legislation and institutions to serve private interests. Scholars and analysts have proposed different taxonomies of corruption. A popular taxonomy, which we use here, characterizes corruption by scale, as petty, bureaucratic, or grand. We focus here largely on petty corruption, which refers to relatively small but frequent bribes paid to obtain routine administrative and social services. The culprits are typically frontline officers, e.g. health workers, police officers on the one hand, and the general citizenry on the other.

3.139 Corruption undermines growth in two ways. First, it is inefficient. It absorbs resources, for instance, management time spent negotiating bribes. It slows down business, for instance transportation and cargo clearance. This puts firms in corrupt environments at a disadvantage, particularly with regard to competing in the global market. Second, it distorts resource allocation, by diverting scarce resources, including capital and human resources, from productive activities to "rent seeking." These tend to reduce productivity and investment.

3.140 Corruption can be regressive in several ways. Wasteful spending and cost escalations can crowd out pro-poor spending; and tax evasion reduces the resources available to finance public services that directly benefit the poor, and undermines progressive taxation. Bribing for services is one of the most ubiquitous forms of corruption. This premium hurts the poor more than the better off. A bribe of one hundred shillings to obtain a "police abstract" for instance, may be inconsequential to a

[57] This section draws on analysis prepared by David Ndii.

middle-income person, but mean foregoing a meal for the millions of Kenyans below the poverty line.

3.141 Cross country econometric studies consistently find statistically significant differences in investment and growth, inequality and poverty across countries (source). A 2—point difference on a corruption scale of 1 (high) to 10 (low) accounts for 4 percentage point difference in investment rates, which in turn translates to a half percentage point difference in growth of per capita incomes. The impact has been found to be even more significant on the incomes of the poor. An increase of one point, on a scale of 1 to 10 is associated with a 10 percent difference in the growth rate of the income of the bottom 20 percent of the population (source). The findings also suggest significant impact on or at least correlation with, inequality.

3.142 These differences are quite significant. Indeed the growth impacts imply that the difference between a score of 6, versus 2 where Kenya is ranked on Transparency International's CPI, effectively costs Kenya one percentage point of economic growth per year. A 3 percent per capita growth rate will take 24 years to double a per capita income of US$500, a growth rate of 4 percent per year cuts this to 18 years.

3.143 Kenya has suffered grand corruption on a large scale, the most infamous cases being the Goldenberg and Anglo-Leasing scandals. Apart from undermining public trust, these episodes have been costly. Most obvious is the opportunity cost in terms of public expenditure. These are compared to the Government outlays on education and health in the respective periods (Table 3-20). The cumulative losses identified in CAG audits is three times education outlays, ten times health outlays and just over twice the combined outlays over the period. The Goldenberg fraud alone cost the equivalent of 60 percent of the education outlays, and just over twice health outlays and about half the combined outlays. The potential loss from Anglo-Leasing amounts to 15 percent of the education outlays, just under half of the health outlays and about 12 percent of both, while the actual losses were equivalent to 5 percent, 12 percent, and 3.6 percent of education, health and the combined expenditures respectively, aggregated for the whole period. More generally, perceptions of political risk increased significantly as a result of these scandals, especially since the audit findings show that while Goldenberg was the largest, it was by no means the only major fraud going on at that time.

Table 3-20: Relative Financial Costs of Grand Corruption Episodes in Kenya

	KSh. billions	Cost as % of public spending		
		Education	Health	Both
Goldenberg (1991-93)	27	58	217	46
CAG (1991-97)	475	295	968	226
Anglo Leasing (1997-2004)	14.5	3.9	12.2	2.9
Total (1991-2004)	519.5	94	346	74

Note: The health and education expenditures are cumulative for the corresponding period in brackets.

3.144 Household surveys suggest that corruption at lower levels of government is pervasive in Kenya. According to TI-Kenya's annual survey, in 2006 Kenyans encountered bribery in one out of every two official transactions. They paid, on average, 2.5 bribes per person per year. Just over a third (36 percent) of the bribes were related to law enforcement issues, primarily to police and judicial officers, 29 percent were paid to obtain services, 24 percent in matters related to regulatory compliance (e.g. licenses). Business and employment related matters accounted for 7 percent and 3 percent of the bribes reported respectively. Another survey conducted by the Kenya Anti Corruption Commission, also in 2006, reports broadly similar findings. One third of the survey's respondents who sought public services paid a bribe.

3.145 The experience of bribery is fairly frequent across all socio-economic groups. Table 3-21 presents the percentage of respondents in the category reporting bribery experience (i.e., were asked for or offered a bribe) e.g., 53.7 percent of urban youths aged 18-24 who were interviewed encountered bribery during the year. A couple of stylized facts do emerge. First, the incidence is significantly higher among urban residents, because urban residents deal with officialdom more e.g. most rural people do not have electricity or water connections, hence they do not deal with utilities. Secondly, the incidence among low income groups is lower than average in rural areas, but significant higher than average in urban areas. This suggests that the urban poor are especially adversely vulnerable to bribery encounters.

Table 3-21: Annual Bribery Encounters, Share of Group, 2006 (percentage)

	Rural	Urban	National
Youth			
18-24	41.4	53.7	47.4
25-29	51.4	62.9	57.5
Type of Employment			
Unemployed	45.8	59.0	51.4
Self-employed	50.0	56.8	53.3
Family enterprise (farm & nonfarm)	53.2	67.9	60.6
Private sector (business)	59.2	54.1	55.8
Non-profit/community	62.5	52.6	57.1
Public Sector	55.6	53.7	54.5
Monthly Income (KSh)			
Less than 4,999	42.5	61.5	48.6
5,000-9,999	47.1	61.9	54.4
10,000-24,999	62.4	50.5	55.8
25,000-49,999	48.1	53.4	52.0
50,000 +	33.3	48.3	47.2
Total	48.4	58.0	53.0

Source: National Corruption Perception Survey 2006 by the Kenya Anti-Corruption Commission.

3.146 The 2006 National Corruption Perception Survey found that the poor spend a higher share of their income in bribes. Indeed there is an inverse linear relation between the burden of bribery, and level of income. Indeed the burden of bribes is comparable to the share of household spending on water, for example. On the other side, the burden is still notable, but not large, for upper income groups.

Table 3-22: Reported Annual Expenditures on Bribery, By Reported Income

Monthly Income	Expenditure on bribery p.a.	% of income (median)
1000 and below	1549	
1001 – 5000	1673	4.6
5001 – 10000	2731	3.0
10001-25000	3693	1.8
25001-50000	4015	0.9
50001-75000	5955	0.8
over 75000	8745	
All	3185	

Note: Missing because there is no median (i.e. denominator) in the open ended income categories i.e. below 1,000 and above 75,000.
Source: National Corruption Perception Survey 2006, Kenya Anti-Corruption Commission.

3.147 There is good news, however. Recent evidence shows that reforming agencies have made progress in reducing reported levels of corruption, and there are signs of reduced tolerance for corruption.

3.148 We now turn more directly to address the implications of the poverty and inequality diagnostic for policies and institutions in Kenya.

4. POLICIES AND INSTITUTIONS TO ADDRESS POVERTY AND INEQUALITY

4.1 It is impossible for this report to cover the full breadth and depth of the policy and program agenda implied by the poverty and inequality challenges facing Kenya. Instead we address only selected aspects—viz. fiscal policy, with an emphasis on allocations and distributive dimensions, governance, access to finance and land, youth, as well as monitoring and evaluation. We begin by highlighting key points on the rural development and related growth agenda, which are covered more fully in companion reports being published concurrently by the World Bank.

4.2 The Medium Term Plan (MTP) for the period 2008—2012 provides the government's medium term policy and program framework, within the context of Vision 2030. The stated priority is poverty and inequality—and the related themes of provincial variation, youth and gender—as laid out in the President's foreword and the Minister's statement. This is clearly very welcome. However the centrality of this goal is not carried through to the actual program, which treated poverty as a more marginal concern, limited to some aspects of the social pillar. It is expected that this assessment should help provide guidance as stakeholders proceed to review the plan more fully, and prioritize the actions therein.

GROWTH AGENDA—EXPANSION OF INCOME EARNING OPPORTUNITIES

4.3 Prolonged periods of slow growth and stagnation, compounded by periodic contractions in the economy, have limited the pace of poverty reduction in Kenya. Indeed, over the quarter century since the early 1980s, the decline in the headcount has been minimal, and the absolute number of poor in Kenya has risen.

4.4 The economic recovery since 2003 brought benefits in terms of poverty reduction. However because our baseline predates the recovery by several years, we do not yet know how the payoffs of macro level achievements have been distributed across households. We do know, however, that levels of inequality in Kenya were already high in 2003, when the economic recovery began, and there has been no abatement over the period 1997-2005/6 overall.

4.5 Using MAMS, a model developed at the World Bank for the analysis of MDG and development strategy options, we simulate Kenya's economy for a set of scenarios for the period 2007-2030 with a focus on an initial period, 2007-2012.[58] The purpose is to

[58] For more details see, Bourguignon, Diaz-Bonilla and Lofgren (2008). Additional simulation results are provided in Annex Tables.

explore impacts of alternative policies and exogenous conditions on growth, selected MDGs, and inequality. MAMS models the evolution of these key outcomes, based on exogenous changes and linkages based on labor and capital endowments. The numerical results should be viewed as approximate given uncertainty about parameters and, more broadly, the important roles of local context, and policy specifics that are not included. Nor do these simulations take into account the evolution of inequality over time, in access to assets and services, which can also be influenced by institutional choices and functioning (Box 4-1).

Box 4-1: Growth Essential for Poverty Reduction—Equity and Equality of Opportunity Essential for Sustained Growth

Global experience suggests the strong link between overall economic growth and the speed of poverty reduction. A recent World Bank study of 14 countries confirmed that the pace of overall economic growth is the *main* factor that determines how quickly poverty declines. The cases included Indonesia and Vietnam, Bangladesh and India, Tunisia and Brazil, as well as Uganda and Senegal. In these countries, successful sustained and rapid economic growth strategies proved to be successful poverty reduction strategies as well.

Yet equity, i.e., equality of outcomes such as income, health, and security, and equality of opportunity are essential ingredients of sustained growth strategies. The benefits of brisk growth generally are spread widely but not evenly. The rural poor do gain. But the experience of sustained growth in the modern era clearly suggests city-dwellers gain more—and to some extent this is inevitable. As people move across the rural-urban divide, measured inequality will tend to increase. People care about both kinds of equality, but they will tolerate unequal outcomes provided governments take steps to contain them. If one group is persistently and flagrantly excluded from the fruits of growth, country experiences show that they eventually find a way to derail it. Conversely, evidence from many countries suggests people will make great sacrifices for the sake of economic progress if they believe *their* children and grandchildren will enjoy a fair share of the rewards.

Recent investigations have underlined that various forms of inequality can matter. In particular, disparities across groups, also known as horizontal inequality, can become entrenched and self-perpetuating over time, especially in the absence of corrective public actions (Stewart 2002, 2008). These in turn have wider adverse repercussions not only for the inclusiveness of growth, but also for its sustainability. International experience, including the cases of Ireland, Sudan and Rwanda, suggest that high group inequality can increases the risk of conflict (Stewart 2008).

Hence, global experience suggests that governments must safeguard equality of opportunity and contain inequality of outcomes. Equality of opportunity has been shown to be best served by providing universal access to public services like health and education, and by meritocratic systems in government and the private sector. The latter goal may be served by redistribution through the tax system, and appropriate spending programs, including the funding of service provision and public sector investment. At the same time, the full impacts of measures to redistribute need to be considered, including potential adverse effects on incentives, investment and risk taking.

Source: Pro-Poor Growth in the 1990s. World Bank. 2005. The Growth Report: Strategies for Sustained Growth and Inclusive Development. Commission on Growth and Development. World Bank. 2008

4.6 In the MAMS analysis, for the *base* scenario, which serves as a benchmark for comparisons, we assume growth rates in real GDP at factor cost of 4.5 and 5.5 percent for 2008 and 2009, respectively, and a higher rate of 6 percent starting from 2010 extrapolating from the growth recovery which took place between 2003 and 2007. Except for the two years 2008 and 2009 under the *trend* scenario, GDP growth is endogenous for all non-base scenarios. The content of the scenarios is summarized in Table 4-1.

Table 4-1: Description of MAMS Simulations

Base	Base (business-as-usual)
	Same as base except for:
Trend	Trend growth of 6% also in 2008 and 2009
pet-lo	Decline in petroleum import prices 2009-2012
aid-inf	Infrastructure expansion financed by additional grant aid
tax-inf	Same infrastructure expansion as *aid-inf* but tax-financed
Combi	Combining: petro world price decline (same as *pet-lo*) and grant aid increase (same as *aid-inf*), with government efficiency gains, allocating all savings to infrastructure

4.7 Under the *base* scenario, most macro aggregates grow at 5-6 percent per year (Table 4-2) a rapid pace by historical standards, maintaining relatively constant GDP shares. In per capita terms, private consumption grows at a rate of 2.2 percent annually. The exchange rate appreciates slightly over time.

Table 4-2: Evolution of Selected Macro Indicators – Base Case, and Trend (In the Absence of Temporary Slowdown), 2007-2012

	Base	Trend -- no slowdown in 2008/9
Absorption	4.9	5.4
Consumption - private	4.9	5.4
Consumption - government	5.8	6.0
Investment - private	4.8	5.4
Investment - government	2.1	3.0
Exports	5.5	6.0
Imports	4.3	4.8
GDP at factor cost	5.6	6.1
Real exchange rate (index)	-0.6	-0.6

4.8 Reflecting the links modeled between incomes and access to services and outcomes, rapid growth in GDP means that MDGs 2 (completion of primary education), 4 (under-five mortality rate), 7a (water access) and 7b (sanitation access) as well as poverty and (Gini) inequality all improve (Table 4-3).[59] However under the base scenario, Kenya is not on track to achieve any of these MDGs by the 2015 deadline.

4.9 Looking more specifically at the government's own target under the Medium Term Plan – to reduce poverty to 28 percent by 2012 – we can see the following using simple modeling techniques from the MAMS. First, given the existing distribution (gini), the rate of economic growth would have to be much higher than present projected, about 12 percent annually through 2012. Second, if inequality continues to worsen, as had been

[59] In Table 4.3, we show results for two poverty lines, overall poverty and food poverty (see Part II). In the discussion, we focus on the overall poverty line. The two indicators tend to move in the same direction in the different scenarios.

the case over the 1997-2005/6 period overall, the rate of growth would have to be even higher. On the other hand, if levels of inequality were somewhat lower, say about .35, then the rate of growth needed to reach the poverty target in 2012 would also be somewhat lower. These estimates are very simplistic, but also illustrative of the rates of growth needed, and the role that inequality plays in the short term in determining poverty reduction outcomes.

4.10 The *trend* simulation assesses how Kenya's economy would have evolved in the absence of the recent crisis – in 2008 and 2009 the growth rates are raised from projected values of 4.5 and 5.5 percent, respectively, to the long-run rate of 6 percent. Annual GDP growth up to 2012 is 0.5 percent higher (for the period 2012-2030, the annual growth gain is minor, at 0.1 percentage points), and MDG indicators would also have been higher (Table 4-3).

Table 4-3: MDG, Poverty and Inequality Indicators, 1990, 2007, 2015 Target, and 2012

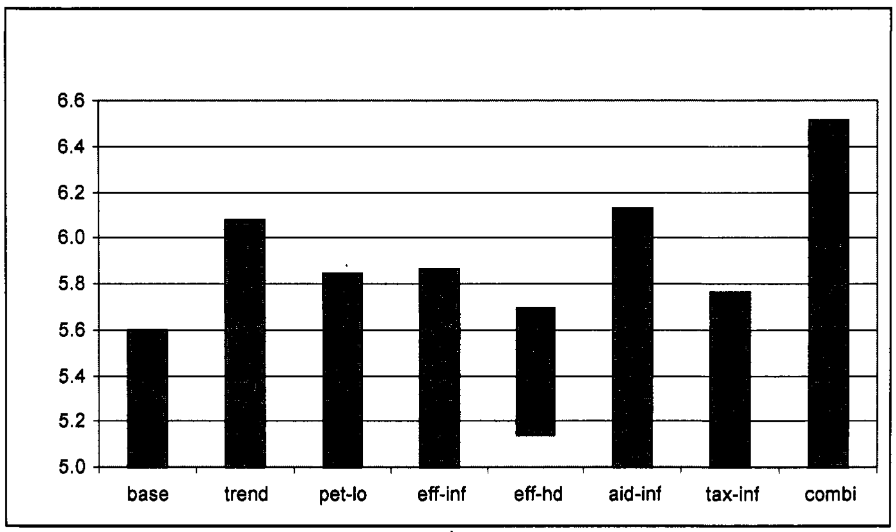
	1990	2015 Target	2007	*Base*	*Trend*: *no slowdown*	*Combi*
Primary Completion	25.0	100.0	69.7	75.4	75.6	78.2
Child Mortality	97.0	32.3	97.7	84.8	82.9	68.7
Improved Water	45.0	72.5	63.4	64.7	64.9	66.5
Sanitation	40.0	70.0	48.9	52.1	52.7	58.9
Poverty	44.8	22.4	46.5	37.7	36.6	35.2
Food poverty			19.4	14.9	14.3	13.8
Gini			0.452	0.431	0.430	0.432

4.11 What difference do recent oil price rises make to growth projections? In 2007, oil represented 7 percent of Kenya's total import bill; for all simulations, we impose a 50 percent increase in the real foreign-currency price of imported oil. In one simulation, *pet-lo*, we gradually reduce this price by 25 percent. This terms-of-trade gain adds a quarter of a percent to the GDP growth rate up to 2012. The impact is on domestic final demand (absorption is stronger)—it grows by an additional 0.75 percentage points as Kenya, for a given level of GDP, is able to import more and/or export less. The real exchange rate appreciates slightly.

4.12 How government spending is financed can affect incentives for individual economic actors as well as macro-economic variables. Additional spending could be financed by additional external assistance and/or increased domestic tax effort. MAMS allows investigation of these scenarios. In the simulation *aid-inf*, the government receives an increase in grant aid (0.9 percent of GDP in 2009 to 3.6 percent in 2012), using the resulting fiscal space for spending on infrastructure. Under *aid-inf*, GDP growth gains 0.5 percentage points and is accompanied by expansion, not only in government demand, but also in private consumption and private investment. The combined impact of these changes is a decline in the poverty rate by 0.2 percentage points by 2012 compared to *base*. Under *tax-inf*, the government finances the same increase in infrastructure spending with higher domestic taxes (direct and indirect). The GDP growth gain is weaker (0.2 percentage points) and accompanied by contraction of private consumption and private investment as the government raises additional revenues from its population. Accordingly, the poverty rate in 2012 is simulated to be 1.3 percentage points higher than for *base*. In sum, the financing simulations suggest that over reliance on domestic sources can weaken economic growth, due to associated contractions in private consumption and private investment.

4.13 The final simulation, *combi*, brings together a series of changes to see the impacts on growth. It combines a decline in petroleum world prices (same as for *pet-lo*), additional grant aid (same expansion in foreign currency as for *aid-inf*), with government efficiency gains (growth rate for "other government," part of which is assumed to be unproductive, is cut by 50 percent), using the resulting fiscal space to expand public spending on infrastructure. The results include an annual GDP growth gain of close to one percentage point accompanied by a two percentage point gain in domestic final demand growth, permitting private consumption and investment to grow. The estimated poverty rate in 2012 would be 1.1 percent lower relative to the *base* simulation. This simulation illustrates what Kenya can achieve in the medium run in the absence of major shocks, with strong domestic efforts to prioritize government spending, and greater support from donors. Figure 4.1 compares annual growth in GDP at factor cost 2007-2012 for the different scenarios. It indicates that the losses from the recent turmoil are significant in the medium run but that this can be offset by a combination of domestic actions, additional aid and favorable world conditions.

Figure 4-1: Annual Growth in GDP at Factor Cost Under Alternative Scenarios, 2007-2012 (percent)



Note: See Table 4-1 for definitions.

4.14 In the fiscal analysis below, we use the MAMS to present some broad results about alternative allocations of government spending.

Improving Rural Outcomes

4.15 Our analysis has underlined that agricultural performance is central to understanding trends in poverty and inequality in Kenya while highlighting that for many, diversification both on- and off-farm is key. On the positive side, export crops, domestic horticulture and livestock products have performed well over the past few years. And, as we saw, there is good news from Tegemeo's analysis of a representative panel of rural households over the decade to 2007. However, overall agricultural performance has been dragged down by slow productivity growth in maize, which accounts for the largest share of cropped area in the small farm sector.

4.16 Land constraints and decreasing farm size imply the need to develop and disseminate low-cost yield- and value-increasing technologies. Achieving productivity growth for staple crops like maize appears to be a straightforward proposition: enabling smallholders to access improved technologies and relevant advice. Most maize farmers are already using improved seeds and chemical fertilizers, because it is profitable for most to do so and these inputs are relatively easily available.

4.17 An upcoming Agricultural Development Review (World Bank 2008c) provides a more comprehensive agenda. Here we draw attention to the main obstacles to moving out of rural income poverty, namely the lack of useful advisory services and weak infrastructure. The cost structure is high in part due to high transport costs and port inefficiencies. Poor roads, particularly rural roads, raise input prices and marketing costs and thus create disincentives for farmers to behave more commercially and diversify. Useful advisory services are needed, to introduce new technologies and enterprises to help raise overall farm productivity through increased commercialization.

4.18 However, policymakers need to be thinking off farm as well. One finding which comes out strongly is the importance of on and off farm diversification as an escape route from poverty. Successful diversification also appears to be associated with infrastructure variables—in that households that are closer to a fertilizer seller, closer to a motorable road, closer to piped water are more likely to diversify—and access to credit.

4.19 There was significant agricultural liberalization in the early 1990s, though direct intervention by the Government has been maintained in some areas. It appears that where government policy has facilitated the market, as in the tea and dairy sectors, performance has been good. Among problem areas are the coffee sector, which continues to suffer from politicized small-holder marketing arrangements, and direct intervention in the pyrethrum.

Box 4-2: Improving Agricultural Productivity: Factors Affecting Adoption Practices of Maize Farmers

Any improvement in practices or technology has a distribution of returns, in that not every farmer benefits the same way. The reasons for such distributions are various, and can be anything that creates a differential return to hybrid over non-hybrid (like weather, soil fertility).Understanding these differences is important to inform policy and programs designed to encourage farmers to use these technologies. A recent study estimated the benefits to hybrid, relative to non-hybrid maize across the sample of Tegemeo farmers between 1997 and 2004 (Suri 2008). The objective was to understand why some people are not using hybrid seeds—whether this can be traced to constraints (like distances or costs), or irrational behavior on the part of the farmer. The study revealed that farmer-specific comparative advantages in the use of hybrid maize play an important role in explaining yields and adoption decisions.

Looking at the entire distribution of returns to the hybrid technology for these farmers, it was possible to sort farmers with low returns from those with high returns. The period under review is seven years, and the analysis showed that:

- There is a group of farmers where returns from hybrid maize would be very high, yet they do not adopt this improved method. For these farmers, it seems that the important constraints that prevent adoption are related to market access and infrastructure constraints, measured by the distance to the closest seed/fertilizer distributors. This group comprises about 20 percent of the sample.
- For a larger fraction of farmers—about 60 percent—the returns to hybrid maize are much smaller, but sufficiently large to provide incentives to these farmers to choose to adopt. This group can afford to use hybrid maize, even when the mean returns to hybrid are low, since it helps insure them against bad outcomes. For these farmers, since they seem to have the cash and location needed to access hybrids, they would benefit greatly from new and improved hybrid strains, even if they were costlier than currently available varieties.
- The other maize farmers, the remaining 20 percent, are termed marginal. They tend to switch in and out of use of hybrid maize from period to period, but obtain essentially the same yields under hybrids and non-hybrids. In this important sense their failure to adopt hybrids is rational.

This research suggests that policies and programs to promote agricultural productivity need to take into account the different types of farm level and individual constraints that face farmers. There is a group of maize farmers—an estimated 20 percent of the sample—who would significantly benefit from improved seeds, but need to overcome the distance from seed and fertilizer distributors which significantly increase the costs of seed/ fertilizer. Alleviating the constraints facing the first, potentially productive group, would greatly increase yields for these farmers – but policy makers need to bear in mind the relatively small share of farmers. In some cases, general measures may be effective, but for marginal groups, more tailored and targeted programs may be needed in order to enable productivity improvements. Indeed the results suggest that extension of existing hybrids to the marginal farmers would not be effective—because of the limited returns thereto. For this group, research and development is needed to identify better/appropriate technologies that would actually work for them.

4.20 At the same time, some trends in the 1990s were damaging to rural development. Public spending on infrastructure, including rural roads, fell to very low levels. The reversal in this pattern after 2003, which is explored in detail below, is thus very welcome. Cutbacks in government services like livestock disease prevention and control led to resurgence of problems that had previously been contained, and spending allocated to extension services went largely to central administration rather than to meet operational needs in the field.

4.21 The Agricultural Development Review argues for renewed focus on agricultural productivity, strengthening input and output markets, completing the shift in the role of public sector from direct intervention to market facilitation, and increasing public investments in agricultural development. It argues that Kenya's small-farm sector will otherwise face a very uncertain and untenable future. Among the cross-cutting policy recommendations to promote rural development are the following:

- *Improvement in rural infrastructure and market access.* Productivity diversification and market performance are significantly influenced by transport costs. Over time, the performance of major markets for agricultural products and inputs has improved significantly, but the transport costs from farm gate to primary and secondary markets remain high. Addressing inefficiencies and problems with Mombasa Port related services are also important (see also the ICA and growth reports).
- *Strengthening the performance of traditional marketing systems.* About 90 percent of food produced is consumed domestically, largely via internal and traditional marketing channels. Public investment priorities on this front include:
    - upgrading the urban wholesale and retail market facilities to reduce the costs and risks to farmers and traders and to leverage private investments;
    - rural roads, market infrastructure, and storage facilities; and
    - extension services, including to build the capacity for producer organizations.

4.22 While public expenditure on agricultural research, extension, irrigation, animal health and veterinary services, market information, grades and standards, capacity strengthening of extension staff, and so on, can support agricultural growth, a critical determinant of the effectiveness of these services is whether these are accountable to the farmers and dynamic and responsive to market conditions.

Progress on the Land Agenda

4.23 In Part III we concluded that there has been a rapid worsening in land inequality in most parts of the country over the past decade—at a rate of change that suggests that land inequality is rapidly becoming more serious in objective terms as well as in terms of political salience. The predominant forms of landholding in Kenya are private, communal and public lands, and parks and reserves. Official figures indicate that about 19 percent is private registered land, 65 percent is communal (so-called Trust) land, which is held by county councils on behalf of the communities. The rest is unalienated public land and parks and reserves.

4.24 In recent years there have been lively public debates around land. A number of civil society organizations—such as the Kenya Land Alliance—and individuals have been engaged in the policy and legislative discourse. There has been no shortage of major policy initiatives, including:

- Presidential Commission into the Land Law System of Kenya ("Njonjo" Report 2002).

- Constitution of Kenya Review Commission (Chapter on Land) Commitment for a National Land Policy Process.
- Presidential Commission into the Illegal/Irregular Allocation of Public Land ("Ndung'u" Report, 2004).
- Kenya Economic Recovery Strategy for Wealth and Employment Creation, 2003-2007, which commits to implementing the Njonjo Report.
- National Land Policy formulation process, which commenced in 2004, and provides for a multi-sectoral approach in policy implementation.
- Land Reform Support Program, which integrates land policy development with institutional reforms and preparation for implementation.

4.25 The conversion of land from communal to individual ownership and registration before and after national independence involved some of the land that is claimed by pastoralists. This has resulted in long standing conflicts, especially in Rift Valley, and is one of the areas being addressed by the ongoing National Land Policy process. One important avenue that has been discussed, but not adopted, is taxation of the large tracts of unused lands.

4.26 A long standing problem has been the access of women to land especially through inheritance. While the constitution provides for equal access, there is a clause which exempts devolution of property at death. As culture and traditions support male inheritance and as family laws are not sensitive to gender, access of women to land ownership has been adversely affected. The draft National Land Policy attempts to address this problem by taking measures to counteract discriminatory cultural and traditional practices. This would follow the footsteps of countries such as South Africa, Mozambique and Nigeria whose constitutions contain clauses that provide for gender equality with a clarification that the provisions supersede any existing legal provisions including in customary law (Deininger 2003, pp 59-60).

4.27 Several organizations—including Ministry of Lands and Housing as well as a myriad of other central and local government authorities involved in the administration of private lands—have been regarded as inefficient, corrupt and ineffective (Ministry of Lands and Housing, 2005, *Issues and Recommendations Report of the National Land Policy*). Authority for land allocation which is currently anchored in the presidency and delegated to the Commissioner of Lands is to be given to an independent National Land Commission and to district and community land boards. These organizations would be made responsible also for land administration and made more accountable to the people they are meant to serve. How this accountability would come about is a key issue requiring further attention. The Ministry of Lands, currently responsible for land administration, would be restructured and streamlined to focus on policy and regulatory issues.

4.28 Kenya now faces a major challenge of enabling a socio-economic environment nationally and locally, so that trust and mutual coexistence is the norm, and peace prevails. This is a minimum prerequisite to future growth and poverty reduction. Thus, the land sector assumes great importance and requires concrete progress in addressing real and perceived injustices. Clearly there has been much debate and policy effort around land issues in Kenya. Substantial analytical work and much of the land policy formulation process has been done. However, there is a need to update policy proposals to reflect recent events, especially displacement and prospective returns. The foregoing evidence about levels and trends in land inequality, and its relation to poverty, should help to inform upcoming policy development.

Mobility in the Labour Market

4.29 There are no major obstacles in the labour market to an acceleration of sustained growth and poverty reduction. Regulations are not a major obstacle to hiring and firing workers, and skills are not a binding constraint.

4.30 The main policy message to underline on the labour market side is that domestic migration and mobility are integral to growth and poverty reduction. There is an extensive tradition of labour mobility in Kenya, and adoption of this strategy on the part of households appears, from the evidence, to be an important correlate of households who are not poor. Likewise, those districts which are more ethnically diverse tend to have lower rates of poverty.

4.31 It is thus critical that the recent violence and the extensive displacement that occurred not be a harbinger for ongoing curtailment of voluntary labour movements around the country. A shutting down of mobility in response to job and other opportunities not only adversely affects individual households directly, by restricting their options, but would likely also have more general adverse effects on growth and economic activity.

Improvements in the Investment Climate

4.32 The poverty diagnostic has shown the importance of off-farm incomes diversification as an escape route from poverty. Broadly speaking, this occurs either through individuals engaging directly in often informal activities, or through being employed as wage labour. The prospects of being able to pursue either route depend very much on the environment and incentives for individuals and firms to enter and expand their activities.

4.33 It is far beyond the scope of the KPIA to review Kenya's investment climate in detail—which has been done in the 2008 ICA—although we do underline that factors which dissuade firms from making investments that generate new jobs also tend to push down wages, because investors need a higher rate of return to be willing to invest. The investment climate includes a broad range of factors, from poor infrastructure through having to pay bribes, and there is no magic bullet. In Kenya, the key factors have been documented through firm surveys which ask about perceptions as well as actual decisions in terms of investment, employment and so on (World Bank 2008b). High taxes, transaction costs—such as registering a business, and getting goods in and out of customs—and high investment risks, in unreliable infrastructure (roads, energy) and crime top the list of factors which not only affect profitability but also tend to encourage informality. Licensing obligations pose a burden in terms of time and money.

4.34 Looking at Kenya's scores on key indicators of doing business, and trends between 2003 and 2007 reveals both good news as well as areas of concern.[60] The top ranked constraints are tax rates and infrastructure (electricity and transport), both of which had become more binding in recent years. In contrast, telecommunications has eased as a constraint and today is among the least problematic. Crime and corruption improved their ratings, although still remaining among the most pressing problems. We showed above that corruption is especially damaging for the poor. The cost of finance was the second most important problem for manufacturing firms in 2003 but since then has improved. As noted above, lack of skilled labour entered low on the list at number 14, and labour regulations at number 16 (Table 4-4).

Table 4-4: Barriers to Business in Kenya— Manufacturing Firms Reporting Factor as Major or very Severe, 2007, Relative to 2003 (%)

Indicator	Rating	2007	Dynamics
Tax Rates	1	57	↑
Transportation	2	53	↑
Electricity	3	53	↑
Corruption	4	51	↓
Competitors from the Informal Sector	5	49	-
Crime, Theft and Disorder	6	47	↓
Tax Administration	7	43	-
Access to Finance (availability and cost)	8	36	↓
Customs and Trade Regulations	9	34	↑
Business Licensing and Permits	10	28	↑
Macroeconomic Instability	11	26	↓
Telecommunications	12	24	↓
Access to Land	13	17	↑
Labor Regulations	14	16	↑
Political Instability	15	16	↓
Inadequately Educated Workforce	16	9	↓

Source : ICA Survey. Note: means worsening.

4.35 Problems which are especially acute for the informal sector include crime and insecurity, poor access to credit, services and infrastructure. Various legal, regulatory barriers specifically affect the operations of the informal sector, and even if not generally enforced, may be abused by officials. The rapid growth in informal enterprises in Kenya underlines their importance in production and employment, especially but not only in urban centers. As noted above, the extent of informalization is in part a reflection of choices at the firm level to avoid the financial burden of registration and taxation plus the minimum capital requirements, which according to the ICA are the main reasons why firms do not choose formality. However, informality also has costs—in particular lower rates of access to finance. An important question for policy makers in Kenya, and elsewhere, is how to maximize the potential contributions of informal enterprises to broad based growth, and income earning opportunities. Alongside continued progress to improve the business climate, there is a role for proactive programs to reach out to disadvantaged groups, including youth and women.

[60] The 2003 sample oversampled larger firms, so trends should be interpreted with care.

Access to Financial Services

4.36 Access to financial services, or at least to credit, has emerged as a robust variable at the household level linked to escape from poverty. At the same time, among the poor, access was largely limited to the near poor—that is, those close to the poverty line—and that significant numbers of Kenyans suffer financial exclusion.

4.37 The ERS and the MTP (2008-2012) recognize the critical importance of a sound financial system, and laid out three broad objectives for financial sector policy: greater stability, improved efficiency, and better access for more Kenyan households and businesses. In recent years, the Government has moved away from direct control and interventions in the financial sector in favor of a more "market-based" approach. This has resulted already in a very rapid growth of total productive sector credit and has stimulated a range of new innovative approaches to the delivery of financial services (citation). Here we briefly review the policy context and the scope for public action to improve access.[61]

4.38 Given the findings from the foregoing poverty analysis, it is tempting for policy makers to intervene in credit markets. However, the documented failures of DFIs in Kenya, alongside the manifest dynamism of private and local level activity in the sector, should warn against such a conclusion. The key challenge is to promote rural access to the financial sector in ways which are sustainable, in a context of significant growth in competition in the lower-income part of the financial market.

4.39 Among promising ongoing developments are:

- Growth of group-based financial services, supported by training efforts extended by NGOs and others.
- Mobile telephone-based technology, that is extending rapidly, and which at last count had about 1.6 million users.[62] These provide a means of electronic payment which utilizes existing infrastructure which already reaches most Kenyans, including those in rural areas (Box 4-3).
- Doubling of the number of ATMs in the past two years to more than 700. Although the costs of opening and maintaining a bank account—a prerequisite for accessing ATM networks—are prohibitive for most people, the price of ATM transactions has also recently been falling.
- The Government is bidding out work to supply social protection payments to people in a number of ASAL districts.[63] If the mechanisms established to reach program recipients are also accessible to others, this will contribute to market development.

[61] The full agenda of financial sector reform is covered in the World Bank 2008a and the Financial Sector Deepening Trust Strategy Paper (2008-2010) (FSD Kenya, December 2007).

[62] Mobile phone-based services and bank account based services are distinguished, based on whether a bank account is required to use the service. The former include the unbanked to whom it provides a means of access.

[63] For example, transfers to orphans and vulnerable children using mobile telephone or other technology are currently being explored by the DFID/CGAP challenge fund.

Box 4-3: Expanding Financial Access via Mobile Phones: M-PESA

In 2007 Safaricom Kenya launched the M-PESA mobile money transfer service which instant and at relatively low cost, using an account which accepts payments via a network of agents. The service is designed to respond to the basic financial services needs of Kenyans making remittances, for example and the widespread availability of mobile phones. Many people inside and outside Kenya are watching the progress made by services like M-PESA with great interest.

Given the already high usage of similar services such as airtime transfer, the three million Kenyans who are unbanked current cell phone users could in principle become mobile phone banking customers in the short term. This new distribution channel alone would increase the level of formal financial inclusion in Kenya from 19 percent to almost 33 percent of adult Kenyans, and further still, as the percentage of people using cell phones continues to rise, this potential number will rise higher still.

However the commercial realities will slow the impact of mobile banking on financial access. While M-PESA is firmly positioned as a payment service, it has limits as a savings mechanism. There is expected to be a tie in with the banking industry by the end of 2008, but the charging mechanism is set to be similar to the current money transfer tariff, which is relatively expensive. There could be a bigger breakthrough from the expansion of agency based banking driven by the banks through, for example, low income people in being able to access accounts through POS terminals in retail outlets. There are several new POS networks presently under development and experts are expecting some impacts in the next year or so.

4.40 In working out how to respond to the challenge of expanding access to credit, it is important to underline that the performance of the five DFIs—namely the Agricultural Finance Corporation (AFC), IDB Capital (formerly the Industrial Development Bank), the Industrial and Commercial Development Corporation (ICDC); Kenya Industrial Estates (KIE) and the Kenya Tourist Development Corporation (KTDC)—that were established in the 1950s-70s has been very disappointing.[64] A recent assessment of the DFI's situation by the Treasury analyzed both the main causes of poor performance and also the consequences of the deteriorated financial condition. This noted, among other things, the problems created by weak management and poor political and management decision-making for extended periods especially in the 1990s.

4.41 In the light of experience, it seems important, rather than rushing ahead to set up new funds in Kenya, to assess the principles and standards that govern the work of successful DFIs in Africa. These in turn could guide the re-specification of the regulatory arrangements for Kenyan DFIs. A guiding principle would be that these should not exist merely to channel scarce budget funds. They would also be designed to have the financial credibility and management competences to attract additional non-budget funds to enhance their delivery against clearly defined mandates, all of which would need to have strong public policy justifications. The Government has been considering the adoption of a comprehensive strategy that is designed to build strong and credible institutions that will quickly be able to stand on their own feet and to attract significant private and donor funding in support of the development mandates that the various DFIs have been or will be assigned.

[64] *See Financial and legal sector technical assistance project, component 1 – Financial and Legal Sector Strategy Development, Development Finance Institutions (DFIS). A strategy paper for the reform of Kenya's DFIS*, by an advisory team from the Kenya Treasury, April, 2007; and Kenya's Development Finance Institutions, a Diagnostic Review and Recommendations for Restructuring, June, 2004.

MEASURES AIMED AT DISADVANTAGED GROUPS

Women

4.42 High measured female unemployment is a striking feature of Kenya's labor market, especially young women. Women represent half of Kenya's workforce, but have tended to predominate both among the low paid and the unemployed. Because women experience relatively greater difficulties in securing productive employment, appropriately targeted active programs could be considered. Women have lower levels of educational attainment and lower access to capital and assets than men, one major concrete obstacle which is more intractable, their domestic work burden. Policy and programmatic interventions should be designed with these concerns in mind.

4.43 We saw above that women have less access to credit, and access smaller amounts. Targeting women, as some micro-finance institutions (MFIs) have done internationally, can combat gender. The Kenya Women's Finance Trust provides microfinance specifically to women. Evidence on female microfinance borrowers in Bangladesh, where MFIs are well established, indicates significant poverty reduction impacts, as well as better human development outcomes for their children (Littlefield, Morduch, and Hashemi, 2003). Specific efforts to eradicate gender discrimination in lending could be useful since. For example, for banks often "require the permission of husbands in order to grant credit to wives" (SCGA p. 42).

4.44 A Ministry of Gender and Children Affairs and the Gender Commission have been established, but the impacts are not yet evident. Increasing efforts to reach women in areas where they appear to be under-served could help reduce gender inequality. There have been some significant strides thanks to civil society. There has been a burgeoning of women's associations at the community level in recent years, and there is now a vibrant segment of civil society focusing on gender issues. Although the local organization and voice has not yet filtered upward to the regional or national level, this is a strength on which to build. Organizations like the Federation of Women Lawyers, for example, conducts legal advocacy work for women.

4.45 Reproductive health is an important issue in its own right. It is also critical vis a vis reducing demographic pressures on families which, as we have seen, contribute significantly to the risk of being poor. The family planning program, established within the Ministry of Health in 1967, contributed considerably to the decline in the high fertility rates from an estimated 8.1 in 1977/78 to 4.7 in 1998, although it is not clear that there has been improvement since then. Contraceptive Prevalence Rate (CPR) for all methods and modern methods were estimated in 2003 at 39 percent and 32 percent, respectively, and is not on a clear upward trend.

4.46 The 2004 KSPA survey data indicate that only 73 percent of all health facilities are offering temporary methods of family planning services. Analysis of the trend data on unmet need for family planning among currently married women in Kenya has remained high, at about 24 percent since 1998. Among the key issues to be addressed at the policy and program levels are addressing regional and socio-economic disparities in

Contraceptive prevalence, including through private sector and community provision and supporting demand and broadening the method choice. The low level of integration of FP with HIV/AIDS services could also be addressed.

Youth

4.47 The recent crisis has prompted the government to renew its commitment to addressing youth issues, considering the potential impact that would accrue from engaging them in immediate employment schemes. MOYS has prepared a "Marshal Plan for Youth Employment and Development, March 2008," aimed at the creation of immediate and medium-term employment opportunities for youth. The Plan proposes six immediate measures, out of which four aim to engage youth in labor-intensive public works programs with the objective of creating close to 370,000 jobs in 2008 alone. Other immediate measures aim at peace building and reconciliation.

4.48 One of the main government interventions directly targeting youth in Kenya has been the Youth Enterprise Development Fund (YEDF), which aims at increasing young entrepreneurs' access to loans, and facilitating supply chains linkages. The YEDF itself does not directly target the most vulnerable youth. A Youth Empowerment Program (YEP) is also under preparation. The government, together with partners, is currently redesigning the program in light of the recent post-election crisis. The program will focus on small-scaled public works schemes, with the dual objective of creating immediate employment for disadvantaged unemployed youth and rebuilding essential physical assets in targeted urban and peri-urban slums, and include a skills development component. The program will be piloted in selected areas, to generate evidence that can guide future scale-up of the program.

4.49 International experience suggests that the success of these programs depends on several factors:

- Relying on self targeting, through setting the wage rate low—international experience suggests that the rate should be set below the prevailing market rate for unskilled workers. A low wage would ensure that only the unemployed would participate, thus achieving better targeting by the program. However, especially for youth, this rate would be very low;
- Eligibility to participate in the program may be restricted to a specific age group, and be tailored to encourage women to participate in the program;
- The labor intensity (share of wage bill in total cost) should be maximized, although this is determined by the type of works produced and the labor-based technology used; and
- Institutional capacity is crucial for the design, and efficient implementation of these programs.

4.50 The above factors need to be analyzed and applied to Kenya, and lessons should be drawn from existing public works programs, such as "Roads 2000" and "Trees for Jobs." Public works are a temporary measure that could help alleviate the crisis. In order to effectively consider longer term structural issues, existing skills development and microfinance initiatives aimed at unemployed youth should be reviewed. As noted above, firms in Kenya have rated workers' skills as a much lower constraint to their growth compared to corruption, cost of finance, tax and regulation. While new market entrants are increasingly well educated, the incidence of unemployment among educated youth is high. Further data and analysis—quantitative and qualitative—is needed to inform appropriate policy and programmatic responses.

4.51 Easing the school to work transition is an important policy objective. Strengthening linkages between education and work can increase the relevance of training opportunities and improve employability. For example, helping master craftspeople to improve their own skills and increasing their access to new technologies could result in better opportunities for apprentices. The existing voucher program in Kenya illustrates such an approach; however, one review concluded that the private sector would be better suited to implementing this kind of program than the government (Godfrey 2003).

4.52 Youth have very limited access to financial services. However, liquidity does not seem to be an issue for Microfinance Institutions (MFIs) who are rather constrained by the lack of business support services targeted at start-up businesses. Therefore, more analysis is needed to determine the most constraining factors to facilitate the entry of unemployed youth into the labor market, whether formal or informal, including self employment through a combination of relevant entrepreneurial training, business sensitization, mentoring and credit. These options offer significant medium to long-term solutions to youth unemployment provided the policy, regulatory and institutional constraints to their proper functioning are well identified and addressed and the appropriate remedies carried out.

Slum Residents

4.53 Analysis of informal settlements in Nairobi found that poverty incidence in the slums was high in late 2006, with around 63 percent of slum residents falling below the poverty line. At the same time, there is heterogeneity within and across slums—in Korogocho, for example, the difference in the poverty rate between the poorest and wealthiest village is 31 percentage points.

4.54 Slum residents score poorly on non-income measures of poverty as well—unemployment levels are high (26 percent), only a minority have secondary level education or more (24 percent), and living conditions are appalling with only 3 percent of households living in housing with a permanent wall, access to piped water, and an electricity connection.

4.55 Strikingly, living conditions in Nairobi's slums are far worse than those in the slums of many other African cities. Slum residents in Dakar, for instance, enjoy better living standards compared to those in Nairobi, even though they are poorer and worse educated than their Kenyan counterparts (Box 4-4). A closer look at different aspects of living conditions—quality of housing units, infrastructure, tenure, and the neighborhood—reveals that Dakar outperforms Nairobi in each dimension. Specifically, housing units in Nairobi are smaller, more crowded, and constructed with worse building materials.

Further, as we saw in Part II, access to various kinds of infrastructure is very low in Nairobi—by contrast, 84 percent of Dakar's slum residents have a piped water connection, 82 percent have electricity, and 73 percent have their garbage picked up.

4.56 What are appropriate policy options in this context? Clearly enabling access to better income earning opportunities is a priority, including consideration of public works types programs, targeted at specific groups, like youth (see above). At the same time, it appears that amenities in the slums warrant attention. But why are living conditions so bad? Recent research points to the lack of home ownership and a high turnover rate—almost 92 percent of Nairobi's slum residents are tenants and the average resident stays in a home for about five years. By comparison, in Dakar, only a quarter are tenants and the turnover rate is low, with residents having stayed in the same home for an average of 19 years. The high tenancy rate in Nairobi, within a complex political economy, has created a situation in which none of the three stakeholders—the tenants, the absentee "shack owners," and the government as landowner—have invested to improve quality of living conditions.

4.57 The diagnostic suggests that innovative approaches are needed in Nairobi. For instance, the widely-used approach of upgrading infrastructure in the slums, without dealing with the tenure issue, is arguably unlikely to work. Improvements in infrastructure may raise rents and benefit the "shack owners," but displace many of the current tenants.

4.58 In 2004, the government launched a program to improve slums—the Kenya Slum Upgrading Program (KENSUP). The objective is to provide physical, social, economic, organizational and environmental improvements as a means of enhancing amenities in the slums. The intention is to construct 150,000 housing units yearly, of which about 60,000 will target slum dwellers, with the rest redressing inadequate urban and rural housing. However, KENSUP's plan to build new housing units for slum residents is already facing difficulties. The multi-storey walk-up apartment buildings with three-room units that are being constructed are relatively expensive and will reach very few of the current slum residents.

4.59 The slum situation calls for an approach that combines infrastructure investment with efforts to alter the tenure mix, for instance, by converting a significant proportion of slums tenants into owner-occupiers that have a greater incentive to invest in their housing and their neighborhood. There are various ways in which this result can be achieved but there will often require a tri-partite negotiation between the government (the official landowner in most cases), the "shack owners" and the tenants as a starting point.

Box 4-4: A Tale of Two Slums: Nairobi and Dakar

A study comparing the slums of Nairobi and Dakar suggests that incomes, education and jobs are not sufficient to ensure good living conditions. Slum residents in Dakar enjoy better amenities than those in Nairobi, even though they are poorer and worse educated. Conceptualizing quality of living conditions as a composite of four *interacting* factors—the unit, infrastructure, tenure, and the neighborhood's condition and location—and graphing it as a Living Conditions Diamond, allows Gulyani and Talukdar (2008) shows that on each of the four dimensions, living conditions in Nairobi's slums are worse than those in Dakar.

As described in Part II and World Bank (2007), infrastructure access in Nairobi is appalling and dramatically lower than in Dakar. For instance, in Nairobi only 22 percent have access to electricity and 19 percent have access to piped water in the form of an in-house connection or a yard tap. By contrast, 84 percent of Dakar's slum residents have a piped water connection and 82 percent have electricity.

Further, housing units in Nairobi are smaller, more crowded, and constructed with worse building materials. The explanation lies in understanding tenure. Although land tenure is largely "informal" in both cities, the tenure mix—proportion of renters versus owners—and turnover rate differ significantly in the two cities.

Source: Gulyani and Talukdar (2008); Gulyani, Talukdar and Jack (2008).

Social Protection

4.60 The Ministry of Gender and Children Affairs (MGCA) is responsible for development of a National Social Protection Strategy (NSPS). The latest draft (November, 2007) defines social protection as a response to drivers of poverty and vulnerability. In Part III, we investigated the frequency and severity of shocks, such as rise in food prices, drought, floods, illnesses, injuries, employment losses, crop failures and thefts. In the long term, the strategy aims to facilitate the development of a comprehensive social protection system, with those identified as poor and vulnerable to poverty being the priority. In the short and medium term, the objective of the strategy is to meet the immediate needs of the poorest and most vulnerable. Furthermore, given limited financial and human resources, the initial social protection interventions should begin where the need is greatest.

4.61 While there are major immediate needs associated with the recent post-election violence, these have been documented well elsewhere (Damage Assessment etc.), we focus here on the long term elements of the strategy, and focuses in particular on the largest programs—viz those aimed at supporting pastoralists and Orphans and Vulnerable Children, and combating malnutrition, as well pensions for civil servants which, while not targeted at the poor, represent the largest social protection program in practice, and consume a considerable part of the budget.

Existing Programs

4.62 Kenya's social protection policies and programs are generally underdeveloped—in that fewer than one in ten individuals in the workforce is covered by retirement schemes, for example. More generally on the labour market side, there is an extensive network of retraining programs, but these are typically low standard and poorly coordinated. Public works are very limited in scope. The KIHBS shows that the most common responses in the face of major shocks can be listed in order of importance as:

spend cash saving, sell assets (animals), work longer hours, reduce food consumption and receive help from family and friends. Government assistance is rarely mentioned.

4.63 In recent years, with external support, the Government has embarked on various programs that aim to help offset the risks faced by vulnerable groups in the population, and the impacts of shocks, and as noted above, is developing a comprehensive strategy. These fall into two broad categories:

- In response to the risk of drought; development programs in the north and in pastoral areas, the national drought contingency fund and a pilot cash transfer program for the chronically food insecure in the arid and semi-arid regions (Hunger Safety Net Program). About 2 million Kenyans (6 percent of the population) permanently rely on food relief, with higher numbers in drought years (e.g., 3.5 million in 2006).
- New policy instruments to directly tackle poverty and vulnerability, in particular a cash transfer program for Orphans and Vulnerable Children (OVC).

4.64 Here we examine the main initiatives: pastoralists, OVCs, programs to combat malnutrition, and transfers to retired civil servants.

Pastoralists

4.65 Part II confirmed the well-known point that pastoralists are the most disadvantaged group in Kenya in terms of levels of consumption and access to basic services. The Arid Lands Resource Management Project (ALRMP), which is supported by various donors, includes a Drought Management component. An early warning system covers 28 districts and 3.5 million people in the ASAL areas and monthly household surveys inform the government where there is stress, such as food shortages and animal diseases. Another component is Community Driven Development, covering 11 districts, which supports income generating activities for vulnerable and marginal groups identified by the community, such as widows and orphans. There is a 30 percent matching element from the communities.

4.66 The ALRMP has been operating for over a decade and has reportedly reduced child malnutrition, lowered food aid requirements and increased access to water, school and health facilities. The program has put in place governance and accountability structures at community level, which have empowered communities to manage their own development process, and to access other resources such as the CDF and food for work programs. Because of limited opportunities for investment in these dry remote areas, promoting income generating activities has been a challenge. Increased investment in infrastructure can encourage diversification and income generating activities.

4.67 While the ALRMP covers 520 communities through 2,000 micro projects, reaching over one million beneficiaries, the extent and level of deprivation in ASALs is still huge, as evidenced in the foregoing analysis on North Eastern province. It should also be noted that there have been critiques of the relief food program, pointing to lack of flexibility and problems with community based targeting (errors of both inclusion and exclusion), and weak accountability and mechanisms for redress for those having complaints (Kenya Human Rights Commission, 2006, Occasional Paper, 2006).

Orphans and Vulnerable Children (OVCs)

4.68 Families missing one or more parents are more likely to be poor. Among the national efforts to fight HIV/AIDS is a food and nutrition program, supported by the WFP, which includes efforts to increase enrollment and school attendance of OVCs. Sub-districts are selected based on HIV prevalence and poverty levels, and beneficiaries are selected based on the nutritional status of the patients and socio-economic and demographic criteria. In 2009 the program will target 66,000 beneficiaries.[65] An evaluation in 2005 suggested overall improvements in nutrition among program participants and in the degree of recovery for those on ART. The program effectively targeted the most food insecure and HIV/AIDS infected households, although Improvements in beneficiary targeting were suggested. The study also showed evidence that the program funds were thinly spread. Exit from food support was difficult, especially for women headed or elderly headed households, with a high number of orphans.[66]

4.69 A cash transfer program for OVCs, implemented by the Ministry of Gender and Children Affairs (MGCA), started in 2004 in 3 districts. The second phase of the program was launched in 2006, and is currently reaching over 20,000 households in 37 districts. By 2012, the program is envisaged to reach 100,000 households or 12.5 percent of the estimated 2.4 million OVC countrywide. An ongoing operational and impact evaluation of this program suggests some success in targeting poor households, but room for improvement in identifying the poorest households.[67]

Combating Malnutrition

4.70 It was underlined in Part II that Kenya has shown little, if any, improvement over the last 20 years in terms of meeting MDGs with respect to combating malnutrition. While a National Food and Nutrition Policy was prepared, it has not been approved in parliament, nor is there any agreement on the implementation mechanisms. Budgets for the related programs have not been identified. Box 4-5 describes some lessons from UNICEF experience.

4.71 The recent increases in food prices have exemplified the social, economic and political salience of this issue. Based on analysis of the KIHBS, the poor in 2005/6 devoted about 70 percent of their expenditure to food; for the bottom quintile, the share was even higher 77 percent. Estimates of food poverty—Kenyans with insufficient

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[65] World Food Program, *Draft Country Program* – Kenya, May, 2008.

[66] World Food Program, *Reducing the Burden on HIV/AIDS: Experience of a Food Aid Intervention in Western Kenya*, March, 2005.

[67] Oxford Policy Management, *Kenya OVC-CT program - Operational and Impact Evaluation - Baseline Survey Report*, Alex Hurrell and Patrick Ward, draft report, February 2008.

consumption to cover basic food costs—were already around one fifth of the population in 2005/06.

Box 4-5: Key Elements of Nutrition Interventions

UNICEF has noted that the following nutrition interventions have proven to be cost effective, feasible and to prevent malnutrition before it happens:

1. Promote child survival and development through the support of exclusive breastfeeding for the first six months of life, adequate and timely complementary feeding of young children and increased feeding during and after illnesses.
2. Prevention of micronutrient deficiencies through vitamin A supplements for children and lactating women using a range of contact points to maximize coverage; iron-folate supplements for pregnant women; universal consumption of adequately iodated salt; and production and consumption of micronutrient rich foods including, where appropriate, fortified foods.
3. Increased dietary diversity through consideration of nutrition in food and agriculture programs; and incorporation of nutrition in school curricula.

These actions need to be supported by a functional nutrition information system, a strong nutrition communication strategy and broader strategies to increase food and livelihood security. Clearly strong commitment of decision makers at national, provincial, district and community levels is needed. An effective coordination and monitoring body for nutrition also appears to be a promising route.

Source: UNICEF, Nairobi, Kenya 2008.

4.72 There are a series of programs already in existence that are designed, and succeed, to varying extents, to meet nutrition needs. To summarise briefly:

- *School Feeding Program,* in food-insecure areas is a GoK program supported by the World Food Program (WFP). Selected schools are in unplanned urban settlements of Nairobi and the most food-insecure sub-districts in ASALs with the lowest enrolment and completion rates and high gender disparities. In 2008 this program supported 1.2 million children, but due to increased international costs, has been cut and in 2009, the program will cover 750,000 beneficiaries, and is projected to shrink further. An evaluation in 2007 suggests that school feeding contributed to increased enrolment, attendance and completion rates from 2004 to 2007. Targeting is a challenge as is capacity in logistics, and data collection, analysis and reporting.[68]
- *Emergency Food-Aid programs:* reaches around 1.8 million people in ASAL areas and 250,000 refugees annually. A recent evaluation suggests that this support allowed households to stay in their communities and retain assets, rather than sell assets, such as cattle, to meet their basic consumption needs.
- *Hunger Safety Net program (HSNP):* is a pilot program being implemented by the GoK with support from DfID which aims to provide a regular, predictable and guaranteed amount of cash to chronically food insecure households in the ASALs. Four districts have been selected for the pilot phase—Turkana,

[68] World Food Program, *Draft Country Program* – Kenya, May, 2008.

Mandera, Marsabit and Wajir—with cash transfers to 300,000 people, to learn how to develop the most effective targeting and payment mechanisms. It will test a range of community-based and categorical targeting approaches.

Pensions

4.73 The Civil Servants Pension Scheme (CSPS) is a defined-benefit scheme covering approximately 393,000 members including civil servants, military personnel, police and prison staff, members of parliament, employees of the judicial system and teachers. This formula results in pensions which average about 75 percent of basic wages at retirement. The National Social Security Fund (NSSF) is a mandatory provident fund for employees of private sector companies, parastatals and other quasi-government authorities. The combination of low contribution levels (maximum contribution of KSh 400 per month, which is less than 2 percent of the average formal sector wage earnings), high operating expenses, and poor returns on its investments has resulted in low lump-sum benefits provided at retirement.

4.74 Earlier analysis found that the NSSF suffers from weak governance, the pensions provided are too small to provide long-term security and are effectively insolvent due to decades of poor investment performance.[69] Despite the large number—1,342—of schemes, the actual coverage of the Kenyan population is very low, at only 8.2 percent of the labour force, and limited to those with formal employment. Reform options should be considered in the context of assessing pensions policy as a whole and the need to develop a long term strategy. As the system is presently designed, state-sponsored pensions are both expensive (as a share of the budget), regressive (in terms of the distribution of benefits) and yet fails to provide meaningful income security for its members. Much work has already been done to address these, but major decisions have not yet been taken. In Kenya, one of the most notable expenditure trends since 2000 has been that pension payments to public servants has almost doubled as a share of GDP, to 1.1 percent in 2006/07. Far more domestic resources are being spent on retired civil servants than on transfers to vulnerable groups. The largest of the other programs described above is emergency food aid which is largely externally financed, and which is, by its very nature, limited to offsetting the worst repercussions of food shortfalls. In this context, further development of the social protection strategy, informed by the findings about poverty and vulnerability in this assessment, would be welcome.

4.75 To sum up, it seems that the evolution of Kenya's social protection system has a significant distance to go, in order to reach its stated objectives. Very few of those hit by shocks received government assistance, and the total coverage is extremely limited at present—the only groups which are directly reached are those with HIV and OVCs and people living in the arid lands. There are pilots and plans with respect to youth (see above). None of these programs presently reach more than a fraction of those in need. Priorities for moving ahead, given budget and institutional constraints, and in light of empirical poverty analysis, warrant further attention.

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[69] World Bank 2006 *Kenya: An Assessment of Pension Reform Directions.*

THE BUDGET AS AN INSTRUMENT FOR PROMOTING POVERTY REDUCTION AND ADDRESSING INEQUALITY

4.76 The government budget is a major policy tool to reduce poverty and improve equity. This section examines how this instrument has been used in Kenya since 1999/2000 in light of pervasive inequality and spatial dimensions to poverty. We review aggregate performance and trends in public spending and then provide a more detailed analysis of the distribution of spending. Weaknesses in fiscal management are a considerable problem, as we show below. The latter part of the chapter examines the spatial aspects and spending allocations by province, in key sectors (education, health and water), and high profile programs, in particular the CDF. The analysis faces major constraints, including the fragmentation of the budget and lack of reporting at a consolidated general government level, lack of reporting in an internationally recognized method (such as the IMF's Government Finance Statistics Manual), and lack of reporting using a standard functional classification.

4.77 Kenya's fiscal management in the 1990s was characterized by the dominance of recurrent expenditures, widespread tax exemptions favoring political elites, divergence of actual spending from the budget approved by parliament, and reliance on domestic financing. Short term domestic debt stock grew rapidly and short term interest rates were high, resulting in increasing interest payments. As economic growth slowed the macro-fiscal position became increasingly unsustainable and threatened the ability of the government to meet its recurrent obligations.

4.78 In 2002, the government embarked upon an Economic Recovery Strategy (ERS), which was also the first national poverty reduction strategy. The major economic policy objectives included improved accountability in the use of public resources, and restructuring and refocusing public spending toward priority activities including agriculture and rural development, infrastructure, and health and education. Deepening of the Medium Term Expenditure Framework (MTEF) process, Public Expenditure Management (PEM) reforms, and utilizing an annual Public Expenditure Review (PER) were expected to inform and improve the resource allocation process. There was an increased awareness of the need for increased development expenditure to address the country's increasingly run-down capital assets.

4.79 There has been significant success on the macro-economic front overall – but much less progress in meeting the government's stated allocative objectives. Table 4-5 shows the evolution of public finances over the period 1999/2000 – 2006/7, including reductions in the stock of domestic debt to GDP and in the ratio of short term treasury bills to longer term treasury bonds and the increased grant element of external financing. While the primary budget surplus fluctuated over time, over the entire period it fell from 3.3 to only 0.7 percent of GDP in 2006/07. There was a strong revenue effort, and in real terms, total revenue rose at an annual average of 6 percent due to economic growth and higher corporate profitability as well as measures such as the tax amnesty scheme and improved tax administration.

Table 4-5 Central Government Fiscal Outcomes, Percent of GDP, 1999/2000-2006/07

	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005 20/06	2006/ 2007
Revenues	19.9	21.9	19.9	20.8	22.3	22.3	21.5	21.4
Expenditures	19.5	23.5	22.3	24.5	22.7	22.2	24.8	23.1
Recurrent	16.8	20.1	19.9	20.5	19.8	18.9	20.4	18.7
Development	2.6	3.4	2.4	4.0	2.9	3.3	4.4	4.4
Overall balance	0.1	-1.0	-2.6	-3.0	-0.3	0.1	-2.4	-1.6
Primary balance	3.3	2.2	0.3	0.3	2.2	2.4	0.3	0.7
Financing	0.0	0.5	2.6	3.0	0.0	-0.5	2.3	2.0
Domestic	1.3	0.1	3.9	4.3	0.7	-0.5	1.8	3.0
External	-1.5	0.8	-1.1	-1.0	-0.7	0.0	0.0	-0.2
Stock of domestic debt, net	17.6	16.6	19.7	23.0	21.3	18.4	18.1	18.4

Source: IMF.

4.80 Public spending grew more rapidly than the economy. Central government expenditure and net lending as a share of GDP increased from 19.5 percent of GDP in 1999/2000 to almost 25 percent in 2005/06. In real terms, sectoral expenditure increased by an average of 8 percent annually.

4.81 Development spending grew more slowly, but rose at a rapid rate from 1999/2000, albeit from a very low base. The domestic effort in financing public investment has increased significantly, in both absolute terms, and relative to donors. In 1999/2000, 80 percent of development spending was externally financed. By 2006/7, domestic sources financed two-thirds, so that the government spent 3 percent of GDP on development, compared to external development financing of about 1.4 percent of GDP.

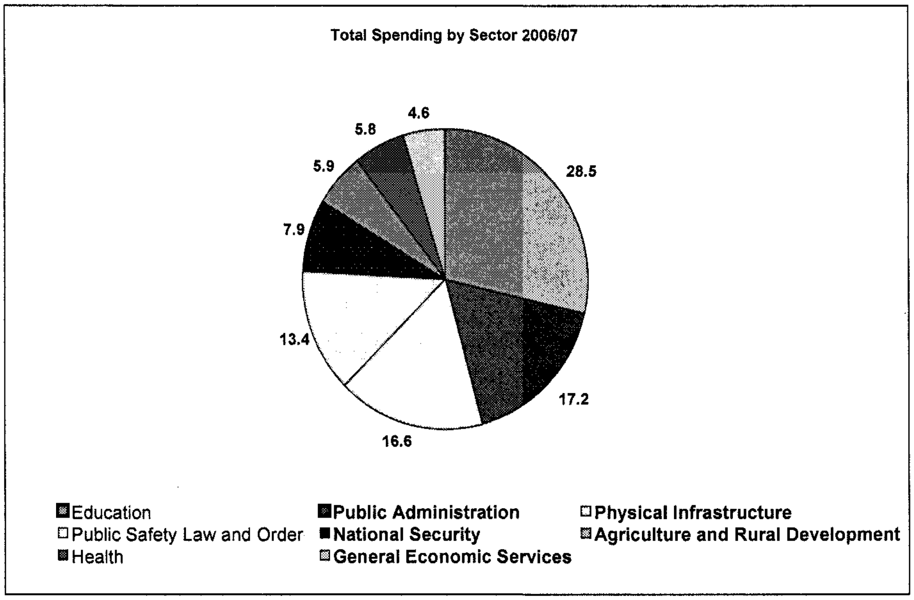
4.82 The main highlights for recurrent expenditure trends, which also include staffing costs for social services, between 1999 and 2007 are as follows:

- *Wages and salaries* constituted the largest share of total expenditure, but declined from 36 percent of total spending in 1999/2000 to about 30 percent in 2006/07, as a result of a hiring freeze and salary restraint. At the same time, in real terms, the personnel bill increased by an annual average of 5 percent, and has maintained its share of GDP (around 7 percent).
- Expenditure on *pensions* for public servants almost doubled as a share of GDP, to 1.1 percent in 2006/07.
- *Interest payments* fell as a share of total expenditure, as a result of both debt restructuring and debt stock reduction.
- Expenditure on *defense including national security* intelligence increased by 9 percent in real terms.
- The share of *operations and maintenance* expenditure in GDP rose by half, to 4.5 percent, which begins to redress the pattern of under-spending in the 1980s and 1990s.

Improving Expenditure Composition

4.83 The fiscal accounts suggest that in practice, progress towards a more growth-oriented and pro-poor budget has been limited. First, we provide a snapshot for the most recent year available (2006/7), then look at trends. In 2006/07, the largest share goes to education, followed by public administration and infrastructure (Figure 4-2).

Figure 4-2: Composition of Sectoral Spending, 2006/07



Source: Ministry of Finance, Quarterly Budget and Economic Review, various issues

4.84 Table 4-6 summarizes real trends in sectoral expenditure, normalized to 1999/00. The patterns are striking—real spending on infrastructure more than tripled, and on agriculture doubled—yet more than quadrupled on public administration. Environment, health, education and public safety experienced increases far below the average doubling.

Table 4-6: Real Trends in Sectoral Expenditure 1999/2000=100

	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2004/ 2005	2005/ 2006	2006/ 2007
Agriculture and Rural Dev	100.0	158.2	150.7	124.7	101.6	151.5	180.5
Agriculture	100.0	175.0	147.1	137.5	100.4	156.7	209.8
Environment	100.0	136.6	156.0	77.8	78.2	81.7	103.9
Lands and Settlement	100.0	117.0	156.4	202.0	140.1	265.9	159.6
Physical Infrastructure	100.0	156.6	133.2	104.5	211.9	251.3	316.9
Local Government	100.0	153.1	139.2	129.8	111.8	211.9	235.7
Roads, Public Works and Housing	100.0	102.1	106.3	68.0	146.4	169.0	220.4
Transport and Communications	100.0	173.8	176.5	153.1	239.7	246.3	370.4
Energy	100.0	742.6	345.8	129.0	646.0	731.7	708.6
Health	100.0	118.6	137.7	147.3	156.7	178.7	158.6
Education	100.0	101.1	109.8	125.6	139.9	150.2	162.5
Public Safety Law and Order	100.0	139.1	137.9	134.3	168.9	193.1	177.4
Public Administration	100.0	201.9	156.2	204.1	303.4	288.8	400.9
Grand Total	100.0	131.1	131.3	137.8	170.0	188.0	211.4

4.85 Overall spending on ERS priority sectors—defined as agriculture and rural development, infrastructure, and health and education—increased at the same rate as total public expenditure, and thus since 2002/03 has remained a steady share at 57.5 percent to 2006/07. Over time, we see the following trends (Table 4-8):

- Infrastructure increased from 11 to 17 percent of spending, indeed doubling from the 2002/03. Actual spending could have been higher had the absorptive capacity constraints been better resolved. For example, in 2006/07 only 62 percent of the recurrent budget and 73 percent of development budget were actually spent.
  - Public spending on roads, which had declined to only 3.6 percent of spending by 2002/03 recovered to 7.5 percent by the end of the period.
  - Spending on water resources management and development rose from less than 0.1 percent before 2002/03 to 2.7 percent in 2006/07.
  - The share of energy production rose from 0.6 to 2.2 percent of total public spending between 2002/03 and 2006/07.

- The share of public administration spending almost doubled from 9.1 percent to 17.2 percent of spending. This line includes funds for special programs and funds for AIDS programs, which are under Office of the President, although these amounts are not significant as such. Even after netting out CDF funds, spending tripled in real terms. Part of this spending arises because costs, like those associated with privatization and restructuring of public bodies, and tax refunds, show under the MOF vote. The rest of public administration netting out Ministry of Finance spending is 26 percent of PA expenditure and spending under this category has tripled since 2003

- The share of spending on education fell from 37.1 to 28.5 percent. Also falling has been the share of spending in the health and agriculture sectors. One possible explanation for priority sectors not maintaining their shares could be lack of absorptive capacity (see below on budget execution rates). It also could partly reflect the fact that the sector is labour intensive and that public sector wages have been constrained. For health, development partners support is largely spent off-budget and not through government systems.

Table 4-7: Functional Composition of Central Government Spending, Percent of GDP, 1999/00-2006/7

	1999/ 2000	2000/ 2001	2001/ 2002	2002 /2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007
ARD	0.9	1.4	1.3	1.1	..	0.8	1.1	1.2
Infrastructure	1.5	2.3	1.9	1.4	..	2.7	3.0	3.3
Health	1.0	1.2	1.4	1.4	..	1.4	1.5	1.2
Education	5.0	4.9	5.2	5.8	..	5.9	6.0	5.7
Public Safety Law and Order	2.1	2.9	2.8	2.7	..	3.1	3.3	2.7
Public Administration	1.2	2.4	1.8	2.3	..	3.1	2.8	3.5
Economic Services	0.3	0.3	0.5	0.5	..	0.5	0.5	0.9
National Security	1.4	1.7	1.9	1.9	..	1.8	2.0	1.6
Sectoral Total	13.4	17.2	16.8	17.2	..	19.4	20.2	20.0

Note: Table shows central government spending only.

Table 4-8: Sectoral Expenditures as Percentage of Total Budget, 1999/2000 -2006/07

	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2004/ 2005	2005/ 2006	2006/ 2007
Education, Science & Technology	37.1	28.6	31.1	33.8	30.6	29.7	28.5
Public Administration	9.1	14.0	10.8	13.5	16.2	14.0	17.2
Physical Infrastructure	11.1	13.2	11.2	8.4	13.8	14.8	16.6
Local Government	2.3	2.6	2.4	2.1	1.5	2.6	2.5
Roads, Housing and Public Works	7.2	5.6	5.8	3.6	6.2	6.5	7.5
Transport and Communications	0.9	1.3	1.3	1.0	1.3	1.2	1.7
Water Resources & Management	0.0	0.0	0.0	1.0	2.3	2.0	2.7
Energy	0.7	3.7	1.7	0.6	2.5	2.6	2.2
Public Safety Law and Order	15.9	16.9	16.7	15.5	15.8	16.4	13.4
Health	7.8	7.0	8.1	8.3	7.1	7.4	5.8
Agriculture and Rural dev	6.9	8.3	7.9	6.2	4.1	5.5	5.9
Gender, Sports, & Social Services	0.0	0.0	0.0	0.4	0.6	0.6	0.7
Other sectors	11.5	11.9	14.2	13.8	11.7	12.1	11.9
Sectoral Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Memorandum items							
ERS Priority Sector	62.8	57.2	58.3	57.2	56.3	57.9	57.5
"Total" as % of GDP	13.4	17.2	16.8	17.2	19.4	20.2	20.0
CDF Allocation					2.1	2.3	2.7
Local Authority Transfer Fund					4.0	5.0	5.2

Source: Ministry of Finance: Quarterly Budget and Economic Reviews, various issue.

Notes: Agriculture includes Livestock and Fisheries, and Cooperatives. Other sectors include Ministries of Labor and Human resources, Tourism and Information, Trade and Industry, Defense and National Security Intelligence services. Actual expenditures by local authorities, except 2006/07, which is estimated. Total excludes bank restructuring costs, net lending and interest payments and extra-budgetary funds.

Scenarios and Options: MAMS

4.86 The allocation of domestic government spending across different functions is under the control of the government. In particular, the government can choose to spend more or less of a given budget on productive purposes which are likely to promote growth and reduce poverty, versus unproductive purposes, like some administrative costs. Indeed this has been an explicit policy objective of the Kenyan government since at least 2003, with the adoption of the Economic Recovery Strategy.

4.87 Using MAMS, we can examine the potential payoffs of alternative budget allocations. A series of plausible scenarios are examined—which do not involve absolute cuts in spending, but affect the rates of growth over time. In two simulations, which we label *eff-inf* and *eff-hd*, the annual *growth rates* for "other government" (which includes defense and general administration) is halved, from around 8 percent under *base* to 4 percent. This saving can be used for alternate purposes: under *eff-inf*, the resulting fiscal space is used to expand spending on infrastructure, whereas under *eff-hd*, the savings are allocated to finance basic services (all levels of education, health, and water and sanitation).

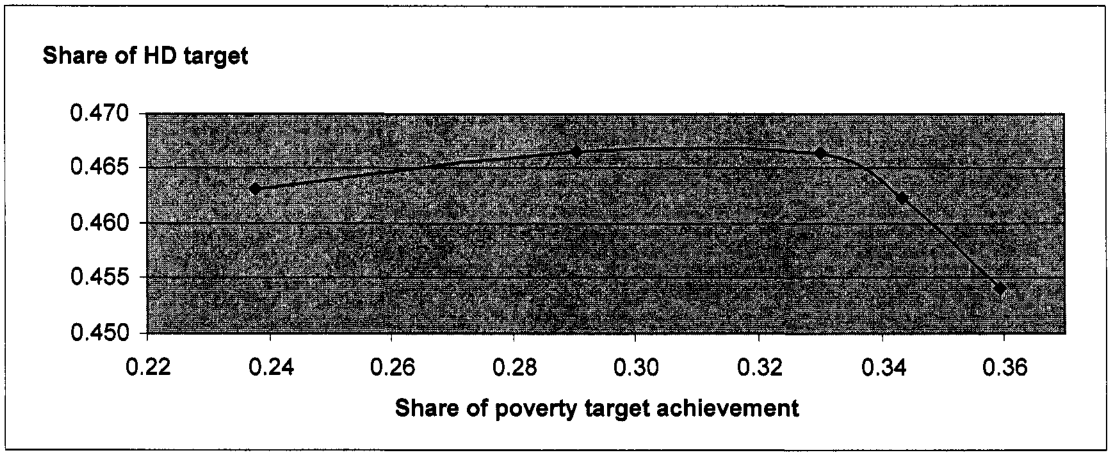
- Under *eff-inf*, annual growth in GDP, private consumption and investment all accelerate by 0.3 percentage points. MDGs 2, 4, 7a, and 7b all improve. By 2012, the poverty rate is 1 percentage point lower than under the base case.

- For *eff-hd*, the acceleration of growth in GDP, private consumption and investment are weaker (by 0.1-0.2 percentage points). Government consumption grows more rapidly while investment growth slows down. The improvements are stronger for MDGs 2 and 4 and weaker for MDGs 7a, and 7b.

4.88 Figure 4-3 shows an evolution of indices for poverty reduction and other human development outcomes through 2012 for a set of simulations that reallocate spending between infrastructure and HD with *eff-inf* and *eff-hd* as the two extreme cases. The index for poverty reduction shows how much of the MDG 2015 target of halving poverty is achieved, while the index for HD is based on the achievements with respect to a weighted average of the 2015 targets for the education, health and environmental MDGs.[70] In both figures, the right-most point has the highest spending on infrastructure and the lowest on HD. As one moves toward the left of the graph, spending is switched from infrastructure toward social services.

[70] The weights used are one-third for MDGs 2 and 4 (the rates of net, on-time primary completion and under-five mortality) and one sixth each for MDGs 7a and 7b (rates of water and sanitation access).

Figure 4-3: Possible Trade-offs between Spending on Growth on Infrastructure and Social Services, on MDG targets for Human Development and Poverty, 2012



4.89 In 2012, under either of these modest budget reallocation scenarios, the economy remains far from achieving the 2015 MDG targets for either poverty or human development. If the timeframe is extended through 2030, the MDG targets are more than fully achieved, and to a larger extent for poverty reduction. The general picture of the trade-offs are similar. Reduced spending on infrastructure and more spending on human development tends to slow progress in reducing consumption poverty. This arises via the growth effect, which is modeled so that the impacts of infrastructure on growth are larger than the impacts of human development on growth. In the model, the marginal returns from additional spending on human development decline over time due to diminishing marginal returns from, and increasing marginal costs of, government services combined with increasing marginal losses from less spending on infrastructure.

4.90 These results are illustrative but not, of course, by any means conclusive. These do suggest that the complex processes generating MDG outcomes involve roles for public spending both on social services and on infrastructure. The latter both facilitates service access and by raising incomes, enhancing the ability of households to get access to and contribute to the financing of services.

4.91 We now turn to look at specific mechanisms that have been developed over the past few years to try to improve the pro-poor focus of the budget, namely the Constituency Development Fund and Local Authority Transfer Fund, and the concept of Core Poverty Programs.

Decentralized Spending

4.92 Parts II and III investigated the significant regional variation in economic and poverty performance. A key question which arises is whether public investment worsens or alleviates such disparities. Historical evidence suggests very unequal distributions up through 2003 at least (Kiringai 2007). This section attempts to update the picture. The distribution and impacts of these transfers are of central interest to the KPIA. However it is extremely difficult to obtain comprehensive data from budgetary and extra budgetary sources to arrive at the total allocation to local administrative units, constituencies, districts and local authorities, aggregated to the provincial level. Nor do we have systematic information on leakages of funds, which tracking exercises suggest have been significant.

4.93 Within Kenya's unitary system of government, an array of funds are used to support decentralized spending include the Local Authority Transfer Fund (LATF), the constituency Development Fund (CDF), the Free Primary Education Fund (FPE), the Secondary School Education Bursary Fund (SEBF), the Rural Electrification Program Levy Fund (REPLF), and the Road Maintenance Levy Fund (RMLF) (readers unfamiliar with the system should refer to Box 4-6). It is not easy to determine how pro-poor are the allocations of the different funds nor the collective outcome of all the funds. The data available is partial, across programs and years.

Box 4-6: Mechanisms to Support Local Spending

The Constituency Development Fund (CDF) Act as amended earmarks 3.5 percent of ordinary revenue to constituencies for purposes of development and in particular the fight against poverty at the constituency level. The CDF was initially shared equally among all constituencies, then the formula was revised in 2005/6 to increase the share of poorer constituencies: 75 percent of the fund allocated equally and the balance is allocated based on the constituency's contribution to poverty. The allocation to constituency Y is defined as:

$$CDF_Y = \left(\frac{0.75 * CDF}{210}\right) + (0.25 * CDF) * wcp$$

where *WCP* is the constituency's contribution to poverty.

The Local Authority Transfer Fund (LATF) was established in 1999, earmarking 5 percent of national income taxes, to improve service delivery of the 175 local authorities. This source accounts for about one-quarter of total local authority revenue. The formula shares 3 percent of the LATF equally, 60 percent is based on population and 37 is percent based on urban population density. The LATF allocation for local authority X can be expressed as:

$$LATF_X = \left(\frac{0.03 * LATF}{175}\right) + \left(\frac{n_x}{N} * 0.6 * LATF\right) + \left(\frac{un_x}{UN} * 0.37 * LATF\right)$$

where N is the national population, n_x and un_x represent total and urban population of local authority X *respectively*, and UN is the total urban population.

The Road Maintenance Levy Fund (RMLF) was established in 1993 and earmarks fuel levy and transit toll receipts. In terms of allocations: 60 percent goes to international and national trunk and primary roads; 24 percent to secondary and 16 percent to rural roads.

The most significant local expenditure is under the district allocation budget, (DAB). For ministries with district offices, all the district allocations are aggregated in one budget head. Once the budget is tabled and approved by Parliament, ministries publish a DAB, splitting the allocation to across districts, by line items of expenditure. The DAB guides the exchequer releases to the districts. The bulk is disbursed through the District Authority to Incur Expenditure, A.I.E, which is based on the DAB for each ministry. To get the total district allocation, we aggregate the district AIEs from all the ministries. One basic problem is that it is difficult to derive the DABs by district/province, and also that there are no clear guidelines for allocation or enforcement. Furthermore, when the budget is revised through Supplementary Estimates, DABs are not revised and it is not clear how, for instance, expenditure cuts are implemented at the DAB level.

However, the picture is even less transparent in that there are significant expenditures incurred at the regional levels that are not disbursed through the A.I.E. The most significant are: teacher wages and secondary school bursary funds, and wages and drugs for health facilities.

4.94 Further analysis is needed to examine the pattern of decentralized spending against Kenya's growth and distributional objectives. In light of these results, consideration could be given to possible revisions of the allocation formulas and the scope for increasing the share of development budget in local spending. Of major underlying importance is the need to improve the comprehensiveness and transparency of the relevant fiscal data, so as to enable analysis and informed debate.

Core Poverty Programs

4.95 In 2002, Kenya introduced the concept of 'core poverty programs' (CPPs) to protect activities which disproportionately benefit the poor. These were initially selected based on a set of criteria agreed upon by both sector ministries and the Ministry of Finance, and development partners, which were revised in 2003/04 to become more comprehensive and take into account new programs identified in the ERS, and a commitment to allocate not less than 5 percent of the budget to CPPs. The new criteria aimed to cover programs that would increase incomes of the poor, improve their quality of life, security, and equality. CPP's development spending in 2006/07 amounted to 7 percent of total budget,[71] of which about one-third of recurrent spending was on education, largely free primary. The road sector was the second largest CPP, followed by health.

4.96 Part of the rationale for the CPPs was that these programs should get priority in budget allocations, be protected against any mid-year cuts, and receive full and timely disbursements. However, these objectives have not been met. The average disbursement rate for CPP was only 67 percent, compared to 86.5 percent for the budget overall (see below). The monitoring format for the CPP was improved in 2007, but implementation is still not fully effective, and getting timely and complete reports from line ministries is a problem.

Table 4-9: Core Poverty Programs, 2002/03 - 2006/07, percent

	2002/03	2003/04	2004/05	2005/06	2006/07
Utilization Rates:					
Recurrent	89.2	86.7	77.7	88.7	83.0
Development	54.3	47.8	46.9	52.2	61.7
Total	69.5	64.5	61.7	70.5	70.7
CPP Share of Overall Budget					
Recurrent CPP:	4.7	6.6	7.7	8.6	9.7
Development CPP:	32.1	34.1	28.6	24.3	25.1
As Share of Total Budget:	7.5	10.0	10.9	11.3	14.0

Source: Ministry of Finance.

4.97 Among the other problems evident in the CPP is the failure of the budget outlook paper as well as many Ministerial PERs to specify the criteria used for selection. As a result, the concept of CPP may have been subject to abuse. For example, the entire Kenya Agricultural Research Institute budget (KSh. 2 billion) is ring-fenced as a CPP. KARI has

[71] CPP is defined so that the recurrent part finances only non-wage expenditures while development vote might include wages and salaries.

considerable administrative staff and over 200 PhDs staff conducting various research programs. It might have been prudent to protect only those programs of KARI relating to poverty reduction but arguably not its entire budget. Other examples include the entire budget of the judiciary, state law office. Even within the education sector a number of "pet projects" have been hidden under CPP including Kenya Institute for Education, Primary Teachers Training Colleges Provincial and District Administration.

4.98 We briefly compare Kenya's CPP approach to other countries in the region. While the definition of poverty-reducing spending should be country-specific it is also apparent that the Kenyan definition is far broader than has been adopted elsewhere. A review of the definitions for 29 low-income countries that have defined "pro-poor" spending and have been tracking pro-poor spending under the HIPC initiative shows that they all included education and health (some limited to basic levels of service), and a number included social protection and rural development. Many include rural roads, or transport in general and road maintenance. About four countries included justice and the judiciary.[72]

4.99 Regional and international experience suggests that identification of programs benefiting the poor and protecting these through administrative measures is potentially useful. It should, however, be seen as a transitional measure, in that the link between poverty reduction and public spending is complex, and excessive focus on identified programs and projects has the potential to skew the spending away from the most efficient mix of interventions. It could also detract from policy measures that may not cost much in terms of public spending but would significantly improve poverty outcomes. These kinds of issues have tended to shift discussions towards a focus on results and identification of spending priorities within a medium term plan framework.

4.100 For example, Uganda's PAF gives special treatment only to specific programs that are in the PEAP (PRSP) that are directly poverty reducing, delivering a service to the poor, and have a well developed plan. The five major areas are primary education, primary healthcare, water and sanitation, rural roads and agriculture extension services (Box 4-7). An alternative approach in Tanzania, involves a system of identifying priority poverty expenditures, to assure budget releases to such items. There is no explicit commitment to increase the proportion of budgetary funding to these programs, which has meant that the government has been able to reallocate to emerging priorities such as transport, communications and tourism. While the government recognized the inherent limitations of any definition of "poverty reducing expenditures," the 2005/6 budget requested spending entities to prepare budget proposals explicitly linked to PRSP outcomes.

[72] IMF and World Bank (2006) HIPC Initiative and MDRI- Status of Implementation.

Box 4-7 Uganda's PAF: Achievements and Shortcomings

Uganda is well-known for its Virtual Poverty Fund (VPF), which is a tagging mechanism for tracking pro-poor expenditures in the budget. The PAF share grew from 17.5 to 37 percent of a rapidly expanding government budget between 1997/8 and 2002/3, as budget support increased from $20m in 1998/9 to over $130m in 2001/2. By providing donors with a level of comfort in terms of allocation, implementation and transparency, the PAF enabled the donors' shift from project to budget and SWAP support. Recent analysis has drawn attention to the achievements and pitfalls associated with Uganda's approach. Here we highlight some aspects of relevance to Kenya.

There are specific requirements for local governments and other government departments to report PAF disbursements. Reports are made public and discussed in open quarterly meetings, where civil society, the press and donors are present. And 5 percent of PAF funds are earmarked for enhanced monitoring and accountability. Thus the PAF provided a platform for establishment of an open and transparent process of budget reporting and review, and improved the focus on the results of government's programs.

A number of the achievements can be directly attributed to the PAF, although it must be emphasized that broader reform initiatives such as the MTEF, SWAPs, and the PRSP combined with a supportive political, institutional and policy environment have played a major part. Moreover, some aspects of the PAF are problematic and could potentially undermine the achievement of Uganda's poverty reduction goals:

Among the key lessons drawn by Williamson and Sudharshan (2003) are that VPFs can make a positive contribution to public expenditure management systems by protecting budget disbursements and tracking pro poor expenditures, especially where public expenditure management systems are weak. Such elements of VPFs are relatively straightforward to establish and implement. From the outset a VPF should be simple, and limited to the identification of PRSP priority expenditures in the budget classification system; tracking of performance of these expenditures within transparent budget-wide reporting systems; and the protection of disbursement, which should be linked to a system of limiting overspending in other parts of the budget. A VPF should support rather than replaces the implementation of such comprehensive improvements in budget preparation and implementation.

Source: Williamson and Sudharshan (2003).

Public Expenditure Management

4.101 There are major weaknesses in Kenya's system and practice of public expenditure management that undermine policy efforts to address poverty and inequality. These relate to the comprehensiveness of the budget, the preparation process and execution. Many of these problems are well-known and much discussed, and the recent IMF Fiscal ROSC (March 2008), and the PEFA (2006) provides an excellent overview. Others appear to have been relatively neglected. Here we provide a brief overview.

Comprehensiveness of the Budget

4.102 There is significant spending in Kenya which takes place outside the main budgetary management rules and procedures. Resources may be partly or wholly reflected in the budget as earmarked revenues or transfers and spent by semi-autonomous government agencies (SAGAs) and extra-budgetary funds (EBFs) and Fund Accounts (FAs). Spending by these entities is not included in the annual accounts of central government. These entities have their own supervisory boards and financial management rules and procedures including audit.

4.103 There are approximately 101 SAGAs and EBFs operating in a wide range of activities. The Road Fund is one example that was discussed above. Hospitals and Universities are classic autonomous entities, whose spending is mainly funded from budgetary transfers topped up with user fees. Among the FAs is the CDF.

Table 4-10: Semi-autonomous Government Agencies and Extra-Budgetary Funds, By Sector, 2007

Internal Security	1	Trade & industry	6	Law	1
Personnel Management	2	Justice & Constitution	4	Education	15
Planning	3	Gender, Sports, Culture & Social Services	5	Information & communication	4
Regional development	6	Livestock & Fisheries	2	AIDS	1
Agriculture	4	Water & Irrigation	14	National Heritage	3
Health	5	Environment	4	Science & Technology	8
Road	1	Cooperative development	1	Tourism & wildlife	6
Transport	3	State corporation	1	Home affairs	1

Source: IMF ROSC 2007

Budget Preparation

4.104 The budget preparation process has become more open and transparent since reforms in 2005/06 (see ROSC and PEFA). The changes included integrating the MTEF and the annual budget process by bringing them together in the Treasury; line ministries producing pre-budget papers (the budget outlook paper and the budget strategy paper); and seeking more political engagement at various stages in the process.

4.105 Despite this significant progress, several challenges need to be addressed in order to enable resources to be allocated transparently across ministries and in line with national priorities, including:

- Improving the effectiveness of sector working groups in meditating the competing demands of ministries within sectors. Either they need to be made more effective, or a new model for allocating resources across ministries is needed.
- Strengthening the capacity of line ministries to prepare clear, feasible, and well-costed ministerial public expenditure reviews.
- Making the links between ministerial priorities, the budget process and the national priorities as presented in the MTP and its annual progress report explicit. This is typically not done. One priority is to strengthen incentives for ministries to allocate resources in line with MTP objectives, and to monitor and report on progress in achieving the objectives. This could be done through the preparation of ministerial strategic plans and annual work programs that specify the objectives for the coming year, name the specific activities that will be pursued to achieve the objectives, and provide milestones and indicators through which success can be measured.
- Core poverty programs need to be better specified. As noted, many of the MPERs and the budget outlook paper lack adequate descriptions of the core poverty programs and fail to specify criteria for their selection. The

effectiveness of increased spending on the identified programs in reducing poverty therefore cannot be easily monitored.

- Procurement planning needs to be part of budget preparation process (see below).
- Involvement of ministries' district offices in formulating the budget needs to be deepened. District offices have not in the past participated actively in formulating the budget. As noted above, neither the MPERs nor the budget outlook paper, nor out turns, provide information on district-level spending.
- Strengthening the linkage between the recurrent and development budgets—these are formulated by different offices of the government, each without reference to the other. Two unrelated documents are prepared and published.

4.106 A basic shortcoming which continues to characterize Kenyan public policy is the disconnect between budget intent and actual spending. The deviation in implementing the budget as approved by parliament is a major concern, from both an accountability and development point of view. The trend shows at best only limited improvements over time particularly in the development budget. The overall deviation was 16.7 percent in 2006/07, which is worse than the preceding year's gap of 13.2 percent. Development budget execution has been historically weak: the deviation averaged 43 percent in 1999/2000, but has improved somewhat to 28 percent. Table 4-11 provides the overall summary of budget implementation and Table 4-12 summaries budget implementation by eight MTEF sectors.

4.107 Over 90 percent of what is allocated for recurrent purposes is normally spent, largely on wages and salaries. However, certain public institutions such as the Ministry of Roads and Public Works, Energy and the State Law Office seem to be persistent under-spenders.

Table 4-11: Budget under Spending: Recurrent and Development, percent, 1999/2000 – 2006/07

	1999/2000	2000/01	2001/02	2002/03	2004/05	2005/06	2006/07
Total	12.5	10.5	13.3	18.7	11.4	13.2	16.7
Recurrent	7.4	4.5	1.1	3.8	11.4	6.3	11.1
Development	54.1	34.5	59.6	57.2	35.4	33.3	28.2

4.108 There are serious implementation challenges in the development budget. While there has been some improvement, an average of 60 percent is still unacceptably low. This is observed across all ministries and sectors, although health and transport are especially weak. Less than 30 percent of development budget allocated to the Ministry of Health is spent despite the poor health infrastructure and health indicators. The most worrisome under-spending was on preventive and promotive health care, as cash flow bottlenecks to spending units and slow procurement prevent the utilization of funds.

Table 4-12: Budget Execution Rates by Sector 1999/2000–20006/07

	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2004/ 2005	2005/ 2006	2006/ 2007
Recurrent Budget							
Agriculture and Rural Development	103.5	97.9	89.1	72.5	81.2	92.8	94.2
Public Safety Law and Order	92.4	108.9	108.7	93.8	96.6	93.7	86.0
Health	99.2	110.4	113.9	99.8	104.6	96.3	83.5
Education	96.9	99.2	108.0	98.4	98.2	99.0	99.8
Physical Infrastructure	83.6	78.7	76.7	68.6	97.4	81.3	62.0
General Economic Services	131.2	90.0	125.0	86.5	87.6	85.4	96.3
Public Administration	66.2	76.2	73.9	88.4	88.8	88.6	88.4
National Security	102.2	102.6	110.5	99.0	99.4	95.5	85.5
Total Recurrent	92.6	95.5	98.9	91.7	96.2	93.7	88.9
Development Budget							
Agriculture and Rural Development	21.4	59.9	78.0	100.3	25.7	60.9	69.0
Public Safety Law and Order	47.8	87.2	48.6	48.9	60.5	52.7	55.7
Health	36.9	23.9	57.8	22.3	13.3	32.7	22.4
Education	49.4	40.2	52.3	51.4	60.4	66.2	59.3
Physical Infrastructure	50.6	68.2	28.7	24.6	70.0	72.0	73.3
General Economic Services	59.3	28.9	62.7	70.6	65.3	45.2	80.5
Public Administration	80.2	87.4	11.4	42.1	82.9	85.9	91.3
National Security	33.6						
Total Development	45.9	65.5	40.4	42.8	64.6	66.7	71.8
Total	87.5	89.5	86.7	89.5	86.7	81.3	88.6

Source: Ministry of Finance.

4.109 Underutilization of the development budget can be largely traced to ministries' lack of procurement planning which delays the issuance of contracts until well into the new financial year. Preparing procurement plans as the basis for budget preparation and implementation could lead to both more accurate budget submissions, facilitate the procurement process and timely budgetary releases.

4.110 Poor performance has been attributed to the poor inflows from the donor commitments. However, the problem of funds flow within government systems needs to be rectified and the capacity of government officials to implement projects and programs strengthened. At the same time, greater realism is needed in development budget allocations, especially to those ministries experiencing capacity issues in implementing developmental programs. There is a need to systematically analyze the reasons for ministries' underutilization of resources, especially in the ministries of health, education, and roads and public works. Clearly identifying the absorptive constraints would enable the government to identify solutions to overcome them.

Emerging Challenges

4.111 Much more needs to be done to ensure that resources are allocated transparently across ministries and in line with national priorities. In addition to strengthening the process, the government needs to focus on reorienting expenditure to better reflect national and sectoral spending priorities. Several broad options have already been highlighted in earlier work—including the World Bank's Public Expenditure Review of 2004, the Budget Strategy paper 2005/06 and various studies by KIPPRA on expenditure efficiencies, including:

- Identification in the budget estimates of potential savings from improvements in technical and allocative efficiency. This would include scaling back or closing down programs and interventions that are not effective or do not achieve their desired objectives.
- Reorienting the budget across economic and functional categories of expenditure to support growth and poverty reduction.

4.112 Clearly however, further more specific work is needed to make progress on this important agenda, and to get beyond generalities. It appears that key steps include better costing of ministerial programs and interventions and more systematically evaluating programs in terms of distributive and efficiency as well as institutional impacts, and sustainability.

4.113 We now turn to present some analysis which aimed to understand the distributive impacts of spending in two key sectors, education and health, by way of illustration for the better understanding of equity dimensions that is needed.

Benefit Incidence of Public Education and Health Spending

Education

4.114 Education is fundamental to the Government of Kenya's overall development strategy, as embodied in the Vision 2030 and related strategic documents. There is a 2-8-4-4 structure, 2 years of pre-primary or Early Childhood Development Education (ECDE), 8 years of primary schooling, 4 years of secondary/technical education, and 4 years of tertiary education. One key objective is to improve equity in the education system, this section assesses the extent to which this is attained via the budget (Box 4-8).

4.115 Education outcomes in any country reflect two main influences: household behavior in deciding to enroll their children in school, and government spending decisions. Both influences have changed over the recent past in Kenya, influencing how education spending is distributed across the population.

4.116 We saw in Part II and III that most provinces have seen significant increases in primary enrolments since the early 1990s. But, in some provinces (Central, Nyanza, Rift Valley) the improvements have been less striking, and that access rates are lower for the poor. The net primary enrolment rate was almost 90 percent among the richest groups in 2005/06, but only just over 70 percent for the poorest, even if the increase in primary enrolments since 2003 has come mainly from poorer groups. The net enrolment rate among the poorest quintile increased sharply in the early 2000s (from just 61 percent in

2003 to 73 percent in 2005/06). While overall primary enrolments compares favorably with other countries, enrolments among the poorest are lagging (Table 4-13).

Table 4-13: Net Primary Enrolment Rates by Wealth Quintile, Selected Countries

Quintile	Kenya (2003)	Tanzania (2004)	Mozambique (2003)	Uganda (2006)	Bangladesh (2004)	Colombia (2005)
Poorest	61	58	65	72	78	68
2nd	80	66	68	80	88	76
3rd	84	73	69	82	89	81
4th	88	82	72	86	92	83
Richest	86	88	79	89	92	85
All quintiles	79	73	71	82	87	78

Source: DHS.

Box 4-8: Benefit Incidence Methodology

Benefit incidence brings together data on the spending (subsidies) by the public sector on selected services, and information on the use of such services by households—the former from the budget accounts of the sectors concerned, and the latter through household surveys.

Estimates of benefit incidence are obtained by

- ✓ First, estimating the (unit) subsidy involved for every public school enrolment (primary, secondary and tertiary)
- ✓ Second, identifying (from the household surveys) the households who use the publicly subsidized service—from the poorest to the richest.
- ✓ Third, imputing to those households the unit subsidy for every enrolled child—the subsidy depending on the level of education at which the child is enrolled.

4.117 The evolution of the government education budget, its allocation across the different levels of education, and the enrolment decisions of households affect who benefits from public education spending. Using government recurrent spending by level of education and survey-based estimates of school enrolment, unit expenditure is obtained for primary, secondary and tertiary, and show that tertiary education attracts much larger public spending per pupil than other levels: we estimate that the tertiary unit spending was some 20 times the primary spending in 2005-06, which is similar to estimates from the Ministry of Education, while noting that the high relative weight to tertiary has declined since the early 1990s, when the tertiary unit subsidy was over 30 times the primary subsidy. Secondary spending per pupil has remained about triple primary amount.

4.118 There have been significant changes in the distribution of the education budget in the early 2000s. It is not so much that budget allocations among the sub-sectors have changed (in percentage terms at least), but household behavior has changed, thus modifying their claims on the education budget, as poor households have claimed a growing share of public primary spending. The Free Primary Education policy encouraged a sharp increase in primary enrolments, especially among poorer Kenyans. The share of the poorest quintile of the primary budget increased from 22 percent in 1992/93 to 25 percent in 2005. At the other end of the wealth spectrum, the richest quintile enrolled far fewer children in public primary schools, and its share of the spending fell, from 17 to 10 percent over the same period.

4.119 The poor have also gained more from the secondary spending. The share going to the poorest quintile rose (from 7 to 10 percent between 1992/93 and 2005). The share to the richest quintile fell—from 30 percent to 24 percent.

4.120 The government introduced a Secondary Education Subsidy Scheme (SESS) more than a decade ago. The introduction of Free Primary Education (FPE) in 2003 has resulted in increasing numbers of students completing primary education. Not all, and especially children from poor households and from ASAL regions, have access to secondary education. A major innovation this year has been the announcement of free secondary day schooling in academic year 2008, although reports suggest that still contribute significant amounts to fund their children to attend secondary schools.

4.121 Poor people get little from tertiary spending. As is typical in Africa, the poorest groups do not benefit from spending on tertiary education, with no change over time (at about 2 percent of the tertiary budget). The growth in university enrolments has clearly come mainly from better off households. The richest quintile has seen its share of the tertiary budget increase sharply since the early 1990s.

Figure 4-4: Benefit Incidence of Government Education Spending by Level and Quintile, 2005/06 (percent)

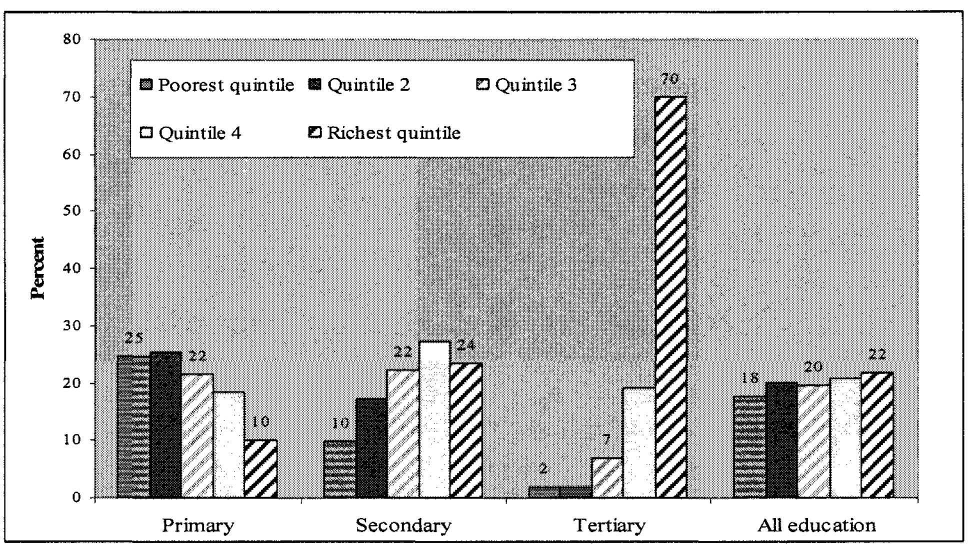
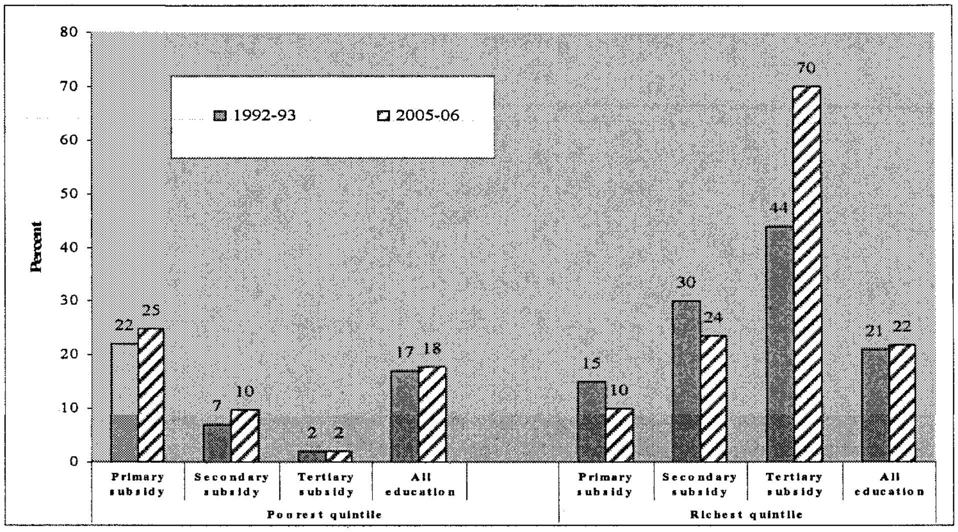


Figure 4-5: Benefit Incidence of Government Education Spending by Level and Richest/Poorest Quintile, 1992/93 and 2005/06 (percent)



4.122 Relative to their low levels of consumption, the poorest quintile gains from education spending, at least on primary school. The current in-kind benefits gained from schooling are equivalent to 35 percent of their consumption. Although larger in absolute terms, the gains of households in the richest quintile from government education spending amount to only 4 percent of their consumption.

Table 4-14: Benefit Incidence of Education Spending Relative to Mean Household Total Consumption, 2005-06

Mean Subsidy K Shs					Mean Household Consumption	Subsidy as a share of Consumption (percent)			
Quintile	Primary	Secondary	Tertiary	All education		Primary	Secondary	Tertiary	All education
Poorest	1,954	324	34	2,312	6,546	29.9	4.9	0.5	35.3
Second	2,004	573	36	2,612	11,950	16.8	4.8	0.3	21.9
Third	1,708	739	126	2,574	17,402	9.8	4.2	0.7	14.8
Fourth	1,455	912	342	2,710	26,665	5.5	3.4	1.3	10.2
Richest	795	784	1,256	2,835	69,740	1.1	1.1	1.8	4.1
Kenya	1,583	666	359	2,609	26,457	6.0	2.5	1.4	9.9

Source: staff estimates based on KIHBS data.

4.123 The basic benefit incidence estimates presented above assume that government spending per enrolled pupil does not vary geographically—it remains the same wherever the child is enrolled. Education spending and enrolment data by district are available for primary schools. These indicate that disparities in spending per pupil across the provinces are modest. Eastern Province appears to benefit the most, while Nairobi and North Eastern received the lowest subsidy per pupil. These data, following closely on a significant increase in primary enrolments, could reflect differences in the surges in school enrolments.

Table 4-15: Unit District Spending on Primary Education by Province, 2005/06

	Unit Subsidy Ksh	Highest	Lowest	Ratio to the mean Highest	Ratio to the mean Lowest
Coast	6,943	7,455	6,059	1.07	0.87
Central	6,668	7,195	5,664	1.08	0.85
Eastern	7,220	8,359	6,264	1.16	0.87
Nairobi	6,579	-	-		
Rift Valley	6,692	7,576	2,859	1.13	0.43
Western	6,882	7,350	5,122	1.07	0.74
Nyanza	7,057	9,912	3,159	1.40	0.45
North Eastern	6,437	6,596	5,545	1.02	0.86
All Kenya	6,888	9,912	2,859	1.44	0.42

Source: Ministry of Education

4.124 There is much greater variation across districts in unit spending especially in Nyanza and Rift Valley. While the majority of districts (52) received disbursements for primary education greater than Ksh 6,500, a sizeable minority (17 districts) received less, some significantly less. In three districts in particular, the disbursement was very low—in the Rift Valley Bomet (Ksh 4,735) and Nandi North (Ksh 2,859), and in Nyanza, Kisumu (Ksh 3,159).

4.125 An econometric investigation of whether variations in unit subsidy across districts have affected household enrolment decisions found a significant relationship between district primary school enrolment rates and the district primary unit spending. On average districts receiving higher primary public subsidies also have higher levels of enrolment. This suggests that lower unit spending is not typically a result of surges in school enrolment. Rather the reverse—when governments spend more, households respond by sending their children to school.

4.126 The following policy messages emerge from this analysis and related studies about education access, especially from impact evaluations:

- Continued efforts are needed to raise enrolments among the poorest girls and boys. It is particularly low in Coast, Rift Valley and North Eastern provinces, where the policy efforts should be focused. Impact evaluation studies have shown that support to poor households can raise school enrolment. For example, one careful study concluded that providing free school uniforms raised school attendance by 6.5 percent.
- It is important to consider innovations that can be used to enable attendance—for example, deworming in some circumstances has been shown to make a marked difference.
- Ensure that the gains in primary school enrolments are not lost: Poor people responded to the FPE policy, but poor quality and the failure of children to

improve education attainment might eventually discourage attendance. Schooling standards at the primary level should be enhanced.

- Raise secondary enrolments among the poor. The poorest quintile gains little from secondary school spending. To frame appropriate interventions, research is needed on the main constraints facing poor families in enrolling children in secondary school—candidates include poor educational attainment at primary level, costs of schooling, access to secondary school facilities and perceptions about relevances and benefits. There are close to 21,000 public and private primary schools in the country, but only about 4,800 at the secondary level. This sparse distribution likely makes access difficult and costly to poorer Kenyans living in remote rural areas.
- The government recently announced free secondary education. However secondary school bursaries have been under implementation for over a decade, and a recent evaluation suggests that the scheme is non-transparent and weakly targeted to poorer households. There is now a scheme explicitly aimed to increase access for poor students to secondary education, ensure their retention and enhance their completion rates.

Health Spending

4.127 The foregoing analysis has drawn attention to the links between health and poverty in Kenya, which appear to go both ways. We also noted the worrying decline in health outcomes over time, and the persistence of inequalities in health outcomes.

4.128 According to a number of recent studies (including the National Health Sector Strategic Plan II (NHSSP II) and the 2003 Household Health Expenditure and Utilization Survey), access to health services has been limited, particularly in rural areas, and the quality of services has been inconsistent and generally poor. The Kenya Service Provision Assessment Survey of 2004 found that only 57 percent of facilities could provide a basic package of child, maternal, reproductive health and HIV/AIDS services, and only 10 percent of clinics were able to provide 24-hour delivery services. Distance to facility, and facility access in general appears to be a major constraint for rural households. The distribution of facilities geographically is uneven. While most facilities serve large numbers (on average each facility in Kenya serves over 15,000 people), this varies by province, with Central, Rift Valley, Coast and Eastern being better placed than the others.[73]

4.129 The delivery of public health services has been constrained by systemic problems as well as inadequate funding. In recent years the focus has been on development expenditures in health, although as we saw above, the record on disbursements is poor. The Public Expenditure Tracking Study (2007) concluded that funding (especially development funding) is not reaching the operations units because of inefficient financial management. However, resource constraints are deeper than just financing. Ensuring that adequate numbers of qualified health staff with appropriate skills

[73] Note, these data refer only to public facilities. Clearly, development planning in health takes into account the private sector activity across the regions.

are available in the right places remains a considerable challenge. The distribution of staff across provinces is uneven. A study in 2005 found overstaffing in provincial and district hospitals, and acute understaffing in many rural health facilities. Around 47 percent of dispensaries were staffed by only one Enrolled Community Nurse, and 3 percent had only support staff not qualified to administer drugs. Unattractive working and living conditions, poor incentives (including allowances), and weak deployment procedures all contribute to the staffing imbalances.

4.130 The KIHBS, alongside fiscal data, is used to investigate such inequality further. The survey not only obtained information on the living standards of the Kenyan population, it identified which households used services subsidized by the government, including health-care services. By combining this information on the use of health services with data on how the government subsidized these services, we are able to estimate the benefit incidence of health spending in Kenya—at least for the year of the survey, 2005-06.

Table 4-16: Distribution of Public Health Facilities by Province, 2004

FACILITY TYPE	CENTRAL	COAST	EASTERN	NAIROBI	NORTH EASTERN	NYANZA	RIFT VALLEY	WESTERN	TOTAL
Dispensaries	205	144	325	18	43	180	540	81	**1,527**
Health Centres	57	33	58	8	6	80	136	62	**440**
District Hospitals	12	11	26	1	10	24	21	13	**118**
Provincial Hospitals	1	1	2	-	1	1	1	1	**8**
National and Specialized Hospitals	1	-	-	2	-	-	-	-	**3**
Rural Health Training & Demonstration Centres	1	15	7	-	5	6	12	7	**53**
Total Facilities	**277**	**204**	**418**	**29**	**65**	**291**	**710**	**164**	**2,158**
Facilities %	*12.8*	*9.5*	*19.4*	*1.3*	*3*	*13.5*	*32.9*	*7.6*	***100***
Population	**3,918,538**	**2,860,649**	**5,180,139**	**2,656,997**	**1,235,592**	**4,868,010**	**8,077,517**	**3,954,081**	**32,751,523**
Population per facility	14,095	14,022	12,393	91,620	19,009	16,728	11,376	23,964	**15,176**
Facilities per 100,000 pop'n	**7**	**7**	**8**	**1**	**5**	**6**	**9**	**4**	**7**

Source: Human Resource Mapping Report, 2004.

4.131 The KIHBS found quite similar incidence of illness across quintiles.[74] But while about a quarter of the population in all quintiles reported being ill or injured, [75] differences begin to emerge in the response to the illness. Poorer Kenyans are far less likely to seek treatment when sick. The better off are more likely to seek care, but typically chose private care. The poor when they seek treatment typically go to the public sector. Poor Kenyans also turn to private providers, many of whom (62 percent) are modern rather than traditional. When poorer Kenyans get sick and go to a government facility, in most cases (78 percent) they visit a primary facility—either a dispensary or a health center. Better-off Kenyans are more likely to use hospital facilities—just under a half of those in the top quintile seeking care in government facilities go to a hospital.

[74] Throughout this analysis households are ranked according to their mean per-adult equivalent total consumption.

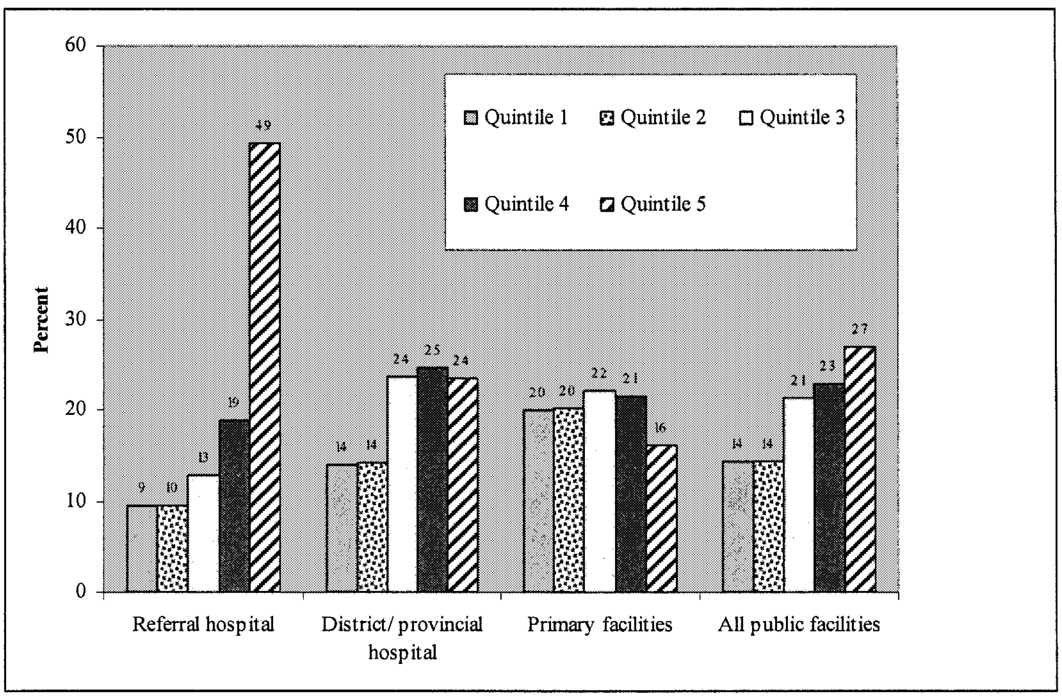
[75] Some have argued that illness is typically under-reported by poorer people because they view many illnesses (such as diarrhea) as a regular feature of normal life.

4.132 Use of government services represents an in-kind transfer to the household—the transfer being what the household would need if it was required to pay the full cost of providing the service. For each visit to a public health facility the household gains the unit cost attached to that visit. Because such costs vary by facility, households who use high-cost facilities gain a greater in-kind transfer. Because these are seen as current transfers, only the recurrent budget of the government is relevant for this purpose.

4.133 To obtain estimates of unit costs in government health facilities we rely on the Shadow Health Budget, prepared for 2007. Each visit to a referral hospital costs on average KSh 1,463, 13 times higher than a visit to a primary facility. A visit to other hospitals was about 8 times more costly to the government. This is similar to that estimated for 1992/93 (Castro-Leal et al, 1999). Households using referral hospitals therefore gain a much greater in-kind transfer than those using primary facilities.

4.134 Bringing together the unit costs and reported use of facilities from the KIHBS, estimates are obtained of the in-kind transfer to households across the consumption distribution (Figure 4-6).

Figure 4-6: Quintile Distribution of Benefit Incidence of Government Health Care Spending by Facility, 2005/06



Source: Staff estimates based on budget data and KIHBS 2005/06.

4.135 The results follow the pattern of use:

- Poor people gain little directly from the significant spending on the highest level of health care delivery, since they hardly use referral hospitals. Half the consultations at referral hospitals are from the richest quintiles. Poor residents of Nairobi may not consider use of the referral hospitals an option. The PPA-

IV found that 'most of the Nairobi communities felt that Kenyatta National Hospital was not really a public facility because of the high payments for medication and the harsh and negative attitude of the medical personnel.' (Ministry of Planning and National Development, 2008, p. 79).

- The use of other hospitals is more widespread. But even here, the better-off use the facilities far more than the poor. The top three quintiles gains about a quarter of the subsidy, each of the bottom two quintiles gaining just 14 percent.
- Poor people rely on primary care. They get a proportionate share of spending on primary facilities (the poorest 40 percent gain 40 percent of the primary subsidy).

4.136 The net result is that in absolute terms health spending is regressive in Kenya: poor people benefit less that the better off. Mean health spending going to the poorest quintile is only about half that going to the richest. The top three quintiles are far better placed. At the same time, the spending can also be judged relative to consumption: in this sense, health spending is progressive. The in-kind subsidy the poorest quintile gains from using government health facilities represents 6 percent of their income/consumption. For the richest, the ratio is only 1 percent.

Table 4-17: Kenya: Per capita Health Subsidy Relative to Per Capita Total Household Consumption, by Quintile, 2005/06

	Health subsidy	Household consumption	Health spending benefit as percent household consumption
	(KSh)		(%)
Poorest quintile	397	6,546	6.1
Quintile 2	402	11,950	3.4
Quintile 3	594	17,402	3.4
Quintile 4	637	26,665	2.4
Richest quintile	754	69,740	1.1
All Kenya	557	26,457	2.1

Source: Staff estimates based on budget data and KIHBS 2005/06.

4.137 The incidence of health spending has changed little over time. We see no marked changes in the distribution of the government health budget since 1992-93. Indeed such changes that did occur are not encouraging since the richest quintile gained an increasing share of all levels of service. The poorest quintile lost its share of even primary services.

Table 4-18: Benefit Incidence of Government Health Spending by Poorest and Richest Quintile and Level of Care, 1992-93 and 2006-06 (percent share)

	Poorest quintile			Richest quintile		
	Primary facilities	Hospital based care	All health	Primary facilities	Hospital based care	All health
1992-93	22	13	14	14	26	24
2005-06	20	13	14	16	30	27

Source: Staff calculations; Castro-Leal, et al (1999).

4.138 We also examine gender dimensions of health spending in Kenya. Females receive a larger share of health spending - almost 60 percent. However, poor females do not do well. Relative to better off women, poorer women the poorest quintile are disadvantaged—particularly with respect to referral hospital care. And poor males get more benefit from referral hospitals than poor females—the opposite pattern from the better off. Better off females use all health facilities (including hospitals) more than better off males. Not surprisingly poorer females get most out of primary spending.

4.139 Finally, we examine how much households themselves spend on health care, which potentially increase inequality in health care access. We see immediately that households in fact assume the greater burden of health care spending. Households account for almost three quarters of total health care spending.

4.140 The distribution of private spending reveals that disparities in private spending far exceed those in public spending. The mean public subsidy for health care received by the top quintile is about twice that for the bottom quintile, whereas for private spending the ratio is about seven to one. The burden of health spending is greater for the poor. Although poor people spend less in absolute terms on health care, for households in the poorest quintile this amounts to 8 percent of consumption, compared to the richest quintile, which spend 6 percent on health.

Table 4-19: Private and Public Spending on Health, 2005/6

	Mean Annual Household Spending on Health Care					Total mean annual health spending on publicly provided health	Household and government spending as percent of household consumption	
	Frequent health items	Medical diagnosis and treatment	Other drugs	All household health spending	Mean annual government health subsidy		Household	Government
	(Ksh)						(Percent)	
Poorest quintile	55	438	46	539	397	936	8.2	6.1
Quintile 2	89	307	126	523	402	924	4.4	3.4
Quintile 3	150	410	217	778	594	1,371	4.5	3.4
Quintile 4	214	610	553	1,377	637	2,014	5.2	2.4
Richest quintile	544	2,035	1,686	4,264	754	5,019	6.1	1.1
All Kenya	210	760	525	1,496	557	2,053	5.7	2.1

Source: Staff estimates based on budget data and KIHBS 2005/06.

4.141 It is evident that the current waiver system is not working. The poorest households spend proportionately more of their income than the richest, even though they use mostly primary facilities. The recent Public Expenditure Tracking Survey (2007) concluded that 'the application of waivers and exemption guidelines at facility level is not standard and is subject to abuse by the facility staff. In particular and against the stated procedures, the well to do groups in the society are being exempted from payments an issue which works against the principles of equity and access to health services by the poor and the vulnerable groups. As we develop the strategy issues to do with poverty definitions and measurement should be addressed to ensure that the poor groups access services.[76] This is a major concern to be addressed.

4.142 In sum, our analysis of health spending from the perspective of poverty and inequality suggests that:

- The pattern of spending across the levels of health-care delivery has remained largely unchanged over the past decade, despite policy pronouncements in favor of primary care. The share of the budget allocated to the higher levels of care has remained high, with front line rural services suffering as a result.
- Poor people tend to use lower levels of services which receive lower budget allocations. Given their limited access to hospital facilities, poorer people gain relatively little compared with the better-off from government subsidized hospital care.
- While women overall benefit more than men from health spending, but poorer women appear to be disadvantaged relative to men.
- Inequality in household spending on health is significant, and public subsidies do little to correct for this.

4.143 From a poverty and inequality perspective, the key health spending policy challenges appear to be two-fold. First, there is a need to improve the quality of care at the primary level. These are the facilities used mostly by poor people. According to the PPA-IV, 'the communities described lower level health institutions (dispensaries and health centers) as offering inadequate services, mainly because some services were not available, while district, provincial and national hospitals have more qualified doctors, are normally better stocked with drugs, and offer more specialized services.' (Ministry of Planning, and National Development, 2008, p. 77). Second, it seems appropriate to encourage greater use by poor people of district and provincial hospitals. This in turn would call for two types of intervention, to improve access to district and provincial hospitals—better all-year roads—to improve the implementation of fee exemptions which are likely to discourage the poor more than the non-poor. Many communities in the PPA-IV reported that unofficial payments often were needed to obtain care—in addition to the scale of charges levied in public facilities. These and other costs (transport, waiting time etc.) are likely to discourage use of these services by poor people.

[76] Quoted from Muchiri (2008: p. 15).

MONITORING AND EVALUATION

4.144 A reliable and effective monitoring and evaluation system is critical to assessing the impact of policies and programs aimed at reducing poverty. Having accurate information which helps to measure and understand the causes of poverty and monitor changes over time can help policy-makers design and implement effective interventions. This is important not only in the context of annual planning and budgets, but also the Medium Term Plan and the Vision 2030. Well-structured evaluations allow decision-makers to assess the performance of various interventions, and therefore to make better informed decisions of how to allocate resources and manage programs to achieve stated objectives.

4.145 Kenya's capacity for generation and analysis of statistics was once among the strongest in Africa, but its capacity and performance has eroded over time. During the 1990s, budget cuts led to a reduction in staff, an inability to keep pace with technological innovation, and a fall in staff motivation. The frequency and quality of products produced by the Central Bureau of Statistics declined markedly. Similarly, capacity of line ministries to collect, process, and disseminate information deteriorated, and many stopped producing data altogether.

4.146 In recent years, demand has grown for greater transparency and more systematic information about key dimensions of development. The IP-ERS sets out 31 summary indicators that are intended to provide a complete picture of progress in poverty reduction over time (Table 4-20). On the institutional side, the government with support of the development partners, has begun to take steps to strengthen its monitoring and evaluation systems. For example, the government developed a strategic plan for the statistical system in March 2003, and several development partners are supporting its implementation. In the IP-ERS, the government committed itself to the development of a national integrated monitoring and evaluation system (known as NIMES). This is aimed at providing reliable measurement of the efficiency and effectiveness of government policies and programs, linked to the budget.

Table 4-20: IP-ERS: APR Indicators Including Performance Revised Targets

IP-ERS Objective	Outcome Indicator
Accelerate economic growth	Real annual GDP growth rate (%)
Achieve and maintain price stability	Annual underlying rate of inflation (%)
Control and reduce the burden of domestic debt	Stock of domestic debt/GDP (%)
Control public sector wage bill	Public Sector Wage Bill/GDP (%)
Expand revenue sources	Revenue /GDP (%) (including AIA/GDP ratio)
Reform public expenditure management	Benchmark score on PEM-AAP
Rehabilitate the road network	Proportion of road network in bad/poor condition (%)
Increase power coverage in rural areas	Percentage of rural households served (%)
Increase rural water coverage	Percentage of rural households with safe and reliable access to water (%)
Increase urban water coverage	Proportion of urban households with safe and reliable access to water (%)
Enhance safer road system	Number of fatalities on the road annually
Enhance	Annual growth rate of tourists (%)
Strengthen trade and industry	Growth of volume of exports (%)
Reduce infant mortality	Fully immunized children as % of less than 1 yrs pop.
Reduce HIV/Aids prevalence	Proportion of pregnant women aged between 15 – 24 years attending ANC who are HIV positive (%)
Reduce maternal morality	Percentage of pregnant women attending ANC (at least 4 visits) (R)
Reduce the burden of disease	Inpatient malaria morbidity as a percentage of total inpatient morbidity
Improve primary net enrolment (NER)	Primary net enrolment (%)
Increase north eastern province net enrolment rate	Primary net enrolment rate FOR NEP (%)
Reduce the rate of primary school drop outs	Primary school completion rate (%)
Reduce the incidence of primary repetition	Primary repetition rate
Increase transition rate of pupils to secondary school	Primary to secondary school transition rate (%)
Strengthen employment creation and productivity	Measured labor productivity in formal sector
Raise incomes of small holders	Agricultural sector growth rate (%)
Improve environmental management	Forest area protected by gazettement (Ha)
Introduce universal environmental screening projects	Proportion of public sector projects subjected to environmental impact assessments
Reduce absolute poverty	Proportion of people below absolute poverty line (%)
Reduce prevalence of underweight children in under 5 yrs of age	Prevalence rate of underweight children's in underweight 5 yr olds (%)
Enhance more expeditious justice	Ratio of concluded cases to reported cases (%)
	% change in Domestic Crime Index by 2009
	% change in overall Corruption Perception Index
	% of citizens who report that they have access to justice systems to resolve disputes
Public sector transparency and devolution of power	Proportion of total public sector spending controlled and managed at local level (based on LA's, LATF, DRCS and CDF)
	Public sector wage bill/GDP (%)
Creation of national monitoring and evaluation system	Fully functioning national system of M &E operating at all levels and providing feedback to the budget by the end of 2005.

4.147 Recent initiatives have resulted in various institutional reforms, although these have not yet demonstrated results. A new statistics act became effective in February 2007. This transformed the bureau of statistics into a semi-autonomous corporate body with a governing board—the KNBS—and sets out the legal framework for the national statistics system. Having autonomy allows the bureau to pay higher salaries than the civil service and to assess and reward performance. This transformation seems to have prompted a large number of its staff to undertake training in advanced survey and statistical techniques. However, one major reform which has been discussed but not yet adopted is a data access policy, which is needed to improve access to data by policy-makers, researchers, development practitioners, and the general public.

4.148 Analyzes of key aspects of poverty, inequality and development in Kenya have been delayed or prevented by the absence of recent reliable nationwide data. Specific surveys—including those carried out and analyzed by the Tegemeo Institute and the APHRC—have been carried out over time, and provide invaluable knowledge on important aspects of development. But nationally representative surveys have been either infrequent and/or unavailable for analysis. For example, despite evident government interest and the existence of a national steering committee, the KNBS has not carried out a survey of employment since 1998. Release of the KIHBS data to researchers has been delayed for over 18 months. However, the KNBS is now taking steps to address data access issues and the situation is expected to improve in 2009.

4.149 The recent crisis has heightened the need for reliable and timely data. While the UN's World Food Program and Food and Agriculture Organization collect data through their own monitoring networks, specific follow-up surveys are needed to gauge the impacts of the crisis, to design interventions to mitigate the impacts, and to assess the outcomes of the interventions. This is where links to non-governmental and think-tank efforts become even more critical.

4.150 In this section we review the status of initiatives to improve monitoring and evaluation in Kenya, and the key challenges to reform. We begin with an overview of available survey and administrative data and how these are being used in practice, including the attempted shift to results based management. The general finding is that while the overall stated directions are welcome, implementation has been very slow. Much needs to be done to generate the information that policy makers need to improve the effectiveness of efforts to eliminate poverty.

A Brief Overview

4.151 In many ways, Kenya is a data-rich country. Its development challenges have attracted scores of world-class local and international researchers, many of whom have commissioned their own purposive surveys. There are a variety of national-level data, some of which are collected through household and individual surveys, and more general administrative information collected through routine official data collection and reporting. Some major statistical products and initiatives relevant to poverty and inequality are highlighted below.

4.152 *Surveys aimed at better understanding poverty.* To date, the government has assessed aspects of poverty and wellbeing through regular household surveys. Comprehensive household budget surveys were administered in 1992, 1994, 1997 and 2005/6. Demographic and health surveys have been conducted every five years or so starting in 1989. A population and housing census, carried out every decade (the most recent being 1999), includes several dimensions of poverty, including school attendance and attainment, labor force participation, housing, water, and so on. The government has produced several pieces of analytical work, including the basic report on the KIHBS (August 2007), an atlas of ecosystems and human well-being (March 2007) that examines the links between availability of environmental resources (land, water, forest products, and wildlife) and household consumption.)[77] and two volumes of poverty maps, published in 2004 and in 2005.[78]

4.153 The timeliness of data release from national surveys is a major issue. Analysis for this poverty assessment was delayed almost two years in the absence of access to the KIHBS data—which are still not available to researchers generally.

Box 4-9: Delays in Conducting Labour Market Surveys

A jobs study planned for 2007 was severely impeded by the absence of recent data on labor market issues, whether on firms or workers. Indeed the report concluded that the availability of data is probably now inferior to that which was collected pre-1960. It recommended that the government collect essential information relevant to the labor market on a regular and timely basis. The KNBS does not have a firm schedule for repeating the relevant labour surveys. In practice there are significant lapses of time between the surveys which, among other things, makes preservation and access to data problematic.

Some sector ministries periodically compile jobs related information for their own mandated activities. For example, various ministries collect information on minimum wages, data on skills and school, college, and university graduation, and employment conditions in the export processing zones. However, these data may not be compatible with the approaches and definitions used by the KNBS, nor is such information housed in the KNBS.

4.154 *Qualitative Data.* Several qualitative surveys have been undertaken in recent years using participatory approaches to deepen understanding of how communities perceive their living standards and the poverty in their midst. One such initiative was the fourth participatory poverty assessment (PPA-IV). The PPA-IV covered a sub-sample of the KIHBS, allowing for a mixed analysis of the poverty situation in Kenya, combining structured and participatory approaches. One of the significant benefits of the PPA-IV survey is that it permitted a more in-depth enquiry into household histories, exploring how and why the poverty status of households has changed over time (see Part III above). Another example is the World Bank's 2006 study of poverty in Nairobi slums,[79] which combined quantitative data from households living in Nairobi slums with qualitative information gathered through community questionnaires and focus group discussions.

4.155 *Think-tanks and Non-Governmental Efforts.* Several world-renowned survey efforts have been established in Kenya outside of government, which regularly generate valuable data. For example:

- Tegemeo Institute has been collecting panel data from rural households since 1997. This data have provided improved insights on the impact of policies implemented since the mid 1990s on rural livelihoods.
- The African Population and Health Research Center (APHRC) is carrying out panel surveys to investigate the linkages between urbanization, poverty, health,

[77] The atlas was produced collaboratively with the World Resources Institute, International Livestock Research Institute, Kenya Ministry of Environment and Natural Resources, and the KNBS.

[78] Central Bureau of Statistics, "Geographic Dimensions of Well Being in Kenya."

[79] World Bank, 2006, "Kenya: Inside Informality: Poverty, Jobs, Housing and Services in Nairobi's Slums." Report 36347-KE, Water and Urban Unit 1, Africa Region, World Bank, May 31.

and migration into and out of slums throughout the course of life. The surveys are also aimed at investigating the impact of interventions designed to improve the well-being of the urban poor in Kenya (see X above). The findings of the surveys are being used to inform policy makers of effective approaches to reduce infant and child mortality rates, cut incidence of malaria, and slow the spread of HIV/AIDS in Nairobi slums.

- Transparency International Kenya has been undertaking a bribery survey each year since 2001. The findings of the survey are used to rank public organizations with respect to daily experiences of ordinary Kenyans with bribery.
- Since 2006, FinAccess is conducting a household survey every two years to establish levels of access to and demand for financial services by Kenyans across the country, beginning in 2006.

Collection and Dissemination of Ministerial-level Data

4.156 Kenya has yet to establish a systematic approach to monitoring and evaluation at the ministerial level. Several ministries do collect reasonably timely and reliable data on outputs and outcomes of their programs, which they provide to the KNBS for dissemination through its annual Statistical Abstract and Economic Survey. For example, the Ministry of Health collects and reports information on the proportion of children fully immunized and outpatient morbidity, disaggregated by province.[80] The Ministry of Agriculture, the Ministry of Livestock and Fisheries Development and various marketing boards monitors output and sales of major agricultural commodities.

4.157 However, much needs to be done to improve the quality and dissemination of data from even those ministries with relatively strong monitoring systems. For example, the Education Management Information System does not allow one to access data on primary enrolment and completion rates and the secondary enrolment rate, beyond a single year. It seems that the ministries may need to rationalize their management information systems to eliminate duplication, to introduce electronic formats and to coordinate data collection and entry. More systematic sharing of information between facilities, district ministry offices, and the central ministry is required. More timely dissemination of information within ministries and to the broader public is needed.

4.158 *District-level Monitoring.* To supplement data gathered through surveys and routine processes, the government piloted an initiative in 2005 to collect district-level monitoring and evaluation data. The Ministry of Planning sent questionnaires to district officers seeking information on services (education, health, security, judiciary, agriculture, and environment); infrastructure (water and sanitation, roads and electricity); and poverty alleviation and governance (public safety, law and order, justice, devolution of power, gender, and corruption). This exercise revealed significant weaknesses in capacity for district level monitoring, but also pointed to the way forward. Nearly half the districts did not respond and those that did were not able to present all the information requested,

[80] The Ministry of Health was split in to the Ministry of Public Health and the Ministry of Medical Services in April 2008.

because the local offices of central ministries did not respond. Understandably, the data that were most readily available were those that are collected routinely, such as school enrolment. Little data were provided on issues related to governance or the effectiveness of programs, as this an area where no systematic data collection has been done in the past. Key recommendations of the pilot included (a) establish well-trained district teams which are conversant with the national monitoring indicators; (b) improve the concepts and methodologies for obtaining data at the district level; (c) integrate the district M&E system into the planning and budgeting framework; and (d) harmonizing the reporting system for all the funds at the district and constituency level. However, whether or not the government will adequately fund a district-level monitoring program in the future is not yet clear.

Fiscal Data

4.159 Kenya has made significant progress since 2003 in improving fiscal transparency and accountability (see IMF ROSC 2008). Recent legislation—including the Government Financial Management Act (2004), the Public Procurement and Disposal Act (2005), the Public Audit Act (2003), and the Statistics Act—have established some key building blocks for the construction of a sound fiscal management system.

4.160 However, much more is needed for Kenya to establish a sound public financial management system that is in line with international best practice. This has hampered the analysis in this assessment, and also constrains our fiscal understanding more generally. In particular, as highlighted above:

- Although the government upgraded the economic classifications in 2005/06 to Government Finance Statistics (GFS) 2001 principles, the sectoral breakdown is not compatible with the GFS functional classification. Program classification has not yet been developed.
- The coverage and reliability of in-year accounting and reporting remain inadequate. The introduction of the computerized budget execution and accounting (integrated financial management information system, IFMIS) across government is underway but has still not been completed. Making the accountant general's department responsible for the collection, consolidation, and provision of in-year information on budget execution would help ensure that all users have access to the data in a timely manner.
- Fiscal reporting does not cover all of general government and there are gaps in the coverage of central government in in-year budget outturn reports. Audited annual accounts of central government operations are still not issued within the prescribed period and audit reports for local governments remain in arrears.
- As noted above, the fragmentation of the budget and the lack of reporting on local spending is a major issue.

The public financial management reform program, currently under implementation, is expected to address these deficiencies in the coming years.

4.161 *Results-based Management.* Efforts began in 2005 to introduce a results based management (RBM) system aimed at creating a more effective, efficient, and ethical public administration. The Public Sector Reform and Development Secretariat was established in the Office of the President to oversee its implementation. Performance contracts for key public officers that aim to provide strong incentives for all senior officers to ensure that specific targets derived from the ministerial strategic plans are met. Independent observers are to assess performance at the end of the year. General information on the performance contracts and the findings of the assessments is available to the public, but not the content of specific contracts and assessments. The introduction of RBM appears to have improved service delivery in some ministries and agencies. The Grand Coalition government, with 40 ministries will make both the administration of the system and an assessment of results more challenging.

4.162 Kenya launched its national integrated monitoring and evaluation system (NIMES) in September 2007. The goal is to strengthen the linkage between government's planning and budgeting processes, and monitoring and evaluation. Ministries are encouraged to prepare their strategic plans, annual work programs, and budget submissions with monitorable outcomes in mind. The ministry's targets are these specified in the national development strategy. The milestones and outcome indicators will then be specified in performance contracts of public officials. In order to function, this obviously requires better information on results. The NIMES also includes a set of standardized formats for project-level M&E, which project managers will be required to use in quarterly and annual reporting on inputs, outputs, and outcomes of project expenditures.

4.163 The M&E department of the Ministry of Planning and National Development is overseeing the implementation of the NIMES. It intends to produce annual progress reports on implementation of the development strategy in time for the annual budget preparation exercise and for the annual staff performance evaluation process.

Building Capacity for Evaluation

4.164 There are several examples of successful evaluations, sometimes undertaken in concert with development partners. For example, the World Bank supported Western Kenya Community Driven Development Project includes funding for an independent evaluation of the project's impact on poverty and well-being, using a randomized evaluation design during roll-out of the project. There have been a whole series of evaluations of HIV/ART programs (see Part III) and school-based interventions.

4.165 Independent researchers have conducted some highly influential impact evaluations. The poverty lab at MIT in collaboration with civil society organizations has sponsored a number of impact evaluations looking at among other things the effect on school attendance of free distribution at school of deworming medication, of meals, and of girl's uniforms. The results of these evaluations have influenced government policy in important ways. For example, the discovery that the free distribution of deworming medication at school led to improved attendance rates encouraged the government to fund a deworming intervention.

Challenges, Conclusions and Recommendations

4.166 The government has candidly recognized the major challenges to improving the comprehensiveness, reliability, and timeliness of economic, social, and poverty data. Some of these were highlighted in the most recent Annual Progress Report for the IP-ERS, dated May 2006, including inadequate budgetary allocations resulting in limited capacity, lack of awareness of the role and importance of M&E and insufficient linkages across initiatives.

4.167 Moving ahead requires better coordination and collaboration within government, across sometimes competing initiatives. Surveys will play an important role, but so will proxies which rely on more frequently available information. As we have seen from the foregoing analysis, there are large disparities in Kenya, which are an important part of the development story. This underlines the importance of continued efforts to develop district level monitoring and capacity.

4.168 It is recommended that the government through its medium term plan and related initiatives, move more actively to strengthen underlying capacity and to help promote more evidence-based approaches, much more is needed. In this sense, it is a concern that the Medium Term Plan (MTP), 2008-2012 neglects the topic of monitoring and evaluation altogether, and that its implementation matrix contains very few baseline or target values. Most of the MTP targets that are included are presented in more general terms.

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