ADAPTING TO AN URBAN WORLD

September 2018

Urban Essential Needs Assessment in the five communes of Kimbanseke, Kinsenso, Makala, N'sele and Selembao (Kinshasa)

WFP vam food security analysis

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EXECUTIVE SUMMARY

Kinshasa Essential Needs Assessment

Rationale

In recent years, the World Food Programme (WFP) has been increasingly operating in urban spaces in order to detect and respond to the limited access to food and other essential needs of the most vulnerable urban inhabitants. Since October 2017, the WFP Country Office in the Democratic Republic of the Congo and the Vulnerability Analysis and Mapping (VAM) unit of WFP have been working together to design a comprehensive baseline assessment to inform programming and response planning by WFP or partners to any shocks that may occur in vulnerable communes of Kinshasa1 in the near future. These potential shocks include the effects of political instability which could affect the population's ability to access food and meet other essential needs.

This report presents the results of a vulnerability analysis conducted through a food and essential needs lens. The first four chapters explore the socio-demographic characteristics of urban households, their livelihoods and their current level of vulnerability including monetary poverty, access to essential services and food insecurity. The fifth section provides estimates of how vulnerability could change in the event of instability. Various scenarios are presented with increasing levels of severity, from rumours to turmoil, enabling WFP and partners to have a sense of the consequences of a potential crisis.

The assessment has three main objectives. Firstly, it seeks to assess the prevalence and main drivers of vulnerability and food insecurity in the poorest communes (and within sub-communes) of Kinshasa. Secondly, it aims to show how people's access to food and other essential needs would evolve in the event of instability. Thirdly, it assesses the degree to which people can meet their essential needs as measured against a newly established minimum expenditure basket (MEB); in this way, the study serves as a baseline for continuous monitoring of the population's ability to access essential needs.

Poverty, limited informal and formal safety nets and dependency on markets for food supplies are the main drivers of food insecurity and the inability to meet essential needs in urban and peri-urban Kinshasa

Methodology

A mixed-method approach was used to meet these objectives. A **secondary data review** was conducted, focusing on population density and distribution and defining modules and questions for the qualitative and quantitative tools used. After that, **focus group discussions and key informant interviews** (including with chiefs of zone, traders and street vendors) helped outline elements of vulnerability and the magnitude of food consumption outside the home. These elements were then used to finalize the **household**

1 The assessment covers the communes of N'sele, Selembao, Kisenso, Kimbanseke and Makala.

survey. The survey covered 1,850 households and was disaggregated in six geographical strata:[2] N'sele peri-urban, N'sele urban, Selembao, Kisenso, Kimbanseke and Makala.

High resolution maps were used to select clusters utilizing population proportionate to size and ultimately, to randomly select households within each cluster. Forty enumerators (students from the University of Kinshasa) organised in eight teams collected data between November and December 2017.

The questionnaire was tailored to the urban setting and covered standard socio-demographic elements, livelihoods, food consumption and expenditures. These were combined with more innovative modules investigating access to essential needs by capturing non-monetary poverty (multidimensional poverty), perception indicators, debt analysis, and extra-household food consumption and related expenditure.

To gauge household poverty, assessment data were used to establish detailed minimum expenditure baskets (MEB) for the urbanized zones of Kinshasa and the peri-urban part of N'sele. The MEB thresholds have been set by analysing household expenditure patterns for food and non-food needs, and by using a rights-based approach to health, education and shelter needs. The MEB for a six-person household in the urban zone is set at CDF308,000 per month (US$190), while for N'sele (peri-urban area) the MEB has been established at CDF234,000 per month (US$145). A survival basket (sMEB) was also calculated; it contains the bare minimum of food and non-food items needed in urban zones (CDF122,000 for a six-person household) and peri-urban areas (CDF91,000 for a six-person household). The MEB is adjusted for household sizes.

Key findings

a. ***Definition of vulnerability:*** Vulnerability is defined as the inability of households to meet their essential needs, such as for food, adequate living conditions, and health and education services. In the five communes covered by the survey, vulnerability takes different forms along the various socio-economic and demographic characteristics of the population. A common denominator of 'vulnerability' is poverty. All outcome indicators that report on the ability to meet essential needs converge and correlate with monetary poverty. Meeting essential needs is challenging for most urban households in the communes of N'sele, Kinsenso, Makala, Kimbanseke and Selembao. Only two in ten households have satisfactory living conditions – i.e. adequate shelter, and acceptable access to drinkable water and to satisfactory sanitation facilities. Around 55 percent have inadequate access to education and 44 percent have inadequate food consumption patterns in terms of frequency and diversity.

   With most households relying on erratic daily casual labour, income and income-generating opportunities are insufficient to sustain their families. Around 67 percent of households are poor and cannot afford the MEB. In other words, two thirds of urban dwellers are not able to meet their essential needs.

b. ***Food insecurity:*** **More than four in ten households in Kinshasa are food insecure** and **eight percent are severely food insecure.**[3] The prevalence of food insecurity

2 Areas where the sample can be used to infer results for the respective population.

3 Food insecurity is classified through the Consolidated Approach to Report on Indicators (CARI) based on food consumption score, a livelihood-coping indicator and monetary poverty measured against MEB and survival MEB thresholds.

is relatively homogeneous among all the urban communes, and there is no major difference between these and peri-urban N'sele. However, food insecurity takes a different form in poor urban areas. On the one hand, access to an acceptable food consumption is much less common among people living in peri-urban areas as opposed to urban dwellers; on the other, urban population show significantly higher adoption of severe coping strategies (21 percent of households compared with 13 percent) to access food. This follows the hypothesis this study puts forward on urban vulnerability. In urban areas, erratic incomes make food access very volatile and households frequently need to resort to coping mechanisms. In peri-urban N'sele, low development and a general lack of income opportunities inhibits good food consumption. In actual fact, high-nutrient foods produced by farmers in N'sele periurban (i.e. the vast majority of dwellers) are sold in urban markets and the money is used for purchasing other essential needs. The diet of peri-urban dwellers is, indeed, much poorer than the one of urban people, despite the higher potential physical access to food. The presence of better informal safety nets further prevents peri-urban people from resorting frequently to coping mechanisms.

In urban areas, erratic income is the main driver of negative coping behaviour, whether in the form of food-related strategies or non-food strategies that affect livelihoods in the medium to long term (both show a significant correlation to monetary poverty). Urban dwellers also take on more debt to meet their essential needs.

Limited purchasing power is the main obstacle to adequate food access. It is therefore not surprising that all socio-demographic features associated with or conducive to low income are equally associated with food insecurity. These features include a household having a female head of household, having chronically ill or handicapped members, and having high numbers of children and elderly people – all of these are significantly correlated to food insecurity. Limited access to gifts or help from relatives and friends is an important contributing factor to food insecurity, particularly in urban areas.

d. ***Food consumption:*** **Around 44 percent of people in urban Kinshasa have an unacceptable diet,** with even higher proportions in peri-urban N'sele (63 percent) and Selembao (47 percent). Most households in Kinshasa eat rice or fufu with vegetables (often cassava leaves, or tchakamadesu) every day, cooked with some condiments and oil. Surprisingly, bean consumption is relatively low (just under two days a week in urban areas and not quite once a week in peri-urban N'sele). While dietary diversity – illustrated as the number of food groups consumed – is relatively satisfactory, access to nutritious food is very challenging, especially in peri-urban areas. Here, farmers tend to sell pulses and fresh vegetables to access other essential services (mainly healthcare and education) and they consume high quantities of staple foods instead.

It is relatively common to consume food prepared outside the household. More than one in five urban households have at least one member who regularly eats food outside of the home. Within such households, 73 percent of adult males regularly eat outside the home, compared with 40 percent of adult females and 39 percent of children. Surprisingly, 30 percent of people decide to eat out because it is cheaper than preparing food at home. Another 25 percent – mainly adult males – eat food near their workplace. Overall, extra-household consumption reduces the

proportion of households with poor and borderline food consumption in this study by just 2 percent, as the methodology applied only adds to the food consumption score when at least 50 percent of the household members shared the meal.

e. ***Livelihoods:*** **Casual labour**, whether non-qualified (e.g. movers, farmers and domestic workers) or qualified (e.g. masons, tailors and drivers), is the most common source of income in urban and peri-urban communes of Kinshasa. The so-called *'tout-terrain'* are the bread-winners for 20 to 25 percent of households in the communes covered by the assessment. Around 25 percent of urban households depend on **permanent contracts**, while 27 percent rely on **small retail** (kiosks or mobile street vendors).

The vast majority of households – two thirds of households in urban areas and three quarters of those in peri-urban N'sele – have access to just one income source. Households need access to at least one income source to achieve food security, but households with access to more than one source are not necessarily more food secure. The type of income source is more important: having **small retailers** within the household usually translates into food security, and the presence of **civil servants** with a permanent contract equates to monetary wealth and satisfactory access to essential goods and services.

f. ***Migration, mobility & remittances:*** Rates of migration towards, within and from Kinshasa are very high: 30 percent of urban dwellers had migrated during the two years preceding the survey and 10 percent had migrated within the previous six months, mostly moving from other communes in Kinshasa in pursuit of work. Only 7 percent of those who had migrated to urban Kinshasa were sending remittances, and average remittance value is very low (US$20 in the six months prior to the interview). This confirms the limited profitability of the income sources that are most common among migrant households such as unskilled casual work. Migration is not one way: around one in four urban households had at least one member who migrated outside of the commune where the household live in the previous six months, mainly to seek for labour opportunities or to access education services.

g. ***Simulation of vulnerability in the event of instability in Kinshasa:*** The assessment used an econometric model developed by FAO Trade division and VAM (SISMod) to estimate the impact of a potential escalation of instability in Kinshasa that could arise from political tensions. The overall assumption of the model is that instability would result in bottlenecks in food supply chains. This would push up food and non-food prices, in tandem with an incremental fall in income opportunities. The study simulates three scenarios (rumours, riots/demonstrations and severe turmoil) with increasing levels of instability and impact on prices, mobility and labour opportunities.

According to the model, the number of households unable to meet their survival needs would rise from the current 12 percent (baseline) to 18 percent in the event of rumours, to over 30 percent in the event of riots and to over 60 percent in the event of severe turmoil – the latter translates into millions of people becoming food insecure.

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INTRODUCTION

i. Introduction

With over 12 million inhabitants, Kinshasa is the second largest city in sub-Saharan Africa[4]. Migration from rural areas of the Democratic Republic of the Congo soared after independence, as colonial restrictions were relaxed. Conflict and a lack of livelihood opportunities in rural areas and mid-sized cities also drives migration to urban settings, which promise access to employment, goods and services such as education and healthcare.

According to UN Habitat, four out of every ten Congolese live in an urban settlement, with this figure set to rise in the coming decades[5]. Rapid population growth in Kinshasa presents several challenges to the current infrastructure. Essential services are not widely accessible in large parts of the city, power cuts are frequent where a power grid exists, the sewage system does not reach all inhabitants and roads are either dilapidated or non-existent.

In Kinshasa, 70 percent of the population (over 7 million people) cannot afford to spend US$1 a day on food and other essential needs. As poverty is the main reason for poor food access, rates of food insecurity are thought to be high. Studies estimate chronic malnutrition at 18 percent of children in the inner city and over 30 percent in the outskirts, which translates into very high absolute numbers of malnourished children. This study attempts to fill a critical knowledge gap for humanitarian and development actors in the Democratic Republic of the Congo by assessing food insecurity and vulnerability among urban households in Kinshasa. It will demonstrate that addressing urban vulnerability and food insecurity will be vital steps along the Democratic Republic of the Congo's path to Zero Hunger.

Kinshasa is divided into 24 communes or municipalities. This study focuses on five identified as the most vulnerable: N'sele, Kisenso, Kimbaseke, Makala and Selembao. The first three communes cover large areas on the outskirts of Kinshasa, where urban space gradually fades into the rural hinterland. These peripheral communes have poor infrastructure and are relatively far from downtown where most businesses and administration activities are concentrated. Since the public transport system is poor, educated people and the middle class choose to live in communes that are close to downtown. The aim of this assessment is to examine the relationship between the livelihoods pursued in the five communes and vulnerability and food insecurity.

This report is structured in six sections. The introduction details the assessment objectives and methodology. Section 1 focuses on the socio-demographic characteristics of the households living in the five selected communes, including characteristics of the dwelling, household composition, and access to education and other basic services. Section 2 is devoted to the analysis of livelihoods and income sources and how they link to vulnerability. Section 3 introduces the minimum expenditure basket (MEB) that has been established for Kinshasa as part of this assessment. Section 4 gives a detailed analysis

4 http://www.demographia.com/db-worldua.pdf

5 https://esa.un.org/unpd/wup/Country-Profiles/

of vulnerability to food insecurity and basic needs deprivation. Section 5 analyses a set of crisis scenarios and explains an estimation of how these scenarios impact vulnerability in the five communes. The final section presents a set of recommendations to guide the humanitarian and development community on the way forward in addressing urban vulnerability and food insecurity.

ii. Objectives of the assessment

Overall aim

The overall objective of this study is to improve knowledge of household vulnerability – including the prevalence and drivers of food insecurity and poor satisfaction of essential needs – in the five most vulnerable communes of Kinshasa, in order to inform programme planning and provide evidence for a response strategy by WFP and other stakeholders in support of the most vulnerable households.

Specific objectives

- **Objective 1:** To assess the prevalence and main drivers of food insecurity in the five most vulnerable communes (and within sub-communes) of Kinshasa for potential programme planning in support of the most vulnerable households; the results will serve as baseline outcomes for a future monitoring system[6] to be established in urban areas.
- **Objective 2:** To assess how the food access of people living in the five communes could change if food and non-food items' prices increased and access to income was curtailed in the event of instability.
- **Objective 3:** To assess the degree to which the population can meet their essential needs, establishing a minimum expenditure basket (MEB), and evaluate the overall well-being of urban households in these communes as a basis for future monitoring.

iii. Methodology

To meet these three objectives, WFP and partners decided to use a mix of methods. A number of data collection tools were used after thorough desk review and secondary data analysis. These tools are detailed below.

Secondary data review

The secondary data review sought to gather any evidence on population and vulnerability in assessments and studies conducted in Kinshasa. The objective was to contextualize the primary data by examining topics such as urbanization, poverty, macro-economic trends, and nutrition and health to identify context-specific issues linked to food insecurity and economic vulnerability.

6 Food security monitoring system, or FSMS.

Focus groups discussions

Two focus groups were conducted in Kimbanseke to gather information on the main characteristics and drivers of food insecurity and poverty. Information from the focus groups was also used to adapt the household surveys to the local context in urban and peri-urban areas of N'sele.

Key informants (head of sub-communes)

In urban contexts, community or neighbourhood access to public services, hygiene and sanitation conditions, and infrastructure quality can directly influence food insecurity, nutrition and economic vulnerability. Building on the lessons learnt and recommendations of the report 'Adapting to an Urban World – Port-au-Prince[7] case and Metro manila case studies', the following key informants were interviewed:

- ***Chefs de quartiers***: short closed-ended questionnaires were sent to 119 heads of neighbourhoods (administrative units under a commune). The 15 questions covered the profile of the most vulnerable and access to essential services and needs such as shelter, water, electricity, education and healthcare.
- **Traders and *malewa***: 112 questionnaires were administered to food traders and street-food vendors (*malewa*). The traders were interviewed to determine food availability and the prices of main food items in markets. This enabled the analysts to gauge the economic access to food of people relying on markets by building the minimum expenditure basket (MEB), a proxy for a local poverty line. The *malewa* provided information on the type, price and ingredients of the main dishes they sell to give a better picture of the nutritional value of food consumed outside the home, to profile customers and to integrate food consumed outside the home within the main household-level outcome indicators of food consumption.

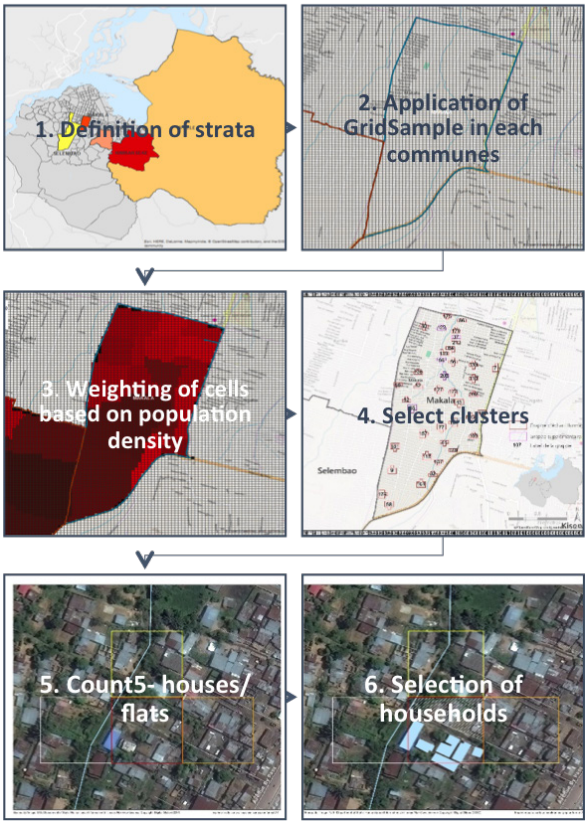


Figure 1: Household survey sampling design based on satellite imagery

High resolution maps

Satellite imagery was used in the sampling design to ensure the random selection of households in each stratum of interest. The methodology has been adapted from a combination of tools used to analyse gridded-population survey modelling, including the Survey for Urban Equity of Leeds Institute for Health

7 WFP Port-au-Prince, 2016 urban assessment

Studies University.[8] After defining the strata,[9] a grid of cells measuring 50x50m per pixel was over layered to the shapefile of the stratum (step 2). Each cell was then weighted according to its population density (step 3) using information from the Demographic Health Survey 2014. The next step was to randomly select 35 clusters (step 4) then households (steps 5 and 6) within each stratum through a standard two-stage cluster design. In this case, clusters were represented by groups of cells (comprising an estimated 500 people as a minimum). Each cell was attributed a weight (or a probability of being randomly selected), which is a function of the estimated population within the cell. Clusters were then selected applying a 'population proportionate to size' approach. In each cluster, priority cells were randomly identified, before houses were listed and selected in the biggest sub-unit of the cell (segment) contained between the sides of the cell and any transects (roads, rivers, parks and railways etc.). After counting the number of houses in this segment, a systematic sampling method was applied to select households.

Household survey

The survey sample was designed to give representative estimates for each of the five

8 For more information, visit http://www.worldpop.org.uk/data/get_data/; https://medhealth.leeds.ac.uk/info/691/

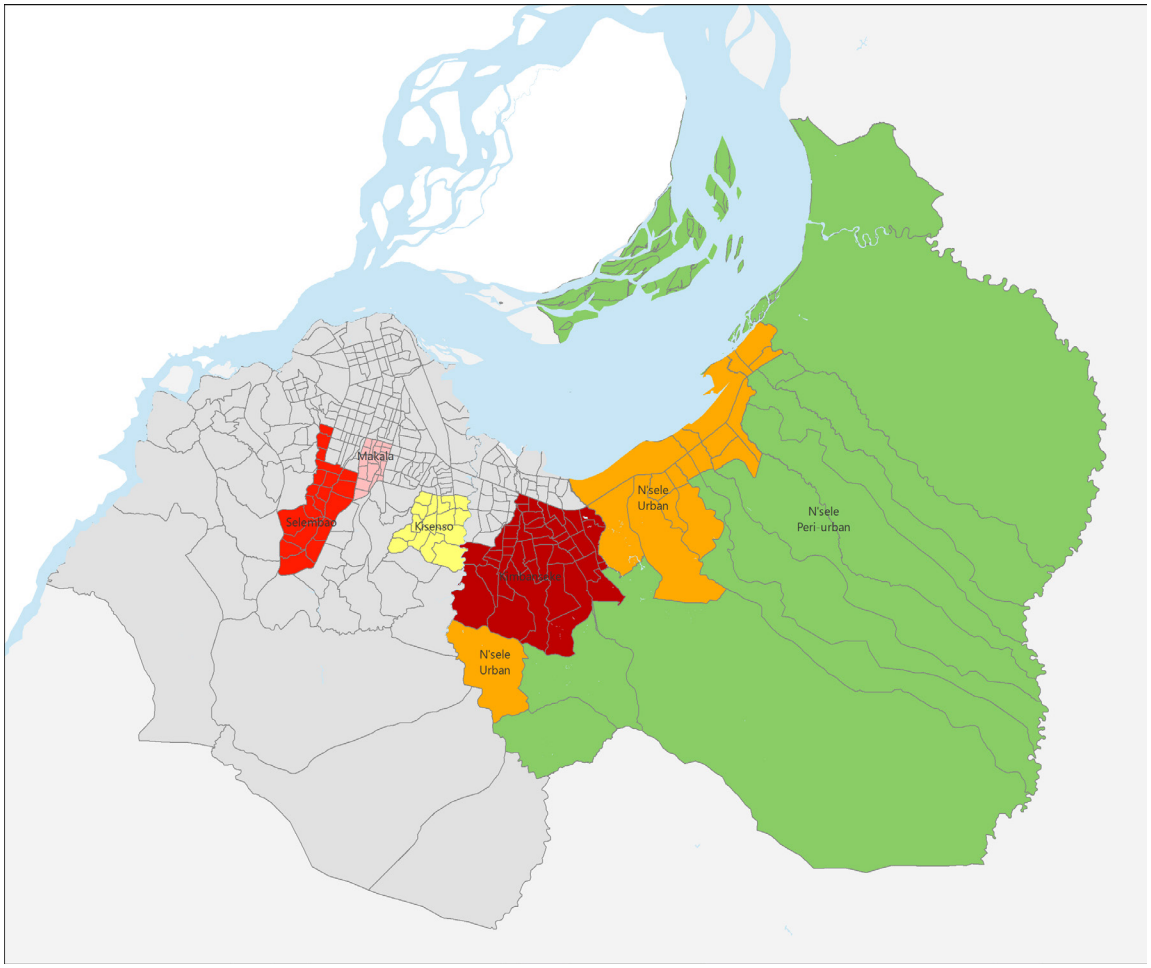


Figure 2: Areas of interest (strata) covered by the assessment

research/2388/sue.

9 The units in which the sample is sufficiently representative of the population of the same area.

communes of N'sele, Selembao, Kisenso, Kimbanseke and Makala. An oversampling of N'sele allowed further disaggregation into the most urbanized and the peri-urban areas (peri-urban N'sele). This was based on population density algorithms. Ultimately, six strata were retained.

As explained above, the sampling methodology employed a two-stage cluster sample. The questionnaires were conducted with 1,850 households within 210 randomly selected clusters (35 per stratum). Probability weights were used in analysis to adjust for the population and sample size differences between the sampling strata. Data collection was conducted in November 2017 by eight teams (40 enumerators). Tablets were used to collect the data through an application developed in Open Data Kit (ODK).

Questionnaires covered a wide range of topics including socio-demographics, food consumption, livelihoods, expenditures, WASH,[10] education, coping strategies, migration, shelter and living conditions.

Shock Impact Simulation Model (SISMod)

SISMod is an econometric model developed by FAO Trade division and WFP's Vulnerability Analysis and Mapping unit (VAM). It uses a combination of modules on household income, expenditure and food consumption. The process determines the interaction between production and income-generation decisions (income effects) and consumption decisions (price effects) to quantify the impact of price and income changes on household food consumption. SISMod was used to assess the potential impact of these changes on the livelihoods, poverty, purchasing power and food insecurity of the population living in the five most vulnerable communes in Kinshasa. The following three scenarios were built to reflect increasing levels of instability:

1. Rumours of state bankruptcy; price rises just above ordinary inflation rates; no impact on livelihoods.
2. Some demonstrations; average food price increases of 10–15 percent; drop in income of 20–30 percent for all categories except civil servants.
3. Turmoil; complete disruption of livelihoods including for civil servants; price increases of 40–50 percent.

SISMod estimates the prevalence and the number of households who face a lack of economic access to cover their essential needs. The key household indicator used in this model is total expenditure compared to the minimum expenditure basket (MEB), which was established as part of this study. Thus, the impact of the scenarios is explained through the number of households whose projected expenditure will be below the MEB.

Limitations

The following limitations may have influenced the precision of the household data and the overall accuracy of the findings in this study.

10 Average number of dependants (aged 0–12 or over 59 years) per non-dependent member (aged 13–59 years).

- The collection of household data in Selembao and Makala had to be interrupted for reasons of security. While it was possible to collect a significant amount of data in these communes, the results could be over-representatives of areas in which enumerators were able to complete the selected clusters, and not capture adequately those in which security issues occurred.
- The teams were only able to interview households who regularly reside in the selected communes. The exclusion of the most deprived people in Kinshasa – I.E. the masses of homeless people and children living in the streets – may undermine the actual levels of vulnerability. As a result, the assessment focuses on the population with a regular home base rather than the most vulnerable in Kinshasa.
- This assessment only covered neighbourhoods of Kinshasa pre-identified as problematic zones, where poverty is particularly high and where new migrants settle when they arrive. This does not mean that there are no vulnerable populations in other areas. Ideally, more communes should be included when setting up a system to monitor vulnerability.
- This assessment has not touched the topics of malnutrition and the double/triple burden. Future efforts to understand poverty and vulnerabilities should examine the links between urban livelihoods, access to essential goods and services, and nutrition.
- Just two *percent of the sample was made up of* single-member households, partly because many were absent at the time of the data collection, resulting in a high non-response rate. In future, households should be given advance notice of interviews to minimize this effect.
- The data collected on expenditure related to rents and communication were not accurate and had to be discarded. To calculate poverty in terms of the Minimum Expenditure Basket (MEB), the analysts took the average rent fees by commune (adjusted to the number of rooms occupied per household) and imputed them to households who reported living in rented housing. Communication expenses were also imputed.
- The low recordings of health-related problems in the section on non-monetary poverty through the multidimensional poverty index could be partly explained by the absence of sufficiently relevant questions on access to healthcare in the questionnaires. The module used certain questions that may not represent real challenges in accessing the healthcare system, and further analysis is recommended.
- The three crisis scenarios presented in section 5 should be considered approximations of possible real-life situations. Each real scenario of vulnerability following instability can easily be plugged into the model, using data collected at the appropriate time, to estimate the effect of that specific event.
- SISMod does not take into account migration away from Kinshasa as a coping mechanism, even though that may be one of the most plausible consequences of crisis for vast segments of the population.

SECTIONS

Section 1: Socio-demographic characteristics of households

This section analyses basic information from the household interviews to understand the characteristics of the households living in the five surveyed communes. The analysis covers household dwelling standards, household composition, access to education, infrastructure access and migratory patterns.

1.1. Composition of dwellings

Around four in ten households in Kinshasa share their housing with other families. Flat- or house-sharing is more common among urban dwellers of Kisenso, Makala, Kimbanseke and Selembao (49 percent) than in households in peri-urban N'sele (16 percent). On average, each dwelling comprises two households living together – mainly to amortize the rent – with a combined occupancy of 8.9 people. An average household comprises 6.8 members.

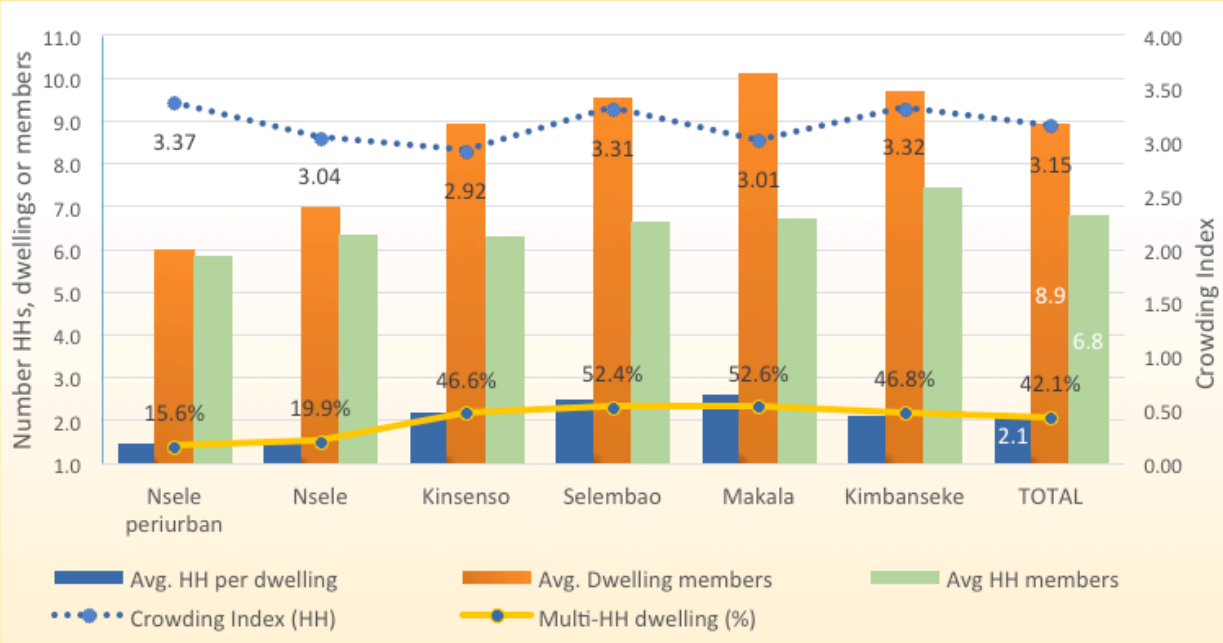


Figure 3: Average size of dwellings, households and crowding index by commune

The dwellings are often too small for the number of occupants. The crowding index per household – the number of members per room, excluding the kitchen, corridors and toilets – is high and relatively homogeneous across all neighbourhoods at 3.2 members per room. The highest congestion is observed in peri-urban N'sele, where 66 percent of houses are composed of just one or two rooms, compared with 43 percent in urban areas.

Except in Kimbanseke, the number of households per dwelling is proportionate to household size and dwelling size. Co-sharing of housing is most prevalent in Makala and Selembao, and is more common among households led by women: 48 percent of households led by women share their housing, compared with 40 percent of those led by men.

BOX 1: DEFINING HOUSEHOLDS AND DWELLINGS

In rural areas, a **household** is defined as "a social unit composed of individuals, with family or other social relations among themselves, eating from the same pot and sharing a common resource base." (EFSA, 2005). In urban areas, the definition relates more to an aggregation of people (not necessarily from the same family, not necessarily eating from the same pot) who share the same financial resources.

A **dwelling** can comprise more than one household living under the same roof and not sharing their income sources. If a dwelling comprises a group of people who share financial resources, the definitions of household and dwelling coincide.

1.2. Composition of households

Urban households in Kinshasa contain an average 6.8 members. Families are slightly smaller in peri-urban N'sele (5.8 members). Households in Kimbanseke – one of the most densely populated communes in the capital – are generally bigger in size (7.5 members).

'Typical households comprise two or three children under 12; one child aged between 13 and 17 and three adults. One in three households has an elderly member aged 60 or over'

Most families are led by a **monogamous married head (59 percent)**. The cohabitation of un-married couples is also common, representing 16 percent of urban households and 30 percent in peri-urban N'sele. Only 8 percent of household heads are single or do not live with their spouse or fiancée.

	Male age 0-5	Female age 0-5	Male age 6-12	Female age 6-12	Male age 13-17	Female age 13-17	Male age 18-59	Female age 18-59	Male age >60	Female age >60
Urban	0.6	0.6	0.7	0.6	0.4	0.5	1.5	1.7	0.2	0.2
Nsele periurban	0.6	0.6	0.7	0.5	0.4	0.3	1.1	1.4	0.1	0.2

Figure 4: Composition of typical households in Kinshasa

Around 25 percent of households in urban neighbourhoods are headed by a woman, compared with 20 percent in rural N'sele. On average, these households have 0.4 fewer

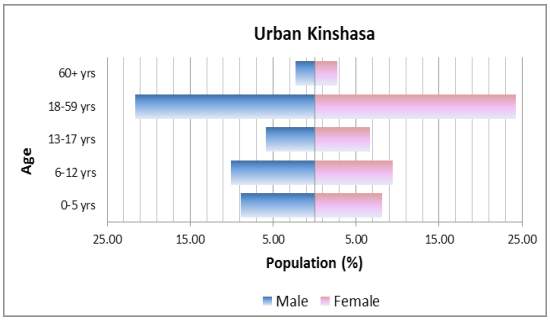


Figure 5: Pyramid of ages, urban Kinshasa

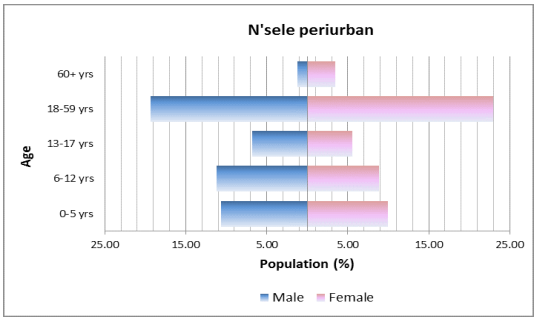


Figure 6: Pyramid of ages, peri-urban N'sele

adult male members than households led by men, and 0.3 more elderly female members – characteristics associated with higher dependency ratios and economic vulnerability. Only 11 percent of households with a married head are led by a woman. Among divorced households, 78 percent are headed by a woman. Similarly, 87 percent of households headed by a widow or widower are led by women.

Household heads are usually literate – only 3 percent are not – and in most cases, heads hold a secondary school qualification (58 percent in urban areas, 53 percent in peri-urban areas). Around 23 percent of urban households' heads hold a post-secondary qualification, compared with just 7 percent in peri-urban areas.

The **dependency ratio**[11] is generally low, indicating that work is available; however, there are problems regarding the type of work and the remuneration. The dependency ratio varies from 0.71 in urban communes to 0.83 in peri-urban N'sele. The highest ratio is usually associated with the presence of more children aged 0 to 12 in the household. Around 80 percent of households have at least one child under 13, with the share as high as 85 percent in Kimbanseke. In this commune, 53 percent have three or more children, compared with just 38 percent in Selembao and 40 percent in Kisenso.

Around one in ten households has at least one **chronically ill or disabled member**; there are no significant differences between urban and peri-urban areas in this regard.

1.3. Education

Two thirds of families interviewed have school-age children. On average, **19 percent of children** from such families **do not attend classes regularly.** Despite the significantly lower schooling expenditures per child, the proportion of dropouts is higher in peri-urban N'sele (28 percent) than in the other urban communes (18 percent).

High fees and limited financial resources are the main drivers of student dropout rates. Each family in urban Kinshasa spends an average CDF153,000 (US$97) on school fees, and CDF93,500 (US$60) for running costs related to school attendance each semester. In peri-urban N'sele, average expenditures are much lower: US$55 on fees and US$32 on running costs.

The most common accessory expenditures related to school attendance are school materials (reported by 85 percent of households), uniforms (83 percent) and food (53 percent). Transport expenditures were only reported in urban areas, and by 17 percent of households.

11 Average number of dependants (aged 0–12 or over 59 years) per non-dependent member (aged 13–59 years).

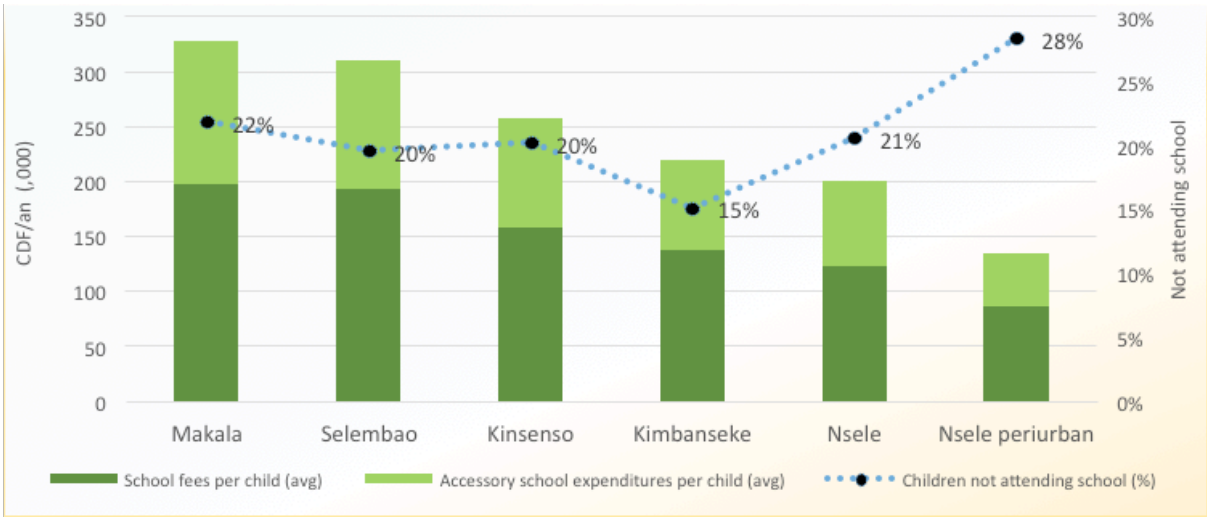


Figure 7: Average school-related expenditures and dropout rates, by commune

Finally, around 28 percent of households in the areas of Kinshasa covered by the survey reported paying direct contributions to teachers.

Big families compromise more on education

The difference between potential and actual expenditure[12] on education increases with household size and the number of school-age children. Big households compromise on the education of some of their children. Such differences increase when the number of school-age children in the household rises from two to three, and even more so, when there are six children or more.

In urban communes, households led by women spend an average CDF166,000 less than necessary on their children's education, compared with the average shortfall of CDF134,000 of households headed by men. In peri-urban N'sele, the difference is less pronounced (CDF100,000 compared with CDF82,000). The biggest education expenditure gap is observed within

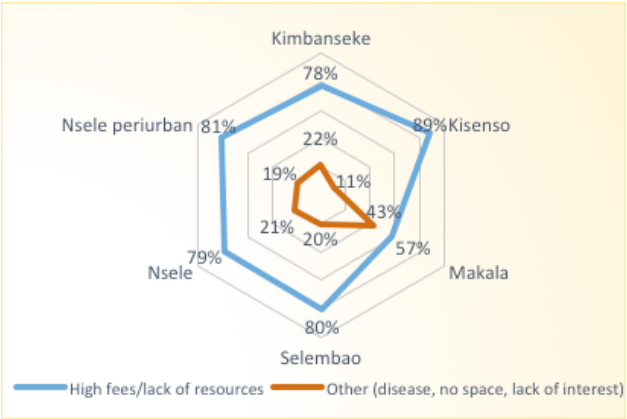


Figure 8: Main causes of school dropouts

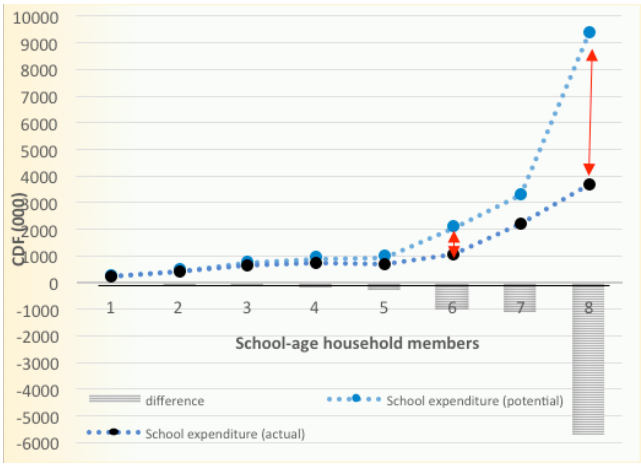


Figure 9: Average gaps in education expenditure per household (actual and potential) by number of school-age members

12 Potential expenditure reflects what households would spend if all their school-age members attended school, calculated using the average yearly cost per student in each commune.

households of Selembao (average shortfall of CDF181,000), followed by Makala (CDF154,000) and Kimbanseke (CDF144,000).

1.4. Shelter, cooking fuel & WASH

Shelter

The satellite view of roofing patterns in the five urban communes is relatively homogeneous. The **building footprint** is relatively dense, but not excessively so. Housing units are usually composed of 2.5 to 3.5 rooms and form part of small one-storey buildings. There are typically between 10 and 30 units in each block. The building footprint is slightly denser in Kimbanseke than in other communes, and it decreases a little when walking away from the centre into the more peri-urban areas.

Around **60 percent of respondents own their houses** (59 percent in urban Kinshasa and 63 percent in peri-urban N'sele), although 12 percent of them do not have a certificate of ownership.

Around **36 percent of urban households rent their flat** – 27 percent in peri-urban areas. Renting is most common in Makala (47 percent of households). This commune has faced significant urbanization in the past 30 years which led to a record-high population density for Kinshasa (45,000 inhabitants per square kilometre in 2004).

Among those who rent their homes, the average monthly payments amount to CDF53,000 (US$34), although there are large variations across the urban communes. As expected, monthly rental fees are significantly lower in peri-urban N'sele.

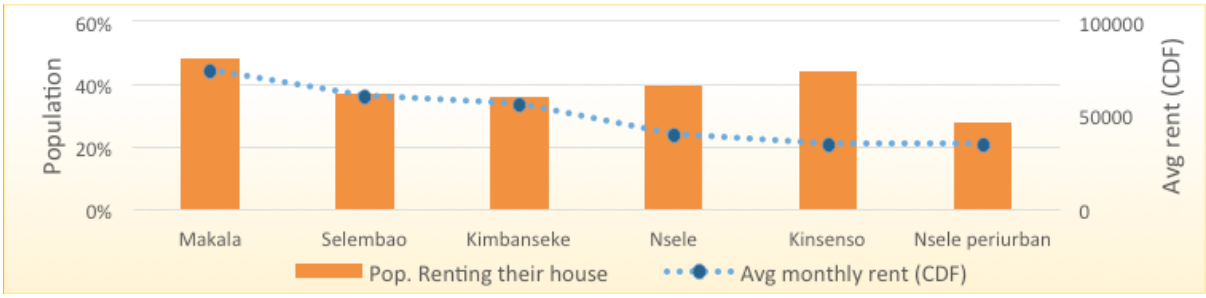


Figure 10: Proportion of households renting their homes and average monthly rental fees

Construction materials are similar in all urban communes: iron sheeting is used for roofs, adobe bricks for walls and cement for flooring. In peri-urban N'sele, less expensive materials are more common, such as iron sheets, plastic and fabrics for filling in walls, as well as soil for flooring.

Cooking fuel

In urban areas, charcoal is the main **cooking fuel,** used by 75 percent of households. In peri-urban N'sele, the most common cooking fuel is firewood (60 percent), with charcoal used by 39 percent.

Torches are the main **source of lighting** for 76 percent of peri-urban households and 63 percent of urban households. Around 4 percent of interviewed families have no source of lighting. The proportion of buildings and houses connected to the main power network is much higher in the urban communes: an average of 26 percent of urban households are connected, rising to 35 percent in Makala and Selembao. Only 6 percent are connected in peri-urban N'sele.

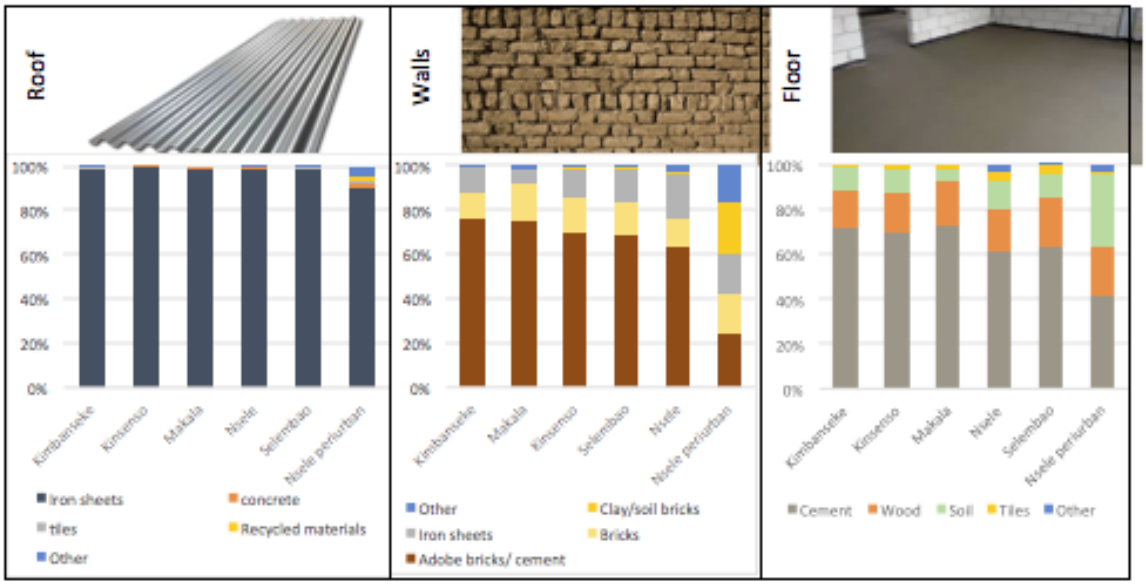


Figure 11: Main construction materials of houses in Kinshasa, by commune

WASH

Hygiene conditions are problematic in urban and rural Kinshasa. Around 50 percent of urban households and 61 percent in peri-urban N'sele do not use improved **toilet facilities**. The use of collective latrines is very common, while open defecation is relatively common even in densely populated Kimbanseke and Kisenso, and is very common in peri-urban N'sele.

Inadequate sanitation facilities are often combined with poor access to protected water sources. Around 70 percent of households in peri-urban N'sele do not have access to improved sources of drinkable water and mainly depend on natural water sources such as spring sources, rivers or wells. In urban areas, 27 percent of households lack access to improved water sources, rising to 31 percent in Kisenso and 33 percent in urban N'sele.

Sector	Type	Kimbanseke	Kinsenso	Makala	Nsele	Selembao	URBAN	NSELE periurban
Sanitation facilities	*Toilet with flush*	17%	16%	19%	10%	14%	15%	3%
	private pit latrine	33%	31%	26%	49%	37%	35%	36%
	Collective latrine	29%	39%	46%	24%	38%	33%	20%
	Open defecation	10%	7%	2%	7%	4%	7%	34%
	Pot/bucket	6%	3%	4%	5%	4%	5%	3%
	Other	4%	5%	3%	6%	4%	5%	4%
	Improved	**50%**	**47%**	**44%**	**59%**	**51%**	**51%**	**39%**
Water sources	*In-house fountain*	40%	13%	36%	6%	21%	27%	1%
	Public fountain	32%	43%	39%	51%	42%	39%	25%
	Wells	3%	10%	6%	3%	7%	5%	11%
	Borholes/protected	2%	11%	8%	9%	7%	6%	4%
	Watertank	1%	1%	0%	0%	0%	0%	0%
	Rain water	1%	1%	0%	0%	3%	1%	1%
	Natural source	13%	7%	1%	10%	8%	9%	48%
	Lake/river	1%	1%	0%	1%	0%	1%	6%
	Water bottles	1%	5%	2%	6%	4%	3%	3%
	Other	6%	8%	8%	12%	9%	8%	2%
	Improved	**76%**	**69%**	**84%**	**67%**	**73%**	**74%**	**31%**

Table 1: Most common sanitation facilities and water sources, by commune

There are no significant variations in main water sources and sanitation facilities related to household size or sex of household head. Access to improved services appears to be related not just to household financial resources but also to gaps in infrastructure, especially in peri-urban N'sele.

1.5 Migration and remittances

Migration to Kinshasa

Households are very mobile, especially in urban communes covered by the survey, where 16 percent of households had moved during the 12 months preceding the survey, and 5 percent had moved in the previous three months. Households migrate to Kinshasa in search of new income opportunities, and partly to escape from the various conflicts in the country. The situation is more static in rural N'sele where 94 percent of people have lived in the same housing for at least one year.

Households headed by a man are slightly more likely to migrate to the city – 17 percent had migrated to Kinshasa in the previous 12 months compared with 15 percent of households led by women.

Figure 12: Main migration patterns to Kinshasa (urban and peri-urban N'sele)

Migration outside the neighbourhood

Migration flows are complex: while 30 percent of urban dwellers had migrated to Kinshasa in the previous two years, 23 percent of urban households had at least one member who had left their neighbourhood in the six months prior to the interview, with Kimbanseke registering the highest proportion of such migrants (33 percent). Most of them moved to another commune in Kinshasa (51 percent) or to another country (25 percent), and many had migrated for good (51 percent).

The search for employment is the main driver of migration, cited by 38 percent of households with migrant members. The second most common reason is access to education (14 percent). Only 22 percent of urban households had received transfers from members who have migrated within the past six months compared with 8 percent in peri-urban N'sele. Direct cash remittances are the main money transfer modality (40 percent of those who received them) followed by mobile money and bank transfers (14 percent each). On average, each family had received CDF141,000 (US$90) in the six months prior to the interview. Bringing food to town is also relatively common (14 percent).

In peri-urban N'sele, 14 percent of households had members who had migrated. Over two thirds of the migrants had moved to another commune of Kinshasa and 16 percent had left to rural areas. Only one third had migrated permanently; the rest had moved temporarily or just for the duration of the farming season. A negligible proportion of these migrants sent transfers to their families.

Finally, **a considerable number of households reported the return of some of their members** who had left for no less than six months before the interview (14 percent of urban households and 11 percent of peri-urban households). Most migrants had re-joined their families for work or health-related reasons.

Section 2: Livelihoods

2.1. Main income sources & vulnerability associated with them

Casual labour, whether non-qualified (such as movers, farmers or domestic workers) or qualified (masons, tailors, drivers, etc.), is the major source of income for most households in urban and peri-urban communes of Kinshasa. The so-called *'tout-terrain'* wake up every day without knowing what type of work they will perform or whether they will work at all. Their labour is the main source of income for 20 to 25 percent of households in the communes covered by the assessment. There are no major differences in the proportion of households depending on casual labour across urban communes or between urban and peri-urban areas.

Around 20 percent of people in urban areas have a **permanent contract** and 60 percent of them are civil servants. In peri-urban N'sele, only 3 percent have a permanent contract and 66 percent of them are civil servants. Permanent contracts in the private sector are therefore very rare.

Around 33 percent of peri-urban households have members working as **shopkeepers,** a share that drops to 4 percent in urban areas.

Small retailers (with kiosks or mobile street vendors) are slightly more common in urban parts (27 percent of households) than in peri-urban N'sele (20 percent). Kimbanseke has the highest proportion of households depending on street vendors. The share of households relying on income from kiosks or shops that sell food and non-food items is similar across all surveyed communes and between urban and rural areas.

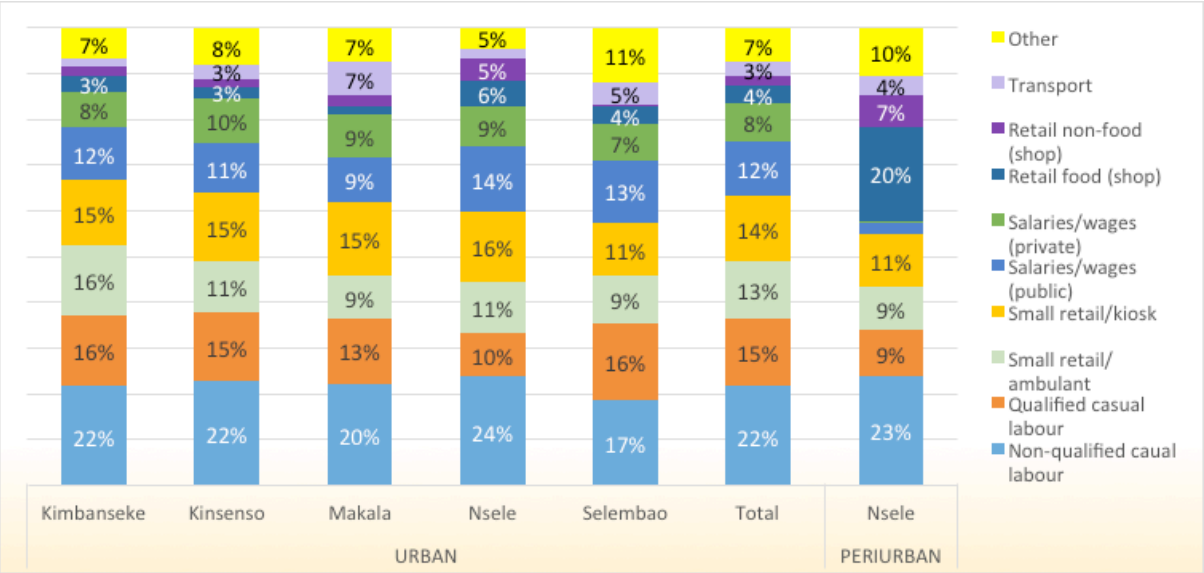


Figure 13: Main income sources in Kinshasa, by commune

2.2. Number of income sources

In urban and peri-urban Kinshasa, just under one in five households has no access to any type of income or support. The vast majority of households (two thirds in urban areas and three quarters in peri-urban N'sele) have access to just one source of income.

Unsurprisingly, the absence of income sources is significantly correlated with food insecurity in terms of poverty, inadequate access to food and the adoption of negative coping mechanisms. Indeed, access to at least one income source is associated with food security. Data also show that households who depend on two sources are slightly (although not significantly) better off. The limited number of households with three or more income sources makes it impossible to assess whether this factor makes food insecurity and poverty less likely.

	Number of income sources			
Commune	No sources	One source	Two sources	Three sources
Kimbanseke	15%	67%	15%	3%
Kinsenso	17%	65%	17%	1%
Makala	20%	66%	13%	1%
Nsele	10%	72%	18%	0%
Selembao	20%	66%	12%	2%
URBAN	16%	67%	15%	2%
Nsele periurban	15%	75%	9%	0%

Table 2: Number of income sources by commune

In other words, having at least one income source is key to achieving food security, but having more than one income source is not a characteristic that distinguishes food-secure households from food-insecure ones.

The type of income source affects household food security and wealth much more than the number of active members. Having **small retailers (shops, street vendors or kiosks)** within the household is correlated with food security, while the presence of **civil servants** with a permanent contract brings monetary wealth and satisfactory access to essential needs. Table 3 shows the most typical combinations of livelihoods and vulnerability associated with households in urban and rural Kinshasa by number of income sources.

N. income sources	Setting	Type of income source			% HHs with unacceptable FCS	% poor (monetary)	MPI (low access to essential needs)
3	Urban	Small retail/ ambulant, 55%	Civil servants, 50%	Small retail/ kiosk, 45%	50% unacceptable	56%	58%
	Peri-urban N'sele						
2	Urban	Non-qualified casual labour, 36%	Small retail/ kiosk, 34%		38% unacceptable	64%	40%
	Peri-urban N'sele	Retail shop (food) 41%	Small retail/ kiosk, 41%		30% unacceptable	53%	35%
1	Urban	Non-qualified casual labour, 23%			41% unacceptable	66%	55%
	Peri-urban N'sele	Non-qualified casual labour, 28%			68% unacceptable	71%	82%
0	Urban				54% unacceptable	74%	79%
	Peri-urban N'sele				58% unacceptable	65%	85%

Table 3: Typical combinations of income sources in urban Kinshasa

2.3. Livelihoods and vulnerability

As mentioned in the previous section, Kinshasans are most commonly engaged in **small retail** (often of food, through kiosks or as mobile street vendors) and non-qualified casual labour. In the five urban communes assessed, having members engaged in small retail is often associated with favourable food access but also with relatively high levels of monetary poverty (18 percent) and unsatisfactory access to essential needs (13 percent). Interestingly, small households[13] engaged in small retail are less prone to monetary poverty but are at higher risk of unacceptable food consumption and more limited access to essential needs.

Non-qualified casual labour is also widespread and is usually associated with high levels of vulnerability. Among households who depend on this source, unacceptable food consumption rates are high – especially in peri-urban N'sele. These households also face high rates of poverty, precarious living conditions and limited access to education, healthcare and income.

Although not widespread, the presence of **permanent salaries** (whether public or private sector) is associated with good food access, low poverty and satisfactory access to all essential needs. The only exception to the latter is for households living in peri-urban N'sele where access to essential needs seems much more problematic than in urban areas. This could be explained by poorer quality facilities outside of Kinshasa.

Finally, **qualified casual labourers** within the family bring sufficient resources to ensure adequate food consumption and access to other essential needs.

Figure 14 below shows how dependency on specific income sources in urban and peri-urban areas correlates to the various indicators of vulnerability. Note that in urban areas, the orange line showing the proportion of poor households (in a monetary sense) is consistently above the blue line depicting the non-monetary poor (i.e. those with unsatisfactory access to essential services). Also, food consumption is consistently less of a challenge than poverty. Despite the absence of formal and informal safety nets, households seem to find ways to mitigate the impact of their limited income and to access food (especially food retailers). Unsustainable income sources such as **begging or external aid** are associated with the highest proportion of people with unacceptable food consumption and with some of the highest monetary and non-monetary poverty rates.

13 Composed by one or two members.

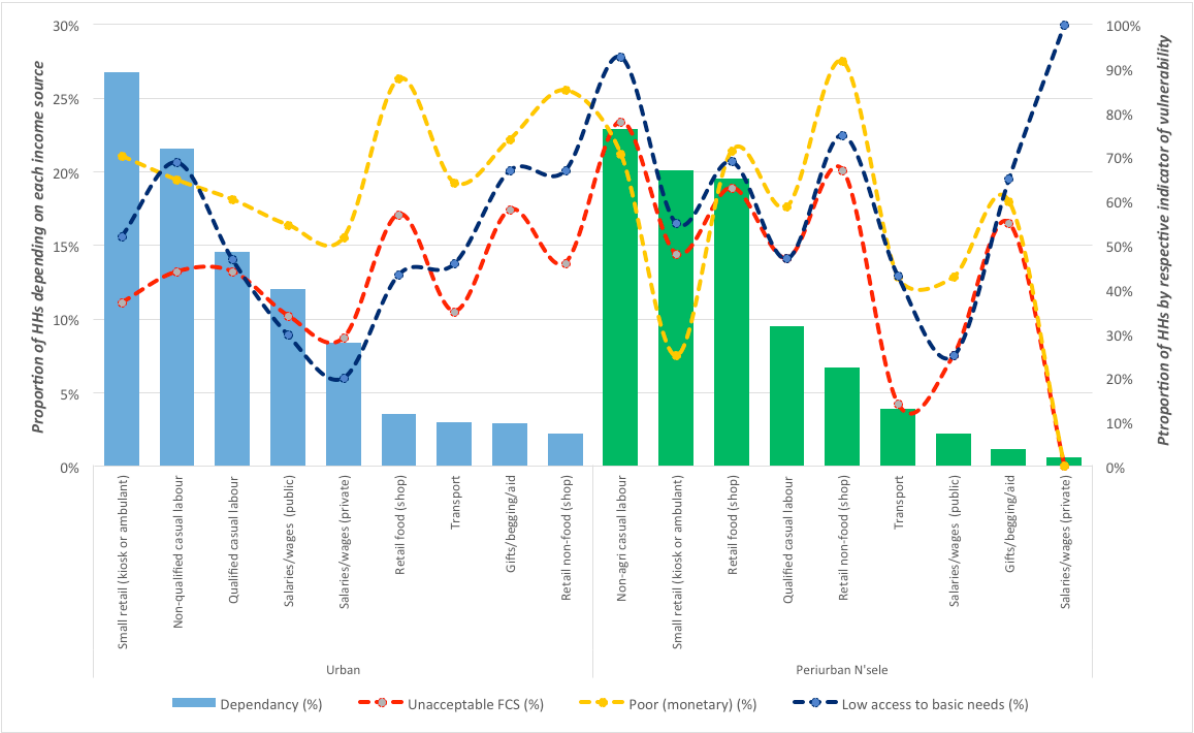
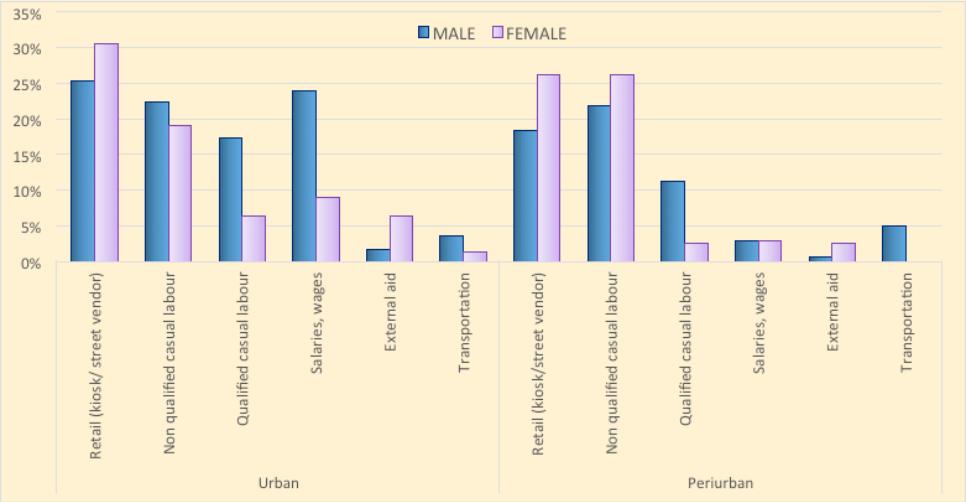


Figure 14: Main income sources and vulnerability associated with them (in % of households)

BOX 2 : INCOME: THE ROLE OF WOMEN

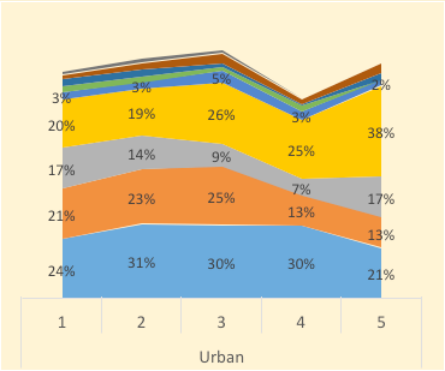
In urban and peri-urban areas, households headed by women are comparatively more engaged in retail sales of food and non-food items. They also tend to depend more on unsustainable sources such as gifts or begging (external aid). In peri-urban areas, women tend to engage more in non-qualified casual labour compared with their counterparts in urban areas. This work is mainly seasonal or temporary.

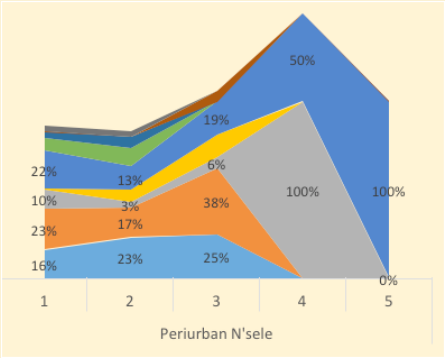
The table below shows main income sources in urban and peri-urban areas by sex of household head



The presence of women in the household is associated with a higher reliance on salary wages or small retail (kiosks or street vendors), as well as non-qualified casual labour (mainly domestic work). This means that women are mainly engaging in such activities in the two settings. Women with salaries and wages are almost non-existent in peri-urban areas, and external aid is negligible except with a household presence of two to four women.

The graphs below show how dependency on main income sources evolves with an increasing presence (1 through 5) of adult women on active age (18–59 years).





Small retail (kiosk/ambulant) · Non qualified casual labour · Qualified casual labour
Salary/wages (public, private) · Retail sale of food products · Retail sale of non-food products
Transportation · External aid · None

Section 3: Minimum expenditure basket

The establishment of a minimum expenditure basket (MEB) for Kinshasa is a central element of the essential needs approach to this urban assessment. The MEB identifies the amount of money households in the surveyed communes of Kinshasa require every month to meet their essential needs. It serves as a poverty line and a threshold that can be used to classify households and assess their vulnerability. This section presents two MEBs for Kinshasa, the first covering all city districts and households with predominantly urban livelihoods, and the second describing the needs of the population in peri-urban zones where most households rely at least partly on agricultural production for their livelihoods and where certain non-food items are not part of household demand. For both zones, the assessment sets out a standard MEB and a survival MEB. While the MEB attempts to depict the cost of living a dignified life, the survival MEB represents the absolute bare minimum needed to sustain lives.

The MEB in Kinshasa has been calculated using the methodology WFP sets out in its MEB interim guidance note published in July 2017[14]. WFP proposes constructing MEBs using household survey data along with qualitative data from key informants and focus groups. The MEB in Kinshasa blends expenditure-based and rights-based approaches to determine the thresholds for the different parts of the basket. The expenditure-based approach defines essential food and non-food items based on data from people living just above the threshold of vulnerability, while the rights-based approach rests on context-specific value analysis of the items and essential services households use as part of a dignified life. Table 4: MEB and survival MEB components4 shows how the components are analysed and how the MEB values have been determined. The exact questions used in the data collection can be found in Annex 3.

Table 4: MEB and survival MEB components

MEB component	Subcomponents	Method	Calculation	Household size adjust-ment	Inclusion in MEB and survival MEB
Food	• Maize meal • Cassava • Beans • Vegetable oil • Fish • Sugar • Vegetables • Fruits • Dairy • Condiments	Expenditure-based approach for each subcomponent and scaling to 2,100 kcal per person per day	Mean expenditure of households with food consumption score < 70 and reduced coping strategy index < 15	Per capita adjust-ment	MEB: Inclusion of all food items consumed and calorie-scaling on all calorie-relevant items Survival MEB: Inclusion of cereals, tubers, beans and oil, scaled to 2,100 kcal

14 An updated WFP MEB guidance is currently being finalized.

Rent	Two-room housing	Rights-based, using qualitative information	Typical monthly rent of a two-room apartment	1 room for 1 or 2-person household;2 room for 3-7 members; 3 rooms for 8+ person household	No
Education	• School fees • School meals and materials	Rights-based for households with children (expenditure analysis to determine typical school expenses)	Median school fees and material cost per month per child	None	No
Health	• GP visits • Over-the-counter (OTC) medication	Rights-based, using qualitative information	Median cost of one doctor's visit per person per year Monthly amount for OTC medication	Per capita	No
Other non-food Items	• Water • Cooking fuel • Lighting • Hygiene products • Electricity • Transport • Clothes • Communication	Expenditure-based (rights-based selection of subcomponents)	Median expenditure of median household size with food consumption score < 70 and reduced coping strategy index < 15	Adjustment using an expenditure-based household-size adjustment scale	Survival MEB contains water, cooking fuel, lighting and hygiene products

For the expenditure-based components of the MEB, the assessment analysed households that could generally be considered to be above the poverty line without being too wealthy. For this MEB, theoretically justifiable, yet somewhat arbitrary upper and lower thresholds of household exclusion were chosen. At one end of the scale, households with a food consumption score over 70 were excluded, thereby filtering out the households who consume an unusually rich and expensive diet with daily intake of several protein-rich food items. At the other end, households with a food-based coping strategy index above 15 were excluded, so as to ensure that highly negative coping behaviour is not reflected in the MEB values.

The adjustments to smaller and larger households were made via a per-capita adjustment for the food basket and a household size adjustment scale for the expenditure-based non-food items. For the rights-based parts, specific adjustments have been used.

Food basket

Food source data from the survey indicates that a typical household in urban Kinshasa relies almost exclusively on markets for food. This supports using expenditure data from the household survey to define an average food basket for Kinshasa. In this section, food baskets are estimated for two zones: one for all urban communes, including urbanized parts of N'sele; and one for the peri-urban (rural) parts of N'sele, where the consumption of animal protein is markedly lower and where staple foods are generally slightly cheaper.

Two baskets are defined for each zone: a standard food basket that reflects the actual consumption patterns as observed in households just above a vulnerability threshold; and a survival basket that follows much more a rights-based approach based on daily macronutrient requirements. The standard food basket is used as the food component in the MEB, while the survival basket is applied in the survival MEB. Henceforth, the standard food basket is referred to as the MEB food basket, and the survival food basket as the survival MEB food basket.

Table 5: MEB and survival MEB food baskets for urban and peri-urban areas shows the food baskets as calculated using expenditure and price data, indicating the MEB and survival MEB food baskets for both locations. The cost of the standard basket used in the MEB is slightly lower in the peri-urban area (CDF24,500) than in the urban zones (CDF27,400), reflecting lower prices for staple foods and more modest consumption patterns in the former. The survival MEBs are closer in cost, totalling CDF15,200 in urban communes and CDF14,100 in peri-urban zones.

Table 5: MEB and survival MEB food baskets for urban and peri-urban areas

MONTHLY URBAN FOOD BASKET

Food Item	Per capita average spending	Kg price	kg consumed/month	Food item caloric value /100g	kcal consumed/ day	kcal/day rescaled	kg/month rescaled	Rounded MEB food basket	Survival Basket elements	Survival basket kg consumed/month	Rounded survival MEB food basket
Maize	6,898	900	7.7	360	920	982	8.2	**7,400**	982	8.7	**8,000**
Cassava	1,808	500	3.6	342	412	440	3.9	**1,900**	440	4.1	**2,100**
Beans	2,089	1,300	1.6	335	179	192	1.7	**2,200**	192	1.8	**2,400**
Veg oil	2,341	2,300	1.0	890	302	322	1.1	**2,500**	322	1.2	**2,700**
Fish	4,306	2,500	1.7	76	44	47	1.8	**4,600**			
Sugar	1,817	2,200	0.8	400	110	118	0.9	**1,900**			
Vegetables	2,826							2,800			
Fruits	833							800			
Dairy	799							800			
Condiments	2,509							2,500			
Meals outside house	2,144										
Total	28,371			Total kcal	1,967	2,100		27,400	1,936	2,100	15,200

Healthcare

Healthcare expenses are difficult to approximate in a MEB as they occur only sporadically in a normal household. Given the absence of a health insurance scheme that would guarantee a basic level of healthcare for the urban poor in Kinshasa, households are very unlikely to have regular manageable health expenses. The expenditure data shows that healthcare expenses are paid for when they occur, as much as a household is able to cover them. Very often, healthcare expenses are the reason why households report using stress and crisis coping strategies.

The distribution of health-related expenses is very skewed, with the majority of households (53 percent) reporting no expenses whatsoever within the six months preceding the survey. A minority of households report fairly significant expenses related to treating a condition of a family member.

This study has taken a rights-based approach, including the cost of one doctor's visit per year for each household member. Qualitative information from key informants (*chefs de quartier*) has been used to define the standard cost of consulting a general practitioner. In each commune, the median cost is between CDF5,000 and CDF6,000 per visit. The MEB therefore includes CDF500 per household member per month for doctors' costs.

On top of the doctor's visit, over-the-counter medication is included as part of health-related expenditure. Given the irregularity of medical needs as seen in the expenditure data, a per-capita expenditure of CDF1,500 every two months has been added. This would be sufficient for a course of antimalarial drugs or antibiotics, and would easily cover simple medication such as painkillers or anti-inflammatory drugs. The total per-capita value for health-related expenses is therefore set at CDF2,000 per month.

As health-related expenses are very low compared with those for food or shelter, the assessment team recommends that these expenses be more thoroughly studied in future, particularly to understand routine expenses for over-the-counter medication, health insurance reimbursement and government-sponsored healthcare. In future assessments, the household expenditure module should collect separate expenditure figures for doctor's treatments and over-the-counter medication.

Education

Primary school attendance in Kinshasa comes with a number of expenses that are to be paid by parents. Households were asked about their expenditures per child per semester for school fees and other school-related expenses. For the semester underway, respondents reported expenses related to fees, the school uniform, study materials, meals, teachers' contributions and transport. Table 6: Median expenses per school child per semester (in CDF) displays the median expenses per child per semester in Congolese francs. In total, households spend CDF110,000 in the urban zone and CDF69,500 in peri-urban areas per semester; roughly half of this is spent on school fees.

Table 6: Median expenses per school child per semester (in CDF)

Zone	Median school fees per child	Median other school-related expenses per child	Total	Monthly for MEB
Urban	50,000	60,000	110,000	18,000
Peri-urban	37,500	32,000	69,500	12,000

For the MEB, the semester expenses are converted into monthly expenses, which amount to CDF27,000 in the urban zone and CDF18,000 in the peri-urban zone. These expenses are included in the MEB for one child per household starting from a three-person household. Although inaccurate for many households, this approximation is intended to simplify the construction of a poverty threshold in the light of the special needs of school-age children.

Specific MEBs related to household size could be derived and might be useful, if particular attention is to be paid to the education sector. For the purpose of the vulnerability analysis and the affordability simulation, expenditure on education is simplified by only including it once for each household.

Housing

Housing expenses are some of the weightiest in a typical household. This is in line with findings from other poverty-related indicators such as the multidimensional poverty index and the perception-based satisfaction index, which show that of all essential needs, shelter and adequate living conditions are the hardest to meet for urban and peri-urban inhabitants. Housing costs present some challenges when constructing an MEB: the

difficulty in accounting for housing costs for house owners as opposed to those who rent; the need to determine what size and type of dwelling can be considered a minimum standard for each household size; and the need to define the MEB value based on an understanding of typical rental prices of such housing units.

As a large number of households rent their houses in all parts of Kinshasa, the monthly rental lease has been included in the MEB. To compensate for this distortion of household expenses for home owners, the MEB imputes fictitious rental expenditures in the home-owning households, as is commonly done in poverty analysis. For the vulnerability analysis, a fictitious income is imputed from the ownership of the dwelling.

The average number of rooms per household size has been approximated to define minimum standards for household dwellings. The data show that for households with up to seven members, a two-room unit is the most commonly used (by almost 50 percent of the households). For larger households, the number of rooms varies more, but three-room units are most frequently reported. While the data show that one-person households most frequently occupy two-room dwellings, it is assumed that the minimum needs for such a household can easily be satisfied with only one room. These findings are used as minimum standards when adjusting for household size.

The monetary value for the MEB is derived from interviews with key informants from the *quartier* administration offices. In each commune, the assessment team interviewed least ten respondents, who were asked what a typical two-room housing unit costs in their *quartier*. The median rent has been derived for each commune, then the mean of these medians has been used to arrive at the average rental amount of CDF54,000 to be included in the MEB. For the peri-urban zones, the median value from all *quartiers* of N'sele is used (CDF40,000).

These values have been adjusted for households with one member (one-room units) and those with eight or more members (three rooms) by applying a formula that takes the common logarithm of the division of the number of rooms by the reference number of rooms (2) and adds 1. This creates a multiplier of 0.70 for a one-room dwelling (CDF38,000 in urban areas; CDF28,000 in peri-urban areas) and 1.18 for a three-room dwelling (CDF64,000 in urban areas; CDF47,000 in peri-urban areas).

Non-food items

In addition to expenditure components for health, education, and housing, the MEB covers a number of non-food items that households consume to satisfy essential needs. Water, cooking fuel, hygiene products, light (petroleum lamps), electricity, communication, transport and clothing are all assumed to be essential for households and are taken into account in the MEB. The survival MEB only includes water, cooking fuel, hygiene products and light, as they are considered critical to achieve the most basic standards for safety, food preparation, water, sanitation and hygiene.

An expenditure-based approach was used to verify the regularity of household spending on the proposed subcomponents of the non-food items (see table 4 above). At least half of the surveyed population had to report the expenditure for it to be included. This has led to the exclusion of construction materials and house repair, agricultural inputs, household help and social events.

However, even though only a few households reported spending money on clothes, this subcomponent was included in the MEB.

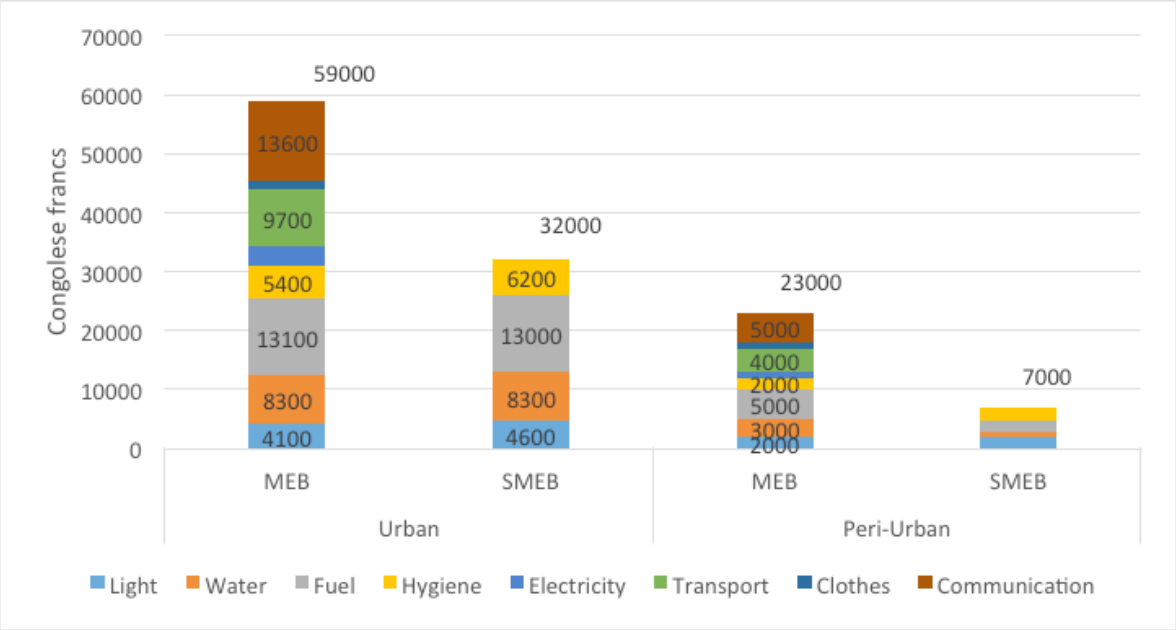


Figure 15: Approximation of expenditure-based subcomponents as part of the MEB and the survival MEB in urban and peri-urban zones of Kinshasa for a six-person household (median household size). Estimates are based on expenditure shares of a larger total, so certain elements may be higher as part of the MEB

The value of aggregate non-food spending in the MEB has been taken from the median expenditure figures of the same population cohort used for food expenditures. The use of the median as a central tendency is favoured here as the distribution of the non-food expenditures[15] reported by households is very much skewed to the right. The mean figure, both for the non-food subcomponents and for their sum, is always considerably higher, heavily influenced by a few outliers on the higher end of the scale.

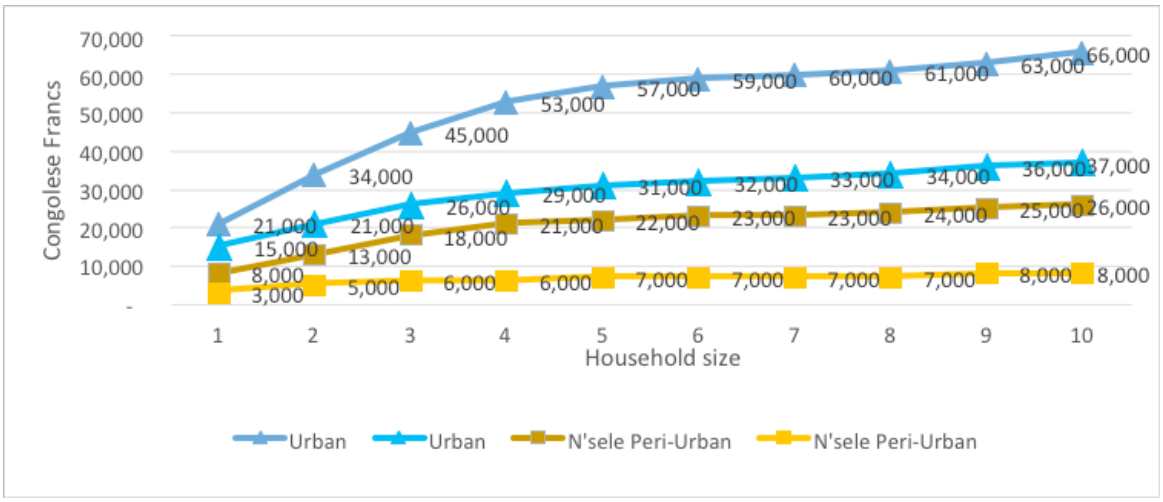


Figure 16: Non-food MEB and survival MEB values (in CDF) for urban and peri-urban zones of Kinshasa

The non-food expenditure component was estimated based on the average-sized

15 I.e. households with a food consumption score under 70 and with a reduced coping strategies index of under 15.

household rather than the individual. In the case of Kinshasa, the median household has six members, and over 40 percent of the households interviewed have between five and seven members. The medians for the three household sizes have therefore been extracted for the summed MEB and the survival MEB subcomponents, both for the urban and the peri-urban zones. The average of the medians of the five-to-seven-person households is the basic non-food MEB and survival MEB that will be used for the six-person households. As shown in Figure 15, this amounts to CDF59,000 for the MEB and CDF32,000 for the survival MEB in the urban areas. In the peri-urban zones, the MEB is calculated at CDF23,000 and the survival MEB at CDF7,000.

Figure 15 also approximates the contribution made by the subcomponents to the total non-food MEB and survival MEB. As shown, communication and cooking fuel represent the highest share of the non-food component, with over CDF13,000 in the urban zone. Transport, water, hygiene products and lighting follow, with amounts between CDF4,000 and CDF10,000 in the urban zone. Electricity and clothes contribute just a little.

There may be several reasons behind the much lower non-food estimates in the peri-urban areas. First, on the supply side of non-food items, households have less access to infrastructure such as electricity grids and water systems and therefore have less opportunity to spend resources on such goods. Second, some of the non-food items that urban households rely on may be substituted with free alternatives in peri-urban parts, such as collected firewood for cooking, or water from natural sources. In addition, livelihoods such as gardening and small-scale producing may come with a lower opportunity cost, which can be seen in non-food expenditure such as the lack of transport costs to the workplace or mobile communication.

After establishing the expenditure averages for a typical household, these figures have been adjusted for each household size according to a simple multiplier estimated through the data.Figure 16: Non-food MEB and survival MEB values (in CDF) for urban and peri-urban zones of Kinshasa6 shows the MEB and the survival MEB non-food allowance for each household size from 1 to 10, expressed as a percentage of the base value, calculated for the six-person household. These curves follow the logic that because of the 'public good' character of most non-food items, smaller households have higher per-capita expenditure on the same non-food needs, as these items are shared with fewer individuals. For larger households, the cost to satisfy essential non-food needs increases marginally, as larger households profit from economies of scale in the use and consumption of non-food items.

This procedure has been repeated for the survival MEB expenditures to produce the household size adjustment scales that will be applied to all non-food MEB and survival MEB calculations in Kinshasa, always on the basis of the expenditure figures of the median household size (six people) for all populations of interest.

Full MEB and survival MEB

This section brings together all the individual components of the MEB and the survival MEB to compare them between the two zones and among household sizes. While these two adjustments capture the most prominent differences between households in Kinshasa, they are by no means exhaustive in explaining the variety of needs of specific households, specifically regarding expenses related to schooling, healthcare and housing. However, this simplification has been made to ensure the MEB and the survival MEB are

understandable concepts with straightforward calculations.

Figures 17 to 20 illustrate all the MEBs and survival MEBs calculated for this assessment and to be used in continuous household monitoring in the future. The graphics show how the food component share of the MEB rises with increasing household size, due to the relatively static non-food components. In the urban MEB, the food component becomes dominant in households with over six members, while in peri-urban areas, food already makes up the majority of the MEB for four-person households.

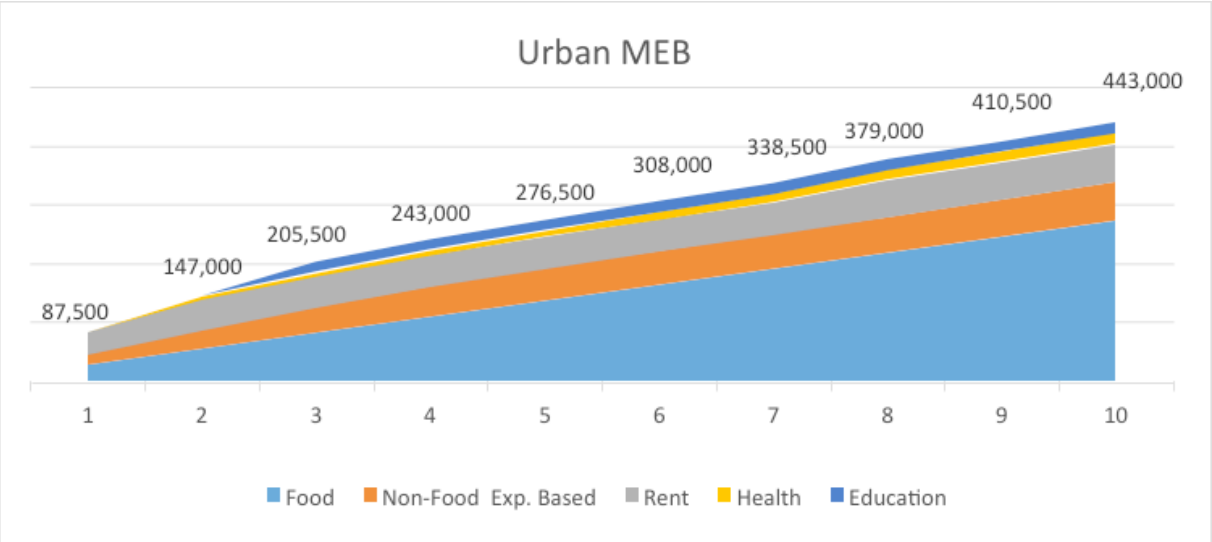


Figure 17: Breakdown of the MEB for urban Kinshasa

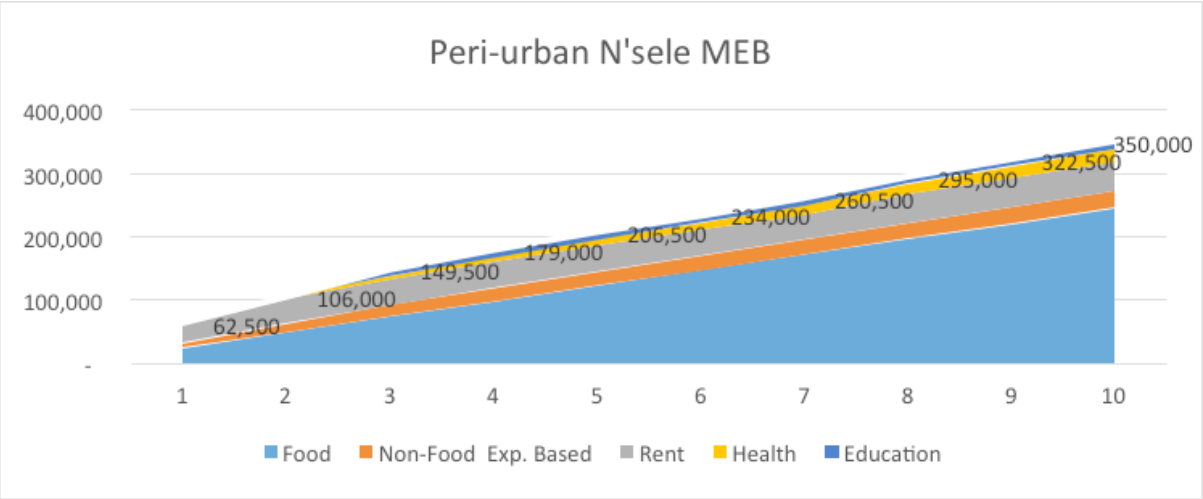


Figure 18: Breakdown of the MEB for peri-urban zones of Kinshasa

Non-food expenditures and rent make almost equal contributions to the MEB in urban areas, while rent has a comparatively higher share in peri-urban areas. In all MEBs and survival MEB, the relative importance of these two subcomponents shrinks with increasing household size, as needs grow marginally with each additional household member considering the economies of scale that households benefit from with these expenses. Healthcare and education represent a very small share of the MEB.

The survival MEB only contains food and essential non-food items, with the food component being dominant in both zones and for all household sizes except for very small households in an urban environment.

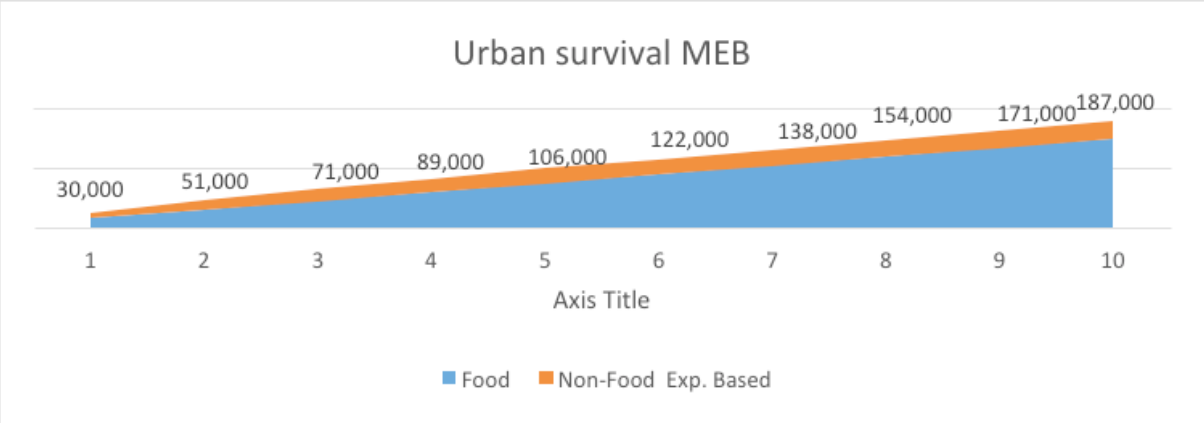


Figure 19: Breakdown of the survival MEB for urban Kinshasa

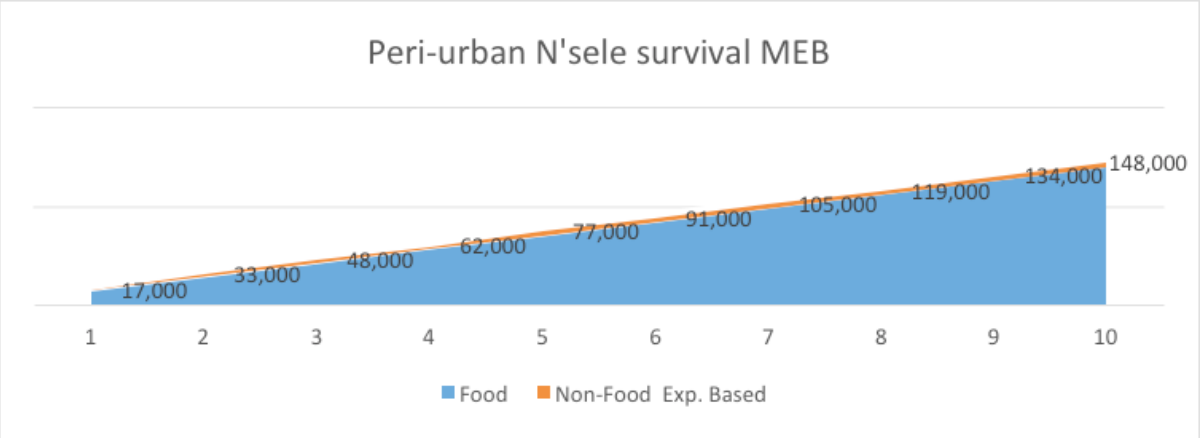


Figure 20: Breakdown of the survival MEB for peri-urban zones of Kinshasa

Section 4: Vulnerability

Food insecurity

Over four in ten households in Kinshasa are food insecure and 7 percent are severely food insecure. The prevalence of food insecurity is relatively homogeneous among all the urban communes, and no major difference is observed between these and peri-urban N'sele.

> *'Poverty is the main driver of food insecurity in urban and peri-urban communes of Kinshasa'*

Monetary poverty and the use of severe negative coping mechanisms are the **main drivers of food insecurity in urban communes** of Kinshasa, as seen in the CARI console in Table 7: Food security situation in urban Kinshasa below. In particular, a high proportion of urban dwellers spend well below the MEB, which compromises their continuous access to

a wide variety of food items as households face trade-offs between the acquisition of food and spending on other essential goods or services. Over half of the households also apply severe coping strategies to meet their needs, which shows the desperate situation many households find themselves in over the longer term despite consuming an acceptable diet.

Table 7: Food security situation in urban Kinshasa

Domain		Indicators	Food secure (1)	Marginally food secure (2)	Moderately food insecure (3)	Severely food insecure (4)
Current Consumption status	Food consumption	Food consumption score	57.6%	-	26.6%	15.8%
Coping capacity	Monetary poverty	MEB/survival MEB	33.5%	-	49.1%	17.4%
	Asset depletion	Livelihood coping category	31.9%	18.0%	28.4%	21.7%
Food Insecurity Index (FSI)			13.3%	45.7%	32.6%	8.4%

This finding is remarkable in that it differs from what is usually found in rural food security analysis. In Kinshasa, food consumption and coping capacity are very divergent, with food consumption much better than household coping capacities would suggest. This divergence reflects the livelihood opportunities available to urban dwellers and the lack of reliance on self-produced food. All the food that is being consumed needs to be purchased on markets, which requires continuous income.

All urban communes are found to have a similar population breakdown in terms of food insecurity. Translated into absolute figures, the numbers are staggering. In Kimbanseke, over 400,000 people are estimated to be food insecure; in N'sele, over 300,000; in Selembao, over 200,000; in Kisenso, more than 150,000; and in Makala, around 90,000.

The worst food security situation is found in the outskirts of Kinshasa, in the urban and peri-urban parts of **N'sele**. The differences between the zones are a clear demonstration of the abovementioned finding. Figure 21 shows that food insecurity in peri-urban N'sele is much more driven by inadequate consumption than in the urban part of the commune, while severe coping behaviour is much less prevalent in the peri-urban zones. Further to this, there is a greater sense of belonging to the community in peri-urban N'sele (see section 4.4.9 for further analysis), which may indicate the existence of informal safety nets that are key to accessing food in times of crisis.

'Food insecurity tends to be most prevalent in N' sele and Selembao, although for different reasons'

In all urban communes but **Makala,** severe monetary poverty goes hand in hand with the use of severe coping strategies. Makala may report lower poverty rates because of its slightly higher living costs, which are reflected in higher total household expenditure.

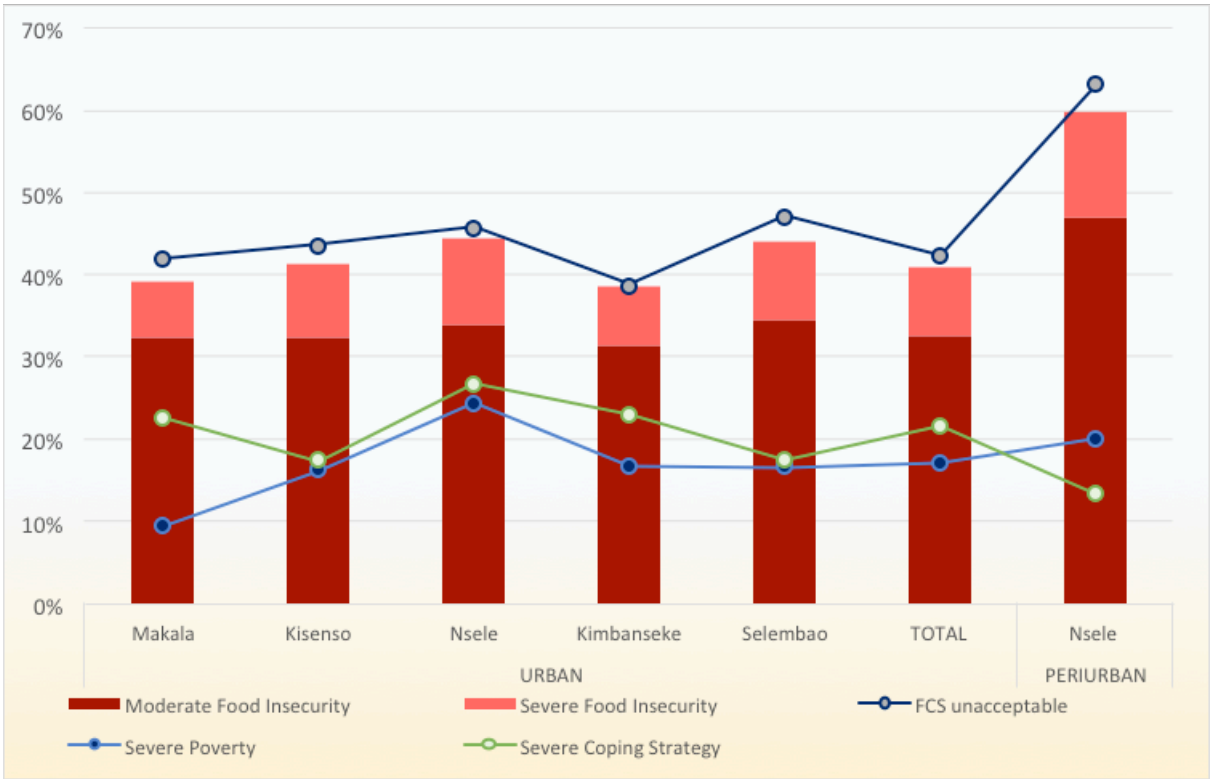


Figure 21: Food insecurity by commune and its main drivers

BOX 3: FOOD SECURITY CLASSIFICATION

The food security level as measured in the urban essential needs assessment follows the standard Consolidated Approach to Reporting Indicators of food insecurity (CARI). The CARI method generates a final composite indicator combining two dimensions of food security: current consumption status and coping capacity. The following indicators were used to classify each household's food insecurity according to these two dimensions:

Current consumption status:

- Food consumption score (including food consumed outside of the house)

Coping capacity:

Livelihood (non-food) coping capacity indicator

- Expenditure patterns against MEB (national and food poverty threshold)
- For more information, please refer to the CARI guidelines and to the MEB interim guidelines.

Who are the most food insecure?

The profile of households vulnerable to food insecurity varies according to whether they live in urban or peri-urban settings. Table 8: Core characteristics of food-insecure urban households in Kimbanseke, Selembao, Makala, Nsele and Kisenso summarizes the livelihoods and socio-demographic characteristics of urban and peri-urban households who are most exposed to food insecurity. The range of variables correlating to food insecurity in urban and peri-urban areas corroborates the existence of a tight link between access to food and poverty, or an association between poor access to food and to other essential needs such as shelter, water and education. It is therefore not surprising that dependence on one of the more sustainable and lucrative income sources results in the food security of the whole household.

Table 8: Core characteristics of food-insecure urban households in Kimbanseke, Selembao, Makala, Nsele and Kisenso

URBAN COMMUNES			
Household characteristics			Comments
Socio-demographics		Woman head of household	29% of food-insecure households are headed by a woman, compared with 24% of food-secure ones.
		Low education of head	24% of food-insecure households have a head who is illiterate or who is educated to primary school level, compared with only 15% of food-secure households
		Presence of members with chronic diseases/a disability	The absence of chronically ill/disabled members is strongly associated with food security: 90% of food-secure households do not have any challenged members, while just over 14% of food-insecure have at least one such member.
		Presence of five or more children aged 0–12 years	While household size does not correlate with food insecurity, the presence of five or more children does: 19% of food-insecure households have five or more children compared with 13% of food-secure households
Housing		Poor access to lighting sources	Access to electricity is associated with food security: 31% of households who access it are food secure, compared with just 18% of those who depend on other sources. Food insecurity is correlated with no access to lighting, or only torches or candles: 76% of food-insecure households are in this situation, compared with 62% of food-secure households. Also, those who can afford to rent a place are less likely to be food insecure: 32% of households renting their home are food insecure compared with 38% of those owning their home.
		Walls made of wood planks, bricks or iron sheets	
		Floor made of wood or soil	
		Not paying rent	

Food consumption		No consumption of food prepared/purchased outside the house	69% of urban dwellers consuming foods outside are food secure compared with 62% of those who only eat at home
Income sources/ livelihoods		One or no active members aged 18–59 years	The presence of one or no employed members aged 18–59 is significantly correlated with food insecurity: 11% of these households are food insecure compared with less than 8% of those with 2 or more such members.
		At least one member occupied in daily labour activities	41% of households with member(s) involved in daily labour are food insecure compared with 34% of those who depend on other income sources
		No members with regular income (private or civil servants) or occupied in transportation, or retail activities/kiosks	75% of household with at least one civil servant or member regularly employed in the private sector are food secure compared with 62% of those who do not. Similarly, 78% of households depending on transport are food secure compared with 64% of the others. Less striking, yet significant correlation is observed between food security and dependence on income from retail, especially non-food related retail.
		No access to food/cash from family/friends' gifts	79% of those who relied on some sort of gifts from family/friends are food secure compared with 64% of those who had no access to them. The gap is even wider if one considers that the latter category includes households who may not have needed help.
		Contracted debts	22% of food-insecure households contracted debts compared with 14% of food-secure households.

Food insecurity is more evenly spread across different categories of peri-urban households. Urban inhabitants tend to have a higher number and variety of variables significantly correlated with food insecurity. This is the result of the following elements:

1. A globally more complex socio-economic structure;
2. Higher number and variety of variables correlated with food insecurity'; and
3. The existence and effectiveness of informal safety nets in rural areas; these tend to mitigate extreme vulnerability and reduce differences, making it more complicated to associate it with structural socio-economic and demographic factors.

Table 9: Core characteristics of food-insecure households in peri-urban N'sele

PERI URBAN COMMUNES			
Household characteristics			Comments
Housing		No access to lighting	Access to electricity is associated with food security: 14% of food-insecure households have no access to lighting at all, compared to just 3% of food-secure households. Around 31% of households with access to lighting are food secure, compared with 18% of those who depend on sources other than electricity. The use of solar panels is also associated with food security.
Housing		Absence of cement as main building material	Building materials do not seem to be good predictors of food insecurity, except for the use of cement in the floor.
Income sources/ livelihoods		No members involved in retail activities/kiosks	15% of food-secure households have at least one person who owns or works in a retail shop/kiosk, compared with only 4 percent of food-insecure households

4.2. Food consumption, sources and dietary diversity

- Around 16 percent of urban households in Kinshasa have poor food consumption.
- The highest rates of people with unacceptable food consumption in urban areas are in **Selembao (49 percent)** and **Kisenso (46 percent)**.
- **Food access is worse in peri-urban N'sele:** 41 percent have borderline food consumption and 22 percent have poor consumption.

- **Food is mainly consumed at home:** only 21 percent of urban households have at least one member who eats food away from home; the proportion is much lower in peri-urban N'sele (6 percent).

Food access for people living in the five most vulnerable communes of Kinshasa is problematic, particularly in peri-urban N'sele where the vast majority of people have unacceptable food consumption and 22 percent of households has poor food consumption.

Diets are relatively diverse: urban households had consumed an average 5.8 food groups in the 24 hours prior to the interview; households in peri-urban N'sele had consumed 5.7. However, the main limiting factor is the frequency of consumption of highly nutritious food such as milk (only 1 to 2 days a week), pulses (1.5 days a week) and meat or eggs (less than one day a week).

4.2.1. Where are the highest food gaps?

'Dietary diversity is relatively high but the weekly frequency of consumption of nutrient-rich foods is very low in both urban and peri-urban areas'

Rates of unacceptable food consumption are high in the five urban communes, where more than four households in every ten do not have an acceptable diet16. Prevalence is even higher in peri-urban N'sele, where almost two thirds of interviewed households do not consume an acceptable diet.

In Selembao, dietary diversity is significantly lower than elsewhere. This is mainly due to a lower consumption of fish and pulses, which underpins high levels of inadequate food consumption. In other communes, households tend to have more diversified diets but with relatively low frequency of consumption of nutritious food which translates into similarly high proportion of people with unacceptable food consumption scores.

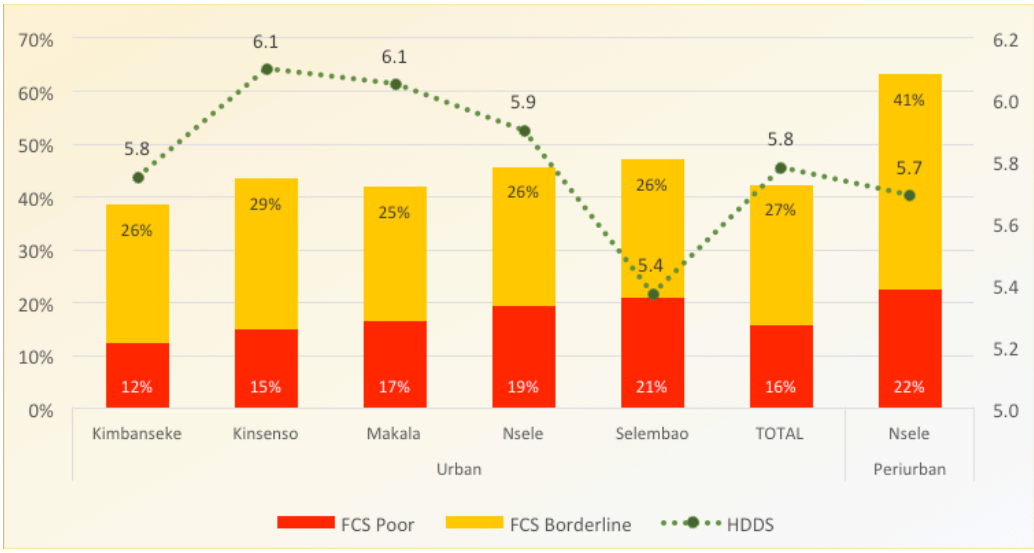


Figure 22: Prevalence of borderline and poor food consumption and dietary diversity by commune

16 Food consumption is measure through the Food Consumption Score indicator, which translates into a scale 0 through 112 a measure of frequency, diversity and nutritional value of food groups consumed in the seven days prior to the interview. The threshold for acceptable food consumption is 35 points.

Given the relatively high level of food consumed outside of the house by urban dwellers, the analysis and presentation of consumption patterns will be disaggregated by in-house versus food consumed 'away from home'.

4.2.2. What do people eat at home?

Cereals, vegetables, oil and condiments had been prepared and consumed (within the home) by 80 to 90 percent of interviewed households in urban and peri-urban areas in the 24 hours prior to the interview. Between 40 and 50 percent had eaten sugar, fruits and tubers. People tend to eat on a daily basis main staples such as rice or fufu with vegetables (often cassava leaves, or tchakamadesu) cooked with some condiments and oil. Surprisingly, bean consumption is relatively low (slightly less than two days a week in urban areas and almost once per week in peri-urban N'sele).

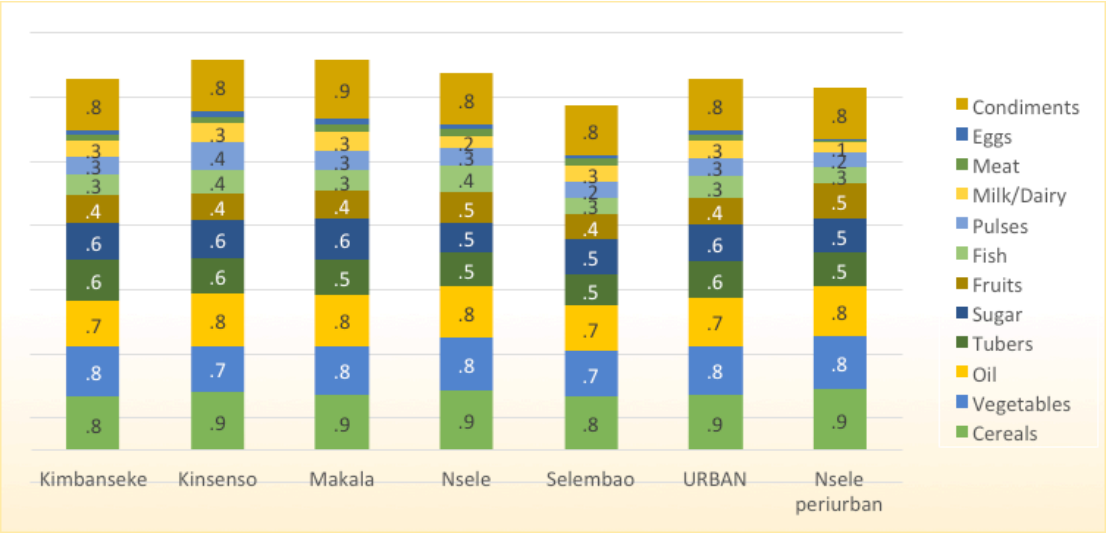


Figure 23:Consumption of food groups 24 hours before the interview (% of households consuming a food group)

4.2.3. Sources of food prepared and consumed at home

The vast majority of food consumed inside the house is sourced from informal markets, and to a lesser extent, grocery stores or supermarkets. Own production is exceptionally low, even in peri-urban N'sele where a marginal amount of cereals, pulses, oil and dairy are sourced from cultivated plots. Own production of fruits is high, with 69 percent of households in peri-urban N'sele mainly depending on this source for fruit supply compared with 36 percent in urban communes. Collected food is also widely eaten in communities living in peri-urban areas, including in the so-called 'forest communities'.

'Gifts, food aid and borrowing are uncommon; urban dwellers rely fully on their own financial means to access food'

Despite high urbanisation, Kinshasa city and its surrounding communes are relatively well covered with fruit trees, notably mangoes, plantains and sweet bananas. The widespread consumption of collected food such as fruit is further evidence of Kinshasans' problematic economic access to food. The communes with high levels of food gathering are also among the poorest, such as peri-urban parts of N'Sele. As fruit is relatively cheap, many households can afford to buy it.

It is rare for households to report food received as a gift as a main food source, whether from

friends, relatives or strangers. Usually less than 1 percent of households benefit from gifts across all food groups consumed. Likewise, borrowing is also very rare (steadily below 0.5 percent).

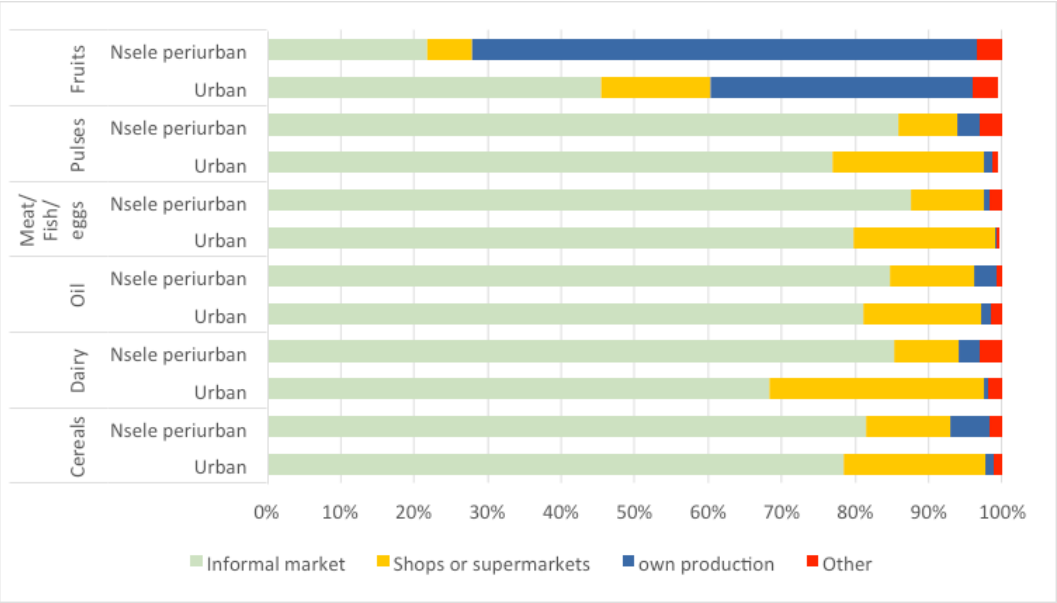


Figure 24: Main sources of food by area

This indicates that informal safety nets are very rare, confirming that people are highly or even totally dependent on their own household budgets or capacity to produce one, to access food through cash or credit.

4.2.4. Consumption of food 'away from home'

The consumption of food prepared outside of the household is relatively common. More than one in five urban households has at least one member who regularly eats food outside. The consumption of street food is less common in **urban N'sele** (13 percent) and **peri-urban N'sele** (7 percent); it is highest in densely populated areas of **Kimbanseke** (26 percent) and **Makala** (22 percent). In Kimbanseke, those who eat out do so frequently: 45 percent of them eat out more than 3 days a week. Malewa are the main source of street food consumed.

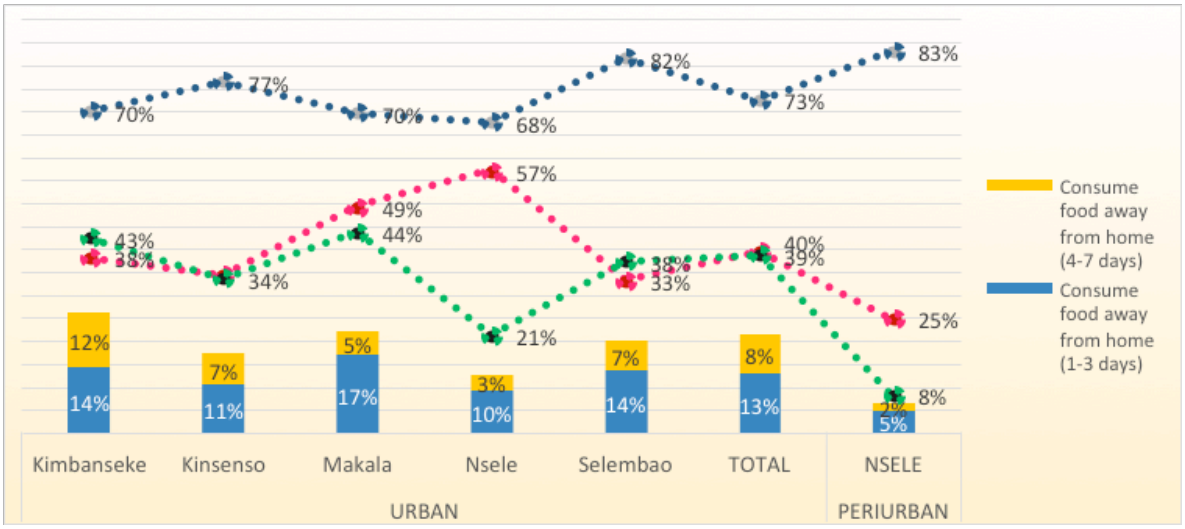


Figure 25: Households consuming food outside their homes (columns) and members accessing it (lines)

Adult males are the most frequent consumers of street food. In 73 percent of urban households with members who eat out, it is men who are consuming the street food. Women and teenagers eat out much less frequently, except in urban parts of N'sele, where men and women tend to have consume food from malewa at a similar rate. In peri-urban N'sele, it is mostly men who eat food prepared outside the home.

'Around 30 percent of people decide to eat outside of the house because it is cheaper than preparing food at home'

The **main reasons Kinshasans eat out** are twofold: adults (mainly men) eat close to their workplaces every day; adolescents mainly eat at school canteens. Especially in densely populated communes, the lack of kitchens inside houses and high costs related to cooking (firewood, water and ustensils as well as food) often make it cheaper to eat at a malewa than at home. In fact, limited funds is the main reason given by 30 percent of people who eat out in Kinshasa, with the share rising to 44 percent in N'sele.

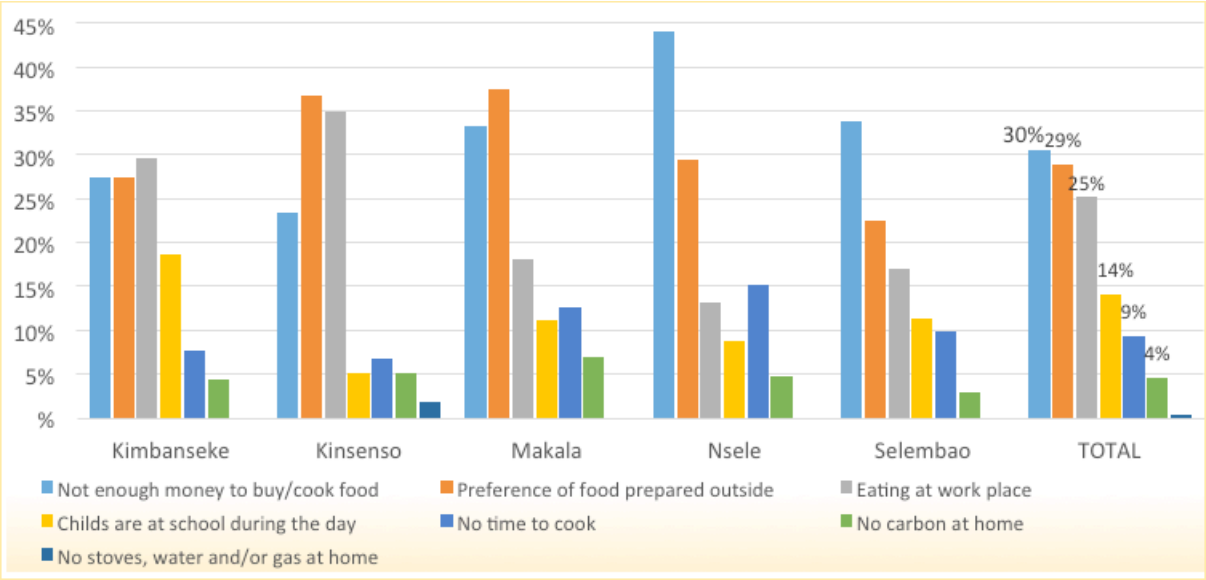


Figure 26: Main reasons for consuming food outside of the home (% of households whose members eat out)

4.2.5. What foods are consumed away from home?

Rice and beans is the most common and cheapest food eaten outside the home. An analysis of street vendors shows that the average price of rice and beans in urban areas (CDF1,003) is much lower than the prices of a plate of fufu with vegetables or meat (CDF1,236), or lachikwang with vegetables and/or chicken (CDF1,271) and finally of spaghetti with sauce (CDF1,150). Consumption of nkao, spaghetti and plantains is less common.

Figure 27 describes the habits of households whose members consume street food, showing how frequently street food is eaten and by what proportion of the household. Rice and beans prepared by malewa is most frequently consumed in peri-urban N'sele, but by a similar share of the household as in urban areas. The other street foods are more frequently consumed in urban areas and by a much higher proportion of household members.

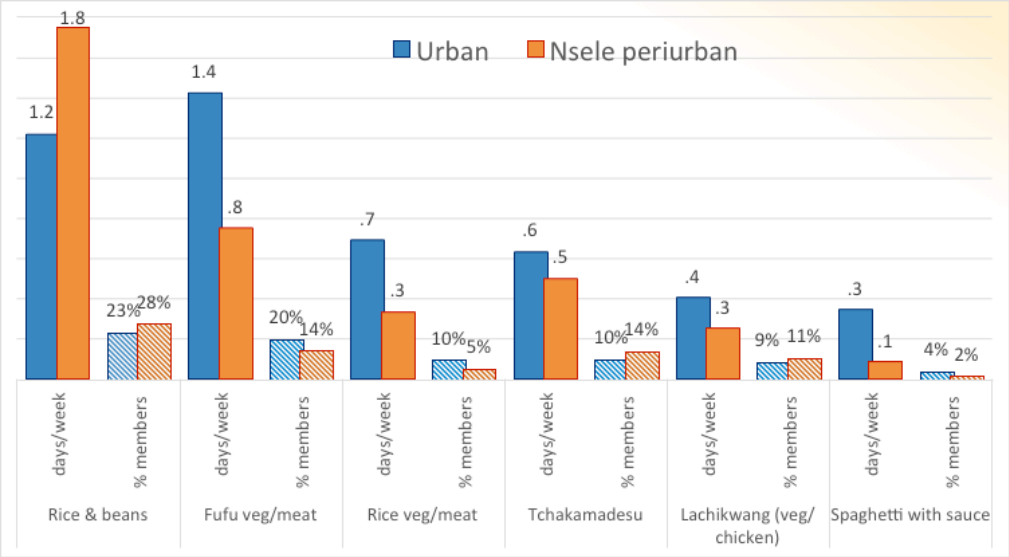


Figure 27: Frequency of consumption of dishes away from home and proportion of household members eating them

Rice and fufu, with beans, vegetables or meat/fish are more frequently consumed in **Kimbanseke, Kisenso, Selembao** and **peri-urban N'sele**. In **urban N'sele,** these dishes are eaten less frequently, although a greater share of household members eat them. Overall consumption of lakhichwang, spaghetti, nkao and plantains is very low both in frequency and in share of household members.

Except for rice and beans, a higher than expected share of household members in peri-urban N'sele consume other dishes – especially tchakamadesu and lakhikwang with vegetables – but with comparatively lower frequency. This suggests that access to food prepared by malewa is more occasional than in other urban areas where food consumption is often linked to specific routines following people's livelihoods, commuting patterns and income sources.

Table 10: Most common dishes consumed outside of the households in terms of average weekly consumption and number of household members accessing them - only households consuming at least one dish in the previous week

	Dishes	URBAN					PERIURBAN
		Kimbanseke	Kinsenso	Makala	Nsele	Selembao	Nsele periurban
Average weekly consumption (days)	Rice & beans	1.3	1.7	1.0	1.0	.9	1.8
	Fufu veg/meat/fish	1.5	1.0	1.0	1.2	1.8	.8
	Tshakamadesu	.6	.9	.7	.6	.4	.5
	Rice veg/meat/fish	.9	.5	.4	.4	.4	.3
	Lachikwang or Chikwange-poulet	.4	.3	.7	.6	.6	.3
	Spaghetti avec sauce	.4	.2	.7	.2	.2	.1
	Nkao	.4	.0	.3	.3	.2	0.0
	Plantains veg/meat/fish	.3	.2	.0	.2	.1	0.0
Share of HH members consuming these foods outside of home	Rice & beans	.24	.24	.21	.32	.19	.28
	Fufu veg/meat/fish	.20	.12	.15	.23	.28	.14
	Rice veg/meat/fish	.12	.10	.04	.08	.08	.05
	Plantains veg/meat/fish	.04	.04	.00	.06	.03	0.00
	Spaghetti avec sauce	.05	.02	.06	.02	.03	.02
	Tshakamadesu	.11	.11	.10	.07	.08	.14
	Lachikwang or Chikwange-poulet	.07	.04	.11	.12	.14	.11
	Nkao	.06	.02	.02	.03	.01	0.00

Rice and beans are frequently consumed by adult males and adolescents (both 1.4 days, on average), whereas fufu with vegetables or meat/fish is more frequently consumed by adult females (1.7 days per week, on average). Finally, nkao and spaghetti with sauce are prevalently consumed by children and adolescents; tchakamadesu is mainly eaten by adults.

4.2.6. Food consumption score (integrated)

- The consumption of food prepared outside of home helps reduce the share of households with poor food consumption (by -0.8 percent) and borderline food consumption (by - 0.4 percent).
- The biggest contribution of food consumed away from home to the average diets of families is seen in Kimbanseke and Selembao.
- Households in peri-urban N'sele rarely access food prepared out of their houses.
- The main impact on FCSi is due to higher consumption of cereals (rice, fufu), oil, pulses (beans), eggs, meat and vegetables (cassava leaves, onions, tomatoes).

In **Kimbanseke** and **Selembao**, around 50 percent of household members eat quite regularly fufu with vegetables or meat, or rice and beans at malewas. On average, these plates are consumed 1 to 2 days per week. As a result, we notice a slight decrease of household with poor food consumption (from 14 to 12 percent in Kimbanseke, from 22 to 21 in Selembao), and of borderline food consumption (from 27 to 26 percent in both communes). In Kisenso and in N'sele urban, only around 15 percent of people eat food outside of their house, with extremely limited impact on household's overall food consumption.

Consuming food away from the home contributes towards access to a well diversified and acceptable diet: 46 percent of those who do not eat food 'away from home' have poor or borderline food consumption, compared with 34 percent of those who eat out.

Peri-urban N'sele has the highest proportion of people with unacceptable food consumption (63 percent). Even though many households eat out in **Selembao**, the commune has the second highest prevalence of people with unacceptable diets (47 percent), followed by **urban N'sele** (46 percent) and **Kisenso** (44 percent). **Kimbanseke** (39 percent) and **Makala** (42 percent) have the lowest prevalence of people with unacceptable diet.

BOX 4: FOOD CONSUMPTION SCORE INCLUDING FOOD CONSUMED 'AWAY FROM HOME'

In urban settings, food consumed outside the house often represents an important share of the overall food consumption of a given household. Proxy indicators of food access such as the food consumption score (FSC) must be adequately refined to capture such components.

The FCSi (integrated food consumption score) was tested for the first time in Kinshasa to include food consumed outside of the household in the global household consumption patterns and score. This refined version of the FCS adopts a conservative approach that only includes food items contained in dishes consumed outside of the house by at least 50 percent of members of the household. The methodology is not sensitive in capturing the impact of food consumed by one or very few members of the household.

Each of the eligible food items (e.g. rice) is then used to calculate the weekly extra-household consumption of the relevant food groups (e.g. cereals/tubers). For each food group, the maximum weekly consumption between intra-household and the extra-household is selected to calculate the final FCSi.

Households who eat out have a relatively high consumption of rice and beans, as well as fufu with vegetables and fish/meat. This boosts household consumption of the highly nutritious food groups that ensure access to micro- and macronutrients, such as animal proteins (mainly from fish, chicken and eggs), pulses (beans) and vegetables (leafy green vegetables, cassava leaves, tomatoes and onions).

'46 percent of households with no members regularly eating out out have poor or borderline food consumption compared with 34 percent of those do'

The frequent consumption of proteins (beans, meat, eggs and fish) in Kimbanseke, Selembao and Kisenso reduces the share of households with unacceptable and poor food consumption scores. In peri-urban areas, as food is consumed outside the home very infrequently, it does not reduce rates of poor or borderline consumption.

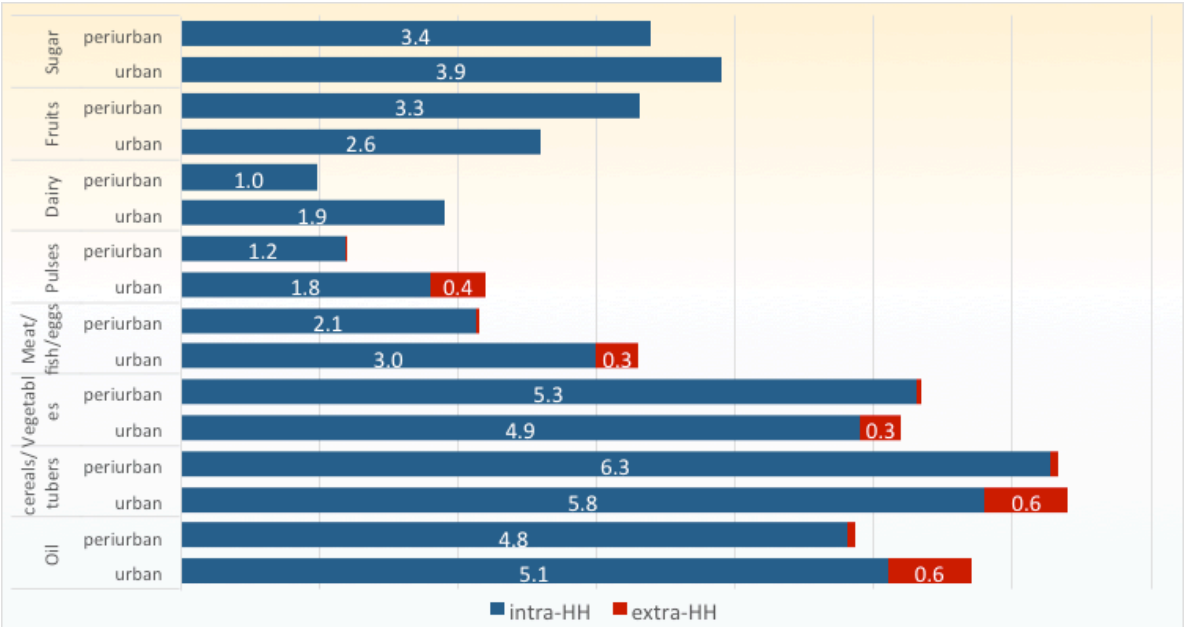


Figure 28: Extra and intra-household consumption (avg. number of days) of food groups by area (urban vs rural)

4.3. Negative coping mechanisms

4.3.1. How many are adopting negative coping strategies? Which strategies?

In order to access food or other essential needs, **over two thirds of households in the five neighborhoods of Kinshasa** covered by the assessment had adopted at least one negative coping mechanism affecting their livelihoods and capacity to produce a sustainable income in the 30 days prior to the interview.

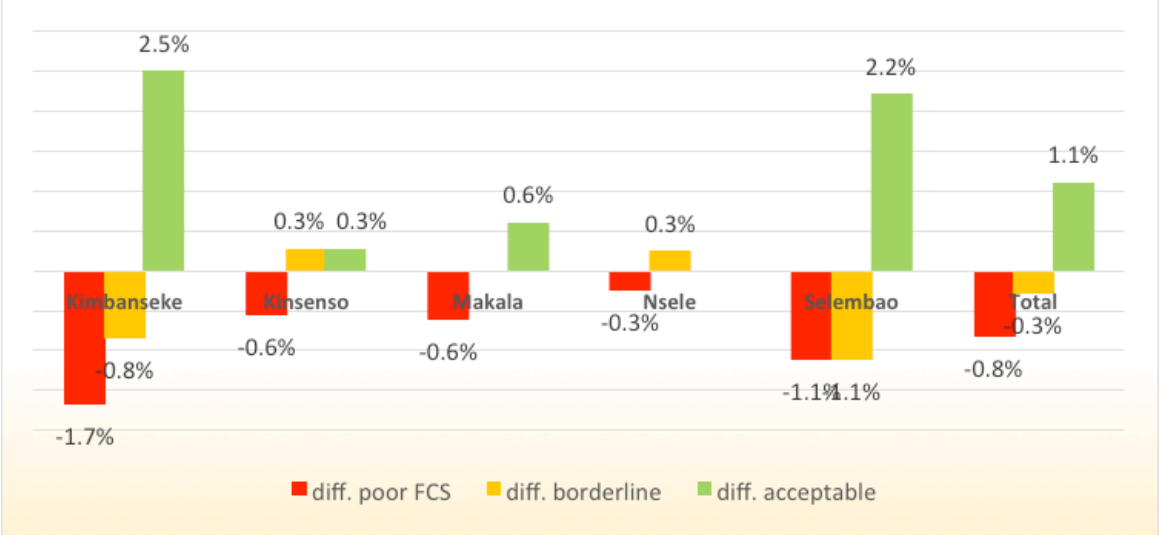


Figure 29: Variation in prevalence of poor, borderline and acceptable FCS due to consumption of dishes prepared outside the home, by urban commune

In **urban areas**, 67 percent of households had resorted to such mechanisms. Buying food on credit, reducing essential non-food expenditures, buying food from cheaper sources (i.e. malewa), and searching (more often than usual) for casual labour opportunities were the most common strategies used.

Around 46 percent of households had adopted crisis coping mechanisms such as selling productive assets or resorting to child labour, while 21 percent had resorted to emergency strategies such as selling their house or conducting illegal/risky activities including with minors. Urban N'sele, Makala and Kimbanseke had the highest prevalence of households using crisis or emergency coping strategies.

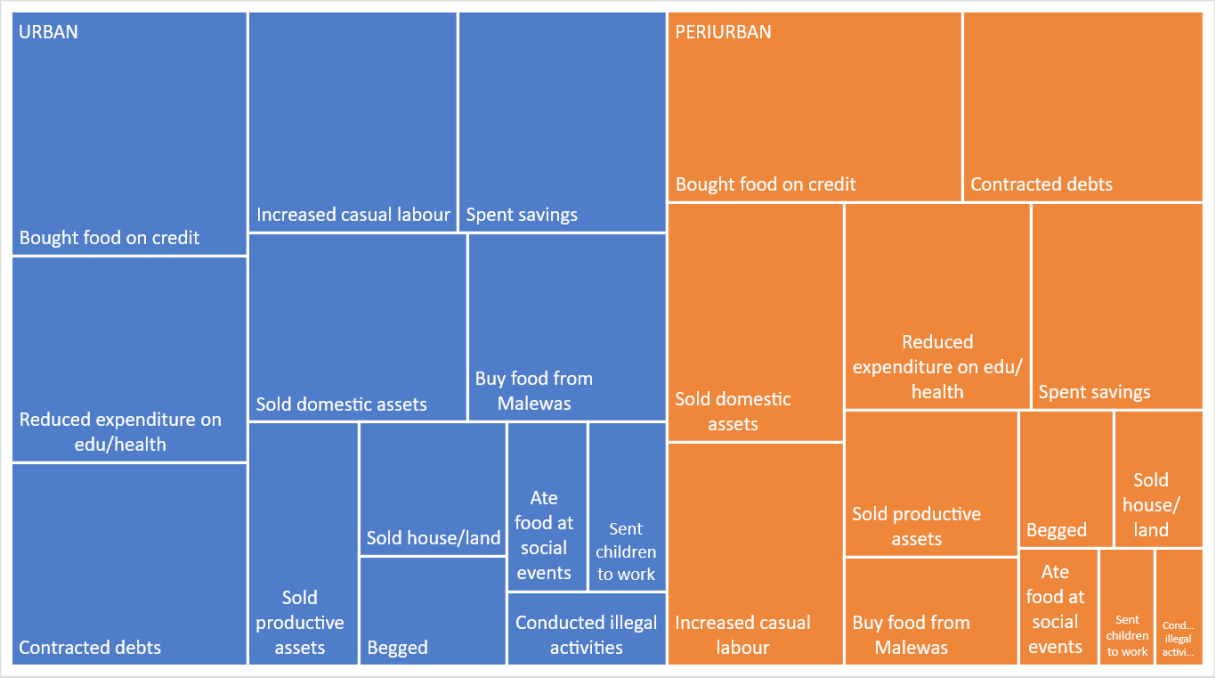


Figure 30: Tree map summarizing the most frequently adopted coping mechanisms in urban and peri-urban Kinshasa

In peri-urban areas, 69 percent had resorted to negative coping mechanisms, most commonly buying food on credit, selling domestic assets and using savings. The adoption of emergency coping strategies – those associated with highest severity and with irreversible effects – was much lower than in urban areas (13 percent of households compared with 21 percent in urban communes).

In general, urban dwellers resort more frequently to livelihood-based coping mechanisms; the biggest differences are seen in the shares of households who reduce non-food essential expenditures, purchase cheaper food from malewa and increase their efforts to find casual labour.

4.3.2. Why do people resort to adopting coping strategies?

As expected, the most vulnerable households are much more likely to resort to negative coping mechanisms. These include households with chronically ill or disabled members, and those who have an illiterate head (or at most, who holds a primary school diploma). Large households (with more than four members) are also significantly more likely to adopt negative coping mechanisms.

Around one third of urban and peri-urban dwellers buy food on credit, mostly to access food. However, a conspicuous proportion of households (28 percent of urban and 23 percent of peri-urban households) reported buying food on credit to have sufficient cash to meet other essential needs. Saving money on food or eating at social events are also

common strategies used by households to divert part of their budget towards education, health, water and sanitation, and shelter.

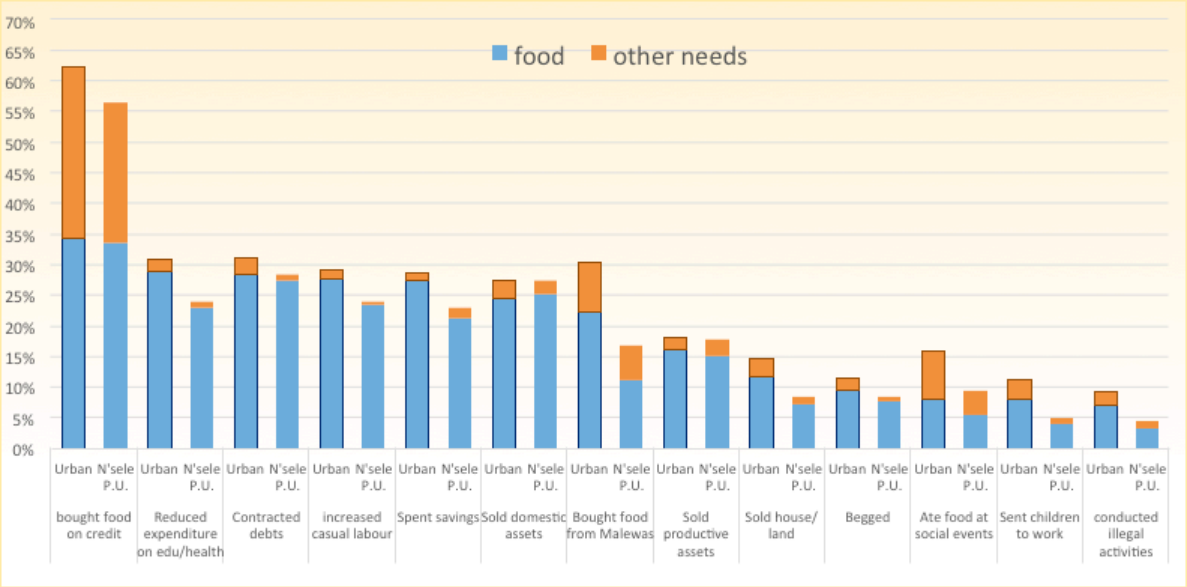


Figure 31: Most common coping strategies in urban vs peri-urban areas and main reason for their use

Poverty is the main trigger of negative coping mechanisms that affect livelihoods. In order to access food and other essential needs, poor households take on debts or use other strategies that weaken their capacity to produce a sustainable income in the long run, thereby entering a vicious circle of poverty.

Food is the main trigger of negative coping behaviours, but access to other essential needs also plays a role. A cross-tabulation between coping patterns and the dimensions of non-monetary poverty show significant correlations with four of five dimensions – health, living conditions, food and income. Access to education does not appear to trigger the systematic adoption of negative coping strategies.

Vulnerability outcome indicators			Adopted coping strategies	Did not adopt coping strategies	Significant correlation
Multi-dimensional poverty (access to basic needs)	*Education*	Satisfactory	48%	52%	
		Poor	43%	57%	
	Health (*)	Satisfactory	43%	57%	*
		Poor	58%	42%	
	Food(*)	Satisfactory	31%	69%	*
		Poor	59%	41%	
	*Living conditions (shelter, WASH, etc)**	Satisfactory	25%	75%	*
		Poor	50%	50%	
	Income(*)	Satisfactory	42%	58%	*
		Poor	50%	50%	
	TOTAL (*)	Non poor	31%	69%	*
		Poor	56%	44%	
FCS	*Food consumption(*)*	Acceptabe	38%	62%	*
		Unacceptable	62%	38%	
Monetary poverty	*TOTAL (*)*	Poor	37%	63%	*
		Non poor	31%	69%	

Table 11: Poverty (monetary and non-monetary), food consumption vs coping

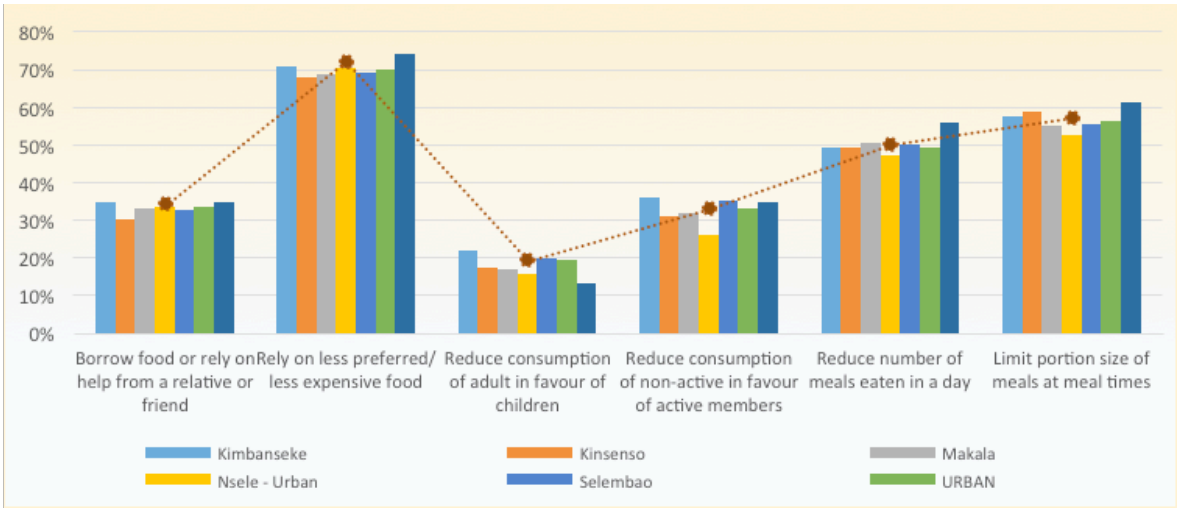
Stronger correlations, –and consequently higher levels of negative coping, are found among people who struggle to access adequate food, health services and/or those who live in inadequate shelters.

Ultimately, monetary poverty is the driver of negative coping behaviour, given households' high reliance on their own budgets to meet all their essential needs, especially in urban communes.

4.3.3. Food-based negative coping mechanisms

Food-related negative coping mechanisms are summarized in an index – the reduced Coping Strategy Index (rCSI) – which captures the frequency and severity of five standard food-related coping mechanisms households adopt when facing hardship. The rCSI is therefore a proxy of limited access to food. The average rCSI is relatively low in urban and rural areas (10.7 and 11.8, respectively). It is also relatively homogeneous across the five urban communes with a negligible range of ±1.6.

Figure 32: Main food-related coping strategies adopted and poverty rates of dwellers adopting them, by commune shows that when facing limited access to food or means to purchase it, households tend to buy less expensive – and presumably less nutritious – food, and to limit the number of daily meals or portion sizes. The priority of adoption of coping mechanisms is the same across all surveyed urban and peri-urban areas.



4.4. Well-being: Satisfaction of essential needs

4.4.1 Multidimensional poverty

'Around 60 percent of people in urban and peri-urban Kinshasa have limited access to essential needs. Multidimensional poverty and satisfaction indices both indicate that adequate shelter, education and food are the most difficult ones to access'

As the urban assessment focused on essential basic needs, measures of poverty that rely on consumption expenditure alone were too narrow. Therefore, in addition to economic poverty, the Alkire Foster method[17] has been used to construct a multidimensional

17 For more information, visit http://ophi.org.uk/research/multidimensional-poverty/alkire-foster-method/

poverty index (MPI) – poverty here referred to as a proxy for satisfaction or deprivation of essential needs (education, health, shelter, food and income). The MPI has two functions: to measure the proportion of people exposed to non-monetary poverty affecting access to essential needs; and to identify the level of deprivation of poor people.

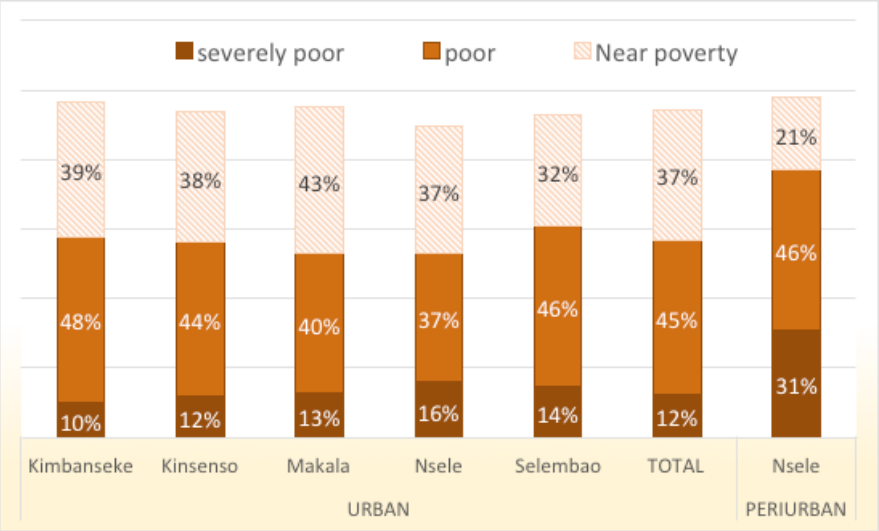


Figure 33: Multidimensional poverty incidence by commune

Areas	Sex of HH head	Low access to income	Low access to education	Low access to food	Inadequate shelter conditions	Low access to health
URBAN	Male	42%	53%	51%	81%	16%
	Female	62%	61%	58%	83%	17%
	Difference	20%	8%	7%	2%	1%
Nsele periurban	Male	50%	59%	68%	91%	21%
	Female	58%	68%	68%	89%	18%
	Difference	8%	10%	0%	-2%	-3%

Table 12: Multidimensional poverty incidence by commune

Almost 60 percent of urban dwellers are considered poor by the MPI, and around 77 percent of peri-urban ones. The incidence of poverty is higher among **urban households led by women:** 70 percent are affected, compared with 52 percent of households led by men. No significant difference is observed in peri-urban N'sele based on this variable. A strong link is observed between the access to essential needs and the presence of at least one source of income in the household. This is yet another sign of how much the absence of informal safety nets in the five urban communes impedes access to essential needs for more vulnerable households – such as those headed by women.

Urban households led by women have more difficulties in accessing income, education and food. In peri-urban areas, these households struggle to access income and education.

Also, **very large households** (of eight members and above) are more likely to have problems in meeting their essential needs. According to the MPI, 62 percent of them are poor in urban areas and 82 percent are poor in peri-urban N'sele.

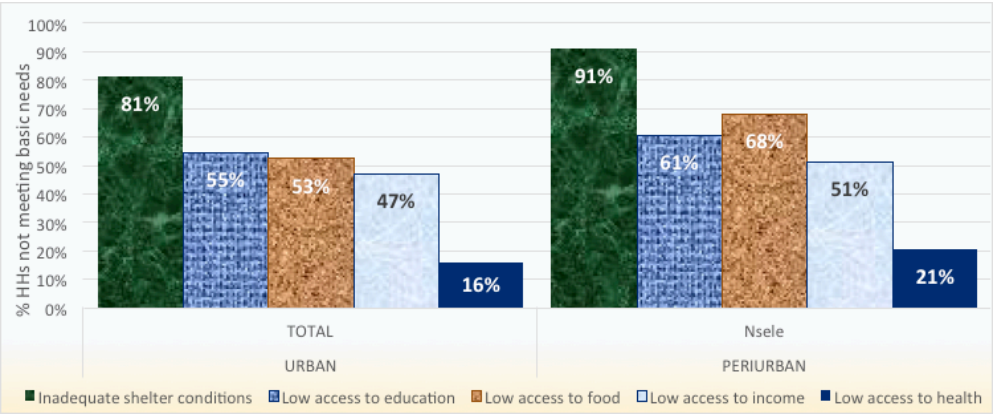


Figure 34: Multidimensional poverty incidence – detail of unmet basic needs by commune

It is useful to examine the dimensions of the MPI that are driving this classification. Each dimension is composed of equally weighted, individual indicators that refer to questions associated with access to an essential need. Figure 34 below shows that the highest incidence of deprivation is for housing: 91 percent of urban households and 81 percent of peri-urban households do not have access to adequate shelter. A very high deprivation incidence is also observed for education, food and income opportunities with slightly

BOX 5: MULTIDIMENSIONAL POVERTY INDEX (MPI)

MPI is used to assess households' capacity to access essential needs. The MPI is calculated using the weighed deprivations faced by a household in five dimensions: education, health, food security, living conditions and income. Each dimension has a weight (or maximum score) of 20 percent, and is assessed through a set of two to four questions that have the same score. For instance, access to education in Kinshasa was assessed through two questions, each one scoring 10 percent, while living conditions comprised four questions, each one scoring 5 percent. For more details on the methodology, please refer to the module in annex I.

The poverty level of each household is then assessed against set thresholds: households scoring less than 20 percent are classed as non-poor; those between 20 and 40 percent are considered at risk of poverty; those scoring between 40 and 80 percent are considered poor; and those scoring above 80 percent are extremely poor. The poverty headcount is based on the sum of households assessed as 'poor' or 'extremely poor'. The 'poverty weights' of poor households are then averaged at household level to determine the level of deprivation due to poverty, which is a proxy for incapacity to access essential needs stemming from poverty.

Finally, a sectorial analysis of the highest proportion of unmet essential needs by area indicates the most problematic areas to guide programme response.

higher vulnerability rates in peri-urban areas. Conversely, access to healthcare services seems less problematic. A more detailed analysis of gaps in access to essential needs by commune assessed through MPI and through the direct perception of respondents is presented in sections 2.6.3 to 2.6.9.

Severity of deprivation

The MPI allows for an empirical estimate of the severity of deprivation (or the poverty gap) among the poor. In Kinshasa, there are no significant differences among urban communes nor between urban and peri-urban areas, which shows that non-monetary poverty is evenly spread across all communes. The highest levels of deprivation among the poor are observed in urban N'sele (poverty score 33 percent) and peri-urban N'sele (35 percent) while the lowest is in Kimbanseke (29 percent).

4.4.2. Direct perception/satisfaction of respondents

Well-being in the five communes was assessed by looking at three types of information: i) rating of overall well-being / satisfaction with life; ii) rating of satisfaction with regards to sector-specific needs; and iii) respondents' feelings within their community.

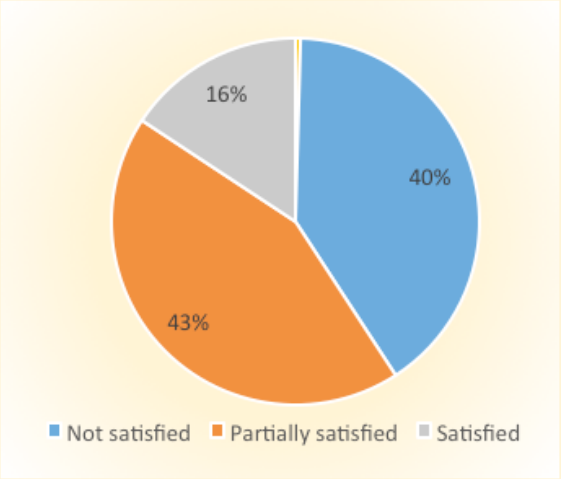


Figure 35: Overall satisfaction with life

Well-being is a transient and subjective concept that relates, in many different ways, to the absence of deprivations. Given the relative homogeneity of the socio-demographic and economic characteristics of our sample, the analysis of sectorial deprivations is an extremely powerful tool to assess the access to essential needs that contribute to defining well-being of the population covered by the assessment.

Less than 20 percent of respondents reported being satisfied with their life as a whole, while 40 percent said they were not satisfied at all.

Overall life satisfaction was slightly lower in peri-urban than in urban areas, though the difference was not statistically significant.

Households were also asked to express their satisfaction in meeting various essential needs. Access to water and adequate sanitation facilities was considered unsatisfactory by around half of the population in the surveyed communes of Kinshasa.

Just around a third of interviewed households considered their access to food unsatisfactory. Similar proportions were recorded for the access to and quality of medical services and housing. The high prevalence of households who share their housing with others in order to save on rent corroborates these findings. Finally, one third of households are satisfied with their health status, although another third is unsatisfied with their access to medical services.

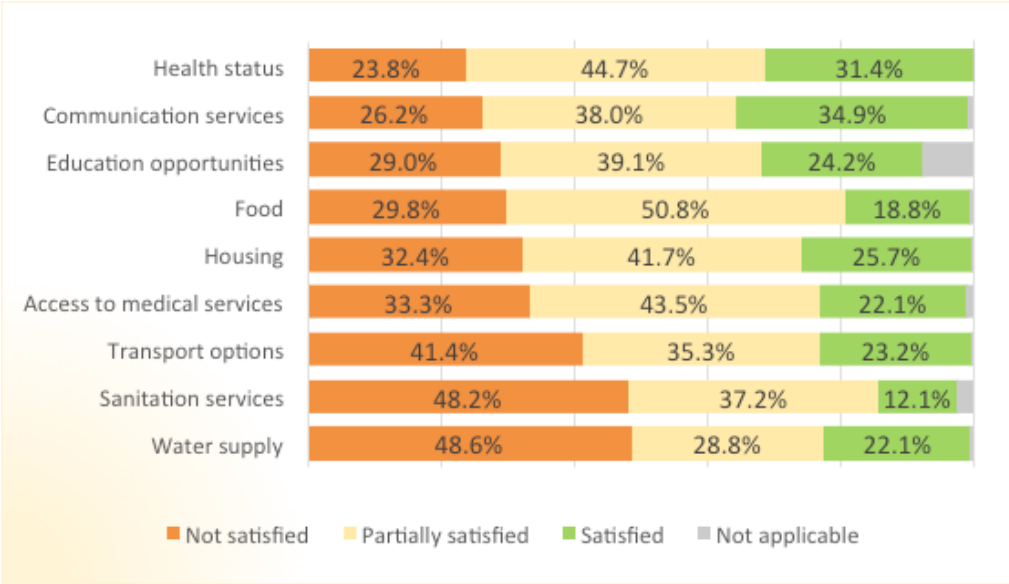


Figure 36: Perceived satisfaction of essential needs by sector

4.4.3. Access to health services (MPI and perception-based)

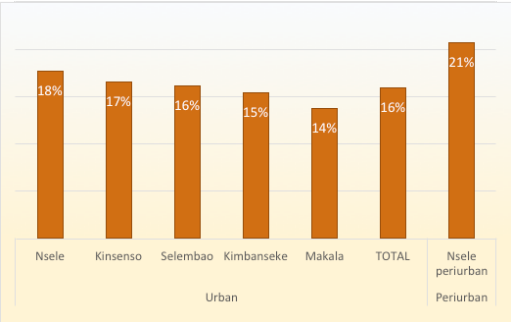


Figure 37: Inadequate access to healthcare (MPI)

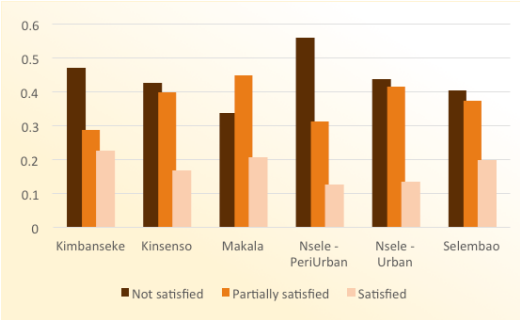


Figure 38: Satisfaction – access to healthcare

The health component of the MPI indicator was based on questions relating to how far people entered into debt in order to access healthcare, as well as on their general level of satisfaction with the health system and quality of services provided. According to this information, access to adequate healthcare does not appear to be a problem for the vast majority of Kinshasans. Peri-urban dwellers are slightly more affected by poverty when it comes to accessing healthcare services. While a third of Kinshasans is not satisfied at all about accessibility to health care, less than 20 percent of them is affected by deprivation not enabling them to access such services. This is the main difference between MPI (Figure 37) and perception indicators (Figure 38 below).

Results from the modules that collected household perceptions of well-being with regards to health corroborate findings from the MPI. Peri-urban N'sele and Kimbanseke also register the lowest levels of satisfaction. The physical distance to health centres and more limited financial resources in peri-urban N'sele could explain the negative perception in that area. Households in Kimbanseke may face different problems: the commune has one of the highest demographic densities in Kinshasa. The availability of services, also associated with high rates of poverty, could be hampering the healthcare system in the neighbourhood.

4.4.4. Access to education (MPI and perception-based)

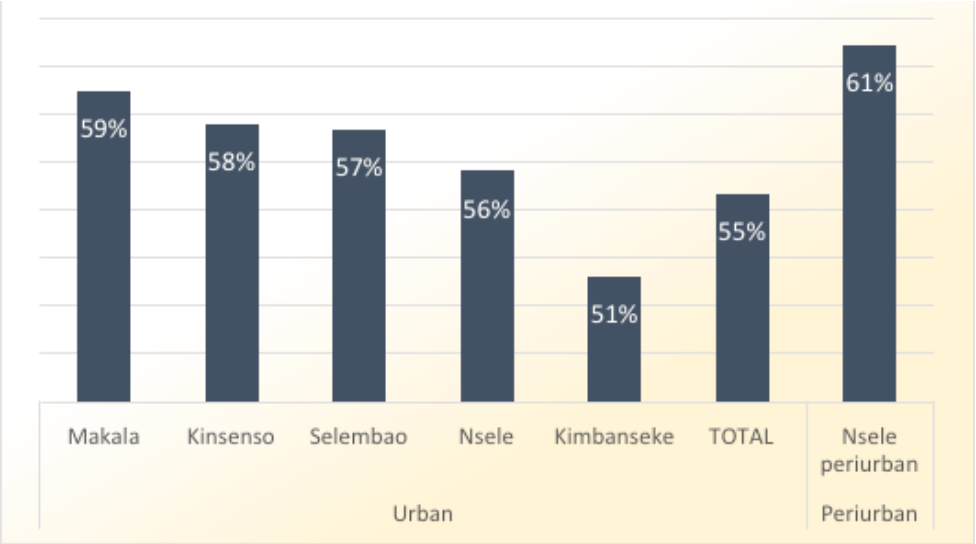


Figure 39: Multidimensional poverty – insufficient access to education services by commune

The MPI component on education was assessed through a set of questions that captured the education level of the head of household and the share of households with school-age children who were not attending school. Over 50 percent of households in urban and peri-urban areas face challenges in accessing education, with the highest share in peri-urban N'sele. The main difference between areas is seen in the share of households with children not attending school, which was 34 percent in peri-urban areas compared with 27 percent in urban communes. Lower absolute levels of households with illiterate head are observed with 5 percent in periurban and 2 percent in urban, respectively.

The results from the perception modules on satisfaction with and access to education services are not entirely in line with the MPI. While a correlation between unsatisfactory access to education services estimated through MPI and perception indicators is observed, the levels of deprivation far exceed the share of unsatisfied households both in urban and in peri-urban areas. This difference could reveal that while education services are satisfactory, education is not prioriotized when it comes to distributing households' resourcs towards other essential needs. Indeed, a significant number of households do not send all their children to school. Indeed, around 30 percent of households interviewed reduced expenditures on education (partly also for health) to access food or other needs, and arounf 10 percent withdrew children from school for sending them to work.

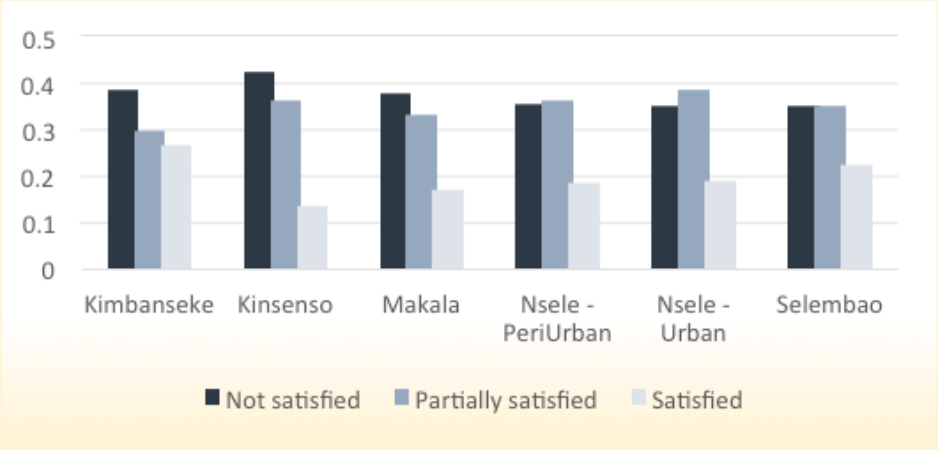


Figure 40: Satisfaction – access to education services by commune

It is also interesting to analyse the case of Kimbanseke, whose population has the best access to services but some of the highest rates of unsatisfaction. This could be explained by overcrowding in the schools of this densely populated commune, which could lower the quality of services.

According to both MPI and perception indicators, access to education is most inadequate in Kisenso, Makala and peri-urban N'sele.

4.4.5. Access to income (Perception-based)

The income-generation component of the MPI focuses on the absence of employed household members and dependency on unsustainable and unreliable income sources in the month before the interview. Results show that insufficient or intermittent income generation affects one in two households in the urban and peri-urban communes covered by the assessment, with similar results across all communes. Around 50 percent of households do not have access to sustainable income sources. A very limited proportion (1 percent in urban and 3 percent in peri-urban areas) have no members currently employed. This however includes casual labour which is, by definition, erratic.

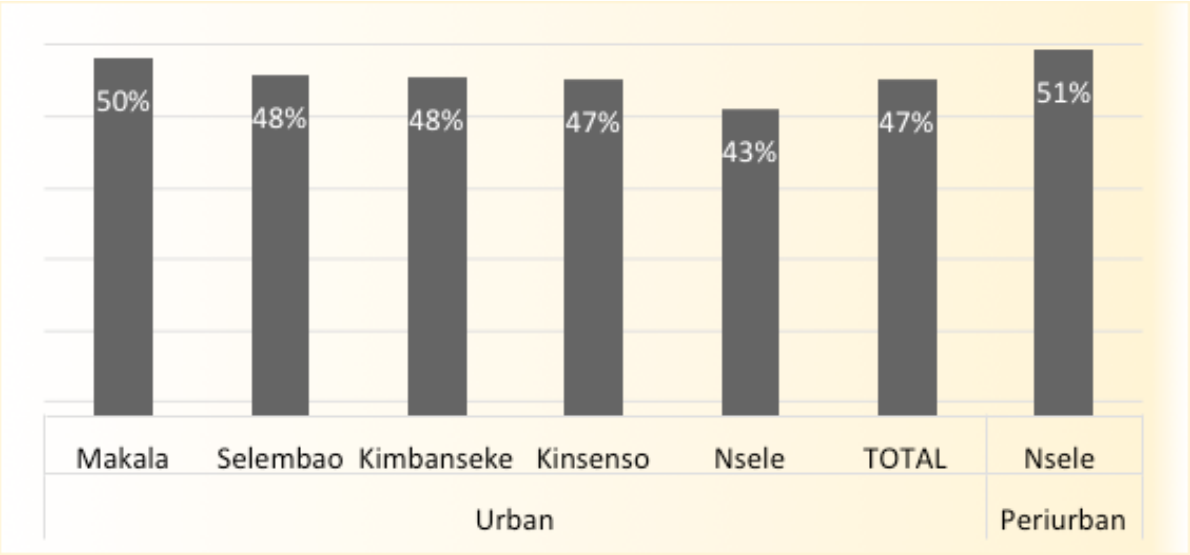


Figure 41: Satisfaction – access to education services by commune

4.4.6. Access to food (MPI and perception-based)

Access to food was assessed mainly through the MPI based on food consumption score (considering poor and borderline scores as a proxy of poverty) and the adoption of food-related negative coping strategies beyond an acceptable threshold of severity and frequency. Results show that food access is more problematic in peri-urban N'sele. Poverty is a driver of inadequate food access for just over 50 percent of urban households and is relatively homogeneous across the communes.

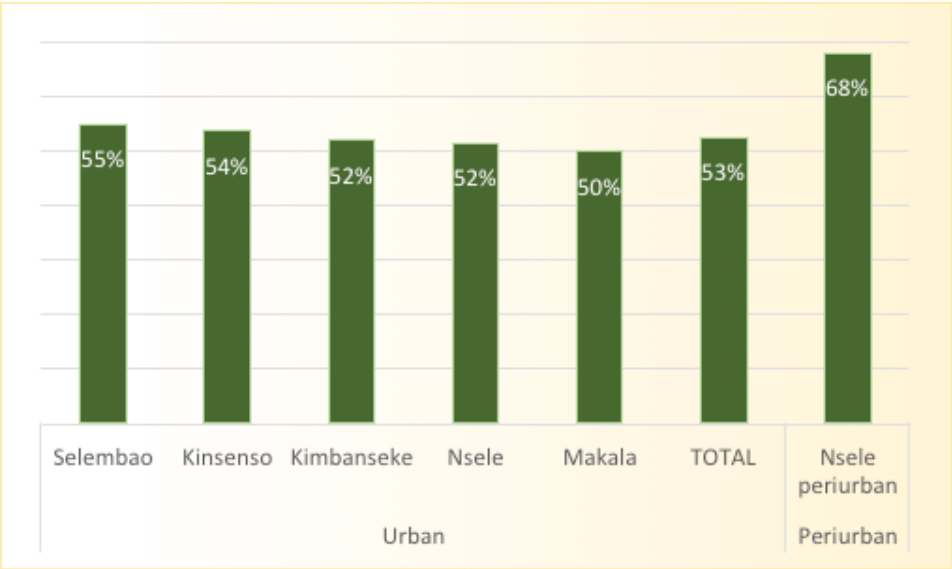


Figure 42: Multidimensional poverty – insufficient access to food by commune

Households led by women are more vulnerable to poor food access caused by poverty, especially if the household head is illiterate, has primary-school level education or is a widow, or if the household is large.

Results based on respondent perceptions converge with and corroborate the MPI-based findings.

Peri-urban households in N'sele have the lowest levels of satisfaction with their food access (45 percent). In urban areas, there is a relatively even distribution of unsatisfied people across the five communes. Kimbanseke has the highest proportion (42 percent) and Makala, the lowest (34 percent).

Respondents' level of satisfaction with the food that they can provide to their families is especially low in Kimbanseke and peri-urban N'sele, where over 40 percent of households expressed no satisfaction.

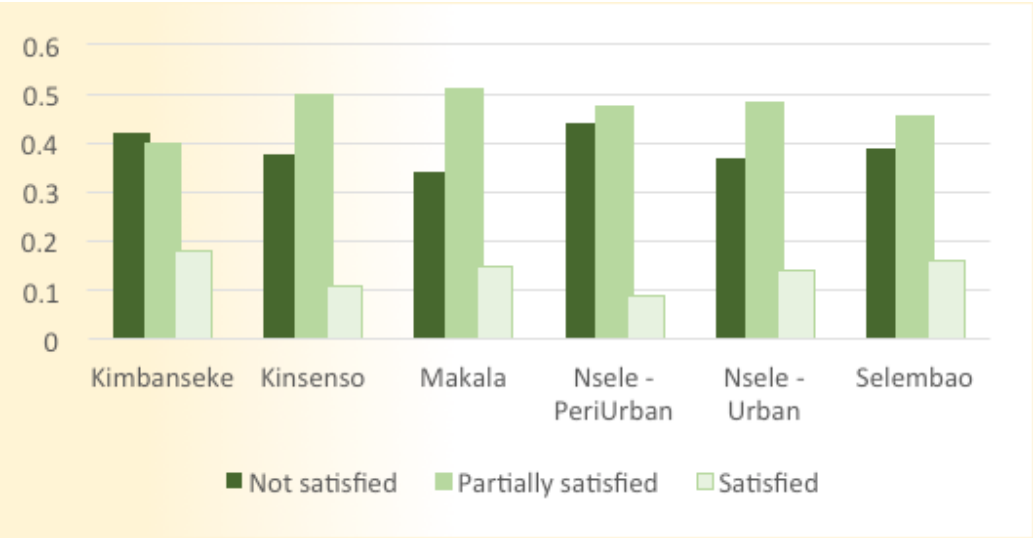


Figure 43: Satisfaction – access to food

Access to food assessed through the MPI and direct satisfaction of respondents are significantly correlated: 87 percent of those facing limited access to food said they were unsatisfied with their food situation. However, satisfaction about food is only partially linked to access. In urban areas, only 25 percent of households with acceptable food consumption declared themselves satisfied (15 percent in peri-urban N'sele). The households who typically report low levels of satisfaction have six members or more, mainly rely on casual labour, and are often headed by women.

4.4.7. Access to water (perception-based)

Access to adequate quantities of clean drinkable water is one of the biggest challenges for the population of Kinshasa. People are particularly unhappy about the source of the water they consume. Concerns are most widespread in N'sele (urban and peri-urban), Kinsenso and Selembao. The situation seems much better in Kimbanseke and Makala. These are the only communes with a relatively high proportion of people satisfied with the quantity and source of their water. In the other communes, opinions tend to converge around unsatisfaction.

Access to improved water sources (public water network, public fountains or protected boreholes) is significantly correlated with respondents' satisfaction with their water supply.

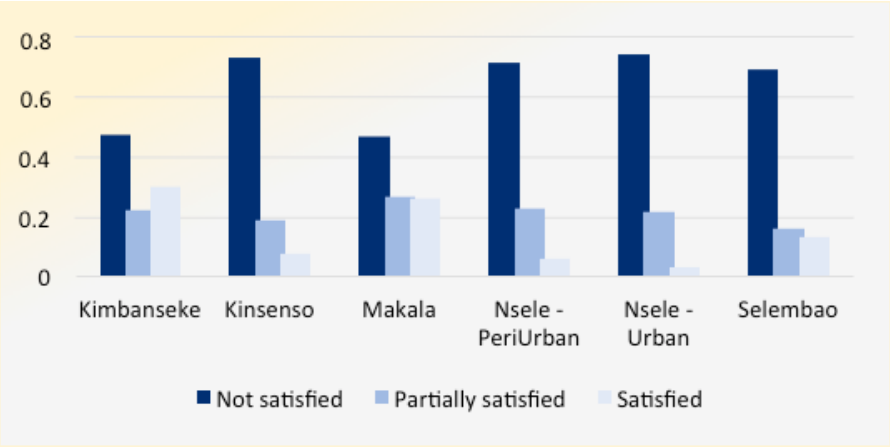


Figure 44: Satisfaction – access to water

4.4.8. Living conditions (MPI-based)

Most people in the five surveyed communes do not live in adequate housing. Poor shelter conditions stand out as the biggest problem in terms of access to essential needs. Poor housing conditions are relatively homogeneous across the urban communes but tend to deteriorate in more densely populated communes such as Kimbanseke and Makala.

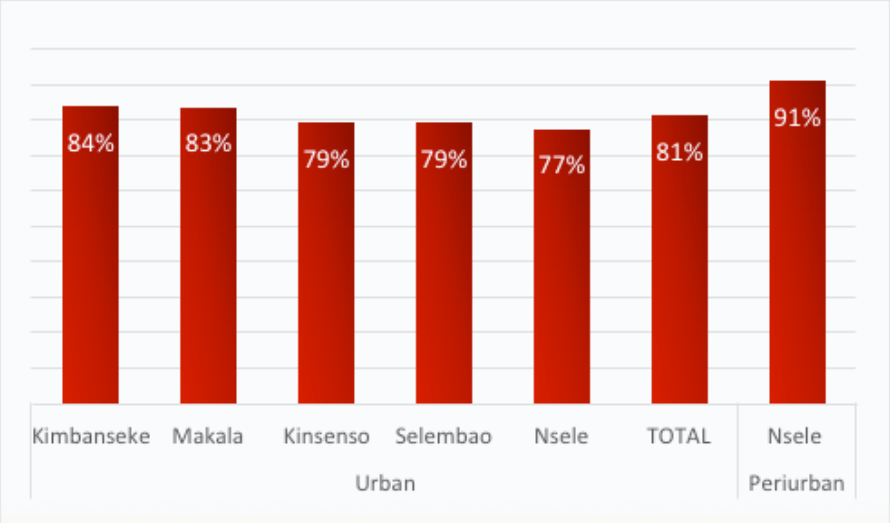


Figure 45: Inadequate shelter/living conditions (MPI)

The living conditions component of the MPI was based on the main construction materials of walls and roofing, the crowding index (number of people per room in the house), and

the presence of kitchens and toilets inside the dwelling. These elements are correlated to various outcome indicators of vulnerability including food insecurity and monetary poverty. Most households in Kinshasa – particularly in peri-urban areas – face challenges with regards to all four parameters.

4.4.9. Sense of belonging to the community (perception-based)

Finally, the survey asked respondents about their perception of belonging to the community they live in, and their perception of insecurity in their area. There is a notable difference in the intra-community dynamics in urban and peri-urban settings. Over 80 percent of residents in peri-urban N'sele reported feeling safe, compared with less than 60 percent of urban respondents. The feeling of belonging to the community was also higher in peri-urban settings, though by a smaller margin. In fact, informal safety nets, negligible in urban areas, are quite strong in peri-urban zones.

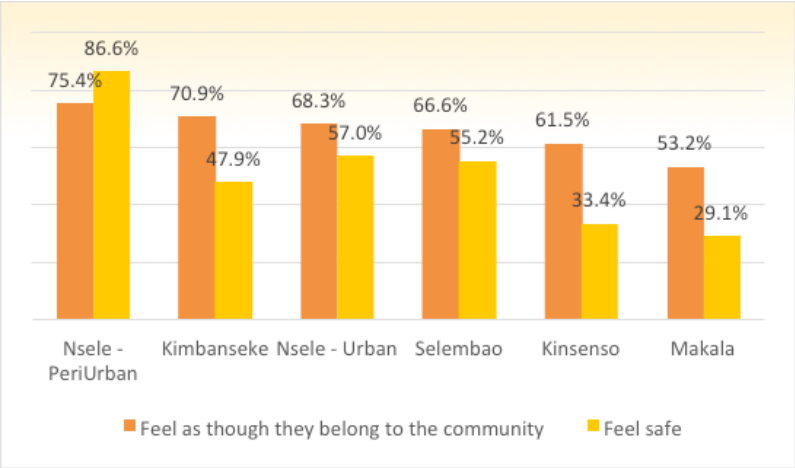


Figure 46: Perception of intra-community dynamics

4.4.10. Debts

Who contracts debt and where? Urban dwellers have relatively good access to credit. Around one in five households had contracted debts in the month before the interview, with an average exposure of CDF32,700 (around US$20). Poor households with expenditure below the MEB are significantly more likely to take on debt (p=0.02). Food-insecure households (p=0.000) and those with unacceptable diets (p=0.049) are also much more exposed to indebtedness than the others. Access to credit is much more common among poor households resorting to coping strategies that damage livelihoods (p=0.000), yet another sign that asset-stripping provides only temporary relief from poverty.

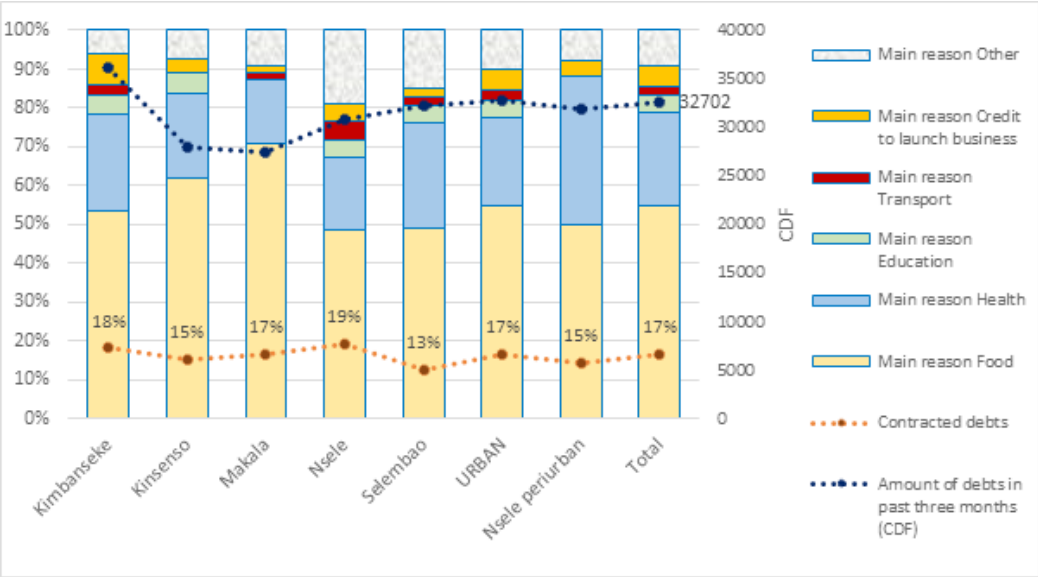


Figure 47: Proportion of people contracting debts, average amount and main reasons

Why do people contract debts and what are the main sources? Monetary poverty is the main driver of indebtedness. Around 80 percent of those who contract debts do so to access food (55 percent) and healthcare (24 percent). Only 5 percent of urban dwellers access credit to launch a business. This can be explained by both the immediate urge to meet pressing needs as well as by the high risk of insolvability – in light of limited work stability - for cumbersome debts as those usually associated to business investments.

The main demographic parameters – household size, sex of household head and presence of chronically ill members – are not correlated with indebtedness. Finally, households who share their dwelling with others are less likely to contract debts; their rental fees are lower than those of households who live on their own.

The main source of credit remains gifts from relatives or friends, who support around 60 percent of those who take on debt. A further 22.5 percent contract debt directly from traders, mainly food sellers or chemists.

	Amount of debt		
Reason	***small (1-19US$)***	***medium (20-64 US$)***	***high (65+ US$)***
Food	85%	15%	1%
Health	43%	47%	11%
Agro-inputs	80%	20%	0%
Education	87%	13%	0%
Migration	0%	100%	0%
Transport	100%	0%	0%
Clothes	75%	25%	0%
Ceremonies	0%	100%	0%
Credit to launch business	25%	33%	43%
Housing	53%	0%	47%
Other	45%	48%	6%

Table 13: Main use of debt by cohort of amount

Higher loans (US$65 or more) are usually contracted from formal institutes who grant loans against collaterals (22 percent of those with loans of US$65 or more) and usurers (17 percent). These funds are usually dedicated to pay rent or mortgages, or to launch business activities. Conversely, small loans (less than US$20) can serve a wide range of purposes, from food to agricultural inputs, from education to transport. The main sources of small loans are relatives, traders and micro-credit institutions.

4.5. Expenditures & MEB

Households in Kinshasa satisfy almost all of their needs by acquiring goods from competitive markets and from public or private service providers such as banks, telecom companies, doctors and schools/educational institutions. As explained in section 3, this study uses MEB approach to define monetary thresholds for the minimum standards that ensure decent living conditions, and a survival basket that guarantees physical survival.

This section presents analysis of household expenditure against the MEB and survival MEB (SMEB) in the six strata of Kinshasa covered by this study. The MEB and the SMEB serve as benchmarks to estimate economic vulnerability in the assessed communes of Kinshasa. The approximate total household expenditure within the last month is calculated and compared to the MEB thresholds by household size presented in the previous section. Households are classed as severely vulnerable if their total expenditure is below the survival MEB. If total expenditure is between the survival MEB and the MEB threshold, we consider them to be moderately vulnerable. Households who spend more than the MEB are considered not vulnerable.

As many households are homeowners or have little fixed costs associated with their dwelling, the total household expenditure used in the analysis includes fictitious rental expenditure. This has been done to ensure that household expenditure analysis for vulnerability is not biased towards renting households, who have a much higher monthly fixed expenditure and therefore are more likely to be above the MEB threshold.

Expenditure analysis compared to the MEB

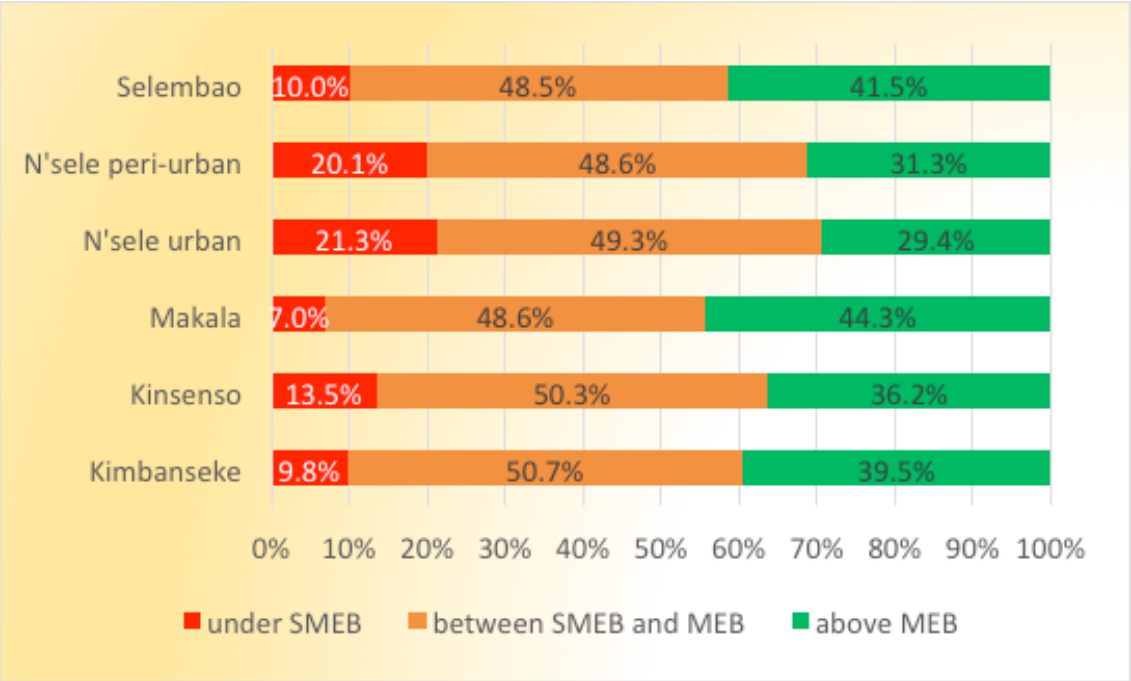


Figure 48: Total household expenditure relative to MEB and survival MEB, by commune

The expenditure analysis analyses total monthly household expenditure compared to the MEBs presented in section 3 and compares several variables that help identify patterns of vulnerability.

Figure 48 shows the communes surveyed in this assessment and the vulnerability levels of their populations. As expected from an assessment that only covers the most vulnerable parts of Kinshasa, a majority of households report expenditure below the MEB in all communes. A sizeable part of the populations spend even less than the survival MEB. The communes of N'sele and Kinsenso have the highest percentage of households with very low expenditure.

N'sele is the most vulnerable commune of Kinshasa in terms of expenditure patterns compared to the MEB, as both in the urbanized and the peri-urban zone, over 20 percent of households are unable to afford a survival MEB. A further 50 percent spend less than the MEB.

Figure 49: Household size and MEB affordability presents the analysis of household spending per number of household members. The graph shows that larger households are more likely to spend less than the MEB and the survival MEB. This generally matches to expectations about the difficulties of bringing up children in urban areas, where each additional child has a number of essential needs beyond food such as healthcare or education which are generally more expensive than in rural areas.

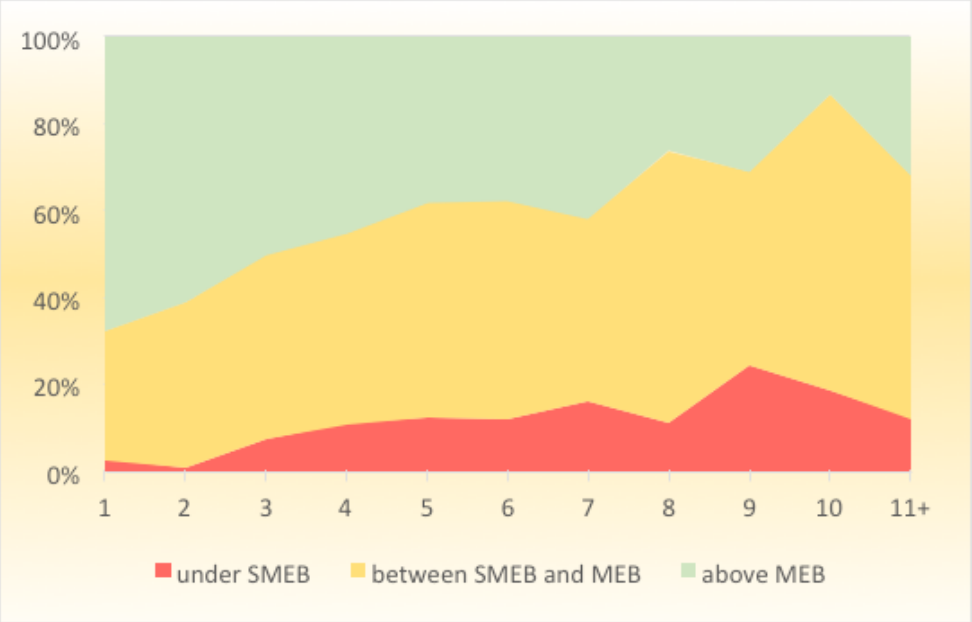


Figure 49: Household size and MEB affordability

Expenditure relative to the MEB is also a very good predictor of food consumption score. As shown in Figure 50: Food consumption by MEB expenditure level, poor food consumption is observed in over 40 percent of the households who spent less than the survival MEB, while 75 percent of the households with expenditure above the MEB have an acceptable food consumption.

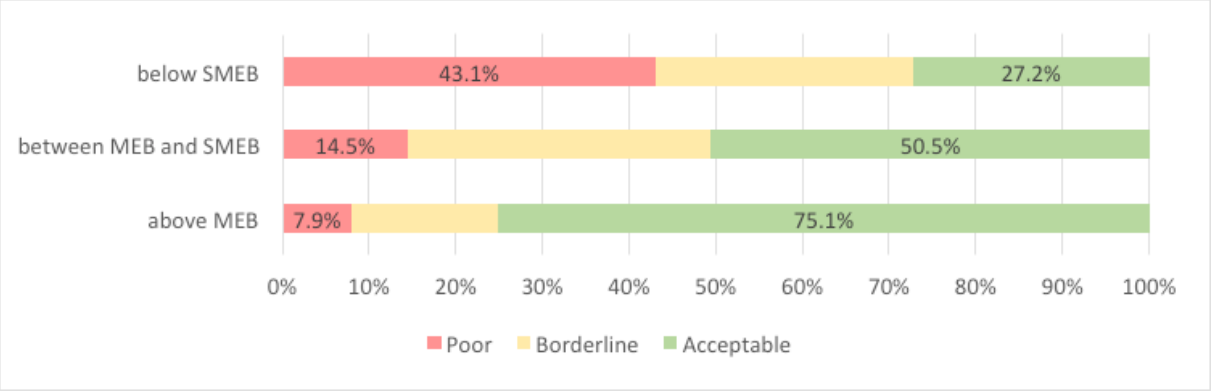


Figure 50: Food consumption by MEB expenditure level

Section 5: Vulnerability in crisis scenarios for Kinshasa

This section presents estimates of the ability of households to satisfy their essential needs in the event of a crisis in Kinshasa using SISMod[18], an econometric model that estimates the number of people deprived of their essential needs as function of inflation and a decline in income generation opportunities. The study uses three scenarios that may occur in Kinshasa and traces the effects of these scenarios on the population in the five communes covered by this assessment. Household expenditure and income data are used to estimate the parameters of the model.

5.1. Scenarios and assumptions

The baseline scenario for the model is represented using the household data described in the previous section. Three crisis scenarios are built on different combinations of falling income levels, a rising consumer price index for food and all non-food goods and services, and the rising prices of several food items, particularly for staples. For each scenario, the MEB develops according to the suggested price level impact. The basket is divided into its components[19] according to the shares defined in the baseline scenario.

The three scenarios are not meant to predict precise real-world situations of crises. Instead, they serve to visualize the impact of a crisis in Kinshasa on its population. In the event of a real crisis, the model should be used with real observed price increases and income declines to estimate the population in need of assistance. The scenarios put forward here are entirely fictitious and are only meant to illustrate the potential magnitude of a humanitarian crisis in Kinshasa.

Scenario 1: Rumours. In this scenario, there is uncertainty in markets because of a government crisis. Prices increase in the face of the rumours, primarily affecting food: over one month, there is a 5 percent rise in the prices of the main staples and a 10 percent rise for fresh food items. These price increases are not seen in peri-urban N'sele thanks to the higher availability of locally produced food. At the same time, income from trade, including petty trade, shrinks by 15 percent. Opportunities for day labour and income from transport services also decline, with a 10 percent drop in income because of lower mobility and trade. Informal support from families rises by 5 percent.

Scenario 2: Riots. In this scenario, riots on the streets of Kinshasa prevent many people from searching for day labour and day labour demand quickly dries up. Around 50 percent of income from casual labour shrinks in all surveyed communes except in peri-urban N'sele, where a 25 reduction only is projected. A 15 percent decrease of income from longer-term jobs is expected, or some delays in the payment as banks begin to close. This creates uncertainty in the markets and traders start to hoard produce, which pushes up prices by 10 percent for staple foods and 20 percent for fresh food (except in rural N'sele, where prices rise 5 percent for staples and fresh food). Traders see their businesses

18 For more on methodology, please see: http://faowfpmodel.wixsite.com/sismod/about

19 The standard MEB contains food, housing, hygiene, health, transport, communication, alcohol and tobacco (with fixed price), education (if household has at least one child aged between 5 and 17) and clothes. The survival MEB comprises food, housing and hygiene.

shrink by 30 percent (food) and 50 percent (non-food), with those in rural N'sele suffering slightly less (20 percent for food trade; 40 percent for non-food). Informal support from families – quite low in the baseline - increases by 25 percent.

Scenario 3: Turmoil. With widespread demonstrations and riots, and violent challenges from the opposition, the government is unable to keep its offices open and therefore fails to pay public sector wages, pensions and social security benefits. Benefits are paid only once every three months. This has repercussions on casual labour opportunities, which fall by 75 percent; retail income from food (down 75 percent) and non-food (down 90 percent); incomes from trade (down 20 percent) and private labour opportunities, which will decline by 10 percent. Informal support from families increases by 25 percent. Prices rise for staple foods (up 40 percent) and fresh food (up 50 percent).

There is a caveat: these scenarios assume the population is static, but in a crisis a considerable number of households are likely to migrate temporarily. The use of additional coping strategies is also not factored in.

5.2. Main findings

This section presents estimates of the number of people who would face severe difficulties in meeting their essential needs in times of crisis.

The key outcome variable in this study is total household expenditure compared with the MEB. As described in the scenarios, both expenditure and MEB are dynamic in the models, with prices rising while income opportunities becoming increasingly scarce. oFigure 51: Impact of the three scenarios (share of households with total expenditure below MEB, between MEB and survival MEB, and below survival MEB) shows the percentage of households in urban areas who are affected by each scenario. The 'rumours' scenario has little impact on the households of all five communes, with only a slight increase in moderate and severe poverty. Under the 'riots' scenario, the rise in unmet needs is substantial, with almost a third of the households facing a severe inability to meet survival needs, and only 17 percent remaining above the poverty line. With the 'turmoil' scenario, over 60 percent of the households are in severe distress and just a tiny minority of households remain above the poverty line.

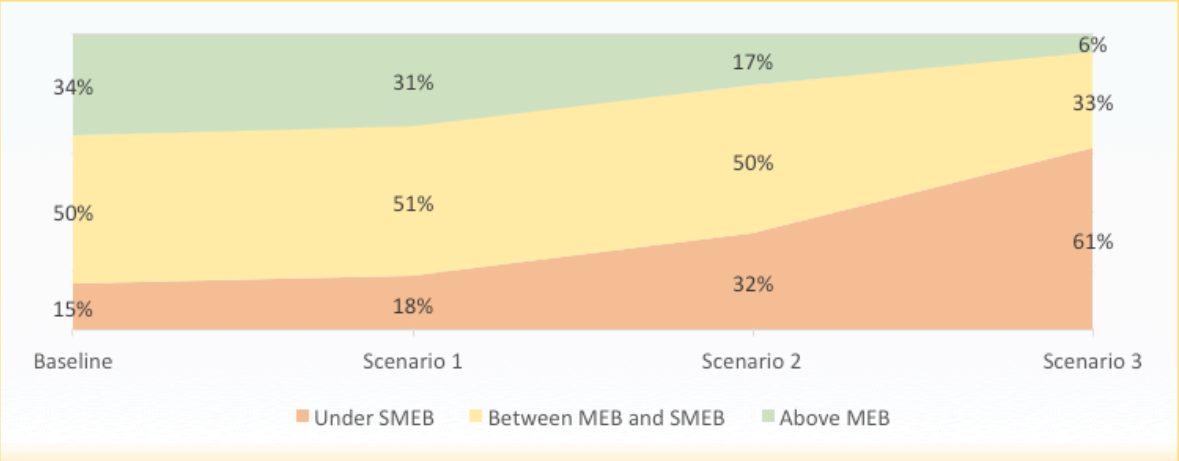


Figure 51: Impact of the three scenarios (share of households with total expenditure below MEB, between MEB and survival MEB, and below survival MEB)

Figure 52: Percentage of households with total expenditure below the survival MEB in the five surveyed communes contains a breakdown of the impact of the scenarios by surveyed commune. It shows the proportions of each commune's population that are expected to fall below the survival MEB expenditure level. As there are similar livelihood and income profiles in all urban communes, the scenarios play out in a similar way. The impact of the events will be slightly less severe in peri-urban N'sele; while hardship for the local population will increase with each scenario, it rises less steeply than in urban areas. In 'turmoil' scenario, peri-urban N'sele will have the lowest prevalence of severe poverty. In addition to the monetary perspective on meeting essential needs, households in peri-urban N'sele might also be able to live on food stocks or their own harvests in times of crisis, and they may even be able to raise their incomes, if they have stocks to sell. However, this cannot be accounted for in this model as it only covers variations in prices and incomes.

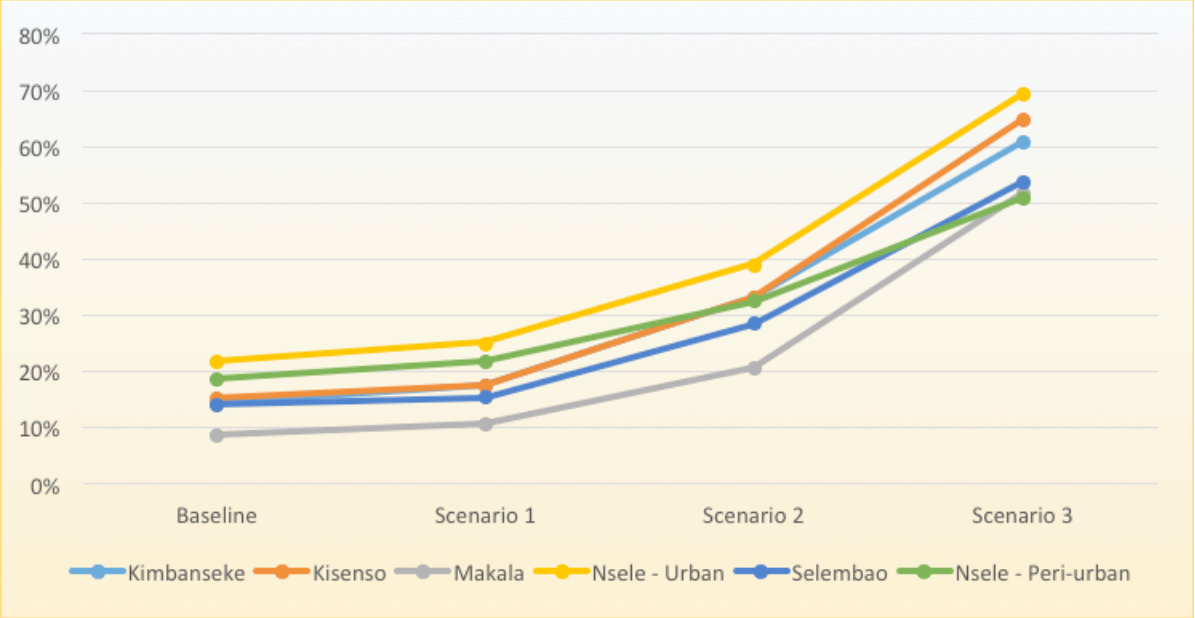
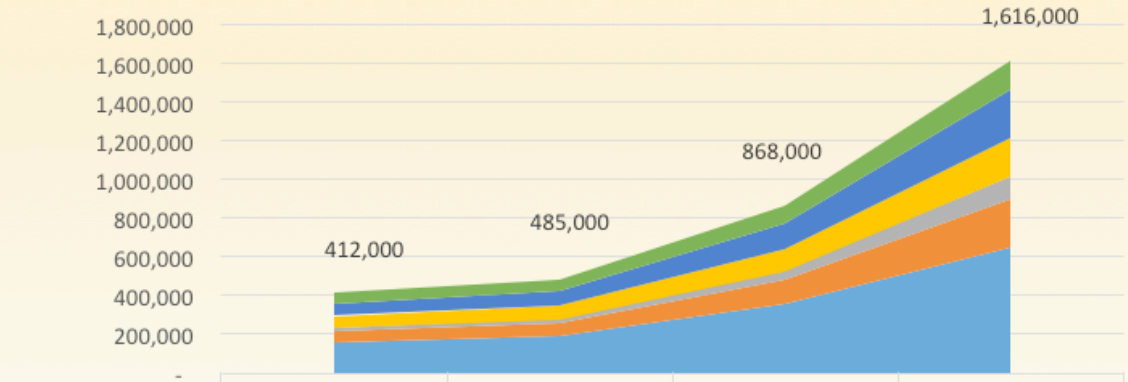


Figure 52: Percentage of households with total expenditure below the survival MEB in the five surveyed communes

In a next step, these findings are converted into absolute numbers of individuals who will be in need of support to meet all their essential needs for survival, based on the estimated share of households falling below the survival MEB threshold. At the time of the assessment, 412,000 people were already unable to meet their essential survival needs in the five surveyed communes. In the event of crisis, these numbers would be likely to rise dramatically. Under the 'rumours' scenario, an estimated 485,000 people are unable to meet essential survival needs, while under the 'riots' scenario, this figure rises to 868,000. Under the 'turmoil' scenario, the estimated number of individuals unable to meet survival needs exceeds 1.6 million. Given the population sizes of the communes, Kimbanseke is likely to host the largest number of people in need of assistance; over 150,000 people already face severe challenges in meeting survival needs in this commune. In the event of severe turmoil, this number could rise to over 600,000 people in Kimbanseke alone.



	Baseline	Scenario 1	Scenario 2	Scenario 3
Nsele - Peri-urban	54,000	64,000	95,000	149,000
Selembao	65,000	72,000	133,000	251,000
Nsele - Urban	64,000	73,000	114,000	203,000
Makala	20,000	25,000	48,000	120,000
Kisenso	57,000	66,000	126,000	246,000
Kimbanseke	152,000	185,000	352,000	647,000
Total	412,000	485,000	868,000	1,616,000

Figure 53: Absolute number of individuals per commune living in households that fall below the survival MEB threshold

Figure 54: Percentage of households with expenditure below survival MEB threshold, by main source of income shows the impact of the scenarios on households according to their primary source of income. The graph shows that the most vulnerable people are random traders (with unspecified business) and households dependent on aid from family, friends and organizations; this is true both according to the baseline data and in all three crisis scenarios analysed in the model. A second group of income sources may remain relatively immune to the shocks outlined here: these include retailers in markets, private-sector employees and people engaged in transportation services. The share of these households who face a severe drop in their ability to afford essential needs is only a few percentage points higher in scenario 3 compared to the baseline. This is because, as stated in the description of the scenarios, demand for many of these services might continue. A third group consists of casual labourers (both qualified and unqualified) along with mobile retailers. Under scenarios 2 and 3, households who rely on these sources of income are severely affected and their ability to meet their essential needs is drastically impaired. As these are the most common income sources in the surveyed communes, it is important to monitor and estimate the effect of a crisis on the demand for casual labour.

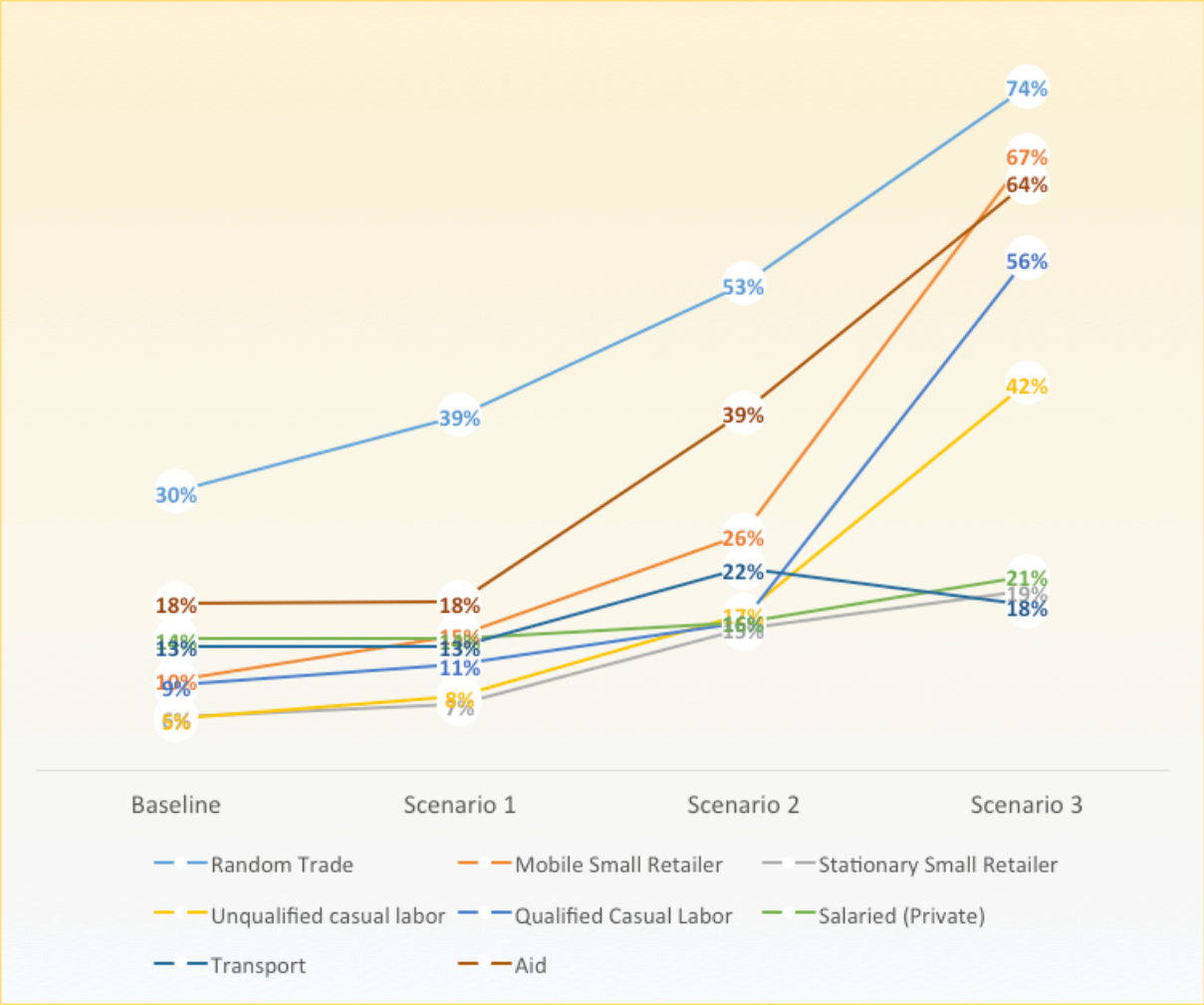


Figure 54: Percentage of households with expenditure below survival MEB threshold, by main source of income

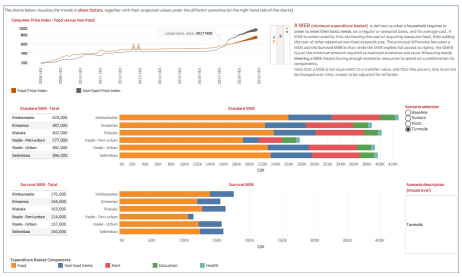
This section has estimated the effects of three fictitious crisis scenarios. Although the scenarios are not intended to depict reality, they are used to display the possibility of estimating the effects of any given real crisis based on the household dataset and the market price data collected as part of this assessment. The model can be adapted to any real-world scenario, as long as there are accurate and up-to-date price data for food and non-food products and it is possible to estimate the availability of household incomes. These two elements are critically important for the monitoring system that should be designed on the basis of the household and trader surveys conducted as part of this assessment.

BOX 6: SHOCK IMPACT SIMULATION DASHBOARD

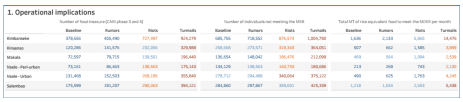
Open the dashboard here

A SISMod dashboard has been published that allows users to interactively explore the inputs and assumptions used in the model, and to go in depth into its numerous outputs and household characteristics. This box is a guide to the different sections of the dashboard. The QR code on the top right of the dashboard links back to this report.

Exploring results interactively



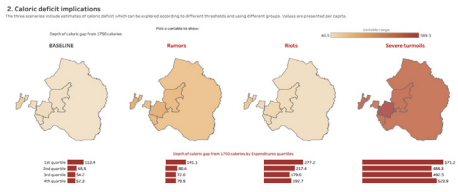
Shocks and thresholds are presented in the first section of the dashboard. On the top left, there are two aggregated consumer price indices for food and non-food items consumed in the Democratic Republic of the Congo. Forecasts on these series using the TRAMO-SEATS algorithm provide the input for future scenarios. The boxes and barcharts explain the standard and survival MEBs. The thresholds for poverty are dependent on these two measures, and scenarios are updated according to prices assumed. Use the scenario selection to compare MEBs.



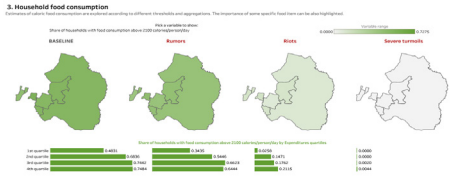
Operational implications are drawn by commune and in terms of food insecurity and poverty (relative and absolute numbers).

Passing the mouse over each figure gives additional details.

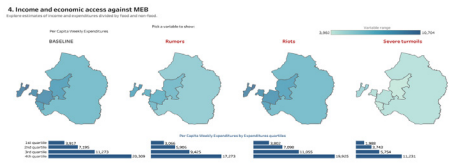
A dropdown menu allows users to select the grouping of outputs. The pick the variable to show dropdown menu sets the variable to show in the maps by commune and that will be aggregated by the grouping previously selected.



The first box shows the implications for **caloric consumption** in the different scenarios in terms of the depth of the food energy shortfall and rice equivalent metric tons needed to fill the gap.



This second box shows the implication of the three scenarios for household **food consumption** by commune of residence and the grouping variable previously selected. Variables shown are the consumption of different food groups and the share of households above the minimum and the standard dietary energy requirement.



This final box shows the implications for **income, expenditures and poverty** in terms of the standard and survival **MEB**, grouped by commune (in the map) or by previously selected household characteristic (in the barchart).

Section 6. Synthesis and recommendations

This report has highlighted the high number of individuals in Kinshasa who are unable to satisfy their essential needs continuously. In the five surveyed communes, over half of the households are not able to ensure that all their different essential needs are met, as measured through their household expenditure compared with the MEB. Food insecurity is closely linked to this phenomenon as most of the food-insecure households also have difficulties accessing other essential goods and services. Monetary poverty and the challenge of finding well-paid work are the main factors behind the inability to meet essential needs as households rely heavily on markets for food and other products and on paid services. In this context, households are highly exposed to economic shocks that may occur as a result of political instability.

As demonstrated in this assessment, vulnerability in urban Kinshasa differs from vulnerability in rural areas. While the analysis of vulnerability to food insecurity in rural areas is closely linked to seasonal patterns such as agricultural performance or the connectivity to markets, vulnerability to food insecurity in the urban space depends on each household's ability to earn enough money to access food found in abundance in markets.

Urban vulnerability is very volatile. Many of the most vulnerable households rely on day labour and are thus highly sensitive to the availability of such jobs. Living in urban Kinshasa also entails less access to the informal safety nets that are so crucial to coping in rural areas. Food security is therefore closely linked to the satisfaction of other essential needs such as paying the rent or accessing health services.

However, this study also leaves open some critical analytical gaps that may be filled with subsequent assessments or monitoring systems.

- While this assessment has looked at household vulnerability and food insecurity, it is important to understand better the vulnerabilities of specific individuals, such as children under 5, school children, pregnant and lactating women, and men. A nutrition assessment may be an appropriate next step.
- A detailed map of all communes and *quartiers* of Kinshasa is needed, along with an attached database that contains information about the state of its infrastructure (roads, markets, water, sewage, electricity, schools, healthcare providers, transport and communication access). This information will add a spatial vulnerability picture on top of the household vulnerability analysis presented in this study. Ideally, this should be planned together with the city administration of Kinshasa, as this would not be of use not only to humanitarian agencies but also to local governing bodies.
- Based on this assessment, an essential needs monitoring system could be set up and implemented in cooperation with the government's statistical bureau (CAID). The system could make use of mobile monitoring with the phone numbers collected as part of this survey. It should provide information on price levels, day labour opportunities and the evolution of household vulnerability. A mix of key informant interviews and household interviews would be required.

- An extension of the vulnerability analysis to the communes not covered by this assessment would fill a critical gap. It may not be necessary to conduct such a comprehensive household survey as this one. A lighter approach could identify population characteristics (income opportunities, infrastructure, etc.) that would allow for an estimation of vulnerable households through proxy indicators.
- The estimation of the size of the population of extremely vulnerable individuals not covered by this assessment, such as homeless people or street children, would be important to understand the extent of the severe poverty not captured in this study. Community-based institutions may be the best source of such information or may be best placed to compile it.

The urban space poses specific challenges for organizations planning to deliver humanitarian assistance. Opportunities for logistics, targeting, beneficiary registration, security and partnership management must be analysed as part of operational preparedness.

For operational readiness, it is recommended that the humanitarian community in the Democratic Republic of the Congo come together to formulate contingency plans for an urban response to natural or human-induced hazards. This assessment has shown the extent of urban vulnerability in Kinshasa. As a next step it is crucial to collect and document information that can be leveraged for such a response. The study has identified the following information gaps:

- Ideally, for each commune and *quartier*, a mapping of community-based organizations, churches and institutions should be compiled so that a local partner can quickly be identified for the implementation of humanitarian assistance.
- Existing social safety nets, both formal and informal, should be studied and opportunities explored to make them more shock-responsive and serve as a platform or channel for humanitarian assistance when needs surge due to a crisis. In the absence of formal social protection systems, local organization and churches could fill the role as providers of last resort to the needy. Humanitarian agencies could operate through these existing structures to reach a large population.
- An operational model based on the three scenarios discussed in this report could be developed, outlining the types of assistance and the modalities that would best respond to the crises. For security and logistics reasons, an urban response in Kinshasa would be unlikely to take the form of traditional in-kind distributions to targeted households. A combination of mobile transfers, nutritional supplements and treatments, mobile kitchens, and other institutional distribution channels might be worth exploring.
- Urban agriculture may be a good way forward to increase local production of nutritious food but it will never be sufficient or sustainable way to feed the urban poor.

ANNEX

Annex I

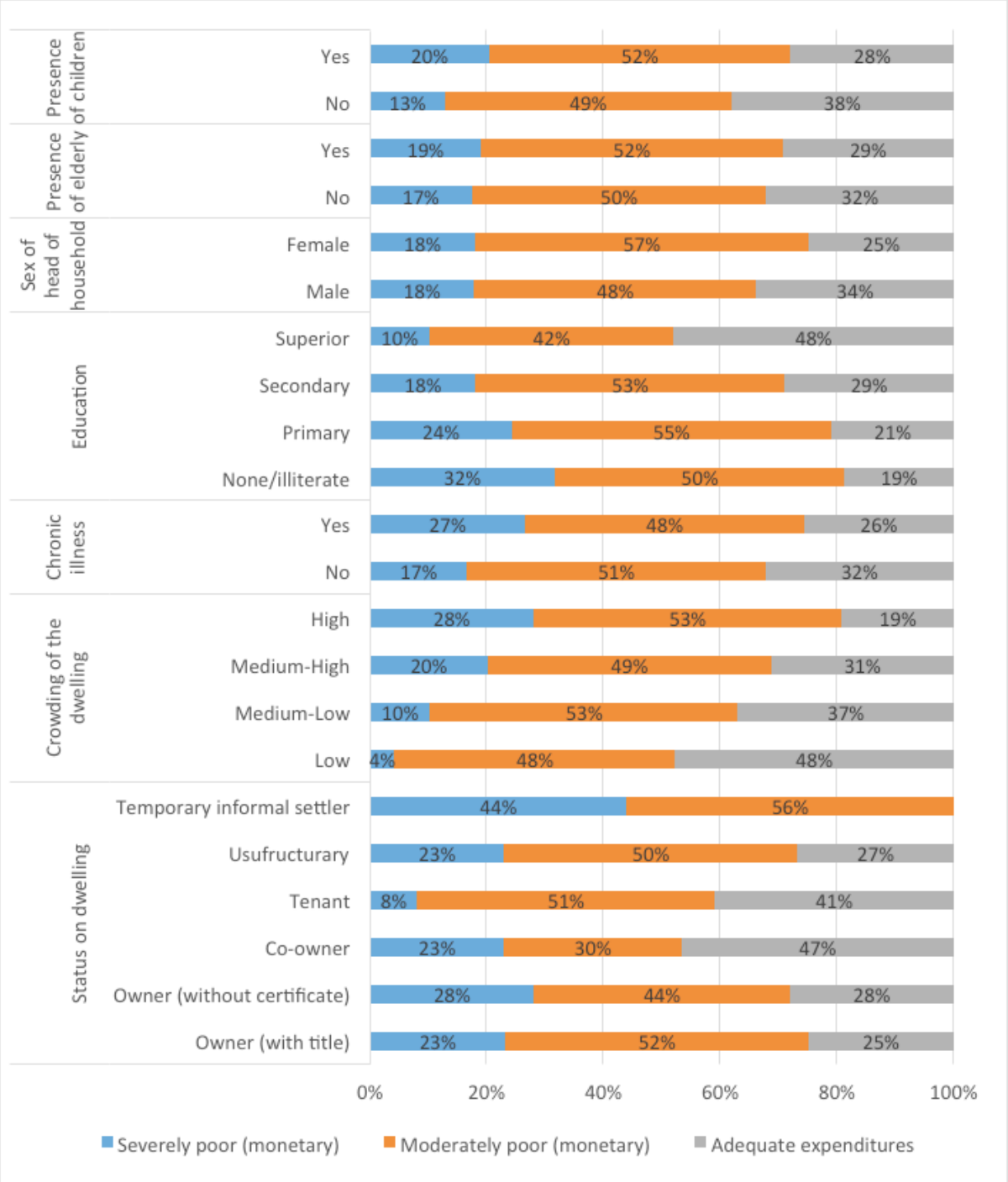
Dimensions of the Multidimensional Poverty Index

Dimension	Dimension weight	Indicator	Variable weight
Education	2	Head of household with no formal education	0.1
		Not all schoolage children (6–17) attending school *(absence over 1 year)*	0.1
Health	2	Household contracting debts to access health services	0.1
		Household not satisfied about health services or access to them	0.1
Food Security	2	Household with unacceptable (poor or borderline) food consumption	0.1
		Household adopting high frequency and/or severity of food-related coping strategies	0.1
Living conditions	2	Crowding index above 2	0.05
		Unimproved construction materials for walls	0.05
		Unimproved construction materials for roof	0.05
		No indoor toilet	0.05
Income	2	No skilled or reliable source of work *(classified as any work other than skilled labour or commerce)*	0.1
		No household member worked in past 30 days	0.1

Variables included in each dimension were selected according to Alkire Foster guidance: to be accurate and parsimonious. Variables were also selected considering the correlation between them; those with high correlation were excluded, to avoid double counting.

Annex II

Figure 55: Share of households in monetary poverty by household characteristic



Annex III – Household questionnaire, Expenditure module

SECTION E – DEPENSES DU MENAGE					
TOUTES LES DEPENSES DOIVENT ETRE ESTIMEES EN FRANCS CONGOLAIS					
		Combien d'argent avez-vous dépensé (cash ou crédit) pour les denrées alimentaires suivantes pendant **les 7 (SEPT) derniers jours** ?		Quelle a été la source principale pour les denrées alimentaires non achetées ? 1. Propre production/jardins 2. Pèche/chasse 3. Collecte 4. Travail contre nourriture 5. Dons d'amis/ de voisins/invitation 6. Aide alimentaire (ONGs, PAM, Gouvernement) 7. Troc 8. Tontine 9. Non-consommé	Quelle est la valeur estimée (en CDF) des denrées alimentaires non achetées ?
		A		**B**	**C**
E1	CEREALES (Maïs, riz, sorgho, blé, pain)				
E2	TUBERCULES (Pomme de terre, manioc, …)				
E3	LEGUMINEUSES (Haricot, petit pois,)				
E4	LEGUMES A FEUILLES VERTES (amarantes, matamba, …)				
E5	FRUITS				
E6	VIANDE/POISSON/VOLAILLE / ŒUF				
E7	HUILE / BEURRE / GRAISSE				
E8	LAIT, FROMAGE, YAOURT				
E9	SUCRE / SEL				
E10	THE / CAFE				
E11	CONDIMENTS DE SAUCE (Gombo, sec, tomates sèches, oignons secs, …)				
	DEPENSES MENSUELLES			DEPENSES DE 3 (TROIS) MOIS	
	Avez-vous utilisé/ acheté les biens et/ou services suivants le Mois dernier ? Si oui estimez le montant en FC, incluant les dépenses a crédit [Ecrire 0 si pas dépensé]			Avez-vous utilisé/ acheté les services et/ou biens suivants au cours des 6 derniers mois ? [Ecrire 0 si pas dépensé, Si oui estimez le montant en FC, incluant les dépenses a crédit	
		Montant en CDF			Montant en CDF
E12	**Electricité**		**E20**	**Dépenses médicales / santé**	
E13	**Eclairage à domicile (bougies, piles, pétrole)**		**E21**	**Vêtements, chaussures**	
E14	**Achat d'eau**		**E22**	**Education, frais de scolarité**	
E15	**[Location diverses (matériel/ équipement)] s43d**		**E23**	**Remboursement de dette**	
E16	**Combustible: bois, braise? Kerosene**		**E24**	**Réparation du logement**	

E17	**Transport (y compris l'achat carburant pour ce qui utilise leur propre véhicule pour le transport)**		**E25**	**Assistance familiale**	
E18	**[Savon et produit sanitaire] s43g**		**E26**	**Evénements sociaux Festivités**	
E19	**Tabac/Alcool**		**E27**	**Soins du bétail (vétérinaire, médicaments**	
			E28	**Soins des plantes (agronome, produits phytosanitaires)**	
			E29	**Mains d'œuvre (champs)**	

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