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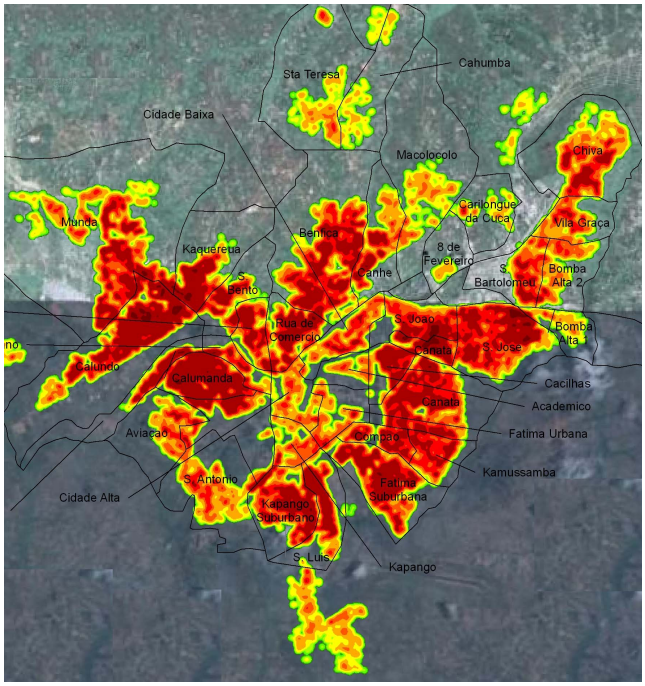
Final Report

Poverty and Environmental Vulnerability in Angola's Growing Slums

City Report for Huambo



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1 INTRODUCTION

There is a lack of reliable data about social conditions in urban areas in Angola as there has not been a full census since 1971 and only a partial census (in Luanda and Malange) in 1983. Continuous civil conflict from independence in 1975 until 2002 prevented the development of institutional capacity for data collection, analysis and planning. There are no accurate data on the population of cities, despite their rapid growth during civil conflict when the rural economy collapsed and many areas of the country were unsafe. There has been no overall view of spatial aspects of poverty and urban environmental issues in Angola cities, such as where the poor are located in relation to environmental risks, basic services and economic opportunities and what are the geographical implications of policies such as upgrading. This is despite it being known that urban poverty has a strong spatial component, and that urban planning requires geographical information on social and environmental issues.

This article reports on a research project carried out in 2009 – 2011 by Development Workshop Angola in three urban areas of Angola. These were Luanda, the capital city of Angola; Huambo, the capital of Huambo Province; and Cachiungo, the main town in the District of Cachiungo in Huambo Province. This report focuses on the research in the city of Huambo. The research used field research and new mapping techniques to, firstly, supply baseline data on the five characteristics which the United Nations uses to define slums for the Millennium Development Goals and, secondly, to explore in more depth the spatial aspects of poverty and urban environmental issues in Luanda. The five characteristics which the United Nations uses to define slums are poor security of tenure, difficult access to safe water, low levels of improved sanitation, low durability of housing structures and overcrowding. The spatial aspects of poverty and urban environmental issues that were studied were land markets and prices, housing location and transport, and flooding and erosion risk.

New techniques put within reach of NGOs or NGO coalitions or local university departments the capacity to map social conditions and analyse their spatial aspects. Remote sensing images of urban areas can identify individual buildings: counting of buildings coupled with sample surveys can give population estimates for whole urban areas and parts of those areas. Remote sensing can also show the growth of the spatial extent of urban areas. Coupled with local knowledge, remote sensing can provide the information to make a typology of sub-areas with different physical and socio-economic characteristics (based on the date of settlement, history, the distance from the city centre, service levels, street patterns and type of housing). The location of sub-areas can be identified from urban images and mapped. They can be updated as urban areas develop and change, and they permit the tracking of the rapid changes in demographics and the socio-economic situation of the population that often occur in rapidly growing cities.

The categories of settlement type identified can be more homogeneous than the administrative areas often used to divide urban areas and provide better information on the location of specific social issues and risks. In Angolan urban areas the *Municipio* administrative level is too heterogeneous to be useful in identifying issues. The lower levels of *Comuna* and *bairro* lack data and are poorly defined.

Global Positioning System instruments allow the recording of the geographical coordinates of any position where an observation is made or an interview carried out. This means that it is possible to accurately plot observations or survey results on a map and relate these to other geographical features. Indicators of social conditions (such as Millennium Development Goals indicators) obtained from sample surveys can be mapped according to different categories in a settlement typology which can assist in targeting interventions. Maps can later be produced for individual administrative units overlaid on maps of different settlement types, in order to enable the visualise conditions according to municipalities, *comunas* and *bairros*. However the ability to map the exact location of geo-referenced data from survey results or observations also provides the opportunity to explore more deeply the spatial aspects of poverty, such as how people's location with respect to services, economic opportunities or environmental risks affect their overall opportunities or vulnerability.

Angola has experienced particularly rapid rates of urban population growth since independence in 1975, particularly in Luanda (the capital city). The population of Luanda has probably grown by a factor of at least eight in the last 35 years. Luanda's urbanisation was accelerated by migration from rural years during the years of internal conflict that lasted from independence until 2002, as people sought safety from conflict in rural areas (and at times cities in the interior) and as the rural economy broke down. The city expanded mainly in self-built slums (known as musseques) with little infrastructure. At the same time, the petroleum industry developed and became an important part of the Angolan economy. Most oil-fields are offshore or onshore near the coast, along the northern part of the coast of Angola near to Luanda. Luanda has thus developed as part of the international petroleum industry, with a significant number of expatriate workers and oil company offices and installations, and has become an important economic pole. Significant parts of the rest of the economy depend on imported goods, many of which come through the Port of Luanda. An important informal economy has developed of individuals (and small and medium enterprises), which provides goods and services to the formal economy (and to people working in the formal economy) clustered around the port where goods are imported and around the formal economy and areas where formal sector employees work.

The population of the city of Huambo has probably also increased in the same period though not at the same rate. Huambo has not experienced rapid economic growth from an important economic sector such as the petroleum industry. However there has been a gradual increase in agricultural production in surrounding areas, and the re-opening of educational establishments in Huambo city has led to some increase in economic activity.

2 TYPOLOGY OF URBAN SETTLEMENTS

The first phase of the research project carried out by Development Workshop Angola was a the development of a typology of urban settlements areas with different physical and socio-economic characteristics in Huambo, based on local knowledge and examination of remote-sensing images. The characteristics used in developing this typology were the date of settlement, history of an area, the distance from the city centre, service levels, street patterns and type of housing. The location of each type of settlement was identified from urban images and mapped.

Three different settlement types were defined in Huambo. The project classified settlement and housing areas according to this typology (rather than administrative boundaries) because administrative areas are heterogeneous and are difficult to use for pinpointing areas of particular social characteristics. Administrative boundaries in the city of Huambo cut across settlement types, and each administrative area includes all three settlement types. The area of study included the whole of the urban agglomeration as recommended and defined by UN Habitat.[1] This reduces discrepancies that may exist between different administrative units and enables international comparisons of the data with other cities.

It should be noted that different typologies of urban settlements need to be developed for each city that is studied using these techniques. It should also be noted that the typology will change with time, as new urban areas are developed or upgraded, or their residents make changes or move to other areas. The typology developed for Luanda is specific for that city at the time of the research. Development Workshop has carried out similar research in other cities in Angola and used different typologies in those cities. It has adapted the typology used in Luanda as some parts of poor areas have been upgraded and have become significantly different from other areas in that category.

Remote sensing was used to identify the settlement types All areas were mapped into different zones based on satellite images. Informants who are familiar with the urban layout of the city were then requested to identify and categorize each type of development. The typology was based on urban form and types of housing, which reflect different socio-economic conditions as well as the levels of access to basic services. Zones with similar physical structure which were built during the same period generally have a similar level of population density, tenure security, housing quality and access to urban infrastructure and public services such as piped water and sewage system, though (as noted above) the development of the typology and categories of urban areas need to be sensitive to changes such as upgrading, and the movement of different groups of people into and out of areas. The typology that was developed for the research included the following settlement types.

1 Formal housing. Housing made of durable building materials laid out according to an urban plan. Infrastructure for water and other services, though operation in practice may be erratic.

2 Informal housing. Unplanned housing areas without services, with a variety of building materials (often adobe).

3 Semi-formal housing. An intermediate category. Older housing in this category dates from the colonial era and consists of small houses in durable materials with some basic service infrastructure, though operation of services in practice may be erratic. More recently (from 2006 onwards) other areas in this category have appeared. Plots have been made available by the State on which plot-holders can build their own house. There is better security of tenure and more likelihood of services being provided in future than in informal settlements. Figure 2.1 shows the geographical distribution of these settlement types in Huambo.

[1] "The urban agglomeration is defined as the built-up or densely populated area containing the city proper; suburbs, and continuously settled commuter areas. This may be smaller or larger than the metropolitan area." UN Habitat, Urban Indicators Guidelines, August 2004.

3 DEMOGRAPHY

There has been no census of the population of Huambo since Independence. Considerable uncertainties exist about the number of people living in the ciity and its various subdivisions. A demographic analysis was therefore carried out by calculating the population in different settlement typologies and different administrative areas using remote sensing.

1. Quickbird satellite images were used to digitize all visible roofs in the whole City of Huambo as point objects, locating approximately 48,000 individual households.

2. Each household was assumed to have 6 residents or family members based on data obtained from a survey of 400 random households during the 2008 survey of water supplies and demands.

3. The number of roofs in the city was plotted using ArcView GIS software and then multiplied by the average number of members of each household (6 people).

A different method was used for apartment buildings in the formal area of the city. Apartments in the lower city (cidade baixa) had been counted by a group of researchers. The team counted all apartments in the upper city (cidade alta) and multiplied this number with nine which is the medium number of household members according to the household survey questionnaire.

The following number of households and estimated population were recorded in each type of housing zone:

Estimated number of people in each housing type in Huambo

Zone	Household	Population	% of total
Formal housing	4093	24558	8%
Semi-formal housing	1263	7578	2%
Informal housing	43,828	262,968	89%
Open space	303	1,818	1%
Total	**49487**	**296922**	100%

By plotting this information in ArcView, a map was created with the number and population density for the City of Huambo. The map shows the results of this analysis with high density areas in red, medium density areas in yellow and low density areas in green. The areas within the urban perimeter, but without any population are industrial zones, military areas, graveyards, Benguela railway infrastructure, green zones, rivers, recreational areas, hospitals, schools and universities.

The mapping indicates a growth in the population of Huambo and in the urban area of the city. This is occurring through in-filling at the edge of the formal urban area, the creation of semi-formal areas through sites-and-services projects in various parts of the city, and through infilling in informal housing areas.

4 UN MDG CHARACTERISTICS OF SLUMS

4.1 Millennium Development Goals

The United Nations uses five characteristics to define slums for the Millennium Development Goals: poor security of tenure, difficult access to safe water, low levels of improved sanitation, low durability of housing structures and overcrowding. The MDG 11, developed by UN Habitat, aims to achieve a significant improvement in the lives of 100 million slum-dwellers world wide. It has been accepted by the Angolan Government as a basis for monitoring their performance on their stated policy for post-conflict reconstruction and shelter provision. Similarly the government's programme of providing "Water for All" essentially aims at attaining the MDG standard of equitable access to water. MDG-compatible indicators are a useful tool for Government policy development and planning.

In the definitions for the MDG 11, a slum is a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. A slum household is a group of individuals living under the same roof that lack two or more of the five conditions.

Indicators were developed for this research to measure these characteristics in each of the three urban settlements types, after requests from the Ministry of Urbanism for monitoring of progress towards the Millennium Goals. A three-point rating scale was used to evaluate each settlement type on each slum indicator. A score of 1 was used to indicate "best conditions"; while a score of 3 was used to indicate "worst conditions" and a score of 2 was used to indicate "intermediate conditions".

A simple questionnaire was used to collect data in each of the settlement types and this was supplemented with group discussions and observations to check the results. Field research was carried out for each of the five indicators in the form of household surveys, focus group discussions with local people and government representatives and field observations. Information on access to water and basic services, housing quality and location and the number of people per household was collected by carrying out a household survey in Huambo. Household surveys were carried out in each of the three settlement types. The data should not be considered as statistically significant for each settlement type, but give a good indication of the situation in each typology.

4.2 Secure tenure

Secure Tenure is the right of all individuals and groups to effective protection by the State against forced evictions. Women should have full and equal access and rights to inheritance and to ownership of land and other property. Individuals who have secure tenure have:

1 Documentation that can be used as proof of secure tenure status, such as:
formal title deeds to either one or both of land or residence;
enforceable agreements or any document as a proof of a tenure arrangement;
formal rental contracts (tenant households);
customary tenure;
tax payment documents (property tax, municipality tax, etc.);
customary tenure who possess utility bills.

2 Evidence of de facto or perceived protection from forced evictions which is the proportion of household-heads who believe that they will not be evicted from their present residence within the next five years.

Angolan regulations specify that urban land tenure can only be conceded on the basis of the existence of urban physical plans. Current state policy indicates that settlements that are not urbanized should be upgraded and tenure is unlikely to be granted before this process of urbanization takes place. Master plans do not exist for all urban areas in Angola at the time of writing. For the purpose of measuring this indicator therefore, housing that is in already existing

urbanized zones may be considered to have secure tenure and settlements that can easily be upgraded or can be “urbanized” without evicting existing residents may also be considered to have an intermediate level of tenure security. Informal settlements that do not demonstrate patterns that can be easily urbanized can be considered to have insecure tenure.

Table 4.2 shows the definitions of the three scores for this indicator. Table 4.10 shows the secure tenure score for each settlement type.

Security of land tenure in Huambo varies between the three types of settlement. Households in formal areas usually have documents to show their occupation rights (though rarely do they have a complete set of documents). Semi-formal settlements have a planned layout that is upgradable, and some households have documents, even though incomplete. The majority of households in informal areas rely on verbal agreements and witnesses to show their occupation rights; these areas do not have planned layouts and would be difficult to upgrade.

4.3 Access to Improved Water Supply

According to UN Habitat, a household is considered to have access to improved water supply if it has sufficient amount of water for family use, at an affordable price, available to household members without being subject to extreme effort, especially to women and children. Affordability means that water should not take an undue proportion of the household income, i.e. less than 10%. A sufficient quantity means that water should be available at a quantity of at least 20 litres per person per day. Water should be accessible without excessive efforts and should not take an undue proportion of the household’s time (less than one hour a day for the minimum sufficient quantity of at least 20 litres per person per day).

The proportion of households with access to improved water supply includes households with:

- Direct connection (piped water) to the dwelling or plot;
- Access to public stand pipe within 100 meters of the household;
- Access to non-piped water from:
    - Protected bore-hole or dug well with pump;
    - Protected spring.

“Not improved” water supply is: an unprotected well, unprotected spring, vendor-provided water, bottled water (based on concerns about the quantity of supplied water, not concerns over the water quality), and tanker truck-provided water.

Thus, neither households who are connected to public water pipes that only function occasionally, nor households who have access to water in abundant quantities from an unprotected well, nor people who have the financial means to regularly fill their private tank with water from a cistern truck, are considered to have a sustainable access to an improved water source. The score of this indicator is based on the main water source, although existing detailed information gathered by DW on water price and location of water sources will also be examined.

Connection to the public water pipes and public water taps are considered improved sources according to UN Habitat. The informal water market and unprotected wells are considered as unimproved sources. However, public water pipes and standpipes become unsustainable when they are not working which in many cases happens frequently, so that people have to resort to a secondary (unsustainable) water source. The informal water market is an unsustainable source of water both because of the price people have to pay, the effort and time spent on accessing water and because people can not depend on this source as a stable source of water.

The high water table in most areas of Huambo means that traditional wells are a common source

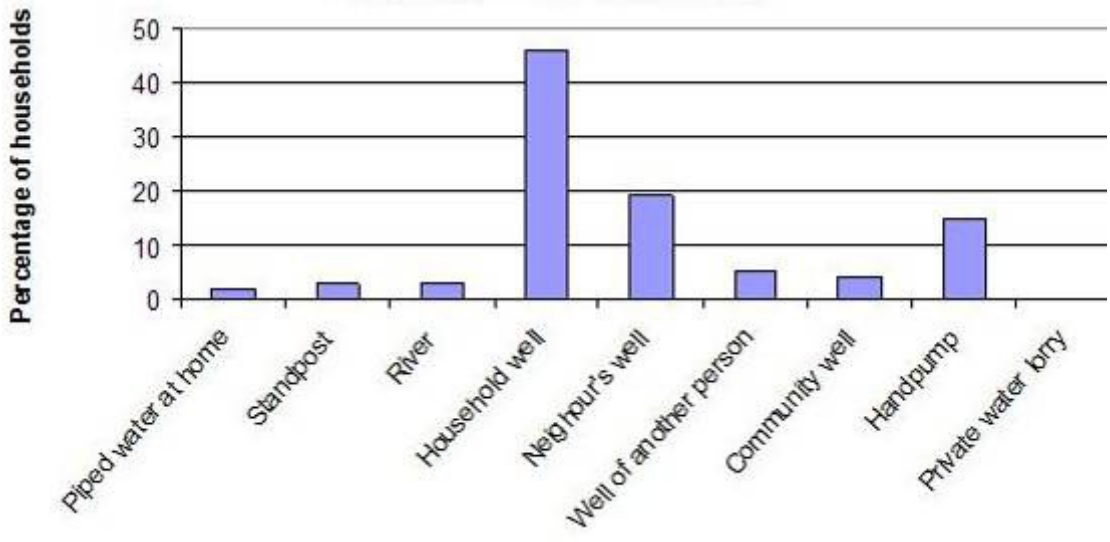
of water. Delivery of water by truck only occurs at the peak of the dry season. The residents of the City of Huambo have access to three principal sources of potable water:

Domestic connection to the public water system
Public water taps (chafarizes)
Protected wells and boreholes with manual pumps (cacimbas melhoradas com bombas manuais)

Public water taps and improved water pipes with manual pumps have the same ranking as they provide similar access to water based on two different technologies.

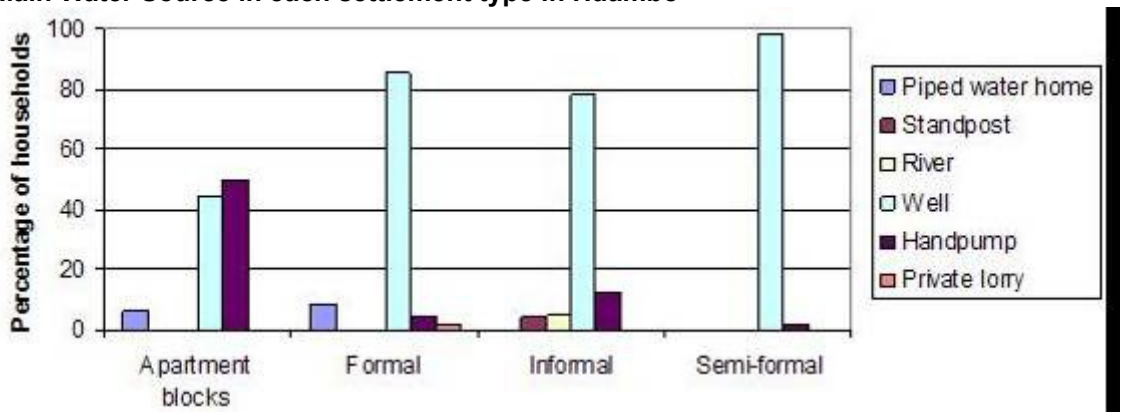
The main water source for the majority of households in Huambo is traditional wells, as 46% of households have their own well, and another 28% of households use a neighbour's well. Another main water source used by more than 10% of households are protected wells or boreholes with manual pumps mostly built by NGOs such as the Red Cross and Development Workshop during the war.[2]

Main Source of Water in Huambo



The following graph demonstrates the main source of water according to types of housing which reflect settlement typologies besides apartment blocks that are located in formal settlements.

Main Water Source in each settlement type in Huambo

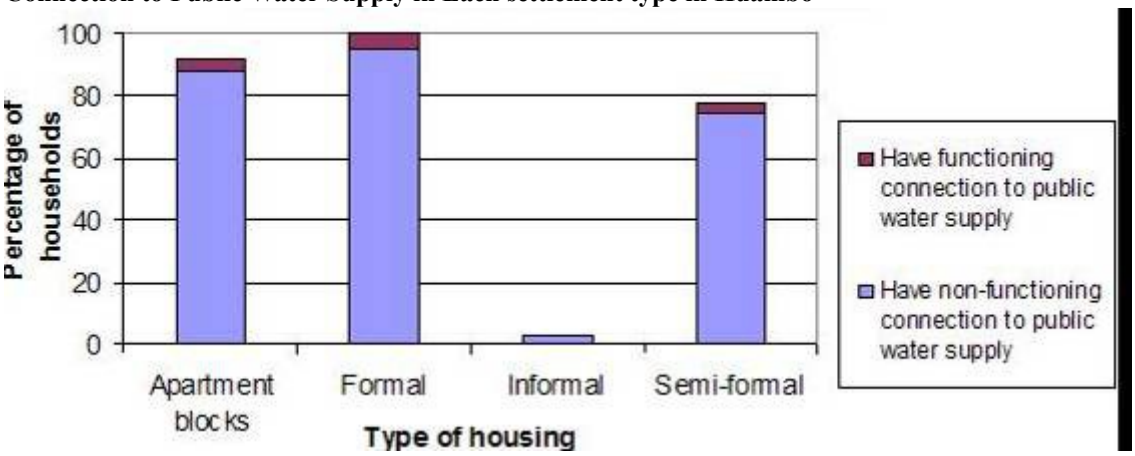


Traditional wells are the most frequently mentioned main source of water, by far, in all types of housing except apartment blocks where the main source of water are manual pumps. In Huambo,

[2] Development Workshop, *Beneficiary Willingness & Ability to Pay Assessment for Water Services in Huambo*, May 2008.

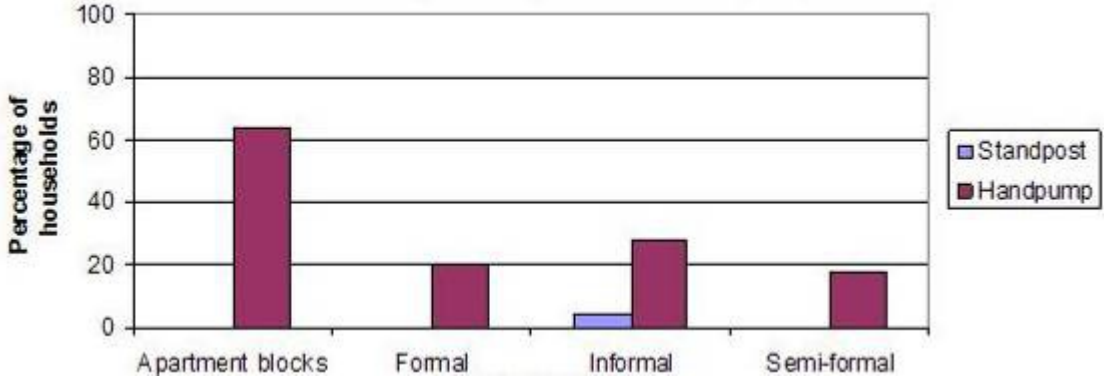
manual pumps are an important alternative source of water, particularly during the dry season when traditional wells dry up. The river is also an important source of water in the dry season. Standpipes, which provide similar access to water as manual pumps are not as common in Huambo as in Luanda. The public water pipes are only mentioned as a main source of water in a small part of formal settlements. Only 3.25% of households in formal settlements have functioning piped water and another 32.5% have a connection to piped water that does not supply water.

Connection to Public Water Supply in Each settlement type in Huambo



Manual pumps, which provide water from protected wells, are much more common in Huambo than public water taps (standposts). During the war, NGOs (the Red Cross and Development Workshop) funded programmes for the digging of wells and installation of manual pumps in formal and informal parts of the city. In some areas, where water could only be found at a certain depth or water in the upper levels of the soil was of poor quality, boreholes with manual pumps were installed. These programmes of wells and boreholes are managed by a committee which has a small fund with contributions from the users to guarantee operation and maintenance. [3]

Access to Standposts or Manual Pumps in each settlement type in Huambo



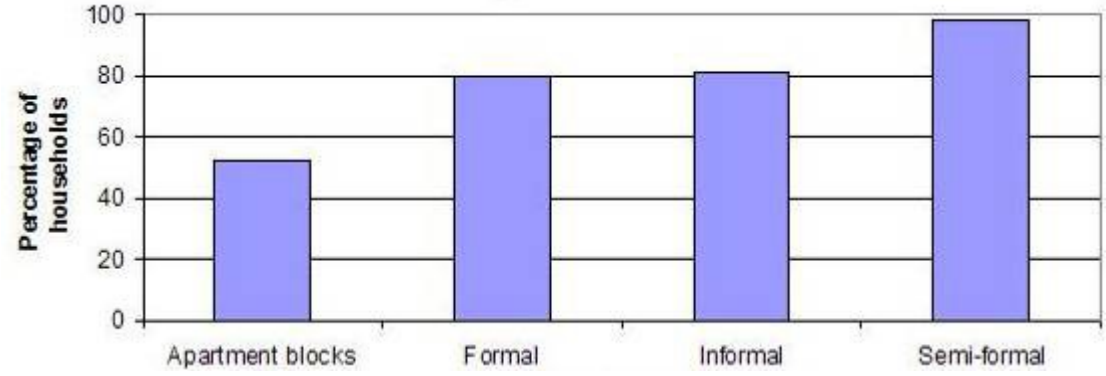
In 2008, there were more than 190 improved water points with manual pumps in Huambo, the majority of which were constructed by DW as of 1997. There are only 21 public water standpipes in Huambo, which were financed by the provincial government in 2007 and 2008, as illustrated on the following map. Of these 21 taps, only 13 were operational in May 2008, which means that eight taps were still not connected to the public water network.

A large portion of the population in the peri-urban areas is located close to the improved pipes or taps. However, there are still vast areas where the only water source is traditional wells which may be contaminated due to deficient sanitation and possibly spread diseases such as cholera. Almost all households in semi-formal settlements use traditional wells and a vast majority in both formal

[3] Development Workshop, *Beneficiary Willingness & Ability to Pay Assessment for Water Services in Huambo*, May 2008.

and informal settlements (see the following graph). [4]

Access to Traditional Wells in settlement type in Huambo



It is likely that households will continue to use traditional wells given the easy access it provides to water and the lack of alternatives. When households do not have their own well, they very often have access through the well of a neighbour, or a community managed well, usually free of charge. Water is generally free in the city of Huambo and residents generally feel that it is inappropriate to charge other households for water.[5]

The main benefit of having a well is its proximity to the dwelling (a mean distance of 50 metres), which makes it easily accessible. Only domestic connection to public water pipes is closer to the house. The mean distance to other sources of water is significantly more, particularly to standpipes (600 metres), which are located in sparsely populated areas to the north of the city. The mean distance to the main water source is greatest for apartment blocks in the formal part of the city, which are the least likely to have a household well and where people generally have to walk to a manual pump to obtain water. [6]

Mean Distance to the Main Source of Water in Huambo

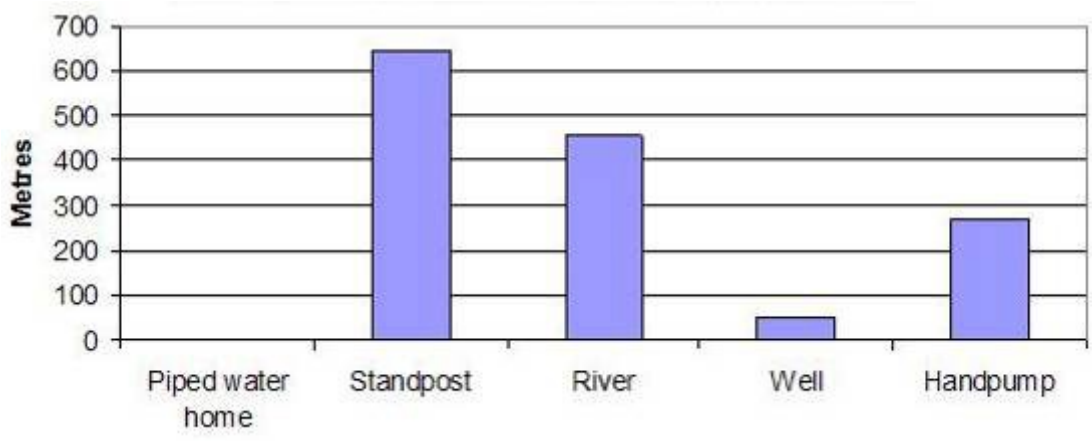


Table 4.3 shows the definitions of the three scores for this indicator. Table 4.11 shows the Safe Water Access score for each settlement type.

4.4 Adequate Sanitation

A household is considered to have adequate access to sanitation, if an excreta disposal system,

[4]Development Workshop, *Beneficiary Willingness & Ability to Pay Assessment for Water Services in Huambo*, May 2008.

[5] Development Workshop, *Beneficiary Willingness & Ability to Pay Assessment for Water Services in Huambo*, May 2008.

[6] Development Workshop, *Beneficiary Willingness & Ability to Pay Assessment for Water Services in Huambo*, May 2008.

either in the form of a private toilet or a public toilet shared with a reasonable number of people, is available to household members.

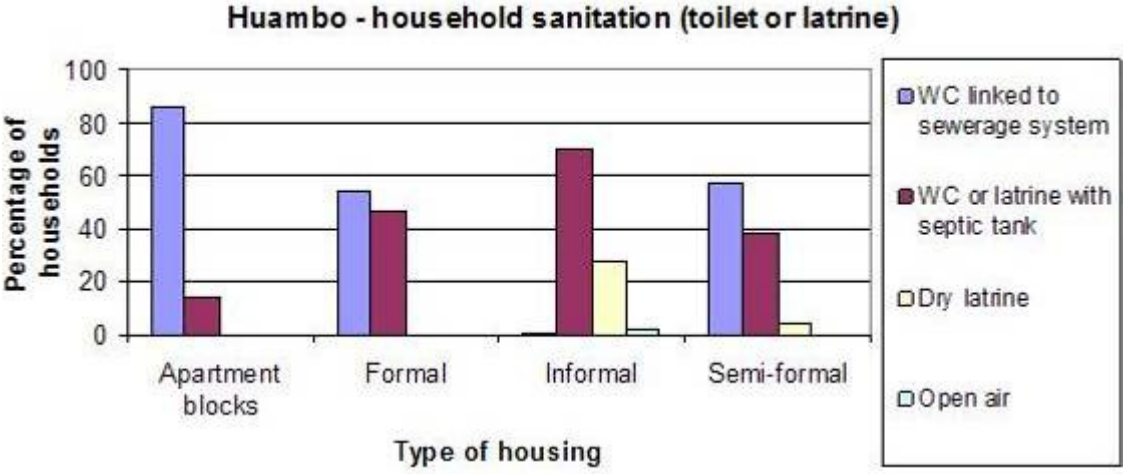
Adequate sanitation facilities include the proportion of households with:

- a direct private public sewer connection (to the dwelling or plot) or a septic system (with sufficient capacity in order not to be clogged);
- a pour flush latrine, private or shared between a maximum of two families (not public);
- an improved pit latrine, private or shared (not public).

Inadequate sanitation includes service or bucket latrines (where excreta are manually removed), public latrines, and latrines with an open pit. It also includes a sewage system or septic tank which does not have sufficient capacity or a sanitation facility that is used by more than two households. Sanitation facilities were divided into the following three hierarchically ranked categories.

The majority of households in formal settlements have a toilet that is linked to the sewage system. The only other sanitation facilities used in these areas are septic tanks, which are also considered to be improved sanitation. The situation is quite similar in semi-formal settlements, although there a small portion of households use dry latrines, which are not considered very hygienic. The most common sanitation facility in informal settlements are septic tanks, but a considerable part of households have dry pit latrines and some do not have access to any sanitation facilities and defecate in the open air (1% of the overall number of households).[7]

Sanitation Facilites in Each Typology in Huambo



One of the main sanitation risks in Huambo are waterborne diseases such as cholera due to deficient sanitation which contaminates the upper level of the soil and water table and consequently shallow traditional wells. This occurs in particular where latrines are located close to the wells or where septic tanks are emptied on the surface (in gardens or waste land) and left there while it dries and stabilises before being used in fields and gardens. Such diseases also occur in very poor areas where households whose main source of water is a river defecate in the open air. Observations also suggest that there still exists a low awareness among some of the population in relation to risks of water consumption from traditional wells and rivers.

Table 4.4 shows the definition of scoring for Sanitation Facilities.

UN Habitat also recommends using as an indicator the regularity of solid waste collection, defined as the “proportion of households enjoying weekly solid waste collection,”. Solid waste poses considerable threat to human sanitary conditions by blocking drains and breeding flies which spread diseases such as malaria and dengue. Further, according to UN Habitat “regular solid

[7] Development Workshop, *Beneficiary Willingness & Ability to Pay Assessment for Water Services in Huambo*, May 2008.

waste collection is a clear indicator of the effectiveness of a municipal administration."[8] Stagnant water ponds due to non-existent or deficient sewage and rain water drainage systems also add to sanitation problems in many bairros.

For this project solid waste removal was divided into three categories:

regular/door-to-door collection,
irregular waste collection from containers or local garbage dumps which is provided in some bairros which are easily accessible by waste removal trucks,
no services.

Table 4.5 shows the definition of scoring for Solid Waste Removal. Table 4.12 shows the Adequate Sanitation Score for each settlement type, calculated as the mean of the scores for Sanitation Facilities and Solid Waste Removal.

Solid waste removal is very efficient in the formal part of Huambo with garbage bins and containers on practically every street corner. Thus, the city centre is much cleaner than Luanda. Solid waste removal is less regular in semi-formal settlements, although garbage is generally not a serious sanitation problem in these areas. On the other hand solid waste removal is completely lacking in most of the informal settlements where garbage can cause severe sanitation risks.

The following table demonstrates the scores of each sanitation sub-indicator according to settlement typology in Huambo.

4.5 Overcrowding

A house is considered by UN Habitat to provide a sufficient living area for the household members if not more than three people share the same room. This is a key indicator measuring the adequacy of the basic human need for shelter. Reduced space per person is often associated with certain categories of health risks and therefore considered as key criteria to define the slum.

Overcrowding is associated with a low number of square meters per person and high occupancy rates with large numbers of persons sharing one room used for cooking, sleeping, and other household activities. A room is defined as a space in a housing unit or other living quarters enclosed by walls reaching the floor to the ceiling or roof covering, or to a height of at least two meters, of an area large enough to hold a bed for an adult, that is at least four square meters. The total number of types of rooms therefore includes bedrooms, dining rooms, living rooms, studies, habitable attics, servants' rooms, kitchens and other separate spaces intended for dwelling purposes.

Estimates based on remote sensing using satellite imagery and sample questionnaires, the total population of Huambo is around 300,000 people with approximately 265,000 people (89% of the total population) in the informal settlement areas.

In Huambo it was found that the number of people per room is very rarely 3 or more (only 4% of households in informal settlements). Remote sensing showed that there were no areas with a population density of over 500 people per hectare inn formal and semi-formal housing types and some areas of informal settlements with this population density. No settlement type has been identified as overcrowded in its entirety. Population data was scored on a three-point scale from low to high density. In order to accurately measure population density for each typology, obvious open spaces, vacant lots and commercial or industrial areas were removed.

It should be emphasized that low density is not necessarily the most desirable form of settlement, since residents of such areas often need to travel long distances in order to reach services such as water and health and schools facilities. However, when settlements have reached population

[8] United Nations Human Settlements Programme (2004) *Urban Indicators Guidelines – Monitoring the Habitat Agenda and the Millennium Development Goals.* http://ww2.unhabitat.org/programmes/guo/documents/urban_indicators_guidelines.pdf

density which can be considered as overcrowding, the advantages linked to high density are diminished by factors such as competition for scarce resources and health risks due to a lack of sanitation facilities and services.

Table 4.6 shows the definition of scores for Overcrowding. Table 4.13 shows the Overcrowding score for each settlement type.

4.6 Housing Quality

According to the UN Habitat definition of durable structures, "a house is considered 'durable' if it is built in a non-hazardous location and has a structure permanent and adequate enough to protect its inhabitants from the extremes of climatic conditions such as rain, heat, cold and humidity." According to the UN, the right to adequate housing is an important factor in order for people to have an acceptable standard of living as promoted by the Universal Declaration of Human Rights in 1948 and the International Covenant on Economic, Social and Cultural Rights from 1966. Non-durable structures, which do not provide adequate protection from the elements, and expose residents to high morbidity and mortality risks, are one of the components that define a slum. [9]

The following durability factors should be considered when categorizing housing units:

- Quality of construction (e.g. materials used for wall, floor and roof);
- Compliance with local building codes, standards and by-laws.

This research has focused on the first of these two components as the majority of housing in Huambo is located in unplanned areas and does not comply with any kind of building codes or by-laws. It is not easy to define durable structures, since this indicator depends on many different factors such as building material, maintenance and climate. A building that may be durable in one area might not be durable in another area that is prone to geological or climate related hazards such as earthquakes or floods. Further, some of these factors, such as construction quality and maintenance are not easily measurable.

Thus, the main indicators used to determine the status of durable structures was housing building material, roof material and floor material. Manufactured cement blocks, which are the most common building material in Angola, are considered quite durable. Other materials that are used are: ceramic bricks (tijolos), adobe bricks, wood, corrugated iron and traditional cement (pau-a-pique). Table 4.7 shows the definition of scoring for building materials.

In the city of Huambo, the majority of houses constructed during the colonial era were made of brick and have a roof of corrugated iron or asbestos sheets. Houses built since 1975 have been built of adobe or cement blocks. In informal areas the majority of houses are built of adobe, which is cheaper. However in some areas there is not enough earth left with which to make adobe, so new houses are made of cement despite the higher cost.

Roof material, which is also considered an important indicator of the durability of dwellings and the financial means of its inhabitants, was scored separately. Corrugated iron is by far the most common roof material in Luanda. However, the state of these roofs varies greatly, some are well maintained and have weather proof insulation while others have started to rust and have holes in them. Corrugated iron can makes dwellings very hot during the warmest season unless it is well insulated. Therefore, it is difficult to estimate the durability of a structure based on roof material only. It mainly helps to identify the most durable dwellings that have roofs made of ceramic tiles or cement and the poorest dwellings with grass roofs from the rest. There are very few houses with thatched roofs in Huambo. Ceramic tiles are the most common roof materials in the formal and semi-formal areas of the city.

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[9] United Nations Human Settlements Programme (2004) *Urban Indicators Guidelines – Monitoring the Habitat Agenda and the Millennium Development Goals.* http://ww2.unhabitat.org/programmes/guo/documents/urban_indicators_guidelines.pdf

Flooring material, which people put a lot of effort into improving as it improves the quality of housing, was scored separately. Table 4.9 shows the definition of scoring for flooring materials. Paved floors are much less common in Huambo than in Luanda. The majority of housing in informal and semi-formal settlement types has dirt floors.

4.7 Combined MDG Indicator Scoring

The scoring for all five Millennium Development Goals characteristics of slums was combined so as to create an overall characterisation for each settlement type and to assess the contribution of each factor to poor living conditions. Each factor was weighted on the basis of importance given to it by residents in focus groups discussions.

Secure tenure	15%
Access to Improved Water Supply	40%
Adequate Sanitation	25%
Overcrowding	5%
Housing Quality	15%

Table 4.16 shows the overall Millennium Development Goals 11 score by settlement type. The overall score for Huambo as a whole is 2.42. This is a low score, approximately half way between “worst conditions” and “intermediate conditions”. There are large disparity between, on the one hand, formal housing areas which have a score of 1 (though they account together for only 8% of the population of the city) and, on the other hand, the informal areas which have a score of more than 2.5 (and together make up more 90% of the population of Huambo). Informal settlements have a score of 3 (worst conditions) on 3 out of the 5 factors.

The factor which contributes most to the poor overall score in Huambo are tenure and sanitation: tackling these issues would have the greatest impact on conditions. Overcrowding and access to safe water is the least important factor. Water is not an important factor in Huambo because of the availability of water from household wells that take water from a water-table that is near the surface. However it should be noted that the quality of this water ought to be monitored, and that the northern part of the city of Huambo does not have easily accessible water near the surface.

In Luanda it is only in newly-settled areas that households use flimsy building materials and have not provided themselves with pit latrines. In Huambo adobes and lack of sanitation occur even in long-settled areas. This suggests a lower level of household financial resources that prevents upgrading of these household assets even over the long term.

This methodology, using simple indicators based on the Millennium Development Goals and applied to a typology of urban settlement types, proved to be useful in identifying geographical areas which lagged behind on Millennium Development Goals and in which areas, provided that care is taken with the definition of settlement types. However other spatial aspects of poverty in urban areas are less suited to an approach based on categories of settlement types. While there is some correlation between settlement types and these issues, other factors are more important. Environmental issues tend to occur in specific small areas and there is a large variation within settlement types. Similarly questions related to people’s physical accessibility to economic opportunities are difficult to fit into the framework of settlement typologies because parts of a settlement typology may be more distant from economic opportunities than other parts. Land values do not vary directly with settlement type and have a relationship with accessibility and environmental risks. Development Workshop therefore carried out a further phase of research, focusing on these issues outside the framework of the typology of settlement types.

Table 4.1 Settlement types

Typology	**Population**	**% of total population**
Formal	24,558	8%
Semi-formal	7,578	3%
Informal	262,968	89%
Open space	1,818	1%
TOTAL	**296,922**	**100%**

Table 4.2 Definitions of scores for Secure Tenure indicator.

Score	**Type of settlement**	**Description**
1	Organized/planned settlements	Planned settlements that generally have access or allowances for public infrastructure and where the majority of the population already has secure or provisional tenure. People living in these areas also have more tenure security than residents of zones which are at risk of being demolished “for public use” such as the construction of major streets or because they are located in environmentally hazardous areas.
2	Upgradable settlements	An aligned street pattern where public infrastructure, such as sewers, water pipes and electricity, can easily be installed. Residents in these areas can be considered to have more secure tenure, as these zones are generally well organized, and can be upgraded and urbanised without demolition of housing.
3	Unorganized settlements	Settlements with an unorganised urban layout and built without an aligned street pattern are difficult to upgrade with urban services. These settlements often need reorganization before the instalment of service infrastructure and have a higher risk of demolition therefore tenure is not secure. If such zones are located in environmentally hazardous locations their tenure is highly insecure.

Table 4.3 Definitions of scores for Improved Water Supply indicator.

Score	Water source	Description
1	Connection to public water pipes	Some households in Huambo, located close to the centre of the city, obtain water through their own piped connections to the formal water supply network. These households often pay very low or flat rate fees to the water company even though they have better access than people who have to buy water through the informal sector.
2	Public water taps (chafariz) or Improved water pipes with manual pumps	Public water taps or standpipes in Luanda and manual pumps in Huambo are built by the public water company EPAL, EPHAS or NGOs within neighbourhoods that have an available connection to the water pipeline. Access to standpipes tends to be in pockets as standpipe projects usually cover only very limited geographical areas and serve about 1,000 people each within 100 meter radius. Sometimes people walk relatively long distances with heavy loads of water in order to get water from a stand pipe. The water from these pipes is normally paid for through the committee which manages and maintains the manual pump and collects a contribution from the consumers to maintain and sustain the system.
3	No access to safe water (the informal water market or traditional wells)	According to UN Habitat the informal water market, which sells water from cistern trucks or private water taps or tanks for market price, and unprotected wells with low quality water, can not be considered sustainable or improved sources of safe water. Traditional wells are the main source of water for the overwhelming majority of households in Huambo. This is an easily accessible source of water that supplies sufficient water for most of the year. However, the wells are unprotected and the water can not be considered safe.

Table 4.4 Definition of score for sanitation facilities

Score	Sanitation Facilities	Description
1	Connection to the sewage system	There exists no sewage system in Huambo or Cachiungo
2	Septic tanks (fossa septica)	Septic tanks which are considered to be improved sanitation facilities are very common in Angolan urban areas
	Improved dry pit latrines (latrina seca)	Improved pit latrines such as poor-flush latrines and ventilated improved pit latrines are considered to be adequate sanitation facilities.
3	Inadequate or No facilities	Uncovered pit latrines and public latrines are considered inadequate. In some areas people do not have access to any kind of sanitation facilities and are therefore forced to using measures such as a bucket or an open pit in the ground (‘poço roto’), or sometimes use rubbish deposits or vacant lots or a grassy field, which poses serious public health risks to the neighbourhood.[10]

Table 4.5 Definition of scores for solid waste collection

Score	Solid Waste Collection	Description
1	Regular	Regular waste removal services at least once a week are only available for populations located in planned urbanised areas of the two cities.
2	Irregular	Communal rubbish deposits in the form of neighbourhood level containers and ”irregular” waste removal services are offered in some aligned musseques which are easily accessible by waste removal trucks. However, these are usually not door-to-door services and people normally have to carry their rubbish a distance to deposits on main streets where the trucks pass by.
3	No services	In most of the unaligned musseques there is no solid waste collection and rubbish piles up and breeds insects which pose sanitation risks to the population. In these areas people have to take care of their garbage themselves, either by burying it, burning it or by simply leaving it out on the street in informal rubbish deposits (lixeiras salvagems).

[10] Information obtained from sample inquiries on the access to water and basic sanitation conditions for a baseline study for the urban observatory (Estudo de base do observatório urbano).

Table 4.6 Definition of scores for Overcrowding

Score	Population per km^2	Density pop/Ha.	Description
1	Low density	< 100	Formal and semi-formal areas of Huambo
2	Medium density	100 – 300	Informal settlements of Huambo, some areas of overcrowding
3	High density	300 >	No areas in Huambo

Table 4.7 Definition of scores for building materials

Score	Building material	Description
1	Tijolos (ceramic bricks)	The most expensive building material
	Cement blocks	The most common building material: provides adequate protection from wind and rain
2	Adobe (un-burnt clay bricks)	A common building material in the provinces outside of Luanda, which, if used in the right way, provides sufficient protection from wind and rain
	Wood	An uncommon building material,
3	Pau-a-pique	A traditional mixture of wood and clay, which, if properly maintained, provides sufficient protection from wind and rain, but rarely used in recent construction due to the lack of resistant wood.
	Corrugated iron	Low quality building material that is not durable and does not provide sufficient protection from wind and rain.

Table 4.8 Definition of scores for roof materials

Score	Roof material	Description
1	Ceramic tiles (telhas)	The most expensive roof material, used formal areas of Huambo
2	Corruagated iron (chapas de zinco ou de lausalite)	The most common roof material which, if well maintained, provides moderate protection from wind and rain. Asbestos cement sheets are known to be a health risk.
3	Thatch roofs (capim)	Low quality roof material that is not durable and does not provide sufficient protection from wind and rain unless it is maintained very regularly. Thatch roofs are a clear indicator of limited financial means and are rarely used in urban areas

Table 4.9 Definition of scores for flooring materials

Score	Floor material	Description
1	Covered floors (mosaic, wood or taco)	Paved floors are a good sign of well-being. The most common floor material is mosaic.
2	Cement floors	Most people try to put together enough money to cover their floors with cement in order to provide some insulation from the weather and to keep insects and other pests from entering the house.
3	Dirt floors (terra batida)	Dirt floors are common in Huambo. Dirt floors do not provide any kind of insulation from rain and cold and can therefore cause health risks for household members.

Table 4.10 Secure Tenure score for each settlement type

Settlement type	Type of settlement	Population	% of total population	Score
Formal	Planned/organized	24,558	8%	**1**
Semi-formal	Upgradeable	7,578	3%	**2**
Informal	Unorganized	262,968	89%	**3**
Open space		1,818	1%	
TOTAL		**296,922**	**100%**	

Table 4.11 Access to Improved Water Source score for each settlement type

Settlement type	Water source	Population	% of total population	Score
Formal	Connection to public water pipes, manual pumps and traditional wells	24,558	8%	**1**
Semi-formal	Traditional wells	7,578	3%	**3**
Informal	Traditional wells, manual pumps and standposts	262,968	89%	**2**
Open space		1,818	1%	
TOTAL		**296,922**	**100%**	

Table 4.12 Adequate Sanitation Score for each settlement type

Settlement type	Sanitation facilities	Score	Solid waste removal	Score
Formal	Sewage system or septic tanks	**1**	Regular	**1**
Semi-formal	Pit latrines or septic tanks	**2**	Irregular	**2**
Informal	Pit latrines or occasionally septic tanks and some without any facilities	**3**	No solid waste removal services	**3**

Table 4.13 Overcrowding score for each settlement type

Settlement type	Area Km^2	Population	Density Pop/Ha	Overcrowding	Score
Formal	15	24,558	16.87	No areas of overcrowding	**1**
Semi-formal	1	7,578	76.22	No areas of overcrowding	**1**
Informal	29	262,968	91.56	Some areas of overcrowding	**2**
Open Space	122	1,818	0.15		
Total	**167**	**296,922**			

Table 4.14 Housing Quality Score for each settlement type

Settlement type	Building material	Score	Roof and floor material	Score
Formal	Tijolos and cement blocks	**1**	Telhas and corrugated iron	**1**
Semi-formal	Cement blocks and adobe bricks	**2**	Corrugated iron	**2**
Informal	Adobe bricks (and approximately 5% cement blocks)	**3**	Corrugated iron and thatched roofs	**3**

Table 4.16 Overall MDG 11 score by settlement type

Settlement Type	Score	Score	Score	Score	Score
	Secure tenure	**Access to safe water**	**Access to improved sanitation & solid waste removal**	**Over crowding**	**Durable structures**
Formal	**1**	**1**	**1**	**1**	**1**
Semi-formal	**2**	**3**	**2**	**1**	**2**
Informal	**3**	**2**	**3**	**2**	**3**
Population Weighted Average	**2.81**	**1.89**	**2.81**	**1.89**	**2.18**

7 Land markets

7.1 Objectives

The objectives of this section are to understand the dynamics of urban land markets in Huambo city. Land is an active ingredient in the economic strategies of poor people. All urban dwellers need secure access to land on which to live and be productive. For poor families, housing, and the land they occupy, can represent their accumulated savings and assets. Thus there is a need to look at how urban land markets in Huambo function and meet the needs of different groups, and in particular how poor people access, trade, and hold urban land.

This involves understanding better the volume of transactions, prices, the informality of land and housing markets, and the roles of brokers, intermediaries and agents, and government. A sound information base of urban land access through formal and informal

land markets will is needed to facilitate the development of urban policy and land use management practice in the urban and peri-urban areas of Angola. The need to understand the formal and informal land markets in Luanda is an essential step in developing urban land management systems which would promote social and economic inclusion.

7.2 Background

By the end of the colonial period in 1974, the colonial land cadastre project had been implanted in most urban areas and generally in the western half of the national territory where populations were higher and Portuguese settlements were more prevalent. After gaining independence from Portugal in 1975, the new Angolan government affirmed the constitutional role of the state as the owner of all land. In 1976, a law was published that permitted the State to confiscate land and real estate that had been abandoned for more than 45 days by the departing colonialists.[11] Through this mechanism, the state became the largest owner of land and housing stock in the country. However, independence and the flight of many Portuguese civil servants also meant that the formal colonial land cadastre ceased to be managed. With independence, the colonial technicians who had mapped out and administered the cadastre left, and in some cases, destroyed or took maps and registry information with them.

To date, a major constraint to urban land management in Angola is the absence of up-to-date municipal land cadastres and a registry of housing and real-estate. The lack of adequate documentation on land is one of the principal factors that inhibit access to credit for housing and the development of a mortgage market.

In the 1990s, the state restored the framework for offering concessions to state property and land, principally in the rural areas and a few specifically designated urban areas.[12] A framework was also set up to allow occupants of state-owned rental housing to purchase their houses and flats.[13] However, the revenues collected by the state from rents and from the sale of its housing patrimony were so low that little income was generated to invest in upgrading or maintaining the infrastructure. At the same time, the civil war resulted in increased population migration to the cities, lack of new formal urban construction, planning and maintenance, and informalization of the land and housing market. Buildings as well as urban infrastructure and services became severely degraded during this period. The end of the war in 2002 increased demand for housing. A private real-estate market emerged, aptly responding to the increased demand from foreign companies and expatriate workers. This demand turned these same buildings, as well as land, into very valuable assets and important sources of rent-seeking in an increasingly informalized rental and real estate market, particularly in Luanda.

Since 2004, an increasing number of laws and regulations related to land, urban development and housing have been published, with a particular focus on Luanda. While these legislations articulate the principles for citizens to exercise their right to information and participation in land access and management, this is not regulated or reflected in practice. There is not yet an established tradition to facilitate public consultation processes before the adoption of these laws, and when consultation does take place there is no guarantee that contributions will be taken into account. Upon approval of the laws, there is often a lack of information dissemination and of a timely and systematic follow-up. As a result, not all necessary by-laws are in place to facilitate the implementation of the new laws. Another limitation to the implementation of new legislation is the lack of technical and financial capacity of state administrations, especially at the local level. Generally, while many laws have been published, it can be said that the government still lacks the capacity

[11] Confiscation Law 1976
[12] Land Law 1991
[13] Law for the Sale of State Patrimony 1992

to deliver.
In 2004, a new Land Law (Law 9/04) and a Territorial Planning Law (Law 3/04) were adopted. Under the land law, informally-occupied land needed to be regularized within three years (Article 7, Law 9/04). Land may only be expropriated by the state for specific public use, and the purpose of this use must be declared and just compensation provided (Article 12, Law 9/04 and Article 20, Law 3/04). The territorial planning law provides for the restoration or rehabilitation of degraded urban or illegally-occupied areas (Article 4(d), Law 3/04). The process of elaboration, execution and revision of urban plans should contain mechanisms for citizens to exercise their right to information and participation (Article 21, Law 3/04). Municipal and provincial territorial plans are subject to central government approval, which, by law should be assisted by an Inter-ministerial Commission for Territorial Planning (Article 45-46, Law 3/04).
Article 34 of the Land Law stipulates that the state can grant: (a) private property rights to urban land; (b) useful customary domain to rural communities; (c) useful civic domain; (d) surface rights; and (e) precarious (temporary) occupation rights.
The concession of urban land in urban areas of up to 1,000 m² may be authorized by the Municipal Administration, while land between 1,000 m² and 20,000 m² need the approval of the Provincial Governor. Urban land in sub-urban areas of up to 1,000 m² may also be authorized by the Municipal Administration, while the approval of the Provincial Governor is needed for land with areas of up to 50,000 m². Concession of areas larger than 50,000 m² may only be authorized by the Minister of Urbanism and Construction.
In 2010, the government estimated the formal housing deficit to be 1.9 million units. As much as 90.9% of the urban population lives in inappropriate conditions according to the National Statistics Institute.[14] An official Housing Policy was approved in 2006 (Resolution 60/06) with a view to guaranteeing the universal right to housing. The subsequently adopted Framework Law for Housing (Law 03/07) seeks to promote public and private housing policies through:

- the definition of new criteria of human settlement and the construction of new *bairros* (neighbourhoods) and cities
- the regulation of a system of fiscal incentives
- the regulation of a system of credit for housing
- the promotion of raising public or private funds for housing
- the promotion of public or private partnerships in the field of housing
- the guarantee of urban security, access and infrastructures
- the consolidation of the urban and rural identity of the country

In 2007, the President decreed the creation of state reserves for the construction of 'new cities' within the capital metropolitan region. In 2008, state land reserves were identified in the provinces of Cunene, Uíge, Zaire, Namibe, Bié, Luanda, Benguela, Cabinda, Kuando Kubango, Huíla, Lunda Norte, Lunda Sul, Kuanza Sul, Kuanza Norte and Huambo (Decrees 80-112/08). Some of these reserves were allocated to the respective Provincial Governments, others to the GRN (*Gabinete de Reconstrução Nacional* or Office for National Reconstruction).

Subsequent to the legislative elections of September 2008, the governing political party MPLA (*Movimento Popular de Libertação de Angola or* Popular Movement for the Liberation of Angola) announced a plan to build one million houses throughout the country until 2012. The National Urbanism and Housing Programme was officially approved in 2009 through Resolution 20/09. The Programme aims to benefit an estimated 6,000,000 people across the country (all the government's calculations are based on an average of 6 people per household).

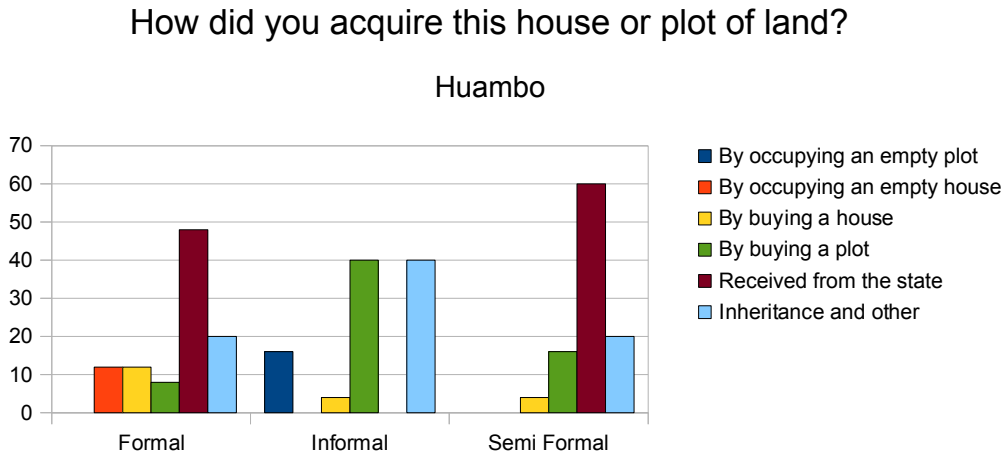
[14] IBEP (2010)

There has been no legislation published to regulate the Angolan rental and real estate markets. However, four laws are currently under review by the National Assembly with a view to replacing non-existent or outdated legislation on real estate mediation, urban rental, construction and housing cooperatives, and social housing. The government has announced the opening of a one-stop shop (*Guiché Único*) for property registration, similar to the already existing *Guiché* for company registration. This kind of entity would concentrate diverse services and facilitate the rapid acquisition of title deeds, with a view to simplifying procedures and reducing the transaction costs for users. It was announced that in early 2011, the National Assembly would vote on the necessary changes to the country's Civil Code, the Land Registry Code and the Notary Code in order to enable the creation of this *Guiché*. At the end of 2010, it was not clear to what extent the revised legislation foresees any actions regarding the strengthening of the financial, technical and human capacity of the relevant state entities which is the main constraint to efficient land management. .

7.3 Methods

This section is mainly derived from a sample survey of 100 households in Huambo city carried out in late 2010, but also draws on other research methods that were used to find out about land and house prices in Huambo city.

7.4 Results
7.4.1 Occupation of a house or plot of land

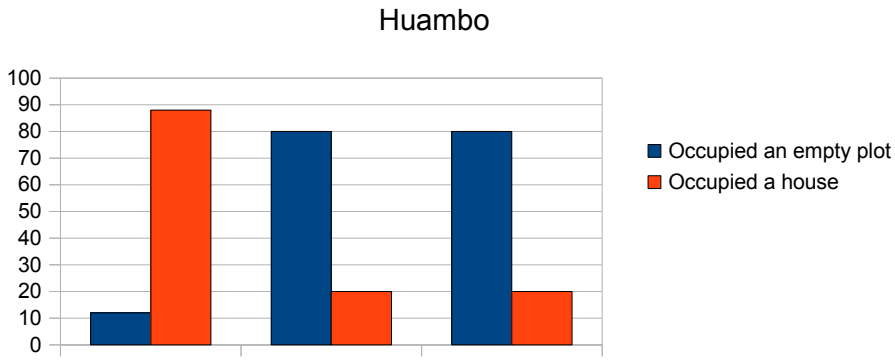


In the surveys, respondents were asked how they gained access to their house or a plot of land. Generally, "occupying an empty plot of land" does not feature very strongly as a means of land access and is only mentioned by people in informal areas who occupied land several years ago. Occupying empty houses is similarly rarely mentioned: where it occurs, in formal housing areas, it refers to occupation of a house in the 1970s or 1980s. It is therefore important to note that contrary to the common notion that many people are squatters, the findings of this study show that most people are not occupying or "squatting" on land and houses that they have not paid for.

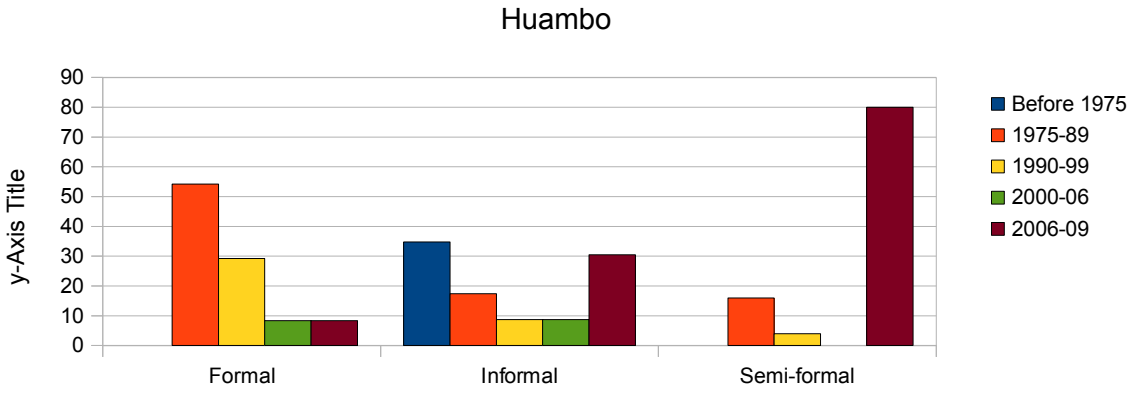
In formal housing areas of Huambo, the most frequently mentioned means of access to land or a house is reception of a house from the State - "*cedência do estado*". This refers to the process by which the State divested itself of its housing stock in the 1980s and 1990s to those who at the time were its tenants. Inheritance is the next most important way in which respondents had gained access to property in formal housing areas. Buying a house (or a plot) only accounts for about a total of 20% of cases though these have become more important in recent years.
In informal housing areas the most frequently mentioned ways of acquiring land or a house are through purchase of a plot of land on which a house has been built by the owner subsequently, and through inheritance. Purchase of a house is quite rare.
In semi-formal housing areas the most frequently mentioned means of access to land or a house is reception of a plot of land from the State - "*cedência do estado*". Semi-formal housing areas in Huambo now include new areas that have been divided into plots in the past 5 years and on which people usually have to build their own houses, as well as the old semi-formal areas from the colonial era. For example in Santa Iria about 600 plots of 15 x 25 metres (375 square metres) have been provided by the Provincial Directorate of Urbanism since 2006. Those who were subscribed to receive a plot, and were accepted, had to pay 100 kwanzas per square metre for a *licenca de arrematacao*, (licence to fence off a plot) and then pay 60,000 Kwanzas for a *planta tipo* (a standard plan of the type of house that should be constructed). In theory it is necessary to also have a *licenca de construcao* (construction licence) but in practice no-one has one and this has not been enforced. The *licenca de arrematacao* would have cost about 37500 kwanzas, which was about 450 Dollars at the time. Many people consider that they have bought the land from the State, and it is reported that some of those who have received lots have been able to sell them for about 30 US Dollars per square metre as there are signs that road access to the area is to be improved and electricity is to be provided (see later).
There is no specific stipulation that a plot-holder has to stay for a certain period of time,

because in theory all selling of land is illegal. The responsibility for this type of land distribution activity has passed to the Municipal Administration from Provincial Directorate of Urbanism, and there are now similar processes going on at Sassonde, Cambiota and Chiva. There is strong demand as building on such a plot as seen as a good investment: there is a risk that services may not be provided later leaving the plot-holder with lower value land and poorer living conditions but in current conditions the belief is that these areas will benefit from services within a year or two.
Thus a market in land does exist, though it is most visible in informal areas: in other areas obtaining land from the State is more important, though the market has become more important in recent years. In formal housing areas, most purchases or occupation is of a house that has already been constructed. In informal and semi-formal areas most residents have obtained a plot and built their own house on this.

Did you occupy (or buy) a house or an empty plot of land?

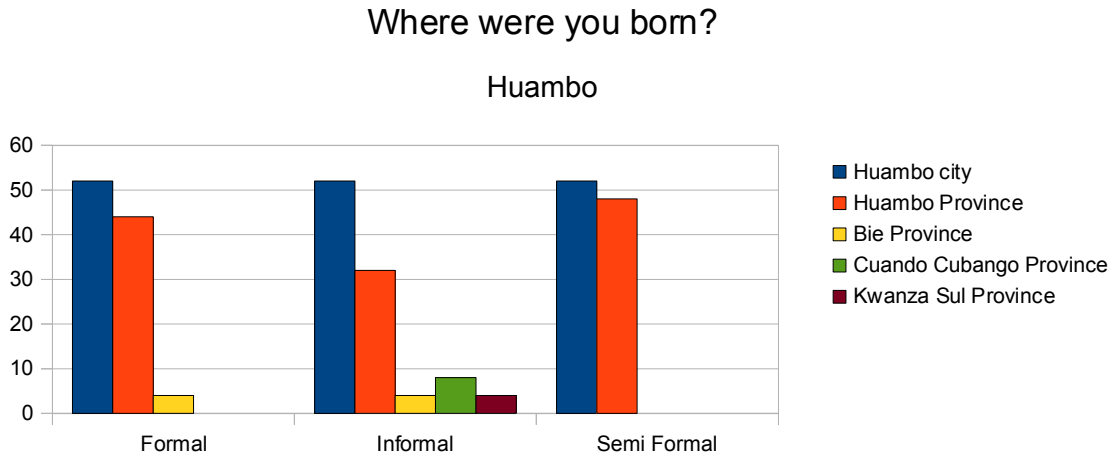


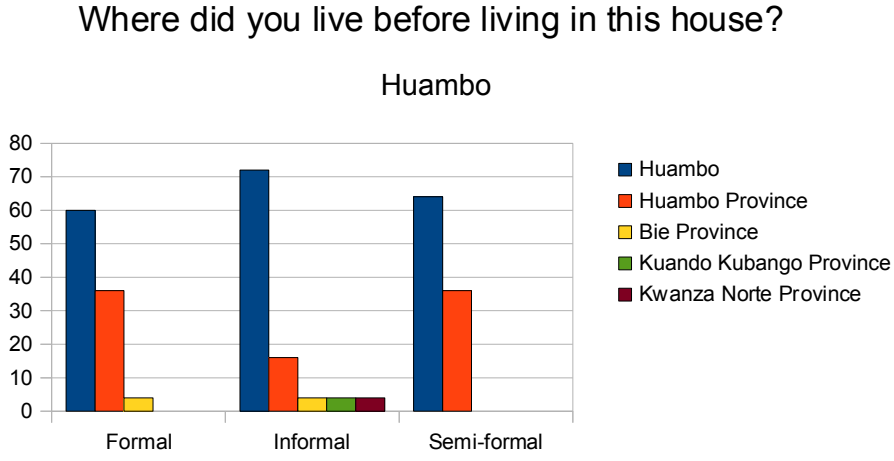
When did you start to occupy this house or plot of land?



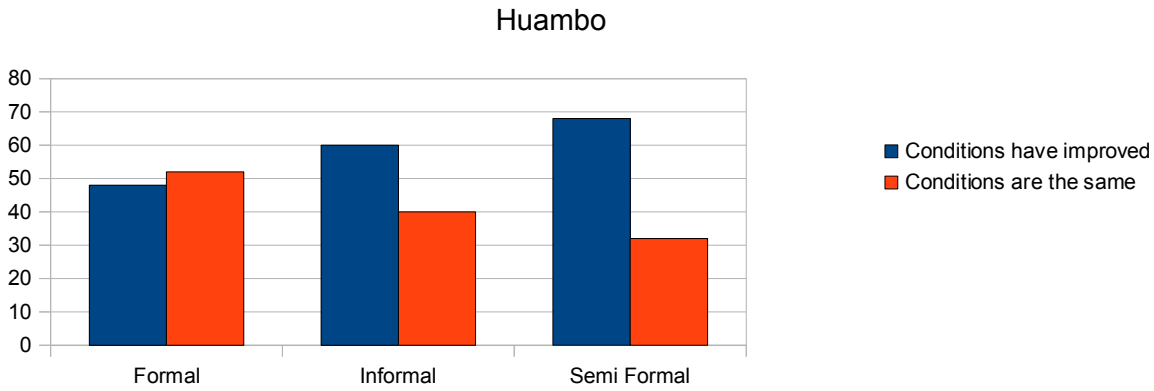
Only in informal housing areas are there residents who have been occupying the same house since before independence in 1975 (about a third of residents of those areas).
Another third of residents have been living there only for the last five years, meaning that informal housing areas are a mix of long-term and relatively new residents. In formal housing areas, 80% of residents moved there between 1975 and 1999. In semi-formal areas, most residents moved to their present location since 2006, when the State began to make available plots for building in some areas of Huambo city.
Eighty per cent of residents of formal and semi-formal areas had paid something to occupy their present house or plot of land, while only 48% of residents of informal areas had paid. In formal housing areas the payment was made to a government department (reflecting the fact that houses were acquired when the State divested itself of its housing stock. In informal housing areas payments were made to the previous proprietor. Few payments are made to intermediaries, even though contacts for sales are made through intermediaries.

Intermediaries act as agents to find properties but do not get involved in payments. Few real estate agents involve themselves in the actual transfer of property. Their activities are mostly limited to bringing the seller and buyer together and in the high-end market this is a highly lucrative business in itself. Usually the commission consists of one month's rent, which at the peak of the real estate boom, could range between US$ 10,000 and US$ 20,000. Agents are often not certified or capacitated to confirm the legitimacy of sellers and buyers. Existing studies indicate that the real estate sector is still in an incipient stage. It lacks structured financial products, partly due to the inefficiency of cadastre and land registration, and the lack of legislation on 'horizontal property' to provide for warranties. This inhibits access to credit for housing and the development of a mortgage market.
In all housing areas more than half of respondents were born in Huambo city and most of the rest were born in the Province. In informal housing areas about 15% of residents were born in other nearby provinces. Similarly the previous house of most respondents was in Huambo city or Huambo province. This is in marked contrast to Luanda where residents have come from many parts of the country.

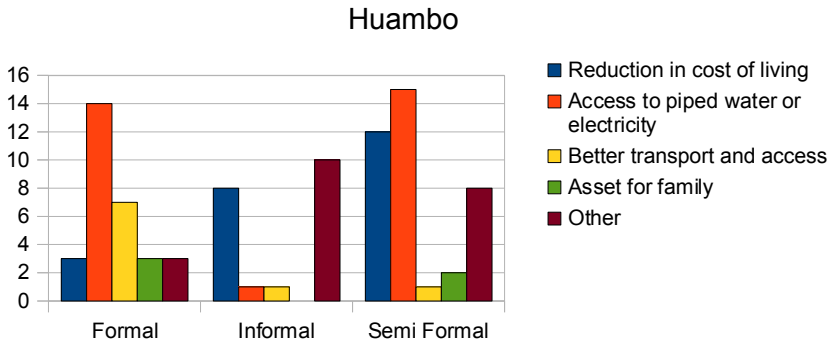




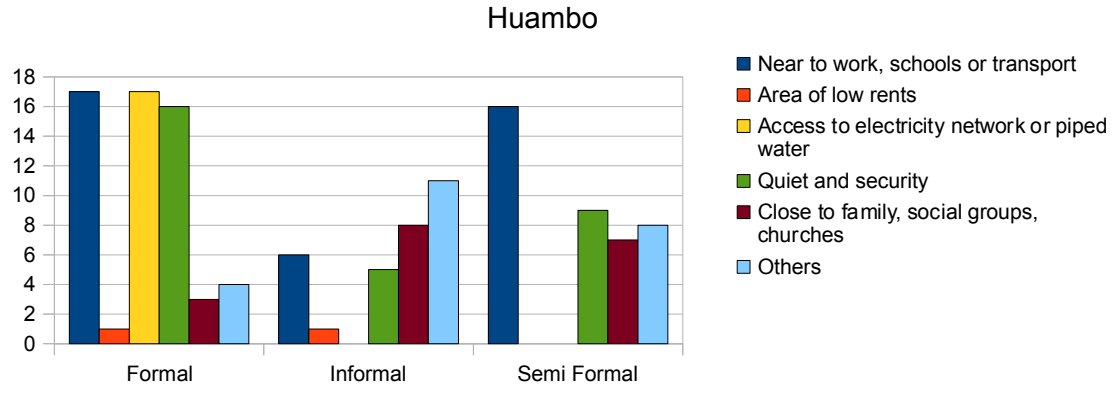
Did conditions improve when you moved here?



How did conditions improve when you moved here?



What do you value about this area?



In about half of cases respondents said that conditions improved when they moved to their present location and half said that conditions stayed the same. More respondents said that conditions had improved in informal and semi-formal housing areas. In semi-formal housing areas the improved conditions are due to a reduction in the cost of living and better access to services: many residents of these areas appear to be those who lived in formal housing areas but found the costs to be too high. Reduction in living costs is also

mentioned by some residents of informal housing areas. There do therefore appear to be some people who are moving location within the city because of the increasing land values near to the city centre.
In formal housing areas, the main reason that the move produced better conditions is better services and better access and transport.
In formal housing areas, the main features that are valued are access to work, schools and transport, quiet and security and access to water and electricity. Nearness to work, schools and transport are also important in semi-formal areas but are less important in informal housing areas.

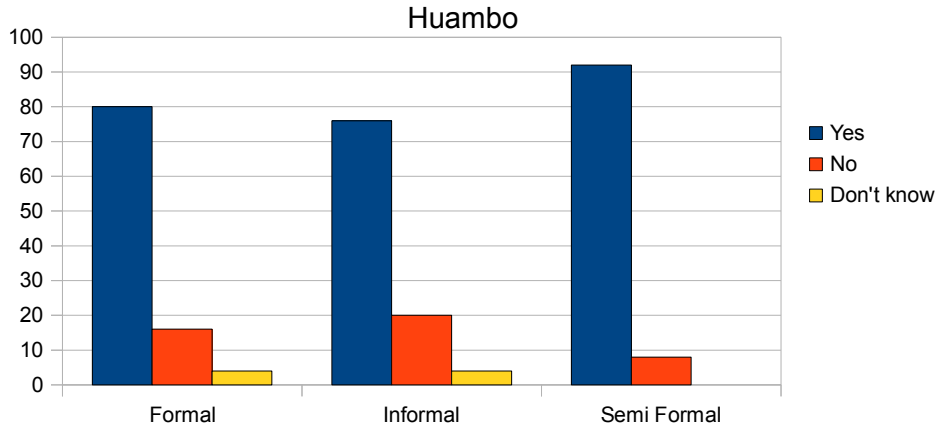
7.4.2 Documents and safeguarding of rights

In a previous study in 2003, respondents were asked about what from of document they had to show their occupation rights, and only 39% had some form of document. In 2010, the number with documents in informal housing areas is similar but the number with documents in semi-formal and formal housing areas has grown.
In informal housing areas over half of respondents rely on verbal agreements to show their acquisition of the house or plot (some of them witnessed by third parties). About a quarter have a written declaration that they have bought their plot or house. Just over 10% have a contract or any other form of official document.
In semi-formal housing areas, more than half of respondents say that they have the *licenca de arrematacao* which gave them permission to fence in the plot before building. In theory they should have other documents as well but in practice it appears to have been accepted that the *licenca de arrematacao* is sufficient. The *licença de arrematação* is a temporary but upgradable license, the first license issued by the municipal authorities after the concession is made for a plot of land. With this license, further licenses can be obtained for the eventual construction on the land. On its own it does not legally provide full security of tenure.

In formal housing areas about a quarter of respondents have a contract of sale and purchase (*contrato de compra e venda,* a document that stipulates the value and terms of purchase of the property and is signed by both parties. The notaries who act as witnesses to the declarations and contracts of sale are not validating the transfers themselves, although they are testifying that the parties are legitimate. When we consider people's perceptions about their security of tenure, it shows that people are not aware of this (see the discussion on this issue below).
About a third of respondents have some other documents. These include *croquis de Localização* (location sketch), which defines the location of land or property and is issued by the municipal administration. It is one of the required documents that have to be submitted to legalize property ownership. Another document is the *titulo de ocupação precária* (precarious occupation title) issued by the provincial authorities to establish temporary occupation for up to one year, subject to renewal. None of these documents on their own provide full, legal security of tenure.
Thus while local practice seems to be that these documents on their own are sufficient to show occupation rights, they do not represent the legal position. It may be however difficult to fulfill the full legal requirements and may at present be accepted that not all documents are required. The risk is that in future local practice may change as competition for land becomes sharper, or if official upgrading projects require compulsory purchase of land and property. This is not the case at present in Huambo, where land is not yet scarce, but may be an issue in future.

Despite not having the full set of documents legally required, respondents overwhelmingly felt that their occupation rights are safeguarded. Those who are least confident about their occupation rights are those with a verbal agreement or one witnessed by other parties.

Do you think that your occupation rights are safeguarded?

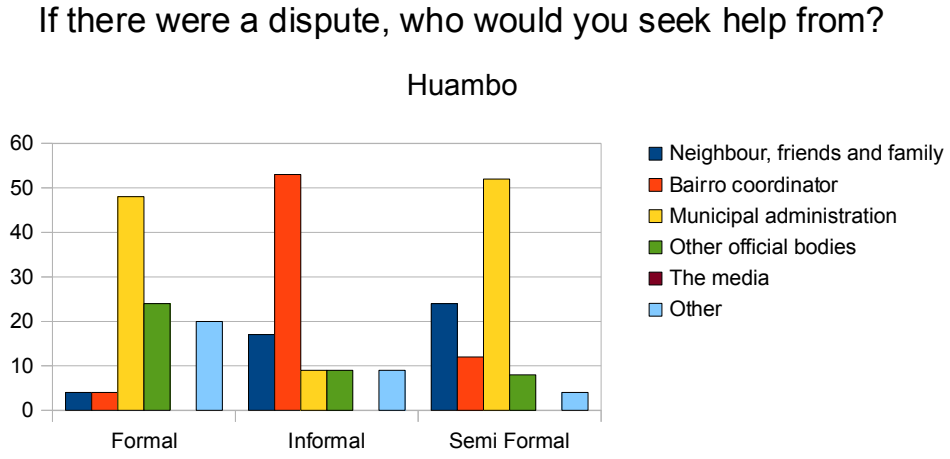


In formal housing areas, the main reason for feeling confident about occupation rights is the possession of some sort of document or documents (even if the documents held are not the full documents legally required). The fact that the house was paid for and that verbal permission was received from a government department or a bairro coordinator are additional reasons cited for faith in the occupation rights. In informal areas the main reason for feeling confident about occupation rights is that neighbours can testify that the house or plot of land belongs to the occupier. The numbering of the house by the bairro coordinator and the fact that the house or land was paid for are additional reasons cited for faith in the occupation rights. In semi-formal housing areas, the possession of documents, the fact that a payment was made and permission from the local administration are given as reasons for feeling confident about occupation rights.
In formal and semi-formal housing areas, the main reason for not feeling confident about occupation rights is doubt about the documents that are held. In informal housing areas the main reason for not feeling confident about occupation rights is the awareness that people are being forcibly removed in some areas of the country.

7.4.3 Conflicts

No respondents reported having experienced any conflict over land or housing issues. A previous survey in 2003 showed that a few respondents had had conflicts. It would appear that there are now even fewer reasons for disputes. Respondents were asked how disputes would be, if there were any, and by whom. In formal housing areas respondents mentioned the municipal administration (nearly 50%) and then other official bodies. In semi-formal housing areas, the municipal administration was again the main expected source of help, followed by neighbours, friends and family. In informal housing areas, on the other hand, the bairro coordinator would be the main source of help, followed by neighbours, friends and family. Nobody mentioned the police and nobody mentioned the media (as there is no newspaper in Huambo and readership of the national newspapers is low). Media monitoring work does suggest that this is indeed an issue taken up in the press in Luanda, but coverage in Huambo is low.
The findings of the study in 2003 showed that family and neighbours would likely be asked to resolve issues on tenure. This suggests a shift in the values and attitudes with greater preference for a more formal approach to conflict resolution, as opposed to seven years ago, when the preference seemed to be a more interpersonal and informal process of

dispute resolution.



7.4.4 Land prices

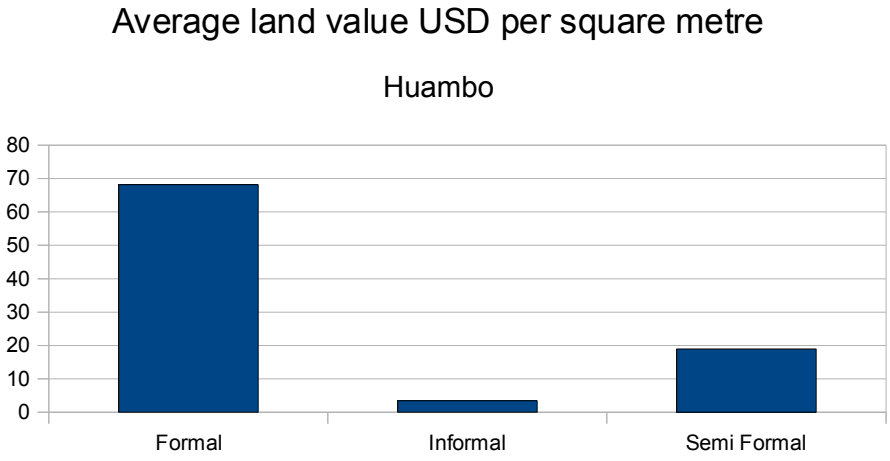
There has been no previous research on land prices in Angola. Research on land prices was carried out in a number of ways: through survey questions, by visiting land and houses that were for sale and through group discussions with NGO staff involved in land tenure upgrading projects.

The surveys included a question about how much had been paid for the property that the respondent was living in. This was found not to be useful, because respondents had moved into their present property in different years in the past and land prices have varied considerably: the number of respondents who had moved in in the last few years did not provide enough cases for analysis.

The surveys also included a question asking how much a plot of land in that area would cost now. This was found to provide useful information: almost all respondents were able to reply to the question without difficulty. (Respondents were also asked how much a house in their area would cost to buy but this provided less useful information because of the difficulty of analysing the variation due to the differences in type of house. Given the availability of consistent information about land values from respondents, because in most areas empty plots are still available and the usual cost is widely known, information about house prices was not used.)

The cost of land in formal areas of the city of Huambo is just under 70 US Dollars per square metre. In the areas of Cidade Alta and Kapango, with high quality houses close to the city centre and with a high level of service provision, the average price of land is 110 US Dollars per square metre (with a range from 75 to 150 US Dollars per square metre). In other formal areas of the city (with smaller houses and a perception of a lower level of service provision) the average price of land is 32 US Dollars per square metre.
In semi-formal areas of the city of Huambo, the average price of land is 20 US Dollars per square metre. In the newly-designated sites-and-services areas of Cacilhas and Santa Iria the price of land is between 20 and 35 US Dollars per square metre) than in the older semi-formal area of Calomanda (where the price of land is less than 10 US Dollars per

square metre). This is despite the newly designated sites and services areas being further from the city centre and having poor road conditions. The difference in price appears to be due to a perception that the newly-designated sites-and-services areas of Cacilhas and Santa Iria are received attention from the State and that their roads will be upgraded in the future along with water supply and electricity supply, while the perception is that older semi-formal areas will not receive attention from the State.
The average price of land in informal areas is between 2 and 3 US Dollars per square metre. This reflects the fact that these areas have a much lower level of service provision and are further from the city centre. Along the main tarred roads leading into the city centre the price of land in informal areas is about 10 US Dollars per square metre while it is less than 2 US Dollars per square metre away from main roads. Higher prices along the main roads reflects the easier access to employment and to services along main roads, while road conditions inside the bairros are uniformly poor, especially after rain. Property along main roads can also be put to some commercial use, such as selling to passers-by or those waiting for public transport.



There are no newspapers in Huambo so houses and land for sale are not advertised in that way (as they are in Luanda). There are also few wall poster advertisements. There are however people who act as informal agents, and most people know how to find them. Members of the research team posed as prospective buyers and visited thirty properties for sale (both land and houses) to measure land area, note the locations, and note down other relevant information such as vehicle access and service infrastructure. Where it was a house for sale, the seller or agent was asked how much a plot in that area would cost without buildings, and this provided consistent information. The information from this analysis indicated that the average price of land in formal areas of the city is 50 US Dollars per square metre. In the parts of the formal areas closer to the city centre the price was 100 to 150 US Dollars per square metre while on the edges of the formal areas the price was between 30 and 70 US Dollars per square metre.

In informal areas of the city, the houses and plots visited tended to be relatively close to the city and main roads: the informal agents do not involve themselves in sale of land or houses on the edge of the city or more remote parts of bairros where land is sold through personal contacts. The average price of land in the more accessible parts of informal areas is 9 US Dollars per square metre, with a range between 4 and 13 US Dollars per square metre.

NGO staff involved in land tenure upgrading projects gave consistent information about land prices. A plot in the formal area of Huambo city in an attractive environment , where travel is easy and there are various services would cost now about 50,000 US Dollars. If a plot is 25 metres squared, the price is 80 US Dollars per square metre. On the edge of the formal areas, where there is at present land available and a considerable volume of transactions taking place, a plot probably costs 30,000 US Dollars, or about 48 US Dollars per square metre.

A reasonable peri-urban plot (with good access) probably costs 3000 to 5000 US Dollars: this comes to about 10 US Dollars per square metre (4000 US Dollars for a plot of 20 x 20 metres). A peri-urban plot in a poor location probably costs 500 to 1500 US Dollars: this comes to about 2.50 US Dollars per square metre (1000 US Dollars for a plot of 20 x 20 metres).
The various methods for researching land prices in Huambo city give similar results. In the parts of formal areas with a high quality environment, land prices are 80 US Dollars per square metre or above (up to 150 US Dollars per square metre). In more peripheral formal areas they are between 40 and 70 US Dollars per square metre. In better located informal areas (such as along main roads) the price of land is about 10 US Dollars per square metre while it is less than 5 Dollars per square metre. In semi-formal areas the price of land is linked to the expectation of what level of access and services might be available in the future. Where there is an expectation that road access and services might improve because the State is giving attention to those areas, the price of land is 20 to 40 US Dollars per square metre, while in areas which consider themselves forgotten the price of land is about 10 US Dollars per square metre (similar to that in better-located informal housing areas).

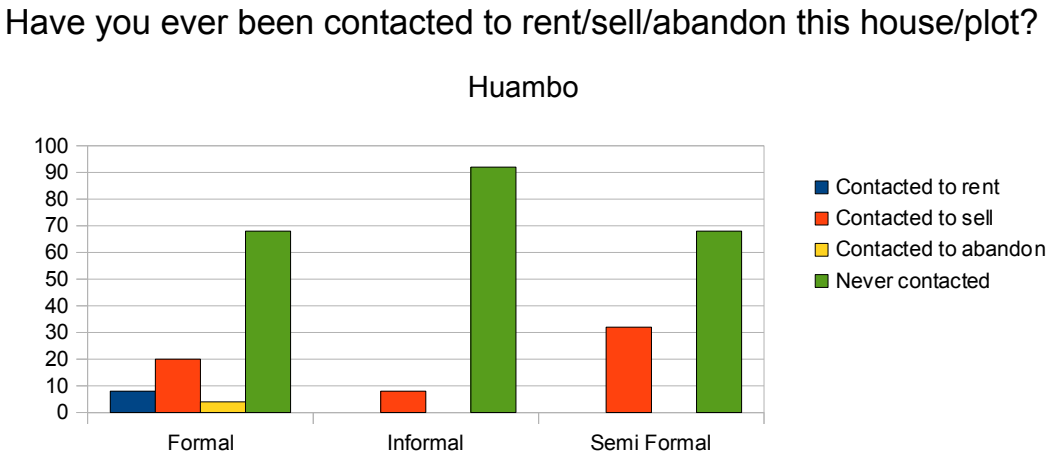
All informants for this research agreed that house and land prices are increasing rapidly in Huambo at present, and some informants spoke about land proces increasing by a factor of three in three years. Huambo city did have unoccupied plots (and houses) but these are being occupied and land and housing in the better locations is becoming scarce. In the last 10 years, roads have been repaired and water and electric supply have become more regular: there is a perception that these services will extend to previously unserved areas in future. Economic activity is increasing, particularly as high schools and university departments are re-opened and Huambo is seen as a city in which it is possible to study without the high costs associated with living in Huambo.

Land prices are closely related to access to a good road. This access means access to economic activities, to informal markets, to taxis, to motorcycle taxis, and to rubbish collection. At present electricity access is closely related to access to a good road.

Access declines rapidly away from a good road. After rain, conditions are very difficult away from a good road. In Huambo, travel is relatively easy once you are on a good road; there is no traffic congestion and there is a good supply of transport (mainly by motorcycle taxi) so travel between different parts of the city that have good roads is a minor constraint. The price of a plot depends very strongly on these factors.

Water supply is not a strong constraint because of access to water through shallow wells in most parts of the city. Richer people may desire piped water at home which is mainly available in the formal housing area and this is one of the factors that pushes up land prices in the formal housing area. However not all households in this area have paid to be connected to the piped water system. The fact that water is only available in the northern part of Huambo through boreholes (and a few standposts) may be one of the factors that

makes this part of the city less attractive.



7.4.5 Market turnover

Less than 10% of residents of informal housing areas have been contacted about selling their house or plot. In formal housing areas twenty per cent of residents have been contacted to sell their house and 10% to rent their house. In semi-formal housing areas thirty per cent of residents have been approached to sell their house or plot. This suggests that there is a developing housing market in formal and semi-formal housing areas though not yet a strong one in informal housing areas. In general respondents would consider moving out of their present house only if another house with better conditions was available, or if they were forcibly removed.

7.5 Conclusions on land markets

There is a market in land and plots of land in Huambo city and the scale of this appears to be increasing. Many of the transactions go unrecorded in informal housing areas though in other areas they are usually recorded. The transactions are perceived as secure by an overwhelming majority of actors, but in fact are based on rights which are legally uncertain as few transfers can be backed up by legally-defensible documents to secure people's tenure. Even where the State has been involved in land and house distribution, it is arguable whether the documentation is complete and legally defensible. Many of the middle class and elite not have full legal titles to the land and housing they occupy.

Land prices in the centre of Huambo are much less than in the centre of Luanda, but they have been rising rapidly in the last three years. The area of formal housing in Huambo was defined, when the city was constituted almost 100 years ago, as covering a large area which was never completely built up in the colonial period. This means that there is still some land to meet demand adjacent to the urban core. However there is some evidence that some residents of the formal housing areas have moved out because of rising costs. They have mainly been able to acquire land in areas where the State has made land available for self-build housing. This has led to longer travel times to work and to poorer access to basic services, though there appears to be an expectation that better roads and services will be provided to these areas.

There are few cases of spontaneous occupations or attempts to legitimize the squatting of vacant land: spontaneous occupation happened in the past but has now been overtaken by sales of land and plots. In future, uncertainty regarding property rights might create constraints from a market perspective as eventually transfers will need to be backed up by claims that can be legally defended. If it is proving too cumbersome to operate the system as defined under the law, acceptable procedures to verify occupancy, based on what does function, need to be formalised.

There will need to be recognition of the *de facto* rights of occupation of urban land, with appropriate simple procedures to adjudicate this. Otherwise, the majority of urban residents who, in good faith, purchased or acquired their land through some other legitimate mechanism will be excluded, and the law will be largely seen as illegitimate. The legal basis, regulation and administrative application of this, however, need to also be the basis for avoidance of continuing speculation in land occupation (whether by “formal” or “informal” means). Recognition of the right of occupation in good faith will need to address the question of a cut off date for eligibility. Typically fear in government is fairly widespread that recognizing the right of occupation may send a signal that encourages more rural to urban migration. Both of these issues will need to be addressed in taking this recommendation into more practical application.

The most common forms of proofs of ownership that families currently use need to be incorporated into new legal practice. The most common documentation held by occupants are deeds of sale and declarations of transfer of property. Documents witnessed by local administrations and recognised traditional authorities also are commonly considered to be legitimate proofs of occupation. The process of granting legal tenure should also be linked with the building of a land information system or cadastre which involves the geographic mapping of occupations together with recording and archiving of the legal documentary proofs.
The current land legislation will need to be revised in order to accommodate the principal of occupation in good faith. Bye-laws and regulations of the law will need to define the above mentioned proofs that can be used to validate this occupation and the procedures that will be used to register these claims. Once these rights of occupation are defined legally, mechanisms will also need to be established to adjudicate conflicting claims. The strengthening of municipal courts in order for them to deal with local land-claims will also be essential.
By removing long-term occupation as a basis for tenure, recent land legislation has reduced the opportunities for individuals to acquire legal titles. An intermediate solution needs to be found to provide tenure security for those who are likely to wait for a considerable period of time before they can receive a full title. An incremental approach should permit the distinction between land rights and land titles, with the gradual progression from rights to titles, using intermediate forms of land management mechanisms. This gradual approach should also permit the provision of improved urban services and general urban upgrading.

In Angola the *Lei de Terras* does not recognise scalable or incremental tenure rights as a policy, but the law does not prohibit it either. The range of existing land tenure options permitted by the Land Law can be adapted to an incremental approach. Article 34 stipulates that the state can grant:
(a) precarious (temporary) occupation rights
(b) surface rights
(c) useful customary domain to rural communities

(d) useful civic domain, and
(e) private property rights to urban land

The law does not, however, articulate a relationship between these rights and does not specify the conditions by which one can transform one form of tenure into another. A specific addenda or regulation of the existing law that maps out the principles and scaling mechanisms for incremental rights needs to be developed.

Under existing legislation[15] the obligation exists for the government and its partners to publicly disclose their plans, interventions, land concessions and urban upgrading programs. However, these policies are not regulated under the law and are therefore not widely practiced. There needs to be a responsibility for information dissemination, information sharing and public forums.
The Housing Policy (2006) identifies the need to clarify the roles and responsibilities of central and local governments. Capacity building is required for the preceding recommendations to be applied and to implement the land and housing laws. There is evidence of issues related to land that are specific to certain settlement types, which suggests that there is a need for appropriate urban policy and system of management that allows for a differential approach to these settlement types. This requires better knowledge of such specific issues, as well as adequate institutional capacity to address these at the local level.

An important aspect of the incremental approach is learning from experience. Of particular importance is learning from new practice, and the refinement of new approaches and actions. This process of “learning by doing” is recommended in establishing urban land rights and in urban land titling. Pilot projects on establishing urban land rights should be focussed on refining the nature of occupation rights and the limits to these, including the widespread mobilisation against continued informal occupation without adequate process. These should also establish the mechanisms for gradual evolution of these rights to titles. The pilot projects should be established in peri-urban and peripheral urban situations: the former being generally currently dominated by informal market activity with limited local administrative capacity.

[15] The preambles to the Planning and Land Laws contain a reference to the right to information and public consultation.