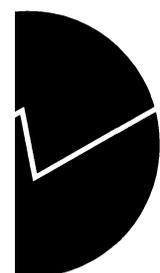


*Bjørn K. Wold and Julia Grave*

**Poverty Alleviation Policy in  
Angola, Pursuing Equity and  
Efficiency**

Rapport



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Efficiency**

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# Abstract

*Bjørn K. Wold and Julia Grave*

## **Poverty Alleviation Policy, Pursuing Equity and Efficiency**

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The overall objective of this report is to contribute to the provision of tools for policy makers and others alike who work or consider to work to mitigate and alleviate poverty and to ensure the utilization of the poor as the important resource they are. The report has used the definition of poverty applied by Instituto Nacional de Estadística (INE) in urban areas and an estimate of 61 per cent of the urban population being poor (moderate poor or extreme poor). Unfortunately, due to lack of data, it is not possible to apply this poverty line in rural areas. Hence in rural areas we have applied a poverty line based upon the minimum calories recommended by United Nations Food and Agricultural Organization (FAO). We have then combined this requirement with the common non-food consumption share in Angola. With this approach, 40 per cent are poor in urban areas and 78 per cent in rural areas. Data for rural areas do not allow for the same analysis of causes behind poverty and the impact of being poor and hence the main focus is on urban areas in this report.

The report analyzes why people are poor in urban areas and whether the informal sector really can be the way out for all poor people or rather just a dead end way out. Strong emphasis is also given to analyze how the poor manage to get the social service they need and want and shows how poverty penetrates all social sectors. Very high school repetition ratios, non-affordable health service and expensive private water-supply is the bleak situation of the poor urban Angola household. Food security is as you might expect closely linked to poverty.

Wars and economic crises have always forces women into paid labor. But in Angola the crisis became permanent and women remained in the labor force. Still, women have continued to collect water and do household chores. This way women have doubled there work load. Such a development put gender equity on the public agenda in other countries ranging from many Western countries to neighbor countries as South-Africa and Zimbabwe, but strangely enough yet not in Angola.

Several policy conclusions are presented addressing four policy issues: a) How to give the urban poor a chance to enter and remain in the labor force, with a special focus on women. b) Rural / urban issues addressing how to create motivation for the rural population to remain in their areas of living and increase their production for sale and hence their income. c) How to approach social service shortcomings. d) How to design subsidies in a poverty and food security perspective.

**Languages:** This report will also be available in Portuguese.

**Keywords:** Africa, Angola, Education, Food Security, Health Service, Informal Sector, Poverty, Rural Areas, Subsidies, Urban Areas, Water supply.

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# Preface

This report is prepared by Bjørn K. Wold, Statistics Norway and Maria Júlia Grave, Instituto Nacional de Estatística. The study is another step in the work on poverty and living conditions carried out over several years and presented in both published and unpublished work by the Gabinete de Monitorização das Condições de Vida da População (GMCVP) in Instituto Nacional de Estatística (INE). The main data sources for these reports are a series of surveys carried out by INE on poverty and living conditions. The main data source for the current report is a survey carried out in the first half of 1995 in urban areas in five provinces of Angola (GMCVP 1996). The urban data were supplemented by a survey carried out by the Ministry of Agriculture (Departamento de Estatística e de Informática 1997) in the second half of 1996 in the rural areas in nine partly overlapping provinces of Angola.

The study was initiated by the previous head of INE, Mario Albeita de Sousa and Isabel Emerson and Alexander Abogye from UNDP in Luanda. The statistical analysis was undertaken by Wold. The report was drafted by Wold based upon this analysis and unpublished work by Grave. The draft report was then reviewed, revised and finalized by Wold and Grave. The authors received valuable comments and inputs from a team comprising Gilberto Ribeiro, Camilo Ceita and Zatando Mbiki from GMCVP and INE. Any shortcomings of the final report is however the sole responsibility of the two authors.



# Summary

The overall objective of this report is to contribute to the provision of tools for policy makers and others alike who work or consider to work to mitigate and alleviate poverty and to ensure the utilization of the poor as the important resource they are. This provision will include the following elements:

- Presenting factual information concerning living conditions of the poor;
- Documenting the effects for the poor versus the better off of public policy across sectors;
- Analyzing how public policy might be adjusted or changed in order to increase efficiency and equity in provision of public service to poor and better off alike;
- Analyzing how public policy might be adjusted or changed in order to assist the poor in utilizing their own resources to grow out of poverty;
- Analyzing how public policy might be adjusted or changed in order to serve both genders considering the bearing of gender; and
- Based upon the findings from the analysis, suggesting possible adapted policy changes for consideration, assuming these to serve as examples for further work on policy implementation design rather than a final detailed policy list.

Three features set the Angolan economy apart from the average one:

- the natural resource economy based upon oil and diamond resources,
- the long lasting civil war with so far deceiving peace agreements, and
- the special mix of regulated and free market economy.

While none of these features are unique to Angola, they definitely create a specific set of conditions for all economic and social life. Forced migration and blocking transport-ways between rural and urban areas form important elements for the social and economic context of poverty.

The main approach of the report is sector-wise, with a final chapter trying to integrate the different sectors

while presenting a more comprehensive set of policy recommendations. The outline of each chapter includes the following steps:

- a descriptive documentation,
- direct efficiency issues – trying to identify win-win situations where policy reform might save public resources and increase economic performance,
- indirect efficiency (and equity) issues – to identify constraints for poor people, and
- equity (and indirect efficiency) issues – to identify constraints for poor people utilizing public service.

## Poverty profiles and productive sectors

The report goes straight to the key question, why are people poor. The simple answer is that they have few resources and find it difficult to utilize their main resource, their own labor, in an efficient manner. The more detailed answer is that households where the male and/or female heads<sup>1</sup> have some education and employment are less likely to be poor. There is however a strong gender dimension here. It is whether the female head is employed that really matters. While there is a positive effect of education for both sexes, the effect of high education for the female head is clearly more important. This is partly a reflection of a situation where more or less all male heads work, but this is not the full explanation.

Three policy recommendations with different aims are given, as follows:

- In the short run the main recommendation to reduce poverty is to provide employment for the female head either directly or making it possible for her such as by providing day care for children, providing access to water close to the house etc.
- The main recommendation to reduce poverty in the long run is to ensure access to education especially for the girls.
- The main recommendation to mitigate poverty is to provide food subsidies through a cross-subsidization

<sup>1</sup> We have used the terms male and female head in a manner which allows for both a male and a female head in a household. If a male head is married, his wife will be considered female head and vice versa.

scheme taxing a luxury good and subsidizing an inferior good.

The analysis of the urban informal sector not only confirmed the existence of a large small and petty trading sector, but showed that this sector rather replaced than added to the more standard production segments of the informal sector. The big advantage is that this informal trading sector creates opportunities for all. 9 of 16 are employed in the informal sector and 7 of these 9 are working in informal commerce. Women and young people are dominating, but you find all ages and both genders well represented. The profile of employees is different within informal production. This is dominated by men and often men with quite some experience. In addition you find an interesting sector of informal professional work dominated by young people with education and older ones with only low education.

One could have expected that informal sector work was really the sector of last resort with low pay across the sub-sectors. But this is not the case, in fact salaries are higher in informal commerce. We should add that this is salary per day or week and not per hour. But even if we may assume that people have to work long hours for their pay in informal commerce, it is still remarkable with a fair pay in this sector. This really means that some of the profit trickles down even to this level. In the short term this is only positive. It gives the usually marginal groups, women and young ones a chance to earn a living.

Unfortunately the current economic situation is not very sound and it may well change one day. Then the informal commerce sector is deemed to shrink and people in informal commerce will be in big trouble. Unless they manage to adapt to a new situation the young ones risk becoming the lost generation and older women might face either reduced income or being squeezed out of business. Hence the policy recommendations are twofold: 1. Prepare people for the changes by providing training with an emphasis on apprenticeship but also vocational training and 2. Change the policy regime in a stepwise manner.

The urban poverty survey from 1995 does not include rural areas and we have supplemented it with a rural survey conducted in 1996. Since we lack information on the price level across the country we were not able to inflate the urban poverty line from 1995 to fit rural areas in 1996. Hence it was necessary to calculate two new poverty lines using a common approach. The absolute poverty line approach allows for this and that has been applied in both rural and urban areas. This absolute poverty line accepts the given food and non-food pattern in each of rural and urban areas. We then recalculated the expenses needed to provide a consumption that gives food calories according to the

FAO recommendation being 2100 kcal per adult equivalent per day.

Based upon this approach we find an overwhelming poverty in rural areas where 78 per cent are moderate poor or extreme poor while 40 per cent are moderate poor or extreme poor in urban areas. While the main impression is one of widespread poverty in rural areas, the analysis shows that it increases even further if the head is old or if the male head does not have education and is reduced if the female head has employment or business outside the crop farm. The main conclusion is however that a large share of the rural population is isolated and not able to sell any produce for a fair price. In order to integrate rural areas it is essential to improve infrastructure and transport means allowing farmers some options for selling their produce and buying consumer goods, inputs and equipment. While private traders will continue to work in the close hinterland of cities and other markets, a public program such as a Strategic food reserve program is needed for remote and less central areas. A strategic food program will have a two-sided effect:

- marketing opportunities are serving as an incentive to the rural population, an incentive that might even improve the transition to a peaceful situation in the future, and
- such a reserve means that the Government and donors are better prepared when future emergency situations develop.

### **Social sectors**

We have already identified that education has a large impact on poverty reduction and it is essential to give both poor and better off, girls and boys alike access to education. The data analysis gives two distinct findings:

- the repetition ratio is very high and creates a large extra burden on the system and
- the main factor behind low enrollment is poverty, but this varies over age with very low enrollment rates among the very young and old and closer to average enrollment rates in the core age groups.

The analysis also shows that these findings are highly linked. The extreme poor and moderate poor are more likely to repeat classes than the better off and hence taking poverty along for the next generation. The real task is to break this circle. A comprehensive approach is needed and should include:

- Donor assistance is required to provide additional resources for a limited period,
- A school fee program with local control and local spending is to be introduced,
- A school fee exemption program should encourage early start and a maximum of one repetition.
- A fellowship program for extreme poor non-repetitors 10 years and above should be introduced.

- When donor support is phased out, the school fees should fully cover the extra costs of repetition and pay for the fellowship program of the extreme poor.

While the poor at least manage to arrange for some years of education, they have considerable larger problems to afford health service. In some areas only people who can afford to travel or pay for private service have access to health service. But for the poor the situation is worse, even if there is health service available, they can not afford it. Hence they often end up giving their own diagnosis and buy drugs for example at the local market. In many cases the situation is even worse. A large share of poor and extreme poor people do not even buy drugs for malaria. In some cases this may reflect that these drugs are not available in the market, but usually they will be available at a high price which is too expensive for the moderate poor and extreme poor. We can summarize the problem as follows:

- an overall lack of access especially in Mexico,
- no ability to pay for health service and drugs among the extreme poor, and
- a system of gasosas which hardly increase the overall health service available but rather reshuffles the line making it even harder for the extreme poor to get a consultation and treatment.

The solution seems to require an expanded two-tier system, trying to develop both the public and the private health service.

The main obstacle to develop a functioning two-tier system is the massive use of gasosas. Rather than trying to control or even combat this system, it is recommended that the Government establish a legal way to develop a two-tier system within the public health service. In order to reduce the need for control the Government should consider negotiating a deal with one or more doctor associations and one or more nurse and mid-wife associations.

The survey itself documents a not uncommon situation where the poor have the lowest water quality, treat the water less frequent than poor and better off and end up being substantially more exposed to diseases. But the survey also documents that this circle has moved a step further especially but not only in Luanda and created a system with private entrepreneur water lords running a retail water business, putting a quite large financial burden on the poor. This has two vicious effects on the moderate poor and extreme poor. First, high prices mean low water consumption among the extreme poor and hence they become even more dependent on the water quality, more affected by low water quality and more exposed to diseases. Second, the waterlords not only have no incentives to improve the situation; they are even said to be trying to stop

public pipelines to be extended to public taps in new squatter areas.

The current situation is however a potential win-win situation for the years to come. The challenge is to design programs where donors will support the extension and rehabilitation of public water pipes and the Government will tender the work to water supply entrepreneurs inviting entrepreneurs currently running water trucks and others to present bids. Running and maintenance of taps and wells should also be tendered to local entrepreneurs. Previous waterlords and others should be invited to present bids. Community or bairo water committees should monitor the situation, participate when the tenders are up for renewal and be given the right to put in a veto if they are not satisfied with a bidder.

The energy situation is more standard. The better off people are, to a larger degree they buy subsidized energy carriers than the extreme poor. There are no reasons what so ever for the Government to subsidize energy supply. These have been and will remain subsidies favoring the better off.

It is well documented that during crises, women move in as breadwinners. After a short crisis they might then return to their homes, but there are no short-term crisis in Luanda. The situation has long ago settled as permanent. Women are breadwinners on equal footing with men. But still we see that they also continue to bear the burden of household chores only assisted by the children, this is the real bearing of gender.

While the survey information on time use is limited it documents clearly than also in cities of Angola, women have moved into the bread winner group while men have not started to do household chores to the same extent. The old fashioned statement that division of labor in families is a private matter, should be confronted openly by two strategies:

- Public campaigns to tell the population that men are not doing their share of the total work burden and that it is due time for them to start doing household chores.
- Government support to provisions to reduce the work load for women such as:
  - a second review of gender impact when introducing new Government policies;
  - an improved water supply, reducing the time needed to walk long distances; and
  - arranging for extra child care such as kindergartens etc.

Food security is as you might expect closely linked to poverty. 1 of 10 better off families do not get enough food to ensure the FAO recommendation of a minimum of 2100 kcal per day per adult equivalent. But 4 of 10 moderate poor families and 9-10 of 10 extreme

poor families fall below the same minimum calorie line. Differences across provinces and gender of the head of household are small, but the share of low calorie intake households almost doubles when moving from households with a young head to one with an old head.

There is however also an important gender effect. While education for both the female and the male head reduced poverty, only education of the female head reduces the number with a too low calorie intake, higher education of the male head in fact reduces the calorie intake. This finding supports the hypothesis that the bargain power of the female head ensures that a higher share of the spending are used for food providing calories.

Three policy conclusions are drawn:

- *food security in a gender perspective*: to improve food security women should be encouraged and assisted both to increase their human resources as education and experience from paid work;
  - ensure equal access and enrollment in school for girls and boys;
  - reduce existing barriers for women to enter public and private formal sector work
- *a gender conscious food security policy*: public campaigns for gender equity in sharing household chores and public efforts to reduce the workload.
- *cross-subsidizing food items*: to mitigate effects of poverty, the Government should consider utilizing the different consumption pattern to redistribute money from the better off to the poor by cross-subsidizing food items.

### Final policy recommendations

In the final chapter the policy recommendations are presented as comprising four categories:

- Rural / urban
- Subsidies in a poverty and food security perspective
- Get people to work
- Social sectors

Rural / urban policy recommendations are split between those that should be implemented in secure areas only and recommendations for less secure areas.

In a stable situation it would be a win-win policy to improve crop market efficiency. A standard recommendation to be considered would include as follows:

- for the Government to improve transport infrastructure especially feeder roads but also main roads and railways.
- for the Government to provide a framework to encourage production for sale, marketing and trading; spreading price information (produce and transport) by radio, to support provision of credit

packages to farmers by private firms and NGOs, to support a stable marketing environment by offering a (low) floor price at provincial level by a marketing agency (rather contracted to private traders or NGOs than run by a public agency), provision of credit packages to farmers by private firms and NGOs, to provide credit to traders, to support construction of storage, and to provide extension service.

In insecure areas two elements should be considered:

- for the Government and donors to improve infrastructure and provide the framework in the surrounding secure areas, and
- for the Government and donors to support private traders and NGOs who are trading in less secure areas, including buying crops, selling inputs, equipment and even consumer goods, and providing inputs and equipment on credit terms. Support could be given as credit or by commissioning traders to buy produce and transport it to public depots.

The issue of subsidies is considered in both a poverty and a food security perspective and self-targeting (cross-) subsidies are recommended. Three luxury goods, meat, sugar and drinks are identified. Alcoholic drinks and soft drinks are prime candidates for being taxed. One inferior good, maize meal, is identified. Further data collection linked to the planned 1999/2000 Consumption and expenditure survey to identify a grain/ meal of maize, cassava, millet or sorghum in each large city in the scheme is needed in order to identify an inferior good for each city.

It is stressed that only urban areas provide the stable structure to allow for cross-subsidies. Even here, the size should be kept a reasonable level to avoid too large leakage. It is also discussed how the idea of subsidizing inferior goods might create some political resistance just because the good is ....., yes, inferior.

Currently the informal sector is an underemployment buffer that gives opportunities even for groups that often are marginalized as women and the young ones. It is however recommended planning for the future and the following recommendations are presented for urban areas:

- Prepare people for the changes by providing training, with a main focus on apprenticeship but also vocational training.
- Change the policy regime in a step-wise manner.
- Reduce existing barriers for women to enter public and private formal sector work
- Public campaigns for gender equity in sharing household chores and public efforts to reduce the workload of household chores e.g. collection of water.

As already stated, a comprehensive analysis of rural areas is outside the scope of this study. The very low and very fluctuating crop prices combined with the high degree of poverty point however to the need to strengthen the link between rural and urban areas. This approach do not require an end of civil war and unrest and will serve as both a short and long term incentive for rural people to remain in their villages rather than moving to Luanda and other cities. Such a program should comprise the following main element:

- the main element will be to build a strategic food reserve by a program to buy staple food that store well (e.g. maize and millet) to be operational both in surplus and normal years.

Such a program should be coordinated by the Government with assistance from main donors both emergency relief donors as the WFP and the UNHCR and the longer term development donors such as UNDP and UNICEF. The operations as such would gain from being decentralized to public authorities and a series of donors.

Policy recommendations within the social sectors are usually implemented sector-wise but the effects should be considered simultaneously. The overall situation is that the poor families to a large degree still manage to send their children to school, but are hardly able to pay for health consultation and rely on self-diagnosis and buying the necessary drugs. Water supply is clearly a public disaster and is to a very large extent handled by waterlords who are well paid for their service. In fact the water supply is so lucrative that there are anecdotal stories about the waterlords using any means to make sure new squatter areas are not supplied with public water taps. Whether true or not, the water market is overdue for changes.

In this situation, the water supply is a prime candidate for a win-win solution making sure to involve the current waterlords but only as well controlled local operators. The education sector is also a candidate for a win-win policy change but here improved efficiency is more openly linked to the equity objective of providing education opportunities for all. The education policy should start by improving school and education quality based upon a combination on donor support and locally controlled school/PTA funds, second, reduce repetition, third, hence reduce number of children in each class and fourth, either improve the quality, reduce the payment through locally controlled school/PTA funds, or providing scholarships to the extreme poor children with scholastic achievements (limited to such as 5 per cent in a given class).

The health sector is worse off. We know from other developing countries that the poor are willing to pay for health service if it is relatively cheap and gives value for money, but poor and especially the extreme

poor in urban areas in Angola can hardly afford to pay for any consultation. There is hardly any win-win policy which will also provide access for all. Unless the Government is willing and able to increase resources considerably, it is rather recommended to face the situation and open up for a combined privatized/public scheme. In these schemes health personnel should be allowed to work in both sectors rather than continue with charging gasosas or leaving the public service all together.

The report includes a technical appendix on the construction of poverty lines.

# 1. Introduction, objective and approach

The overall objective of this report is to contribute towards a poverty mitigation and alleviation policy which is efficient in the short run and can be maintained in the long run by a) documenting facts which what might be known to some but hardly widely acknowledged and b) providing new knowledge. Both actions have the potential to push an enhanced consideration of policy reform that might serve the benefit of the poor households, families and individuals in Angola.

## 1.1. A report to initiate policy discussions

This report is presented as a report to initiate policy discussions with line ministries and other stakeholders rather than claiming to present final policy. Some might argue the need to start such a process by open discussions with line ministries and other stakeholders. But this is a chicken and egg discussion. By experience you first have to present some information and suggestion for policy consideration before you can expect to receive some feedback. This is exactly the aim of this report.

## 1.2. A focus on policy issues rather than policy design

It should be stressed that the strength of this report is supposed to be the ability to document emerging knowledge, reject false myths and present some new findings in order to identify potential policy issues. The report takes even the first step further by presenting some preliminary ideas for policy design. These are however only intended to indicate one possible option among others, rather to show that the policy issues raised really already at this stage allow for improved policy design.

## 1.3. A twofold or rather threefold economy

The Angola economy is a network of three layers; the off-shore US dollar based oil-production and the diamond exploration in UNITA controlled areas, the domestic rural and urban economy comprising a formal sector based upon a combination of official currency rate and the parallel currency rate, and an informal sector totally based upon a parallel currency rate. These layers create an exceptional, unpredictable and volatile economic environment where access to a

proper network and knowledge is essential for playing at equal footing. The oil sector in general and Sonangol in special are running their own sub-economy or in fact even sub-society with a range of social and economic service provided for the employees and their families. The large discrepancy between the official and parallel market exchange rates, currently (end-1998) doubling the rates, provides a de facto subsidy of around 100 per cent to importers gaining access to currency quotas at official rate. Neither of these two sources is open for traditional public policy design, but through trickle down or not trickling down, have wide and deep implications not only for current economic transactions, but for the economic structure as such.

The effects of the civil war are not only disastrous for the human beings directly affected by fighting activities, evacuation and forced migration, but through blocking transport and distribution in substantially larger parts of the country.

While we are not addressing these issues directly, they inevitably turn up while discussing other issues.

## 1.4. Poverty

Poverty is a monster with many heads. Whether in peace or war, it is caused by natural and man-made environment being ecological conditions, demographic structures, physical infrastructure, and social and economic organization of the society at all levels from the household and community to the national and international levels. Poverty is a question of means and resources, opportunities and constraints but also about how the human end goals are achieved, how the level of living is perceived and the overall quality of life.

While fully realizing that the poverty monster might need an attack from many angles, the focus is on how public resources might be allocated to ensure equity and efficiency in poverty alleviation. Hence this report aims to contribute to an understanding of how public resources might be allocated in order to work towards the common objective of combating poverty.

The approach will be a sector-wise, using data from two central household surveys, the Inquérito Pobreza<sup>2</sup> in urban areas the Inquérito aos Agregados Rurais<sup>3</sup> in rural areas, to analyze the situation in a series of sectors, aiming as follows:

- Descriptive – to identify and describe the poor and their situation;
- Direct efficiency – to identify a potential win-win situation where a policy reform might a) directly save public resources or b) increase overall economic performance;
- Indirect efficiency and equity – to identify the main constraints of the poor people for fully utilizing their economic potential; and
- Equity and indirect efficiency – to identify the main constraints of the poor for being able to utilize public service.

The study includes a review of the series of reports from the Luanda 1990 Household Budget and Nutrition Survey<sup>4</sup>. It is outside the scope to include a general analysis of changes during this period but we have included references to these reports in the introduction to a number of the chapters.

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<sup>2</sup> Refer to Gabinete de Monitorização das Condições de Vida da População/ GMCVP (1996).

<sup>3</sup> Refer to Departamento de Estatística e de Informática (1997).

<sup>4</sup> Refer to seven reports: Aguilar (1992), Bender & Hunt (1991a,b,c,d), Devereux & Hunt (1991), and Hunt (1991).

## 2. Poverty, expenditures and subsidies

In this chapter, we will present an overview of in which provinces and among which social groups you find more poor people than among other groups. We will also address the consumption pattern of poor versus non-poor people. This will help us understand more about how the poor people manage. It will also allow for a discussion on whether the current subsidy package reach the poor ones, and as an advise to a Government who wants to reach the poor with the least leakage to better off people, where to put direct or indirect subsidies.

Similar studies in other countries such as Zambia (Central Statistical Office 1994 and 1998) and Zimbabwe (Social Development Fund 1997) have shown that the poor are loosing at two fronts. First, they have to allocate a larger share of their overall expenditures to basic needs, which always comprises a large share for food but often also other expensive necessities as charcoal. With a large share for such basic necessities they are of course very vulnerable for changes in supply and price of these commodities. Second, the poor usually do not have access to individual infrastructure as piped water and electric power supply. Such basic infrastructure at the household level is often directly subsidized and even when the subsidies have been removed they are charged for operating costs only and pay nothing for the installation costs. Hence this infrastructure is really an asset and how it is spread among the poor and better off will be addressed in chapter 7. In this chapter we will rather look at the other side of the coin, paying for the more expensive alternatives, such as tank water and expensive energy.

### 2.1. Definition and measurement of poverty

As already mentioned, poverty is a multidimensional concept. It was originally used to describe a lack of resources, being monetary, material or even immaterial resources. Today it is not only used to describe a lack of resources, but even a slow development process and poor results of the process as well. For policy planning it is however important to focus on resources, the process and the final result step by step and in this report the focus will be on poverty defined as the lack

of income measured by total consumption in cash and kind. We will then take one step backwards, trying to understand why some people are poor and one step forward to address the effects of being poor.

We will measure poverty as described in Perfil da Pobreza em Angola (GMCVP 1996: 11) and discussed in a separate annex to this report, i.e. whether a household has an income (measured by total consumption) below a certain poverty line. The main approach, which is used for the urban areas, will be to define the poverty line according to the average total consumption in urban Angola. When measuring rural poverty and comparing poverty in rural and urban areas we will however also define an absolute poverty line defined from the calorie requirements set by FAO and the consumption pattern measured in Angola.

### 2.2. Where do you find the poor?

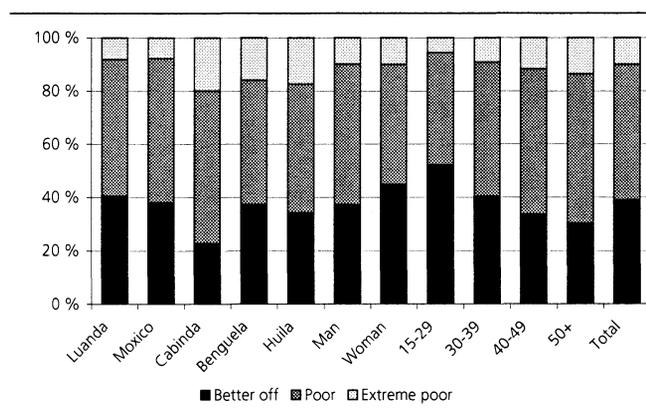
The Perfil da Pobreza em Angola presents a number of tables and details on where to find the poor. We are presenting some of this information in figure 2.1 and table 2.1. Figure 2.1 shows the distribution of poverty head count (moderate poor and extreme poor) in provinces and by gender and age of head of household. Table 2.1 gives more details and shows the distribution of poverty head count (moderate poor and extreme poor), poverty gap and poverty severity. For a further analysis along other dimensions we refer to the Perfil da Pobreza. We have here rather chosen to complement this picture by running some multivariate analysis with the same aim, trying to identify social groups with many poor people.

In order to allow the reader to learn more about the interpretation of the poverty measures, we present poverty indices not only across provinces, by gender and age of the head of households, but even for the two groups of poor, moderate poor and extreme poor. The poverty indices include P0 - poverty head count = number of people below the poverty line, P1 - poverty gap = the distance below the poverty line or the extra income needed to reach the poverty line, and P2 - poverty severity among the poor = able to identify pockets of destitutes.

**Table 2.1. Poverty and extreme poverty in various provinces and by various groups of gender and age of head of household**

	Poverty			Poverty index			Share	Contribution to national poverty		
	Better off	Poor	Ext. poor	P0	P1	P2		P0	P1	P2
<b>Poverty</b>										
Better off	100.0	0.0	0.0	0.00	0.00	0.00	0.39	0.00	0.00	0.00
Poor	0.0	100.0	0.0	1.00	0.35	0.16	0.51	0.84	0.71	0.59
Ext. poor	0.0	0.0	100.0	1.00	0.75	0.57	0.10	0.16	0.29	0.41
<b>Province</b>										
Luanda	40.5	51.5	8.1	0.60	0.24	0.12	0.75	0.74	0.70	0.67
Moxico	38.1	54.2	7.7	0.62	0.26	0.14	0.04	0.04	0.04	0.04
Cabinda	22.7	57.4	19.9	0.77	0.37	0.22	0.04	0.05	0.06	0.06
Benguela	37.3	46.7	15.9	0.63	0.30	0.18	0.10	0.10	0.11	0.13
Huila	34.2	48.4	17.4	0.66	0.32	0.19	0.07	0.08	0.09	0.10
<b>Gender of head</b>										
Man	37.2	52.9	9.9	0.63	0.26	0.14	0.77	0.80	0.80	0.79
Woman	44.8	45.1	10.0	0.55	0.23	0.13	0.23	0.20	0.20	0.21
<b>Age of head</b>										
15-29	52.2	42.3	5.5	0.48	0.19	0.09	0.18	0.14	0.13	0.12
30-39	40.3	50.6	9.1	0.60	0.24	0.13	0.38	0.37	0.36	0.35
40-49	33.6	54.7	11.7	0.66	0.28	0.15	0.25	0.27	0.28	0.28
50+	30.2	56.1	13.6	0.70	0.32	0.18	0.19	0.21	0.23	0.24
Total	38.9	51.1	9.9	0.61	0.26	0.14	1.00	1.00	1.00	1.00

**Figure 2.1. Poverty and extreme poverty in various provinces and by various groups of gender and age of head of household**



By definition non of the better off are poor, but all moderate poor people and all extreme poor people have a poverty head count of 1 or 100 per cent, nothing less nothing more even for the extreme poor. But P1 tells you the difference. Moderate poor people are on average missing 35 per cent of the income needed to balance on the poverty line, while the extreme poor on average are missing a, yes, extreme share i.e. 75 per cent of the income needed to balance on the poverty line. As you would expect the better off do not contribute to the national poverty. The moderate poor contribute 84 per cent of the number of poor, but only 71 per cent of the poverty gap and 59 per cent of the poverty severity. The extreme poor are only 16 per cent of the poor, but they contribute 29 of the poverty gap and 41 per cent of the poverty severity.

The province information in figure 2.1 and table 2.1 split the provinces in two groups. The end cases, the

most rural province, Moxico and especially the capital, Luanda, have the cities with the highest share of better off people, the lowest share of extreme poor people and the lowest poverty gap and poverty severity. People in Moxico contribute least to poverty incidence, and the contribution to the poverty gap and poverty severity remains equally low. People in Luanda contribute somewhat more to the poverty incidence but equally little to poverty severity as people in Moxico. It is quite interesting to learn that the conditions of a remote province as Moxico does not create more poor than in other parts of Angola. As we shall learn in other chapters of the report they might however still be worse off along other dimensions such as lacking public service and infrastructure.

In countries where poverty profiles have been conducted in both rural and urban areas, such as Zimbabwe and Zambia, you will usually find a higher share of poor people in rural than urban areas, and the very lowest shares in the capital cities. In Zimbabwe separate poverty lines were constructed for rural and urban areas in each province adapting to lower local prices in rural areas, but still there were 60 per cent very poor in rural areas versus 21 per cent very poor in urban areas (Social Development Fund 1997: 23). In Zambia only one national poverty line was constructed and according to that line there were 89 per cent extremely poor in rural areas and 56 per cent in urban areas (Central Statistical Office 1996: 115). In both countries, unpublished analysis shows however that while the poverty is lower in capital cities, the severity of poverty among those who are poor in capital cities are not necessarily lower.

In Angola, this is not the case. Luanda is rather better off than the other cities, but you find no pattern of

severity piling up in the big city. The population in Luanda contributes less than average to the poverty incidence but even less to the poverty severity.

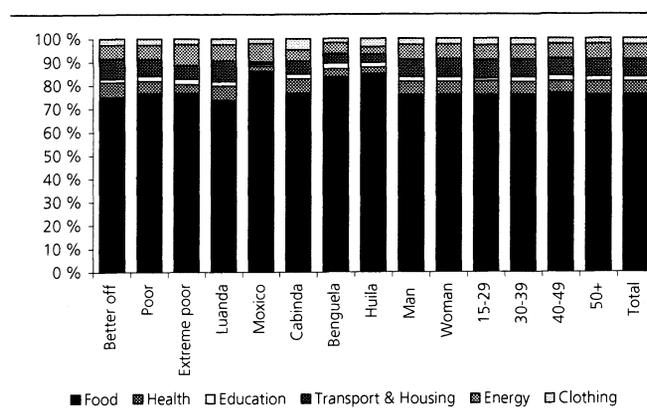
You find some similar and parallel patterns across gender and across age groups of head of households. Female headed and younger households have a lower poverty head count, and both these groups have a higher poverty severity than you would expect. This is surely and interesting and not common pattern. We might expect that both female headed and younger headed households are more flexible to the volatile but potentially rewarding informal urban markets, especially in Lusaka. The chapter on the informal sector might cast some further light on this question.

On the other hand, households with an old head do not only have the largest poverty incidence, but their share increases to a larger share of the poverty gap and an even larger share again in poverty severity. Old households might not be able to adapt to the continuously changing opportunities and constraints.

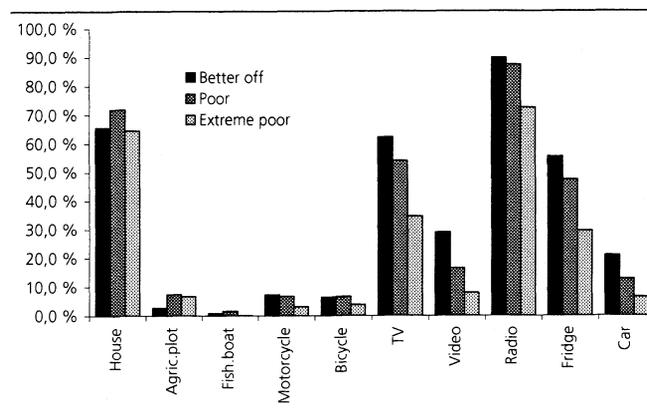
### 2.3. Coping and subsidies

Having identified some information on background and resources among the poor versus the non poor the next big issue is how people cope. This is both a matter of provision of resources and utilization of them. We will return to the provision of resources in rural and urban areas in later chapters. At this stage we will start by addressing how the poor versus the non-poor spend their income. This will also allow us to address the subsidy policy issue.

**Figure 2.2. Commodity group consumption expenditures in per cent by various poverty groups, provinces, gender and age of head of household**



**Figure 2.3. Durable goods owned by the households in per cent by various poverty groups**



**Table 2.2. Commodity group consumption expenditures in per cent by various poverty groups, provinces, gender and age of head of household. Per cent**

Commodity group	Food	Health	Education	Transport	Housing	Energy	Clothing	Total	Number
<b>Poverty</b>									
Better off	75.0	6.3	1.5	7.8	0.8	5.9	2.7	100.0	1 525
Poor	76.6	5.2	2.3	6.5	0.7	6.1	2.6	100.0	2 109
Ext. poor	76.7	3.7	2.3	5.1	0.8	8.9	2.4	100.0	476
<b>Province</b>									
Luanda	73.7	6.2	1.9	8.1	0.8	6.8	2.5	100.0	2 072
Moxico	86.2	2.2	0.7	0.9	0.3	7.9	1.9	100.0	296
Cabinda	76.8	6.0	2.2	4.8	0.7	4.8	4.7	100.0	426
Benguela	83.6	3.4	2.5	3.3	0.7	4.6	1.8	100.0	879
Huila	84.9	2.8	2.1	3.1	0.5	3.2	3.5	100.0	437
<b>Gender of head</b>									
Man	76.0	5.5	2.0	6.8	0.8	6.3	2.6	100.0	3 249
Woman	76.0	5.4	1.9	7.1	0.7	6.4	2.5	100.0	861
<b>Age of head</b>									
15-29	75.7	5.9	1.1	7.1	1.0	6.2	2.9	100.0	797
30-39	75.9	5.4	2.1	6.8	0.8	6.3	2.7	100.0	1 526
40-49	76.6	5.2	2.3	6.8	0.5	6.2	2.4	100.0	1 001
50+	75.8	5.7	2.1	6.8	0.6	6.6	2.4	100.0	786
Total	76.0	5.5	2.0	6.9	0.7	6.3	2.6	100.0	4 110

Figure 2.2 and table 2.2 give an overview of the consumption pattern across poverty, province and gender and age of head of household. It is highly uncommon that the food share is more or less equal for all poverty groups. The common picture is that better off people spend less on food and in capital cities in neighbor countries with a more or less open foreign trade policy you will tend to find an even better choice of non-food commodity. The special situation in Luanda is the wide range of imported luxury food items. Another explanation is the lack of infrastructure and hence the larger need to buy gas, charcoal etc. These might be parts of an explanation, but is still remarkable and you would definitely not expect this to continue if the trade policy changes. The provincial patterns are also uncommon. We have just seen that poverty is lowest in Luanda and Moxico, but they are the extremes concerning food share of consumption. Up country Moxico has the highest share of food consumption. It seems reasonable to assume this reflect both an influx of expensive imported food items but also a low supply of non-food goods.

Other part of the consumption patterns are easier to interpret and give us interesting information on the situation of the moderate poor and the extreme poor, as follows:

- The table tells us that the extreme poor can not afford to pay for health service as the moderate poor or better off can. The threshold is obviously too large.

- On the other hand, also the moderate poor and the extreme poor send their children to school, but this certainly has a cost, they pay a share more than 1.5 times the better off.
- Transport has also a special pattern. It is really a big city expense and especially a Luanda expense. It is however above the threshold for the poor and especially the extreme poor.
- Energy has the opposite pattern and for the opposite reason. The poor are hardly using more energy, but are left with more expensive energy. We will return to the details both below and in the chapter on water and power supply.

### 2.4. Food consumption patterns

Even finding the same level of food consumption share, we would hardly expect to find the same pattern across food commodity groups for better off, moderate poor and extreme poor.

Indeed as table 2.3 shows there are considerable differences, exactly what you would expect. The extreme poor spend like 1/3 on meal and other cereal products or 1.5 times the share of the better off. The better off compensate by a higher share of more luxury goods like meat, sugar, milk and alcoholic drinks. You will also find clear geographical patterns both for stable food and for relish food. And probably due to transport problems, sugar is low on the list in Moxico.

There are hardly any differences across gender and age of head of household.

**Table 2.3. Detailed food consumption expenditures in per cent by various poverty groups, provinces, gender and age of head of household**

	Maize	Millet	Cereal	Bread	Rice	Fish	Meat	Leaves	Oil	Sugar	Milk	Drinks	Beans	Salt	Sum food	Non-food	Total	Number
<b>Poverty</b>																		
Better off	5.3	6.1	1.4	6.6	7.2	11.0	6.1	3.2	5.1	7.4	4.3	4.4	5.4	1.4	75.0	25.0	100.0	1 525
Poor	5.9	8.2	1.3	7.9	7.5	12.9	4.0	3.0	5.8	7.1	3.4	2.7	5.6	1.3	76.6	23.4	100.0	2 109
Ext. poor	4.7	15.2	2.1	7.6	8.8	12.5	1.8	3.0	6.3	5.2	1.4	1.6	5.3	1.3	76.7	23.3	100.0	476
<b>Province</b>																		
Luanda	6.4	5.2	0.9	7.8	7.3	12.8	4.5	2.8	5.3	7.2	3.7	3.4	5.1	1.3	73.7	26.3	100.0	2 072
Moxico	13.6	14.8	3.4	3.1	6.1	9.9	5.2	4.4	6.9	2.4	1.9	2.9	5.3	6.3	86.2	13.8	100.0	296
Cabinda	3.0	2.9	0.4	7.7	7.8	14.6	5.2	3.4	6.5	7.7	4.4	4.0	8.1	1.2	76.8	23.2	100.0	426
Benguela	0.7	20.8	2.5	6.2	10.2	8.9	4.2	3.9	6.3	6.7	4.2	1.9	6.7	0.4	83.6	16.4	100.0	879
Huila	0.5	21.6	4.4	6.9	6.7	9.8	5.2	4.1	6.8	7.2	1.9	2.9	6.3	0.6	84.9	15.1	100.0	437
<b>Gender of head</b>																		
Man	5.6	8.1	1.4	7.5	7.6	12.2	4.5	2.9	5.6	7.0	3.6	3.4	5.4	1.4	76.0	24.0	100.0	3 249
Woman	5.4	8.1	1.6	7.0	7.3	12.2	4.8	3.5	5.6	7.3	3.5	2.6	5.7	1.3	76.0	24.0	100.0	861
<b>Age of head</b>																		
15-29	5.5	8.2	1.2	7.2	7.8	11.8	4.0	2.9	6.0	7.0	3.8	3.6	5.3	1.5	75.7	24.3	100.0	797
30-39	5.5	8.1	1.5	7.0	7.2	12.3	4.7	3.2	5.5	6.9	3.5	3.3	5.6	1.5	75.9	24.1	100.0	1 526
40-49	5.4	8.3	1.5	7.7	7.8	12.2	4.7	3.1	5.2	7.2	3.6	3.3	5.5	1.1	76.6	23.4	100.0	1 001
50+	5.7	7.8	1.3	7.8	7.4	12.1	4.8	3.0	5.8	7.1	3.3	2.9	5.5	1.3	75.8	24.2	100.0	786
Total	5.5	8.1	1.4	7.4	7.5	12.2	4.6	3.1	5.6	7.0	3.6	3.3	5.5	1.4	76.0	24.0	100.0	4 110

**Table 2.4. Detailed non-food consumption expenditures in per cent by various poverty groups, provinces, gender and age of head of household. Per cent**

	Health consulta.	Drugs	Health treatm.	School fees	Books	School uniform	Public transp.	Private transp.	Staff transp.	Rent	Maintenance
<b>Poverty</b>											
Better off	1.3	3.0	2.0	0.2	0.8	0.5	1.6	5.7	0.5	0.5	0.3
Poor	1.0	2.5	1.8	0.3	1.2	0.8	0.5	5.5	0.5	0.5	0.2
Ext. poor	0.3	2.6	0.8	0.2	1.2	0.8	0.0	4.7	0.4	0.6	0.2
<b>Province</b>											
Luanda	1.3	2.9	2.0	0.3	1.0	0.7	0.9	6.8	0.4	0.5	0.3
Moxico	0.3	1.5	0.3	0.0	0.6	0.1	0.6	0.1	0.2	0.3	0.1
Cabinda	0.9	3.9	1.3	0.0	1.2	1.0	0.6	3.6	0.6	0.5	0.2
Benguela	0.3	1.7	1.4	0.2	1.5	0.8	1.1	1.3	0.9	0.6	0.2
Huila	0.4	2.1	0.3	0.1	1.2	0.7	0.7	1.4	1.0	0.2	0.2
<b>Gender of head</b>											
Man	1.1	2.8	1.7	0.2	1.0	0.7	0.9	5.4	0.5	0.5	0.3
Woman	0.9	2.4	2.1	0.2	1.0	0.7	0.8	5.8	0.5	0.6	0.1
<b>Age of head</b>											
15-29	1.3	3.1	1.6	0.1	0.6	0.4	0.9	5.6	0.6	0.7	0.3
30-39	1.0	2.6	1.8	0.3	1.1	0.7	0.8	5.5	0.5	0.6	0.2
40-49	0.9	2.4	1.8	0.2	1.2	0.9	1.1	5.3	0.4	0.3	0.2
50+	1.0	2.8	1.8	0.3	1.1	0.7	0.7	5.6	0.5	0.4	0.2
Total	1.0	2.7	1.8	0.2	1.0	0.7	0.9	5.5	0.5	0.5	0.2

**Table 2.4. cont.**

	Charcoal	Firewood	Gas	Petrol	Elec-tricity	Water	Clothing	Shoes	Non-food	Sum food	Total	Number
<b>Poverty</b>												
Better off	1.2	0.1	2.2	0.5	1.0	0.9	1.5	1.2	25.0	75.0	100.0	1 525
Poor	1.3	0.3	2.3	0.6	0.8	0.9	1.4	1.2	23.4	76.6	100.0	2 109
Ext. poor	1.9	0.6	3.1	1.0	1.0	1.2	1.5	0.8	23.3	76.7	100.0	476
<b>Province</b>												
Luanda	1.2	0.1	2.9	0.6	1.0	1.1	1.4	1.2	26.3	73.7	100.0	2 072
Moxico	3.7	1.6	0.0	2.4	0.0	0.2	1.2	0.7	13.8	86.2	100.0	296
Cabinda	1.1	0.6	1.3	0.8	1.0	0.0	3.1	1.6	23.2	76.8	100.0	426
Benguela	1.5	0.4	0.8	0.2	0.7	1.0	1.1	0.8	16.4	83.6	100.0	879
Huila	1.4	0.3	0.4	0.3	0.5	0.2	2.1	1.5	15.1	84.9	100.0	437
<b>Gender of head</b>												
Man	1.2	0.2	2.4	0.6	0.9	0.9	1.5	1.2	24.0	76.0	100.0	3 249
Woman	1.7	0.3	2.0	0.6	0.8	0.9	1.4	1.1	24.0	76.0	100.0	861
<b>Age of head</b>												
15-29	1.4	0.1	2.3	0.7	0.8	0.8	1.6	1.4	24.3	75.7	100.0	797
30-39	1.3	0.2	2.4	0.6	0.9	0.9	1.6	1.1	24.1	75.9	100.0	1 526
40-49	1.2	0.3	2.3	0.6	0.9	1.0	1.3	1.1	23.4	76.6	100.0	1 001
50+	1.4	0.4	2.2	0.7	0.9	1.0	1.3	1.1	24.2	75.8	100.0	786
Total	1.3	0.2	2.3	0.6	0.9	0.9	1.5	1.2	24.0	76.0	100.0	4 110

## 2.5. Non-food consumption patterns

As presented in table 2.4, there are a number of very interesting and informative patterns in consumption of non-food across poverty groups, as follows:

- We have already learned that the extreme poor can not afford health service. The details show us an even clearer picture. They can not afford consultation nor any treatment, but rely on self-diagnosis and drugs bought at the market.
- You will find a similar but modified pattern in Moxico and Huila, in this case probably because there are not that many offers for health treatment.
- On education expense the extreme poor can only afford the same share of fees, meaning a lower amount and then less training. Still they have to pay a larger share than the better off for books. With other words they are squeezing out the money needed but end up with poorer service.
- The details on transport are very interesting indeed. The poor pay an equal share for private transport but next to nothing for public transport. With other words, only the better off can afford to go where public transport is available, for the extreme poor, the situation is likely to be that they only use transport to work, and in this case they are anyhow left to private service such as urban minibuses or hiking for a fee in rural areas.
- The poor and especially the extreme poor are loosing out on all types of energy. They pay a

larger share, but obviously not a larger amount. They are loosing out step by step. Few of the extreme poor have access to electricity, still they need light and have to rely on petrol which is more expensive. They end up compensating through firewood, which is not very energy efficient but serve well for both light, heating and cooking. This is really the poor peoples energy.

**2.6. Durable goods**

This study has measured poverty as being common in Angola and most other countries, by income and consumption. It could have been done by measuring assets and durable goods. You will expect a very clear relation between poverty as measured here and the ownership of assets and durables. In fact this relationship is usually so strong that anything else would indicate that income and consumption vary considerably over time. With other words, the poor of yesterday, might not be the poor of today or tomorrow. As presented in figure 2.4 and table 2.5 there is a clear but not that strong relationship. Except for house and more specialized productive assets for the urban population, a larger share of the better off own durables. But it should be added that the poor and not that far below.

Housing is a special case because the better off are more likely to get free housing from their employer and the extreme poor and poor are more likely to live in squatter areas where they might own the house but rather a sub-standard house, and they will hardly the plot of land.

The overall picture is one of a less strong relationship between income/ consumption poverty and ownership of durables than we expected. This indicates that there are large fluctuations over time and that the income poor of today might not be the income poor of tomorrow. It is very important to underscore that this does not reduce the hardship of being poor, but what it does indicate is the possibility of growing out of poverty for the individual household.

**Table 2.5. Durable goods owned by the households in per cent by various poverty groups. Per cent**

	Better off	Poor	Ext. poor	All	Number
<b>Durable good</b>					
House	65.5	71.8	64.5	68.6	3 560
Agric.plot	2.6	7.3	6.7	5.4	3 560
Fish.boat	0.7	1.6	0.1	1.1	3 560
Tractor	0.4	0.1	0.1	0.2	3 560
Mot.cycle	7.3	6.7	3.1	6.6	3 560
Bicycle	6.4	6.6	3.8	6.2	3 560
Heater	0.3	0.4	0.5	0.4	3 560
Furniture	4.5	6.5	4.3	5.5	3 560
TV	62.2	54.0	34.6	55.3	3 560
Video	29.1	16.4	7.9	20.5	3 560
Radio	89.8	87.4	72.4	86.9	3 560
Fridge	55.5	47.4	29.5	48.8	3 560
Car	21.0	12.7	6.5	15.3	3 560

**2.7. Subsidies**

The issue of subsidies is a multi-dimensional one. As discussed in Bender & Hunt (1991c) it is a fiscal and budget balance issue, it is a matter on avoiding inefficiencies, and a matter of target group and target objectives. An overall approach to this issue is outside the scope of this document. Our aim is a more modest one. If the Government of Angola wants to reduce or mitigate the effects of poverty the above discussed consumption patterns give clear guidelines to where to focus the subsidies.

**2.7.1. Food subsidies**

For food the obvious choice is maize meal. As for any food commodity group the amount spent by the better off is higher than by the moderate poor or extreme poor. But the budget share is like 2.5 times as high for the extreme poor as among the better off.

**2.7.2. Energy and water subsidies**

For energy and water the budget shares are clearly different, and from a theoretical view there are some candidates for subsidies such as firewood. However few of the items lend themselves to control. The few which might be easily controlled such as petrol products and public water supply are all luxury items and hence candidates for taxing not for subsidizing. For these items it is rather recommended to avoid any subsidy scheme, the better off should definitely pay the costs of these products and services.

**2.7.3. Social sector subsidies**

From a poverty point of view, the message is clear. The extreme poor stretch far to send children to school. Hence the extreme poor may be reached by rather reducing than introducing further user-fees. In addition there are valid reasons to introduce school meals to encourage the poor to allow their children to remain in school. Further analysis of school attendance will tell whether to focus solely on primary schooling or even consider lowering fees in secondary schools.

On the other hand, subsidizing health service fees, might not be the way to move. In fact information from this survey gives strong support to focus public health service on preventive health such as vaccinations since the public gain is even larger than the private. Only by a full coverage of vaccines can you keep epidemic diseases down. Curative health is obviously already in 1995 only for the better off anyhow. Hence these data rather support the idea to introduce a two-tier system with and without user fees and allow medical personnel to use public premises and equipment on their spare time charging a market fee.

We will return to some of these issues while discussing the sectors.

## 2.8. Why are people poor

To contribute to a documentation and understanding of why people are poor, we apply two methods, ordinary regression analysis and classification analysis.

### 2.8.1. Regression analysis

Table 2.6 presents the findings of a regression analysis. As one might have expected the largest positive contribution to consumption level comes from employment, but contrary to what you might have expected, the largest contribution come when the female head (who is actually either a head in herself or the spouse of a male head) is working. You might think that this could be due to the fact that a working wife more often has a working husband than the opposite, but we have already controlled for whether the husband is working so this is not the case. There are three likely explanations, one technical and two substantial ones:

- the straight forward explanation is that the wife is earning more than the husband. As we will discuss in the next chapter this is not as unlikely as one might assume.
- another possible explanation is the gender obligation in the family. A wife and especially a mother will by tradition be more responsible to ensure the daily living of her family, hence she will spend whatever Kwanzas she earns. A husband and a father is to a larger degree giving priority to a) his own consumption such as drinking - which may not be fully recorded and b) long term investment trying to ensure a better future for the whole family and even save some money, both being investment rather than consumption and hence not to be recorded.
- finally, since a larger share of men are working (refer to next chapter), the fact that a husband is working sets the household less apart while a wife working is still less common and hence makes a larger difference from the average.

The large impact of working female heads is also complemented by a positive effect of having a female rather than a male head of the household.

Already this analysis points to the fact that self-employment pays off better than other employment. As we will address later on this is mainly self-employment in the informal sector. It is also interesting that people working in the public sector can afford a higher consumption than people working in the private formal sector. Whether this is due to a large influx of gasosas or otherwise is hard to know from the data analysis, but this is again a strong verification of the special economy of Angola.

The second strong effects are from education. When we control for other factors, education pays off whether undertaken by men or (even slightly more for) women.

As one might expect, experience in the job pays off as well, but we should add that this is when we control for age. Age in itself has a strong negative impact, but is partly balanced by the chance to gain experience. Given the strong link (multicollinearity) between age and experience we need however to be cautious when interpreting these effects.

The very large negative impact is however from a pure demographic source. Having only one or a few breadwinners and/ or many dependents gives a dramatic reduction in consumption levels measured per adult equivalent as here.

As you would expect there are quite some geographical differences. Since we have chosen Luanda as the reference there are more negative than positive impacts. May be a surprise, but people in Cabinda has the lowest consumption level. Benguela is the winner, clearly ahead of Luanda. We should however stress that we are talking about monetary consumption levels and hence these differences may partly reflect different prices.

**Table 2.6. Total expenditures per adult equivalent\*, weighted linear regression\*\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	7.84	0.01	§§§	
<b>Continuous variables</b>				
Years of education, male head	0.01	0.00	0.07	§§§
Years of education, female head	0.01	0.00	0.08	§§§
Years in current job, male head	0.00	0.00	0.01	§
Years in current job, female head	0.00	0.00	0.07	§§§
Household head: Age in years	0.00	0.00	-0.14	§§§
Dependency ratio: dependents / breadwinners 15-60	-0.04	0.00	-0.10	§§§
<b>Classification variables</b>				
Occupational status, male head				
Self employed	0.11	0.00	0.15	§§§
Employed in public sector	0.08	0.00	0.14	§§§
Employed in private sector	0.08	0.00	0.12	§§§
Occupational status, female head				
Self employed	0.11	0.01	0.19	§§§
Employed in public sector	0.13	0.01	0.19	§§§
Employed in private sector	0.14	0.01	0.15	§§§
Province, default = Luanda				
Moxico	-0.99	0.26	-0.07	§§§
Cabinda	-0.22	0.40	-0.01	
Benguela	-0.76	0.23	-0.06	§§§
Huila	-0.46	0.17	-0.05	§§§
Gender of h.head, default = male	0.03	0.01	0.02	
Always lived here, default = yes	-0.06	0.00	-0.05	
Significance for model	0.00			
R-square	0.07			
Adjusted R-square	0.07			
Number of observations	4 109			

\* Natural logarithm of total expenditure per adult equivalent, \*\* Weighted least squares regression.

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level.

**Box on self targeting subsidies on inferior goods**

The standard reason for subsidizing goods or services is to mitigate the hardship certain groups are facing. Typical target groups are identified as follows:

- from a general policy decision to redistribute resources from better off to poor people,
- from a policy decision to redistribute resources from less hard life-cycle periods to tough hardship life-cycle periods, such as from other life-cycles to a period with small children, and
- for health reasons to redistribute resource to vulnerable groups such as children and pregnant/ nursing women.

In order to reach such target groups there are two options, either by arranging large-scale bureaucratic schemes to identify the target group and a food coupon system or to subsidize certain commodities whoever buy these goods. Bureaucratic food coupon systems are expensive to run, open for corruption and still vulnerable for two failures, both to identify non-eligible persons and not to identify eligible persons. Hence self-targeting subsidy schemes might be a better option.

The objective of the subsidy would still be to reach all eligible individuals or families and still not reaching any non-eligible individual or family. In reality you will never reach this objective and there will be a leakage (type I) to persons outside the target group and a leakage (type II) of eligible persons not buying the subsidized good.

Any subsidy scheme will have to strike a balance. And lucky enough information from a household budget survey will give estimates on both types of leakage. For small subsidies where we can assume that the subsidies have no impact on the consumption pattern, the food commodity groups shares will give the information straight ahead, while for large subsidies you need to calculate the elasticities which tell you how different groups will change their consumption pattern when relative prices change.

We restrict our example to small subsidies, assume no changes in food patterns, and focus on the extreme poor as our target group. Table 2.3 tells us that Maize meallie meal really is what the extreme poor eats more of than other groups. By introducing a subsidy scheme for maize meallie meal the extreme poor will in fact get a budget support which in relative terms are more than twice as large as for the better off, and almost twice as large as for the moderate poor.

If a scheme is to be introduced it is recommended to measure food consumption in even further details in each city. The focus would then be to split between different meallie meals as maize, millet, sorghum, and cassava meallie meal. The ideal commodity for subsidies is one that is both very cheap and so inferior to the substitutes that people only consume this as the very last resort, that is that they eat less of this commodity even in absolute terms if their overall income increases. In technical terms this means an elasticity below - 1.00. Cassava meallie meal is likely to be such a commodity in Luanda.

**Cross-subsidies**

A subsidy scheme might be financed through the ordinary public budget or by taxing a luxury commodity. Usually a family will increase their consumption of a luxury item faster than their income or total consumption. There are hardly any products which are luxury items in this sense at all income levels, but meat, milk/diary products, and drinks (alcoholic and non-alcoholic combined) are such luxury items for certain income groups. Due to the need for controlling all producers canned and bottled softdrinks, beer and other alcoholic drinks will be the very best candidate.

By subsidizing maize meallie meal with 25 per cent of the price and taxing drinks with 50 per cent you will transfer resources from the better off to the poor. The better off will end up being taxed with 0,7 per cent of their total consumption, the moderate poor will receive a subsidy of 0,7 per cent of their total consumption and the extreme poor will end up receiving a subsidy of 3,0 per cent of their total consumption. This might not sound much but it is roughly speaking equal to what they pay for health or for education.

**Calculations of cross-subsidies**

	Extreme poor	Moderate poor	Better off
Budget share maize meal	15.23	8.25	6.13
Costs of maize meal, mill. NKw	3.81	4.45	9.90
Budget share drinks	1.61	2.70	4.42
Costs of drinks, mill. NKw	0.40	1.46	7.07
Subsidies: maize meal, mill. NKw	0.95	1.11	2.45
Tax: drinks, mill. NKw	0.20	0.73	3.54
Net subsidies, mill. NKw	0.75	0.38	-1.09
Net subsidies	3.00	0.71	-0.67

**2.8.2. Classification analysis**

The classification analysis presented in figure 2.3<sup>5</sup> complements this picture.<sup>6</sup>Already the regression analysis identified the large impact of education, especially female education, but the classification analysis takes us one step further, identifying this as the variable with the largest impact when measuring the gap between sub-groups.

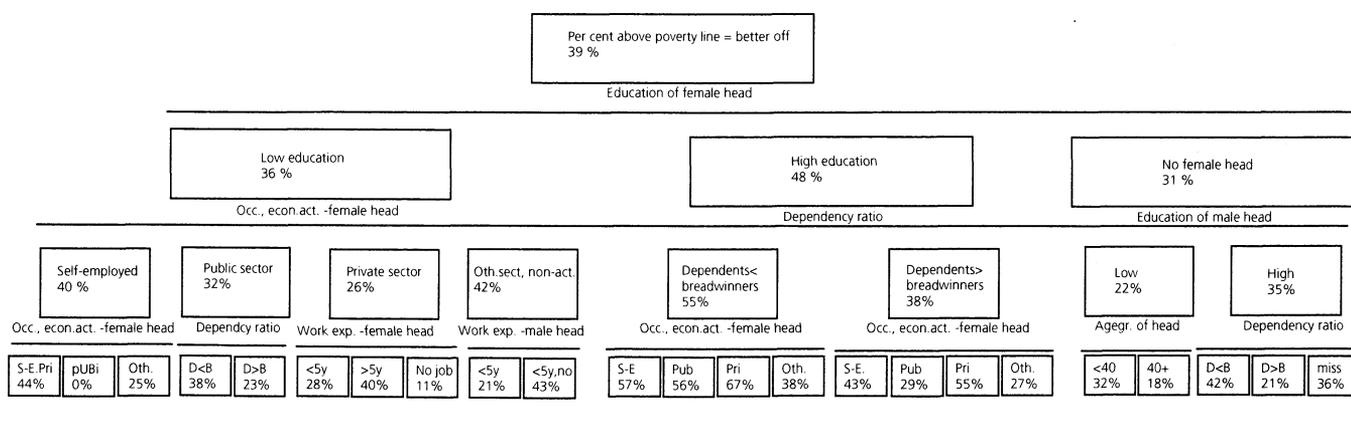
<sup>5</sup> A list of abbreviations and acronyms for this and other tree analyses is presented in table A.1. in annex 1.

<sup>6</sup> The advantage of a classification analysis is that it always identifies the variables that give the largest impact and doing this step by step allows for different variables to be in focus for different sub-groups. A disadvantage is however the lack of control for other variables. Hence it might e.g. be difficult to disentangle the effects of age and experience. Used as a companion to regression analysis there are however hardly any drawbacks.

When we can concentrate upon the groups one by one according to female education we are learning that the average impact of employment in different sectors rather conceive than enlighten us. For households with higher educated women, the private formal sector really pays off. For families with many breadwinners, even the informal and the public sectors pay off very well.

For households where the female head has a low education, the occupation of the male head is essential. As the figure shows, for this group the private formal sector does not pay off at all, the informal sector is the best choice and the very best is when both husband and wife are working in the informal sector.

Figure 2.4. Avoiding poverty, per cent above poverty line



When there are no female head in the household such as when a grandmother, a younger sister or a single man himself is running the kitchen, it is again education that matters. If the male head is well educated and there are few dependents, such as when parents have passed away or are living at other locations and youngster siblings are still living together, they do pretty well. But an old man with low education obviously struggles to survive.

### 2.8.3. Conclusion

As you will find in most societies and as you would expect the two main conclusions would be:

- Employment pays off as a poverty alleviation strategy and
- Education pays off as a poverty alleviation strategy. However in the large cities in Angola this is only half of the picture. The main conclusions are not that simple and the main reason being the gender dimension. Hence a more correct version of the main conclusions are as follows:
  - Employment for the female head of the household has a large poverty reducing impact, and
  - Education has a general poverty reducing impact, and female education has an even larger poverty reducing impact.

### 2.8.4. Policy recommendations

#### Poverty eradication

The two main conclusions should be seen as guiding principles both for the authorities and the households themselves.

The policy recommendation for governmental authorities, donors and NGOs alike would be as follows:

- In order to reduce poverty, programs to promote and further allow women to work should be encouraged.

This should both include a policy to favor women in public work programs and by encouraging and pre-

paring for any means that might reduce the work-load of women such as improved water supply and encouraging kindergartens and other types of child care.

- In order to reduce poverty, emphasis on education should be continued and strengthened. The emphasis should cover both girls and boys but a special emphasis should be given to girls.

The policy changes should both include means to retain quality such as the extension of the school day from two to three hours and the reduction from three to two shifts at school, and means to ensure access. Access could be improved both by building schools and ensure that school fees are not barriers stopping poor families sending their children to school (refer to the chapter on education). Households themselves are obviously trying to organize their life in a manner that might reduce poverty and there is not need for any public campaigns to encourage this process. But public campaigns are needed for other issues, especially to encourage households to organize daily life in a manner that would allow the female head of the household to work. One way is clearly for the husband to take his share of domestic chores when the wife is earning money for the daily bread on equal footing with him.

#### Poverty mitigation

In order to mitigate the impact of poverty, it is recommended to consider a scheme for cross-subsidization of inferior goods versus luxury goods. The current poverty profiles points to maize meal and drinks as appropriate inferior and luxury goods. It is however not recommended considering maize meal as an inferior good across all cities. An updated household budget survey providing details on staple grains and maize meal for each large city is not only recommended but also required.<sup>7</sup>

<sup>7</sup> A sample size of 400-600 households per city will be required.

## 3. Urban areas: Informal sector work<sup>8</sup>

The informal urban sector is considered everything from *the* opportunity of the poor to a dead-end way out of unemployment. World Bank documents, such as World Development Report 1995 (World Bank 1995) highlights that their own labor is the main asset of the poor. A recent UNDP report on poverty in Africa (UNDP 1998) rather highlights that the urban poor “tend to be mostly migrants from rural areas, having migrated because they lacked productive employment. More often than not, they are low-skilled, with little or no education.” While these two views may appear inconsistent, they are rather two (very different) perspectives of the same issue. As addressed in a joint UNDP/ World Bank study by Moser and Holland (1997: 4, 32-40), a more comprehensive perspective is that “With labor the poor’s greatest asset, a frequent response by poor households to declining income is to mobilize additional labor - principally women’s labor, but in the poorest households even children’s labor.”. Moser and Holland continue by addressing the low value of the poor’s labor and how they are forced to enter “competitive, dead-end occupations with low pay and long hours”.

Jointly these perspectives have determined how the urban informal sector work has been approached. Labor is the main asset of the poor, but it is likely to be poorly educated and low valued. Hence it is likely that in poor households, women and even children are forced to enter the informal sector and are likely to face competitive, dead-end occupations with low pay and long hours.

<sup>8</sup> The 1990 Luanda Household Budget and Nutrition Survey includes a special report on Public Sector Employment. There are three reasons to focus on informal sector employment rather than to include public sector and/ or formal private sector employment. The main reason is that the poor people tend to find their income in the informal sector. Public sector people might be vulnerable for being defined as redundant through a civil service reform, but they are still not the poor layer of the urban population. The other reason is that a policy to outline a redundancy policy requires data designed for this purpose rather than general household data. The third reason is that the existing report shows the need for a public sector reform to handle this issue.

### 3.1. Introduction

What we today call the informal sector is often viewed as the residual sector. In a sense this is a proper definition. A number of well specified economic transactions are well organized for in special sectors, such as public service, export oriented extracting industry, import substituting production, domestic transport and other protected services and segments of domestic production and services. The informal sectors pick up what is left from or not suitable for the formal sectors. But to understand the nature and potential of the informal sector we need to recognize that it comprises a number of quite different segments, all in a continuous development over the years. This includes the following sub-sectors:

- *Traditional informal sector segments* for production of goods and services in rural and urban areas, and the domestic trade of goods between rural and urban areas.
  - *Rural traditional production*: traditional rural production of agricultural and other products;
  - *Urban traditional production*: the small scale urban production of inputs and consumer goods for domestic rural and urban use;
  - *Rural traditional trade*: traditional small scale rural - rural and urban - rural trading of inputs for and produce of rural production; and
  - *Urban traditional trade*: traditional small scale urban - rural and urban - urban trading of inputs for production and consumer goods for domestic rural and urban use;
- *Trading in imported goods*
- *Illegal activities*
  - *Illegal export*
  - *Other criminal activities*

#### 3.1.1. The traditional informal sector segments

As stated in this list, there are a number of large traditional sub-sectors of the informal sector, being rural traditional production, urban traditional production,

rural traditional trade and urban traditional trade. Traditional rural production has rather been co-existing than competing with commercial farming; traditional urban informal production has rather been complementing than competing with urban domestic formal production; rural traditional trade has rather been complementing than competing with parastatal and formal trading; and urban trade has co-existed with an urban formal trading sector.

Commercial farming used to focus on export production i.e. mainly coffee and was hardly a big competitor but rather co-existing with traditional rural production. Parastatal and regulated trading was introduced to ensure a stable supply and low prices of crops and other agricultural produce in urban areas. Commercial farming is mainly a well-separated segment rather than a real competitor to informal rural production and trading.

Parastatal and regulated trading is currently of limited size and not able to affect the trading markets. Traditional trading markets are a mixture of large commercial structures and small scale trading. In periods of and areas with civil unrest risks and uncertainties are large and so is the potential profit. Again such economic abnormalities create a special trading structure which will not survive a future transition to a predictable trading system.

**3.1.2. Trading in imported goods**

A protectionism economy like in Angola creates a double trading bias. First, trading protection allows for import substituting industries both in the formal sector such as assembly-line factories and in the informal sector to fill an endless number of gaps. Second, import restrictions allow for large premiums on imports, serving as monopoly margins. But the really big premium originates from the artificial exchange rate. Import licenses, quotas and access to currency exchange at official exchange rate gives a profit margin of hundred per cent more or less over night. We have not been able to identify studies estimating the distribution of the exchange rate premium and the import monopoly premium. The wealth of the business community in Angola indicates that they retain a large share, but the size of the trading segments in the informal sector would indicate that quite some of the premium trickles down to the small scale traders in import goods and dollars.

**3.1.3. Illegal activities**

Studies of criminal activities from an economic point of view requires special methods well outside the scope of this study. The survey data available does not allow for this analysis.

**3.2. Approach**

In order to be able to draw some policy conclusion we find it necessary to approach sub-sectors, which to a certain degree are homogenous, and the two most important homogenous sub-sectors are the urban informal sector and rural crop production. This chapter will focus on the urban informal sector, but analysis of crop production requires a separate analysis.

Our approach for the urban informal economy analysis comprises two steps, as follows:

- a description of the size and nature of the informal urban sector addressing the segments listed above,
- an analysis of the economic return in different sub-segments

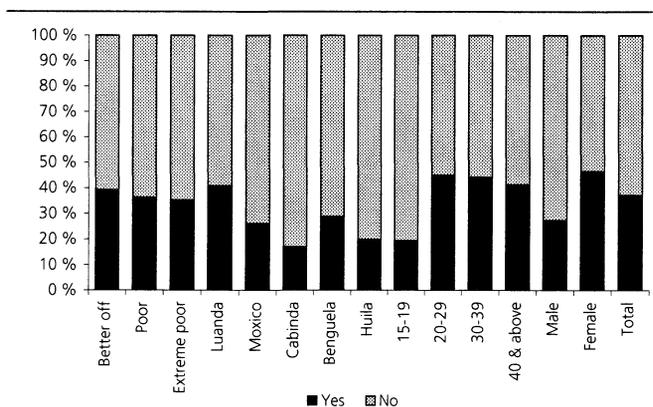
**3.3. Size and nature of the informal sector**

**3.3.1. From an individual point of view**

Figure 3.1 and tables 3.1 to 3.4 show that 37 per cent of people in the economic active age from 15 years to 60 years of age (both values included) are working in the urban informal sector. It should be added that 28 per cent are either students or not economically active and hence only 35 per cent are working in other sectors than in the urban informal sector. Therefore, you may say that the informal urban sector is where the majority of the urban population finds their living, but it is a better description to say that this is where around half the urban population find their living.

One often gets the impression that the informal sector is an arena for those who do not manage to find a job in the formal sector, but the figures give another message. The share of people working in the informal sector is more or less equally high among the better off, the moderate poor or the extreme poor and it is again more or less the same in all age groups from 20 years and upwards. The lower share below 20 years of age is a reflection of a number of these still being apprentices or students and not that they are working in the formal sectors etc.

**Figure 3.1. Persons 15 to 60 years working in the informal sector among various poverty groups, provinces, age groups and gender**



**Table 3.1. Persons 15 to 60 years working in the informal sector among various poverty groups. Per cent**

	Yes	No	Total	Number
Better off	39	61	100	4 039
Poor	36	64	100	7 024
Extreme poor	35	65	100	1 644
Total	37	63	100	12 707

**Table 3.2. Persons 15 to 60 years working in the informal sector in five provinces. Per cent**

	Yes	No	Total	Number
Luanda	41	59	100	8 264
Moxico	26	74	100	780
Cabinda	17	83	100	1 483
Benguela	29	71	100	2 729
Huila	20	80	100	1 589
Total	37	63	100	14 845

**Table 3.3. Persons 15 to 60 years working in the informal sector among various age groups. Per cent**

	Yes	No	Total	Number
15-19	19	81	100	3 992
20-29	45	55	100	4 598
30-39	44	56	100	3 496
40 & above	41	59	100	2 759
Total	37	63	100	14 845

**Table 3.4. Persons 15 to 60 years working in the informal sector among males and females. Per cent**

	Yes	No	Total	Number
Male	27	73	100	7 273
Female	47	53	100	7 572
Total	37	63	100	14 845

Across gender and province you will however find differences. You find a substantially higher share of women than men in the informal sector. We assume that the main reason is access to employment in other sectors. There are larger barriers to enter the formal sector. This might of course also reflect that women given their household and child care obligations might need larger flexibility, something that can be found in the informal sector. Likely barriers are formal gender barriers as in the army, formal barriers indirectly being biased as for formal education, combined formal/informal barriers as rigid regulations concerning pregnancy and child raising, informal ones including both rigid regulations and gender biased opinions. Hence for women the informal sector is essential. Almost half the women in urban areas are working in this sector. Since 27 per cent are students/ apprentices or not active, this leaves only ¼ of the women in urban areas to work in other sectors.

There are large provincial differences and Luanda stands out, almost like the women. In Luanda 41 per cent are working in the informal sector. 26 per cent are students/ apprentices or not active, leaving only 1/3 to work in other sectors. Again the likely explanation is

the lack of other types of employment. In general the share of people working in the public administration is higher outside Luanda. You will also find more agricultural work even in urban and peri-urban areas in some provinces and more people in the army in some.

**3.3.2. From a household point of view**

To learn about the overall effects of the situation we have looked upon the household as a unit to learn how large share of the households having one or more members working in the informal sector and hence being dependent of the income this sector can give.

Table 3.5 to 3.10 show that 72 per cent or almost 3 of 4 households have at least one member working in the informal sector. There are very few differences across poverty group or by social sub-groups. These tables further document the large importance of the informal sector for both better off and moderate poor/ extreme poor. Dependency ratio and household size hardly matters except that the very smallest and the very largest households as you would expect are slightly different. At the household level, the age of the head does not matter. Even the gender differences have really diminished and almost disappeared.

The only remaining dimension making a difference is the geographical one. Luanda still stands out, and here 78 per cent or ¾ of the households have somebody working in the informal sector. In addition Benguela has moved up from Moxico and stands apart from the others with 63 per cent or 2/3 of the households having somebody working in the informal sector. Luanda has both the strategic location creating a lot of trickle down opportunities from imports and a large influx of des-localados, both factors increasing the informal sector. For Benguela this is more difficult to tell but probably the explanation is the same. The geographical location allows obviously for a large trickle down import marketing in all of Luanda, Benguela and Cabinda, but not in Moxico and Huila. The influx of refugees creating a pressure and large supply of working people is substantial in all provinces except Cabinda. Hence, it might be the combination of a large demand for work by immigrants and a large number of opportunities created by the trickle down import marketing. This issue deserves further investigation and it will be one of the issues when we now turn to the more detailed picture.

**3.3.3. Informal sector industries and professions**

Tables 3.11 to 3.13 show where to find the bulk of informal sector activities. Table 3.11 shows that ¾ of people working in the informal sector work in commerce. Obviously retail trade at fixed locations, petty street vendors, wholesale trade, and illegal imports/exports are different worlds. Still there are some similarities such as flexibility, a low threshold for

**Table 3.5. Households with at least one member working in the informal sector among various dependency ratio groups\*. Per cent**

	No member	At least one	Total	Number
<= 0.5	29	71	100	1 203
0.5<, & <= 1.0	27	73	100	1 164
1.0<, & <= 2.0	30	70	100	1 153
< 2.0	26	74	100	367
Total	28	72	100	3 887

\* dependency ratio = dependents (0-14,61 & above) / economic active (15-60)

**Table 3.6. Households with at least one member working in the informal sector among household in various size. Per cent**

	No member	At least one	Total	Number
1-2	44	56	100	282
3	33	67	100	351
4	28	72	100	466
5	30	70	100	523
6	29	71	100	494
7	28	72	100	461
8	20	80	100	429
9	27	73	100	556
10+	22	78	100	325
Total	28	72	100	3 887

**Table 3.7. Households with at least one member working in the informal sector among various poverty groups. Per cent**

	No member	At least one	Total	Number
Better off	29	71	100	1 445
Poor	27	73	100	2 015
Extreme poor	30	70	100	427
Total	28	72	100	3 887

**Table 3.8. Households with at least one member working in the informal sector in five provinces. Per cent**

	No member	At least one	Total	Number
Luanda	22	78	100	2 072
Moxico	52	48	100	296
Cabinda	58	42	100	426
Benguela	37	63	100	656
Huila	59	41	100	437

**Table 3.9. Households with at least one member working in the informal sector among male headed & female headed households. Per cent**

	No member	At least one	Total	Number
Male	29	71	100	3 062
Female	26	74	100	825
Total	28	72	100	3 887

**Table 3.10. Households with at least one member working in the informal sector among various household head age groups. Per cent**

	No member	At least one	Total	Number
17-29	27	73	100	743
30-39	30	70	100	1 446
40-49	28	72	100	956
50 & above	27	73	100	742
Total	28	72	100	3 887

**Table 3.11. Branch of activity for persons 15 to 60 years among persons working in the informal sector or not. Per cent**

	No	Yes	Total
Agriculture/fishing	5	2	4
Manufacturing/mining	10	9	9
Construction	5	3	4
Utilities	6	3	5
Commerce	14	74	44
Banking/financial services	1	0	1
Professional(civil serv.,army)	59	9	34
Total	100	100	100
Number	3 925	2 996	6 921

**Table 3.12. Status of occupation for persons 15 to 60 years among persons working in the informal sector or not. Per cent**

	No	Yes	Total
Wage employee, Government	51	4	26
Wage employee, form. priv. sect.	21	8	14
Employed, informal sector	9	5	7
Self-employed	12	81	48
Employer	1	1	1
Unpaid worker, volunteer	7	2	4
Total	100	100	100
Number	3 446	2 947	6 393

first time entrance and the possibility to increase business over time. By collapsing manufacturing/ mining and construction we find another distinctive group being work requiring not formal, but still certain skills. Two other groups are rather small, one being utilities and one being agriculture/fishing. For people not working in the informal sector, the pattern is completely different. The main group is professional activities were 59 per cent are working. The informal sector professional branch is an interesting group. You would expect professionals to be able to get formal employment and hence all of them are likely to have been pulled towards the informal sector. In other branches you would expect that quite a large share are rather pushed into this sector by lack of other opportunities. As a total 9 per cent of people working in the informal sector are in a professional branch. The informal exchange of money is quite visible in Luanda, but back in 1995 there were not many reporting this as their primary employment.

Table 3.12 complements the picture. The large majority or 4 of 5 people working in the informal sector are self-employed. Only 5 per cent are employed. Again there are some strange classifications such as people who are working in the informal sector during the last 7 days saying their primary occupation during the last 12 months was wage employees in the public or private formal sector. This is again likely to be a combination of real changes and misunderstandings. Excluding these cases, we end up with 9 of 10 people working in the informal sector being self-employed. The sector might still be organized by sub-contracting arrangements, but obviously the pattern is a combination of extreme flexibility and insecurity.

**Table 3.13. Branch of activity by status of occupation for persons 15 to 60 years among persons working in the informal sector or not. Per cent**

	Wage employee, Gov.m.	Wage employee, form.priv.s ect.	Em- ployed, informal sector	Self- employed	Employer	Unpaid worker, volunteer	Total	Number
<b>Persons working in the informal sector</b>								
<i>Branch of activity</i>								
Agriculture/fishing	0	1	0	3	0	0	5	164
Manufacturing/mining	2	4	0	1	0	0	8	289
Construction	1	3	0	1	0	0	5	144
Utilities	2	2	0	0	0	0	5	158
Commerce	2	6	1	5	0	1	15	498
Banking/financial services	1	0	0	0	-	-	1	31
Professional(civil serv.,army)	44	5	8	2	0	4	63	2 123
Total	52	21	9	12	1	5	100	3 407
Number	1 775	744	302	403	25	158	3 407	
<b>Persons NOT working in the informal sector</b>								
<i>Branch of activity</i>								
Agriculture/fishing	-	0	0	2	0	2	-	81
Manufacturing/mining	0	2	0	6	0	0	9	260
Construction	0	1	0	2	0	0	3	79
Utilities	0	1	0	2	0	0	3	84
Commerce	1	2	3	67	0	1	74	2 180
Banking/financial services	-	0	-	0	-	0	-	4
Professional(civil serv.,army)	3	2	1	3	0	1	9	252
Total	4	8	5	82	1	2	100	2 940
Number	103	230	158	2 374	30	45	2 940	

Table 3.13 tells us how branches and occupational status are mixed. If these two dimensions were independent we would expect to find the largest group being 60 per cent as self-employed in commerce. If fact we find 67 per cent, meaning that the pattern of extreme flexibility and insecurity is even larger in commerce than on average. Unfortunately there are too few employers and too few unpaid workers in the informal sector to allow for further analysis of these groups. There are slightly more, but still too few self-employed in agriculture/ fishing to allow for further analysis. Hence we will focus on the following groups:

- Self employed in commerce, 67 per cent of persons working in the informal sector;
- Self-employed in manufacturing, construction and utilities, 10 per cent of persons working in the informal sector;
- Professionals being self-employed or employed in informal sector, 3 per cent of persons working in the informal sector; and
- Non-professional employees in any branch of informal sector, 4 per cent of persons working in the informal sector.

The main focus will be on the two first ones.

It is more or less impossible to identify certain sub-segments being dependent of the current policy and others being structural sub-segments which you find in more or less the same number and type in any country in Africa. The sheer size of commerce tells you however that there are artificially many people working in commerce. The big majority of the "extra" number finding a living in commerce is likely to trade in

imported goods or related services, but the survey does not allow for identifying these.

The situation is likely to be the opposite among the producing segments. You will find a small sub-segment created by the policy both through import substituting production and services to replace missing public service such as water supply. But you should also expect to find a large share of people producing for the local demand and market and hence likely to retain their living also after a future policy change.

We will expect that the producing segment is better suited to meet a policy change and we will advocate the need to learn more about the income and educational requirement in this sub-sector in order to understand what is needed to meet future policy changes. For informal commerce the most important task is really to test whether there is a low return for many and especially for people with low or no education.

Informal sector professional are an interesting category likely to be able to adapt to any situation, and we assume this to be an interesting reference category.

Employees in the informal sector are likely to be a real mix. Some are likely to be employed by informal sector business doing very well and it would be very interesting to learn about their background. But you are also likely to find people accepting very poor conditions.

In the next paragraph we will turn to a multivariate analysis to learn more about these groups. We will focus on the four groups listed above with a special

emphasis on persons self-employed in the informal commerce sector and persons self-employed in the informal productive sector. As already stated the focus is on the income on one hand and on the requirements and background i.e. education, stable living, and experience. We will also include household information but this requires a very careful interpretation. Measures like poverty are related to the household and should not be mixed with the single person's income. Still, as the analysis conducted by de Sousa (1998) shows, combining and interpreting information from both individual and household level might yield very interesting knowledge and understanding.

### 3.4. Size and nature of the informal sector sub-segments

We will first sort out the background of people working in each sub-segment of the informal sector in order to understand more about how opportunities varies and what resources are needed.

#### 3.4.1. Informal commerce

Figure 3.2 shows that more than 2 of 5 persons or 42 per cent are employed in the commerce sector. This includes any type of informal sector service, but still the figure is very high. Our main interest is however to learn more about how this share varies and whether variations in opportunities i.e. across provinces or rather individual resources such as gender, education and experience matter.

Interestingly enough, while we already have seen that the share working in informal sector varies considerably across provinces, the most important dimension here is individual resources. The commercial informal sector is definitely the working arena for people with low resources. While only 19 per cent of men are working in the commercial informal sector, 65 per cent of women are. For women the share among the well educated are only 14 per cent, but increases dramatically to 85 per cent among women without formal education. We find the same tendency among men but considerably weaker. 21 per cent of men with a short experience from their current job are working in the informal commerce sector while none with long experience and long education.

As you would expect there are also some variations across provinces and in all groups Luanda has the highest share and Moxico and Cabinda have the lowest shares. The shares in Benguela and Huila varies, but the typical order is that the share of people working in informal commerce decreases from Luanda to Benguela, Huila, and Moxico and further down to Cabinda.

The pattern is obviously that informal commerce increases in provinces with a large number of deslocados, but the share does not vary significantly

between newcomers and people who are living in the same location where they were born. A possible explanation is that a large influx of deslocados might squeeze more people into informal commerce, but not necessarily the deslocados themselves. Another possibility is that deslocados are feeling safe in coastal urban areas i.e. the same areas where import allows for a lot of trickle down trading.

Figure 3.3 gives some more details and show that young men and women are systematically more frequently working in informal commerce than the older ones. There are two likely explanations; one push and one pull reason. The youngsters have more trouble to find other and more safe employment and hence this is the only opportunity for many. On the other hand, young people are always flexible and eager to sort out new opportunities and hence they are definitely more attracted to high risk/potentially high reward sub-segments of the labor market.

#### 3.4.2. Informal manufacturing, construction and utilities

Figure 3.4 shows that there is a completely different structure for informal sector manufacturing, construction and utilities. This is a male sector, 10 per cent of men are working here, while only 2 per cent of women. For both men and women the main differences are due to the supply side, the opportunities for this type of work. The pattern is really evident for men. The larger the city, the larger share of people working in this sub-segment. In Luanda and Cabinda 11 per cent are self-employed in manufacturing, construction and utilities, in Benguela 6 per cent and in Moxico and Huila 3 per cent.

The group of women is small and vulnerable for random effects. The share of women being self-employed in manufacturing, construction and utilities is for some reason 17 per cent in Moxico, far from what you would expect. This might either be due to special opportunities such as contract work for women, but more likely a random effect. The share is also higher than average in Benguela i.e. 4 per cent, on average in Luanda and Cabinda and lower in Huila i.e. below ½ per cent.

Only at this stage individual resources do matter. For the large groups, being men and women in Luanda and Cabinda, a pattern of stability is presented. For men the share increases from 8 to 16 per cent when the experience in the job increases and for women the share increases from 0 to 2 per cent when the age increases.

Formal education is however hardly an asset, for most groups it does not matter, for men in rural provinces i.e. Moxico and Huila it even reduces the probability of being self-employed in manufacturing, construction and utilities. Only among women in Benguela you find that the probability increases with formal education.

### 3.4.3. Informal sector employment

Figure 3.5 shows the probability of being employed in the informal sector and presents a third pattern. We should stress that quite few are *employed* in the informal sector. Self-employed people either being independent or organized by sub-contracting work dominate the informal sector. However there is some room for larger informal establishments with employees as well. Here the share varies in an opposite U-form with education. There are very few employees among those without education, some more among those with some education and then the share decreases, probably because better educated persons tend to go for either the formal sector or create their own business.

Experience is the keyword for employment in informal sector. Except for a very small group all other groups are split according to experience, and longer experience systematically gives a higher share employed in the informal sector. The share varies from 0 per cent among the better educated with low or no experience to 3-4 per cent among those with very little (none) or very long education and long experience and up to 17 per cent among people with some but low education and long experience.

Opportunities do not vary that much, but for certain groups the probability is significantly higher in Luanda and partly also in Benguela.

### 3.4.4. Informal sector professionals

Figure 3.6 gives the figures for the informal sector professional sub-segments and displays a fourth pattern. It is likely to display the start of a new development trend where professionals fresh from school and university start their own business rather than going for the formal sector. This sub-segment is hardly found in Cabinda. In the other provinces young professionals or older professionals with low education dominate it<sup>9</sup>. So far, or at least in 1995 it was a small sub-segment, but it shows that young professionals are ready to and able to start their own business and this is a segment with a clear potential for growth.

### 3.5. Economic return in informal sector

Tables 3.14 and 3.15 give an overview of the factors<sup>10</sup> affecting the salary<sup>11</sup> from the principal occupation.

The table does not split between supply and demand side variables but rather according the variable type.

<sup>9</sup> It should be added that professional work here includes both professions requiring long formal education and informal sector professions where apprenticeship might replace the formal education.

<sup>10</sup> All factors listed were included in the regression analysis, but non-significant predictors were removed one by one before reaching a model with only significant predictors.

<sup>11</sup> Salary is distributed in a very skew matter and it was necessary to transform it before conducting a regression to test the effects of different factors. We used a natural log transition. This makes the interpretation of the magnitude of effects less intuitive.

**Table 3.14. Salary\* from principal occupation for persons 15 to 60 years, weighted linear regression\*\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standard ized Beta	Sig.
Intercept	16.83	0.23		\$\$\$
<b>Continous variables</b>				
Educational level	0.03	0.01	0.05	\$\$\$
Experience in current job	-0.02	0.00	-0.10	\$\$\$
Age in years	0.01	0.00	0.03	\$\$
Dependency ratio: dependents / breadwinners 15-60	0.01	0.05	0.00	
<b>Classification variables</b>				
Informal sector labor market, default = formal sectors				
Self employed in commerce	2.09	0.09	0.52	\$\$\$
Self-employed in manufacturing, construction and utilities	2.21	0.15	0.29	\$\$\$
Professionals; self-employed or employed in informal sector	1.63	0.21	0.14	\$\$\$
Non-professional employees in any branch of informal sector	1.21	0.25	0.09	\$\$\$
Province, default = Luanda				
Moxico	-0.99	0.26	-0.07	\$\$\$
Cabinda	-0.22	0.40	-0.01	
Benguela	-0.76	0.23	-0.06	\$\$\$
Huila	-0.46	0.17	-0.05	\$\$\$
Poverty, default = better off	-0.25	0.07	-0.06	\$\$\$
Gender, default = male	0.03	0.08	0.01	
Always lived here, default = yes	-0.18	0.16	-0.02	
Significance for model	0.00			
R-square	0.32			
Adjusted R-square	0.31			
Number of observations	2133			

\* Natural logarithm of salary from principal occupation, \*\* Weighted least squares regression  
Significance: \$ significant at 10% level, \$\$ significant at 5% level, \$\$\$ significant at 1% level

**Table 3.15. Salary\* from principal occupation for persons 15 to 60 years, weighted linear regression\*\*, reduced form, significant modell**

Regressor	Estimate B	Std. Error	Standard ized Beta	Sig.
Intercept	17.07	0.13		\$\$\$
<b>Continous variables</b>				
Educational level	0.02	0.01	0.04	\$\$
Experience in current job	-0.02	0.00	-0.09	\$\$\$
<b>Classification variables</b>				
Informal sector labor market, default = formal sectors				
Self employed in commerce	2.07	0.08	0.52	\$\$\$
Self-employed in manufacturing, construction and utilities	2.21	0.15	0.28	\$\$\$
Professionals; self-employed or employed in informal sector	1.64	0.21	0.14	\$\$\$
Non-professional employees in any branch of informal sector	1.32	0.24	0.10	\$\$\$
Province, default = Luanda & Cabinda				
Moxico	-0.99	0.26	-0.07	\$\$\$
Benguela	-0.76	0.23	-0.06	\$\$\$
Huila	-0.45	0.17	-0.05	\$\$\$
Poverty, default = better off	-0.25	0.07	-0.06	\$\$\$
Significance for model	0.00			
R-square	0.32			
Adjusted R-square	0.31			
Number of observations	2133			

\* Natural logarithm of salary from principal occupation, \*\* Weighted least squares regression  
Significance: \$ significant at 10% level, \$\$ significant at 5% level, \$\$\$ significant at 1% level

The supply side or opportunities tend to dominate. Not only is self-employment in informal commerce the largest sub-segment, but it is also the sub-segment offering the highest return to work. There is then a jump to self-employment in manufacturing, construction and utilities and again a jump to other sub-segments and across provinces.

It is important to stress that this does not mean that individual resources are not paying off! As documented and discussed in the previous paragraphs, individual resources are needed to be able to establish oneself as self-employed in the informal sector. But establishment seems to be the threshold, when established, the payment varies less with individual resources than sub-segment and provinces.

However, individual resources do have a certain return. Education and age increase salary. The measurement of experience is difficult. Only experience from current job has been measured. It seems as if this is a drawback. But a more likely explanation is that persons with the ability to respond to market changes are better able to create their own work. They might have an equal or even longer relevant work experience, but they are also flexible enough to change when opportunities arise and hence tend to have a lower experience in their current job.

Household variables like dependency ratio and poverty hardly have any significant effect. Dependency ratio has no effect and poverty only a low effect. We expected poverty to have both a positive and a negative effect. Since the individual salary is a contribution to avoid poverty, poverty tend to be related to a low salary and hence a positive relation. On the other hand, the salary of others tends to reduce the pressure, or the need for a high salary and opposite, and hence poverty might serve as an incentive to increase the salary. Overall it has a negative effect.

Strange enough, salary does not vary between genders when we have controlled for the other factors listed. Hence gender is important for being able to start one's own business but not for economic return.

People who have lived at the same location as where they were born do not have a different salary from the others. We saw that there were also no differences of the probability of being able to start as self-employed. Newcomers being more desperately needing some income and willing to accept to work for a lower return could explain that, but when these groups turn out to have the same payment it requires some further explanation. One reason might be that people migrating have more immaterial resources than average and that this compensates for being a newcomer. Another explanation is partly a mirror of this. People who have never moved might be passive and lacking immaterial

resources. Knowing their locality might bring them up to average, but not above.

### 3.5.1. Salary in different informal sector sub-segments

The next step is to sort out whether factors affecting salary level are different across sub-segments.

Figure 3.7 shows that in the overall picture the similarities are more striking than the differences. This figure shows the share having a salary above the median. Due to a high frequency just at the median, 52 per cent have a salary on or above the median. This share varies considerably across the sub-segments. The variations in average salaries are reflected straight ahead in the shares earning above the median across segments and sub-segments. In informal commerce and informal manufacturing, construction and utilities, 85 and 74 per cent have a salary above the median. The situation in the formal sector is really a disaster showing that among non-professionals in the formal sector only 28 per cent have a salary above the median. Among professionals in the formal sector the share is even down to 11 per cent.

Interestingly enough salary opportunities is the second most important variable to split the groups across provinces. Luanda and Cabinda tend to offer better salary opportunities within all sub-segments.

Also individual and household resources make significant splits. Poverty is partly just related to a low salary and partly we find a compensation or pushing effect, where a few persons from extreme poor households have managed to become self-employed in informal commerce and making a salary above median. It is also a tendency but quite a weak one that people in families with a high dependency ratio are exposed to and manage to respond to the same compensation or pushing effect having a larger than average share with a salary above the median. In the informal sector age and experience are clearly negative resources, young people manage to be flexible and gain from that.

Education and gender do not have any effects in the informal segments. In the formal sector women have a lower share with salary above the median and education give a mixed effect.

We will now return in some more details to which factors do affect the salary level within each of the informal sector sub-segments.

### 3.5.2. Salary in informal commerce

In order to learn about different mechanisms across sub-segments, we have conducted a regression analysis for each sub-segment.

**Table 3.16. Salary\* from principal occupation for persons 15 to 60 years self-employed in informal commerce, weighted linear regression\*\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	18.22	0.48		§§§
<b>Continous variables</b>				
Educational level	0.07	0.03	0.10	§§
Experience in current job	-0.02	0.01	-0.07	§§§
Age in years	0.01	0.01	0.06	
Dependency ratio: dependants / breadwinners 15-60	-0.05	0.08	-0.02	
<b>Classification variables</b>				
Province, default = Luanda				
Moxico	-1.32	0.70	-0.07	§
Cabinda	0.55	1.23	0.02	
Benguela	-0.75	0.44	-0.06	§
Huila	0.80	0.40	0.07	§§
Poverty, default = better off	-0.38	0.12	-0.11	§§§
Gender, default = male	0.31	0.13	0.09	§§
Always lived here, default = yes	-0.10	0.25	-0.01	§
Significance for model	0.00			
R-square	0.05			
Adjusted R-square	0.03			
Number of observations	764			

\* Natural logarithm of salary from principal occupation, \*\* Weighted least squares regression.

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level.

**Table 3.17. Salary\* from principal occupation for persons 15 to 60 years self-employed in informal commerce, weighted linear regression\*\*A232, reduced form, significant modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	18.87	0.17		§§§
<b>Continous variables</b>				
Educational level	0.06	0.03	0.09	§§
<b>Classification variables</b>				
Province, default = all except Moxico				
Moxico	-1.39	0.69	-0.07	§§
Poverty, default = better off	-0.37	0.12	-0.11	§§§
Significance for model	0.00			
R-square	0.02			
Adjusted R-square	0.02			
Number of observations	765			

§ Natural logarithm of salary from principal occupation, §§ Weighted least squares regression

Significance: \* significant at 10% level, \*\* significant at 5% level, \*\*\* significant at 1% level

As presented in tables 3.16 and 3.17<sup>10</sup>, for informal commerce, the patterns are just the same as for all people having a salary from any sub-segment. Even the size of the standardized regression coefficients is the same when looking at the complete model. However when we remove the non-significant factors one by one, the remaining ones have to cover quite some “noise” and we end up as presented in figure 3.17 with only three significant regressors.

An equally important finding is that these models are only able to explain small fractions of the variations in salary. The main variations are caused by other factors.

**Table 3.18. Salary\* from principal occupation for persons 15 to 60 years self-employed in informal sector manufacturing, construction and utilities, weighted linear regression\*\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	18.36	1.27		§§§
<b>Continous variables</b>				
Educational level	0.09	0.06	0.14	
Experience in current job	-0.06	0.02	-0.31	§§§
Age in years	0.03	0.02	0.20	§
Dependency ratio: dependants / breadwinners 15-60	0.00	0.18	0.00	
<b>Classification variables</b>				
Province, default = Luanda				
Moxico	-2.02	1.34	-0.14	
Cabinda	-2.10	1.34	-0.13	
Benguela	-0.79	1.06	-0.06	
Huila	-0.06	2.23	0.00	
Poverty, default = better off	0.08	0.31	0.02	
Gender, default = male	-0.29	0.48	-0.05	
Always lived here, default = yes	-0.08	0.60	-0.01	
Significance for model	0.00			
R-square	0.14			
Adjusted R-square	0.06			
Number of observations	138			

§ Natural logarithm of salary from principal occupation, §§ Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level

**Table 3.19. Salary\* from principal occupation for persons 15 to 60 years self-employed in informal sector manufacturing, construction and utilities, weighted linear regression\*\*\*, reduced form, significant modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	18.22	0.48		§§§
<b>Continous variables</b>				
Experience in current job	-0.02	0.01	-0.07	§§§
<b>Classification variables</b>				
Province, default = Luanda				
Moxico	-1.32	0.70	-0.07	§
Significance for model	0.00			
R-square	0.13			
Adjusted R-square	0.12			
Number of observations	151			

\* Natural logarithm of salary from principal occupation, \*\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level

### 3.5.3. Salary in informal manufacturing, construction, and utilities

As presented in tables 3.18 and 3.19<sup>10</sup>, the patterns are in general the same for informal manufacturing, construction, and utilities as for all people having a salary from any sub-segment, but there are some differences. Some of the effects are larger and many are not significant. Only poverty changes sign from negative to positive and gender goes the other way.

**Table 3.20. Salary\* from principal occupation for persons 15 to 60 years non-professional employees in informal sector, weighted linear regression\*\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	23.19	1.72		§§§
<b>Continous variables</b>				
Educational level	-0.03	0.05	-0.06	
Experience in current job	-0.01	0.01	-0.13	
Age in years	-0.09	0.02	-0.56	§§§
Dependency ratio: dependants / breadwinners 15-60	-0.04	0.38	-0.01	
<b>Classification variables</b>				
Province, default = Luanda				
Moxico	-1.26	6.21	-0.02	
Cabinda	-1.24	10.62	-0.01	
Benguela	-1.83	1.17	-0.18	
Huila	-0.38	1.02	-0.04	
Poverty, default = better off	-0.30	0.52	-0.09	
Gender, default = male	0.17	0.49	0.05	
Always lived here, default = yes	-0.92	1.08	-0.10	
Significance for model	0.00			
R-square	0.47			
Adjusted R-square	0.34			
Number of observations	54			

\* Natural logarithm of salary from principal occupation, \*\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level

**Table 3.21. Salary\* from principal occupation for persons 15 to 60 years non-professional employees in informal sector, weighted linear regression\*\*, reduced form, significant modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	21.62	0.68		§§§
<b>Continous variables</b>				
Age in years	-0.09	0.02	-0.54	§§§
Significance for model	0.00			
R-square	0.29			
Adjusted R-square	0.28			
Number of observations	63			

\* Natural logarithm of salary from principal occupation, \*\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level

The most important result is that when removing non-significant factors one by one, we end up with only two significant factors as presented in table 3.19. The up-country rural province Moxico offers a lower salary in this sub-segment as in other sub-segments. Second, a long experience in the current job, or rather the lack of ability to be flexible either due to specialization or risk aversion yields a lower salary.

#### 3.5.4. Salary for informal sector employees

From the tree diagram analysis we learned that informal sector employment is most widespread among persons with some but low education, in Luanda and among persons with long experience in their work. The

**Table 3.22. Salary\* from principal occupation for persons 15 to 60 years self-employed and employed professionals in informal sector, weighted linear regression\*\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	21.33	2.80		§§§
<b>Continous variables</b>				
Educational level	0.03	0.14	0.03	
Experience in current job	-0.02	0.04	-0.09	
Age in years	-0.10	0.05	-0.43	§§
Dependency ratio: dependants / breadwinners 15-60	0.61	0.66	0.18	
<b>Classification variables</b>				
Province, default = Luanda				
Moxico	0.54	2.71	0.03	§
Cabinda	3.10	20.78	0.02	
Benguela	-0.72	2.31	-0.05	§
Huila	0.11	1.76	0.01	§§
Poverty, default = better off	-1.16	0.73	-0.26	§§§
Gender, default = male	-1.34	0.80	-0.31	§§
Always lived here, default = yes	1.63	1.42	0.20	§
Significance for model	0.53			
R-square	0.23			
Adjusted R-square	-0.02			
Number of observations	45			

\* Natural logarithm of salary from principal occupation, \*\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level

**Table 3.23. Salary\* from principal occupation for persons 15 to 60 years self-employed and employed professionals in informal sector, weighted linear regression\*\*, reduced form, significant modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	20.82	1.06		§§§
<b>Continous variables</b>				
Age in years	-0.07	0.03	-0.28	§§
<b>Classification variables</b>				
Poverty, default = better off				
Significance for model	-1.26	0.58	-0.29	§§
R-square	0.03			
Adjusted R-square	0.12			
Number of observations	0.09			
	58			

\* Natural logarithm of salary from principal occupation, \*\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level

group is not large and one should expect few 3.21. demonstrate this, but they also show that this significant factors and large amplitudes. Table 3.20 and small model is able to explain a decent part of the variation in salary and add an important piece of information showing that payment really decreases with age. The effect is so large that we might talk about two small but still separate sub-segments, one for stable and older people having a very low salary and one for stable but still young people with a more decent salary.

### 3.5.5. Salary among informal sector professionals

In the tree-diagram analysis, we found a different pattern among the professionals. For the regression analysis we have extremely few observations and are only able to sort out large effects. As presented in tables 3.22 and 3.23<sup>11</sup> age has again a significant effect showing that older people earn significantly less. But the effect is smaller and the share of variance explained is lower than for employees.

## 3.6. Summary and conclusions

### 3.6.1. Policy oriented summary

The analysis of the informal sector gave some stunning results, of which some reflected our assumptions but carried them further and added some interesting other results as well.

Given the import restrictions (financial regulations and civil war barriers) and the artificial exchange rate caused by a non-convertible currency, we expected to find informal sectors blown up in big coastal cities. This assumption was more than confirmed. The informal sector is huge and even in relative terms larger in provinces with big city concentrations like Luanda and Benguela/ Lobito. The small surprise is a smaller informal sector than average in Cabinda.

Again as expected, the informal sector is clearly gender biased, and as expected in favor of women.

But otherwise, there are not many biases in the informal sector; in fact this is a sector for educated and non-educated, young and old alike. The household background does not vary either, the share working in the informal sector is more or less the same across better off, poor or non-poor households, across dependency ratio, across household size, and across gender and age of head of household.

With other words, in a sector perspective, the informal sector is determined as follows:

- from the supply side or working opportunities, as a traditional informal sector + trickle down trading, and
- from the demand side or working people, as a sector welcoming the flexibility usually demanded and offered by women.

We expected to find a large influx of trickle down trading but this is a serious underestimate, informal sector commerce dominates not only the informal sector but the overall labor market. Roughly speaking 1 of 2 or rather 9 of 16 persons having a registered income from their principal work are working in the informal sector and 7 of these 9 persons are self-employed in informal commerce. Some of these are working in traditional sub-segments but obviously a large fraction is working in the trickle down trading

sub-segments. You will also find that 1 of 16 are employed in traditional informal production and the last 1 of 16 is either employed in the informal sector or working as an informal professionals.

To put this in perspective, in Zimbabwe, around 1 of 10 are self-employed and ¼ are working in commerce (formal + informal) (Social Development Fund 1997). It is therefore likely that more than half of those self-employed in the informal sector in urban Angola are working in informal trickle down commerce.

The trickle down commerce is created by both push and pull effects. Overall policy and the civil war create opportunities pulling people to this segment and the lack of other employment opportunities push people into this segment. Hence we would expect to find a number of different sub-segments providing different opportunities and attracting different people.

We would of course like to analyze sub-segments identified from the initial policy discussion and especially to split between traditional trading and trickle down trading. Unfortunately it is not possible to go that far, but it is also of interest to analyze the different pattern across the four sub-segments already identified i.e. informal commerce, informal production, informal employment and informal professional work.

The tabulation analysis showed that the informal sector was relatively larger in large cities/ports, that the majority of the work force was women, but otherwise open for any social group. Informal commerce has a more distinctive pattern. This is the arena of what you usually consider as marginal groups, the shares are higher among low educated, among young, and among women, and also relatively large in large cities/ports. Informal production is more common in large cities/ports but otherwise different. Men dominate this sub-sector. Experience and age increase the probability of working here. Informal employment is equally common in all provinces and among women and men. This is however an arena where you find a larger share of people with some but not much schooling and a lower share among the young ones. The special pattern of informal professional work (remember this includes even non-formal professions) is a high share among two groups, young ones and older ones with low education.

In a joint perspective the tree-diagram analysis shows us that the informal sector comprise a traditional part (production, some commerce and employment) dominated by mainstream groups and a policy-created part dominated by marginal groups, people below 30 (all levels of education), people (above 30) with low education, and women (with low or middle education).

The interesting question was then whether the informal sector really has a dual nature with self-employed

marginal groups with low salaries. As shown by the regression and tree-diagram analysis of salary and the share having a salary above the median, the picture is far more complicated. There are two common trends. First the salary is clearly highest in informal commerce followed by informal production. Second, the salary is always highest in Luanda and lowest in Moxico.

Education might not pay off on average for your chance to end up in the informal sector, but it does pay off in the form of higher salary. This is not the case with experience, on average this does not pay off at all. In fact flexibility turns out to be more important and experience ends up having a negative impact on your salary.

Equally important is the finding that gender, age and migration do not have any overall effects on your salary.

### 3.6.2. Conclusions

With the reservation that we have not been able to trace all potential factors e.g. networks to private firms and public sector and not to split the labor market in all adequate sub-segments, all the data analysis confirms a picture of a very import informal sector comprising the following sub-segments:

- sub-segments found in any country across the continent and
- policy created sub-segments unique for countries with the combination of three factors, large natural resources, civil war/ civil unrest, and a projectionist economic policy.

Jointly these sub-segments are open for both mainstream and marginal groups and give opportunities (mainly self-employment) for an unusually large share of the population. The surplus created by abnormalities in the economy trickles down in a wide-spread fashion. Luanda is the winner within all segments and Moxico the loser, while the other provinces all are gaining within some sub-segments. Women form the majority and while education is not needed to find opportunities, it pays off through a higher salary. Otherwise the informal market is remarkable by its equity along the standard dimensions as measured here.

### 3.6.3. Policy conclusions

You might draw two really different policy conclusions from this description. The tempting one is the surface conclusion. Direct and indirect effects of the current policy create a trickle down informal commerce sector ensuring a widespread distribution of the economic abnormalities of the economy. The informal sector salary enables equally well or even better than the formal sector salaries to reduce and avoid poverty. In fact the opportunities found in the informal commerce segment is also deemed to put a positive pressure on the salaries in the formal sub-segments and hence

improve the living conditions for people working in these sub-segments.

Left at this level, you might be tempted to conclude that the market itself will ensure poverty reduction. This is however a misplaced conclusion and so for three reasons:

- The lion's share of the surplus channeled this way by the economic policy will remain with the primary line actors, such as importers and civil servants with a position and insight allowing them in a legal manner to exploit the situation.
- The artificial restrictions create an inefficient economy with a lower than optimal surplus.
- The artificial produce and service market segments and labor sub-segments give wrong signals to the individuals. Any economy will suffer from a labor force trained by their own improper experience not from sustainable economic activity but from a special form of networking and a continuous and flexible adaptation to new opportunities. To put it in perspective. In South Africa a generation of black youth boycotted education due to the apartheid situation. They might have helped to speed up the processes leading to a majority Government, but they also ended up as the lost generation. This not only might, but for sure will be the outcome for a smaller or larger share of the population now working in informal commerce. And in the case of Angola it will hardly serve any other positive purpose.

The latter reason might be the most important from a human point of view. During the current policy regime the current youngsters in the informal sector will lose the competition with new and flexible generations. Under a new policy regime they will lose the competition towards both the older generations working in the more normal sub-segments and towards the new generations receiving education and gaining experience from the same more normal segments.

Hence the sector policy conclusions are twofold:

- Prepare people for the changes by providing training, being vocational training and apprenticeship, and
- Change the policy regime in a step-wise manner. The latter means to plan for a well scheduled change over such as a five year period including the following steps listed in order of importance:
  - replacing import quotas with import tariffs,
  - reducing but not removing import tariffs over time,
  - establishing a system of monitoring prices with active dissemination of market and price information, and
  - moving to a convertible currency.

The policy changes listed above are special because they are needed in order to smoothen the change of the labor market, a change that inevitably will have to take place at some point in time, either in an abrupt and devastating manner or in a more stepwise order.

### Box on vouchers for apprenticeship

It is worldwide experience that a Government is not well suited to be the sole actor to arrange for end vocational training nor apprenticeship and so for two reasons:

- a large scale public institution will inevitably be too large and slow to adapt to the numerous opportunities for small scale production and service niches open for private entrepreneurs and
- a large-scale public training institution will hardly be able to ensure a continuous upgrading of equipment and tools adapted to the changing markets.

Public vocational training might prepare well for formal large scale manufacturing allowing the private firms to continue with on the job training. But for the small-scale formal sector and the informal sector public training will hardly do.

On the other hand the century old apprenticeship system is not without limitations. It is often focused on traditional craft and even there new equipment and tools and other changes in production structures are often reducing the need of a master for an apprentice to serve as an assistant. But the youngsters still have a need to learn a trade and the society needs them. Hence the Government should provide some support.

Various countries as different as Malawi, India and Norway are realizing the limitations of large scale public institutions and the advantages of an apprenticeship system but also the declining interest by employers to hire apprentices. While typically the apprentice or his/her parents will have to pay the employer in India, the Government and donors will typically subsidize the apprentices in Malawi and Norway. In Malawi the school leavers in some areas are offered a voucher free of charge which they might use as payment to a small-scale employer hiring the apprentice for a certain period of time with an option for renewal. It is important to strike a sound balance between controlling and efficiency. The control system should be outsourced to NGOs and limited to checking at time of renewal of the apprenticeship voucher.

In the case of Angola an apprenticeship program should focus on commodity and service production but with clear limitations on retail trade.

Figure 3.2. Share working in informal sector, commerce among various groups of laborforce

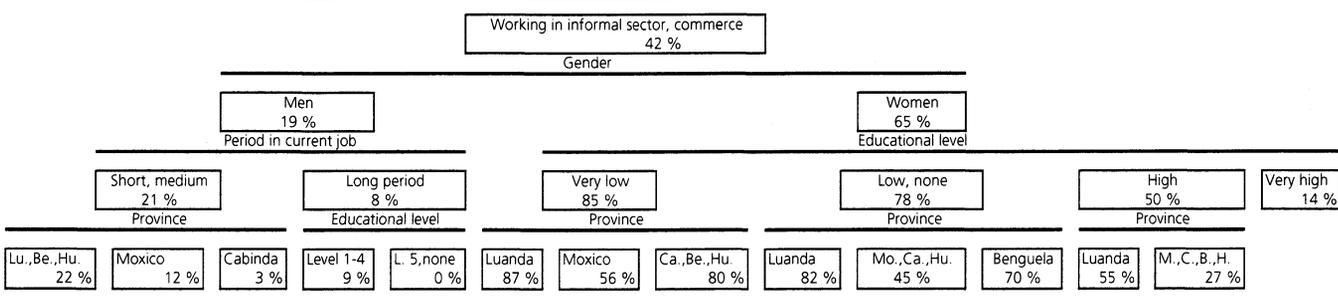


Figure 3.3. Share working in informal sector, commerce among various groups of laborforce, detailed

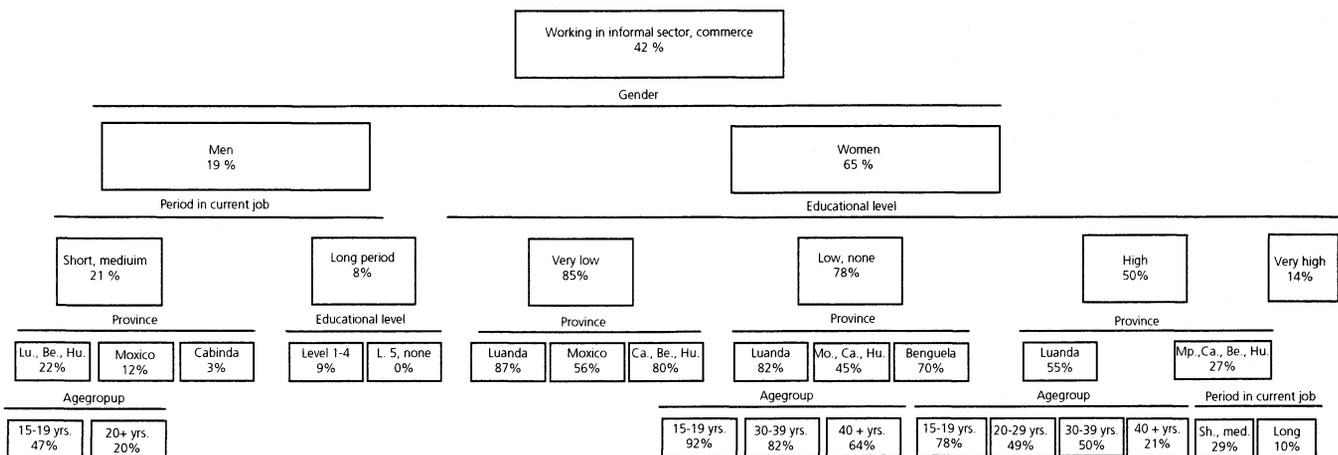


Figure 3.4. Share working in informal sector: manufacturing, construction and utilities among various groups of laborforce

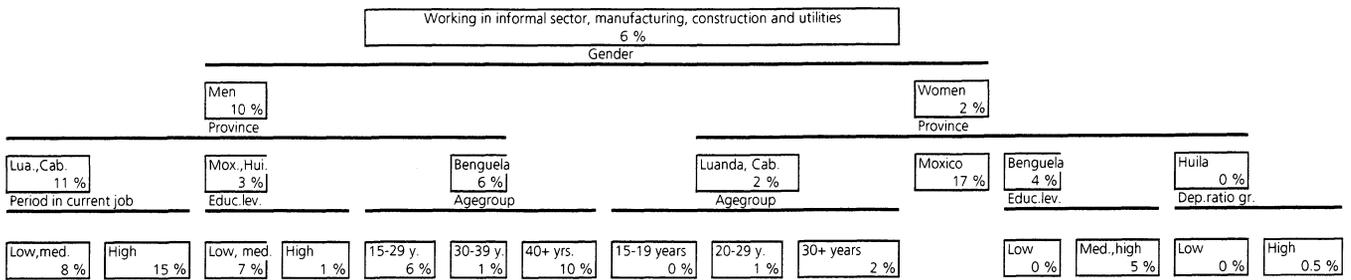


Figure 3.5. Share working in informal sector: employed non-professionals among various groups of laborforce

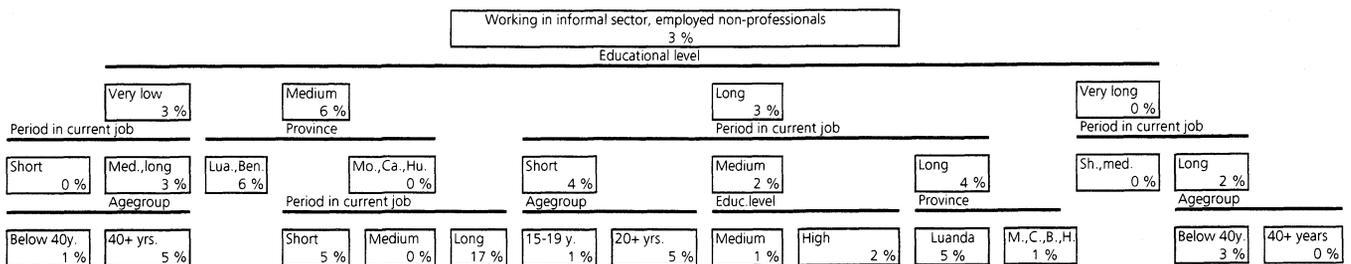


Figure 3.6. Share working in informal sector: professionals among various groups of laborforce

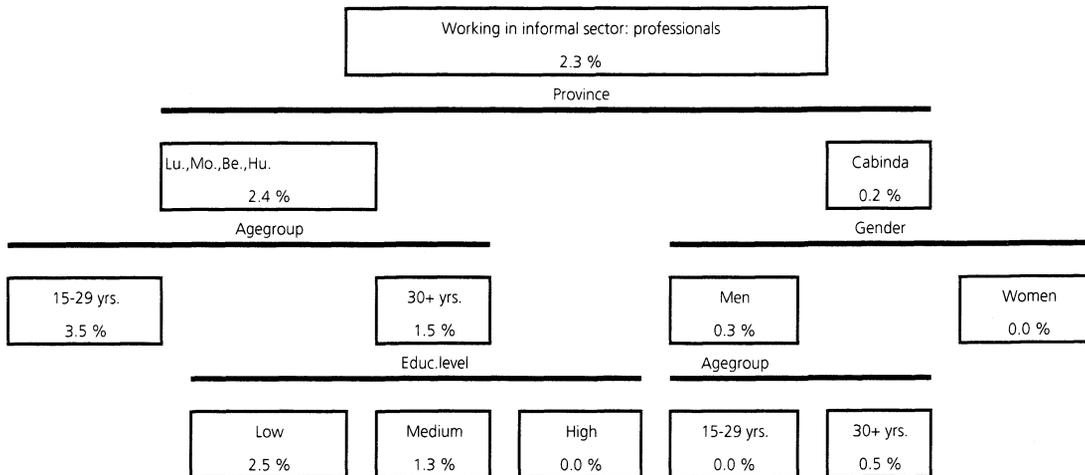
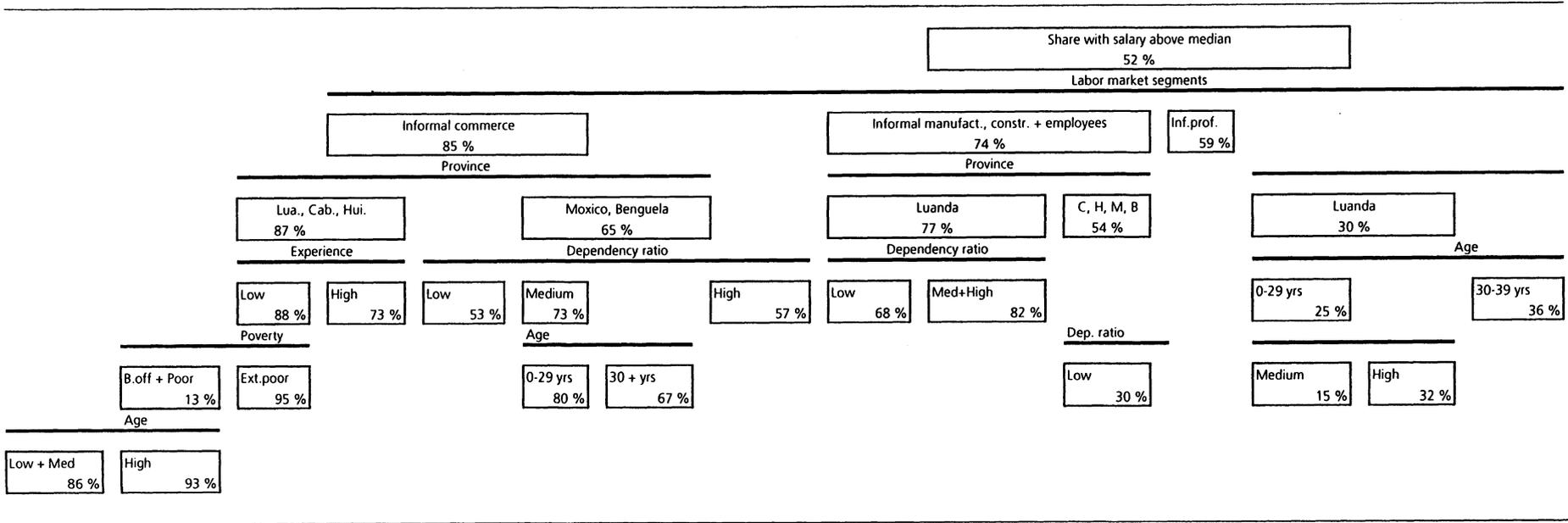


Figure 3.7. Share with salary above median in across labor market segments



## 4. Analysis of poverty in rural areas

The main finding from several poverty studies across the African Continent, such as reported from Zambia (CSO 1994, 1998) and Zimbabwe (The Social Development Fund 1997) and on a summary basis (World Bank 1997), is that poverty is more widespread in rural areas. As for urban areas it is often stated that the main asset of the rural poor is their labor. But there also seems to be an agreement by different studies such as (UNDP 1998, Wold 1997 and World Bank 1997) that the poor lack access to sufficient credit, infrastructure and competitive markets. The UNDP study also refers to lack of productive land, but while the study covers the overall African continents, it only refers to the quite few densely populated countries as Malawi and Rwanda.

It is outside the scope of this report to analyze the causes of rural poverty as such. The approach is rather limited to analyzing the distribution of poverty. This will then allow identifying some likely causes of poverty in rural areas, but does not pretend to provide a comprehensive list of causes and the relative importance of the different causes of poverty.

### 4.1. Two poverty line approaches, two poverty lines, and two levels of poverty – one in urban and one in rural areas.

As outlined in chapter 10 we have finalized the calculations started by INE<sup>12</sup> and identified two separate absolute poverty lines, one for urban areas and one for rural areas. The food component of these poverty lines are both based on the FAO recommendation for 2100 kcal for each adult equivalent per day following the average food consumption pattern in rural and urban areas respectively. We have then added a non-food component using the same share of non-food versus food consumption as for the 10 per cent or decile with a consumption just around the poverty line, again for rural and urban areas respectively. As presented in chapter 10 this approach gives an absolute poverty line in urban areas in February 1995 of NKw 55 300 000 (KwR 55 300) or KwR 19 292 000 in October 1996 prices and it gives an absolute poverty line in rural

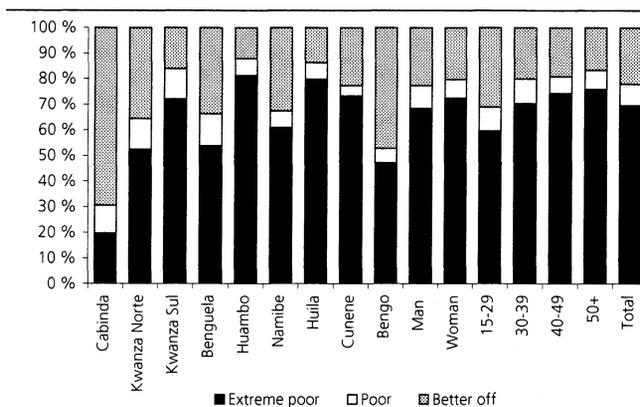
areas of KwR 3 828 567 in October 1996. The gap between these lines is not related to different poverty levels since the approach is the same, but due to a cheaper consumption pattern in rural areas and price differences, being both price level differences between rural and urban areas and a different pace of price changes from early 1995 to late 1996.

As discussed in chapter 2, 61.1 per cent of the urban population are poor (moderate or extreme poor). The absolute poverty line in urban areas is lower and only 40.2 per cent are moderate or extreme poor in urban areas based upon this poverty line<sup>13</sup>. People in rural areas are considerably worse off and 78.0 per cent are moderate or extreme poor according to the absolute poverty line in rural areas<sup>13</sup>.

### 4.2. Poverty in rural areas following a rural absolute poverty line.

As the relative poverty line presented in chapter 2, the absolute poverty line allows for an analysis of in which areas and socio-economic groups you find the highest levels of poverty.

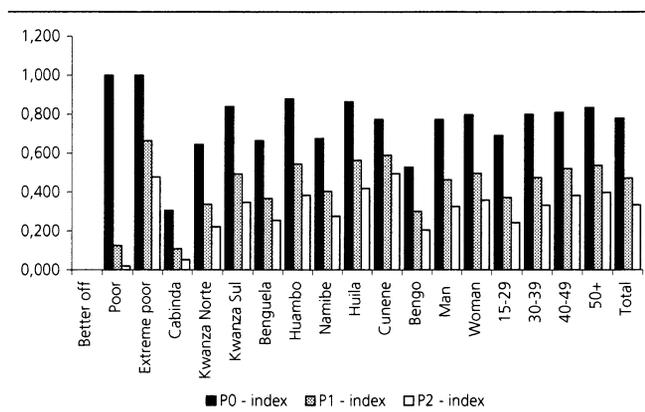
Figure 4.1. Rural poverty and extreme poverty in various provinces and by various groups of gender and age of head of household



<sup>13</sup> Absolute poverty line approach: Urban areas: 36.8/3.4 per cent extreme/moderate poor, rural areas: 69.6/8.4 per cent extreme/moderate poor.

<sup>12</sup> Not published.

**Figure 4.2. Rural poverty and extreme poverty in various provinces and by various groups of gender and age of head of household**



Figures 4.1 and 4.2. and table 4.1 give us the general picture, presenting poverty head count for extreme poor, moderate poor and all poor; poverty gap; and poverty severity across provinces and by gender and age group of the head of household.

As shown by figure 4.2 women headed households have on average a higher poverty head count, poverty gap and poverty severity than male headed; households with a head above 50 are worse off than younger ones along all these three dimensions; while the picture is more complex across provinces. The poverty gap and poverty severity are highest in Cunene, while the poverty head count is larger in Huambo, Huila and Kwanza Sul.

The urban data on contribution to poverty indices showed that the poverty gap and the poverty severity piled up in certain areas and group. This is hardly the case in rural areas. In fact the contribution to poverty incidence, poverty gap and poverty severity follows almost as by calculation from the poverty level and population share in each province and group. The one exception is across age. Poverty incidence increases across age and hence you would expect a certain increase also in hard core poverty measured by poverty severity across age. This is clearly the case, not only so, in fact poverty severity increased more than the poverty level measured by poverty incidence. Hard core poverty really piles up among the old households. At that age, the children have left and settled by themselves and the reduced production capacity and lack of ability to undertake seasonal migration for work are only partly offset by experience, well cultivated soil and support from younger family members.

Poverty incidence might be higher in Kwanza Sul, Huambo, Huila, and among women headed households, but poverty severity does not pile up here.

When the fieldwork was conducted in the second half of 1996, the civil unrest was prevalent in more than half the provinces. Some province were fully controlled by the Government and enjoyed a peaceful situation such as Cabinda, Bengo, Benguela and Huila. But probably the most common situation was one of a relatively peaceful but labile situation, which still only offered access to markets for a small or larger proportion of the rural population.

The level of civil unrest can however not explain the provincial differences in poverty levels. Cabinda (Government controlled) stands apart with a very low poverty head count and there is quite a step to the next group being Bengo (Government controlled), Kwanza Norte (UNITA controlled back in 1994 and still considerable UNITA influx in 1996) and Benguela (Government controlled). Hence the general impression is that Government control combined with location along the shore or as hinterland of the capital either really gives more opportunities and hence lower poverty levels and/or just higher prices and incomes. As being common, provinces with a low poverty level also has a low poverty severity. While Cunene is in the middle concerning poverty level, it clearly has the most unequal poverty distribution. We assume this reflect an even more isolated situation than the other up-country provinces.

Interestingly enough the expected higher poverty level among women headed households are hardly confirmed and it turns out that the youngest families have a significantly lower poverty rate than older families, again contrary to what one would expect. This is a pattern consistent with the urban one. The groups that are flexible and easily adapt to a changing environment, either because they are forced as the women headed households or because they usually are flexible and ready for changes as the younger families, have the lower poverty rates. The unequal distribution of poverty is clearly even in relative terms larger among the older households than the younger ones. It looks in fact as if quite large shares of younger families do manage the lack of stability.

Only further analysis of income sources and patterns will tell the full story, but this is a very interesting finding and a strong argument for a dedicated analysis of small-scale farmers under the current financial regime and lack of transportation.

**Table 4.1. Rural poverty, extreme poverty and poverty indices in various provinces and by various groups of gender and age of head of household. Per cent and index value 0 - 1**

	Poverty			Poverty index			Share	Contribution to national poverty		
	Better off	Poor	Ext. poor	P0	P1	P2		P0	P1	P2
<b>Poverty</b>										
Better off	100.0	0.0	0.0	0.00	0.00	0.00	0.22	0.00	0.00	0.00
Poor	0.0	100.0	0.0	1.00	0.13	0.02	0.08	0.11	0.02	0.01
Extreme poor	0.0	0.0	100.0	1.00	0.66	0.48	0.70	0.89	0.98	1.00
<b>Province</b>										
Cabinda	69.3	10.9	19.7	0.31	0.11	0.05	0.05	0.02	0.01	0.01
Kwanza Norte	35.5	12.0	52.5	0.64	0.34	0.22	0.08	0.07	0.06	0.06
Kwanza Sul	16.0	11.8	72.2	0.84	0.49	0.35	0.13	0.14	0.14	0.14
Benguela	33.6	12.5	53.9	0.66	0.37	0.26	0.09	0.08	0.07	0.07
Huambo	12.1	6.7	81.2	0.88	0.54	0.38	0.39	0.44	0.45	0.45
Namibe	32.5	6.5	61.0	0.68	0.40	0.28	0.03	0.02	0.02	0.02
Huila	13.6	6.5	79.9	0.86	0.56	0.42	0.15	0.17	0.18	0.19
Cunene	22.7	4.0	73.3	0.77	0.59	0.50	0.03	0.03	0.03	0.04
Bengo	47.2	5.6	47.2	0.53	0.30	0.20	0.05	0.03	0.03	0.03
<b>Gender of head</b>										
Man	22.7	8.8	68.5	0.77	0.46	0.33	0.76	0.75	0.74	0.74
Woman	20.3	7.2	72.5	0.80	0.50	0.36	0.24	0.25	0.26	0.26
<b>Agegroup of head</b>										
15-29	31.0	9.4	59.6	0.69	0.37	0.24	0.28	0.25	0.22	0.21
30-39	20.0	9.6	70.4	0.80	0.48	0.33	0.26	0.27	0.27	0.26
40-49	19.1	6.6	74.4	0.81	0.52	0.38	0.18	0.19	0.20	0.20
50+	16.6	7.5	75.9	0.83	0.54	0.40	0.27	0.29	0.31	0.32
Total	22.0	8.4	69.6	0.78	0.47	0.33	1.00	1.00	1.00	1.00

### 4.3. Consumption pattern among rural extreme poor, moderate poor and better off

Figure 4.3 and table 4.2 show surprising differences in consumption pattern across poverty level. One of the first recognized pattern of consumption was that the food share of consumption decreases both across groups and over time when the consumption level increases and this pattern is known as Engel's law. Consumer and expenditure surveys in high income developed countries have shown that Engel's law needs some modification and it is not valid in all cases. First, Engel's law addresses food ingredients and not ready-made food and second, it is not design to address luxury food items. In these cases the food share increases with income at the upper end of the income distribution. More surprisingly this is also the case in rural Angola. The extreme poor has a lower food share than the better off. The main explanation is likely to be other absolute necessities, such as expenses for energy and what is called domestic expenses such as soap bars. Interestingly enough even school fees are considered a necessity among the extreme poor who manage to squeeze them in. Since these are fixed, it means a larger share of total expenditures is allocated for education among the extreme poor. But still this pattern is not common and would definitely deserve some further investigation.

The pattern across provinces varies in a pattern hard to understand without further information. The pattern in various groups after gender and age of the head of household is more common. Women headed house-

holds and the oldest ones have the highest poverty level and the highest food budget share. Table 4.3 tells us that the food commodity consumption pattern is more like what we expected. The extreme poor spend more than ¼ of their total budget on maize meal and very little on luxury goods as sugar and rice. However they spend a substantial share on fish. Expenses on salt are as for education. The absolute amount is smaller among the extreme poor, but the share is still higher.

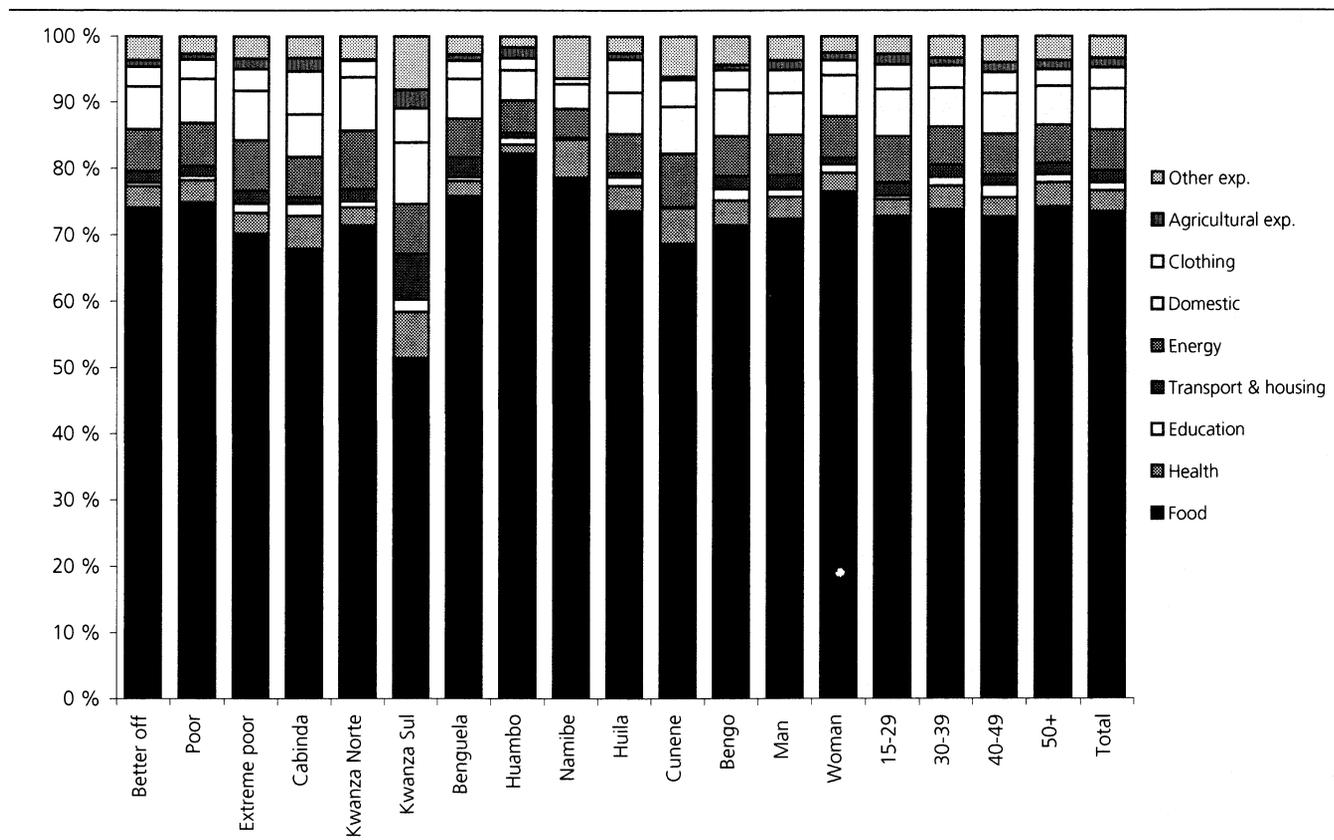
The provincial differences are large and reflect both local food habits like cassava meal in Cunene and a lower poverty level and higher rice consumption in Cabinda. Again men headed households and younger households have a more luxury oriented consumption pattern including a large share of food items as rice and cooking oil.

### 4.4. Causes of poverty

#### 4.4.1. Civil war and unrest

It is outside the scope of this study to analyze the direct effects of civil war and unrest. It is in fact also very hard to disentangle indirect effects of the civil war and unrest. The lack of security might obviously be devastating at the household level and really discourage anything that requires a long time horizon such as crop cultivation for sale. It is also devastating at community and provincial level by cutting off trade links and other connection to central areas and market places. But *how* devastating will vary from province to province and area to area.

**Figure 4.3. Commodity group consumption expenditures in per cent by various rural poverty groups, provinces, gender & age of head of household**



**Table 4.2. Commodity group consumption expenditures in per cent by various rural poverty groups, provinces, gender and age of head of household. Per cent**

	Food	Health	Education	Transport	Housing	Energy	Domestic	Clothing	Agricultural exp.	Other exp.	Total	Number
<b>Poverty</b>												
Better off	74.1	3.2	0.5	1.0	0.8	6.3	6.5	3.0	1.0	3.6	100.0	641
Poor	74.9	3.3	0.7	0.7	0.8	6.5	6.6	3.0	0.8	2.6	100.0	244
Extreme poor	70.2	3.1	1.4	0.9	1.0	7.6	7.5	3.3	1.6	3.3	100.0	2023
<b>Province</b>												
Cabinda	67.9	5.0	1.8	0.9	0.2	6.0	6.4	6.5	2.0	3.3	100.0	137
Kwanza Norte	71.4	2.7	0.9	1.3	0.5	8.8	8.1	2.4	0.2	3.5	100.0	242
Kwanza Sul	51.4	7.0	1.8	2.4	4.5	7.5	9.3	5.1	2.8	8.1	100.0	381
Benguela	75.9	2.3	0.6	1.1	1.9	5.9	6.0	2.8	0.9	2.8	100.0	271
Huambo	82.3	1.3	1.1	0.5	0.2	4.9	4.6	1.8	1.6	1.7	100.0	1 134
Namibe	78.6	5.8	0.2	0.0	0.1	4.4	3.7	0.9	0.0	6.3	100.0	77
Huila	73.6	3.8	1.3	0.3	0.3	5.8	6.3	5.0	1.0	2.5	100.0	447
Cunene	68.7	5.3	0.1	0.1	0.0	8.0	7.1	4.0	0.5	6.1	100.0	75
Bengo	71.5	3.7	1.7	1.4	0.6	6.0	7.0	2.9	0.8	4.3	100.0	144
<b>Gender of head</b>												
Man	72.5	3.3	1.1	1.0	1.2	6.1	6.3	3.5	1.5	3.6	100.0	2 197
Woman	76.6	2.8	1.3	0.6	0.4	6.3	6.2	2.2	1.2	2.5	100.0	706
<b>Age of head</b>												
15-29	72.9	2.6	0.5	1.1	1.0	6.9	7.1	3.7	1.6	2.7	100.0	819
30-39	73.9	3.5	1.3	0.9	1.0	5.7	5.9	3.4	1.1	3.3	100.0	769
40-49	72.8	2.9	1.9	0.8	0.7	6.1	6.1	3.2	1.5	3.9	100.0	519
50+	74.3	3.6	1.2	0.7	1.0	5.8	5.8	2.5	1.4	3.7	100.0	790
Total	73.5	3.2	1.2	0.9	1.0	6.1	6.3	3.2	1.4	3.3	100.0	2 903

**Table 4.3. Detailed food consumption expenditures in per cent by various rural poverty groups, provinces, gender and age of head of household**

	Millet	Maize	Cereal	Bread	Rice	Fish	Meat	Leaves	Oil	Sugar	Milk	Drinks	Beans	Salt	Oth. food	Total food	Non food	Total	Num-ber
<b>Poverty</b>																			
Better off	5.08	19.01	0.58	1.75	6.37	12.58	2.12	0.82	9.17	4.49	0.16	2.64	5.67	2.83	2.63	75.90	24.10	100.00	641
Poor	3.17	24.74	0.84	1.65	4.05	13.16	1.07	1.44	11.05	3.66	0.12	1.16	5.20	4.18	0.89	76.39	23.61	100.00	244
Extreme poor	4.17	26.85	0.93	0.84	1.63	16.51	1.20	1.13	6.05	1.73	0.01	0.72	3.89	5.89	0.86	72.41	27.59	100.00	2023
<b>Province</b>																			
Cabinda	7.26	0.59	1.20	2.25	10.45	14.50	1.68	0.19	3.87	8.97	0.11	3.66	8.47	2.29	2.46	67.93	32.07	100.00	137
Kwanza Norte	3.41	2.83	0.22	3.04	7.43	18.97	0.93	0.16	11.74	5.17	0.00	0.98	2.61	11.54	2.40	71.43	28.57	100.00	242
Kwanza Sul	1.65	4.97	2.19	1.83	1.74	21.12	0.72	0.48	5.36	1.27	0.01	1.87	3.23	3.98	1.00	51.43	48.57	100.00	381
Benguela	5.50	33.38	0.58	0.38	1.38	13.38	0.86	1.92	7.42	0.39	0.17	0.08	2.85	3.62	3.98	75.88	24.12	100.00	271
Huambo	1.12	46.62	0.27	0.01	1.13	12.74	0.49	1.68	6.47	0.12	0.03	0.01	5.96	5.37	0.31	82.32	17.68	100.00	1 134
Namibe	10.23	28.37	0.38	0.07	3.76	5.08	2.44	0.49	6.85	5.15	0.25	2.18	5.71	7.32	0.35	78.63	21.37	100.00	77
Huila	7.92	19.33	0.88	1.44	2.95	18.22	1.78	1.09	7.73	5.51	0.01	0.32	2.42	3.18	0.85	73.64	26.36	100.00	447
Cunene	20.56	0.46	3.48	0.00	1.87	4.31	17.83	0.00	1.46	2.25	0.00	7.19	2.02	7.31	0.00	68.74	31.26	100.00	75
Bengo	8.51	4.30	0.12	3.44	5.97	12.54	1.01	0.33	12.97	5.55	0.20	5.65	4.08	4.23	2.60	71.49	28.51	100.00	144
<b>Gender of head</b>																			
Man	4.31	23.26	0.91	1.20	3.13	15.23	1.60	1.04	7.36	2.57	0.06	1.44	4.39	4.77	1.22	72.48	27.52	100.00	2 197
Woman	4.21	30.47	0.62	0.79	1.98	15.88	0.73	1.25	6.37	2.23	0.03	0.30	4.34	6.10	1.26	76.56	23.44	100.00	706
<b>Age of head</b>																			
15-29	3.36	24.34	0.80	0.82	3.90	13.35	1.12	1.35	8.73	2.72	0.09	0.71	5.05	4.50	1.99	72.86	27.14	100.00	819
30-39	4.17	26.56	0.69	1.09	2.67	15.40	1.80	1.28	7.09	2.17	0.04	1.17	4.47	4.24	1.04	73.89	26.11	100.00	769
40-49	4.36	24.49	1.19	1.63	3.19	15.20	1.45	0.97	6.13	2.47	0.08	1.48	4.50	4.65	0.98	72.77	27.23	100.00	519
50+	5.32	24.45	0.80	1.08	1.78	17.62	1.25	0.69	6.23	2.61	0.00	1.47	3.47	6.69	0.81	74.27	25.73	100.00	790
Total	4.29	25.00	0.85	1.11	2.87	15.38	1.39	1.08	7.14	2.50	0.05	1.18	4.37	5.08	1.24	73.52	26.48	100.00	2 903

#### 4.4.2. Other causes of rural poverty

It turns out that the main causes of poverty appearing in the regression analysis are location or province. As for the analysis between rural and urban areas, it is hard to disentangle the different effects, in this case being different poverty levels or different price levels. The only way would be to construct separate poverty lines for each province. This is outside the scope of this study, and we rather accept that it is not possible to sort out the geographical impact. Hence "noise" from the geographical effects might hide other causal links making it harder to verify an impact of other factors.

However, the regression analysis presented in tables 4.4 and 4.5 show that poverty increases when:

- the age of the head of household increases,
- if the male head can not read and write a simple phrase, and
- if the female head works as a crop farmer rather than does another type of work.

It also shows that there are no significant impact on poverty if the female head can not read and write a simple phrase, whether the main head is a women or a man, whether they have lived at the present location for more than four years or not, whether the dependency ratio is low or high, nor an impact from other types of job.

Also the classification analysis as presented in tables 4.4 and 4.5<sup>9</sup> show that the main reason behind poverty appears to be location or province. An analysis allowing for different causal factors in the different groups of provinces yields however additional infor-

mation. Again the reading and writing ability of the male head and the age of the main head are important. Even the occupation of the male head has an impact within two provinces (Kwanza Sul and Cunene) and among the middle aged in two other provinces (Huambo and Huila). Finally a large dependency ratio gives increased poverty

#### 4.5. Conclusions and policy recommendations

##### 4.5.1. Conclusions

The main conclusion is pretty strong and straightforward. *Poverty might be substantial in urban areas, but following a common approach, the absolute poverty line, the share of moderate and extreme poor people is almost twice as high in rural areas, 78 per cent in rural areas versus 40 per cent in urban areas.*

Our hypothesis is that the isolation of large rural areas is the main reason. Civil unrest, lack of a proper maintained road infrastructure and lack of transportation opportunities have for years forced a large share of the rural population into a very unsound mixture of almost subsistence farming combined with emergency relief in certain areas and periods. Hence the rural population has lost both opportunities and incentives to produce for marketing.

Only further analysis of the Inquérito aos Agregados Rurais (Departamento de Estatística e de Informática 1997) might allow us to gain support or rather reject this hypothesis.

**Table 4.4. Rural areas: total expenditures per adult equivalent\*, weighted linear regression\*\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	3.55	0.18		§§§
<b>Continous variables</b>				
Age of household head	-0.01	0.00	-0.16	§§§
Dependency ratio: dependents / breadwinners 15-60	-0.01	0.01	-0.02	
Yerrs at current residence	0.00	0.00	0.01	
<b>Classification variables</b>				
Occupational status. male head. default=not active.students				
Farmers	0.04	0.06	0.03	
Other self-employed	0.08	0.07	0.04	
Employed public sector	0.09	0.07	0.07	
Employed private sector	0.13	0.09	0.04	
Occupational status. female head. default=not active.students				
Farmers	-0.06	0.06	-0.05	
Other self-employed	0.04	0.07	0.03	
Employed public sector	-0.12	0.10	-0.03	
Employed private sector	0.07	0.20	0.01	
Province. default = Huambo				
Bengo	0.37	0.04	0.18	§§§
Benguela	0.37	0.05	0.15	§§§
Cabinda	0.60	0.05	0.28	§§§
Cunene	-0.30	0.06	-0.10	§§§
Huila	-0.12	0.04	-0.09	§§§
Kwanza Norte	0.27	0.04	0.14	§§§
Kwanza Sul	0.05	0.03	0.04	§
Namibe	0.37	0.06	0.13	§§§
Male head: Read and write a simple frase	-0.08	0.03	-0.07	§§§
Female head: Read and write a simple frase	0.00	0.02	0.00	
Gender of head of household. default=male	-0.07	0.16	-0.01	
Significance of model	0.00			
R-square	0.22			
Adjusted R-square	0.21			
Number of observations	2 178			

\* Logarithm of total expenditure per adult equivalent, \*\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level

#### 4.5.2. Policy recommendations

Currently both the Government and donors alike seem to accept that the civil unrest is deemed to lead to a continued migration to urban areas, especially to the Luanda area and the policy issue is hardly how to improve the situation in rural areas enough to reduce this migration pattern.

And there are definitely valid reasons not to invest in improved infrastructure in areas with civil unrest, but there is an equally obvious need to reduce the influx to areas like Luanda. Youngster who have grown up in a large city will never be very likely to return to rural areas and it is now the base for a policy for the future is needed.

**Table 4.5. Rural areas: total expenditures per adult equivalent\*, weighted linear regression\*\*, reduced form, significant modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	3.55	0.04		§§§
<b>Continous variables</b>				
Age of household head	-0.01	0.00	-0.16	§§§
<b>Classification variables</b>				
Occupational status. female head. default=not farmers				
Farmers	-0.06	0.02	-0.05	§§
Province. default = Huambo				
Bengo	0.39	0.04	0.19	§§§
Benguela	0.21	0.03	0.12	§§§
Cabinda	0.62	0.04	0.28	§§§
Cunene	-0.23	0.06	-0.08	§§§
Huila	-0.08	0.03	-0.06	§§§
Kwanza Norte	0.28	0.04	0.15	§§§
Kwanza Sul	0.07	0.03	0.05	§§
Namibe	0.36	0.06	0.13	§§§
Male head: Read and write a simple frase	-0.11	0.02	-0.11	§§§
Significance of model	0.00			
R-square	0.20			
Adjusted R-square	0.20			
Number of observations	2 178			

\* Logarithm of total expenditure per adult equivalent, \*\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, §§§ significant at 1% level

It is important to recognize that there is not only one, but two reasons for the low sale of agricultural produce from rural to urban areas, one linked to supply and one to demand:

- *supply side* - as already discussed the obvious reason for the low sale of agricultural produce from rural to urban areas is the lack of a maintained physical infrastructure and transport opportunities, and
- *demand side* - both donors and the Government are implementing a policy that encourages trade. Donors directly destroy the market for national farmers by continuing to finance import of food commodities for emergency relief rather than buying from farmers in the hinterland. The Government also destroys the market for national farmers but they do it indirectly by retaining the artificial currency which makes is extremely profitable for traders to import food commodities rather than relying on own consumption.

A proper policy to encourage the rural population to stay in their villages is to give a new emphasis to buying food from the hinterland. This approach do not require an end to civil unrest and will serve as both a short and long term incentive for rural people to remain in their villages. Such a program should comprise the following main element:

- the main element will be to build a strategic food reserve by a program to buy staple food that store well (e.g. maize and millet but not cassava) to be operational both in large surplus and normal years.

Such a program should be coordinated by the Government with assistance from a main donor such as UNDP or UNICEF but the operations as such would gain from being decentralized to public authorities and a series of donors.

- marketing opportunities are serving as an incentive to the rural population, an incentive that might even improve the transition to a peaceful situation in the future, and
- such as reserve means that the Government and donors are better prepared when future emergency situations develop.

The great advantage of a strategic food reserve program is the two-sided effect:

Figure 4.4. Poverty in rural areas, per cent below absolute poverty line

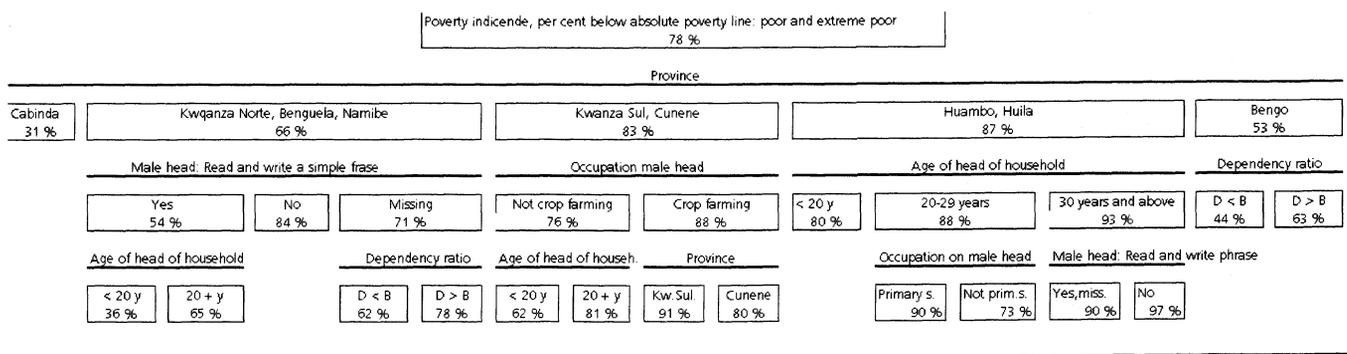
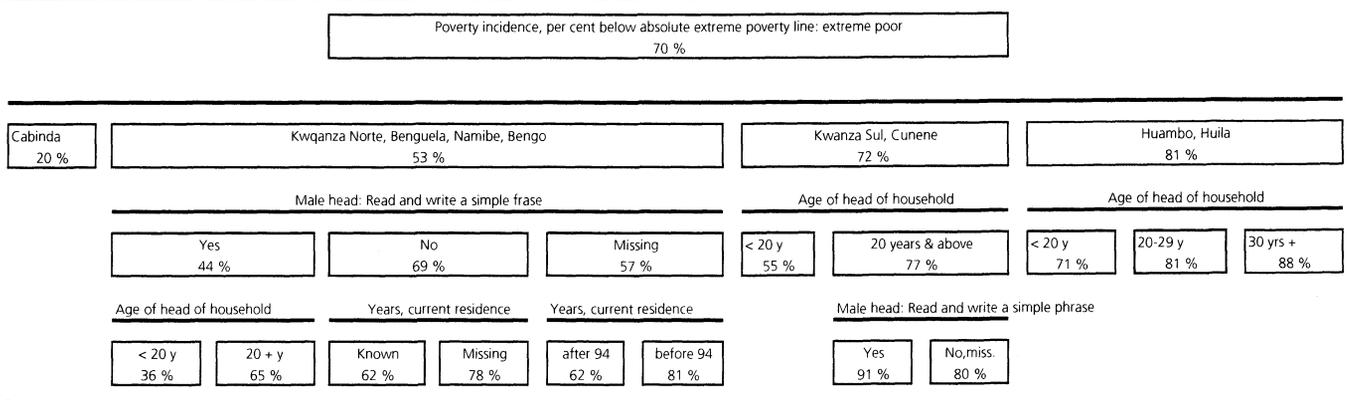


Figure 4.5. Extreme poverty in rural areas, per cent below extreme absolute poverty line



## 5. Urban areas: Education

It is a consistent finding across the world that education pays off both for the country and the individual. The analysis in chapter 2 confirmed that this is also the case in urban Angola. Parents are aware of education for their children being the best investment for the future. Also poor parents are only too aware of this fact. But as stated in Moser and Holland (1997) labor is often the only asset of the poor household. Whether they are “old” members of the urban poor or as assumed by UNDP (1998) tend to be migrants from rural areas, having migrated because they lacked productive employment” and “More often than not, they are low-skilled with little or no education”, their labor might be an asset but only a low value asset. Hence as Moser and Holland (1997) find “...cumulative evidence shows that the poorest households, those in which adult workers are unable to earn enough to keep the family afloat, are most likely to send their children out to work.”

Whether this happen in Angola is however not only the result of lack of resources in the poor household, but also caused by quality of education. Without proper reflection one might think that if the costs of schooling is low or even free, the poor parents are equally likely to send their children to school as the better off. But as stated above the poor households might suffer even more from a low quality school, since the lack of quality tends to require a repetition of several grades.

### 5.1. School attendance

To break the vicious circle of poor people not being able to send their children to school yielding uneducated children not being able to earn a decent living and therefore ending up in poverty themselves, the focus should be on access to primary education for poor versus non-poor children.

Let us first look at the general pattern of school attendance among children in primary school age. Figures 5.1 and 5.2 and tables 5.1-5.3 show school attendance across province, gender, and age. There are three levels of school attendance among the provinces. In Cabinda and Benguela more than 80 per cent of children at school age attend school, in Luanda and Huila between 75 and 80 attend and in Moxico only

Figure 5.1. School attendance in various poverty groups, provinces & gender; per cent

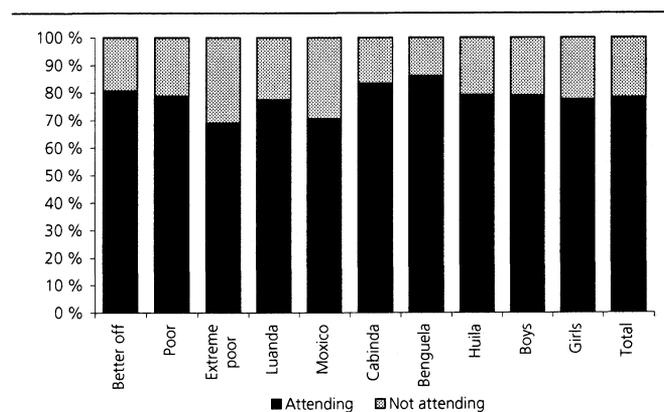
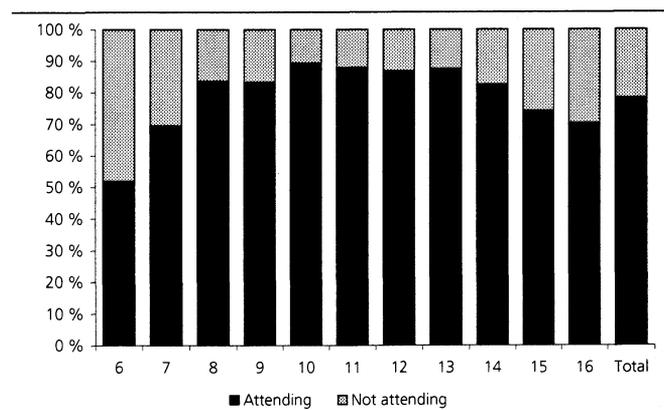


Figure 5.2. School attendance in various age groups, per cent



71 er cent attend. It is difficult to triangulate or compare these figures with overall figures from the school authorities. Since information on children in each catchment area is not available, you can not calculate attendance rates. Perfil Estatístico Económico e Social 1991-94 (INE 1995: 122) tells however that Moxico has the lowest students/class and students/ teacher ratios, Luanda comes next and Benguela is the worst, hence the exact opposite order. Careful interretation is needed, but this would indicate that the most likely factors behind different school attendance are poverty among the parents rather than the quality of the school.

**Table 5.1. School attendance in five provinces. Per cent**

	Attending	Not attending	Total	Number
Luanda	77	23	100	5 780
Moxico	71	29	100	589
Cabinda	83	17	100	1003
Benguela	86	14	100	1997
Huila	79	21	100	1250
Total	78	22	100	10619

**Table 5.3. School attendance among various school age groups. Per cent**

	Attending	Not attending	Total	Number
Boys	79	21	100	5 312
Girls	78	22	100	5 307
Total	78	22	100	10 619

**Table 5.3. School attendance among various school age groups. Per cent**

	Attending	Not attending	Total	Number
6	52	48	100	1 194
7	70	30	100	960
8	84	16	100	1 083
9	83	17	100	900
10	89	11	100	1073
11	88	12	100	758
12	87	13	100	1125
13	88	12	100	813
14	83	17	100	940
15	74	26	100	870
16	70	30	100	903
Total	78	22	100	10619

**Table 5.4. School attendance among various poverty groups. Per cent**

	Attending	Not attending	Total	Number
Better off	81	19	100	2652
Poor	79	21	100	5272
Extreme poor	69	31	100	1228
Total	78	22	100	9152

From a gender point of view the situation is optimistic, school attendance is equal among girls and boys.

There are more reasons to be worried by low school attendance among the 6 and 7 years old. Since this survey was conducted in urban areas only, this would hardly be due to a long distance walking to school. As you would expect, school attendance tends to drop between the secondary school age groups.

Let us now look at how poverty affects school attendance, refer to figure 5.1 and table 5.4.

As you would expect poverty causes lower school attendance. The big drop is however from better off and moderate poor families (around 80 per cent) to extremely poor families (around 70 per cent). This is a

large drop and would worry the educational authorities. The good news is of course the high attendance rate among the moderate poor families. The extreme poor at around only 10 per cent and hence they might be assisted by special policy arrangements. The likely explanation is that families will really do their best to keep children at school unless they really are forced to utilize their labor for survival.

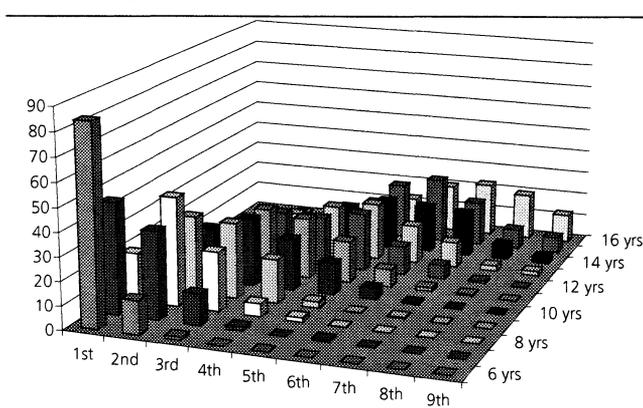
Even within the provinces, the general tendency is that the big drop in school attendance is from moderate poor to extreme poor families. However in Cabinda and Huila attendance drop step by step from the better off to the moderate poor to the extreme poor.

There are reasons to expect poverty to have a larger impact for girls than boys. Lucky enough this is not the case. Extreme poverty leads to equal drops in school attendance for girls and boys.

This is not the case with school attendance across age. School attendance varies differently over age for better off, moderate poor and extreme poor families. The better off are reluctant to send their 6 year old children to school, but from 7 to 16 years of age school attendance is quite high, while still declining over the years. The moderate poor are reluctant to send both the 6 and 7-year-old children to school and at 15 and 16 years of age attendance rate is dropping considerably. The extreme poor are more reluctant to send young children to school and the attendance rate drops even earlier in the other end. Only children between 10 and 13 have a decent attendance rate.

## 5.2. Efficiency and repetition

Public resources are stretched in the educational as well as other sectors and the need to ensure efficiency is large. Obviously one would be interested in ensuring that a large proportion of children not only attend primary school for some years, but even complete the primary school and achieves functional literacy. With degrading resources per student one would expect the

**Figure 5.3. School grade attendance in various school age groups\*, per cent**

\* - excl. non-attenders

**Table 5.5. School grade attendance among various school age groups. Per cent**

	6	7	8	9	10	11	12	13	14	15	16	Total
1st grade	77	46	21	13	6	3	2	0	0	0	0	10
2nd grade	13	36	44	32	22	14	11	6	3	0	1	16
3rd grade	1	13	24	31	28	28	22	17	10	4	1	18
4th grade	0	2	5	19	22	26	21	22	17	9	9	15
5th grade	-	0	2	3	14	18	25	25	21	24	13	15
6th grade	-	1	0	0	5	8	12	16	20	28	20	11
7th grade	-	-	0	0	1	2	6	11	19	19	23	8
8th grade	-	-	0	-	0	1	1	2	7	8	20	4
None	9	3	4	2	2	1	0	2	3	7	12	4
Total	100	100	100	100	100	100	100	100	100	100	100	100
Number	317	450	648	616	813	605	909	687	757	669	653	7 124

**Table 5.6. School grade attendance among various school age and poverty groups. Per cent**

	6	7	8	9	10	11	12	13	14	15	16	
<b>Better off</b>												
1st grade	75	35	19	11	3	4	2	0	0	0	0	9
2nd grade	16	43	41	31	19	18	10	4	3	0	2	16
3rd grade	3	16	25	35	27	22	21	16	11	3	1	17
4th grade	0	2	10	21	22	20	19	21	13	13	9	15
5th grade	0	0	3	1	16	20	20	27	18	17	19	14
6th grade	0	0	0	1	10	13	17	15	24	24	12	12
7th grade	0	0	0	1	0	0	8	13	21	19	16	8
8th grade	0	0	1	0	0	2	3	4	8	6	18	4
None	6	3	2	0	2	1	0	1	3	16	22	5
Total	100	100	100	100	100	100	100	100	100	100	100	100
<b>Poor</b>												
1st grade	77	55	21	13	7	2	2	0	0	0	0	10
2nd grade	13	28	46	33	22	12	12	7	2	0	0	16
3rd grade	1	11	22	30	29	31	20	14	9	4	1	17
4th grade	0	1	4	17	23	29	23	22	19	7	9	16
5th grade	0	0	2	4	12	17	28	23	21	26	10	15
6th grade	0	1	0	0	2	4	10	19	20	30	25	11
7th grade	0	0	0	0	1	3	5	10	19	20	24	8
8th grade	0	0	0	0	0	0	0	1	6	10	22	4
None	9	3	5	3	3	2	0	3	3	2	9	3
Total	100	100	100	100	100	100	100	100	100	100	100	100
<b>Extreme poor</b>												
1st grade	84	35	20	24	3	4	3	0	0	0	0	9
2nd grade	1	53	35	30	34	9	8	1	7	1	0	14
3rd grade	1	12	35	25	28	33	35	33	15	11	3	23
4th grade	0	0	5	21	14	27	15	23	14	6	16	14
5th grade	0	0	0	0	15	17	20	25	31	32	12	17
6th grade	0	0	0	0	4	10	14	7	10	27	15	9
7th grade	0	0	0	0	0	0	4	9	16	15	36	8
8th grade	0	0	0	0	2	0	0	2	5	8	14	3
None	14	0	5	0	0	0	0	0	1	1	4	2
Total	100	100	100	100	100	100	100	100	100	100	100	100
Number	317	450	648	616	813	605	909	687	757	669	653	7 124

teaching to suffer. As we have seen this has not really lead to lower attendance among the peak age group, but one would expect that a growing number need to repeat grades, demanding more resources and leading to a vicious circle of less resources per student, more repetition and less resources. Table 5.5 gives an overview of the grade and age pattern.

The story told in figure 5.3 and table 5.5 is a grim one. The mode grade (the most frequent grade) is grade 1 for 2 years, grade 2 for another 2 years and even grade 3 for another three years. In fact the mode grade is still

7 for the 16 years old students. Roughly speaking the typical student finishes school 4 years too late and spends 3 years repeating grades. In fact we are close to a situation where repetitions requires 50 per cent extra resources compared to a situation with no repetition.

This is a very poor performance from a budget or efficiency perspective, but turned around it documents a large potential for increasing efficiency by creating a positive circle of improved quality and reduced repetition.

**Table 5.7. School grade/ age lag among various poverty groups. Per cent**

	Better off	Poor	Extreme poor	Total
Less than 3 years	72	70	70	71
3 years and more	28	30	30	29
Total	100	100	100	100
Number	2 652	5 272	1 228	9 152

**Table 5.8. School grade/ age lag three years and more among various age and poverty groups. Per cent**

	Better off	Poor	Extreme poor
6	0	0	0
7	0	0	0
8	0	0	0
9	7	9	8
10	18	22	28
11	34	35	33
12	43	45	40
13	58	56	67
14	56	56	53
15	59	62	59
16	59	60	60
Total	28	30	30

**Table 5.9. School grade/ age lag three years and more among boys and girls in various poverty groups. Per cent**

	Better off	Poor	Extreme poor
Boys	29	70	30
Girls	28	71	30
Total	28	70	30

### 5.3. Equity and indirect efficiency

Given the shorter period of a decent attendance ratio among the moderate poor and the extreme poor, one would expect them to suffer most from the vicious repetition circle, refer to table 5.6.

The picture is however not that straight forward. The better off children completes the first grades faster but will then tend to repeat grades more or less to the same degree. The second difference is that they continue the climbing and the typical 16 years old better off student will attend secondary school.

The typical extremely poor child will repeat the early grades as the average but never reach as high up in the grades as the average student and quite few will attend secondary school.

The typical extremely poor child will really repeat classes a number of times and at the age of 13 when they are supposed to complete primary school, she is still attending third grade.

These attendance rates over age demonstrate first a very low efficiency and second that while the school attendance at peak age groups are not that different across poverty levels, this only hides a large discre-

pancy and inequality in access to primary schooling among extreme poor and moderate poor versus better off children.

Tables 5.7 and 5.8 tell the proportion of children having started too late and/or repeated 3 classes or more. They also give another perspective to the same story as the grade/age matrix. Table 5.7 shows that multiple repetition is equally common among better off, moderate poor and extreme poor. Tables 5.8 shows that this pattern holds across age groups and gender. But when you look at the proportion across grades you will discover that the while the better off also are multiple repeaters to a large extent, the proportion of multiple repeaters among the poor and especially among the extreme poor are growing high at lower grades. Table 5.9 shows that the pattern is equally worse among boys and girls.

The complete picture seems to be that all children are repeating a number of times drawing heavily on constrained resources. The better off children are however still able to complete primary school to a quite large extent, while the poor children and especially the extreme poor start late and start repeating quite early, ending up never being able to complete primary school.

Hence breaking the vicious circle of low resources and repetition seems to be the challenge from both an efficiency perspective and a pro-poor policy point of view. The late change in number of shifts is an important step in this direction. At the time of the survey in 1995 and up to 1997 schools maintained 4 shifts a day with very short school days like 2 hours for each shift. Additional private tuition/ school was needed but only non-poor could afford this. Situation has changed as of 1998, with only 2 shifts and longer days. The drawback is long lines and parents having to pay gasosas to enroll their children. If the system of gasosas is allowed to develop, the better off will again gain, but if not, the improved quality combined with a higher threshold to enroll might both increase efficiency and turn out to be a pro-poor policy.

### 5.4. Factors affecting school attendance

Theoretically variations in school attendance are affected by the expected return to education, by the quality (including quality of premises, quality of teaching and distance to school) and price of schooling and the household resources. Unfortunately except for the latter, this information is not available. However the triangulation of existing information indicates that household resources are the most important factors affecting variations in primary school attendance and this limited analysis might still be interesting from a policy point of view.

Factors affecting school attendance are analyzed by a classification analysis presented in a tree-diagram<sup>14</sup>.

With our focus on poverty we have forced poverty as the first predictor variable and then allowed the others to enter the analysis according to how they are able to split the schoolchildren in attendees and non-attendees. The tree diagram in figure 5.4 shows that poverty level has the expected impact, and the details give additional insights. While the school attendance rate decrease from better off to moderate poor people, the decrease is only from 81 per cent to 79 per cent. But then it drops to 69 among the extreme poor. As we might expect, the age group is important among better off as well as both poverty groups. The attendance rate among the very young children, 6 and 7 years of age is the lowest, and the rate among the core group 8 to 14 years is the highest. There are however interesting differences among the better off versus the poverty groups. Among the better off, 67 per cent of 6-7 year old children will attend school, 86 per cent of 8-14 years old and 77 per cent of 15-16 years old will still be in school. Among the poor, only 58 per cent of 6-7 year old children will attend, but this rate increases to the same level as among the better off, in fact 87 per cent of 8-14 years old children will attend and 71 per cent will still attend at 15-16 years age. With other words, poor children will clearly be more likely to start schooling late, but then catch up at core age and not loose out very much at 15-16 compared with the better off.

The big losers are the extreme poor. 49 per cent or less than half of the very young will attend, and the extreme poor will never catch up anything, on the contrary, among the core group of 8-14 years, only 77 per cent will attend and only 65 per cent of the 15-16 years old.

What about other household resources, can they compensate? Figure 5.4 tells us that among the better off, human resources are important. For the young and core age group, the wife's resources are the most crucial and for the older children, the husband's occupation has the largest ability to split. But a closer look shows that these are households where the husband has a public occupation, usually dependent on formal education, and hence even for the older children, human resources are crucial. An important issue is also that among the younger ones, the wife's education is the most important, while the husband's education has a larger effect to ensure that the older ones stay on.

The pattern is similar among the moderate poor, while for them the differences in schooling opportunities across the provinces is the most central for the very

young children. While data are not available, we assume this is a reflection of access or distance to school. Also for the moderate poor households, wife's education is most important for the core age groups, but husband's education gives a larger push to ensure older children to remain in school.

For the extreme poor, the educational level of the husband is essential. In fact a high level of education of the male head of the household can compensate for the negative effect of extreme poverty. If the male head of an extreme poor family has an education above the average, the school attendance among the core age group and the older ones are more or less on average.

Summarizing the effect of the analysis shows that poverty is the crucial variable that split the children in groups likely to attend and groups not likely to attend school. Except for the very young, the main split is between better off and moderate poor versus extreme poor. In addition the educational level of the male head is essential and can even partly compensate for extreme poverty.

It is equally interesting to learn that the schooling opportunities from province to province are less important and that the dependency ratio, number of children at school age, whether mother and father lives in the household and whether the family has moved in during the last years do not affect school attendance equally much in all provinces. Detailed analysis not published here shows that some of these factors are important for some sub-groups, e.g. among better off people, newcomers might have lower school attendance. But on average, the effects are smaller. It should be added that this is not an obvious result. Often numbers of children at school age and dependency ratio are reducing school attendance considerably. One possible explanation is that the lack of school fees, at least at this time, made the indirect costs more important. And if you need your children to do household chores and paid work, you rather need them all to work.

### 5.5. Policy conclusions

There are two clear and distinct findings. First the very large repetition rate creating an extreme extra burden on the primary schooling sector. Second that the main factor effecting school attendance is poverty level.

Again the clear result is that the main issue is the effect of poverty. For the core age group, the main split is between better off and moderate poor versus extreme poor; while for the younger and older ones, even falling into poverty is enough to clearly reduced the attendance ration.

The policy challenge is to handle both effects simultaneously. If the challenge is successfully met, the reward might be large. If repetition is reduced, two

<sup>14</sup> Variables, variable abbreviations, values, and value abbreviations are listed in table A2.

impacts are achieved, first less resources are needed OR more resources are available; second if repetition is reduced, the share of poor children not leaving school before an exam or at least functional literacy is obtained might really be increased. The task is to break the vicious resource circle.

This would require a multifold strategy, such as the following one:

- Donor assistance is requested to provide additional resources for a limited period of ten years to improve quality and hence reduce repetition;
- A school fee program with local control and local spending is introduced to ensure a proper teacher/student ratio and material;
- In order to give all children a chance to attend school and to motivate school start when planned each student would be exempted from school fee for a limited period of 3-5 years linked to the age of the child, i.e. no school fee for 6-8 years old children and no school fee for 9-10 years old children with a maximum of one repetition (or no repetition).
- For children above 10 years of age, a fellowship program for school fees covering extreme poor children should be introduced. Only non-repetitors would be eligible for this program.
- When donor support is phased out, the school fees should fully cover the extra costs of repetition and pay for the fellowship program of the extreme poor.

## 6. Urban areas: Health

As education, health is both a human goal as such, a human investment and a means to increase income and avoid poverty. A comprehensive picture of the health sector needs a twofold focus:

- from a general health perspective the focus would be on health status; and
- from a policy perspective the focus would be on access to health service.

We would expect that poverty might affect both whether people are exposed to health risks throughout their live cycle and whether they have access to and can afford treatment when need be.

Given the policy focus of this report and the lack of data linking poverty and health status, the main focus will be on health service. The Luanda Household Budget Survey 1990 on health service provisions (Devereux and Hunt 1991) has chosen another approach by addressing whether the design and performance of the health service provisions respond to the need for preventive and curative health. They conclude by emphasizing the need to improve the adequacy and performance of preventive health provisions while focusing less on curative health. The focus on preventive health is according to other analysis (such as World Bank 1993) which underscores the potential efficiency and equity gains from a well functioning preventive health provision system. However the household survey data does not allow for this type of analysis but is well designed to analyze provision of curative health and the ability to pay for medical treatment (or "willingness" as expressed by Gertler and van der Gaag 1990).

The analysis will address access to health service and de facto consultation and treatment for people having been sick during the last two weeks. As for education, an important issue is whether poor households can afford to pay for health service. The choice to make is however quite different from education. Education is a long term investment for your children and your own far future with both direct costs and opportunity costs for not sending your children out to work. Curative health is a short-term investment with a risky outcome, but the trade off between quality and costs are the same.

**Table 6.1. Any sickness during last two weeks in five provinces. Per cent**

	Yes	No	Total	Number
Luanda	11	89	100	15 419
Moxico	15	84	100	1 735
Cabinda	12	88	100	2 867
Benguela	8	92	100	5 158
Huila	6	94	100	3 328
Total	10	89	100	28 507

**Table 6.2. Any sickness during last two weeks among males and females. Per cent**

	Yes	No	Total	Number
Males	10	90	100	14 044
Females	11	89	100	14 463
Total	10	89	100	28 507

**Table 6.3. Any sickness during last two weeks in various age groups. Per cent**

	Yes	No	Total	Number
0-9	13	87	100	8 495
10-19	8	92	100	8 679
20-29	10	90	100	4 598
30-39	10	90	100	3 484
40 +	13	86	100	3 251
Total	10	89	100	28 507

**Table 6.4. Any sickness during last two weeks in various poverty groups. Per cent**

	Yes	No	Total	Number
Better off	12	88	100	7 518
Poor	10	90	100	13 821
Ext. poor	9	91	100	3 204
Total	10	89	100	24 543

### 6.1. Access to health service and treatment

We would expect that people might be more or less exposed to health risks due to various factors and especially climatic ones (such as more mosquitoes in wet and humid areas), infrastructure ones (especially affecting access to safe water and a proper latrine or sewage system), poverty level as materialized through a proper nutrition and health service over the years,

and the civil war/unrest causing forced migration, deslocados and a lack of infrastructure. As shown in table 6.1 the incidence of sickness does vary across the provinces. As for primary schooling Moxico is worst off. Huila and Benguela have the lowest rates. Moxico is not the province worst hit by civil war/ unrest. Hence there might be valid reasons to postulate that lack of infrastructure and high poverty incidence are the main causes.

Table 6.5 confirms this picture. Due to a drier climate and higher altitude there are less malaria in Moxico but this is more that compensated for by a higher incidence of other diseases. One should however add that fever is often a malaria case with a wrong diagnosis and hence the malaria incidence in Moxico is probably not that much lower than in the other provinces in the sample. The incidence of waterborne diseases such as diarrhea is alarmingly high in Moxico, Huila and Benguela, and clearly underscoring the need for access to safe water.

Table 6.2 shows that women reports sickness more or less like men. We know however that women are more

exposed to health risks and when they report an incidence of sickness more or less like men, this is partly due to a larger underreporting of sickness among women compared to men, commonly perceived as the breadwinners. Unfortunately it is difficult to disentangle the reporting bias and the real figures. Table 6.6 shows that the gender differences remain small even when focusing on the various types of sicknesses. One would expect women to report pre- and antenatal related sicknesses as other diseases. When women report more or less the same incidence as men, that confirms a hypothesis of underreporting by women.

The picture of incidence of sickness over the life span presented in table 6.3 might be less biased in general, but we will expect an underreporting for children. The incidence of sickness is clearly shaped like a U-curve over the life span. Table 6.7 shows that the U-curve is a composite reflecting a high incidence of diarrhea and other waterborne diseases among children and a larger variety of other diseases increasing over the life span.

**Table 6.5. Type of sickness during last two weeks in five provinces. Per cent**

	Malaria	Fever	Water born diseases	Respiratory diseases	Measles	Others	Missing	Total	Number
Luanda	41	33	7	5	0	13	1	100	1 754
Moxico	12	42	16	3	0	20	7	100	285
Cabinda	48	35	5	5	-	8	-	100	339
Benguela	40	27	13	3	0	17	0	100	436
Huila	8	33	15	6	1	36	0	100	207
Total	37	33	9	4	0	15	1	100	3 021

**Table 6.6. Type of sickness during last two weeks among males and females. Per cent**

	Malaria	Fever	Water born diseases	Respiratory diseases	Measles	Others	Missing	Total	Number
Males	37	34	9	4	0	14	2	100	1 384
Females	36	32	9	5	0	16	1	100	1 637
Total	37	33	9	4	0	15	1	100	3 021

**Table 6.7. Type of sickness during last two weeks in various age groups. Per cent**

	Malaria	Fever	Water born diseases	Respiratory diseases	Measles	Others	Missing	Total	Number
0-9	32	36	15	6	1	9	2	100	1 108
10-19	42	36	5	3	0	12	2	100	665
20-29	40	33	5	2	-	18	1	100	447
30-39	39	31	5	5	-	20	1	100	362
40 +	35	24	6	5	-	28	1	100	439
Total	37	33	9	4	0	15	1	100	3 021

**Table 6.8. Type of sickness during last two weeks in various poverty groups. Per cent**

	Malaria	Fever	Water born diseases	Respiratory diseases	Measles	Others	Missing	Total	Number
Better off	40	32	8	3	1	14	2	100	900
Poor	36	34	8	5	0	16	1	100	1 405
Ext. poor	37	33	9	3	0	16	2	100	304
Total	37	33	8	4	0	15	1	100	2 609

The figures for malaria and fever should be studied with caution. There is clearly an underreporting of malaria among children. This is partly compensated by an overreporting of fever but only partly. These figures confirms malaria as the most common sickness and also that malaria among children often are hardly perceived as malaria, rather some kind of fever. This might reflect the tradition of hardly treating malaria among children but rather hoping that they will strengthen the immunity towards malaria for the future.

Even with this background information it is difficult to sort out the impact of poverty as presented in table 6.4 and 6.8. There is a clear tendency for poor people to “underreport” sickness. Simply speaking, poor people can not afford to consider minor health problems as sicknesses. Usually they can neither afford treatment nor to stop working for minor problems. You would expect that underreporting varies with type of sickness. As table 6.8 shows the different sicknesses are more or less equally distributed among better off, moderate poor and extreme poor. An interesting details confirming the poverty bias in reporting is that better off people reports a slightly higher share of malaria and a lower share of fever. This might partly reflect better knowledge and a real diagnosis, but also a tendency to overreport malaria versus fever. Hence we are not able to tell whether a lower reported incidence of illnesses among poor people only reflects the likelihood of reporting or a real situation.

Given these variations of incidence of illness, to what degree have people access to a proper health service and can they afford private health service.

**6.2. Allocation efficiency and equity**

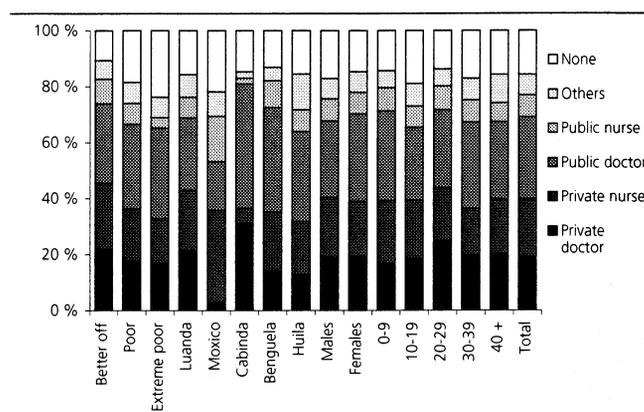
Efficiency in the health sector is required at two levels, first to ensure efficiently run institutions and health service and then to ensure a proper allocation of public resources ensuring an efficient distribution across levels of health service, number and distribution of institutions and hence distance to access one and the exposure to health risks. Finally the issue is whether officially to introduce a system of cost recovery.

Efficiency at the institutional level is outside the scope of this analysis. Survey data might allow for an analysis of allocation efficiency but would then in addition to the households and individual information also require information on quality and access to the local health institutions. Such information is likely to be available in a few years time from the Village Recording System. In the meantime the main focus will be on equity, while still approaching the issue of efficiency on an ad hoc basis.

As shown in figure 6.1 and table 6.9 differences in incidence across provinces are reflected and multiplied in the figures of health service. Moxico is again worst off with the largest share without any treatment, the smallest share using private doctors and the highest shares using a nurse. This pattern reflects both demand and supply of health service. There are fewer public health institutions, fewer people can afford private health service and those who can, only have access to nurses rather than doctors. Cabinda and to a certain degree Luanda are better off. Public doctors are available (may be with a gasosa for drugs and even consultation, may be not) and private doctors are available for those who can afford that.

As shown in figure 6.1 and table 6.10 differences between men and women are negligible.

**Figure 6.1. Medical consultation among people who were sick during last two weeks in poverty groups, provinces, gender and age groups**



**Table 6.9. Medical consultation among people who were sick during last two weeks in five provinces. Per cent**

	Public doctor	Private doctor	Public nurse	Private nurse	Midwife	Traditional healer	None	Others	Total	Number
Luanda	26	21	7	21	0	1	16	7	100	1 734
Moxico	17	3	16	33	-	2	22	7	100	265
Cabinda	44	31	2	5	-	2	15	1	100	339
Benguela	37	14	9	21	-	2	13	3	100	436
Huila	32	13	8	19	-	2	15	11	100	207
Total	29	19	8	20	0	1	16	6	100	2 981

**Table 6.10. Medical consultation among males and females who were sick during last two weeks. Per cent**

	Public doctor	Private doctor	Public nurse	Private nurse	Midwife	Traditional healer	None	Others	Missing	Total	Number
Males	27	19	8	21	-	2	17	6	1	100	1 363
Females	31	19	8	19	0	1	15	6	1	100	1 618
Total	29	19	8	20	0	1	16	6	1	100	2 981

**Table 6.11. Medical consultation among people who were sick during last two weeks in various age groups. Per cent**

	Public doctor	Private doctor	Public nurse	Private nurse	Midwife	Traditional healer	None	Others	Missing	Total	Number
0-9	32	17	8	22	-	1	14	5	0	100	1 092
10-19	26	19	8	21	-	0	19	8	1	100	653
20-29	28	25	8	19	-	2	14	4	0	100	444
30-39	30	19	8	17	0	1	17	6	1	100	358
40 +	27	20	7	19	-	3	16	7	1	100	434
Total	29	19	8	20	0	1	16	6	1	100	2 981

**Table 6.12. Medical consultation among people who were sick during last two weeks in various poverty groups. Per cent**

	Public doctor	Private doctor	Public nurse	Private nurse	Midwife	Traditional healer	None	Others	Missing	Total	Number
Better off	28	22	9	23	0	2	11	5	0	100	886
Poor	30	18	7	18	-	1	18	6	1	100	1 392
Ext. poor	32	16	4	15	-	1	23	6	2	100	297
Total	30	19	7	20	0	1	16	6	1	100	2 575

**Table 6.13. Medical consultation among people who were sick during last two weeks in various poverty and age groups. Per cent**

	0-9	10-19	20-29	30-39	40 +	Total
<b>Better off</b>						
Public doctor	28	31	31	28	24	28
Private doctor	19	23	25	25	20	22
Public nurse	9	7	9	11	8	9
Private nurse	28	18	21	14	27	23
Midwife	-	-	-	1	-	0
Traditional healer	1	1	1	3	6	2
None	10	11	8	15	11	11
Others	4	7	5	3	5	5
Missing	0	1	-	-	-	0
Total	100	100	100	100	100	100
Number	341	176	146	104	119	886
<b>Poor</b>						
Public doctor	34	24	27	36	30	30
Private doctor	15	17	25	15	20	18
Public nurse	8	7	7	6	8	7
Private nurse	20	20	16	17	16	18
Midwife	-	-	-	-	-	-
Traditional healer	1	0	3	-	1	1
None	17	23	18	17	17	18
Others	5	8	4	10	7	6
Missing	0	1	1	-	1	1
Total	100	100	100	100	100	100
Number	507	318	190	168	209	1 392
<b>Extreme poor</b>						
Public doctor	35	29	34	24	33	32
Private doctor	13	17	27	9	19	16
Public nurse	5	5	-	3	2	4
Private nurse	15	14	15	24	12	15
Midwife	-	-	-	-	-	-
Traditional healer	-	-	2	6	-	1
None	23	28	20	27	16	23
Others	8	5	-	3	12	6
Missing	1	1	2	3	7	2
Total	100	100	100	100	100	100
Number	104	76	41	33	43	297

Figure 6.1 and table 6.11 tell you that the pattern of consultations changes somewhat over life span. For children the families would to a larger degree consult public doctors and institutions, this is likely to be due both to a better public service offered to children than to adults and a higher aversion to take children to expensive private service.

As you would expect figure 6.1 and table 6.12 show a similar pattern even more clearly across poverty levels. The share with no consultation doubles from 11 per cent among the better off to 23 per cent among the extreme poor and private options are seldom for the poor. Moderate poor and extreme poor people consulting a public doctor more frequently than better off people should not mislead you. Add the shares consulting a public or a private doctor we see that the better off people do this more frequently. However, among those consulting any doctor a large share of the moderate poor and extreme poor are choosing a public doctor, obviously because the can not afford a private doctor.

Table 6.13 shows that in all age groups, the moderate poor and even more the extreme poor are less likely to go for a consultation. The moderate poor and extreme poor suffer in all age groups. The extreme poor are twice as likely not to go for any consultation whether a child, a youth or an adult is sick. It is only when a person above 40 is sick that the differences are smaller. It seems reasonable to assume that sicknesses among children youth and younger people develop faster and do not allow the poor people any chance to raise the money and time needed, while older people develop more serious and long term sickness over time allowing the poor to raise money and time.

**Table 6.14. Payment for medical consultation and treatment/drugs among people who were sick during last two weeks in five provinces. Per cent**

	No payment	For treatment/drugs only	For consultation	Total	Number
Luanda	21	54	25	100	1 734
Moxico	39	17	44	100	265
Cabinda	22	62	17	100	339
Benguela	29	51	20	100	436
Huila	43	26	31	100	207
Total	26	49	25	100	2 981

**Table 6.15. Payment for medical consultation and treatment/drugs among males and females who were sick during last two weeks. Per cent**

	No payment	For treatment/drugs only	For consultation	Total	Number
Males	27	48	25	100	1 363
Females	24	50	25	100	1 618
Total	26	49	25	100	2 981

**Table 6.16. Payment for medical consultation and treatment/drugs among people who were sick during last two weeks in various age groups. Per cent**

	No payment	For treatment/drugs only	For consultation	Total	Number
0-9	24	53	23	100	1 092
10-19	29	49	22	100	653
20-29	23	49	28	100	444
30-39	27	45	28	100	358
40 +	26	43	30	100	434
Total	26	49	25	100	2 981

**Table 6.17. Payment for medical consultation and treatment/drugs among people who were sick during last two weeks in various poverty groups. Per cent**

	No payment	For treatment/drugs only	For consultation	Total	Number
Better off	19	51	30	100	886
Poor	28	49	23	100	1 392
Extreme poor	36	50	13	100	297
Total	26	50	24	100	2 575

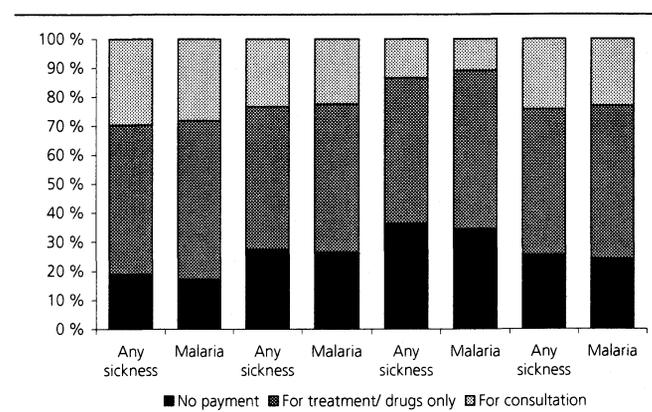
You will also find similar patterns in tables 6.14 to 6.18 presenting information on whether sick people do not pay at all, pay for treatment and drugs only or even pay for the consultation, but also some distinct differences.

The ideal situation is obviously when a decent public health service is available on a general basis and people neither has to pay a fee for the consultation nor for drugs or other treatment. However a more common situation might be that people either go to public health service but has to pay for drugs or other treatment or go for private health service and have to pay either a fee covering the whole package or both for consultation and treatment. In fact some will go for

**Table 6.18. Payment for medical consultation and treatment/drugs among people who were sick during last two weeks in various poverty and age groups. Per cent**

	0-9	10-19	20-29	30-39	40 +	Total
<b>Better off</b>						
No payment	18	24	16	19	17	19
For treatment/drugs only	55	55	48	46	46	51
For consultation	27	21	36	35	37	30
Total	100	100	100	100	100	100
Number	341	176	146	104	119	886
<b>Poor</b>						
No payment	25	33	26	31	25	28
For treatment/drugs only	55	46	50	43	45	49
For consultation	21	21	24	26	30	23
Total	100	100	100	100	100	100
Number	507	318	190	168	209	1 392
<b>Extreme poor</b>						
No payment	33	41	32	27	49	36
For treatment/drugs only	51	50	59	58	35	50
For consultation	16	9	10	15	16	13
Total	100	100	100	100	100	100
Number	104	76	41	33	43	297

**Figure 6.2. Payment for medical consultation and treatment/drugs among people who had a) any sickness or b) malaria or fever during last two weeks in various poverty groups**



public health service but still have to pay a gasosa for both the consultation and for the treatment. On the other hand, if few people pay for the consultation is also reflects that private service is not commonly available.

As shown by table 6.14 people in Moxico again appear to be the losers, but the picture is somewhat complicated. 44 per cent in Moxico had to pay for treatment, but few for consultation. This reflects a limited offer of private health service. In Luanda, Cabinda and Benguela the situation is really different. Only between 20 and 30 per cent could avoid paying anything. On the other hand more than half had to pay even for the consultation. This might reflect a pretty far-reaching change towards a dual system of private health service and gasosa-based public health service in these provinces.

Addressing equity in health service across gender and age gives a completely different picture. Tables 6.15 and 6.16 show that there are hardly any differences ! The main split seems to be the provincial one. Well, not totally. Figure 6.2 and the last part of table 6.17 tell us that the moderate poor and even more the extreme poor are squeezed. Only 13 per cent of the extreme poor could afford to pay for a consultation while 30 per cent of the better off could. On the other hand a large share of the poor and especially the extreme poor had to pay for treatment. Hence the better off paid for private service or a bribe for public service and got the drugs or treatment without additional payment. The moderate poor and even more the extreme poor did not pay any consultation fee, were likely to end up with second quality service, but still had to pay for treatment to a larger degree than the better off. This is really a confirmation of the old truth that it is expensive to be poor. One might be tempted to add that it is both expensive and dangerous.

Table 6.18 shows that at least the poor are more vulnerable to having access to free public treatment. Table 6.13 showed that only among the people above 40 years of age there was a smaller gap between better off and poor people. Table 6.18 shows however that

this is due to older people more frequently taken to a free consultation. Again we may assume this is rather due to the sickness developing over a longer time for people above 40 years of age. To summarize poor people below 40 years are more seldom given any consultation while poor people above 40 might be given a consultation but only if there is access to free health consultation.

A problem with information on consultation and treatment is that demand and supply of health service are closely related. In any country you will find that outside the capital the situation is that the more hospital beds and doctors you find in a geographical area, the higher incidence of sickness you find. The main reason is that the authorities naturally locate more hospitals in areas where the population is more exposed to health risks such as in swampy areas and areas with a lack of safe water. Hence the above picture might partly reflect similar relations. It is impossible to work around this problem, but the problem is more straightforward when addressing a more homogenous group. Hence in tables 6.19 to 6.28 the situation is presented for a more homogenous group, those with malaria and fever during the last month.

**Table 6.19. Medical consultation among people who had malaria or fever during last two weeks in five provinces. Per cent**

	Public doctor	Private doctor	Public nurse	Private nurse	Traditional healer	None	Others	Total	Number
Luanda	25	23	8	21	1	16	6	100	1 302
Moxico	12	5	18	33	1	29	4	100	153
Cabinda	44	32	2	5	0	15	0	100	281
Benguela	36	16	8	23	1	14	2	100	291
Huila	30	12	9	19	1	17	10	100	86
Total	28	21	8	20	1	16	5	100	2 113

**Table 6.20. Medical consultation among males and females who had malaria or fever during last two weeks. Per cent**

	Public doctor	Private doctor	Public nurse	Private nurse	Traditional healer	None	Others	Total	Number
Males	25	21	8	22	1	18	5	100	986
Females	31	22	7	18	0	16	5	100	1 127
Total	28	21	8	20	1	16	5	100	2 113

**Table 6.21. Medical consultation among people who had malaria or fever during last two weeks in various age groups. Per cent**

	Public doctor	Private doctor	Public nurse	Private nurse	Traditional healer	None	Others	Total	Number
0-9	32	19	8	22	1	15	4	100	759
10-19	24	21	8	20	-	20	7	100	517
20-29	29	26	8	18	1	14	3	100	327
30-39	28	22	8	18	-	18	6	100	251
40 +	24	24	7	22	1	16	5	100	259
Total	28	21	8	20	1	16	5	100	2 113

**Table 6.22. Medical consultation among people who had malaria or fever during last two weeks in various poverty groups. Per cent**

	Public doctor	Private doctor	Public nurse	Private nurse	Traditional healer	None	Others	Total	Number
Better off	28	23	8	24	1	11	4	100	642
Poor	29	21	8	17	1	19	6	100	983
Extreme poor	32	16	4	16	-	26	5	100	212
Total	29	21	7	20	1	17	5	100	1 837

**Table 6.23. Payment for medical consultation and treatment/drugs among people who had malaria or fever during last two weeks in five provinces. Per cent**

Payment	No payment	For treatment/drugs only	For consultation	Total	Number
Luanda	21	55	24	100	1 302
Moxico	39	17	44	100	153
Cabinda	20	63	17	100	281
Benguela	27	51	21	100	291
Huila	44	27	29	100	86
Total	24	52	24	100	2 113

**Table 6.24. Payment for medical consultation and treatment/drugs among males and females who had malaria or fever during last two weeks. Per cent**

Payment	No payment	For treatment/drugs only	For consultation	Total	Number
Males	25	51	24	100	986
Females	23	53	24	100	1 127
Total	24	52	24	100	2 113

**Table 6.25. Payment for medical consultation and treatment/drugs among people who had malaria or fever during last two weeks in various age groups. Per cent**

Payment	No payment	For treatment/drugs only	For consultation	Total	Number
0-9	22	55	23	100	759
10-19	29	50	21	100	517
20-29	23	52	26	100	327
30-39	25	47	28	100	251
40 +	22	48	30	100	259
Total	24	52	24	100	2 113

**Table 6.26. Payment for medical consultation and treatment/drugs among people who had malaria or fever during last two weeks in various poverty groups. Per cent**

Payment	No payment	For treatment/drugs only	For consultation	Total	Number
Better off	17	55	28	100	642
Poor	27	51	22	100	983
Extreme poor	34	55	11	100	212
Total	24	53	23	100	1 837

As table 6.19 shows, Moxico is again worst off. The incidence of malaria and fever might be lower but the access to consultation is more than proportionally reflecting this pattern. Cabinda is the better case, not necessarily due to a higher access, but at least a higher share being able to consult a doctor rather than only a nurse. Tables 6.2 adds some interesting details to the findings from table 6.19. The health service in Moxico does not seem to be up to standard may be due to large areas being without a proper access to any health service and hence a large share does not pay anything. On the other hand in Cabinda a large number of people have access to public health service but then they really have to pay for treatment and drugs. The nice side is that people can afford this payment, the bad side that this reflects the lack of drugs in public health service.

Table 6.21 complements table 6.11 showing that the pattern of consultation across age groups is similar for those with malaria/ fever as for the average sickness. Given the lack of immunity against malaria among children this reflects a pretty tough tendency to “allow” children to build immunity against malaria. Table 6.25 shows that children are not given any special preference when payment is needed and that young people are given paid treatment/drugs even less commonly than adults are.

Table 6.20 shows that for once women are given a higher probability of consulting a doctor. There are reasons to assume this reflects the seriousness of malaria during a pregnancy. Table 6.24 shows however that there are few differences across gender in payment. Given that women are more frequently going for a consultation this might reflect a lower willingness or ability to pay for treatment for women.

Table 6.22 shows that many poor and especially extreme poor can not afford any consultation against malaria. The difference among better off and extreme poor is considerably larger for malaria than for the average sickness. Table 6.27 shows that the big difference is found among people between 30 and 39 and for people 40 and above. This is quite alarmingly. When people can not afford to give any treatment against malaria for people in their working life cycle, it reflects a very extreme poverty level.

Figure 6.2 and table 6.26 confirm that an alarmingly high share of the moderate poor and even more the extreme poor can not afford treatment and drugs. Across provinces, gender and age groups you may discuss whether the differences are reflecting different needs but across poverty groups the only possible explanation is that the poor people can not afford the treatment and drugs. That is a pretty serious situation. We are not talking about expensive hospitals or doctors, but cheap drugs. Table 6.28 confirms this pattern across the age groups. While the numbers are small, the trend is clear, poor people and especially extreme poor people can not afford the relatively cheap treatment/ drugs against malaria.

### 6.3. Factors affecting payment for health service

The tabulation analysis has focused on two issues:

- Incidence of sickness
- Medical consultation and payment among sick people

The information on incidence of sickness is an important input to the allocation of health sector resources and should be considered jointly with more detailed information on sickness and injuries from other data sources especially the dedicated surveys such as the Demographic and Health Survey. From an epidemiological point of view it would be very interesting to learn more about the relationship

between poverty and sickness/low health. We would expect poverty and sickness to increase each other both at one point in time and in the worse cases in a bad circle over time. Unfortunately a self-diagnosis as applied in the poverty survey would usually give a poverty bias in reporting of sickness. As already discussed this is also likely to be the case in this survey. Hence we do not continue this analysis but leave that to a future survey combining health and poverty.

On the other hand this survey gives proper information to analyze the mix of need for health service and access to health service as presented by information on de facto health consultations and willingness to pay among the sick people. Hence this is the focus in the further analysis where we analyze which factors affect the willingness to go for health service requiring payment. We have used the same tree-diagram technique as applied for school attendance.

Factors expected to affect the probability and ability to go for health service when sick during the last 2 weeks and the willingness to go for health service requiring payment are analyzed by a classification analysis presented in tree-diagrams<sup>15</sup>.

With our focus on poverty we have followed the approach from analysis of school attendance forcing poverty as the first predictor variable and then allowed the others to enter the analysis according to how they are able to split those who were sick during the last two weeks. The tree diagrams in figures 6.3-6.5 show the impact of poverty level: whether people consult health service at all, whether they pay for the first consultation and whether they pay for any expenses related to the sickness.

As you would expect there are barriers for the poor at all levels. 89 per cent of the better off who was sick the previous month did consult a health service, while only 76 per of the extreme poor did. As shown in other surveys, the education of the wife is essential. In extreme poor families where the female head has no education only 68 per cent consulted any health service and 32 per cent did not consult any health service. If we assume that the better off consult health service if they see the need for it, it means that you would expect that around 89 per cent do need to consult health service. Among the extreme poor 21 per cent points out of the 89 per cent or roughly speaking 1 of 4 extreme poor did not consult a health service when needed just because they are extreme poor.

The next barrier is whether people can afford to pay for consultation, drugs and treatment at all. As figure 6.4 shows the access to free health service and drugs

**Table 6.27. Medical consultation among people who had malaria or fever during last two weeks in various poverty and age groups. Per cent**

	0-9	10-19	20-29	30-39	40 +	Total
<b>Better off</b>						
Public doctor	30	28	31	27	19	28
Private doctor	20	27	24	27	23	23
Public nurse	7	8	10	11	9	8
Private nurse	31	19	21	15	30	24
Traditional healer	1	-	1	-	3	1
None	9	10	8	19	11	11
Others	3	7	5	1	5	4
Total	100	100	100	100	100	100
<b>Poor</b>						
Public doctor	34	22	27	31	26	29
Private doctor	18	19	28	16	26	21
Public nurse	8	8	7	6	7	8
Private nurse	17	19	13	18	18	17
Traditional healer	1	-	2	-	1	1
None	17	24	19	17	16	19
Others	5	8	2	11	5	6
Total	100	100	100	100	100	100
Number	352	250	135	116	130	983
<b>Extreme poor</b>						
Public doctor	35	27	35	32	33	32
Private doctor	13	16	29	9	10	16
Public nurse	5	5	-	-	5	4
Private nurse	15	16	13	23	14	16
Traditional healer	-	-	-	-	-	-
None	25	29	23	32	24	26
Others	7	6	-	-	10	5
Total	100	100	100	100	100	100
Number	75	63	31	22	21	212

varies substantially from province to province but also that poverty level is important. If we again assume that there is a need to pay for an average of 89 per cent of sick people as registered among the better off, we can calculate that 17 per cent points of these 89 per cent or roughly 1 of 5 have not paid and hence not gotten access to health service, drugs or treatment just because they were extreme poor.

The next and last barrier is a barrier to climb one step up from free public service, either to private health service or to paying a gasosa to get special treatment in the public system. As shown in figure 6.5, 30 per cent of the better off paid for the health consultation while 17 per cent points of the extreme poor among these 30 per cent could not afford to pay anything even if they probably needed, and this just because they are extreme poor.

It should be added that a proper analysis of the access to health service is complex because it is affected by a mixture of variations in need of health service, lack of a proper health service system and due to the patients and their families lacking money and resources needed to pay for consultation, drugs and treatment. Hence any interpretation of the survey data should be done with caution and we do not take our analysis further at this point.

<sup>15</sup> Variables, variable abbreviations, values, and value abbreviations are listed in table A2.

**Table 6.28. Payment for medical consultation and treatment/drugs among people who had malaria or fever during last two weeks in various poverty and age groups. Per cent**

	0-9	10-19	20-29	30-39	40 +	Total
<b>Better off</b>						
No payment	15	24	17	16	14	17
For treatment/ drugs only	57	55	52	51	54	55
For consultation	29	21	31	32	32	28
Total	100	100	100	100	100	100
Number	242	143	109	74	74	642
<b>Poor</b>						
No payment	24	33	24	30	22	27
For treatment/ drugs only	57	47	53	42	48	51
For consultation	19	20	22	28	30	22
Total	100	100	100	100	100	100
Number	352	250	135	116	130	983
<b>Extreme poor</b>						
No payment	31	37	35	27	48	34
For treatment/ drugs only	53	54	61	68	38	55
For consultation	16	10	3	5	14	11
Total	100	100	100	100	100	100
Number	75	63	31	22	21	212

**6.4. Conclusion**

The overall picture of access to health service is not nice. As you would expect the situation if best for the better off living in Luanda and Cabinda, and also Benguela. But even better off people in Luanda find the health service not up to standard. And in general there are large differences both along geographical and poverty dimensions. Moxico is systematically worse off. Huila is usually the second worst. Luanda, Cabinda and Benguela might have better access than people have to pay to a larger extent. Payment is a dual issue. It should not be problematic with private health service if the patient, the family or the employer pay, but unfortunately a possibly large share of the payment are gasosas for special treatment or for bypassing the lines in the public institutions. Whenever this happens, the public still pays the basic expenses and the individual just the topping. Hence the effect of the better off paying to get special treatment or bypassing the lines, is that the moderate poor and extreme poor are not getting access at all. A gasosa will of course also serve as an additional payment to the personnel and pursue them to stay on, but there are no reasons to believe the total effect for the poor is positive.

The analysis of access and payment for people sick with malaria gives the strongest impression. We all know that malaria is the top killer disease for the whole globe. If you do not treat malaria with drugs it is a substantial chance for it killing you, especially if you are a child, already sick or old, but also if you are healthy and in breadwinner age. And if it does not kill you, the malaria parasite might remain in an inactive stage in your body and return to life at a later stage. Hence all people with malaria need drugs treatment to

combat the disease. But as the survey data tells, a lot of malaria patients do not consult any health service and do not pay for any drugs, may be in some cases because they are not available at the local health station or the local market, but more likely because the moderate poor and extreme poor can not afford to pay.

**6.5. Policy conclusion**

The problem comprises three elements:

- an overall lack of access especially in Moxico;
- no ability to pay for health service and drugs among the extreme poor; and
- a system of gasosas which hardly increase the overall health service available, but rather reshuffles the line making it even harder for the extreme poor to get a consultation and treatment.

The solution requires large efforts both to improve access to health service and to assure the extreme poor access even if they can not afford to pay. At the same time, neither donors nor the Government are able to provide the necessary resources.

Hence it appears to be no way around an expanded two-tier system, trying to develop both the public and the private health service.

The main obstacle to develop a functioning two-tier system is the massive use of gasosas. Rather than trying to control or even combat this system, it is recommended that the Government establish a legal way to develop a two-tier system within the public health service.

One solution to consider is to allow all public health staff to run private business as well. They should be given access to use public premises for private business but only at certain earmarked time period after the end of the standard working day. They might be asked to pay a small fee to ensure the maintenance but not the full costs because otherwise they might just go private. For resident treatment they should also be allowed to rent hospital beds, but for this arrangement they will have to pay the full costs since there is no reason to stop them from going private for this type of health service.

In order to reduce the need for control, the Government should consider to negotiate a deal with one or more doctor associations and one or more nurse and mid-wife associations. This deal should state the conditions for the deal and a system for fines to be paid by the association if the doctors and nurses do not follow the rules. If going for such a deal, it is of course essential to make membership in an association a precondition for the arrangement.

Figure 6.3. Consulting health service

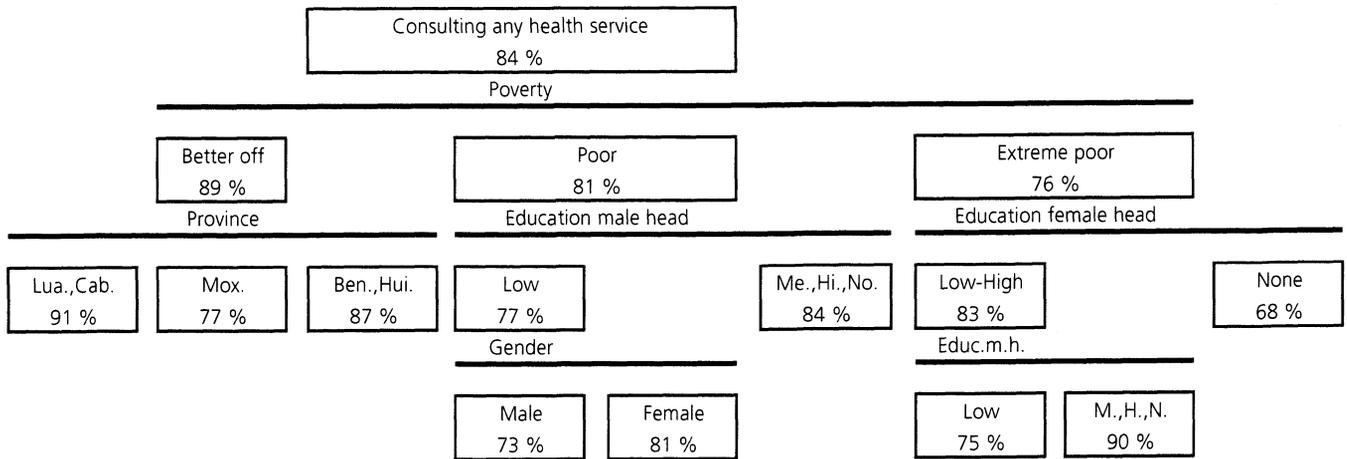


Figure 6.4. Paying for health consultation/ treatment

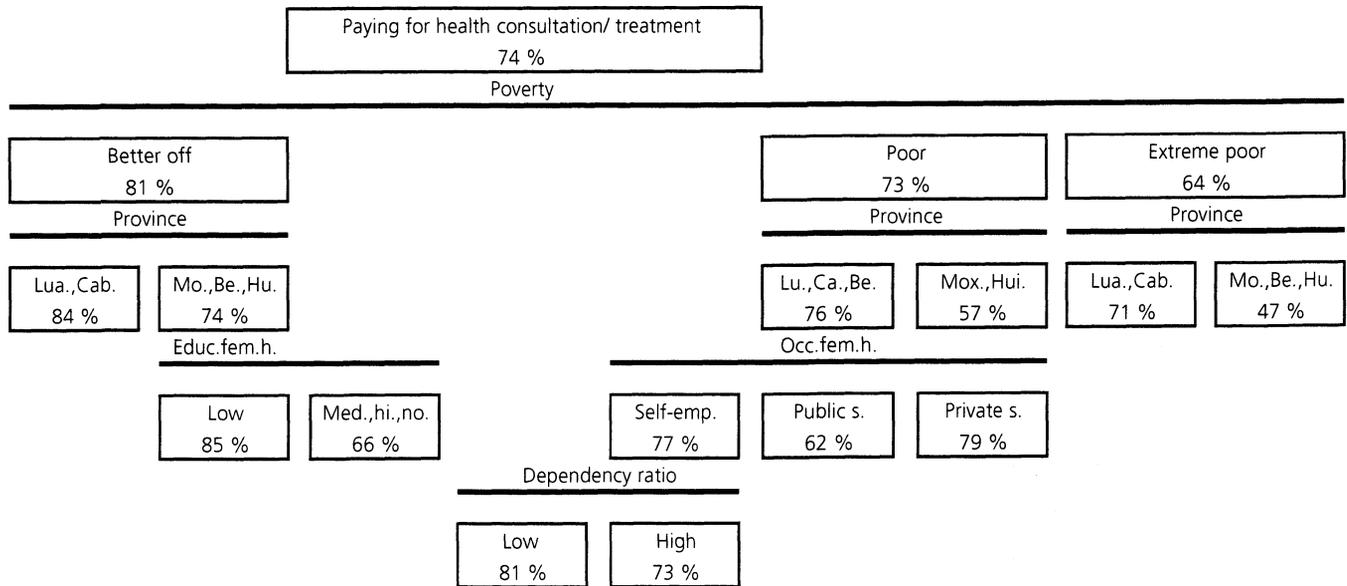
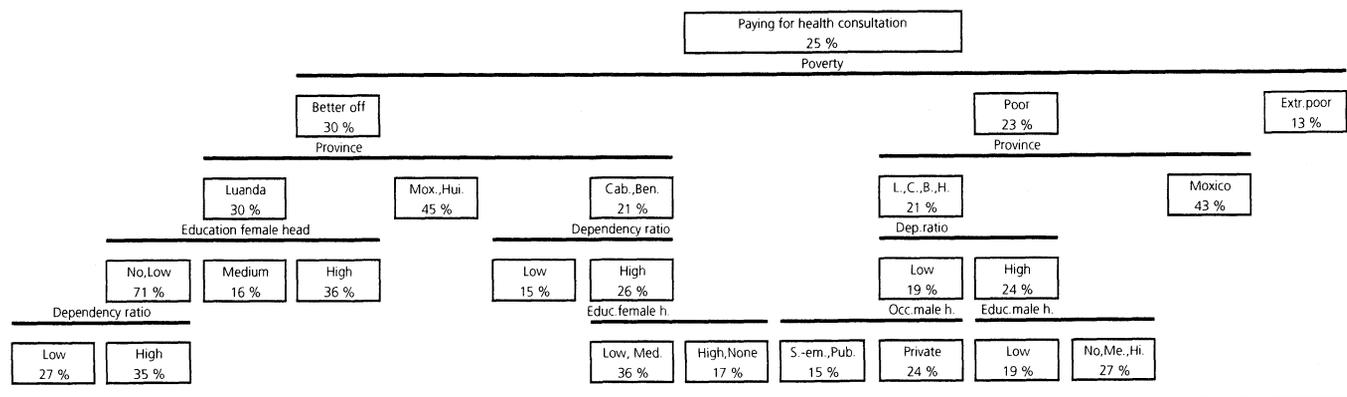


Figure 6.5. Paying for health consultation



## 7. Urban areas: Water, sanitation, energy and time use

Moser and Holland (1997) stress that while labor is the main asset of the poor, there are a number of other assets being essential for the poor. Social and economic infrastructure, housing and household relations are important assets for poor and better off alike. You might think that household relations are more important as a survival strategy for the poor and hence they have established and maintain stronger household relations than the better off, but Moser and Holland stress that even household relations are unequally distributed in favor of the better off.

The poor are both more vulnerable to the lack of these assets and they have access to less of them. The better off will always face a better chance to replace public services with private services. In some cases private services are available and in these cases the better off can afford to buy private alternatives such as private health service while the poor have to rely on miserable public service or stay without. In other cases, a downgraded access to public service might be replaced either with expensive private solutions or time consuming public second best alternatives, such as to fetch water from a public pipe in a neighbor quarter or even further away. The poor will loose at both fronts, they can not afford the private alternative and are more time constrained than the better off.

Therefore the main perspective on access to infrastructure is whether the poor are again loosing out at two fronts. The information on expenditures in chapter two showed already that the poor and to an even larger extent the extreme poor had to face expensive consumption alternatives such as for energy and water. Hence the core issue is whether they also have to face a lower access to infrastructure and even to spend more time to acquire necessities like water. This core issue highlights the gender dimension as well. Already the Gender paper from Luanda Household Budget and Nutrition Survey (Aguilar 1992) showed that the female participation in the labor force is around 2/3 of the male participation. The informal sector analysis in chapter 2 showed that this process has continued and that women in urban Angola have entered the labor force on equal footing with men, not for a short term crisis,

but on a permanent basis. When this has happened in countries in the North, it has been the starting point for men to take on more household chores and child care. It is definitely a high profile issue for the time to come to address whether this happen and how it can be encouraged and arranged for, not only from an equity point of view but also as a strategy for poverty reduction.

### 7.1. Issues

Water supply is essential in a number of perspectives. It is more essential for human beings than food and it is a main source of diseases or good health, and therefore poor and better off alike are demanding and ready to pay in cash and kinds to ensure water supply, as a public service, a common free good, or if need be a private market good. In a poverty perspective we need to view water from a matter of equal distribution of a public good, a matter of health, a matter of costs and a matter of time use.

A special feature in the Luanda water supply picture is the sheer size of the water tank system. Many cities have problem with a stable supply of clean/ treated water and you will often find both private water fixed tanks and commercial water transport-tanks. You may also find private wells where the owners are selling water on a retail basis and even in a few cases private water tanks which are filled by water tank trucks transporting water from other sources. But hardly anywhere else will you find a widespread system of private water tanks in the ground constructed with the specific purpose of local retail trade of water and a situation were half the households get their water from this system. There are two hardly acceptable dimensions in this picture, the first which we will return to in the analysis, is who is gaining from the public supply still operative and the second is the vicious circle of rent seeking among "entrepreneurs". There are a number of anecdotal evidences that the water supply "mafia" not only threaten but also in fact are able to avoid a proper extension of piped water supply to new squatter compounds.

## 7.2. Profiles of access to water, sanitation and energy

### 7.2.1. Sanitation

As shown in figure 7.1 and table 7.1, sanitation is not that different for moderate poor and better off, however the extreme poor are clearly worse off and 2 of 15 extreme poor families are without any latrine or other sanitation arrangement. The provincial distribution show that this is a small city problem located to Moxico and Huila provinces, probably reflecting that the extreme poor people living in the outskirts of these cities have nowhere to go but the bush. Lucky enough the situation improves by age and we might hope that this means the younger families will pick up over time. Unfortunately it might also mean that the young families being the last immigrants to the cities have nowhere to settle but new squatter areas missing even the very essentials. It is clearly a signal not to try to stop immigration, because that can hardly be done, but

to ensure at least a bare minimum standard in new areas.

Figure 7.1. Housing amenities for various poverty groups

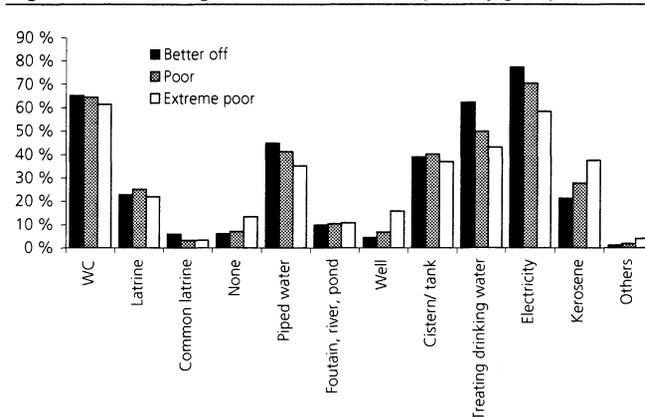


Table 7.1. Sanitation amenities for various groups by poverty, province, gender and age of head. Per cent

	WC	Latrine	WC & latrine	Communal latrine	Private latrine	None	Total	Number
<b>Poverty</b>								
Better off	62.4	20.9	2.8	6.0	1.9	6.1	100.0	1521
Poor	60.7	23.0	3.8	3.3	2.1	7.1	100.0	2089
Extreme poor	59.0	19.9	2.4	3.3	2.0	13.3	100.0	471
<b>Province</b>								
Luanda	60.9	25.0	3.3	4.6	1.6	4.5	100.0	2061
Moxico	24.9	38.9	6.4	7.5	3.4	18.8	100.0	291
Cabinda	57.8	12.0	12.9	7.6	0.9	8.0	100.0	422
Benguela	76.5	4.1	0.2	2.4	5.4	11.5	100.0	873
Huila	64.2	9.7	-	0.2	1.0	24.7	100.0	434
<b>Gender of head</b>								
Man	61.6	22.3	3.1	3.6	2.1	7.1	100.0	3224
Woman	59.7	20.2	3.8	6.7	1.5	7.9	100.0	857
<b>Age of head</b>								
15-29	56.8	21.7	4.5	5.4	2.5	9.0	100.0	792
30-39	58.4	23.3	2.6	5.5	2.1	8.0	100.0	1516
40-49	61.8	24.2	2.3	3.4	1.9	6.2	100.0	994
50+	70.2	15.8	4.8	2.2	1.4	5.6	100.0	779
Total	61.2	21.9	3.3	4.3	2.0	7.3	100.0	4081

Table 7.2. Water supply for various groups by poverty, province, gender and age of head. Per cent

	Pipe water	Fountain	River/ lake	Well	Cisterne/ tank	Others	Total	Number
<b>Poverty</b>								
Better off	44.9	7.6	2.2	4.4	39.0	1.8	100.0	1521
Poor	41.3	7.3	3.0	6.8	40.2	1.4	100.0	2089
Extreme poor	35.3	8.8	2.0	15.7	37.0	1.3	100.0	471
<b>Province</b>								
Luanda	41.9	6.5	0.3	2.0	48.0	1.3	100.0	2061
Moxico	10.1	-	62.2	2.2	25.5	-	100.0	291
Cabinda	15.5	4.7	0.7	72.9	4.7	0.5	100.0	422
Benguela	62.4	9.5	-	3.4	19.9	4.9	100.0	873
Huila	47.9	22.3	0.2	27.0	1.7	0.8	100.0	434
<b>Gender of head</b>								
Man	41.1	7.2	2.5	6.9	40.6	1.6	100.0	3224
Woman	45.6	8.7	3.0	6.0	35.2	1.4	100.0	857
<b>Age of head</b>								
15-29	38.4	7.4	2.7	9.0	40.7	1.6	100.0	792
30-39	39.6	8.2	2.7	6.7	41.6	1.0	100.0	1516
40-49	43.7	8.0	2.4	5.9	38.0	1.9	100.0	994
50+	48.8	5.8	2.5	5.6	35.3	1.9	100.0	779
Total	42.1	7.6	2.6	6.7	39.4	1.5	100.0	4081

### 7.2.2. Water supply

As shown in figure 7.1 and table 7.2, the public water supply has a clear poverty bias; while almost half the better off households get their water from piped supply, only slightly above 1 of 3 extremely poor households get piped water supply. A considerable share of extreme poor getting water from unprotected wells balances this. This is seldom very expensive, but clearly a health risk. Fortunately enough you do not find the same bias when addressing who are supplied from the water tanks, around 2 of 5 households being better off, moderate poor or extreme poor do buy water this way.

Provincial differences are large. Luanda, Benguela and Huila all have a working piped water system, Moxico relies on rivers/lakes, and Cabinda on the unprotected wells. The water tanks are found not only in Luanda, but also in Moxico and Benguela, however it is only in Luanda it is the most common system and where almost 1 of 2 households get their water this way. Again households are becoming better off by age and almost 1 of 2 households with a head above 50 get their water through pipes to the house. As for sanitation, it is difficult to tell whether this reflects that households improve over the life cycle or whether old households are blocking for the younger ones.

### 7.2.3. Water treatment

Given the poverty bias in water supply it is interesting to learn whether poor households compensate for lack of quality by treating their water more frequently. Unfortunately this is far from the case. As shown in figure 7.1 and table 7.3, while 3 of 5 better households treat their water only 2 of 5 extreme poor households do. Given that quite an additional share of extreme poor households get their water from unprotected wells this is really increasing the health risk exposure of extreme poor people. Worst off are people in Moxico, where only 1 of 5 households treat their water and this is exactly the province where a larger than average share get their water from rivers and lakes. Rivers and lakes might look better than unprotected wells, but expect for fast running rivers in low-density areas this is often not the case.

One might think it is hard to disentangle the two reasons for missing treatment of water, being a) poverty i.e. not affording to boil the water and b) knowledge/ conviction of the need to do so. A look at table 7.4 will tell you that both reasons are important. That table shows that people with piped water are substantially more likely to treat the water, partly because these are better off and partly because they are likely to have the infrastructure such as a proper stove to boil the water. On the other hand, people who get their water from the rivers and lakes are less likely to treat their water. One reason might of course be the lack of knowledge and conviction of the need, but

**Table 7.3. Treatment of drinking water for various groups by poverty, province, gender and age of head. Per cent**

	Yes	No	Total	Number
<b>Poverty</b>				
Better off	62.4	37.5	100.0	1521
Poor	49.9	50.0	100.0	2089
Extreme poor	43.1	56.9	100.0	471
<b>Province</b>				
Luanda	56.6	43.4	100.0	2061
Moxico	22.1	77.8	100.0	291
Cabinda	57.9	41.0	100.0	422
Benguela	50.6	49.0	100.0	873
Huila	46.5	53.1	100.0	434
<b>Gender of head</b>				
Man	53.7	46.2	100.0	3224
Woman	55.5	44.4	100.0	857
<b>Age of head</b>				
15-29	59.5	40.4	100.0	792
30-39	53.0	46.7	100.0	1516
40-49	55.5	44.5	100.0	994
50+	49.0	51.0	100.0	779
Total	54.1	45.8	100.0	4081

**Table 7.4. Treatment of water by water source. Per cent**

	Yes	No	Total	Number
Pipe water	65.4	34.6	100	1778
Fountain	43.0	56.8	100	355
River/ lake	21.9	78.1	100	206
Well	50.0	50.0	100	441
Cisterne/ tank	47.5	52.4	100	1251
Others	42.5	57.5	100	73
Total	54.1	45.8	100	4110

equally possible the lack of infrastructure to boil water on the charcoal burner or fireplace while also cooking dinner and running short of charcoal or firewood.

### 7.2.4. Costs of water supply

Table 7.5 shows that on average there are four cost scenarios. One group gets piped water and pays a substantial share of their overall costs for that. A second group pays the double for tank water and gets a substantially poorer offer (low and/ or volatile quality and lower volume) for this double price, a third group mainly get unprotected water but do not pay. A fourth group gets water from protected wells. On average they pay as for piped water but as the median shows, the typical household pays next to nothing for this service.

Table 7.6 shows that despite the large differences in water supply, the costs are surprisingly equal across the poverty groups, gender and age groups. However, across provinces the picture is different. High water costs are restricted to Luanda and Benguela. How Moxico with their water tanks and Huila with quite some piped water can keep the costs down is really an issue. One obvious reason might be that the tanks in Moxico are either public or private with a low fee. The explanation in Huila might be low fees all together, but still this is worth a study hoping that Luanda and Benguela local authorities might learn how to improve the situation in their cities.

**Table 7.5. Costs of water and energy by source, per cent of total costs**

	Mean	Median	Number
<b>Water source</b>			
Pipe water	6.8	2.6	1 768
Fountain	6.2	0.2	352
River/ lake	1.2	0.0	201
Well	1.8	0.0	434
Cisterne/ tank	11.0	5.7	1 248
Others	3.1	0.0	72
Total	7.9	3.0	4 081
<b>Energysource for light</b>			
Electricity	11.2	7.1	2 860
Generator	4.0	0.0	50
Petrol	1.5	0.0	1 149
Others	1.3	0.0	13
Total	8.5	2.9	4 081
<b>Energysource for cooking</b>			
Gas	6.2	4.1	3 074
Electriciy	6.4	3.9	33
Petrol	4.7	4.0	94
Fire wood	6.1	4.4	294
Charcoal	7.9	4.6	596
Total	6.3	4.2	4 110

**Table 7.6. Costs of water, electric and other energy by various poverty groups, provinces, gender and age of head of household, mean per cent of total costs**

	Water	Electricity	Other energy	Number
<b>Poverty</b>				
Better off	8.1	9.4	5.9	1521
Poor	7.7	8.2	6.1	2089
Extreme poor	7.5	7.1	8.9	471
<b>Province</b>				
Luanda	8.4	8.1	6.8	2061
Moxico	1.5	0.3	7.9	291
Cabinda	1.1	11.9	4.8	422
Benguela	12.1	12.3	4.6	873
Huila	3.8	10.7	3.2	434
<b>Gender ofhead</b>				
Man	7.9	8.8	6.3	3224
Woman	7.7	7.7	6.4	857
<b>Age of head</b>				
15-29	7.0	7.9	6.2	792
30-39	7.9	8.1	6.3	1516
40-49	8.3	9.2	6.2	994
50+	7.9	9.1	6.6	779
Total	7.9	8.5	6.3	4081

The large differences in cost scenarios and across provinces show the large potentials for equity and efficiency improvements. We should add that the price has increased for public water supply to the single house since 1995, but given the large differences this is clearly still an arena with a potential win-win situation. Local authorities might introduce user fees for public provision of protected water, spend the income for maintenance and extension. Rather than to fighting the waterlords, these might be engaged in an open bidding process to run the local business of collecting user fees and maintaining the pipe network.

**Table 7.7. Energy carrier for light for various groups by poverty, province, gender and age of head. Per cent**

	Elec-tricity	Gene-rator	Petrol	Others	Total	Number
<b>Poverty</b>						
Better off	77.4	0.9	21.3	0.2	100.0	1521
Poor	70.4	1.4	27.7	0.4	100.0	2089
Extreme poor	58.4	2.2	37.6	1.7	100.0	471
<b>Province</b>						
Luanda	75.8	1.1	22.8	0.4	100.0	2061
Moxico		5.4	94.6		100.0	291
Cabinda	67.4	1.9	29.7		100.0	422
Benguela	75.2	0.7	23.3	0.5	100.0	873
Huila	67.5	1.7	28.2	2.1	100.0	434
<b>Gender of head</b>						
Man	72.4	1.3	25.6	0.5	100.0	3224
Woman	70.3	1.2	28.0	0.3	100.0	857
<b>Age of head</b>						
15-29	68.3	1.1	30.3	0.3	100.0	792
30-39	70.8	1.8	26.6	0.6	100.0	1516
40-49	74.8	1.0	23.5	0.7	100.0	994
50+	74.0	1.0	24.8	0.2	100.0	779
Total	71.9	1.3	26.2	0.5	100.0	4081

**Table 7.8. Energy carrier for cooking for various groups by poverty, province, gender and age of head. Per cent**

	Gas	Elec-tricity	Petrol	Fire wood	Char-coal	Total	Num-ber
<b>Poverty</b>							
Better off	83.5	0.9	1.9	2.4	10.7	100.0	1521
Poor	80.3	0.8	3.1	5.0	10.6	100.0	2089
Extreme poor	64.8	0.8	3.8	13.0	16.8	100.0	471
<b>Province</b>							
Luanda	86.8	0.9	2.9	2.6	6.5	100.0	2061
Moxico	0.2	0.2	0.2	30.5	67.5	100.0	291
Cabinda	74.2	2.2	1.7	13.3	7.6	100.0	422
Benguela	73.5	0.2	1.2	7.0	17.0	100.0	873
Huila	61.8	0.6	4.2	5.9	26.8	100.0	434
<b>Gender of head</b>							
Man	81.2	0.8	3.1	4.4	10.1	100.0	3224
Woman	75.8	0.8	1.5	6.0	15.4	100.0	857
<b>Age of head</b>							
15-29	77.9	1.0	2.3	4.5	14.2	100.0	792
30-39	81.6	0.8	2.9	3.9	10.3	100.0	1516
40-49	79.8	0.7	3.1	4.6	11.7	100.0	994
50+	79.1	1.0	2.3	7.1	9.8	100.0	779
Total	80.0	0.8	2.7	4.8	11.3	100.0	4081

### 7.2.5. Energy

As shown in figure 7.1 and tables 7.7 and 7.8, the poverty differences are larger when it comes to energy sources. For light almost 4 of 5 better off households use electricity, while only almost 3 of 5 extreme poor do. For cooking, slightly more than 4 of 5 better off use gas while only slightly more than 3 of 5 extreme poor households do. The extreme poor are to a large extent relying on petrol for light and charcoal or firewood for cooking. But this access to more convenient and probably more energy do not result in higher costs for the better off. The electricity bill might be higher, but this is more than compensated for by lower costs for other energy. Since 2 of 15 extreme poor use firewood for cooking, the other 13 of 15 obviously pay a substantial premium. The old lesson is verified again, it is expensive to be poor. One reason for

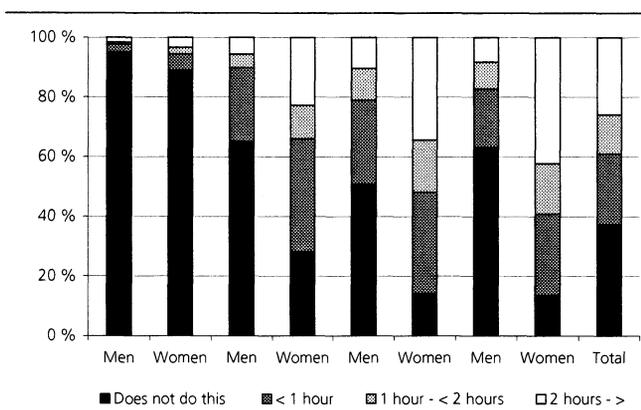
this is the Government subsidies on electricity, gas and petrol. These subsidies are reduced since 1995, but not removed. It is exceptionally hard to understand that energy consumption rather than extended coverage of electricity is subsidized. This study documents that what might be assumed to be a poverty neutral policy is biased against the extreme poor.

It should however be added that the moderate poor also are doing well on energy. While not up to the standard of the better off, even the moderate poor have a quite convenient mix of energy and spend in fact less than the better off on energy. Hence may be the most correct statement is that it is expensive to be extreme poor when the Government provide some subsidies to the moderate poor (but not extreme poor) and even more to the better off.

The bias against the extreme poor is not the only one. It has its parallel in a provincial bias. In Luanda and Benguela 3 of 4 households use electricity for lighting, in Cabinda and Huila, 2 of 3 do, while people in Moxico have to rely on petrol except for 1 of 20 who have access to a generator for electric power. The situation concerning energy for cooking is not very different. In Luanda 6 of 7 households use gas, in Cabinda and Benguela 3 of 4 and in Huila 3 of 5 do, while in Moxico 2 of 3 stick to charcoal and 1 of 3 use firewood. The differences across gender and age of head are not that large, but older people somewhat more frequently use electricity and firewood rather than charcoal.

These biases are however balanced. While Moxico is worst off in convenience, people there are at least spending a lower budget share on energy. The same, but to a lesser degree is the case for female headed households and for younger households. They both have a less convenient energy consumption pattern, but at least a cheaper one. As we will return to, they might however all have to pay in time spent on collecting firewood.

**Figure 7.2. Time spent per week collecting firewood & water, shopping & household chores by men & women 20 years & above**



### 7.3. Profiles of time use

The measurement of time use is always a difficult task and in this survey the focus is on time use related to access to service, i.e. time for collection of firewood and water, adding information on time spent for shopping and household chores. It turned out to be difficult to categorize those who did not spend any time on a certain activity. For the collection of firewood and water this could either be because the family did not use firewood at all and had tapped water or because the husband (or others) did not view this as their obligation and hence the question was not applicable for them. Still the time use data provides very useful information both on indirect (time) costs for energy and water and for gender obligations.

### 7.4. Profiles of time use in an access perspective

In an overall perspective the time burden in urban areas is of a really different magnitude for collection of firewood and water. As shown in figure 7.2 and table 7.9, it is only like 3, 4 and 6 per cent of better off, moderate poor and extreme poor who are spending more than one hour a week for collection of firewood. It might of course still be a burden for those doing this, but it is not a policy issue of overall concern.

However in Moxico, collection of firewood is a substantial burden. 1 of 6 persons or on average 1 person in each 2 of 3 household spends at least 2 hours a week to collect firewood and 2/3 of these spend more than 6 hours a week. As we remember the costs of electricity and energy was low in Moxico, but they obviously have to pay for it, directly or indirectly. Rather than paying for electricity we saw that people in Moxico pay a substantial amount for petrol for lighting and here we see that the non-spending on gas and the lower spending on charcoal is paid indirectly by spending their own time.

There is a clear gender bias where women do like 3/5 of this work, but still on average this is not a large burden neither for men nor for women. The age differences are small, but there is a trend towards more time spent for the older ones.

The pattern of time spent for water supply is not that different from time spent for collecting firewood (refer to table 7.10), but the level of time spent turns this into a serious policy issue. For once, the poverty bias is quite low, although the extreme poor spend more time, among all groups, i.e. better off, moderate poor and extreme poor alike, around 1 of 4 persons or on average one person per household spend at least one hour a week to collect water. This might not be a real burden, but when you look at the gender distribution you realize that 1 of 5 women or an average of one women in every second household spend at least 2 hours a week and almost half these spend at least 6 hours a week to collect water. The somewhat glamorous picture of easy (but costly) urban life for women with access to a nearby tap and gas or charcoal is limited to some areas and people.

**Table 7.9. Time spent per week for collecting firewood for persons 7 years and above. Per cent**

	< 30 min	30 min - 1 hour	above 1 hour - 2 hours	above 2 hours - 6 hours	above 6 hours	No time/ not applicable	Total	Number
<b>Poverty</b>								
Better off	0.5	1.1	0.6	1.5	0.7	95.6	100.0	5 968
Poor	1.7	2.6	1.3	1.2	1.0	92.1	100.0	10 711
Extreme poor	2.4	4.4	3.6	1.4	1.4	86.9	100.0	2 448
<b>Province</b>								
Luanda	0.8	1.8	0.9	1.2	0.4	94.8	100.0	12 633
Moxico	5.1	8.9	7.4	5.6	10.7	62.3	100.0	1 036
Cabinda	7.8	7.5	8.5	2.3	3.0	70.8	100.0	2 065
Benguela	0.9	0.9	1.3	0.7	0.8	95.4	100.0	4 230
Huila	3.7	5.1	0.7	1.0	4.0	85.4	100.0	2 398
<b>Gender of head</b>								
Man	1.2	1.9	0.9	1.0	0.7	94.2	100.0	10 950
Woman	1.5	2.7	1.7	1.6	1.3	91.2	100.0	11 390
<b>Age of head</b>								
7-9	1.3	2.2	1.0	0.7	1.0	93.9	100.0	2 835
10-19	1.3	2.2	1.3	1.2	0.9	93.1	100.0	8 464
20-29	1.6	2.9	1.5	1.0	0.7	92.2	100.0	4 464
30-39	1.2	2.2	1.5	1.8	1.2	92.2	100.0	3 418
40+	1.6	2.3	1.6	2.0	1.1	91.4	100.0	3 159
Total	1.4	2.3	1.3	1.3	1.0	92.7	100.0	22 340

**Table 7.10. Time spent per week for collecting water for persons 7 years and above. Per cent**

	< 30 min	30 min - 1 hour	above 1 hour - 2 hours	above 2 hours - 6 hours	above 6 hours	No time/ not applicable	Total	Number
<b>Poverty</b>								
Better off	14.1	18.8	9.1	8.0	6.2	43.8	100.0	5 968
Poor	15.2	18.5	9.5	8.2	6.3	42.3	100.0	10 711
Extreme poor	15.6	16.3	11.6	8.3	5.4	42.8	100.0	2 448
<b>Province</b>								
Luanda	13.3	20.0	10.3	8.7	5.7	42.1	100.0	12 633
Moxico	5.0	14.2	12.9	12.1	14.8	41.0	100.0	1 036
Cabinda	25.3	20.2	10.8	4.4	11.0	28.4	100.0	2 065
Benguela	14.2	7.5	6.7	7.3	3.2	61.1	100.0	4 230
Huila	34.2	11.9	3.0	3.2	9.8	38.0	100.0	2 398
<b>Gender of head</b>								
Man	13.4	16.0	7.5	5.5	2.8	54.7	100.0	10 950
Woman	16.4	20.6	11.6	10.6	9.3	31.5	100.0	11 390
<b>Age of head</b>								
7-9	14.7	15.9	8.6	5.6	3.4	51.8	100.0	2 835
10-19	15.5	20.7	12.0	9.5	6.2	36.0	100.0	8 464
20-29	16.6	17.8	9.9	10.0	9.1	36.6	100.0	4 464
30-39	13.3	20.0	7.3	7.1	6.7	45.5	100.0	3 418
40+	12.7	13.2	6.1	5.0	3.7	59.4	100.0	3 159
Total	14.9	18.4	9.6	8.1	6.2	42.8	100.0	22 340

### 7.5. Profiles of time use in a gender obligation perspective

As documented in Perfil de Pobreza (GMCVP 1996), the same share of men and women are economically active. Still these chores are highly gender biased. We have already documented that 3 of 5 people collecting firewood and water are women. This is also the case for shopping, 3 of 5 people doing shopping are women (refer to table 7.11). As you might expect doing households chores are even more gender biased. As shown by table 7.12, 2 of 3 persons doing household chores are women.

### 7.6. Profiles of time use of adults in a gender obligation perspective

Looking at adult women and men (refer to table 7.13), the gender bias is even grimmer. In general adult women do 2/3 of the work for the listed unpaid household work. Men tend to do some more shopping than this, but this is "compensated" by doing even less household chores. In fact only 1 of 3 men do any household chores and only 1 of 2 men do some shopping.

**Table 7.11. Time spent per week for shopping for persons 7 years and above. Per cent**

	< 30 min	30 min - 1 hour	above 1 hour - 2 hours	above 2 hours - 6 hours	above 6 hours	No time/ not applicable	Total	Number
<b>Poverty</b>								
Better off	7.4	22.6	15.0	11.7	7.4	35.9	100.0	5 968
Poor	8.3	22.0	13.8	9.8	6.9	39.1	100.0	10 711
Extreme poor	10.3	19.5	13.4	9.2	6.8	40.8	100.0	2 448
<b>Province</b>								
Luanda	8.2	22.2	14.7	10.8	6.4	37.8	100.0	12 633
Moxico	1.1	14.8	10.0	12.6	12.4	49.1	100.0	1 036
Cabinda	10.3	19.4	17.8	6.9	8.9	36.7	100.0	2 065
Benguela	6.2	18.0	12.0	10.7	7.7	45.3	100.0	4 230
Huila	13.6	27.2	8.9	6.1	11.7	32.4	100.0	2 398
<b>Gender of head</b>								
Man	8.4	19.2	11.9	6.7	2.6	51.2	100.0	10 950
Woman	8.1	24.6	16.2	13.9	11.3	25.9	100.0	11 390
<b>Age of head</b>								
7-9	8.4	15.8	9.8	4.3	2.6	59.1	100.0	2 835
10-19	8.1	23.0	15.3	9.4	4.6	39.7	100.0	8 464
20-29	8.2	24.7	16.3	13.7	12.1	25.1	100.0	4 464
30-39	9.6	21.9	14.1	14.2	10.7	29.4	100.0	3 418
40+	7.3	20.8	11.7	9.7	6.8	43.8	100.0	3 159
Total	8.3	22.0	14.1	10.4	7.1	38.2	100.0	22 340

**Table 7.12. Time spent per week for doing household chores for persons 7 years and above. Per cent**

	< 30 min	30 min - 1 hour	above 1 hour - 2 hours	above 2 hours - 6 hours	above 6 hours	No time/ not applicable	Total	Number
<b>Poverty</b>								
Better off	6.3	19.9	14.5	11.0	11.7	36.6	100.0	5 968
Poor	6.4	19.9	12.8	11.8	10.0	39.2	100.0	10 711
Extreme poor	10.0	17.7	15.8	8.9	10.2	37.4	100.0	2 448
<b>Province</b>								
Luanda	6.9	21.8	14.3	11.3	8.6	37.1	100.0	12 633
Moxico	1.3	9.6	9.5	11.4	18.7	49.4	100.0	1 036
Cabinda	6.2	10.3	12.5	14.5	22.6	33.8	100.0	2 065
Benguela	3.7	8.7	11.4	14.0	13.6	48.6	100.0	4 230
Huila	11.2	14.8	11.2	4.6	21.8	36.3	100.0	2 398
<b>Gender of head</b>								
Man	7.0	16.2	10.7	6.2	3.8	56.1	100.0	10 950
Woman	6.6	22.9	16.5	16.0	17.0	21.0	100.0	11 390
<b>Age of head</b>								
7-9	8.7	18.6	10.4	5.7	4.4	52.2	100.0	2 835
10-19	7.0	22.8	15.4	12.0	8.4	34.4	100.0	8 464
20-29	6.4	19.1	14.9	14.0	17.2	28.3	100.0	4 464
30-39	6.7	16.6	13.2	12.2	13.8	37.4	100.0	3 418
40+	5.0	15.9	10.6	9.0	9.2	50.3	100.0	3 159
Total	6.8	19.6	13.7	11.2	10.6	38.1	100.0	22 340

Some generations ago this might have been a matter of division of work, but as these urban data tells us, nowadays urban women are equally often breadwinners as men and still they take the lion's share of household chores and other unpaid households work.

It is important to stress that the gender issue is first and foremost one of equity. When women have moved in as breadwinners there are no ways other than *men moving in to do household chores*.

The equity perspective is however not the only one. Numerous research and surveys such as this and the MICS report (INE 1997) document the impact of the mother and wife's resources for family and social

welfare such as health and education. This inevitably leads to the need for a policy to support education for girls. But the other side of the coin is often forgotten, the double need to reduce the workload of women, both by improving infrastructure to reduce the overall unpaid family work and the need to push men into doing their share of this work.

### **7.7. The bearing of gender, time use conclusions**

*Water supply.* The survey itself documents a not uncommon situation where the extreme poor have the lowest water quality, treat the water less frequent than moderate poor and better off and end up being substantially more exposed to diseases. But the survey also documents that this circle has moved a further

step especially but not only in Luanda and created a system with private entrepreneur water lords running a retail water business, putting a quite large financial burden on the extreme poor. This has two vicious effects on the moderate poor and extreme poor. First, high price means a low water consumption among the extreme poor and hence they become even more dependent on the water quality and more affected by low water quality and more exposed to diseases. Second, the waterlords not only have no incentives to improve the situation, they are even trying to stop public pipelines to be extended to public taps in new squatter areas.

*Energy.* The energy situation is more standard. The better off people are, to a larger degree they buy subsidized energy carriers than the extreme poor.

*Time use for household chores.* It is well documented that during crises, women move in as breadwinners. After a short crisis they might then return to their homes, but the crisis in Luanda is not a short term one. The situation has long ago settled as permanent. Women are breadwinners on equal footing with men. But still we see that they continue to bear the sole burden of household chores. Well that is not totally correct. Children are definitely taking their share, the point is rather that men have not really moved into household chores.

## 7.8. The bearing of gender, time use policy conclusions

### 7.8.1. Water supply.

The nice side of the extraordinary situation in water supply is that at a bottom of a wave there are no ways but up. The current situation is a potential win-win situation for the years to come. The challenge is to design programs where donors will support the extension and rehabilitation of public water pipes and the Government will tender the work to entrepreneurs currently running water truck. Running and maintenance of taps and wells should be tendered to the previous water lords with bairo water committees

monitoring the situation and participate when the tenders are up for renewal.

### 7.8.2. Energy.

There are no reasons what so ever for the Government to subsidize energy supply. These have been and will remain subsidies for the better off. A stable electric power supply might be seen as a strategic need and require a public company, but there is no real argument for the Government to cover any costs. For provision and distribution of oil and gas products there are hardly any argument for a public supplier which can not be better handled with public control and conditions set for private suppliers. Private suppliers should of course include any parastatal company competing on equal footing with private ones, such as a potential retail subsidiary of Sonangol.

### 7.8.3. Time use for household chores.

While the survey information on time use is limited it is obvious that women have moved into the bread winner group while men have not started to do household chores to the same extent. The old fashioned statement that division of labor in families is a private matter should be confronted openly by two strategies: Irregular but frequent public campaigns to tell the population that men are not doing their share of the total work burden and that it is due time for them to start doing household chores

- Government support to provisions to reduce the work load for women such as:
  - a second review on the gender impact when introducing new Government policies to avoid the families (read: mothers and wives) having to replace the food supply by staff for in-house hospital patients;
  - an improved water supply as discussed above, reducing the time needed to walk long distances; and arranging for extra child care such as kindergartens etc.

**Table 7.13. Time spent per week for collecting firewood, collecting water, shopping and doing household chores by men and women 20 years and above**

	< 30 min	30 min - 1 hour	above 1 hour - 2 hours	above 2 hours - 6 hours	above 6 hours	No time/ not applicable	Total	Number
<b>Collecting firewood</b>								
Men	1,0	1,5	0,7	1,1	0,5	95,2	100,0	5 331
Woman	1,9	3,4	2,3	1,9	1,5	89,0	100,0	5 710
<b>Collecting water</b>								
Men	12,2	12,6	4,6	3,2	2,4	65,1	100,0	5 339
Woman	16,6	21,4	11,2	11,9	10,9	28,1	100,0	5 716
<b>Shopping</b>								
Men	8,9	19,2	10,7	7,2	3,1	50,8	100,0	5 339
Woman	7,8	26,0	17,6	17,7	16,6	14,1	100,0	5 716
<b>Household chores</b>								
Men	6,4	13,1	9,0	4,8	3,4	63,3	100,0	5 335
Woman	5,8	21,5	17,0	18,7	23,6	13,5	100,0	5 717
Total	6,1	17,4	13,2	12,0	13,9	37,4	100,0	11 052

## 8. Urban areas: Food security

Food security is a matter of sufficient food supply at national, local, household and individual level. In this study the focus is solely at the micro level. This is far from undermining the need for a proper food supply at higher levels. During periods of freedom fighting, war and civil war, the people of Angola have just too many times been made aware of the need for national and local food supply.

On the other hand, it is only too easy to forget that national food supply might be a necessary, but indeed not a sufficient precondition to avoid starvation. Food security is also a matter of having the resources needed either to produce, to barter or to buy the food needed for the survival and proper health of a household and all individuals. Unfortunately the data does not allow us to study the distribution of food within the household. We know from other studies (such as Wold 1987) that the food usually is distributed in an unequal manner within the household. While staple food items might be equally distributed, consumption of high protein food items as meat and fish are often going in favor of first, the father, second, the mother and third, the children. From a nutritional point of view the priority order should be opposite. This biased distribution makes the women and especially the children even more exposed to food insecurity than the household information might indicate.

The so-called Engel's law is based upon the global fact that when income increases, the share spent on food consumption decreases. As shown in chapter 2 this is also the case for urban Angola, but the food share decreases only slightly from better off to poor to extreme poor. There are two main reasons for this situation<sup>16</sup>. First, the poor are forced by lower access to infrastructure to spend quite an amount on more expensive form of energy and private solutions for water supply. Second, the better off are consuming more expensive food items than the poor are. It should

<sup>16</sup> It should be added that the measurement approach is likely to have caused an underreporting of the durables being bought throughout the last 12 months such as furniture, commodities of which the better off are likely to consume considerably more than the poor.

be added that while the food might be more expensive this does not mean that the better off get more calories for the Kwanzas.

Despite the higher food shares and the tendency to buy cheaper food, the Luanda study from 1990 (Bender and Hunt 1991a) showed that none of the extreme poor and only one per cent of the poor got enough calories, while almost half those above the poverty line got enough calories<sup>17</sup>. Hence, while we still expect food insecurity to be a problem for the poor and extreme poor, even some of the better off might face food insecurity and some of the poor might get enough calories if the food is distributed within the household in an equal manner.

The analytical approach is to calculate the overall calorie consumption based upon registered food consumption in value terms.

### 8.1. Calorie intake, regression analysis

The IPCVP survey (GMCVP 1996) includes the consumption of all food commodity groups. By applying average prices as measured in the Consumer Price Index and calorie content of each food group, this allows for the calculation of calorie content being available for each household measured by adult equivalent.

The adult equivalent unit is an adult man, who needs 2100 kcal just to stay fit and doing easy office work. In order to manage easy manual work the same adult man will need 2400 kcal. Hence we have calculated whether the total consumption in value terms allow each family to buy food enough to provide these calorie requirements assuming an average food pattern for those around or at the poverty line<sup>18</sup>.

<sup>17</sup> The calorie requirements are said to be according to international standards, but for some reasons these are not referred. It is difficult to know which standard is being used, but the most likely ones are either 2 100 or 2 400 kcal per adult equivalent.

<sup>18</sup> As recommended by Ravallion (1994) we have used the average food consumption of the decile around the poverty line.

**Table 8.1. Calorie intake per adult equivalent by categorie, mean and median by various poverty groups, provinces, gender and age of head of household**

	Below 2100 kcal (low activity level)	2100 – 2400 kcal (medium activity level)	Above 2400 kcal	Total	Mean	Median	Number
<b>Poverty</b>							
Better off	4.6	4.0	91.4	100.0	5 301	4 566	1 525
Poor	42.4	20.8	36.8	100.0	2 191	2 043	2 109
Extreme poor	99.1	0.9	0.0	100.0	957	982	476
<b>Province</b>							
Luanda	33.4	12.5	54.2	100.0	3 213	2 582	2 072
Moxico	33.2	11.8	55.0	100.0	3 484	2 652	296
Cabinda	41.0	11.5	47.5	100.0	3 095	2 289	426
Benguela	30.1	10.3	59.6	100.0	3 613	2 761	879
Huila	32.8	13.7	53.4	100.0	3 514	2 512	437
<b>Gender</b>							
Man	33.8	13.0	53.2	100.0	3 188	2 535	3 249
Woman	31.6	10.0	58.4	100.0	3 589	2 704	861
<b>Age</b>							
15-29	21.1	12.2	66.8	100.0	4 047	3 115	797
30-39	31.5	12.9	55.6	100.0	3 279	2 629	1 526
40-49	37.9	11.5	50.7	100.0	3 039	2 460	1 001
50+	42.8	12.3	44.9	100.0	2 847	2 139	786
Total	33.3	12.3	54.4	100.0	3 279	2 584	4 110

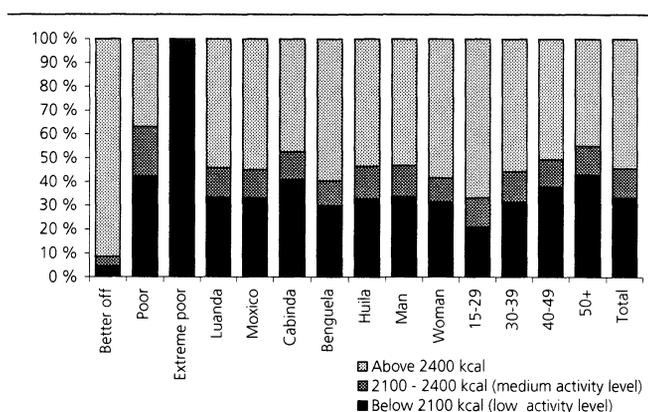
**Figure 8.1. Calorie intake per adult equivalent in various poverty groups, provinces, gender and age of head of household**

Figure 8.1 and table 8.1 show that money metric poverty certainly is closely related to the fulfillment of a basic need as the necessary food energy or calorie intake. While more than 9 of 10 better off households consume enough food to provide enough calories for each household member. Of course, if there is a biased food consumption pattern in the family where the father gets the better share, and the mother and the children the second priority, this does not mean that all household members get enough. But it means that all household members might get enough by fair sharing.

The moderate poor are well spread; 2 of 5 families can not even reach the bare minimum of 2100 kcal, 2 of 5 reach even above 2400 kcal while 1 of 5 is in the middle. For the extreme poor, there is no doubt, no way they can get the minimum calories even for a low activity level. Hence it is not very hard to understand how difficult it is to crawl out of extreme poverty.

There is common saying nowadays that the only asset the poor have to sell, is their own labor. But that requires breaking a vicious circle, not enough calories, not enough capacity for manual work, hence no work, no food and no calories.

The differences in calorie requirements across provinces and by gender of head are small. Cabinda was the poorest province and is again the province with the highest number of a very low calorie intake. There is however a clear development over the age groups, where the share of low calorie households doubles from the youngest ones to the oldest.

As for poverty we have conducted a regression analysis and a classification analysis of which factors affect the overall calorie intake. We have chosen even to include an analysis on the composition of consumption by running an analysis of what affects the share of food consumption versus non-food consumption.

The regression analysis presented in tables 8.2 & 8.3.<sup>10</sup> shows remarkable resemblance with the one on poverty, which is hardly that surprising since food consumption is the large chunk of overall consumption. Also calorie intake increases if the male and female heads are working and most if the female head is working.

There are however three distinct differences, of which two point in the same direction and one is not clear. The effect of higher education for the male or the female head was clearly positive on overall consumption. The effect of higher education for the female head is even larger on calorie intake and has changed to a

**Table 8.2. Total calories per adult equivalent\* , weighted linear regression\*\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	3.50	0.01		\$\$\$
<b>Continous variables</b>				
Male head: education in years	0.00	0.00	-0.02	\$\$\$
Femal head: education in years	0.01	0.00	0.13	\$\$\$
Male head: years in current job	0.00	0.00	0.06	\$\$\$
Female head: years in current job	0.00	0.00	-0.01	\$\$\$
Age of head of household	0.00	0.00	-0.13	\$\$\$
Dependency ratio: dependants / breadwinners 15-60	-0.04	0.00	-0.09	\$\$\$
<b>Classification variables</b>				
Province, default=Luanda				
Moxico	0.00	0.01	0.00	
Cabinda	-0.05	0.01	-0.03	\$\$\$
Benguela	0.03	0.00	0.02	\$\$\$
Huila	-0.03	0.00	-0.03	\$\$\$
<b>Occupational status, male head</b>				
Self employed	0.12	0.00	0.17	\$\$\$
Employed in public sector	0.06	0.00	0.11	\$\$\$
Employed in private sector	0.07	0.00	0.10	\$\$\$
<b>Occupational status, female head</b>				
Self employed	0.11	0.01	0.18	\$\$\$
Employed in public sector	0.09	0.01	0.14	\$\$\$
Employed in private sector	0.11	0.01	0.13	\$\$\$
Gender of head of household	-0.06	0.01	-0.05	\$\$\$
Lived at current residence, def.=1992 or before	-0.05	0.00	-0.04	\$\$\$
Significance for model	0.00			
R-square	0.06			
Adjusted R-square	0.06			
Number of observations	4 109			

\* Logarithm of total calories per adult equivalent, \*\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, \$\$\$ significant at 1% level

weak negative one for the male head. And while having a male head reduced poverty it even reduces calorie-intake. These findings again supports that women give a larger priority to food than men and that higher education for her, increases her bargaining power allowing her to increase the priority given to food consumption (refer to Wold 1997).

**8.2. Food share of total consumption, regression analysis**

We have checked these results by running a regression analysis on the share of the total consumption spent on food. The results of this analysis presented in tables 8.4 & 8.5<sup>10</sup> confirms the bargain power caused by the education of the female head. A female head gives preference to food consumption while the male head does not.<sup>19</sup>

**8.3. Calorie intake, classification analysis**

The classification analysis does not mirror the poverty analysis to the same degree. The tendency for younger households to give preference to food consumption

**Table 8.3. Total calories per adult equivalent\* , weighted linear regression\*\*, reduced form, significant modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	3.50	0.01		\$\$\$
<b>Continous variables</b>				
Male head: education in years	0.00	0.00	-0.02	\$\$\$
Femal head: education in years	0.01	0.00	0.13	\$\$\$
Male head: years in current job	0.00	0.00	0.06	\$\$\$
Female head: years in current job	0.00	0.00	-0.01	\$\$\$
Age of head of household	0.00	0.00	-0.13	\$\$\$
Dependency ratio: dependants / breadwinners 15-60	-0.04	0.00	-0.09	\$\$\$
<b>Classification variables</b>				
Province, default=Luanda, Moxico				
Cabinda	-0.05	0.01	-0.03	\$\$\$
Benguela	0.03	0.00	0.02	\$\$\$
Huila	-0.03	0.00	-0.03	\$\$\$
<b>Occupational status, male head</b>				
Self employed	0.12	0.00	0.17	\$\$\$
Employed in public sector	0.06	0.00	0.11	\$\$\$
Employed in private sector	0.07	0.00	0.10	\$\$\$
<b>Occupational status, female head</b>				
Self employed	0.11	0.01	0.18	\$\$\$
Employed in public sector	0.09	0.01	0.14	\$\$\$
Employed in private sector	0.11	0.01	0.13	\$\$\$
Gender of head of household	-0.06	0.01	-0.05	\$\$\$
Lived at current residence, def.=1992 or before	-0.05	0.00	-0.04	\$\$\$
Significance for model	-0.05	0.00	-0.04	\$\$\$
R-square	0.06			
Adjusted R-square	0.06			
Number of observations	4 109			

\* Logarithm of total calories per adult equivalent, \*\* Weighted least squares regression Significance: § significant at 10% level, §§ significant at 5% level, \$\$\$ significant at 1% level

and calorie intake outweighs other factors. From the poverty classification analysis we also remember that dependency ratio made a split among the better educated. Here it makes a split between the younger ones, and again can we see that households with many dependents per breadwinner are the losers. Otherwise education will always help to achieve a higher food intake. The effects of work and education are not easy to disentangle, but there appear to be certain groups who gain from working in the formal sectors while other do not. In the case of calorie intake we see that households where the female head works in the public sector and the male head works in the private formal sector both have an especially high share with a high calorie intake.

**8.4. Food share of total consumption, classification analysis**

The food share of consumption reflects both the priority given to food, and the level of living. Higher human resources will tend to increase consumption and then reduce the food share. Control by women (requires high bargaining power) will tend to increase the food share while control by men will tend to decrease the food share.

<sup>19</sup> There is however quite some multi-collinearity between experience in current job and type of occupation and hence these parts are difficult to interpret.

**Table 8.4. Food expenditures as per cent of total expenditures, weighted linear regression\*, reduced form, complete modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	0.76	0.01		\$\$\$
<b>Continous variables</b>				
Male head: education in years	0.00	0.00	-0.09	\$\$\$
Femal head: education in years	0.00	0.00	0.06	\$\$\$
Male head: years in current job	0.00	0.00	0.10	\$\$\$
Female head: years in current job	0.00	0.00	-0.14	\$\$\$
Age of head of household	0.00	0.00	-0.01	§
Dependency ratio: dependants / breadwinners 15-60	0.00	0.00	0.00	
<b>Classification variables</b>				
Province, default=Luanda				
Moxico	0.13	0.00	0.11	\$\$\$
Cabinda	0.03	0.00	0.02	\$\$\$
Benguela	0.07	0.00	0.10	\$\$\$
Huila	0.08	0.00	0.12	\$\$\$
<b>Occupational status, male head</b>				
Self employed	0.04	0.00	0.09	\$\$\$
Employed in public sector	0.02	0.00	0.06	\$\$\$
Employed in private sector	0.00	0.00	-0.01	
<b>Occupational status, female head</b>				
Self employed	-0.02	0.00	-0.04	\$\$\$
Employed in public sector	0.00	0.00	-0.01	
Employed in private sector	0.02	0.00	0.04	\$\$\$
Gender of head of household	-0.04	0.00	-0.06	\$\$\$
Lived at current residence, def.=1992 or before	0.02	0.00	0.03	\$\$\$
Significance for model	0.00			
R-square	0.08			
Adjusted R-square	0.08			
Number of observations	4 109			

\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, \$\$\$ significant at 1% level

Since increased human resources have a double effect, the net result is not clear. For men, higher human resources will tend to increase consumption and hence reduce the food share and at the same time increase their bargaining power, which again will reduce the food share, hence we would clearly expect a lower food share. Also for women, increased human resources tend both to increase overall consumption and to increase their bargaining power, but since they tend to give priority to food the net result is not clear. And this is really the case, female education does not stand out in this case. It is in fact rather the provincial dimension that goes to the front.

Neither the net provincial effects are clear. You will expect better off provinces to have a lower food share, but the effects of the food price level and the non-food price level are likely to be more important. In the end Luanda and Cabinda have the lowest food shares as shown both in table 8.3 and figure 8.2. The most likely explanation is food versus non-food prices. Given their positions as external trading ports you would expect a large influx of imported non-food goods while food items might be relatively more expensive as in any

**Table 8.5. Food expenditures as per cent of total expenditures, weighted linear regression\*, reduced form, significant modell**

Regressor	Estimate B	Std. Error	Standardized Beta	Sig.
Intercept	0.74	0.01		\$\$\$
<b>Continous variables</b>				
Male head: education in years	0.00	0.00	-0.09	\$\$\$
Femal head: education in years	0.00	0.00	0.06	\$\$\$
Male head: years in current job	0.00	0.00	0.10	\$\$\$
Female head: years in current job	0.00	0.00	-0.14	\$\$\$
<b>Classification variables</b>				
Province, default=Luanda				
Moxico	0.13	0.00	0.11	\$\$\$
Cabinda	0.03	0.00	0.02	\$\$\$
Benguela	0.07	0.00	0.10	\$\$\$
Huila	0.08	0.00	0.12	\$\$\$
<b>Occupational status, male head</b>				
Self employed	0.04	0.00	0.10	\$\$\$
Employed in public sector	0.02	0.00	0.06	\$\$\$
<b>Occupational status, female head</b>				
Self employed	-0.01	0.00	-0.03	\$\$\$
Employed in private sector	0.02	0.00	0.04	\$\$\$
Gender of head of household	-0.04	0.00	-0.05	\$\$\$
Lived at current residence, def.=1992 or before	0.03	0.00	0.03	\$\$\$
Significance for model	0.00			
R-square	0.08			
Adjusted R-square	0.08			
Number of observations	4 109			

\* Weighted least squares regression

Significance: § significant at 10% level, §§ significant at 5% level, \$\$\$ significant at 1% level

other large city especially when the transport from the hinterland is a bottleneck.

## 8.5. Policy conclusions

There are two policy conclusions to be drawn, both already addressed in other chapters:

- *food security in a gender perspective*: to improve food security women should be encouraged and assisted both to increase their human resources as education and work practice; and
- *cross-subsidizing food items*: to mitigate the effects of poverty, the Government should consider utilizing the different consumption pattern to redistribute money from the better off to the poor by cross-subsidizing food items.

### 8.5.1. Food security in a gender perspective

In this chapter we have learned that one strategy to improve food security is to strengthen the bargaining power of women by improving their human resources and monetary resources by a renewed emphasis on education and employment/ self-employment. As already addressed in the chapter on water, sanitation, energy and time use, an additional emphasis on a more equal sharing of the work burden between men and women would also be needed, first and foremost to press and pull men into doing households chores. Hence three lines of follow up is required:

- ensure equal access and enrollment in school for girls and boys;
- reduce existing barriers for women to enter public and private formal sector work
- public campaigns for gender equality in sharing household chores and public efforts to reduce the

work load, refer to chapter on water, sanitation, energy and time use

**8.5.2. Cross-subsidizing food items**

Refer to the chapter on expenditures and subsidies.

**Figure 8.2. Calorie intake per adult equivalent above 2400 kcal per day**

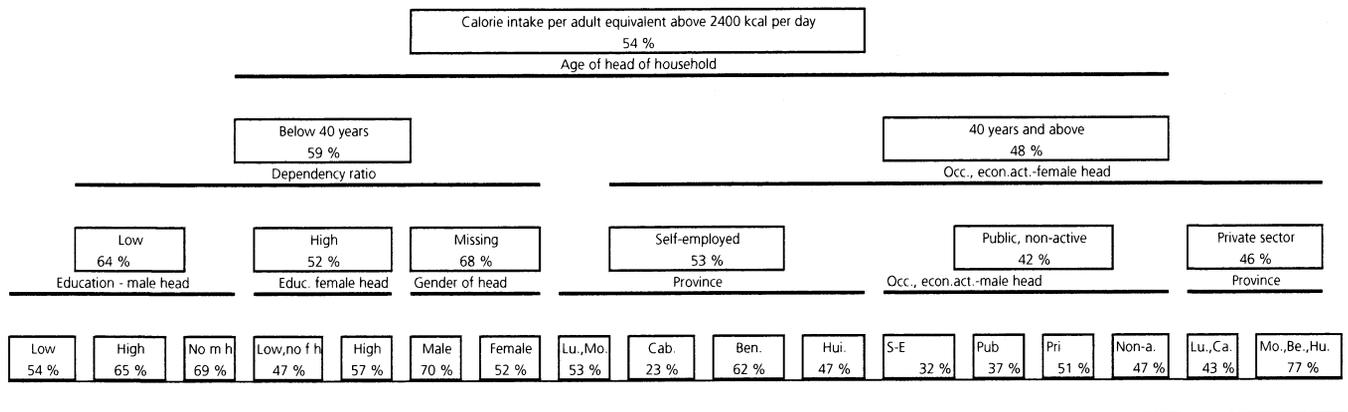
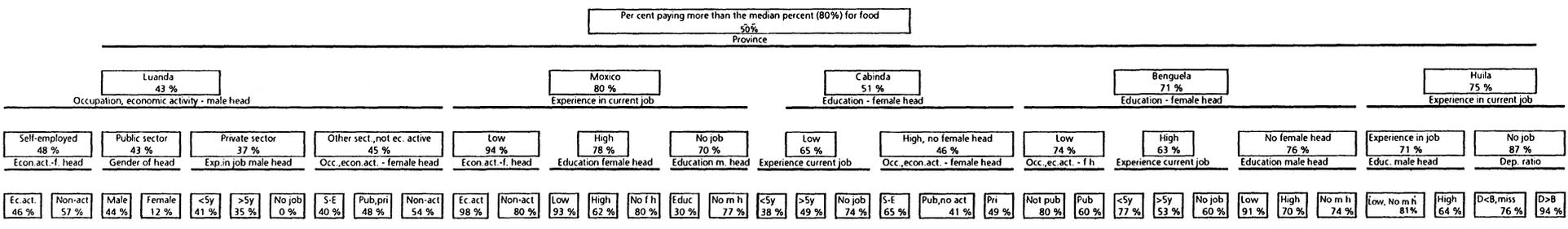


Figure 8.3. Per cent paying more than the median percent (80%) for food



## 9. Summary of policy conclusions

The objective of this report is to raise policy issues based upon factual statistical information stimulating the discussion on policy issues and policy design leading to a more efficient and equity oriented policy solutions according to the priorities by the Government and other authorities. Hence the aim of this report is not to present final policy *solutions* but *to stimulate the process* leading to them. It might present examples for consideration, but these are nothing more than examples. Final decisions on how to implement policy changes require a broad and deep knowledge of how to implement policy in Angola and this is a knowledge outside the scope of this report and reanalysis of statistical data.

A starting point was three special features of the Angolan economy, special in a twofold sense, they are setting Angola apart from the average African country, and two are special in the sense that since the peace agreement in 1992 they have both been deemed a short life expected to disappear or be transformed:

- the civil war itself,
- the special mix of regulated and free market economy and
- the natural resource situation, the oil and diamond economies.

These dimensions have been and still are pulling in different directions. The prospect of continued civil war, costly in both human and economic terms, effectively has discouraged both the Government and donors alike to invest in infrastructure not only at the countryside but even in the capital and other big cities. The potentially and from end 1998 de facto increased forced migration pushed by possible and de facto fighting and pulled by the more secure (military protection and emergency food) situation in the main cities is also a reason behind the reluctance to invest in urban areas.

The special mix of regulated and free market economy is in reality providing a huge subsidy to insiders allocated quotas of foreign exchange. During the period from 1992 to mid 1997, the parallel market rate went up to 3.5 times the primary official exchange rate and

1.6 times the secondary official exchange rate (Banco Nacional de Angola 1997a & b). Obviously this drains potential resources from the treasury and leaves only the trickle down for the poor.

Despite the civil war and the regulations of the ordinary economy, the natural resources being oil for the Government and diamonds for UNITA give large surpluses. These surpluses allow for a range of investments and recurrent spending; from investing in further explorations as running the military operations to providing for the involved staff and their families including social sector spending on health and even education; all outside the ordinary control by the national authorities.

During the labile years since 1992, the economic and social policy has moved from a focus on emergency relief and rehabilitation towards a development focus. The new outbreak of civil war has again changed the focus back to civil war and emergency relief. Obviously the situation requires this change of focus, but there are all reasons to fear that this change of focus also will serve to hide the necessary policy considerations. All the policy issues are at least equally important during a period of civil war and some are definitely even more important.

### 9.1. Poverty Policy advises

Poverty analyses have a long history in recent Angola, from the series published by Ministério do Plano and UNICEF/ Angola for Luanda in 1991 (Bender and Hunt 1991 a,b,c, & d, Devereux & Hunt 1991, Aguilar 1992); the urban areas of five provinces in 1996 (GMCVP 1996); and rural areas of eight provinces in 1997 (Departamento de Estatística e de Informática 1997). INE has all the time formed the core and been supported by a range of donors for data collection and analysis as UNICEF, World Bank, FAO, and UNDP.

Already the first data collection, The Luanda Household Budget and Nutrition Survey (Bender & Hunt 1991b), designed to provide information on poverty was followed by a thorough set of proposals on poverty related policy proposals. Unfortunately the poverty

policy proposals did not really confront the critical special dimensions listed above and with one important exception, hardly any was implemented. The one policy recommendation implemented was definitely a pro-poor policy issue and rather than draining the treasury it saved public money. The recommendation implemented was to cut subsidies favoring the better off such as electricity and telephone subsidies. One might of course suspect these policy changes to have been implemented as a fiscal means rather than a pro-poor policy issue, but we would think that it was really the mutual fiscal and pro-poor policy interest that ensured this policy change. We should also add that while the other policy issues have not been implemented straight away, they have contributed to the changes such as the improvement of school quality by increasing lessons per day and reducing the number of shifts in school.

Never the less, in this report we have given a heavy emphasis to presenting up front whether a policy proposal should be considered in short or long terms and as a win-win proposal (requiring investments but reducing spending in a mid term perspective) or as an equity proposal really requiring public spending.

An overall recommendation is for the Government to try to attract donor support (financial and technical) for the initial win-win policies, while earmarking own public funds to a balanced mix of efficiency and equity policy changes.

## 9.2. Policy recommendations

The detailed policy recommendations are presented at the end of each chapter and this one focus on presenting an overview comprising four categories:

- Rural / urban,
- Subsidies in a poverty and food security perspective,
- Get people to work, and
- Social sectors.

With the number and size of policy changes in Angola there is also a stronger than usual need to monitor the effect of current policies and policy changes a like. This is addressed at the end of the chapter.

### 9.2.1. Rural / urban

As documented in the chapter on poverty in rural areas, poverty head count is more than the double in rural compared with urban areas when using the same poverty line approach. Obviously lack of physical security is not the only reason while people continue to migrate to urban areas and especially to Luanda. The probability of falling into poverty and being trapped there, is larger in rural than urban areas.

It is outside the scope of this report to compare the over all situation in rural versus urban areas, but one issue became clear already when calculating the

poverty level, the low and fluctuating prices in rural areas. This is a standard sign of a market which does not work. It shows that people living in rural areas are not able neither to sell to traders coming to their areas, to sell at local centers nor to arrange for transport and take the produce to the markets themselves. There is no way to avoid this situation during civil war time. But it should worry the Government, the donors and others alike that this situation prevailed in 1995, well into a peaceful period.

Both in order to reduce the large influx to urban areas and to reduce poverty and encourage development in rural areas a special poverty policy concern is needed.

In a stable situation it would be a win-win policy to improve crop market efficiency and standard recommendations to be considered would include as follows:

- for the Government to improve transport infrastructure especially feeder roads, but also main roads and railways.
- for the Government to provide a framework to encourage production for sale, marketing and trading; spreading price information (on produce and on transport services) by radio, to support provision of credit packages to farmers by private firms and NGOs, to support a stable marketing environment by offering a (low) floor price<sup>20</sup> at provincial level by a marketing agency (rather contracted to private traders or NGOs than run by a public agency), provision of credit packages to farmers by private firms and NGOs providing credit to traders, supporting construction of storage, and providing extension service.

The current situation is different. These investments and recurrent spending are more needed than ever, but also more risky. They will turn out as win-win policies if the market efficiency is improved and the migration to urban areas reduced as expected, but obviously this is high-risk policy. In this case it would be necessary to justify the risk in terms of the need to move from emergency relief to development policy where and when possible. The implementation would require the joint commitment and funding from the Government and donors alike.

In insecure areas two elements should be considered:

- for the Government and donors to improve infrastructure and provide the framework in the surrounding secure areas, and
- for the Government and donors to support private traders and NGOs who are trading in less secure

<sup>20</sup> It is essential that the floor price is low. The aim is not to build a large public marketing agency, but is limited to providing stable prices. Hence the public price should aim at being slightly lower than a private market price, assuming that the latter should be comprising a commodity price with standard storage, transport and profit premiums.

areas, including buying crops, selling inputs, equipment and even consumer goods, and providing inputs and equipment on credit terms. Support could be given as credit or by commissioning traders to buy produce and transport it to public depots.

**9.2.2. Subsidies in a poverty and food security perspective**

In general there are two mechanisms for reaching the poor, administrative schemes usually providing food directly or by food coupons versus some kind of self-targeting schemes. In emergency situations and others where the target population is living in certain locations, administrative schemes might be effective, reaching the target population with low administrative costs and low leakage.

However in most non-emergency cases, the target population is *not* located in a certain geographical area and any administrative schemes are costly in a double sense. They require high administrative costs and give a large leakage in both directions, both providing support to non-eligible people and not providing support to all eligible people. In general such schemes have only been successful in a few Latin-American countries<sup>21</sup> where the communities already were well organized at the local level.

Realizing the difficulty in reaching the poor by administrative schemes, self-targeting subsidies deserves serious consideration.

Self-targeting subsidies have a long tradition in all continents and many countries and are implemented both intentionally and by default. Self-targeting schemes as designed and justified in three ways:

- Administratively. In a monopoly or cartel situation prices might be fixed at a fair level at one point in time. If not adjusted according to inflation, the fixed price might soon become too low and in reality turn into a self-targeting subsidy. The price of public services such as telephone calls are often fixed this way.
- Sector-wise. Price might be fixed at a deliberately low level to encourage consumption and use of a certain product or service. Housing schemes, higher education, and essential food items are typical examples.
- Target groups. If the idea is to assist special groups such as the poor or families with small children, subsidies will be given to products and services with a higher consumption share among the target group.

Self-targeting subsidies for the moderate poor or extreme poor as target groups are based upon the concept of inferior goods as discussed in the chapter on expenditures and subsidies.

In that chapter maize meal is identified as the one food item of which the extreme poor have a considerably higher consumption share than the poor and the better off. The consumption shares in the cities of 5 provinces were as follows:

- consumption share among extreme poor: 0.152
- consumption share among moderate poor: 0.083
- consumption share among better off: 0.061

However, there are all reasons to believe that the maize meal consumed is a mix of own purchase and provisions by PAM, hence we are not sure this really reflect the preferences in the population. That is why we are recommending an additional study to identify inferior goods, if possible linked to the Expenditure and consumption study planned for 1999/2000. The additional study should identify the food pattern of the extreme poor, the moderate poor and the better off in details being grain and meal of maize, cassava, millet, and sorghum; and do so for each city where subsidies might be introduced.

It should be stressed that in a political perspective it is not straightforward to subsidize inferior goods, and the reason is just this, they are considered inferior. It should be added that inferiority has a geographical dimension. Millet, yellow maize and white maize might all be considered inferior in some areas and the favorite in others. Hence the subsidy schemes should definitely be implemented city by city. Since so many consider themselves poor enough to deserve some subsidies, they are also going to complain when an inferior good is identified for subsidies. Obviously they will face a dilemma, if they want subsidized cheap food, they have to buy what they consider inferior goods. The extreme poor will do that to a very large extent, while just a few better off will.

*Cross-subsidies*

If the fiscal situation does not allow for a pure subsidy scheme, a cross-subsidy scheme is an alternative. In this case you will subsidize an inferior good and tax a luxury good. The survey identified three clear luxury goods, meat, sugar, and drinks, with the following consumption patterns:

	meat	sugar	drinks
consumption share among the extreme poor:	0.018	0.052	0.016
consumption share among the moderate poor:	0.040	0.071	0.027
consumption share among the better off:	0.061	0.074	0.044

<sup>21</sup> In these countries, such as Bolivia all families classified themselves along certain dimensions and if they were found below a certain level along many dimensions there were classified as eligible and received food support, free schooling etc. Refer to Jorgensen, Grosh and Schacter (1992).

It is very difficult to tax a commodity like meat, but sugar and alcoholic drinks and soft drinks are all easy to control and prime candidates for taxation. Since the gap in consumption shares is larger for drinks, the main recommendation is to tax softdrinks and alcoholic drinks.

It is important to stress that such as tax should never become a fiscal tax, the sole purpose should be to transfer some monetary resources from the better off to the extreme poor.

#### *The size of a subsidy*

To avoid artificial changes of food consumption and large leakage it is important to keep subsidies and taxes within certain limits such as a maximum price reduction of 33 per cent and a maximum tax of 50 per cent. Both should be introduced in steps, say in 3 steps, one every 3-6 months.

#### *Urban areas only*

Since a subsidy scheme requires a certain infrastructure, it should only be implemented in urban areas. The parallel scheme in rural areas will be the proposed scheme to buy crops at a minimum price at certain depots located in secure areas, starting with the provincial capital and to be extended to district centers as the financial situation allows and experience is gained. This also means that we have no recommendations for rural areas for how to reach non-farmers and farmers with no surplus for sale. Obviously they need both emergency relief and other support, but the surveys and other accessible sources do not provide information for doing so.

### **9.2.3. Get people to work, now and in the future, paid work and at home**

The core issue in any poverty alleviation strategy is to assist poor people getting access to work which give them a pay that keep them and their families above the poverty line. We have addressed this issue for the urban areas in two chapters covering informal sector work water, sanitation, energy and time use and for the rural areas in one chapter covering analysis of poverty. The policy findings are summarized below.

#### *Urban areas*

In urban areas, the survey information shows that the main problem is not lack of work as such, a large share of the population find work or manage to start some small or medium scale business or income generating activity for themselves. The pay is not high, but for families where at least both husband and wife find work the average family might remain poor but will be able to provide enough calories for the family.

But still there are large problems, as follows:

- The informal market has an artificial structure with very large shares of people working in retail and

petty trading. There are relatively few working in production of goods and other services and those who do earn less than people engaged in trading.

- Many women have a large double workload.
- While on average people doing trading are doing OK, there are still quite large pockets with very low return for work.

To address these problems, the following win-win recommendations are proposed:

- Prepare people for the changes by providing training, with a focus on apprenticeship, but also vocational training.
- Change the policy regime in a step-wise manner. The latter means to plan for a well scheduled change over such as a five year period including the following steps listed in order of importance:
  - replacing import quotas with import tariffs,
  - reducing but not removing import tariffs over time,
  - establishing a system of monitoring prices with active dissemination of market and price information, and
  - moving to a convertible currency.
- Reduce existing barriers for women to enter public and private formal sector work.
- Public campaigns for gender equality in sharing household chores and public efforts to reduce the workload of household chores such as for water supply, refer to the chapter on water, sanitation, energy and time use.

#### *Rural areas*

As already stated, it is outside the scope of this study to undertake a comprehensive analysis of the situation in rural areas. Obviously the continued support by the Government, donors and NGOs such as through the PAM program is essential in an emergency situation. Our approach is more modest: how to maintain and rebuild some of the links between rural and urban areas and one issue that stands out is the need to reestablish the possibility for crop farmers to sell their produce. Hence we have concluded the chapter on Analysis of poverty in rural areas with the need for a new emphasis on buying food from the hinterland, refer to the Rural / urban paragraph in this chapter.

This approach do not require an end to civil war and unrest and will serve as both a short and long term incentive for rural people to remain in their villages. Such a program should comprise the following main element:

- the main element will be to build a strategic food reserve by a program to buy staple food that store well (e.g. maize and millet) to be operational both in large surplus years and normal years.

Such a program should be coordinated by the Government with assistance from main donors both emergency relief donors as the WFP and the UNHCR

and the longer term development donors such as UNDP and UNICEF. The operations as such would gain from being decentralized to public authorities and a series of donors.

The great advantage of a strategic food reserve program is the two-sided effect:

- marketing opportunities are serving as an incentive to the rural population, an incentive that might even improve the transition to a peaceful situation in the future, and
- a strategic food reserve means that the Government and donors are better prepared when a new emergency develops.

#### 9.2.4. Social sectors

Policy recommendations within the social sectors are usually implemented sector-wise but the effects should be considered simultaneously. The overall situation is that the poor families to a large degree still manage to send their children to school, but are hardly able to pay for health consultation and rely on self-diagnosis and buying the necessary drugs. Water supply is clearly a public disaster and is to a very large extent handled by waterlords who are well paid for their service. In fact the water supply is so lucrative that there are anecdotal stories about the waterlords using any means to make sure new squatter areas are not supplied with public water taps. Whether true or not, the water market is overdue for changes.

In this situation, the water supply is a prime candidate for a win-win solution making sure to involve the current waterlords but only as well controlled local operators. The education sector is also a candidate for a win-win policy change but here improved efficiency is more openly linked to the equity objective of providing education opportunities for all. The education policy should start with improving the school and education quality based upon a combination on donor support and locally controlled school/PTA funds. Second, the policy should reduce repetition. Third, the policy should reduce number of children in each class. Fourth, the policy should either improve the quality, reduce the payment through locally controlled school/PTA funds, or providing scholarships to the extreme poor children with scholastic achievements (limited to such as 5 per cent in a given class).

The health sector is worse off. We know from other developing countries<sup>22</sup> that the poor are willing to pay for health service if it is relatively cheap and gives value for money, but poor and especially the extreme poor in urban areas in Angola can hardly afford to pay for any consultation. There is hardly any win-win policy that will also give access to all. Unless the Government is willing and able to increase resources

considerably, it is rather recommended to face the situation and open up for a combined privatized/ public scheme. Health personnel should be allowed to work in both sectors rather than continue with charging gasosas or by leaving the public service all together. Health personnel will then provide free preventive health service and basic curative health service at daytime and run a private health service business in the evenings and weekends.

The detailed policy recommendations from the chapters are also presented here, the difference being that we here stress the rationale behind each recommendation.

#### Education

There are two clear and distinct findings. First the very large repetition rate creating an extreme extra burden on the primary school sector. Second that the main factor effecting school attendance is poverty level.

The policy challenge is to handle both effects simultaneously. If the challenge is successfully met, the reward might be large. If repetition is reduced, two impacts are achieved, first less resources are needed or more resources are available; second if repetition is reduced, the share of poor children not leaving school before an examination or at least not before functional literacy is obtained might really be increased. The task is to break the vicious resource circle.

This would require a multifold strategy, such as the following one:

- A win-win recommendation: Donor assistance is requested to provide additional resources for a limited period of ten years to improve quality and hence reduce repetition;
- An efficiency recommendation: A school fee program with local control and local spending is introduced to ensure a proper teacher/ student ratio and some material;
- An equity recommendation: In order to give all children a chance to attend school and to motivate school start when planned, each student would be exempted from school fee for a limited period of 3-5 years linked to the age of the child, i.e. no school fee for 6-8 years old children and no school fee for 9-10 years old children with none or only one repetition.
- An equity/ efficiency recommendation: For children above 10 years of age, a fellowship program for school fees covering extreme poor children should be introduced. Only non-repetitors would be eligible for this program, and it will be limited to a maximum of 5 per cent of the students in a given class or school.
- An equity/ efficiency recommendation: When donor support is phased out, the school fees should fully cover the extra costs of repetition and pay for the fellowship program of the extreme poor.

<sup>22</sup> Refer to Gertler and van der Gaag (1990) discussing the situation in Cote d'Ivoire and Peru.

*Health service*

The health service problem comprises three elements:

- an overall lack of access especially in Moxico,
- no ability to pay for health service and drugs among the extreme poor, and
- a system of gasosas which hardly increase the overall health service which is available, but only reshuffles the line and then makes it even harder for the extreme poor to get a consultation and treatment.

The solution requires large efforts both to improve access to health service and to assure the extreme poor access even if they can not afford to pay. At the same time, neither donors nor the Government are able to provide the necessary resources.

*Recommendation:* Accepting that there is no way around an expanded two tier system, it is recommended to accept this and try to develop both the public and the private health service.

The main obstacle to develop a functioning two-tier system is the massive use of gasosas. Rather than trying to control or even combat this system, it is recommended that the Government establish a legal way to develop a two-tier system within the public health service.

One solution to consider is to allow all public health service staff to run private business as well. They should be given access to use public premises for private business but only at certain earmarked time periods after the end of the standard working day. They might be asked to pay a small fee to ensure the maintenance but not the full costs because otherwise they might just as well go private. For resident treatment they should also be allowed to rent hospital beds, but for this arrangement they will have to pay the full costs since there is no reason to stop them from going private for this type of health service.

In order to reduce the need for control the Government should consider to negotiate a deal with one or more medical doctor associations and one or more nurse and mid-wife associations. The deal should state conditions and a system for fines to be paid by the association if the doctors and nurses do not follow the rules. If going for such a deal, it is of course essential to make membership in an association a precondition for the arrangement.

*Water supply*

The nice side of the extraordinary situation in water supply is that at a bottom of a wave there is no way, but up. The current situation is a potential win-win situation for the years to come. The challenge is to design programs where donors will support the extension and rehabilitation of public water pipes and

the Government will tender the work to water supply entrepreneurs inviting entrepreneurs currently running water trucks and others to present bids. Running and maintenance of taps and wells should also be tendered to local entrepreneurs. Previous waterlords and others should be invited to present bids. Community or bairo water committees should monitor the situation, participate when the tenders are up for renewal and be given the right to put in a veto if they are not satisfied with a bidder.

*Energy*

There are no reasons what so ever for the Government to subsidize energy supply. These have been and will remain subsidies for the better off. A stable electric power supply might be seen as a strategic need and require a public company, but there are no real arguments for the Government to cover any costs. For provision and distribution of oil and gas products there are hardly any argument for a public supplier which can not be better handled with public control and conditions set for private suppliers. Private suppliers should of course include any parastatal company competing on equal footing with private ones, such as a potential retail subsidiary of Sonangol.

*Time use for household chores - the bearing of gender*

While the survey information on time use is limited, it is obvious that women have moved into the bread winner group while men have hardly started to do household chores at all. The old fashioned statement that division of labor in families is a private matter should be confronted openly by two strategies:

- Public campaigns to tell the population that men are not doing their share of the total work burden and that it is due time for them to start doing household chores.
- Government support to provisions reducing the work load for women such as:
  - a second review on the gender impact when introducing new Government policies, such as to avoid that families (read: mothers and wives) have to replace public service, e.g. families to feed their own family member who are admitted as in-house hospital patients;
  - an improved water supply as discussed above, reducing the time needed to walk long distances to fetch water; and
  - arranging for extra child care such as kindergartens etc.

**9.3. Policy monitoring**

As addressed in the introduction to this chapter, this is not the first report to address the need for policy reforms and a common experience has been the lack of implementation of policy reforms. One reason might have been the tendency to suggest costly reforms without a proper consideration of the income side or

budget deficit issue. However, whatever the reason might be, this highlights the need to monitor the impact of policy reforms. Already the Luanda Household Budget and Monitoring Survey addressed this need and proposed a monitoring system (Bender and Hunt 1991e).

This report would like to highlight the need to focus on the process rather than on certain indicators. A monitoring system needs to meet three requirements:

- The users should participate in the process of identifying the issues to monitor and the development of indicators for monitoring.
- Valid and reliable indicators for monitoring should be developed by a process led by professional data producers as the national institute of statistics i.e. Instituto Nacional de Estatística, cooperating with the data users, data providers and other stakeholders.
- When a monitoring system is agreed upon, the data producers should be in charge of data collection, compilation, analysis and dissemination to ensure non-biased high quality data.

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## Appendix A

## Appendix on poverty lines

### Poverty line traditions

As discussed in *Perfil da Pobreza em Angola* there are two main traditions in fixing a poverty line, an absolute and a relative approach.

An absolute poverty lines will always find its reference outside the poverty measure itself. Absolute poverty lines are a century old tradition referring to the economic means needed to avoid relative deprivation. Amartya Sen (1987) developed a more comprehensive rationale of this tradition, introducing the entitlement concept. The poverty line will then outline the economic means needed to participate in daily social life. The comprehensive versions are based on detailed lists of activities constituting the minimum content of social life in a given community at a given time, defining the necessary goods and services needed for this life. You will find such as approach implemented in various countries such as Botswana, Norway, Sweden, and UK.

Two “children” of the absolute poverty line deserve a special interest. A simplified absolute poverty line approach based upon FAO recommendation for calorie requirements and the consumption pattern documented by a household budget survey is being promoted by the World Bank (Ravallion 1994). A policy poverty line, the food basket or extended food basket approach is both developed along the absolute poverty line tradition in again in a range of countries such as USA, UK and Angola. While these lines are based upon a list of food items and other commodities included, they will in general miss the connection to a base such as entitlements or calorie requirements. The food basket lines are either initially or over time developed during political compromises and hardly allow for a scientific discussion. They are developed and changed on the political arena.

Both the simplified and the comprehensive relative poverty lines have two main advantages, a policy advantage and a technical advantage. The policy advantage is the intuitive interpretation of a line which outline item by item what is needed to avoid poverty, and the costs accordingly. The technical advantage is that you may construct absolute poverty lines over time, across continents, countries and even provinces or rural / urban split and still, assuming that you have applied the same approach, be able to undertake over time and cross section comparisons.

There are two traditions for relative poverty lines, an applied and a theoretical. The applied tradition use the distribution of income or total consumption as a reference and calculate a poverty line referring to a certain fraction of the mean or a certain percentile. The most

common ones are half the mean or the 30th percentile; empirically these usually turn out quite equal. A more theoretical approach is to define poverty as the level where food consumption reaches a given fraction of the total consumption. The main advantage with the latter is the ability to allow for comparisons across different household types. The problem with different household types is however usually approached by applying adult equivalents. Over time and cross section comparisons are handled by price indices or price level indices respectively.

### Comparing poverty levels between rural and urban areas

There are three common approaches to compare poverty levels across rural and urban areas: an absolute approach, a relative approach and the third being to undertake a nationwide survey and choosing to hide the problem by developing a national poverty line. They all have certain advantages and drawbacks.

The absolute approach will require to develop two poverty lines based upon common assumptions, such as the simplified FAO/World Bank approach where you assume the same set of calories, apply the average rural or urban food pattern and food prices and an average non-food consumption, but no non-food prices. Food pattern data and information on the ratio of food to non-food consumption are available from the *Pobreza and Agregados Rurais* surveys (GMCVP 1996, Departamento de Estatística e de Informatica 1997). This information replaces a consumption commodity basket required for an index approach. Food price data are available from *Agregados Rurais* survey and from the Consumer Price Index work of INE. You may then apply these two new poverty lines in order adjust the poverty line from the *Perfil da Pobreza em Angola* for rural areas.

The relative approach requires the development of an appropriate price level index and price information on food and non-food items for both rural and urban areas. Some of this information is available, but for non-food consumption in rural areas it is quite sketchy and not likely to be very reliable. It might still serve the purpose.

The third approach is by default the most common one, conducting the same survey in both rural and urban areas and not adjusting for differences in consumption patterns or prices. This approach will by default use the average pattern across both rural and urban areas. The value of locally produced food in rural areas and the value of domestically manufactured or imported goods in urban areas are all underesti-

mated. In the end these distortions might balance. Obviously both the weight of each item and the price gap will determine the final outcome. Let us assume the following “rural bias” scenario. Half the population is living in urban areas, 2/3 of goods are produced in rural areas, items “exported” from urban areas double in price, items “exported” from rural areas 3-double in price, and people in rural areas may spend only half the amount of urban people on non-food. Hence people in rural area might be equally well off as people in urban areas with half the cost i.e. with a rural poverty line being half of the urban poverty line. If you rather assume a “no bias” scenario where only ½ of goods are produced in rural areas, items “exported” in any direction all double in price and people in both rural and urban areas spend the same proportion for non-food items, then people in rural and urban areas are equally well off with the same costs i.e. they get the same poverty line. Both these scenarios are possible and while you might argue that the former is more likely or even that the bias might be still larger, one will need empirical information to decide.

A special version of the third approach is by default quite common. By not addressing the issue, the “no bias” scenario is chosen by default. Since the de facto situation is likely to end up somewhere between the “no bias” and the “rural bias” scenarios, a common poverty line will give a rural bias in the sense that the number of poor are overestimated. Another special version is worthwhile mentioning. By adjusting for changes in food prices and not for non-food items you create an urban bias. Such an approach gives a very conservative estimate in rural areas. By this approach you will know that you underestimate the poverty in rural areas but you will not know how much. If you expect the rural poverty to be higher than the urban poverty you might choose this approach rather than the “no bias” approach to be sure that you identify the very minimum of higher poverty head count in rural areas.

### Current applications

In order to compare information from the urban Perfil da Pobreza and Inquérito aos Agregados Rurais all these three approaches might be considered, as follows:

- First, simplified absolute poverty lines might be calculated for both rural and urban areas based upon FAO calorie-requirements, food consumption pattern from the surveys, food/non-food ratios from the surveys and food prices from the Inquérito aos Agregados Rurais and the Consumer Price Index work. Finally the two absolute poverty lines might be used at face value. An alternative will be to use the ratio between the lines to calculate a rural version of the Perfil da Pobreza poverty line. This is a job in itself but technically possible. This option can be recommended.

- Second, a relative approach requires an urban - rural price level index. The Perfil da Pobreza and the Inquérito aos Agregados Rurais will give weights for the consumption groups; and the Inquérito aos Agregados Rurais and the Consumer Price Index might give food prices, but non-food prices are hardly available for distinct items in rural areas. One option is however to assume common non-food prices and hence develop a conservative poverty line for rural areas showing the very minimum of poor people in rural areas. This option can be recommended.
- Third, one might use a provincial study from Kwanza Sul covering both rural and urban areas in 1994/95 to approach the urban/rural differences. Again we face the “which-bias” issue. By assuming common prices we will overestimate the poverty in rural areas, but we do not know how much. Another issue is whether Kwanza Sul is representative for other provinces. While there are no reasons not to believe it being representative for provinces along the coast or may be even for all provinces with a well-established transport infrastructure, it will hardly be representative for up-country provinces with poor infrastructure and/or security. This option can *not* be recommended.

### Conclusion

In this case there appear to be available data allowing for both the two former approaches. Hence the choice is a matter of theoretical pro et contra. From an entitlement perspective we choose the absolute poverty line approach because this one use the de facto split between food and non-food, hence allowing for different contexts such as the need to buy water and charcoal etc. in Luanda but not in rural areas.

### A simplified absolute poverty line in urban areas

INE has already done unpublished work on a simplified absolute poverty line for urban areas. This presentation is based upon their work. The simplified absolute poverty line is developed as listed below and the calculations presented in table A1. It should be noted that the prices are not adjusted for the period of collection, being the first quarter of 1995. The price index for Luanda increased with respectively 39 and 32 per cent per month during that quarter. Hence, too many people interviewed in January were categorized poor and too few people interviewed in March were categorized poor. The average will hardly change if prices are adjusted, but the effects of being poor are underestimated.

- The starting points are two, the average food consumption pattern measured in KwR as registered in the IPCVP survey and the FAO recommendation for calorie requirements for an adult man doing easy work, 2100 kcal.

- Based upon the calorie content of each food item, the average price per kg as measured in the Consumer Price Index work, it is possible to calculate the average calorie consumption in the urban areas included in the IPCVD survey.
- It turns out that the facto calorie content in the food items bought is higher than the minimum requirements.
- Retaining the relative weights of each food item, it is possible to calculate the costs of a food basket needed to provide 2100 kcal based upon the same prices and calorie content.
- By adding non-food consumption you are able to present the simplified absolute poverty line for urban areas. We have used the food/non-food consumption ratio in the decile around the poverty line, which turns out to be the fourth or the 30-40 per cent decile.
- The final simplified absolute poverty line for urban areas in the middle of the field period i.e. February 1995 as outlined in table A1 is NKw 51 693 672 comprising a food element of NKw 39 282 020 and a non-food element of NKw 12 411 651.

**Table A1. Absolute poverty line for urban areas based upon 2100 kcal per adult equivalent and consumption pattern as in "Perfil da Pobreza em Angola". Prices per January - March 1995**

Food item	Weighted mean expenses	Expenses/month/ad.eq.	Kw/kg/ls	Kg/month	Kcal/100g/mls	Kcal per day	"2100" adjusted kcal	Poverty line adj. kg/month	Poverty line adj. costs/month	Food share in per cent
Meallie meal, cassava and others	0.074	4 640 334	901 111	5.150	350	600.8	374.2	3.208	2 890 483	
Maize meallie meal	0.103	6 507 923	1 104 444	5.892	360	707.1	440.5	3.670	4 053 812	
Cereal	0.018	1 135 427	717 176	1.583	360	190.0	118.3	0.986	707 262	
Bread	0.099	6 225 381	2 640 000	2.358	270	212.2	132.2	1.469	3 877 816	
Rice	0.099	6 263 329	1 275 556	4.910	370	605.6	377.2	3.059	3 901 453	
Fish	0.162	10 222 989	4 727 000	2.163	115	82.9	51.6	1.347	6 367 943	
Meat	0.059	3 734 668	7 590 000	0.492	234	38.4	23.9	0.307	2 326 340	
Green leaves	0.040	2 507 727	1 034 341	2.424	49.6	40.1	25.0	1.510	1 562 074	
Cooking oil	0.074	4 663 090	3 569 000	1.307	900	392.0	244.2	0.814	2 904 658	
Sugar	0.092	5 794 629	2 557 778	2.265	375	283.2	176.4	1.411	3 609 499	
Milk, cheese, egg	0.046	2 913 081	9 904 405	0.294	490	48.0	29.9	0.183	1 814 570	
Drinks	0.043	2 722 466	4 766 667	0.571	29	5.5	3.4	0.356	1 695 835	
Beans and lentils	0.073	4 573 672	3 131 444	1.461	340	165.5	103.1	0.910	2 848 959	
Salt and spices	0.018	1 157 988	283 333	4.087	0	0.0	0.0	2.546	721 316	
Total	1.000	63 062 704				3 371.3	2 100.0		39 282 020	
Urban extreme absolute poverty line									39 282 020	
Food share in the poverty line decile: 30-40%										76.0
Urban absolute poverty line [(1./2.)x100]									51 693 671	

**Table A2. Absolute poverty line for rural areas based upon 2100 kcal per adult equivalent and consumption pattern as in "Inquérito nos Agregados Rurais". Prices per Sep. - Nov. 1996**

Food item	Weighted mean expenses	Expenses/month/ad.eq.	Kw/kg/ls	Kg/month	Kcal/100g/mls	Kcal per day	"2100" adjusted kcal	Poverty line adj. kg/month	Poverty line adj. costs/month	Food share in per cent
Meallie meal, cassava and others	0.097	200 929	200 000	1.005	350	117.2	166.1	1.424	284 727	
Maize meallie meal	0.268	558 693	78 000	7.163	360	859.5	1 218.0	10.150	791 698	
Cereal	0.010	20 050	98 000	0.205	360	24.6	34.8	0.290	28 412	
Bread	0.033	67 224	750 000	0.090	270	8.1	11.4	0.127	95 260	
Rice	0.063	128 062	200 000	0.640	370	79.0	111.9	0.907	181 471	
Fish	0.163	333 741	194 000	1.720	115	65.9	93.4	2.438	472 928	
Meat	0.024	48 363	324 000	0.149	234	11.6	16.5	0.212	68 533	
Green leaves	0.010	21 128	100 000	0.211	49.6	3.5	4.9	0.299	29 939	
Cooking oil	0.126	256 702	500 000	0.513	900	154.0	218.3	0.728	363 760	
Sugar	0.051	104 294	250 000	0.417	375	52.1	73.9	0.591	147 790	
Milk, cheese, egg	0.002	4 933	494 000	0.010	490	1.6	2.3	0.014	6 990	
Drinks	0.045	94 548	525 000	0.180	29	1.7	2.5	0.255	133 980	
Beans and lentils	0.066	136 326	150 000	0.909	340	103.0	146.0	1.288	193 181	
Salt and spices	0.041	84 306	100 000	0.843	0	0.0	0.0	1.195	119 466	
Non-food household expenses		58 861								
Total	1.000	2 118 159				1 481.9	2 100.0		2 918 134	
Rural extreme absolute poverty line									2 918 134	
Food share in the poverty line decile: 70-80%										76.2
Rural absolute poverty line [(1./2.)x100]									3 828 567	

### A simplified absolute poverty line in rural areas

As already mentioned, Ministry of Agriculture conducted in 1996 a survey in the rural areas of 10 provinces, the Inquérito aos Agregados Rurais (IAR). This survey includes modules on the value of consumption and allows for a construction of a simplified poverty line in rural areas. Some adjustments and recalculations are however required in order to calculate a simplified poverty line for rural areas. The principle is pretty straightforward. The IAR survey includes an expenditure and consumption module and this gives both the food expenditure pattern and when we add consumption of own produce or autoconsumption we get the food consumption pattern as well. To convert expenditures to consumption and vice versa we need price information, this will usually be collected as market prices, but information on the typical prices paid by the surveyed family will also do. With information on the calorie content of each food item we can calculate the intake of calories for each adult equivalent. When we have calculated the actual calorie intake, the final step will be to calculate backwards. If a family should be able to produce and buy exactly the food needed to provide e.g. 2100 kcal per adult equivalent, what are the costs? These costs form the extreme poverty line and are the food part of the standard poverty line.

Unfortunately the data revision of the IAR data are not documented. We started from the raw data and realized that the data revision has gone further than what is common. Following the standard procedures, outliers have been replaced by a certain undocumented procedure, but in addition a lot of data imputation has taken place with procedures to smooth data variance while retaining national averages. We have rather applied a more standard procedure by just replacing outliers following strict procedures. We have chosen a very conservative approach and only replaced values above 100 times the average non-zero value with a value 1/10 of the previous value assuming that these observations have been recorded and/or key punched with an extra zero. We have applied this procedure on each food commodity group, each consumption group, overall autoconsumption, food (excl. autoconsumption), overall food, overall non-food and grand total expenditures. By applying such a conservative procedure we are deemed to revise too few observations. Since prices are based upon median and not average prices, this does not cause any bias when calculating the poverty lines. It is not likely to cause any bias in calculating the number of poor households either, but if there is a bias, it will be an *underestimation* of poverty head count, poverty gap and poverty severity and not an overestimation.

In further details, the calculations are as follows:

- First, we calculate the overall expenditures split between food and non-food.
- Second, we calculate the autoconsumption as total production minus marketed production and we assume that 0,1 per cent of maize and other relevant crops are retained for seeds.
- Third, we identify the median price paid for each food group and apply those prices to calculate the value of the autoconsumption.
- Fourth, we calculate consumption (expenditures and autoconsumption) for each food commodity group, overall food and overall non-food consumption in value terms and per cent.
- Fifth, we calculate the adult equivalents in each household by applying the following weights:
  - men 20 and above - 1.00
  - women 20 and above - 0.73
  - boys 16-19 - 1.02
  - girls 16-19 - 0,77
  - boys 13-15 - 0.96
  - girls 13-15 - 0,83
  - boys 10-12 - 0.86
  - girls 10-12 - 0.78
  - children 7-9 - 0.73
  - children 4-6 - 0.61
  - children 1-3 - 0.45
  - children below 1 - 0.27
- Sixth we calculate consumption per adult equivalent (expenditures and autoconsumption) for each food commodity group, overall food and overall non-food consumption in value terms and per cent.
- Seventh, we calculate the average consumption in volume terms - kg of each food commodity group applying the median price.
- Eighth, we calculate the average calorie consumption per adult equivalent applying the FAO calorie content list.
- Ninth, we adjust the de facto calorie consumption per adult equivalent to the standard 2100 kcal per adult equivalent and calculate backwards, the expenses needed to ensure that calorie intake. These expenses represents the extreme absolute poverty line, being an amount of KwR 2 918 134 in October 1996.
- Tenth, we identify the decile (the ten per cent group) with the same food expenditure and the average food and non-food share in this group.
- Eleventh, we apply the same food/non-food expenditure ratio as in this group and calculate the non-food share of the absolute poverty line and then the overall absolute poverty line, being KwR 3 828 567 in October 1996.
- The absolute poverty line and the extreme absolute poverty line are used to estimate poverty head count, poverty gap and poverty severity in rural areas.

The calculations are presented in table A2.

### **Comparing the Rural and Urban Absolute Poverty Lines**

As presented in table A2, the Urban Absolute Poverty Line in February 1995 was NKw 51 693 671. Adjusting for the price increase as measured by the Luanda CPI, this amount is equal to October 1996 KwR 18 034 000.

The Rural Absolute Poverty line calculated while applying the same approach is only just above 1/5. There are three potential reasons why the actual rural line is just a fraction of the urban:

- People in rural areas might have a cheaper consumption pattern i.e. providing a larger share of calories from cheap food;
- Prices in rural areas might be lower, either because the rural population consume locally produced food stuff or just that since “imported” produce have to compete with local produce, traders have only two strategies either to fix a low price in order to compete and go for a luxury good profile obtaining higher price but also low volumes.
- Prices in rural areas might have increases less than in urban areas. Without any information on trading patterns, we have no information that would allow us to learn whether this has been the case.

## Variables for classification analysis

Table B1. Variables for classification analysis presented in tree diagrams

Dependent variables			
Per cent above poverty line = better off		Per cent	%
Working in informal sector: commerce		Per cent	%
Working in informal sector: manufacturing, construction and utilities		Per cent	%
Working in informal sector: employed non-professionals		Per cent	%
Working in informal sector: professionals		Per cent	%
Salary above median for the economic active population (in the labor force)	Salary above median	Per cent	%
Poverty incidence, per cent below absolute poverty line: poor and extreme poor		Per cent	%
Poverty incidence, per cent below extreme absolute poverty line: extreme poor		Per cent	%
School attendance of children in extended school age, 6 to 16 years	School attendance of children 6 to 16 years	Per cent	%
When sick during last 2 weeks: Going for any health consultation others than own treatment	Consulting any health service		%
When sick during last 2 weeks: Going for paid treatment and/or health consultation	Paying for health consultation/ treatment	Per cent	%
When sick during last 2 weeks: Going for paid health consultation	Paying for health consultation	Per cent	%
Calorie intake per adult equivalent above 2400 kcal per day		Per cent	%
Per cent paying more than the median per cent (80%) for food		Per cent	%
Background variables			
Province (urban areas)	Province	Luanda Cabinda Huila Moxico Benguela	Lua, L Cab, C Hui, H Mox, M Ben, B
Province (rural areas) - chapter 4 only	Province	Cabinda Kwanza Norte Kwanza Sul Benguela Huambo Namibe Huila Cunene Bengo	Cab KwN KwS Ben Hua Nam Hui Cun Bengo
Agegroup of head of household	Age of head	Age in 10 years from 15 and above	Figures years, yrs, y
Agegroup of male head of household	Age of male head	Age in 10 years from 15 and above	Figures years, yrs, y
Agegroup of female head of household	Age of female head	Age in 10 years from 15 and above	Figures years, yrs, y
Gender of head of household	Gender of head	Men Women	M W
Gender of individual	Gender	Male Female	M F
Age of school-child		Age in years	Figures years, yrs, y
No of children at school age (6-16) in household			
Household resource variables			
Poverty group (Better off, moderate poor, extreme poor),	Poverty	Better off Moderate poor Extreme poor	B Poor, P Ext P
Education of husband (male head)/ father	Education of male head/ father	High education/ grade 9 + Medium education/ grade 5-8 Low education/ grade 1-4 No education	High  Low None
Education of wife (female head)/ mother	Education of female head/ mother	No male head in household As for male head	No male head, N m h

Dependent variables			
Education of individual	Education	As for male head	
Literacy in rural areas, male head	Male head: read and write a simple frase	Yes	Y
		No	N
Literacy in rural areas, female head		No male head	Missing
Economic active male head: Occupation	Occ. male head	As for male head	
		Self-employed	S-E
		Public sector	Pub
		Private formal sector	Private sector, Pri,
		Other sectors	Oth sect, Oth
		Not economic active	Non-act
Economic active female head: Occupation	Occ. female head	As for male head	
Economic active male head in rural areas: Occupation	Occupation male head	Crop farming	
		Not crop farming	
		Primary sector	Primary s
		Not primary sector	Not prim. s
Economic active female head in rural areas: Occupation	Occupation female head	As for male head	
Work experience in current job, male head	Work exp./ Period in current job, male head	Long/ 5 years or more	Long/ >5y
		Medium	Med
		Medium-short/ Less than 5 years	<5y
		Short	Short
		No male head	no
Work experience in current job, female head	Work exp. female head	As for male head	
Salary of male head of household	Father's salary	High (above median)	High
		Low (below median)	Low
		None	
Salary of female head of household	Mother's salary	As for male head	
		More dependents household members 0-14 and above 60 years than productive ones 15 - 60 years	Dependents > Breadwinners, D>B
Dependency ratio	Dep ratio	Yes	Y
Network (indicator: lived here since election in 1994)	Network	No	N

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