



Living Income Benchmark for rural Angola, focusing on coffee-producing households in Cuanza Sul province

by NewForesight

in collaboration and coordination with the Angolan National Coffee Institute (INCA) and Inter-African Coffee Organization (IACO)

commissioned by the International Coffee
Organization (ICO) and its Coffee Public-Private Task
Force (CPPTF) as part of the Task Force Roadmap
2020-2030

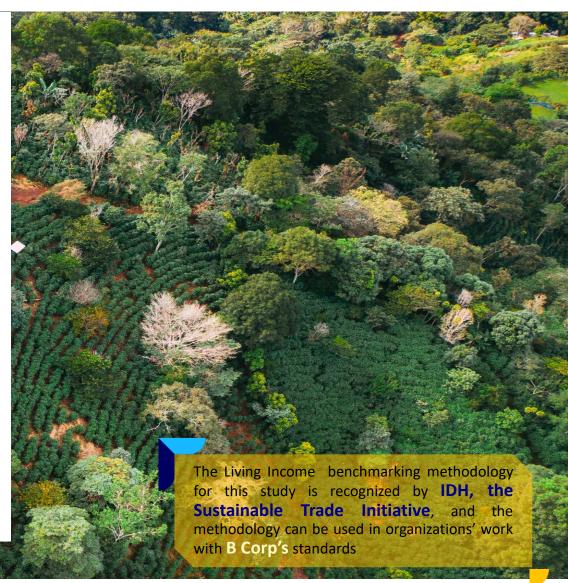
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Foreword

This report was authored by NewForesight. NewForesight is a strategy consultancy specializing in sustainability and market transformation. NewForesight seeks to drive innovation in the field of sustainability. Over the past years, we have worked with companies, sector initiatives and platforms, standards organizations, governments, donors, and investors to push the decent work agenda, through our work measuring wage gaps, developing wage improvement strategies to close the gaps, convening the stakeholders required, and developing practical tools for partners to make it actionable closing the wage gap.

At NewForesight we believe that today's deep-rooted sustainability issues can only be solved with market-driven solutions. To create change that lasts, sustainability needs to be an integrated part of sourcing and the entire supply chain. But for this to happen, one needs to thoroughly understand the business case for companies. At NewForesight we do precisely that: We understand not just the sustainability issues on the ground, but also how it impacts and is impacted by supply chains and markets. We understand the intricacies of supply chains and the inherent differences across market segments. We have a deep understanding of the market dynamics and develop solutions that fit within the economic reality and competitive nature of companies.

To further the work of our clients and partners in the field of Living Income and Living Wages we have developed a benchmark methodology to aid the development and spread of available Living Income and wage benchmarks. Our hope is that this will, in turn, provide even greater visibility of the current income and wage gaps, and support continuous improvement towards closure of the gaps.

The Living Income Benchmarking methodology for this study is recognized by IDH, the Sustainable Trade Initiative, and the methodology can be used in organizations' work with B Corp's standards.

This report was developed by NewForesight (Shweta Mazire, Andres Ayon, Joost Backer), in collaboration and coordination with the **Angolan National Coffee Institute (INCA)** and **Inter-African Coffee Organization (IACO).** For any inquiries on the report, reach out to Daniel Viviers-Rasmussen at Daniel.Viviers-Rasmussen@newforesight.com. This report was commissioned by the International Coffee Organization and its Coffee Public-Private Task Force, as part of the Roadmap 2020-2030.





Living Income Report – Cuanza Sul province of Angola

Table of contents

	page	
Introduction	4	
Context, geographic scope, and executive summary	6-8	
What is a Living Income ?	10-13	
How do we calculate a Living Income benchmark?	15-16	
Living Income benchmark results and analysis	18-25	
Living Wage benchmark results	27-28	Living Wage
Annex: detailed description of methodology	31-38	For more detail of Living Wage click here





Introduction | ICO Coffee Public-Private Task Force



This Living Income Benchmark report was commissioned by the International Coffee Organization (ICO) Coffee Public-Private Task Force (CPPTF), and specifically its Living-Prosperous Income Workstream, to conduct living income benchmarking studies in several ICO Member Countries.

These studies are a unique example of joint action by coffee companies and governments alike, and are supported through collaboration with leading regional platforms. In line with the Task Force Roadmap 2020-2030, members of the ICO Coffee Public-Private Task Force (CPPTF) have committed to jointly implementing activities to close the living income gap to reach prosperity for target producers in at least 50% of the ICO Member coffee-producing countries by 2030. To that end, the Roadmap foresees establishing living income benchmarks in 80% of ICO Member producing countries by 2025.

Therefore, the Living Income Benchmark studies are designed to support the governments of the target coffeeproducing countries to better identify the most effective strategies and activities to improve prosperity of their coffee sector. The studies will inform investment plans, developed in collaboration with private sector and civil society stakeholders, to advance a prosperous coffee sector for all actors. Ultimately, the studies form an essential step in reaching a sustainable and prosperous future for coffee producers and the sector as a whole.

Throughout the process, NewForesight has closely collaborated with the Angolan National Coffee Institute (INCA), and the Inter-African Coffee Organization (IACO). The results of this study will be an important input for future investments in the long-term prosperity of the coffee sector in Angola.







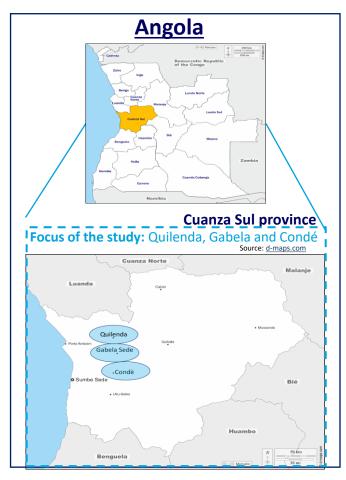
Living Income Report – Cuanza Sul province of Angola

Table of contents

	page
Introduction	4
Context, geographic scope, and executive summary	6-8
What is a Living Income?	10-13
How do we calculate a Living Income benchmark?	15-16
Living Income benchmark results and analysis	18-25
Living Wage benchmark results	27-28
Annex: detailed description of methodology	31-38

Context | This study estimates the Living Income in rural areas in Cuanza Sul province, one of the key coffee-producing regions in Angola

Geographical focus and socio-economic context



Geographical focus and socioeconomic context

Angola is a resource-rich lower middle-income country in Sub Saharan Africa with a population of around 35 million. Despite the diverse and fertile ecology suitable for variety of crops and livestock, the country only cultivates approximately 10% of its 35 million hectares of arable land.² The agriculture sector, together with forestry and fishing, constitutes 11% of Angola's GDP¹ and employs nearly 70% of the country's population in both formal and informal jobs.³ Despite showing high growth rate in recent years, agriculture in Angola faces many challenges including weak productivity, poor roads, disjointed supply chains, low skills and limited access to electricity and irrigation.4

In the 1970s, it was the largest coffee producer in Africa.⁴ However, years of civil war and weak investment severely affected the production^{4,5} and today coffee constitutes 3% of the total agricultural export of Angola.⁶ Robusta and Arabica are the main coffee species produced by locals, majority (98%) of which are smallholder farmers in the country – with an average farm size of 1.7 ha.4 Coffee is grown in about 10 provinces including Uíge, Bengo, Cuanza Norte and Cuanza Sul.⁸ Around 90% of the coffee farms are monocultures, making coffee the only source of income to many rural communities.⁴

There is high levels of poverty and inequality within the country owing to volatile economic growth caused by excessive dependence on global oil demand. It is also linked to a lack of good quality jobs, 80% of which are informal and almost half of these in the primary sector. Nearly 53% of rural population lives in poverty with significant reliance on subsistence farming. 10 This study targets coffee farmers in Cuanza Sul province, where nearly 50% people are poor and more than 70% of working population is employed in agriculture. 11 Food prices of this study represent local markets frequented by the surveyed households in Conda, Quilenda, and Gabela.

10 Poverty and Equity brief - Angola, World Bank group, 2023

Executive summary | The Living Income benchmark for rural Angola in May 2023 is AOA 372,874 per month

Living Income benchmark results



The benchmark outlines the cost of a decent standard of living for a reference household size of 2 adults and 5.5 children residing in the rural Quilenda, Gabela, and Conda municipalities in Cuanza Sul province of Angola in May 2023. The benchmark is applicable for the reference household size defined based on the latest household size, fertility rate, and under-five child mortality data available for Angola and Cuanza Sul province in the Global Data Lab database¹.

The cost of a decent standard of living is determined by quantifying the costs of four main items:



Food: costs of a low-cost and nutritious diet accounting for local food availability and preferences.



Housing: costs of owning or renting a house and paying utility costs that meet a standard for local decent housing



Non-Food, Non-Housing (NFNH): costs of other essential needs including education, healthcare, transportation, or clothing.



Margin for unexpected events: cost to account for potential unexpected events for the households (e.g. emergencies)

To afford a decent standard of living, a reference household of 2 adults and 5.5 children will need a Living Income of AOA 372,874 (USD 734) per month. For a worker, the Living Wage (accounting for full—time employment and taxes) is AOA 256,297 (for more details on Living Wage see page 25).

Cost estadon.	Chara	Cost pe	r month	
Cost category	Share	AOA	USD*	Living Income benchmark
Food	51%	190,601	375	
Housing	5%	18,222	36	AOA 372,874 / month
Non-food, Non-housing	39%	146,296	288	USD 734 / month
Margin for unexpected events	5%	17,756	35	For the entire reference household

^{*}Exchange rate of 823.12 AOA (15th May 2023). Source: Oanda currency converter



Executive summary | The Living Income benchmark is considerably higher than references of minimum income required to fulfill basic needs in Angola

Poverty lines

The Poverty Lines were standardized as a monthly income for a reference household of 7.5 people (2 adults and 5.5 children) and were adjusted for inflation and purchasing power parity (PPP)* to ensure comparability with the Living Income benchmark established in this study. The Living Income benchmark surpasses national and international estimated Poverty Lines. This illustrates that the required income established by the current Poverty Lines is insufficient for maintaining a decent standard of life in the Cuanza Sul province of Angola.

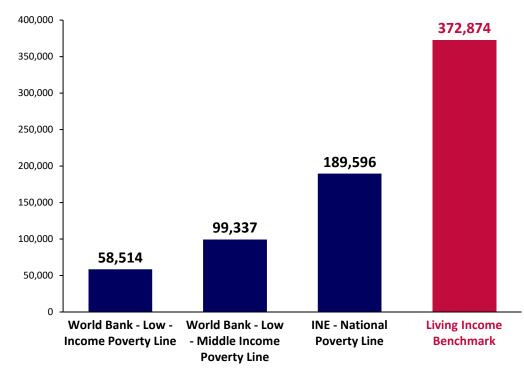
The latest Global Poverty Lines published by the World Bank correspond to USD 2.15 per person per day for low-income countries and USD 3.65 for low-middle-income ones, which are estimated based on 2022 prices and the purchasing power parity (PPPs) of 2017.¹

The Poverty Report for Angola 2020 - Survey on Expenses and Revenues (IDR -2018/2019), completed in 2019 by the National Institute of Statistics (INE), states that four out of ten Angolans have a consumption level below the poverty line (AOA 12,181/month).² It states that poverty is higher in rural areas (57.2 percent) and is higher in the provinces of Cuanza-Sul, Lunda-Sul, Huíla, Huambo among others, where more than half of the population is poor.²

Note: Variations in adult equivalent consumption units may exist among the benchmarks on the income ladder, although comprehensive underlying assumptions for all benchmarks are not accessible. Nonetheless, these discrepancies should not impact the primary findings, and the relative scale still provides a meaningful representation of the divergence.

Income ladder for a reference household of 7.5 people in Angola, 2023

Monthly income (AOA/month)



An exchange rate of AOA 508 (15th of May of 2023) was used for the estimation. (Source: Currency converter)



International poverty line for lower-middle income countries

Poverty Report for Angola 2020: Survey on Expenses and Revenues (IDR - 2018/2019)

^{*} Both Purchasing Power Parity and Consumer Price Index values were available until 2022 and 2021 respectively. Values till 2023 were calculated considering the average annual growth in the PPP conversion factor and CPI for Angola.



Living Income Report – Cuanza Sul province of Angola

Table of contents

	page
Introduction	4
Context, geographic scope, and executive summary	6-8
What is a Living Income?	10-13
How do we calculate a Living Income benchmark?	15-16
Living Income benchmark results and analysis	18-25
Living Wage benchmark results	27-28
Annex: detailed description of methodology	31-38

Living Income concept | A 'Living Income' enables a household at a specific location to afford a decent standard of living, and forms a steppingstone towards a prosperous income

What is a Living Income?

According to the Living Income Community of Practice (LICOP) definition, a Living Income is the net annual income required for a household in a particular place to afford a decent standard of living for all members of that household.



How does a Living Income differ from other income concepts:

In reality, a Living Income is higher than the national or international (extreme) poverty line in most cases (see image on the left). By reaching a Living Income, Sustainable Development Goal 1 'End poverty in all its forms everywhere' is also fulfilled.

A Living Income is a steppingstone towards a prosperous income, in which a household can thrive and flourish economically, socially, and health-wise.

A Living Income is not the same as a Minimum Wage. Whereas a Minimum Wage constitutes the lowest wage in a country permitted by law or by a special agreement, a Living Income:

- Refers to an 'income' (earned by a household on a yearly basis), and not a 'Wage' (earned by an individual worker on an hourly or monthly basis)
- Is solely calculated on decent living standards, whereas the estimation of the Minimum Wage does not always fully consider these standards; instead, it considers other factors such as the country's economic and labor conditions.
- Can therefore be equal to, higher than, or lower than, a Minimum Wage.

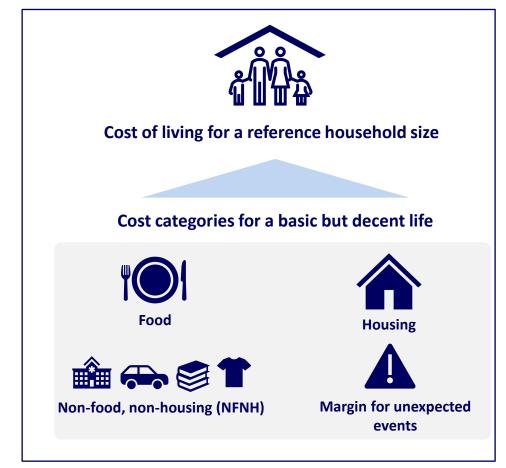
Living Income benchmark | Establishing a benchmark for Living Income helps to quantify the income any household should earn to make a decent living

A Living Income benchmark is an estimate of the cost of a basic and decent standard of living for a household. The benchmark is always time- and place-specific, depending on the cost of living and household reference size of a region or sector in a specific country, at a specific point in time.

The cost of a decent standard of living is determined by quantifying the costs of four main items:

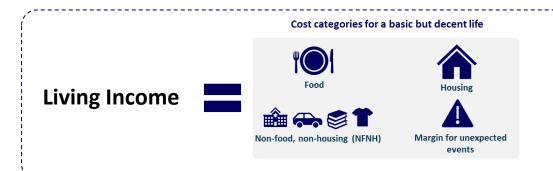
- **Cost of food**: this is estimated for a low-cost and nutritious diet accounting for local food availability and preferences.
- **Cost of housing**: this includes the costs of owning or renting a house and paying utility costs that meets a standard for local decent housing
- **Non-Food, Non-Housing (NFNH):** : this includes other essential needs including education, healthcare, transportation, or clothing.
- Margin for unexpected events: this includes a cost to account for potential unexpected events for the households (e.g. emergencies)

The costs of these items are multiplied by the number of persons in a household, and their respective needs. This accounts for the fact that larger households generally incur higher costs than smaller households.



Living Wage concept | A Living Wage is the gross remuneration that a full-time worker should receive to afford a decent living standard for them and their family

Living Income vs Living Wage



The **Living Income benchmark** is equivalent to the cost of living of a family



The **Living Wage benchmark** accounts for contributions of all earners in a family. It is the gross remuneration workers should receive to afford a decent living standard for entire family

Closing the Living Income gap | Determining the Living Income Benchmark is a key phase in the journey toward closing the Living Income gap for coffee producing households

Journey towards closing the Living Income gap

Focus of this report

By determining, understanding, and agreeing Living Income Benchmark, coffee stakeholders reach a common target to work towards.

Determine the Living Income Benchmark

Cost of living for a reference household size

Cost categories for a basic but decent life

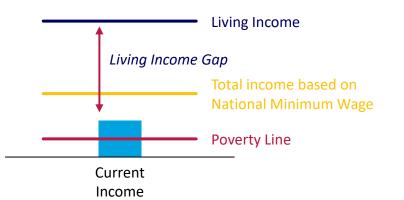




Future actions

Determine the Living Income *Gap*

By measuring the gap between a Living Income benchmark and current incomes, coffee stakeholders know by what level incomes need to increase to reach a Living Income.





Take action to close the Living Income gap

By determining interventions at farm-, supply-chainand sector-level. coffee stakeholders can take collective action to increase current incomes and reach a Living Income – thereby paving the way towards a Prosperous Income.



Increase yields



Increase price



diversification

Reduce cost of production

Enhance farm size



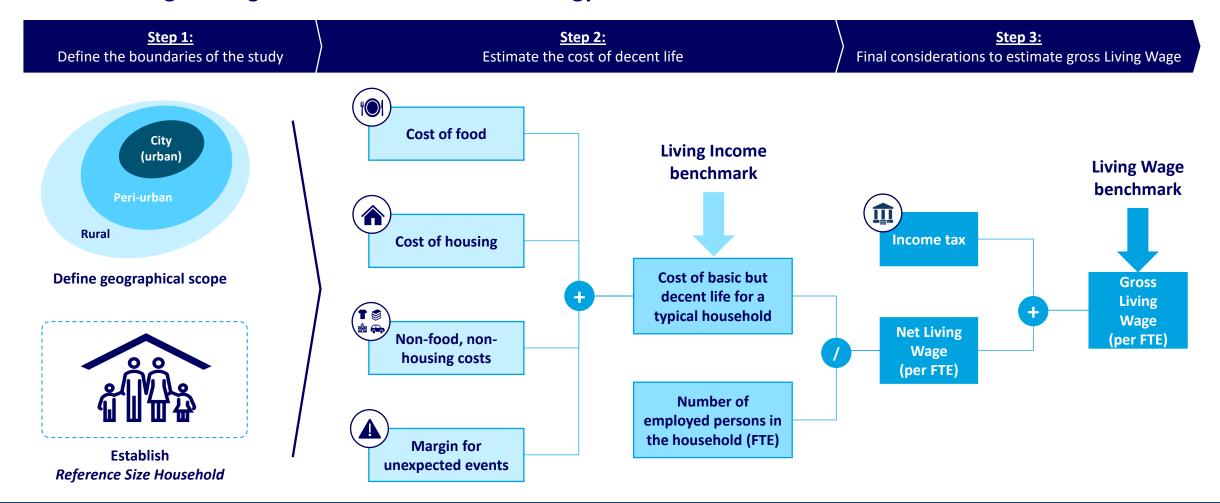
Living Income Report – Cuanza Sul province of Angola

Table of contents

	page
Introduction	4
Context, geographic scope, and executive summary	6-8
What is a Living Income?	10-13
How do we calculate a Living Income benchmark?	15-16
Living Income benchmark results and analysis	18-25
Living Wage benchmark results	27-28
Annex: detailed description of methodology	31-38

Living Income methodology | The 3-step methodology to estimate the Living Income benchmark relies on both primary and secondary data

The NewForesight Living Income benchmark Methodology



Living Income methodology | Overview of the most relevant data sources used to estimate the Living Income benchmark

Data sources PRIMARY DATA **SECONDARY DATA** INTERVIEW **ASSUMPTION LEGEND** Household size, fertility rate, child mortality, disaggregated by urban vs rural and sub-region [secondary data from the Global Data labs] Reference size household Number of workers: LFPR, unemployment rate, part-time employment rate [Secondary data via ILOSTAT database] Nutritious food items for local model diet [local nutrition expert] Local Food Price Survey: Local food prices [local consultant at food venues] Cost of food Nutritional values of food items: % protein, % fat, % carbohydrates, and percentage of edible part [FAO and USDA] Local standard of decent housing [following Anker Methodology] Local housing conditions & rent levels [secondary data via available national sources] Cost of housing Cost of living survey: Cost of decent housing & utilities [local consultant at households] Share of household expenditure [secondary data from International Monetary Fund (IMF) global database or Non-food, noncountry-specific data from national sources] housing costs Cost of living survey: NFNH questions [local consultant either in person or via phone] for cross-checks Margin for An additional 5% of the total of the other three categories to account for unexpected events unexpected events

- Primary data always collected on site, for the relevant geographic area of the study.
- Secondary data are also used to estimate Living Income benchmark

Please refer to the **Annex** for a detailed description of the methodology



Living Income Report – Cuanza Sul province of Angola

Table of contents

	page
Introduction	4
Context, geographic scope, and executive summary	6-8
Mark in a Living Income?	10.12
What is a Living Income?	10-13
How do we calculate a Living Income benchmark?	15-16
	40.25
Living Income benchmark results and analysis	18-25
Living Wago honohmark recults	27-28
Living Wage benchmark results	21-20
Annex: detailed description of methodology	31-38
Annex. detailed description of methodology	31 30

Results summary | The Living Income benchmark for rural Angola in May 2023 is AOA 372,874 per month

Household size - Rural Angola



2 adults
5.5 children

1.8 earners

Reference household size
Cuanza Sul province

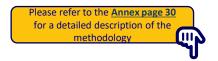
The **reference household size of 7.5 persons (2 adults, 5.5 children)** is used in this report, based on the latest available information on the house size in the rural regions of Angola (5.9 people) and in Cuanza Sul province (5.7 people), as well as total fertility rate (TFR), and under-five child mortality (U5CM) available in the Global Data Lab from the Radboud University.¹ The number of earners considers the labor force participation rate (LFPR), unemployment rate (U), and part-time employment rate and/or hours of work (PT) available in ILOSTAT.

To afford a decent standard of living, the reference household in Cuanza Sul province (Quilenda, Gabela, and Conda municipalities) will need a Living Income of AOA 372,874 (USD 734) per month.

Cost category	Cost [AOA/month]	Cost [USD/month]	Results	
Food	190,601	375	The model diet is calculated based on a target of an average of 2,316 calories per person per day for the reference family. of the calorie intake comes from grains and prepared cereals, followed by 23% from high-quality protein sources.	
Housing	18,222	36	Most surveyed households have walls made of cement and adobe, roofs made of zinc or fiber cement, and cemented River, water towers and wells were their main water sources, whereas they used butane gas and firewood as the main of fuels. Majority households did not have access to grid electricity and hence depended on traditional fuels.	
Non-Food, Non- Housing (NFNH)	146,296	288	The NFNH to Food ratio is 0.64. The expenses on education (10%), health (7%), and transport (5%) account for roughly a quarter of all NFNH expenses.	
Margin unexpected events	17,756	35	Margin to enable households to set money aside and cater for unexpected occurrences such as death, accidents, or illness.	

Results | Food costs for rural Cuanza Sul province in Angola are on average AOA 190,601 per month

Breakdown of food costs

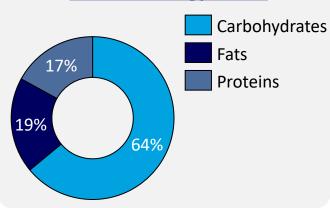


Food costs

Cost of a low-cost nutritious diet for a reference household in rural Cuanza Sul province per month

AOA 190,601

Share of energy intake



Discussion of the results

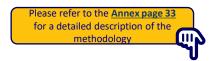
Food costs were estimated by first developing a low-cost nutritious model diet consistent with the recommendations from the local consultants of the National Institute of Angolan Coffee (INCA) regarding local food preferences, availability, and relative local food prices. Then the costs were calculated by surveying local markets where surveyed households usually shop. The food cost of the model diet in Cuanza Sul province for May 2023 is AOA 190,601 per month. This is the cost required for a low-cost nutritious diet for a typical family of 2 adults and 5.5 children. The model diet is calculated based on a target of an average of 2,316 calories per person per day for the reference family of 7.5 members. The share of energy intake from macro-nutrients is in line with WHO/FAO recommendations, with 64% of energy derived from carbohydrates, 19% derived from fats, and 17% from proteins.

Overall, the model diet includes (see page 32 for the detailed list of food items):

- Grains and prepared cereals such as maize and bread, which on average provide approximately 31% of the daily calorie intake, as is popular and generally less expensive than rice.
- High quantities of cassava and banana pao as they are a staple within the region and because they are healthy food items that provide a fair amount of calories
- Diverse protein sources should be included in the model diet to achieve WHO/FAO recommendations of more than 10% of calories from proteins. On average, high-quality protein sources (legumes and animal-based) provide 23% of the total calorie intake in the model diet. An average of 120 grams of legumes (peanuts and butter beans) per day and 57 grams of meat and fish (pork and carapu) per day.
- An average of 400 grams of vegetables and fruits, considering what was available in the season when we carried out the primary data collection (May 2023).

Results | Housing costs for rural Cuanza Sul province in Angola are on average AOA 18,222 per month

Breakdown of housing costs (1/2)

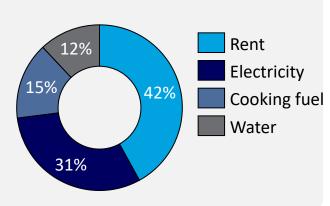


Housing costs

Cost of decent housing for a reference household in rural Cuanza Sul province per month

AOA 18,222

Share of housing costs



Discussion of the results

The housing cost for rural communities in Cuanza Sul province of Angola for May 2023 is AOA 18,222 per month. This is the cost required to live in a house that meets local decency standards for a typical family of 2 adults and 5.5 children. Housing costs include the cost of dwellings (rent equivalent value) and costs of essential services such as water, electricity, and fuel:

- The housing cost is 5% of the living income benchmark in rural Cuanza Sul province in Angola. According to the CPI published in May 2023¹, regional estimates (for Cuanza Sul province) of the housing costs which includes rent, electricity, water and fuel are also low (9% of the total household spending). The low spending can be attributed to rural housing, freely available local construction materials, lower to moderate spending on electricity and low water costs. Average rent for a decent house in rural Cuanza Sul is around AOA 10,000 per month.
- Permanent walls of bricks, cement, or stone, roofs of zinc, iron, cement or tile, and floors made of cement, stone, tile or wood are considered decent based on international standards. However, the minimum local decency level can change between different countries and regions (urban vs rural) based on, for example, the level of development of the country. According to the National Census in 2014³, 74% of the Angolan houses are classified as conventional houses or villas. Conventional houses have bedrooms, bathroom and kitchen inside or outside the house and is built with durable materials (cement blocks, adobe, brick, zinc sheet, lousalite, tile, concrete slabs, etc.).³ More than 90% of the houses surveyed in this LIB study met the decency criteria and hence considered for analysis. These houses had cemented floors, cement or adobe walls, and roofs of cement, zinc, tile or fiber-cement.



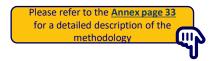
^{.. &}lt;u>Índice de Preços no Consumidor Nacional, Maio 2023</u>

Insights provided by the local experts

Resultados Definitivos do Censo 2014

Results | Housing costs for rural Cuanza Sul province in Angola are on average AOA 18,222 per month

Breakdown of housing costs (2/2)

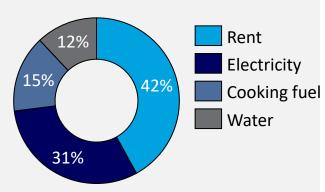


Housing costs

Cost of decent housing for a reference household in rural Cuanza Sul province per month

AOA 18,222

Share of housing costs



Discussion of the results

- In this LIB study, safe toilet in or outside the house (at least a pit latrine with slab and walls) is considered decent. All the households surveyed during this study met the criteria for decent sanitation. They had toilets inside and/or outside the house, with adequate water and some toilets had a flushing system.
- River, water towers (public water supply) and pumping wells (private) were the main sources of drinking water. According to 2014 census¹, majority people in Cuanza Sul province used ponds/rivers and (un)protected wells as their main source of drinking water.¹ More than 50% of the surveyed households did not pay for water. Water from streams or rivers as well as from public sources like water towers is free, the cost is associated with the labor to fetch the water.² Average spending on water in the surveyed households was 2,933 AOA/month.
- Cooking outside or inside with adequate ventilation was considered decent in the current study. All households except one met this criteria. In this LIB study, butane gas and firewood were found to be the preferred cooking fuels, which is in-line with the study in 2018 that states LPG and fuelwood are the dominant cooking fuels in Angola.³ The dominance suggest these fuels are accessible and affordable.³ It must be noted that LPG is more popular in urban areas, whereas rural areas still rely on conventional fuels.³ More than 60% households surveyed in the LIB study used both butane and firewood for cooking.
- Nearly 67% households in the study did not have access to the grid electricity. Much of the electricity infrastructure in the country was built before independence in 1975, which was later damaged during the civil war and has not received routine maintenance yet.³ This resulted in low accessibility, especially in rural areas.³ Majority of the houses surveyed in the LIB study used illuminating oil or generators, which is in-line with the 2014 Census. ¹ Electricity costs were on average 7000 AOA/month.



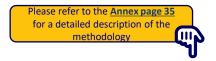
Resultados Definitivos do Censo 2014

Insights provided by the local experts

Household cooking fuel use patterns and determinants across southern Africa, Makonese et al., 2018

Results | NFNH costs for rural Cuanza Sul province in Angola are on average AOA 146,296 per month

Breakdown of Non-Food Non-Housing (NFNH) costs



Non-food, Non-housing costs

Cost for essential needs for a reference household in rural Cuanza Sul province per month

AOA 146,296

CPI Cost Category ¹	Weight	NFNH-Food Ratio		
Food	53%			
NFNH (see categories below)	34%	0.64		
NFNH category	NFNH % share	AOA/month		
NFNH category Education	NFNH % share	15,000		
<u> </u>		·		
Education	10	15,000		

Note: Total costs and percentages are rounded up to the nearest whole number.

Discussion of the results

The NFNH cost for rural communities in the Cuanza Sul province of Angola for May 2023 is AOA 146,296 per month. This is the cost required to cover all the household expenses for essential needs other than food and housing for a typical family of 2 adults and 5.5 children. Expenses related to Alcoholic Beverages, Tobacco, and Narcotics are excluded as these items are not part of what constitutes a decent standard of living.

The NFNH costs are based on the NFNH-to-Food ratio, the estimated food costs for the reference family, and post-checks of the survey results of healthcare, education, and transportation costs (see here). The secondary data corresponds to the average share of household expenditures from the regional CPI index for Cuanza Sul province published by the Instituto Nacional de Estatística (INE) in May 2023. As per the CPI, education, health and transport expenditure were 0%, 6%, and 1% respectively. After cross-checking these values with the data collected through surveys and with the local experts, NFNH costs were adjusted for the above categories to reflect the local realities. Average costs provided by the local experts were accepted and used in the calculation.

Although there are no tuition fees owing to public education in Cuanza Sul's rural areas, households need to cover the expenses related to books, notebooks and stationery.² According to local experts, AOA 15,000 would be needed per month to cover education-related expenses. Low spending on transport in the regional CPI could be attributed to low cost of public transport.² However, public transport is not available in the rural areas making private vehicles a preferred mode of movement.² A single round-trip by a private vehicle can cost on average AOA 400.² Based on the average use in surveyed household (5 round-trips per week), transport cost was adjusted to AOA 8000 per month. Average healthcare cost from the surveys in this LIB study (AOA 10,017) were in-line with average healthcare cost provided by the local expert (AOA 10,000).



¹ Índice de Preços no Consumidor Nacional, Maio 2023

² Insights provided by the local experts

^{* (}i)Clothing and footwear (ii)Furnishings, household equipment, and household maintenance, (iii)Communication (iv)Recreation and culture, (v)Restaurants and hotels, and (vi) Miscellaneous goods and services

Results | A Living Income enables a household to provide buffer for unexpected/unforeseen events and expenses

How the margin for unexpected events is determined

Margin for unexpected events

Additional funds for sustainability and emergencies

AOA 17,756

Margin for unexpected events is provided to serve as a buffer for households





How the margin for unexpected events is calculated

The margin for unexpected events for Cuanza Sul province in Angola for May 2023 is AOA 17,756 per month. This is the minimum additional fund required to cover unforeseen events for a typical family of 2 adults and 5.5 children.

Income variability or unexpected expenditures can put at risk the economic resilience of the household. A margin on top of the cost of a decent standard of living is provided to enable households to set money aside and cater for unexpected occurrences such as death, accidents, or illness. This additional margin should enable producers and their families to cover unforeseen expenses and help prevent them from falling into the poverty trap.

The margin for unexpected events is calculated based on the estimated amount for all other cost categories. To determine the margin for unexpected events:

- 1. Aggregate all other cost components that constitute the cost of living for the reference household size
- 2. Apply an additional 5% margin to the total cost of living

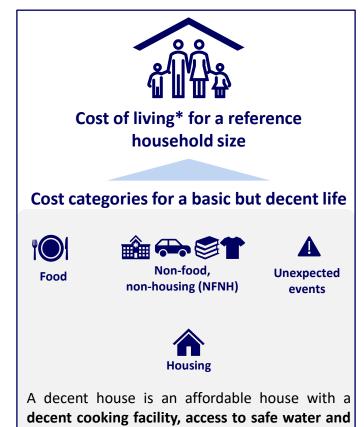
Results | Living Income enables women to improve their living conditions and alleviate opportunity costs

Women in rural Cuanza Sul province will be better able to alleviate some of their opportunity costs if the family earns the living income of AOA 372,874 (USD 734) per month. With living income, they will be able to afford a decent housing with a decent cooking facility, safe toilet, and safe water in the house or ability to outsource fetching water.

The cost of decent housing in the living income considers:

- Decent cooking facility is located inside or outside of the house with adequate ventilation
- Safe water should be accessible in or near the house (less than 3km distance to the source)
- Safe toilet in or outside the house (at least pit latrine with slab and walls)

The ability to afford these facilities has the potential to address some of the gender disparities in the coffee sector. Up to 70% of labor in coffee production is provided by women, depending on the region.¹ Research has shown that female growers' productivity is hampered by various factors simultaneously.¹ They are often subject to the so-called double burden of domestic tasks and farming activities which results into opportunity costs with regards to income-generating activities and human development capabilities. In Angola, around 74% of those responsible for fetching water in rural areas are women and girls.² Another barrier for almost the third of Angolan women is the lack of separate toilets for women, as they often need them as a key practice for effective management of their menses.² Besides, women in general engage disproportionately more in activities that damage their health, such as cooking with unclean fuel, which exposes them to large amounts of harmful pollutants, eventually affecting their productivity.



safe toilet among others (see here).



² Ending sectoral gender gaps: At the forefront of the water and sanitation agenda in Angola

24

^{*} Currently, the cost of living does not consider the cost of clean cooking fuel, childcare, menstrual hygiene products, maternity leave, and child-birth related costs.

Results | Childcare costs for rural Cuanza Sul province in Angola are on average AOA 13,300 per month per child

Cost of childcare

Additional funds to support the cost of childcare per month per child

AOA 13,300



Living Income (with childcare):

AOA 386,174 per month

Living Wage (1 FTE):

AOA 265,576 per month

Discussion of the results

The cost of childcare in rural Cuanza Sul is AOA 13,300 per month per child. Assuming 1 child needs childcare in a reference household of 2 adults and 5.5 children, the new Living Income Benchmark for a reference household is AOA 386,174 per month. Corresponding living wage for 1 FTE is AOA 265,576 per month.

According to the pilot study in the Sub-Saharan Africa,¹ Angola is the only economy in the region with a regulatory framework around public childcare for children under 3 years of age. However, none of the surveyed households in this LIB study used publicly available childcare. Un-availability of public childcare services in the surveyed rural region could be a plausible reason. Additionally, respondents expressed that it is not a common practice to pay for childcare services. Children are taken care mainly by the mother and older siblings (after their school). Respondents stated that it is also common to entrust neighbours with taking care of children. The cost of childcare is based on the testimonials of two respondents who knew someone paying 12,000 AOA and 14,600 AOA per month per child for childcare services.

Access to childcare services can benefit female labour participation, child development, and economic growth through reduced unemployment and job generation.¹ Lack of affordable childcare services could lead to their exclusion from the labor force or affect their productivity. For example, one of the mothers in this LIB study carried her 2-year-old child to the field everyday. Women coffee pickers can have higher productivity and reach the same picking rates as men, if they do not carry a child on their backs.² Availability of childcare services also allow women to look for other work opportunities or work as seasonal plantation workers, helping generate more income for the family, thus contributing to closing the income gap.

¹ Toward Available, Affordable, and Quality Childcare in Sub-Saharan Africa, Women Business and the Law, 2022

Living Income Report – Cuanza Sul province of Angola

Table of contents

	page
Introduction	4
Context, geographic scope, and executive summary	6-8
What is a Living Income?	10-13
How do we calculate a Living Income benchmark?	15-16
Living Income benchmark results and analysis	18-25
Living Wage benchmark results	27-28
Annex: detailed description of methodology	31-38

Living Wage | The Living Wage benchmark for rural Cuanza Sul province in Angola is AOA 256,297 per month

How we determined the Living Wage benchmark

The Living Wage benchmark accounts for the contributions of all earners in a family. It is the gross remuneration workers should receive to afford a decent living standard for the entire family.

When considering Living Wages, it is crucial to include income taxes in order to calculate the total value of compensation that a full-time worker must earn to attain a Living Wage. Therefore, once the Living Income Benchmark (LIB) is estimated, it is divided by the total number of full-time equivalents (FTEs) within the reference household to determine the Net Living Wage. By utilizing publicly available secondary income tax data sources¹, the income tax per FTE is added to estimate the gross Living Wage.

Overall, individual residents in Angola are subject to a specific direct income tax. Based on the collected income tax data, we estimated that a full-time worker in the reference household family would have to pay AOA 50,781 in income taxes. By adding up the calculated income tax costs to the net living wage benchmark, a gross living wage of AOA 256,297 is estimated for the rural Cuanza Sul province in Angola.

The Living Wage for a full-time worker in the reference household is a gross salary of AOA 256,297 per month, given that the average number of full-time workers (FTE) in the household is 1.8*.

	Cost [AOA/month]
Food	190,601
Housing	18,222
Non-food, Non-housing	146,296
Margin for unexpected events	17,756
Living Income benchmark (LIB)	372,874
Net Living Wage (LIB / Total FTEs in the reference household*)	205,516
Income Taxes per FTE	50,781
Gross Living Wage benchmark per FTE	256,297

^{*}The total number of FTE of the reference household is approximated to the first decimal. The value corresponds to 1.814.

Comparative analysis | The Living Wage benchmark is considerably higher than the official National Minimum Wages in Angola

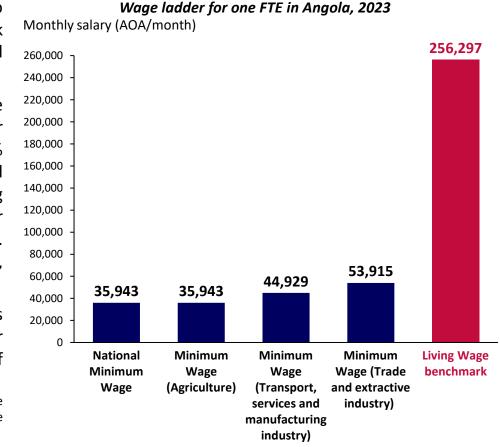
Minimum wages and estimated average wages

Available wage references are presented for 1 full-time equivalent (FTE) and adjusted to account for inflation, ensuring their comparability with the Living Wage benchmark established in this study. A substantial difference is present between the National Minimum wage for various industries and the Living Wage benchmark.

The Minimum Wage in Angola was last revised in 2022 through the Presidential Decree No. 54/22.¹ It updated the statutory national minimum wage and the minimum wage for different economic groupings. New national minimum wage roughly constitutes 50% increase in the previous minimum wage in the country.² National minimum wage and minimum wages per industry (for Agriculture, Transport, services and manufacturing industry, and Trade and extractive industry) in the adjacent wage ladder are adjusted for inflation. Living Wage benchmark is estimated for May 2023 based on the LIB study. Official annual inflation rate (consumer prices) were only available until 2022.³ Thus, 2023 inflation rate was estimated based on the historic data published by IMF.³

Huge disparity exists between the national minimum wages and the living wage. This disparity serves to highlight that the current earnings received by a full-time worker across various sectors in Angola remain insufficient for sustaining a decent standard of living in the Cuanza Sul Province.

Note: Variations in household size may exist among the benchmarks on the wage ladder, although comprehensive underlying assumptions for all benchmarks are not accessible. Nonetheless, these discrepancies should not impact the primary findings, and the relative scale still provides a meaningful representation of the divergence.



[©]NE^V

[.] Minimum wage – Angola

Increase in the National Minimum Salary and Remote Working

Angola: Inflation rate from 1988 to 2028

Moving forward

Conclusion & Implications

Conclusion

The Living Income benchmark for a reference coffee-growing household in the rural Cuanza Sul province (Quilenda, Gabela, and Conda municipalities) in Angola was estimated at 372,874 AOA/month for May 2023. The related gross Living Wage benchmark, considering a total of 1.8 earners in the family, is 256,297 AOA/month per FTE.

Food costs represent the highest expenditure category (51%), followed by Non-food, Non-housing costs (39%), Housing costs (5%), and Margins for unexpected events (5%).

Implications and potential next steps

The current study should not be considered a standalone document, but rather a key phase in the journey toward closing the Living Income gap for coffee-producing households. A potential next step consists of determining the most viable drivers (e.g. yield, price) that can help close the gap, and identify interventions that can help to do so.

Meanwhile, roasters, traders, producers, governments, and other key stakeholders can already take action to reduce the Living Income gap in their own areas of influence by advancing changes at the farm-, supply chain- and policy level. To know how, reach out to relevant parties or NewForesight (Daniel.Viviers-Rasmussen@newforesight.com).



Living Income Report – Cuanza Sul province of Angola

Table of contents

	page
Introduction	4
Context, geographic scope, and executive summary	6-8
What is a Living Income ?	10-13
How do we calculate a Living Income benchmark?	15-16
Living Income benchmark results and analysis	18-25
Living Wage benchmark results	27-28
Annex: detailed description of methodology	31-38



Annex | Establishing appropriate household size is important in the Living Income benchmark estimation process

How we determined the Reference household size



How we determine the Reference household size and number of workers

Producers should be able to support a family on a Living Income. This implies that farmers with larger family sizes will require relatively higher Living Incomes. Thus, establishing the average family size (the 'Reference Household Size') in that particular location is important. Reference Household Size serves as the reference basis for all calculations regarding costs of living.

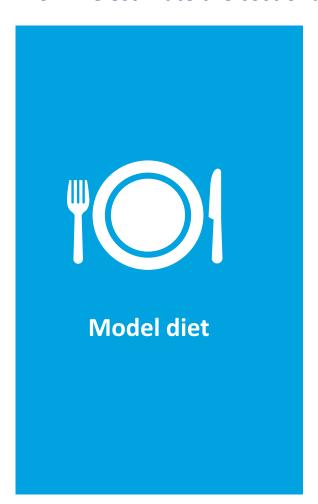
Important parameters to estimate the Reference household size:

- *Number of adults:* We assume that the reference household size consists of 2 adults and their children. No additional adults are considered in the reference household size
- *Number of children:* The estimated number of children is calculated using Total Fertility Rate and Child (under 5 year) Mortality Rate. Data is retrieved from Global Data Labs database (Institute for Management Research of Radboud University), which is an aggregation of household survey datasets at national and regional levels.
- *Number of workers:* We follow the Anker Methodology approach. Data on labor force participation rate, unemployment rate, and part-time employment rate are collected from ILOSTAT explorer database, retrieving the suitable indicators by sex, age and area type. When data is not available, ILO modelled estimates and projections or national and regional sources are used.

NewForesight's Living Income Benchmarking Methodology can adjust to estimate the Living Income for other accepted household configurations, such as the standard family size of 2 adults and 2 children or other personalized household compositions.

Annex | Methodology to estimate the cost of a local model diet

How we estimate the cost of a local model diet



How we estimate the cost of a local model diet

Food expenditures for households in developing countries can usually make up to 50% of the total household costs. It is therefore important to collect high-quality, accurate local food price data to ensure credibility of the Living Income/Wage benchmark.

We rely on a combination of primary and secondary data to estimate the cost of the model diet:

- Daily calorie intake: Family nutritional needs are calculated based on family members' BMI and physical activity level. Following the Anker methodology, the calculation of the number of calories is based on the Schofield equations, widely used to estimate calorie needs based on age, sex, height and activity level.
- *Nutritional values:* country-specific data on calorific content, edible portion, share and amount of carbohydrates, proteins, fats of the selected food items are gathered from the FAO database INFOODS. If not available, we rely on the USDA global database.
- Food prices: we collect primary data from local venues that are typically visited by the target communities. We collect data for 38 food items

An automated mathematical optimization model ensures the selection of the cheapest options available for a healthy and nutritious diet (19 food items). The model diet is calculated for an adult male. We then use conversion factors to estimate the equivalent cost for adult female and children in the household (gathered from scientific literature¹).

Results | Methodological considerations for determining a low-cost nutritious model diet that takes into account local food availability and preferences

Local model diet and food prices



How did we define the local model diet

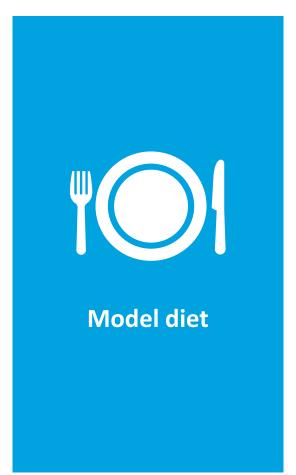
A Living Income should meet the expenditures for a low-cost nutritious diet that considers local food availability and preferences and that is in line with World Health Organization (WHO)/FAO recommendations. According to the WHO/FAO, a nutritious model diet covers all basic food groups (see image on the left). It should contain: (a) 50%-75% energy from carbohydrates; at least 10% of energy from high-quality proteins (animal-based proteins, pulses, legumes); 15-30% energy from fats; (b) it includes most affordable food items in each food groups; (c) at least 300 grams of vegetables & fruits per day (excluding starchy fruits and tubers); (d) at least 56 grams/day for pulses, legumes & beans; (e) It is consistent with local preferences and accounts for local availability; (f) Includes 15% additional cost to account for variability; (g) it does not include unhealthy foods (e.g. alcohol, cookies, soft drinks)

Our approach to design a local model diet consists of three steps: (1) consult with local nutritional expert to design long-list of food items; (2) collect food prices from 3 food venues in the region of the study; (3) define model diet based on most available and low-cost items

Venues to collect food prices were defined based on the geographical focus and the type of markets that are accessible to the target-group of the study.

Annex | Methodology to estimate the cost of a local model diet

Composition of a model diet - Male intake (grams/day) - Cuanza Sul prices, May 2023



Food category	Food item	Grams/day	Price (AOA/day)
Cereals and Grains	Maize	203	30
Prepared cereals	Bread	75	82
Roots & tubers (starchy)	Cassava	298	75
Starchy fruit or vegetable	Banana Pao	160	29
Pulses, legumes, beans	Peanuts	55	47
Pulses, legumes, beans	Butter beans	66	49
Dairy	Milk	60	187
Eggs	Chicken eggs	30	56
Meats	Pork	26	65
Fish	Carapu	30	38

Food category	Food item	Grams/day	Price (AOA/day)
Green leafy vegetables	Couve	100	62
Other vegetables	Tomatoes	60	9
Other vegetables	Bell Peppers	60	37
Other vegetables	Cebola	60	36
Fruits	Avocado	60	25
Fruits	Banana	60	15
Oils & Fats	Palm oil	34	31
Nonalcoholic beverages	Coffee	2	5
Other	Brown sugar	30	5

Annex | Methodology to estimate the cost of decent housing

How we estimate the cost for decent housing



How we estimate the cost for decent housing

Adequate housing standards may vary depending on the region and setting. Our 4-step approach to define local decency standard and estimate related housing cost:

- 1. Identify participants for primary data collection: with support of local partners and relevant organizations we identify participants under the conditions that are relevant to the area and sector of the of study. In total, 15 households are surveyed to establish 1 Living Income benchmark.
- 2. Carry out Cost-of-Living Survey: we developed a survey that guides interviewers on collecting data on variables that constitute the cost of housing. These include monthly cost of rent, electricity, water, cooking fuel, heating. In cases where the house is owned by the household, we adopt the following strategies:
 - we ask participants the potential rent rate they would charge if they would rent their house
 - we gather data on the construction cost of the building to determine the monthly cost of ownership
- 3. Assess condition of the house: based on the local decent housing standard, we determine if interviewed participants meet the minimum standards of decency. Our local decent housing standard (see page 21) include verifying the wall materials, roofing materials, number of rooms, amenities, etc.
- 4. Estimate the cost of decent housing: The cost of housing constitutes the equivalent rent cost and other essential costs such as utilities and fuel.

Results | Methodological considerations to determine local decency housing standards and estimate housing costs

Local decent housing standard for rural Cuanza Sul province in Angola

Mandatory criteria	Local decent housing standard in Rural Cuanza Sul province
Living space	2 or less persons per room excluding kitchen and toilet
Walls material	Walls in good conditions and made of semi-hard bricks (mix of soil and cement) are considered acceptable
Roof material	Permanent material. Accepted: Brick/cement/stone/well-joined walls/metal sheets
Floor material	Permanent material. Accepted: Cement/stone/tile/wood floor

Additional criteria	Local decent housing standard in Rural Cuanza Sul province
Toilet	Safe toilet in or near house. Unaccepted: Pit latrine without slab or open pit is unacceptable
Access to water	Borehole water for drinking and river water for non-drinking purposes is considered acceptable (<3 km distance)
Adequate cooking facility	Cooking can be done outside the house. if indoors, adequate ventilation required (minimum of a window in the kitchen)
Availability of electricity	Grid may not be available. Solar panels, alternative fuels or flashlights to provide at least adequate lighting.

How did we define the local housing standard and related costs

Producers and their families should live in decent conditions, protected from environmental elements and other hazards. Housing must be in line with (international) minimum housing standards as defined by the UN, ILO, and WHO, but tailored to the geographical context of the study. We developed a guideline to determine the acceptable conditions for decent housing in rural Angola, based on the Anker methodology. The approach includes a set of mandatory and non-mandatory criteria (see left table). To be considered decent, a surveyed house must meet all mandatory criteria and three out of four additional criteria. Housing costs include cost of dwellings (rent equivalent value) and costs of essential services such as water, electricity and fuel.

Our 4-step approach to estimate cost of housing:

- 1. With support of local partners, we identified 15 households to interview, of which 13 met the standard's criteria
- 2. We collected primary data on housing costs and household expenditures
- 3. We assessed conditions of households to determine if minimum standards of decency are met
- 4. We estimate the cost of decent housing using collected primary data

Annex | Methodology to estimate Non-food, non-housing (NFNH) costs

How we estimate NFNH costs



How we estimate non-food, non-housing costs

Non-food, non-housing costs for a *Reference Household* include expenditure on health, transportation, education, clothing and on other essential needs depending on the focus region. For this estimation, a mix of methods of data collection is used:

- 1. Collect data on the share of household expenditure: National level data can be collected from the International Monetary Fund (IMF) global database on the share of household expenditure in the country of the study. If available, the share of household expenditure at a regional level is retrieved from national household surveys from the country of the study.
- 2. Estimate NFNH costs: NFNH are estimated using the food to NFNH ratio and the estimated cost of food for the reference family:

$$NFNH costs = \frac{share of NFNH expenditure categories}{share of food expense} \times estimated cost of food for the reference family$$

• Cross-check secondary and primary data: Cross-checks are done against estimated NFNH costs by comparing them with primary data collected through the Cost-of-living Survey. Expenditure categories undergoing cross-checking are healthcare, education and transportation. When significant and clear deviation is identified compared to NFNH, costs are adjusted to reflect the costs observed in the primary data collection.

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Authorship and enabling organizations

Authors & Analysis

Shweta Mazire, Andres Ayon, Joost Backer, Daniel Viviers-Rasmussen N

NewForesight



Data collection and validation team

Dr. José Mainga Instituto Nacional Do Café de Angola (INCA)

Samuel Chinga Instituto Nacional Do Café de Angola (INCA)

Nascimento Kaponde Instituto Nacional Do Café de Angola (INCA)

Sande Zaivas Bravo Instituto Nacional Do Café de Angola (INCA)

Cesaltina Costa Instituto Nacional Do Café de Angola (INCA)

In collaboration and coordination with

Ing. Vasco Gonçalves Instituto Nacional Do Café de Angola (INCA)

Dr. José Mainga Instituto Nacional Do Café de Angola (INCA)

Dr. Celestin Mutimura Gatarayiha Inter-African Coffee Organization (IACO)

Christina Archer Sustainable Food Lab (SFL)







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